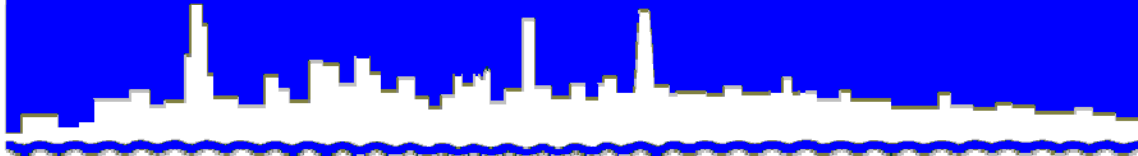


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 16-34

2015 ANNUAL SUMMARY REPORT

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

October 2016

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

2015 ANNUAL SUMMARY REPORT
WATER QUALITY WITHIN THE METROPOLITAN WATER
RECLAMATION DISTRICT OF GREATER CHICAGO
SERVICE AREA WATERWAYS

By

Zainul Abedin
Biostatistician

Monitoring and Research Department
Thomas C. Granato, Director

October 2016

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	iii
LIST OF FIGURES	ix
ACKNOWLEDGEMENTS	x
DISCLAIMER	x
INTRODUCTION	1
WATER QUALITY MONITORING NETWORK	2
Description of Waterways	2
Waterway Use Designations and Standards	2
Water Sampling and Analysis	2
RESULTS	9
Water Quality Monitoring Upstream and Downstream of Water Reclamation Plants	9
Terrence J. O'Brien Water Reclamation Plant	23
Stickney Water Reclamation Plant	23
Calumet Water Reclamation Plant	23
John E. Egan Water Reclamation Plant	24
James C. Kirie Water Reclamation Plant	24
Hanover Park Water Reclamation Plant	24
REFERENCES	25

TABLE OF CONTENTS (Continued)

	<u>Page</u>
APPENDICES	
Directory of Sampling Stations in Water Quality Monitoring Network	AI
Annual Mean and Mean History of Water Quality Parameters	AII
Statistical Analysis of Upstream and Downstream Locations, Sample Means, and Applicable Significance Probability Tests	AIII

LIST OF TABLES

<u>Table No.</u>		<u>Page</u>
1	Total Number of Waterways Samples Collected Monthly at Bridge Run Locations During 2015	4
2	Water Quality Constituents Assayed in 2015 and Reporting Limits	5
3	Ambient Water Quality Locations Sampled and Annual Sampling Frequencies	7
4	Annual Sampling Frequencies at Upstream and Downstream Locations of the Water Reclamation Plants in 2015	10
5	Comparison of Levels of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Terrence J. O'Brien Water Reclamation Plant in 2015	12
6	Comparison of Levels of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Stickney Water Reclamation Plant in 2015	14
7	Comparison of Levels of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Calumet Water Reclamation Plant in 2015	16
8	Comparison of Levels of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations for the John E. Egan Water Reclamation Plant in 2015	18
9	Comparison of Levels of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Hanover Park Water Reclamation Plant in 2015	20
AI-1	Directory of Sampling Stations in Water Quality Monitoring Network	AI-1

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-1	Biochemical Oxygen Demand Mean History 2005 Through 2015	AII-1
AII-2	Carbonaceous Biochemical Oxygen Demand Mean History 2005 Through 2015	AII-2
AII-3	Dissolved Oxygen Mean History 2005 Through 2015	AII-3
AII-4	Temperature Mean History 2005 Through 2015	AII-4
AII-5	pH Mean History 2005 Through 2015	AII-5
AII-6	Total Alkalinity Mean History 2005 Through 2015	AII-6
AII-7	Chloride Mean History 2005 Through 2015	AII-7
AII-8	Turbidity Mean History 2005 Through 2015	AII-8
AII-9	Total Kjeldahl Nitrogen Mean History 2005 Through 2015	AII-9
AII-10	Ammonia Nitrogen Mean History 2005 Through 2015	AII-10
AII-11	Un-ionized Ammonia Mean History 2005 Through 2015	AII-11
AII-12	Organic Nitrogen Mean History 2005 Through 2015	AII-12
AII-13	Nitrite Plus Nitrate Nitrogen Mean History 2005 Through 2015	AII-13
AII-14	Total Solids Mean History 2005 Through 2015	AII-14
AII-15	Total Suspended Solids Mean History 2005 Through 2015	AII-15
AII-16	Volatile Suspended Solids Mean History 2005 Through 2015	AII-16
AII-17	Total Dissolved Solids Mean History 2005 Through 2015	AII-17
AII-18	Phenols Mean History 2005 Through 2015	AII-18

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-19	Sulfate Mean History 2005 Through 2015	AII-19
AII-20	Fats, Oils, and Greases Mean History 2005 Through 2015	AII-20
AII-21	Total Phosphorus Mean History 2005 Through 2015	AII-21
AII-22	Total Cyanide Mean History 2005 Through 2015	AII-22
AII-23	Weak Acid Dissociable Cyanide Mean History 2005 Through 2015	AII-23
AII-24	Total Fluoride Mean History 2005 Through 2015	AII-24
AII-25	Total Organic Carbon Mean History 2005 Through 2015	AII-25
AII-26	Fecal Coliform Mean History 2005 Through 2015	AII-26
AII-27	Escherichia Coli Mean History 2005 Through 2015	AII-27
AII-28	Total Calcium Mean History 2005 Through 2015	AII-28
AII-29	Total Magnesium Mean History 2005 Through 2015	AII-29
AII-30	Hardness Mean History 2005 Through 2015	AII-30
AII-31	Gross Alpha Radioactivity Mean History 2005 Through 2015	AII-31
AII-32	Gross Beta Radioactivity Mean History 2005 Through 2015	AII-32
AII-33	Chlorophyll <i>a</i> Mean History 2005 Through 2015	AII-33
AII-34	Benzene Mean History 2005 Through 2015	AII-34
AII-35	Ethylbenzene Mean History 2005 Through 2015	AII-35
AII-36	Toluene Mean History 2005 Through 2015	AII-36
AII-37	Xylene Mean History 2005 Through 2015	AII-37
AII-38	Meta and/or Para Xylenes Mean History 2005 Through 2015	AII-38

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-39	Ortho Xylene Mean History 2005 Through 2015	AII-39
AII-40	Total Silver Mean History 2005 Through 2015	AII-40
AII-41	Total Arsenic Mean History 2005 Through 2015	AII-41
AII-42	Total Barium Mean History 2005 Through 2015	AII-42
AII-43	Total Boron Mean History 2005 Through 2015	AII-43
AII-44	Total Cadmium Mean History 2005 Through 2015	AII-44
AII-45	Total Copper Mean History 2005 Through 2015	AII-45
AII-46	Total Chromium Mean History 2005 Through 2015	AII-46
AII-47	Total Hexavalent Chromium Mean History 2005 Through 2015	AII-47
AII-48	Total Iron Mean History 2005 Through 2015	AII-48
AII-49	Total Lead Mean History 2005 Through 2015	AII-49
AII-50	Total Nickel Mean History 2005 Through 2015	AII-50
AII-51	Total Manganese Mean History 2005 Through 2015	AII-51
AII-52	Total Mercury Mean History 2005 Through 2015	AII-52
AII-53	Low Level Mercury Mean History 2005 Through 2015	AII-53
AII-54	Total Zinc Mean History 2005 Through 2015	AII-54
AII-55	Total Selenium Mean History 2005 Through 2015	AII-55
AII-56	Soluble Calcium Mean History 2005 Through 2015	AII-56
AII-57	Soluble Magnesium Mean History 2005 Through 2015	AII-57
AII-58	Soluble Silver Mean History 2005 Through 2015	AII-58

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-59	Soluble Arsenic Mean History 2005 Through 2015	AII-59
AII-60	Soluble Barium Mean History 2005 Through 2015	AII-60
AII-61	Soluble Boron Mean History 2005 Through 2015	AII-61
AII-62	Soluble Cadmium Mean History 2005 Through 2015	AII-62
AII-63	Soluble Copper Mean History 2005 Through 2015	AII-63
AII-64	Soluble Chromium Mean History 2005 Through 2015	AII-64
AII-65	Soluble Iron Mean History 2005 Through 2015	AII-65
AII-66	Soluble Lead Mean History 2005 Through 2015	AII-66
AII-67	Soluble Nickel Mean History 2005 Through 2015	AII-67
AII-68	Soluble Manganese Mean History 2005 Through 2015	AII-68
AII-69	Soluble Mercury Mean History 2005 Through 2015	AII-69
AII-70	Soluble Zinc Mean History 2005 Through 2015	AII-70
AII-71	Soluble Selenium Mean History 2005 Through 2015	AII-71
AIII-1	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Terrence J. O'Brien Water Reclamation Plant in 2015	AIII-1
AIII-2	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Stickney Water Reclamation Plant in 2015	AIII-3

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AIII-3	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Calumet Water Reclamation Plant in 2015	AIII-5
AIII-4	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations of the John E. Egan Water Reclamation Plant in 2015	AIII-7
AIII-5	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 52 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Hanover Park Water Reclamation Plant in 2015	AIII-9

LIST OF FIGURES

Figure <u>No.</u>		<u>Page</u>
1	AMBIENT WATER QUALITY MONITORING LOCATIONS	3

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. Coleen Maurovich, Administrative Specialist and Ms. Kathleen Quinlan, Senior Administrative Specialist for proofreading, 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 2015. Complete tabulations of waterway monitoring data collected by the District are available for the years 1970 through 2015 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.

Waterway Use Designations and Standards. Title 35 Illinois Administrative Code (IAC) Section 303.201 specifies that, "Except as otherwise specifically provided, all waters of the State must meet the General Use standards for Subpart B of Part 302." 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. Sections 303.220 - 303.240 describe the recreational and aquatic life uses ascribed to the Chicago Area Waterway System as of July 1, 2015 when they were amended. Water quality standards applicable to the Chicago Area Waterway System are found in 35 IAC 302-Subpart D.

Waterway Sampling and Analysis.

Surface water grab samples were taken at 28 locations during 2015. 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 2015 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 52 analyses on each of the water samples collected from the waterways during 2015. A list of these analyses and additional parameters computed from these analyses as well as reporting limits are shown in Table 2.

Locations sampled in the respective river systems and sample frequency during 2015 are shown in Table 3. 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 2015 are a subset, is in Table AI-1, Appendix AI.

FIGURE 1: AMBIENT WATER QUALITY MONITORING LOCATIONS

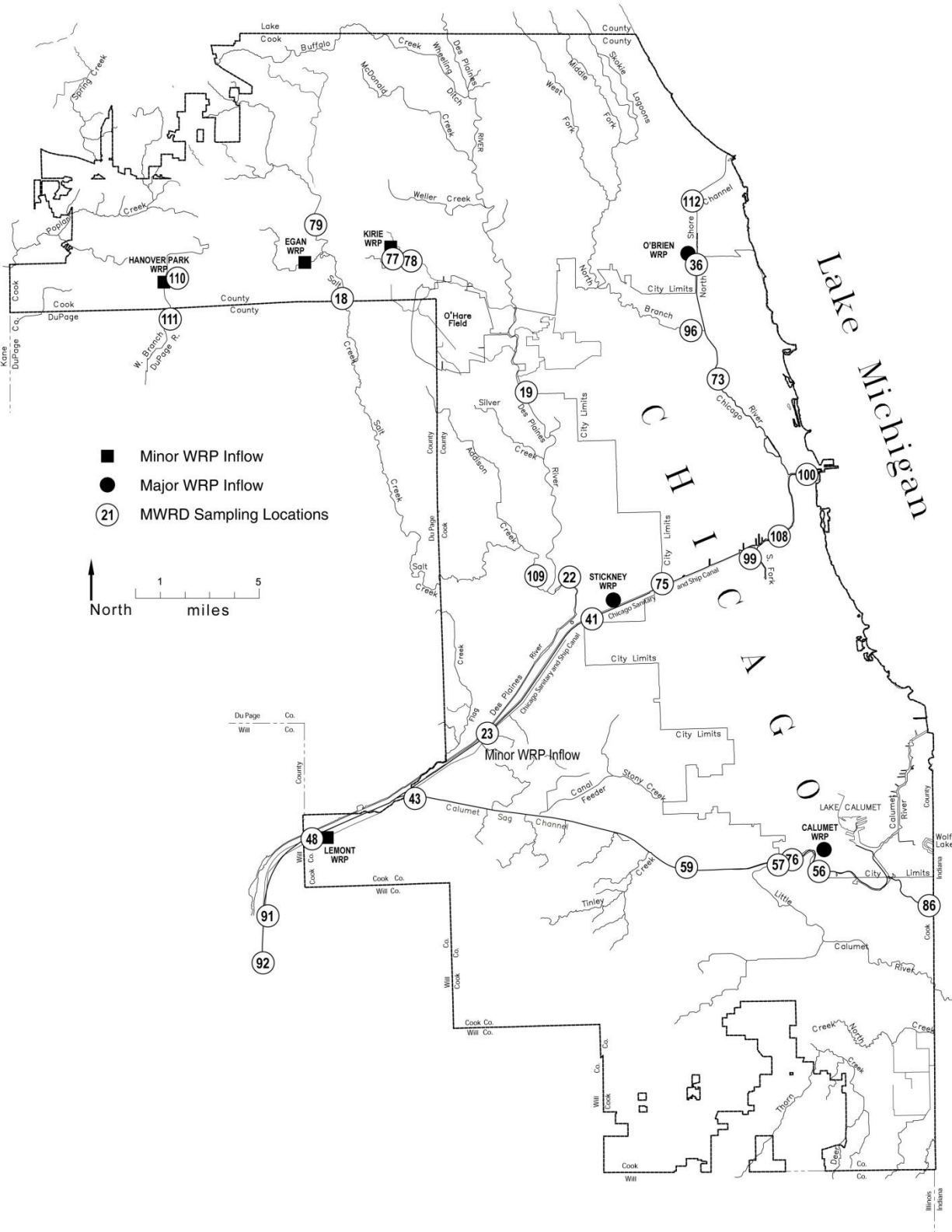


TABLE 1: TOTAL AMBIENT WATER QUALITY MONITORING SAMPLES
COLLECTED MONTHLY DURING 2015

Month	River System		
	Chicago	Calumet	Des Plaines
January	10	5	8
February	9	2	3
March	12	6	5
April	12	6	11
May	12	6	12
June	13	6	12
July	12	6	12
August	13	6	12
September	12	6	11
October	12	6	12
November	13	6	12
December	11	NS	12

NS = No sample was taken at any location of this river system.

TABLE 2: WATER QUALITY CONSTITUENTS ASSAYED IN 2015
AND REPORTING LIMITS

Parameter Name (Unit)	Reporting Limit
Dissolved Oxygen (mg/L)	-
Temperature (°C)	-
pH	-
Total Alkalinity (mg/L)	10
Chloride (mg/L)	10
Total Kjeldahl Nitrogen (mg/L)	1
Ammonia Nitrogen (mg/L)	0.1
Un-ionized Ammonia (mg/L)	-
Organic Nitrogen (mg/L)	-
Nitrite Plus Nitrate Nitrogen (mg/L)	0.15
Total Solids (mg/L)	-
Total Suspended Solids (mg/L)	4
Volatile Suspended Solids (mg/L)	-
Total Dissolved Solids (mg/L)	60
Phenols (µg/L)	5
Sulfate (mg/L)	5
Fats, Oils, and Greases (mg/L)	5
Total Phosphorus (mg/L)	0.1
Total Cyanide (mg/L)	0.005
Weak Acid Dissociable Cyanide (mg/L)	0.003
Total Fluoride (mg/L)	0.1
Total Organic Carbon (mg/L)	1
Fecal Coliform (cfu/100mL)	10
Total Calcium (mg/L)	1
Total Magnesium (mg/L)	1
Hardness (mg/L)	-
Gross Alpha Radioactivity (pCi/L)	-

TABLE 2 (Continued): WATER QUALITY CONSTITUENTS ASSAYED IN 2015
AND REPORTING LIMITS

Parameter Name (Unit)	Reporting Limit
Gross Beta Radioactivity (pCi/L)	-
Chlorophyll <i>a</i> ($\mu\text{g/L}$)	1
Benzene ($\mu\text{g/L}$) (Human Health)	2
Benzene ($\mu\text{g/L}$)	2
Ethylbenzene ($\mu\text{g/L}$)	2
Toluene ($\mu\text{g/L}$)	2
Xylene ($\mu\text{g/L}$)	3
Meta and/or Para Xylenes ($\mu\text{g/L}$)	3
Ortho Xylene ($\mu\text{g/L}$)	3
Total Silver (mg/L)	0.001
Total Barium (mg/L)	0.004
Total Boron (mg/L)	0.05
Total Hexavalent Chromium ($\mu\text{g/L}$)	6
Total Mercury ($\mu\text{g/L}$)	0.2
Total Mercury ($\mu\text{g/L}$)	0.2
Low Level Mercury (ng/L)	0.5
Total Selenium (mg/L)	0.005
Soluble Silver (mg/L)	0.001
Soluble Arsenic (mg/L)	0.02
Soluble Cadmium (mg/L)	0.001
Soluble Copper (mg/L)	0.005
Soluble Chromium (mg/L)	0.005
Soluble Iron (mg/L)	0.1
Soluble Lead (mg/L)	0.02
Soluble Nickel (mg/L)	0.005
Soluble Manganese (mg/L)	0.001
Soluble Zinc (mg/L)	0.01

TABLE 3: AMBIENT WATER QUALITY LOCATIONS SAMPLED
AND ANNUAL SAMPLING FREQUENCIES

Map No. ¹	Station Name	Annual No. of Samples
<u>General Use Waters</u>		
<u>Chicago River System</u>		
96	Albany Avenue, North Branch Chicago River	9
112	Dempster Street, North Shore Channel	9
100	Wells Street, Chicago River	12
		30
<u>Calumet River System</u>		
57	Ashland Avenue, Little Calumet River	10
		10
<u>Des Plaines River System</u>		
79	Higgins Road, Salt Creek	9
18	Devon Avenue, Salt Creek	11
109	Brookfield Avenue, Salt Creek	10
78	Wille Road, Higgins Creek	10
19	Belmont Avenue, Des Plaines River	11
22	Ogden Avenue, Des Plaines River	10
23	Willow Springs Road, Des Plaines River	9
91	Material Service Road, Des Plaines River	12
		82
<u>Du Page River System</u>		
110	Springinsguth Road, West Branch DuPage River	9
111	Arlington Drive, West Branch DuPage River	12
		21

TABLE 3 (Continued): AMBIENT WATER QUALITY LOCATIONS SAMPLED
AND ANNUAL SAMPLING FREQUENCIES

Map No. ¹	Station Name	Annual No. of Samples
<u>Secondary Contact Waters</u>		
<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	11
99	Archer Avenue, South Fork South Branch Chicago River	10
75	Cicero Avenue, Chicago Sanitary and Ship Canal	12
41	Harlem Avenue, Chicago Sanitary and Ship Canal	12
48	Stephen Street, Chicago Sanitary and Ship Canal	10
92	Lockport Forebay, Chicago Sanitary and Ship Canal	51
		130
<u>Calumet River System</u>		
86	Burnham Avenue, Grand Calumet River	11
56	Indiana Avenue, Little Calumet River	9
76	Halsted Street, Little Calumet River	10
59	Cicero Avenue, Calumet-Sag Channel	10
43	Route 83, Calumet-Sag Channel	11
		21

¹Refer to Figure 1.

RESULTS

Annual mean results for 2015 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.mwr.org.

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 effluent outfalls for six of these WRPs were sampled during 2015. During 2015, 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 each of the respective WRPs are shown in Table 4.

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.

The sampling stations upstream and downstream of WRPs that discharge into non-General Use Waters are located as follows:

1. The upstream and downstream sample points for the Terrence J. O'Brien WRP are located at Dempster Street and Touhy Avenue on the North Shore Channel, 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 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 4: ANNUAL SAMPLING FREQUENCIES AT
UPSTREAM AND DOWNSTREAM LOCATIONS OF THE
WATER RECLAMATION PLANTS IN 2015

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	12	Harlem Avenue, Chicago Sanitary & Ship Canal	41	12
Calumet	Indiana Avenue, Little Calumet River	56	9	Halsted Street, Little Calumet River	76	10
John E. Egan	Higgins Road, Salt Creek	79	9	Devon Avenue, Salt Creek	18	11
James C. Kirie ²	Elmhurst Road, Higgins Creek	77	0	Wille Road, Higgins Creek	78	10
Hanover Park	Springinsguth Road, West Branch, Du Page River	110	9	Walnut Lane, West Branch, Du Page River	111	12

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

²Location 77 was not sampled in 2015 due to highway construction which diverted creek flow.

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 5 through 9. Tables AIII-1 through AIII-5 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-two water quality parameters were assayed for all WRPs in 2015. Comparison of the mean concentrations of the common parameters (maximum 52) 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 5 through 9. 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 5: COMPARISON OF LEVELS OF 52 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE TERENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	7.8		7.9	0.901
Temperature	Temp (°C)	16		15	0.768
pH	pH	7.6		7.2	0.002
Total Alkalinity	Alk (mg/L)	122		154	0.012
Chloride	Cl (mg/L)	48		252	0.010
Total Kjeldahl Nitrogen	TKN (mg/L)	<1		2.6	-
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.18		1.56	0.001
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.002		0.008	0.010
Organic Nitrogen	ORG-N (mg/L)	0.82		1.03	0.068
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.68		6.04	0.000
Total Solids	TS (mg/L)	244		664	0.003
Total Suspended Solids	TSS (mg/L)	13		8	0.032
Volatile Suspended Solids	VSS (mg/L)	4.3		4.8	0.739
Total Dissolved Solids	TDS (mg/L)	232		656	0.003
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	27		51	0.000
Fats, Oils, and Greases	FOG (mg/L)	<5		5.2	-
Total Phosphorus	TP (mg/L)	0.19		1.48	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)	0.17		0.62	0.000
Total Organic Carbon	TOC (mg/L)	2.3		4.4	0.000
Fecal Coliform *	FC (#/100ml)	149		8206	0.000
Total Calcium	Ca (mg/L)	41		59	0.001
Total Magnesium	Mg (mg/L)	15		22	0.003
Hardness	Hard (mg/L)	163		239	0.003
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.3		2.1	0.009
Gross Beta Radioactivity	G. Beta (pCi/L)	1.5		4.0	0.001

TABLE 5 (Continued): COMPARISON OF LEVELS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE TERRENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	17		2	0.088
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)	0.024		0.025	0.625
Total Boron	B (mg/L)	0.057		0.146	0.000
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		6.083	-
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	5.325		3.683	0.592
Total Selenium	Se (mg/L)	0.011		0.010	0.719
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
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)	0.005		0.015	0.007
Soluble Zinc	Sol. Zn (mg/L)	0.011		0.025	0.001

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 6: COMPARISON OF LEVELS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE STICKNEY WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	6.5		7.0	0.495
Temperature	Temp (°C)	14		16	0.525
pH	pH	7.3		7.1	0.039
Total Alkalinity	Alk (mg/L)	152		153	0.916
Chloride	Cl (mg/L)	230		217	0.859
Total Kjeldahl Nitrogen	TKN (mg/L)	1.7		1.8	0.514
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.78		0.78	1.000
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.005		0.003	0.225
Organic Nitrogen	ORG-N (mg/L)	0.89		1.06	0.328
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	4.3		5.2	0.139
Total Solids	TS (mg/L)	637		635	0.985
Total Suspended Solids	TSS (mg/L)	12		6	0.008
Volatile Suspended Solids	VSS (mg/L)	4.2		4.4	1.000
Total Dissolved Solids	TDS (mg/L)	625		628	0.978
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	45		67	0.006
Fats, Oils, and Greases	FOG (mg/L)	<5		5.2	-
Total Phosphorus	TP (mg/L)	0.68		0.67	0.942
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		0.60	0.007
Total Organic Carbon	TOC (mg/L)	4.1		4.6	0.163
Fecal Coliform *	FC (#/100ml)	192		3287	0.005
Total Calcium	Ca (mg/L)	59		61	0.727
Total Magnesium	Mg (mg/L)	23		22	0.946
Hardness	Hard (mg/L)	238		240	0.938
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.0		1.9	0.809
Gross Beta Radioactivity	G. Beta (pCi/L)	2.8		4.1	0.071

TABLE 6 (Continued): COMPARISON OF LEVELS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE STICKNEY WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	7.5		3.1	0.071
Benzene	Bznz ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	Toln ($\mu\text{g/L}$)	<2		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)	0.028		0.022	0.021
Total Boron	B (mg/L)	0.103		0.179	0.014
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		6.083	-
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	4.283		4.440	0.958
Total Selenium	Se (mg/L)	0.008		0.008	0.779
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
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)	0.108		0.108	1.000
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)	0.023		0.022	0.844
Soluble Zinc	Sol. Zn (mg/L)	0.015		0.018	0.298

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 7: COMPARISON OF LEVELS OF 52 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE CALUMET WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	10		8	0.045
Temperature	Temp (°C)	17		16	0.745
pH	pH	8.0		7.4	0.001
Total Alkalinity	Alk (mg/L)	140		160	0.109
Chloride	Cl (mg/L)	106		166	0.022
Total Kjeldahl Nitrogen	TKN (mg/L)	<1		1.5	-
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.17		0.57	0.046
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.005		0.004	0.315
Organic Nitrogen	ORG-N (mg/L)	0.83		0.93	0.566
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	1.9		5.9	0.001
Total Solids	TS (mg/L)	454		600	0.030
Total Suspended Solids	TSS (mg/L)	24		12	0.155
Volatile Suspended Solids	VSS (mg/L)	5.1		5.0	0.890
Total Dissolved Solids	TDS (mg/L)	430		588	0.024
Phenols	Phenol (μg/L)	<5		5.1	-
Sulfate	SO ₄ (mg/L)	78		82	0.787
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.14		1.62	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		0.54	0.001
Total Organic Carbon	TOC (mg/L)	3.9		4.5	0.180
Fecal Coliform *	FC (#/100ml)	21		1532	0.000
Total Calcium	Ca (mg/L)	53		64	0.067
Total Magnesium	Mg (mg/L)	24		25	0.699
Hardness	Hard (mg/L)	232		262	0.285
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.6		1.9	0.157
Gross Beta Radioactivity	G. Beta (pCi/L)	2.7		3.2	0.342

TABLE 7 (Continued): COMPARISON OF LEVELS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE CALUMET WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	43		21	0.062
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)	0.027		0.022	0.005
Total Boron	B (mg/L)	0.116		0.175	0.014
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		<6	-
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	13.040		2.900	0.405
Total Selenium	Se (mg/L)	0.014		0.009	0.194
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		<0.005	1.000
Soluble Chromium	Sol. Cr (mg/L)	<0.005		0.006	-
Soluble Iron	Sol. Fe (mg/L)	<0.1		0.110	-
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)	0.012		0.018	0.465
Soluble Zinc	Sol. Zn (mg/L)	0.011		0.016	0.154

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 8: COMPARISON OF LEVELS OF 52 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	7.3		8.7	0.218
Temperature	Temp (°C)	17		15	0.599
pH	pH	7.5		7.5	0.872
Total Alkalinity	Alk (mg/L)	177		156	0.222
Chloride	Cl (mg/L)	358		260	0.220
Total Kjeldahl Nitrogen	TKN (mg/L)	<1		1.1	-
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.13		0.11	0.427
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.001		0.002	0.986
Organic Nitrogen	ORG-N (mg/L)	0.87		0.98	0.277
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.22		6.95	0.000
Total Solids	TS (mg/L)	922		770	0.350
Total Suspended Solids	TSS (mg/L)	24		11	0.042
Volatile Suspended Solids	VSS (mg/L)	6.2		4.7	0.149
Total Dissolved Solids	TDS (mg/L)	898		758	0.352
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	65		78	0.121
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.11		1.64	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)	0.19		0.49	0.000
Total Organic Carbon	TOC (mg/L)	6.7		5.5	0.344
Fecal Coliform *	FC (#/100ml)	261		798	0.348
Total Calcium	Ca (mg/L)	66		66	0.938
Total Magnesium	Mg (mg/L)	31		28	0.429
Hardness	Hard (mg/L)	291		279	0.733
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.5		2.0	0.368
Gross Beta Radioactivity	G. Beta (pCi/L)	2.4		4.0	0.001

TABLE 8 (Continued): COMPARISON OF LEVELS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	21		19	0.853
Benzene	Bbnz ($\mu\text{g/L}$)	<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	xyIno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.044		0.029	0.012
Total Boron	B (mg/L)	0.074		0.199	0.001
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		6.182	-
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	3.011		5.578	0.622
Total Selenium	Se (mg/L)	0.011		0.008	0.203
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
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	-
Soluble Manganese	Sol. Mn (mg/L)	0.042		0.021	0.239
Soluble Zinc	Sol. Zn (mg/L)	<0.01		0.016	-

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 9: COMPARISON OF LEVELS OF 52 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	5.7		9.2	0.004
Temperature	Temp (°C)	16		14	0.607
pH	pH	7.5		7.5	0.727
Total Alkalinity	Alk (mg/L)	218		162	0.007
Chloride	Cl (mg/L)	309		221	0.179
Total Kjeldahl Nitrogen	TKN (mg/L)	1.8		1.8	0.910
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.36		0.39	0.798
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.004		0.003	0.561
Organic Nitrogen	ORG-N (mg/L)	1.4		1.4	0.726
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.42		10.06	0.000
Total Solids	TS (mg/L)	914		710	0.089
Total Suspended Solids	TSS (mg/L)	13		24	0.017
Volatile Suspended Solids	VSS (mg/L)	6.0		6.3	0.848
Total Dissolved Solids	TDS (mg/L)	901		686	0.075
Phenols	Phenol (µg/L)	<5		5.1	-
Sulfate	SO ₄ (mg/L)	62		70	0.479
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.18		2.05	0.000
Total Cyanide	CN (mg/L)	<0.005		<0.005	0.889
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.24		0.51	0.000
Total Organic Carbon	TOC (mg/L)	43		7	0.001
Fecal Coliform *	FC (#/100ml)	8990		1297	0.053
Total Calcium	Ca (mg/L)	77		67	0.133
Total Magnesium	Mg (mg/L)	30		27	0.432
Hardness	Hard (mg/L)	316		280	0.209
Gross Alpha Radioactivity	G. Alpha (pCi/L)	3.0		1.9	0.111
Gross Beta Radioactivity	G. Beta (pCi/L)	2.8		4.4	0.016

TABLE 9 (Continued): COMPARISON OF LEVELS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2015

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	18		12	0.481
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)	0.047		0.036	0.000
Total Boron	B (mg/L)	0.072		0.154	0.000
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	6.111		6.083	0.889
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	3.329		3.050	0.883
Total Selenium	Se (mg/L)	0.010		0.007	0.624
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		0.007	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	0.278		<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)	0.171		0.043	0.107
Soluble Zinc	Sol. Zn (mg/L)	0.011		0.024	0.002

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.

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. Forty-one water quality parameters were suited for comparison of mean concentrations between upstream and downstream locations. The following 22 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- pH, total alkalinity, chloride, ammonia nitrogen, un-ionized ammonia, nitrite plus nitrate nitrogen, total solids, total suspended 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, soluble manganese, and soluble zinc.

All parameters had significantly higher means downstream than upstream except (pH and total suspended solids), which had higher means upstream than downstream.

Stickney Water Reclamation Plant. Forty-five 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:

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

Four parameters (sulfate, total fluoride, fecal coliform, and total boron) had significantly higher means downstream than upstream. The remaining three parameters (pH, total suspended solids, and total barium) had significantly higher means upstream than downstream.

Calumet Water Reclamation Plant. Forty-eight water quality parameters 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, pH, chloride, ammonia nitrogen, nitrite plus nitrate nitrogen, total solids, total dissolved solids, total phosphorus, total fluoride, fecal coliform, total barium, and total boron.

Nine parameters (chloride, ammonia nitrogen, nitrite plus nitrate nitrogen, total solids, total dissolved solids, total phosphorus, total fluoride, fecal coliform, and total boron) had significantly higher means downstream than upstream. The remaining three parameters (dissolved oxygen, pH, and total barium) had significantly higher means upstream than downstream.

John E. Egan Water Reclamation Plant. Forty-five 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:

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

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

James C. Kirie Water Reclamation Plant. No sample was taken at the upstream location of the James C. Kirie WRP (Location 77) in 2015 due to highway construction which diverted creek flow. Therefore, no comparison of mean concentrations upstream and downstream was made.

Hanover Park Water Reclamation Plant. Forty-five water quality parameters and were suited for comparison of mean concentrations between upstream and downstream locations.

The following 11 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, 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 three parameters (total alkalinity, total organic carbon, and total barium) had significantly higher means upstream than downstream.

REFERENCES

1. Deshpande, J. V., A. P. Gore, and A. Shanubhogue, *Statistical Analysis of Nonnormal Data*, Wiley Eastern Limited, John Wiley & Sons, New Delhi, 1995.
2. Gibbons, J. D. and S. Chakraborti, *Nonparametric Statistical Inference*, 3rd Edition, Marcel Dekker Inc., New York, 1992.
3. State of Illinois Rules and Regulations, Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board, July 1, 2015.
4. Walpole, R. E. and R. H. Myers, *Probability and Statistics for Engineers and Scientists*, Fourth Edition, Macmillan Publishing Company, New York, 1989.
5. Wichura, Michael J., *The Table Manual and the PiCTex Manual*, Personal TeX, Inc. \LaTeX , Version 6, 725 Greenwich Street, San Francisco, California.
6. Personal TeX, Inc. \LaTeX , Version 5, 725 Greenwich Street, San Francisco, California.
7. SAS Institute, *SAS Software*, Version 9.1, Cary, North Carolina.

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

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

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

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

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

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

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

*Excluded in 2015 Sampling.

APPENDIX AII

ANNUAL MEAN AND MEAN HISTORY OF WATER QUALITY PARAMETERS

**TABLE AII-1: BIOCHEMICAL OXYGEN DEMAND MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
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	4.00
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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	ND	ND	8.00
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.00
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.00
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.00
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.00
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
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	3.00
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00
99 Archer Avenue, South Fork South Branch Chicago River	ND	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	4.00
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	ND	ND	4.00
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.14
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	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	ND	ND
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
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	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
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	3.00
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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	ND	ND	0.00
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.50
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	3.00
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00
99 Archer Avenue, South Fork South Branch Chicago River	ND	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	2.00
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	ND	ND	3.00
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.71
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	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	ND	ND
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
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	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	7.32	7.83	8.03	7.78	6.93	8.75	8.10	10.30
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	7.99	7.75	7.70	7.27	7.21	7.31	8.58	7.38
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	6.45	7.13	6.18	7.88	6.55	6.16	7.15	5.42
104 Glenview Road, North Branch Chicago River	ND	ND	ND	7.60	7.68	8.20	7.53	7.39	6.90	7.98	8.12
32 Lake-Cook Road, Skokie River	ND	ND	ND	6.88	7.29	7.23	7.75	7.35	7.21	7.75	7.75
105 Frontage Road, Skokie River	ND	ND	ND	8.41	7.40	7.63	7.77	7.61	7.76	9.27	8.79
34 Dempster Street, North Branch Chicago River	ND	ND	ND	8.30	7.28	8.25	7.88	7.01	6.52	8.23	7.16
96 Albany Avenue, North Branch Chicago River	7.18	8.56	8.51	8.02	8.68	8.47	8.64	8.22	8.19	9.18	8.63
35 Central Street, North Shore Channel	ND	ND	ND	8.52	7.91	8.39	9.23	7.30	8.23	8.63	7.50
112 Dempster Street, North Shore Channel	7.84	8.14	7.63	8.04	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	7.09	7.39	7.02	8.19	7.57	7.76	8.73	7.95
36 Touhy Avenue, North Shore Channel	7.92	7.12	7.58	6.96	7.29	7.15	8.29	7.83	7.65	7.93	7.98
101 Foster Avenue, North Shore Channel	ND	ND	ND	6.53	6.99	7.18	7.67	7.21	7.13	7.20	7.30
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	7.13	7.23	7.51	8.43	7.43	7.58	7.83	7.03
73 Diversey Parkway, North Branch Chicago River	6.68	6.73	6.85	6.73	6.63	6.91	7.91	6.94	6.75	7.25	6.44
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	6.94	6.28	6.57	7.25	6.73	6.67	6.85	6.30
74 Lake Shore Drive, Chicago River	ND	ND	ND	7.80	8.17	9.05	9.27	8.76	9.00	9.19	9.08
100 Wells Street, Chicago River	8.36	8.06	7.68	6.74	7.36	8.11	8.57	8.03	8.39	8.68	8.96
39 Madison Street, South Branch Chicago River	ND	ND	ND	6.53	7.23	7.36	7.27	7.53	7.45	7.79	7.85
108 Loomis Street, South Branch Chicago River	7.02	7.08	7.42	6.18	6.77	7.51	6.84	6.89	7.21	7.81	7.78
99 Archer Avenue, South Fork South Branch Chicago River	4.24	5.51	4.49	5.47	5.11	5.60	4.76	5.33	6.19	6.00	6.65
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	5.29	6.18	7.02	6.97	6.49	7.25	7.44	7.59
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	6.47	6.35	5.70	5.97	5.89	6.02	6.43	5.32	6.22	6.04	6.11
41 Harlem Avenue, Chicago Sanitary and Ship Canal	6.97	7.05	7.03	6.78	6.38	7.56	6.68	7.13	6.59	7.30	7.29
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	5.71	5.87	5.93	6.31	6.23	6.00	5.46	5.90
48 Stephen Street, Chicago Sanitary and Ship Canal	6.18	6.17	6.96	6.03	5.89	6.48	7.00	6.78	5.98	5.43	6.25
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.80	5.51	6.11	5.75	5.54	5.69	6.28	6.19	6.07	5.68	5.86
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	9.22	9.43	8.90	9.07	8.84	9.66	9.50	9.99
50 Burnham Avenue, Wolf Lake	ND	ND	ND	8.00	8.67	8.12	8.45	8.58	8.79	9.63	9.25
55 130th Street, Calumet River	ND	8.02	ND	8.83	8.86	9.16	8.43	8.22	8.91	8.45	9.26
86 Burnham Avenue, Grand Calumet River	7.54	3.63	4.44	4.23	4.57	4.89	4.66	6.51	4.21	6.20	4.80
56 Indiana Avenue, Little Calumet River	10.21	8.75	7.66	7.72	7.71	8.71	8.45	7.89	7.49	9.61	8.83
76 Halsted Street, Little Calumet River	8.18	7.27	7.15	6.64	6.78	6.89	7.14	6.30	6.35	6.27	6.98
52 Wentworth Avenue, Little Calumet River	ND	5.92	ND	7.10	7.21	7.08	7.10	6.22	6.43	7.49	6.45
54 Joe Orr Road, Thorn Creek	ND	ND	ND	7.80	8.08	7.72	8.04	8.21	8.19	7.72	7.65
97 170th Street, Thorn Creek	ND	6.13	ND	7.18	7.43	7.87	7.24	7.01	7.34	7.15	7.85
57 Ashland Avenue, Little Calumet River	7.19	7.52	7.97	6.82	7.27	7.46	6.79	6.54	6.50	7.27	6.35
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	6.19	7.19	7.44	7.52	6.63	6.54	7.15	7.23
59 Cicero Avenue, Calumet-Sag Channel	6.67	6.96	6.10	6.54	6.66	6.20	7.02	6.92	6.79	6.24	6.56
43 Route 83, Calumet-Sag Channel	6.66	6.66	6.55	6.58	6.98	6.49	6.72	7.22	6.51	6.70	7.38
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	9.17	8.45	8.80	8.58	8.61	9.64	9.78	8.47
110 Springinguth Road, West Branch DuPage River	5.66	5.98	6.04	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	7.99	7.78	8.53	8.75	8.35	8.68	8.28	7.78
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	8.42	9.03	8.65	8.91	8.68	8.61
111 Arlington Drive, West Branch DuPage River	9.21	8.80	7.94	8.33	8.08	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	7.31	8.73	6.84	7.76	7.09	6.88	7.41	7.18	7.80	8.78	6.24
80 Arlington Heights Road, Salt Creek	ND	ND	ND	8.40	7.94	8.43	8.11	7.83	8.78	8.77	8.48
18 Devon Avenue, Salt Creek	8.69	8.10	7.86	7.82	8.06	8.25	8.09	8.48	8.94	8.89	9.04
24 Wolf Road, Salt Creek	ND	ND	ND	8.17	8.64	7.41	8.82	8.27	8.23	8.51	8.61
109 Brookfield Avenue, Salt Creek	7.82	7.74	7.97	7.98	8.07	7.37	8.39	7.35	7.59	7.58	7.81
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	8.58	9.43	8.71	8.94	8.70	8.55	8.82	8.66	8.43	9.15
78 Wille Road, Higgins Creek	9.22	8.98	8.16	8.88	8.65	8.98	8.81	8.46	8.76	9.04	8.88
12 Lake-Cook Road, Buffalo Creek	ND	8.48	6.83	9.28	9.44	7.31	9.26	8.84	8.83	8.69	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	8.79	8.35	8.11	8.43	8.00	8.55	8.76	8.59
17 Oakton Street, Des Plaines River	ND	ND	ND	8.24	8.83	8.58	9.38	8.34	8.39	8.35	8.39
19 Belmont Avenue, Des Plaines River	8.25	8.49	8.08	7.82	8.44	8.41	8.34	7.50	7.67	8.43	7.55
20 Roosevelt Road, Des Plaines River	ND	ND	ND	8.66	8.26	7.91	8.60	7.55	7.62	8.16	7.57
22 Ogden Avenue, Des Plaines River	8.04	8.88	8.73	8.40	9.19	7.89	9.14	8.24	8.94	9.00	9.13
23 Willow Springs Road, Des Plaines River	8.04	8.97	7.74	8.73	9.05	8.07	8.80	8.00	8.65	8.24	9.08
29 Stephen Street, Des Plaines River	ND	ND	ND	9.80	9.18	8.37	9.97	8.94	8.56	8.90	9.91
91 Material Service Road, Des Plaines River	11.20	10.46	9.32	9.68	9.05	9.04	9.33	8.78	9.38	9.68	10.31

ND = No Data.

TABLE AII-4: TEMPERATURE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (°C)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	11.9	12.7	13.1	11.3	13.6	9.8	13.2	12.4
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	14.6	14.8	15.7	13.4	13.8	15.4	13.4	15.2
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	16.9	14.2	14.8	12.4	12.7	15.7	12.6	16.1
104 Glenview Road, North Branch Chicago River	ND	ND	ND	14.2	13.4	12.7	12.5	11.5	14.8	12.9	15.1
32 Lake-Cook Road, Skokie River	ND	ND	ND	14.1	15.2	15.2	13.4	12.3	16.2	12.9	17.1
105 Frontage Road, Skokie River	ND	ND	ND	15.2	13.8	13.5	12.3	12.3	14.9	13.1	14.4
34 Dempster Street, North Branch Chicago River	ND	ND	ND	13.3	13.7	12.7	11.9	13.5	14.7	12.8	16.7
96 Albany Avenue, North Branch Chicago River	17.2	13.9	11.8	14.7	14.1	14.5	12.1	12.6	15.1	13.0	15.5
35 Central Street, North Shore Channel	ND	ND	ND	19.5	17.2	16.9	14.9	15.9	15.5	18.6	17.9
112 Dempster Street, North Shore Channel	15.9	15.5	15.3	12.5	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	16.5	15.0	15.4	13.2	14.7	14.3	15.0	16.1
36 Touhy Avenue, North Shore Channel	15.3	14.7	14.7	16.9	15.1	16.2	13.9	14.8	17.0	15.6	16.4
101 Foster Avenue, North Shore Channel	ND	ND	ND	16.0	15.3	15.3	14.8	14.7	16.7	15.8	16.8
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	15.4	14.7	15.7	13.7	14.2	15.7	15.2	17.5
73 Diversey Parkway, North Branch Chicago River	15.1	14.7	13.9	15.7	15.3	15.0	13.8	13.5	15.5	15.0	17.4
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	16.5	14.8	14.6	13.4	13.6	16.5	14.9	17.5
74 Lake Shore Drive, Chicago River	ND	ND	ND	15.0	13.9	13.5	13.7	14.6	14.5	14.0	15.2
100 Wells Street, Chicago River	14.7	13.3	13.6	16.4	14.2	13.9	13.7	12.8	14.5	13.9	13.4
39 Madison Street, South Branch Chicago River	ND	ND	ND	15.9	10.7	13.9	13.7	12.4	14.1	14.0	13.3
108 Loomis Street, South Branch Chicago River	15.8	12.1	13.8	17.8	15.4	15.7	16.4	15.3	16.3	16.7	15.5
99 Archer Avenue, South Fork South Branch Chicago River	17.3	12.9	15.9	16.8	14.9	12.8	15.4	14.6	16.6	18.9	15.8
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	18.1	15.1	16.1	15.4	14.4	16.3	16.6	15.5
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	14.0	14.3	14.3	17.8	18.4	19.3	17.3	17.9	20.2	17.7	20.0
41 Harlem Avenue, Chicago Sanitary and Ship Canal	15.7	15.7	14.8	18.4	16.6	17.2	16.4	16.8	16.3	16.4	17.3
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	18.7	17.2	16.1	16.5	17.7	18.7	18.4	17.7
48 Stephen Street, Chicago Sanitary and Ship Canal	15.1	14.8	14.4	17.3	15.8	16.5	15.8	16.8	17.4	16.3	16.1
92 Lockport Forebay, Chicago Sanitary and Ship Canal	16.3	15.8	16.5	18.4	17.0	18.0	17.4	17.9	19.8	19.4	19.3
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	14.8	12.1	17.3	14.0	15.0	16.3	14.0	16.2
50 Burnham Avenue, Wolf Lake	ND	ND	ND	15.0	13.7	15.6	17.0	11.5	16.3	13.9	14.5
55 130th Street, Calumet River	ND	18.0	ND	14.5	14.2	16.0	16.6	14.6	17.6	13.5	15.8
86 Burnham Avenue, Grand Calumet River	13.6	15.2	14.7	13.7	14.2	18.0	17.8	11.9	16.8	13.7	16.2
56 Indiana Avenue, Little Calumet River	17.3	16.6	14.9	15.1	15.4	17.6	17.1	16.2	18.6	14.6	16.0
76 Halsted Street, Little Calumet River	16.2	13.7	15.0	16.3	14.6	16.6	14.4	14.1	17.2	15.3	16.4
52 Wentworth Avenue, Little Calumet River	ND	17.0	ND	13.7	14.4	15.2	15.9	13.2	14.9	14.1	14.5
54 Joe Orr Road, Thorn Creek	ND	ND	ND	15.2	15.0	15.0	16.7	13.9	16.3	15.1	15.0
97 170th Street, Thorn Creek	ND	17.8	ND	14.2	14.5	15.0	16.4	12.1	15.4	14.7	13.4
57 Ashland Avenue, Little Calumet River	14.8	14.1	13.8	14.8	14.5	14.4	16.5	15.4	15.3	15.7	15.7
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	15.9	14.4	15.5	14.3	13.8	16.3	14.3	15.8
59 Cicero Avenue, Calumet-Sag Channel	15.9	15.9	13.9	15.2	15.0	16.0	15.9	14.2	16.5	16.6	15.0
43 Route 83, Calumet-Sag Channel	15.2	15.5	14.1	17.2	15.6	15.8	16.2	15.4	17.3	15.1	16.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	11.8	14.0	15.4	13.6	14.5	14.3	13.2	15.1
110 Springinguth Road, West Branch DuPage River	15.9	17.3	15.5	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	14.3	15.6	16.3	15.7	16.3	15.7	13.8	16.9
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	12.1	13.5	15.3	14.8	14.5	16.5
111 Arlington Drive, West Branch DuPage River	14.2	14.2	13.4	15.5	15.9	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	16.7	16.5	17.5	15.7	16.0	18.9	16.7	18.2	15.8	18.6	19.2
80 Arlington Heights Road, Salt Creek	ND	ND	ND	13.8	15.3	15.0	13.6	15.0	15.0	14.6	16.4
18 Devon Avenue, Salt Creek	15.0	14.5	14.5	15.2	14.9	13.4	14.0	14.6	14.3	14.0	15.3
24 Wolf Road, Salt Creek	ND	ND	ND	13.4	14.5	11.3	12.1	14.6	14.6	13.5	14.8
109 Brookfield Avenue, Salt Creek	15.5	16.6	13.7	14.9	14.7	13.8	12.3	15.2	14.5	12.8	14.9
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	16.3	16.0	13.2	14.6	14.8	12.2	10.5	14.0	13.3	12.3
78 Wille Road, Higgins Creek	18.0	15.0	15.3	15.4	16.3	17.7	13.8	17.6	16.2	16.1	17.1
12 Lake-Cook Road, Buffalo Creek	ND	18.6	19.2	11.0	12.9	14.9	10.5	13.9	14.2	11.1	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	11.8	14.0	14.1	11.1	14.7	13.1	12.9	15.8
17 Oakton Street, Des Plaines River	ND	ND	ND	13.5	14.5	15.1	12.8	15.8	14.4	13.6	15.9
19 Belmont Avenue, Des Plaines River	14.8	14.6	13.9	15.5	14.3	15.0	11.8	15.3	14.8	14.2	15.3
20 Roosevelt Road, Des Plaines River	ND	ND	ND	14.4	15.1	15.3	13.4	15.7	15.2	13.8	15.4
22 Ogden Avenue, Des Plaines River	15.8	16.4	12.0	14.5	14.5	13.0	11.8	14.9	14.4	13.0	15.1
23 Willow Springs Road, Des Plaines River	17.3	16.5	14.1	15.5	14.5	14.1	12.1	15.2	15.7	12.7	14.7
29 Stephen Street, Des Plaines River	ND	ND	ND	13.5	15.1	13.5	12.6	14.3	15.5	13.4	15.1
91 Material Service Road, Des Plaines River	15.0	15.4	12.7	15.7	15.2	14.0	11.7	14.7	15.8	13.8	15.0

ND = No Data.

TABLE AII-5: pH MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	6.95	7.14	7.25	7.18	7.52	7.64	7.22	7.53
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	7.40	7.59	7.63	7.49	7.44	7.50	7.47	7.42
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	7.40	7.54	7.61	7.60	7.64	7.67	7.47	7.26
104 Glenview Road, North Branch Chicago River	ND	ND	ND	7.89	7.73	7.71	7.76	7.86	7.85	7.71	7.22
32 Lake-Cook Road, Skokie River	ND	ND	ND	7.59	7.69	7.70	7.66	7.74	7.85	7.66	7.19
105 Frontage Road, Skokie River	ND	ND	ND	7.73	7.66	7.56	7.64	7.77	7.88	7.68	7.19
34 Dempster Street, North Branch Chicago River	ND	ND	ND	7.77	7.72	7.70	7.78	7.61	7.67	7.74	7.45
96 Albany Avenue, North Branch Chicago River	7.64	7.69	7.42	7.64	7.67	7.94	7.88	7.80	7.77	7.59	7.30
35 Central Street, North Shore Channel	ND	ND	ND	7.71	7.73	7.62	7.83	7.80	7.78	7.70	7.65
112 Dempster Street, North Shore Channel	7.59	7.64	6.97	6.71	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	7.34	7.49	7.57	7.67	7.69	7.58	7.56	7.35
36 Touhy Avenue, North Shore Channel	7.17	7.12	7.11	7.09	7.21	7.30	7.33	7.40	7.40	7.23	7.14
101 Foster Avenue, North Shore Channel	ND	ND	ND	7.12	7.14	7.11	7.33	7.31	7.25	7.13	7.18
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	7.43	7.38	7.35	7.54	7.40	7.44	7.39	7.32
73 Diversey Parkway, North Branch Chicago River	7.27	7.24	7.38	7.30	7.26	7.31	7.30	7.42	7.21	7.36	7.23
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	7.38	7.42	7.39	7.49	7.43	7.45	7.37	7.21
74 Lake Shore Drive, Chicago River	ND	ND	ND	6.96	7.10	7.39	7.49	7.64	7.60	7.75	7.52
100 Wells Street, Chicago River	7.22	7.24	6.90	6.98	7.13	7.38	7.68	7.62	7.68	7.72	7.44
39 Madison Street, South Branch Chicago River	ND	ND	ND	7.32	7.10	7.23	7.45	7.42	7.65	7.49	7.41
108 Loomis Street, South Branch Chicago River	7.19	7.28	7.16	7.34	7.40	7.33	7.42	7.59	7.50	7.46	7.44
99 Archer Avenue, South Fork South Branch Chicago River	7.13	7.10	7.14	7.25	7.28	7.34	7.25	7.42	7.45	7.38	7.27
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	7.38	7.40	7.40	7.46	7.54	7.49	7.46	7.39
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	7.25	7.17	6.99	6.93	7.13	7.04	7.14	7.19	7.29	7.22	7.23
41 Harlem Avenue, Chicago Sanitary and Ship Canal	7.07	7.22	7.09	7.10	7.15	7.23	7.24	7.41	7.27	7.20	7.11
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	7.01	6.81	7.02	6.96	7.10	7.13	6.92	7.08
48 Stephen Street, Chicago Sanitary and Ship Canal	7.09	7.07	7.01	7.12	7.01	7.24	7.28	7.57	7.32	7.08	7.03
92 Lockport Forebay, Chicago Sanitary and Ship Canal	7.23	7.19	7.21	7.22	7.27	7.33	7.39	7.40	7.31	7.29	7.20
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	7.28	7.08	7.57	7.45	7.45	7.77	7.72	7.48
50 Burnham Avenue, Wolf Lake	ND	ND	ND	7.91	7.65	7.74	7.81	8.04	8.29	8.26	7.65
55 130th Street, Calumet River	ND	7.61	ND	7.76	7.77	7.86	7.84	7.92	7.85	7.94	7.64
86 Burnham Avenue, Grand Calumet River	7.35	7.26	7.26	7.19	7.34	7.27	7.35	7.69	7.64	7.43	7.30
56 Indiana Avenue, Little Calumet River	8.00	7.67	7.73	7.28	7.22	7.57	7.49	7.49	7.65	7.81	7.06
76 Halsted Street, Little Calumet River	7.37	7.23	7.22	7.22	7.09	7.30	7.31	7.34	7.40	7.51	7.11
52 Wentworth Avenue, Little Calumet River	ND	7.48	ND	7.67	7.42	7.63	7.77	7.86	7.77	7.75	7.16
54 Joe Orr Road, Thorn Creek	ND	ND	ND	7.03	7.05	7.27	7.03	7.32	7.17	7.32	7.10
97 170th Street, Thorn Creek	ND	7.57	ND	7.59	7.45	7.66	7.76	7.83	7.71	7.70	6.96
57 Ashland Avenue, Little Calumet River	7.66	7.49	7.61	7.75	7.58	7.60	7.78	7.79	7.71	7.74	7.07
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	7.40	7.28	7.38	7.48	7.44	7.42	7.40	6.91
59 Cicero Avenue, Calumet-Sag Channel	7.35	7.26	7.29	7.04	7.32	7.48	7.42	7.46	7.39	7.38	7.04
43 Route 83, Calumet-Sag Channel	7.27	7.16	7.02	7.19	7.41	7.47	7.55	7.70	7.51	7.55	7.25
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	7.76	7.95	7.83	7.91	7.88	7.95	7.80	7.70
110 Springinsguth Road, West Branch DuPage River	7.51	7.55	7.36	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	7.54	7.54	7.51	7.48	7.58	7.59	7.43	7.40
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	7.71	7.77	7.74	7.81	7.64	7.57
111 Arlington Drive, West Branch DuPage River	7.54	7.24	7.41	7.69	7.73	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	7.47	7.65	7.10	7.38	7.42	7.51	7.77	7.57	7.80	7.94	7.39
80 Arlington Heights Road, Salt Creek	ND	ND	ND	7.44	7.54	7.52	7.46	7.39	7.59	7.50	7.45
18 Devon Avenue, Salt Creek	7.50	7.25	7.03	7.34	7.62	7.60	7.55	7.51	7.63	7.55	7.44
24 Wolf Road, Salt Creek	ND	ND	ND	7.00	7.28	7.48	7.30	7.41	7.52	7.31	7.30
109 Brookfield Avenue, Salt Creek	7.51	7.60	7.13	7.28	7.68	7.58	7.69	7.54	7.72	7.40	7.32
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	8.02	7.95	7.70	7.51	7.68	7.76	7.88	7.80	7.40	7.39
78 Wille Road, Higgins Creek	7.72	7.36	7.26	7.58	7.65	7.61	7.58	7.63	7.67	7.54	7.37
12 Lake-Cook Road, Buffalo Creek	ND	7.76	7.61	7.49	7.56	7.47	7.37	7.80	7.70	7.73	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	7.91	7.73	7.58	7.72	7.89	7.69	7.68	7.44
17 Oakton Street, Des Plaines River	ND	ND	ND	7.81	7.85	7.74	7.78	8.01	7.79	7.57	7.44
19 Belmont Avenue, Des Plaines River	7.70	7.67	7.49	7.70	7.88	7.82	7.82	7.98	7.83	7.67	7.45
20 Roosevelt Road, Des Plaines River	ND	ND	ND	7.91	7.86	7.85	7.91	8.02	7.84	7.89	7.49
22 Ogden Avenue, Des Plaines River	7.66	7.88	7.43	7.66	7.88	7.81	7.72	7.62	7.96	7.50	7.49
23 Willow Springs Road, Des Plaines River	7.87	7.99	7.74	7.75	7.93	7.86	7.91	7.86	7.79	7.62	7.62
29 Stephen Street, Des Plaines River	ND	ND	ND	8.03	7.78	7.86	7.90	7.92	7.72	7.64	7.55
91 Material Service Road, Des Plaines River	7.97	8.00	7.75	8.12	7.89	7.97	8.13	8.04	7.98	7.87	7.74

ND = No Data.

TABLE AII-6: TOTAL ALKALINITY MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	181	178	158	173	171	163	147	152
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	204	192	181	180	165	186	178	172
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	215	191	192	196	177	205	185	199
104 Glenview Road, North Branch Chicago River	ND	ND	ND	195	169	171	184	168	173	165	156
32 Lake-Cook Road, Skokie River	ND	ND	ND	218	204	196	203	188	215	184	183
105 Frontage Road, Skokie River	ND	ND	ND	196	166	170	187	170	168	164	154
34 Dempster Street, North Branch Chicago River	ND	ND	ND	207	179	183	180	165	175	170	164
96 Albany Avenue, North Branch Chicago River	180	181	151	177	187	172	186	164	174	173	167
35 Central Street, North Shore Channel	ND	ND	ND	141	121	118	119	113	121	117	115
112 Dempster Street, North Shore Channel	122	131	123	139	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	144	133	131	136	120	133	134	126
36 Touhy Avenue, North Shore Channel	154	150	131	135	149	136	156	145	142	144	136
101 Foster Avenue, North Shore Channel	ND	ND	ND	143	146	139	149	145	142	145	135
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	145	152	139	149	146	145	146	138
73 Diversey Parkway, North Branch Chicago River	152	158	132	139	153	149	152	147	147	146	135
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	157	155	145	150	141	147	147	144
74 Lake Shore Drive, Chicago River	ND	ND	ND	113	123	110	118	111	124	120	120
100 Wells Street, Chicago River	130	129	131	133	136	119	130	125	125	127	123
39 Madison Street, South Branch Chicago River	ND	ND	ND	149	149	134	150	134	135	142	137
108 Loomis Street, South Branch Chicago River	150	148	137	138	144	135	149	134	136	143	142
99 Archer Avenue, South Fork South Branch Chicago River	155	152	140	134	152	146	149	143	135	147	138
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	149	146	136	152	136	136	142	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	152	137	135	147	140	145	141	137	158	140
41 Harlem Avenue, Chicago Sanitary and Ship Canal	153	153	135	126	144	138	144	134	131	130	126
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	141	151	143	149	132	138	139	138
48 Stephen Street, Chicago Sanitary and Ship Canal	161	159	178	147	156	145	146	137	142	146	142
92 Lockport Forebay, Chicago Sanitary and Ship Canal	163	157	142	143	150	146	149	137	146	143	138
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	109	110	107	113	104	113	113	109
50 Burnham Avenue, Wolf Lake	ND	ND	ND	106	99	103	102	98	104	100	109
55 130th Street, Calumet River	ND	ND	ND	117	112	108	117	105	114	112	112
86 Burnham Avenue, Grand Calumet River	205	233	267	260	232	250	225	243	262	248	170
56 Indiana Avenue, Little Calumet River	140	137	139	130	131	120	136	125	137	127	125
76 Halsted Street, Little Calumet River	160	166	160	157	159	147	162	155	162	162	153
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	229	171	184	204	216	208	222	175
54 Joe Orr Road, Thorn Creek	ND	ND	ND	193	163	178	190	185	177	189	152
97 170th Street, Thorn Creek	ND	ND	ND	214	167	163	204	195	176	205	172
57 Ashland Avenue, Little Calumet River	213	179	173	181	166	166	193	192	174	208	168
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	172	159	159	163	158	156	167	154
59 Cicero Avenue, Calumet-Sag Channel	168	158	158	160	163	153	165	154	154	171	150
43 Route 83, Calumet-Sag Channel	173	158	161	151	155	158	160	154	151	168	151
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	240	218	222	227	211	210	190	188
110 Springinguth Road, West Branch DuPage River	218	213	180	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	168	175	154	179	147	152	160	150
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	180	170	145	150	184	133
111 Arlington Drive, West Branch DuPage River	162	157	132	137	162	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	177	177	144	158	180	135	183	176	159	155	142
80 Arlington Heights Road, Salt Creek	ND	ND	ND	165	144	148	152	126	133	142	136
18 Devon Avenue, Salt Creek	156	149	129	139	146	154	149	125	132	142	135
24 Wolf Road, Salt Creek	ND	ND	ND	170	157	154	172	141	140	145	134
109 Brookfield Avenue, Salt Creek	166	171	143	148	159	150	169	142	139	144	133
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	150	128	159	142	114	149	128	118	121	120
78 Wille Road, Higgins Creek	190	182	162	164	195	176	204	165	175	179	150
12 Lake-Cook Road, Buffalo Creek	ND	192	166	230	200	204	211	197	188	181	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	210	189	192	201	199	201	189	179
17 Oakton Street, Des Plaines River	ND	ND	ND	205	188	180	194	192	187	179	171
19 Belmont Avenue, Des Plaines River	204	199	164	174	186	171	196	180	179	177	167
20 Roosevelt Road, Des Plaines River	ND	ND	ND	198	184	170	189	185	182	172	166
22 Ogden Avenue, Des Plaines River	189	191	157	168	176	169	182	170	164	163	151
23 Willow Springs Road, Des Plaines River	196	196	156	173	175	165	184	171	168	162	154
29 Stephen Street, Des Plaines River	ND	ND	ND	193	173	170	180	173	172	169	159
91 Material Service Road, Des Plaines River	216	193	154	175	173	175	184	170	175	173	163

ND = No Data.

TABLE AII-7: CHLORIDE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	589	555	470	403	388	297	339	456
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	440	402	400	321	330	329	344	501
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	324	266	304	219	293	286	258	318
104 Glenview Road, North Branch Chicago River	ND	ND	ND	305	231	257	222	287	258	222	258
32 Lake-Cook Road, Skokie River	ND	ND	ND	295	215	251	196	265	290	214	310
105 Frontage Road, Skokie River	ND	ND	ND	243	207	217	208	275	228	207	236
34 Dempster Street, North Branch Chicago River	ND	ND	ND	400	247	316	246	265	277	254	337
96 Albany Avenue, North Branch Chicago River	233	380	246	294	273	319	274	345	283	256	346
35 Central Street, North Shore Channel	ND	ND	ND	128	63	30	44	90	51	37	35
112 Dempster Street, North Shore Channel	48	75	133	148	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	152	150	106	107	138	133	90	135
36 Touhy Avenue, North Shore Channel	252	200	130	146	221	155	210	168	212	116	150
101 Foster Avenue, North Shore Channel	ND	ND	ND	199	214	170	199	175	231	134	165
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	227	223	222	218	216	249	145	209
73 Diversey Parkway, North Branch Chicago River	281	227	172	148	182	199	248	235	190	140	196
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	217	182	175	195	248	204	154	186
74 Lake Shore Drive, Chicago River	ND	ND	ND	167	150	78	48	60	106	64	62
100 Wells Street, Chicago River	121	114	134	129	155	122	84	148	127	89	109
39 Madison Street, South Branch Chicago River	ND	ND	ND	187	247	168	152	191	174	125	156
108 Loomis Street, South Branch Chicago River	175	191	160	151	182	188	152	193	207	143	158
99 Archer Avenue, South Fork South Branch Chicago River	177	203	165	169	177	171	146	194	190	110	150
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	218	179	185	154	190	218	137	153
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	230	208	162	167	180	161	155	211	228	136	156
41 Harlem Avenue, Chicago Sanitary and Ship Canal	217	227	162	162	187	188	187	195	267	146	162
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	210	202	196	174	214	187	151	170
48 Stephen Street, Chicago Sanitary and Ship Canal	223	216	162	168	194	202	163	199	165	152	164
92 Lockport Forebay, Chicago Sanitary and Ship Canal	224	235	177	151	200	181	170	230	194	158	181
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	39	52	35	38	33	46	44	38
50 Burnham Avenue, Wolf Lake	ND	ND	ND	103	90	86	79	66	68	47	59
55 130th Street, Calumet River	ND	ND	ND	133	107	83	98	104	88	83	75
86 Burnham Avenue, Grand Calumet River	148	100	115	118	59	80	148	134	144	155	137
56 Indiana Avenue, Little Calumet River	106	126	89	110	120	104	100	116	109	98	82
76 Halsted Street, Little Calumet River	166	190	144	150	175	159	150	202	181	153	174
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	154	101	122	110	150	132	122	140
54 Joe Orr Road, Thorn Creek	ND	ND	ND	195	144	210	145	171	176	183	212
97 170th Street, Thorn Creek	ND	ND	ND	234	147	192	163	183	158	182	228
57 Ashland Avenue, Little Calumet River	239	179	172	179	161	182	135	176	171	174	205
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	189	173	159	147	207	161	161	180
59 Cicero Avenue, Calumet-Sag Channel	169	168	137	171	190	160	136	170	167	155	171
43 Route 83, Calumet-Sag Channel	179	176	139	153	169	178	139	164	164	150	144
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	279	251	273	215	282	277	279	278
110 Springinguth Road, West Branch DuPage River	309	343	238	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	171	204	171	170	196	187	193	181
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	340	188	232	235	201	211
111 Arlington Drive, West Branch DuPage River	221	232	191	175	216	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	358	390	248	346	319	266	258	385	353	287	409
80 Arlington Heights Road, Salt Creek	ND	ND	ND	272	298	289	248	389	268	280	323
18 Devon Avenue, Salt Creek	260	338	245	199	293	327	231	384	287	283	320
24 Wolf Road, Salt Creek	ND	ND	ND	251	279	313	244	346	275	241	261
109 Brookfield Avenue, Salt Creek	284	265	251	239	279	293	231	321	271	257	258
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	572	376	276	285	583	305	548	259	571	478
78 Wille Road, Higgins Creek	230	239	204	181	235	220	233	274	247	217	220
12 Lake-Cook Road, Buffalo Creek	ND	275	195	297	258	310	218	357	272	259	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	181	175	185	148	220	184	210	221
17 Oakton Street, Des Plaines River	ND	ND	ND	200	196	221	154	238	195	245	251
19 Belmont Avenue, Des Plaines River	245	244	203	187	207	231	173	279	208	250	230
20 Roosevelt Road, Des Plaines River	ND	ND	ND	200	214	232	164	285	214	249	260
22 Ogden Avenue, Des Plaines River	248	230	217	202	227	250	173	270	228	244	255
23 Willow Springs Road, Des Plaines River	223	232	220	209	231	239	177	275	238	234	268
29 Stephen Street, Des Plaines River	ND	ND	ND	232	225	235	172	290	242	236	255
91 Material Service Road, Des Plaines River	276	253	218	212	226	242	185	284	225	242	249

ND = No Data.

TABLE AII-8: TURBIDITY MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (NTU)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	27.3	25.4	18.0	26.9	31.4	29.0	66.6	30.1
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	18.3	14.2	12.4	24.1	18.4	14.1	32.2	25.6
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	5.0	9.9	10.6	18.3	18.3	14.9	46.2	16.7
104 Glenview Road, North Branch Chicago River	ND	ND	ND	14.7	14.8	7.6	15.0	16.9	13.7	32.9	15.2
32 Lake-Cook Road, Skokie River	ND	ND	ND	16.3	12.9	9.2	16.2	18.5	14.6	37.0	16.8
105 Frontage Road, Skokie River	ND	ND	ND	8.3	11.9	9.5	14.8	13.1	15.6	16.5	13.4
34 Dempster Street, North Branch Chicago River	ND	ND	ND	13.0	12.5	9.4	17.0	17.8	15.3	28.9	18.9
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	8.0	10.6	13.1	17.4	20.2	14.6	23.5	16.0
35 Central Street, North Shore Channel	ND	ND	ND	11.0	6.3	5.5	8.1	9.7	5.1	9.3	5.9
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	4.3	10.0	14.3	7.9	15.0	10.3	13.2	12.2
36 Touhy Avenue, North Shore Channel	ND	ND	ND	5.0	4.2	4.0	5.1	4.8	4.2	5.8	6.5
101 Foster Avenue, North Shore Channel	ND	ND	ND	4.3	5.5	4.6	4.4	5.4	5.1	5.9	7.0
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	3.5	6.7	6.6	11.4	8.2	8.2	9.3	9.5
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	5.7	8.8	6.5	10.6	10.3	8.8	10.4	10.0
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	9.0	8.4	8.0	12.6	10.0	13.2	13.4	11.3
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.7	2.0	2.2	3.8	4.6	3.5	2.8	3.3
100 Wells Street, Chicago River	ND	ND	ND	4.0	6.3	3.8	4.1	7.4	4.0	3.5	4.7
39 Madison Street, South Branch Chicago River	ND	ND	ND	7.3	9.3	8.4	9.7	10.8	10.7	8.0	9.1
108 Loomis Street, South Branch Chicago River	ND	ND	ND	7.3	10.2	8.5	9.7	11.6	10.1	11.3	9.6
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	18.3	9.9	7.6	8.4	10.8	7.4	8.8	8.7
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	8.0	10.2	8.9	11.1	10.3	11.8	11.4	10.4
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	8.0	12.6	8.9	11.5	10.7	8.6	13.1	11.6
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	5.0	7.8	5.0	6.1	6.0	6.0	6.9	6.4
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	4.7	5.6	4.2	5.5	8.3	6.9	5.4	5.8
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	13.3	9.6	6.9	11.0	13.9	10.2	11.6	11.5
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	8.8	8.9	6.0	11.1	14.4	9.0	11.2	10.6
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	8.0	7.7	2.9	3.6	4.2	4.0	7.2	5.6
50 Burnham Avenue, Wolf Lake	ND	ND	ND	3.0	3.5	3.5	3.5	4.2	3.8	2.9	5.3
55 130th Street, Calumet River	ND	ND	ND	2.7	5.4	2.7	4.3	6.0	6.3	6.3	5.9
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	10.0	9.1	13.0	6.0	11.9	10.3	12.8	25.3
56 Indiana Avenue, Little Calumet River	ND	ND	ND	9.5	10.2	8.9	18.2	25.2	20.3	19.6	24.8
76 Halsted Street, Little Calumet River	ND	ND	ND	4.0	8.9	4.9	8.9	11.5	8.4	9.3	10.2
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	30.7	71.6	61.2	38.2	17.7	31.2	33.6	32.2
54 Joe Orr Road, Thorn Creek	ND	ND	ND	16.3	36.9	24.1	15.8	5.8	9.8	5.8	63.6
97 170th Street, Thorn Creek	ND	ND	ND	23.0	64.3	51.5	21.5	16.3	25.4	26.5	46.2
57 Ashland Avenue, Little Calumet River	ND	ND	ND	13.0	47.5	42.1	25.9	16.0	28.2	24.3	42.5
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	9.0	26.2	19.7	12.9	13.6	16.6	11.5	13.4
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	13.3	18.5	14.1	12.9	14.9	18.8	14.3	14.2
43 Route 83, Calumet-Sag Channel	ND	ND	ND	9.3	17.9	9.2	13.6	12.8	14.5	18.6	14.2
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	5.3	9.2	12.0	10.4	14.1	7.9	20.3	14.7
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	ND	16.3	6.1	7.0	5.5	13.5	7.5	7.4	7.6
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	18.5	17.7	22.9	19.2	25.4	26.3
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	8.0	13.7	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	12.0	18.2	25.4	21.1	23.8	25.1	30.4	42.9
80 Arlington Heights Road, Salt Creek	ND	ND	ND	5.5	7.7	6.0	12.5	5.8	9.1	9.8	6.5
18 Devon Avenue, Salt Creek	ND	ND	ND	5.9	6.8	6.9	12.4	7.5	10.1	11.1	10.1
24 Wolf Road, Salt Creek	ND	ND	ND	7.3	11.1	14.2	17.0	19.4	24.0	28.7	20.1
109 Brookfield Avenue, Salt Creek	ND	ND	ND	6.3	10.8	19.4	18.9	18.9	21.1	32.5	23.3
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	9.0	21.4	19.3	18.9	44.3	23.9	32.5	29.3
78 Wille Road, Higgins Creek	ND	ND	ND	3.7	1.9	3.1	4.0	7.1	4.5	4.8	3.9
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	7.3	14.8	23.9	21.4	20.4	26.7	25.6	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	11.0	10.2	12.9	20.9	17.0	16.5	20.7	19.4
17 Oakton Street, Des Plaines River	ND	ND	ND	9.7	12.1	13.5	21.5	20.0	16.9	19.5	15.1
19 Belmont Avenue, Des Plaines River	ND	ND	ND	8.7	10.6	12.7	21.6	25.6	18.6	20.7	17.6
20 Roosevelt Road, Des Plaines River	ND	ND	ND	7.3	11.6	16.6	22.7	22.0	19.0	21.3	17.5
22 Ogden Avenue, Des Plaines River	ND	ND	ND	8.7	11.7	15.3	23.8	20.6	21.7	28.3	23.8
23 Willow Springs Road, Des Plaines River	ND	ND	ND	7.7	12.8	13.1	23.7	21.5	21.2	26.3	20.9
29 Stephen Street, Des Plaines River	ND	ND	ND	7.7	12.4	16.6	24.8	18.5	18.0	26.2	23.0
91 Material Service Road, Des Plaines River	ND	ND	ND	6.3	12.8	15.0	22.0	17.6	21.7	22.1	25.8

ND = No Data.

**TABLE AII-9: TOTAL KJELDAHL NITROGEN MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	1.40	2.06	1.24	1.40	1.59	1.30	1.90	1.31
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	1.14	1.26	1.15	1.10	1.05	1.34	1.36	1.41
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	1.00	0.87	0.95	0.94	1.16	1.20	1.09	1.36
104 Glenview Road, North Branch Chicago River	ND	ND	ND	1.29	1.38	0.88	0.99	1.14	1.27	1.54	1.22
32 Lake-Cook Road, Skokie River	ND	ND	ND	1.06	1.21	0.81	0.88	0.86	1.08	1.29	1.67
105 Frontage Road, Skokie River	ND	ND	ND	1.00	0.94	1.01	1.01	1.06	1.31	1.32	1.25
34 Dempster Street, North Branch Chicago River	ND	ND	ND	1.14	1.05	1.53	1.08	1.14	1.23	1.43	1.22
96 Albany Avenue, North Branch Chicago River	1.00	1.00	1.00	1.00	0.97	0.94	0.86	1.03	1.16	1.27	1.31
35 Central Street, North Shore Channel	ND	ND	ND	1.20	0.56	0.32	0.45	0.43	0.58	0.57	0.39
112 Dempster Street, North Shore Channel	1.00	1.22	1.40	1.00	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	2.14	1.32	1.46	0.85	1.08	1.27	1.41	1.54
36 Touhy Avenue, North Shore Channel	2.58	3.08	2.09	2.17	2.35	2.06	1.38	1.59	2.07	1.99	3.08
101 Foster Avenue, North Shore Channel	ND	ND	ND	2.43	2.42	2.10	1.37	1.82	2.39	2.07	3.53
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	2.17	2.10	1.84	1.32	1.60	1.92	1.97	3.19
73 Diversey Parkway, North Branch Chicago River	1.92	2.50	2.00	1.92	2.20	1.77	1.19	1.36	1.79	1.71	2.25
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	2.14	2.03	1.96	1.49	1.56	1.94	1.85	2.82
74 Lake Shore Drive, Chicago River	ND	ND	ND	1.00	0.84	0.29	0.26	0.43	0.55	0.48	0.73
100 Wells Street, Chicago River	1.17	1.18	1.67	1.36	1.31	0.65	0.54	0.88	0.85	0.87	1.15
39 Madison Street, South Branch Chicago River	ND	ND	ND	1.67	2.24	1.29	1.12	1.33	1.44	1.46	2.32
108 Loomis Street, South Branch Chicago River	1.73	1.25	1.33	1.50	1.46	1.29	1.11	1.36	1.47	1.71	2.33
99 Archer Avenue, South Fork South Branch Chicago River	2.40	2.09	2.50	2.50	2.19	1.98	1.66	1.97	1.57	1.49	2.46
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	1.86	1.61	1.57	1.27	1.41	1.45	1.64	2.31
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	1.67	1.36	1.50	1.75	1.63	1.40	1.12	1.55	1.47	1.70	2.10
41 Harlem Avenue, Chicago Sanitary and Ship Canal	1.83	1.36	1.67	1.50	1.74	1.51	1.41	1.49	1.75	1.55	1.93
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	1.86	1.91	1.83	1.33	1.48	1.79	1.61	1.81
48 Stephen Street, Chicago Sanitary and Ship Canal	1.70	1.45	1.42	1.58	1.65	1.54	1.27	1.33	1.56	1.74	1.76
92 Lockport Forebay, Chicago Sanitary and Ship Canal	1.49	1.65	1.35	1.37	1.61	1.49	1.29	1.40	1.55	1.61	1.67
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	1.00	0.48	0.07	0.18	0.19	0.34	0.38	0.25
50 Burnham Avenue, Wolf Lake	ND	ND	ND	1.43	0.62	0.52	0.77	0.71	0.85	0.74	0.73
55 130th Street, Calumet River	ND	ND	ND	1.00	0.60	0.25	0.53	0.63	0.77	0.76	0.70
86 Burnham Avenue, Grand Calumet River	1.55	2.70	3.11	4.91	3.11	4.57	2.31	5.15	4.57	3.19	4.31
56 Indiana Avenue, Little Calumet River	1.00	1.20	1.00	1.00	0.74	0.64	0.99	1.00	1.13	1.09	0.84
76 Halsted Street, Little Calumet River	1.50	1.42	1.73	1.18	1.35	1.30	1.22	1.42	1.34	1.35	1.26
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	1.00	1.16	1.39	1.34	1.28	1.51	1.64	1.61
54 Joe Orr Road, Thorn Creek	ND	ND	ND	1.29	1.45	1.24	1.39	1.39	1.50	1.42	1.55
97 170th Street, Thorn Creek	ND	ND	ND	1.00	0.97	1.21	1.18	1.11	1.43	1.28	1.34
57 Ashland Avenue, Little Calumet River	1.20	1.09	1.10	1.00	1.01	1.11	1.03	1.10	1.39	1.43	1.58
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	1.14	1.18	1.28	1.09	1.32	1.40	1.47	1.30
59 Cicero Avenue, Calumet-Sag Channel	1.60	1.27	1.73	1.60	1.26	1.33	1.17	1.31	1.28	1.50	1.41
43 Route 83, Calumet-Sag Channel	1.36	1.36	1.36	1.55	1.28	1.29	1.20	1.24	1.41	1.37	1.25
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	1.00	0.81	0.86	0.81	0.86	0.99	1.13	0.94
110 Springinguth Road, West Branch DuPage River	1.78	1.54	2.63	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	1.71	1.60	1.68	1.53	1.60	1.85	1.72	1.93
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	1.97	1.55	1.68	2.01	1.84	2.09
111 Arlington Drive, West Branch DuPage River	1.75	1.73	1.75	1.54	1.58	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.00	1.11	1.00	1.00	1.20	1.30	1.22	1.19	1.51	1.45	1.41
80 Arlington Heights Road, Salt Creek	ND	ND	ND	1.28	1.21	1.30	1.19	1.04	1.24	1.37	1.16
18 Devon Avenue, Salt Creek	1.09	1.03	1.08	1.21	1.17	1.46	1.11	0.96	1.12	1.38	1.42
24 Wolf Road, Salt Creek	ND	ND	ND	1.00	1.01	2.00	1.09	1.07	1.19	1.38	1.25
109 Brookfield Avenue, Salt Creek	1.10	1.00	1.00	1.00	0.89	1.02	1.11	1.08	1.18	1.53	1.23
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	1.00	1.00	1.13	0.95	0.72	0.93	0.96	0.96	1.38	1.29
78 Wille Road, Higgins Creek	1.50	1.32	1.50	1.27	1.15	1.28	1.22	1.59	1.60	1.84	1.51
12 Lake-Cook Road, Buffalo Creek	ND	1.00	1.00	1.17	0.98	1.11	1.12	1.10	1.37	1.21	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	1.00	1.00	1.07	1.10	1.09	1.38	1.40	1.34
17 Oakton Street, Des Plaines River	ND	ND	ND	1.14	1.11	1.04	1.16	1.19	1.27	1.39	1.31
19 Belmont Avenue, Des Plaines River	1.09	1.00	1.00	1.17	1.10	1.09	1.07	1.27	1.45	1.46	1.28
20 Roosevelt Road, Des Plaines River	ND	ND	ND	1.29	1.08	1.05	1.11	1.17	1.28	1.37	1.20
22 Ogden Avenue, Des Plaines River	1.00	1.00	1.00	1.17	0.95	1.04	1.11	1.23	1.27	1.45	1.25
23 Willow Springs Road, Des Plaines River	1.00	1.00	1.00	1.00	0.93	0.92	1.19	1.10	1.22	1.50	1.23
29 Stephen Street, Des Plaines River	ND	ND	ND	1.29	1.00	1.15	1.01	1.06	1.26	1.42	1.29
91 Material Service Road, Des Plaines River	1.00	1.00	1.00	1.00	0.96	0.99	1.08	1.11	1.20	1.49	1.29

ND = No Data.

**TABLE AII-10: AMMONIA NITROGEN MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.600	1.028	0.346	0.475	0.487	0.323	0.714	0.228
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.271	0.264	0.181	0.251	0.200	0.221	0.251	0.265
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.125	0.120	0.064	0.094	0.181	0.145	0.119	0.190
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.200	0.298	0.048	0.126	0.171	0.175	0.198	0.144
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.242	0.393	0.080	0.109	0.126	0.198	0.213	0.320
105 Frontage Road, Skokie River	ND	ND	ND	0.129	0.179	0.068	0.108	0.121	0.121	0.114	0.152
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.186	0.167	0.190	0.170	0.185	0.164	0.201	0.154
96 Albany Avenue, North Branch Chicago River	0.144	0.145	0.183	0.125	0.169	0.082	0.097	0.149	0.110	0.108	0.153
35 Central Street, North Shore Channel	ND	ND	ND	0.120	0.120	0.125	0.164	0.114	0.166	0.139	0.071
112 Dempster Street, North Shore Channel	0.178	0.422	0.460	0.140	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	1.014	0.638	0.589	0.303	0.347	0.521	0.553	0.773
36 Touhy Avenue, North Shore Channel	1.558	1.717	1.082	1.100	1.313	0.826	0.396	0.584	0.837	0.685	1.718
101 Foster Avenue, North Shore Channel	ND	ND	ND	1.471	1.522	1.061	0.485	0.758	1.210	0.876	2.104
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.917	1.231	0.807	0.433	0.574	0.879	0.770	1.881
73 Diversey Parkway, North Branch Chicago River	0.883	1.642	0.817	1.042	1.086	0.900	0.312	0.427	0.698	0.643	1.091
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	1.014	1.088	1.021	0.519	0.613	0.710	0.638	1.617
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.350	0.370	0.145	0.092	0.088	0.185	0.105	0.400
100 Wells Street, Chicago River	0.492	0.436	0.850	0.500	0.651	0.338	0.175	0.297	0.297	0.229	0.583
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.917	1.208	0.532	0.450	0.491	0.574	0.541	1.361
108 Loomis Street, South Branch Chicago River	1.027	0.708	0.792	0.725	0.696	0.579	0.413	0.522	0.513	0.730	1.360
99 Archer Avenue, South Fork South Branch Chicago River	1.080	1.000	1.500	1.325	1.018	0.937	0.715	0.771	0.637	0.620	1.320
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.871	0.748	0.613	0.484	0.580	0.563	0.618	1.277
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	0.775	0.773	0.842	0.925	0.767	0.562	0.436	0.660	0.590	0.617	1.175
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.775	0.645	1.008	0.483	0.763	0.521	0.583	0.505	0.556	0.364	0.941
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.729	0.888	0.799	0.497	0.573	0.687	0.482	0.816
48 Stephen Street, Chicago Sanitary and Ship Canal	0.860	0.873	0.650	0.633	0.693	0.536	0.441	0.465	0.478	0.544	0.797
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.720	0.835	0.618	0.594	0.716	0.573	0.418	0.471	0.516	0.479	0.654
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.117	0.125	0.038	0.016	0.023	0.087	0.057	0.109
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.514	0.110	0.080	0.093	0.102	0.132	0.098	0.183
55 130th Street, Calumet River	ND	0.167	ND	0.171	0.213	0.071	0.106	0.162	0.161	0.180	0.235
86 Burnham Avenue, Grand Calumet River	0.409	1.850	1.933	3.673	2.076	3.121	1.014	2.198	2.218	1.434	1.659
56 Indiana Avenue, Little Calumet River	0.167	0.310	0.313	0.180	0.275	0.202	0.324	0.261	0.306	0.193	0.199
76 Halsted Street, Little Calumet River	0.570	0.567	0.582	0.309	0.465	0.368	0.323	0.343	0.295	0.259	0.284
52 Wentworth Avenue, Little Calumet River	ND	0.367	ND	0.271	0.259	0.264	0.364	0.262	0.290	0.178	0.365
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.300	0.466	0.166	0.252	0.227	0.295	0.153	0.240
97 170th Street, Thorn Creek	ND	0.317	ND	0.183	0.180	0.134	0.134	0.182	0.191	0.135	0.315
57 Ashland Avenue, Little Calumet River	0.250	0.218	0.300	0.209	0.215	0.196	0.191	0.203	0.232	0.154	0.355
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.329	0.383	0.334	0.301	0.354	0.301	0.302	0.320
59 Cicero Avenue, Calumet-Sag Channel	0.660	0.455	0.591	0.440	0.480	0.428	0.258	0.389	0.263	0.278	0.360
43 Route 83, Calumet-Sag Channel	0.482	0.500	0.500	0.409	0.499	0.407	0.314	0.335	0.310	0.261	0.321
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.143	0.186	0.094	0.052	0.062	0.094	0.113	0.108
110 Springinguth Road, West Branch DuPage River	0.356	0.275	0.788	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.129	0.190	0.118	0.081	0.152	0.242	0.122	0.273
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.755	0.153	0.249	0.340	0.252	0.482
111 Arlington Drive, West Branch DuPage River	0.392	0.491	0.383	0.208	0.248	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.133	0.111	0.125	0.127	0.111	0.098	0.063	0.039	0.129	0.111	0.100
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.157	0.117	0.202	0.028	0.055	0.107	0.114	0.157
18 Devon Avenue, Salt Creek	0.109	0.127	0.167	0.183	0.147	0.221	0.045	0.046	0.112	0.124	0.193
24 Wolf Road, Salt Creek	ND	ND	ND	0.186	0.154	0.180	0.117	0.160	0.162	0.153	0.163
109 Brookfield Avenue, Salt Creek	0.140	0.144	0.173	0.183	0.149	0.224	0.116	0.196	0.174	0.154	0.166
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.125	0.150	0.225	0.224	0.000	0.135	0.214	0.172	0.199	0.123
78 Wille Road, Higgins Creek	0.370	0.250	0.375	0.327	0.256	0.221	0.268	0.373	0.353	0.405	0.269
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.100	0.117	0.159	0.084	0.060	0.083	0.110	0.117	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.129	0.166	0.040	0.097	0.068	0.103	0.086	0.190
17 Oakton Street, Des Plaines River	ND	ND	ND	0.114	0.141	0.065	0.071	0.061	0.099	0.115	0.145
19 Belmont Avenue, Des Plaines River	0.136	0.120	0.142	0.142	0.137	0.086	0.086	0.107	0.117	0.124	0.143
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.214	0.169	0.065	0.057	0.098	0.088	0.107	0.143
22 Ogden Avenue, Des Plaines River	0.140	0.100	0.142	0.125	0.141	0.107	0.079	0.073	0.130	0.122	0.161
23 Willow Springs Road, Des Plaines River	0.141	0.100	0.118	0.167	0.149	0.088	0.113	0.059	0.131	0.147	0.124
29 Stephen Street, Des Plaines River	ND	ND	ND	0.114	0.138	0.069	0.054	0.064	0.105	0.133	0.111
91 Material Service Road, Des Plaines River	0.117	0.120	0.108	0.117	0.142	0.028	0.080	0.047	0.085	0.137	0.122

ND = No Data.

TABLE AII-11: UN-IONIZED AMMONIA MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.001	0.005	0.002	0.002	0.005	0.002	0.002	0.002
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.001	0.002	0.001	0.001	0.003	0.003	0.001	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.005	0.004	0.001	0.002	0.003	0.004	0.003	0.002
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.003	0.007	0.001	0.001	0.002	0.005	0.003	0.011
105 Frontage Road, Skokie River	ND	ND	ND	0.003	0.003	0.001	0.001	0.002	0.002	0.003	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.003	0.003	0.002	0.002	0.002	0.002	0.005	0.002
96 Albany Avenue, North Branch Chicago River	0.003	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.002
35 Central Street, North Shore Channel	ND	ND	ND	0.004	0.003	0.001	0.001	0.002	0.002	0.002	0.002
112 Dempster Street, North Shore Channel	0.002	0.025	0.001	0.000	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.006	0.005	0.005	0.003	0.004	0.005	0.004	0.005
36 Touhy Avenue, North Shore Channel	0.008	0.008	0.004	0.007	0.006	0.005	0.002	0.004	0.007	0.005	0.012
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.007	0.006	0.005	0.004	0.004	0.009	0.005	0.019
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.008	0.008	0.007	0.004	0.004	0.008	0.007	0.021
73 Diversey Parkway, North Branch Chicago River	0.009	0.009	0.006	0.007	0.005	0.006	0.002	0.004	0.004	0.016	0.009
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.010	0.008	0.006	0.005	0.005	0.007	0.005	0.012
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.001	0.001	0.000	0.001	0.001	0.002	0.002	0.004
100 Wells Street, Chicago River	0.003	0.002	0.002	0.003	0.003	0.003	0.002	0.003	0.004	0.003	0.005
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.006	0.006	0.004	0.003	0.004	0.008	0.007	0.014
108 Loomis Street, South Branch Chicago River	0.005	0.003	0.003	0.006	0.005	0.005	0.004	0.008	0.006	0.009	0.017
99 Archer Avenue, South Fork South Branch Chicago River	0.007	0.003	0.007	0.007	0.006	0.006	0.004	0.006	0.006	0.006	0.009
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.007	0.007	0.006	0.005	0.005	0.007	0.007	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	0.005	0.003	0.004	0.003	0.005	0.003	0.002	0.004	0.006	0.005	0.023
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.003	0.003	0.005	0.003	0.004	0.003	0.004	0.005	0.004	0.002	0.007
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.003	0.003	0.003	0.002	0.004	0.004	0.002	0.006
48 Stephen Street, Chicago Sanitary and Ship Canal	0.003	0.003	0.002	0.004	0.003	0.004	0.003	0.011	0.004	0.003	0.003
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.004	0.005	0.006	0.006	0.004	0.005	0.005	0.005	0.007
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.003	0.001	0.001	0.000	0.000	0.002	0.001	0.001
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.173	0.003	0.004	0.002	0.012	0.022	0.012	0.003
55 130th Street, Calumet River	ND	0.004	ND	0.006	0.004	0.001	0.003	0.003	0.004	0.005	0.004
86 Burnham Avenue, Grand Calumet River	0.002	0.012	0.017	0.031	0.022	0.034	0.007	0.020	0.044	0.012	0.015
56 Indiana Avenue, Little Calumet River	0.005	0.006	0.006	0.001	0.001	0.002	0.005	0.002	0.005	0.008	0.001
76 Halsted Street, Little Calumet River	0.004	0.002	0.005	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003
52 Wentworth Avenue, Little Calumet River	ND	0.006	ND	0.005	0.003	0.004	0.011	0.005	0.006	0.004	0.002
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.001	0.003	0.001	0.001	0.001	0.003	0.003	0.001
97 170th Street, Thorn Creek	ND	0.003	ND	0.005	0.002	0.003	0.003	0.005	0.003	0.003	0.001
57 Ashland Avenue, Little Calumet River	0.004	0.002	0.004	0.027	0.003	0.003	0.004	0.009	0.003	0.004	0.002
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.003	0.003	0.002	0.003	0.003	0.004	0.002	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.003	0.003	0.003	0.003	0.004	0.002	0.003	0.003	0.003	0.002
43 Route 83, Calumet-Sag Channel	0.002	0.003	0.002	0.004	0.005	0.004	0.003	0.005	0.004	0.004	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.002	0.005	0.002	0.002	0.001	0.003	0.003	0.002
110 Springinguth Road, West Branch DuPage River	0.004	0.004	0.007	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.001	0.002	0.001	0.001	0.002	0.003	0.001	0.003
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.007	0.001	0.005	0.007	0.003	0.005
111 Arlington Drive, West Branch DuPage River	0.003	0.003	0.003	0.004	0.004	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.002	0.001	0.002	0.002	0.002	0.001	0.000	0.003	0.004	0.002
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.002	0.002	0.001	0.000	0.000	0.002	0.001	0.006
18 Devon Avenue, Salt Creek	0.001	0.002	0.001	0.002	0.002	0.002	0.000	0.000	0.002	0.002	0.006
24 Wolf Road, Salt Creek	ND	ND	ND	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002
109 Brookfield Avenue, Salt Creek	0.002	0.003	0.001	0.002	0.002	0.002	0.001	0.002	0.003	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	ND	0.004	0.004	0.003	0.003	0.000	0.003	0.005	0.004	0.002	0.003
78 Wille Road, Higgins Creek	0.008	0.003	0.003	0.004	0.005	0.004	0.004	0.006	0.006	0.005	0.003
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.000	0.001	0.002	0.001	0.000	0.002	0.002	0.003	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.003	0.003	0.001	0.002	0.003	0.002	0.001	0.003
17 Oakton Street, Des Plaines River	ND	ND	ND	0.002	0.004	0.001	0.002	0.001	0.002	0.002	0.002
19 Belmont Avenue, Des Plaines River	0.003	0.003	0.002	0.002	0.005	0.001	0.001	0.003	0.003	0.002	0.002
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.006	0.013	0.001	0.001	0.001	0.002	0.003	0.001
22 Ogden Avenue, Des Plaines River	0.003	0.003	0.001	0.003	0.003	0.001	0.001	0.001	0.004	0.002	0.002
23 Willow Springs Road, Des Plaines River	0.004	0.004	0.002	0.005	0.004	0.001	0.010	0.001	0.003	0.003	0.003
29 Stephen Street, Des Plaines River	ND	ND	ND	0.008	0.002	0.001	0.004	0.001	0.002	0.002	0.002
91 Material Service Road, Des Plaines River	0.004	0.005	0.002	0.007	0.003	0.000	0.001	0.001	0.002	0.004	0.003

ND = No Data.

TABLE AII-12: ORGANIC NITROGEN MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.80	1.03	0.89	0.92	1.11	0.98	1.19	1.08
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.87	1.00	0.97	0.85	0.85	1.12	1.11	1.15
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.88	0.75	0.88	0.84	0.98	1.06	0.97	1.17
104 Glenview Road, North Branch Chicago River	ND	ND	ND	1.09	1.08	0.83	0.86	0.97	1.10	1.34	1.07
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.82	0.81	0.73	0.77	0.73	0.88	1.08	1.35
105 Frontage Road, Skokie River	ND	ND	ND	0.87	0.76	0.95	0.90	0.94	1.19	1.20	1.10
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.96	0.88	1.34	0.91	0.96	1.07	1.23	1.06
96 Albany Avenue, North Branch Chicago River	0.86	0.85	0.82	0.88	0.80	0.86	0.76	0.88	1.05	1.16	1.16
35 Central Street, North Shore Channel	ND	ND	ND	1.08	0.45	0.21	0.28	0.34	0.41	0.44	0.32
112 Dempster Street, North Shore Channel	0.82	0.80	0.94	0.86	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	1.13	0.68	0.88	0.56	0.74	0.75	0.86	0.77
36 Touhy Avenue, North Shore Channel	1.03	1.37	1.01	1.07	1.04	1.24	0.98	1.00	1.24	1.32	1.37
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.96	0.90	1.04	0.89	1.06	1.18	1.20	1.43
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	1.25	0.87	1.04	0.89	1.03	1.04	1.20	1.31
73 Diversey Parkway, North Branch Chicago River	1.03	0.87	1.18	0.88	1.12	0.87	0.88	0.93	1.09	1.07	1.16
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	1.13	0.94	0.94	0.97	0.95	1.23	1.22	1.20
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.65	0.47	0.15	0.18	0.35	0.37	0.37	0.34
100 Wells Street, Chicago River	0.68	0.75	0.82	0.86	0.66	0.41	0.37	0.58	0.55	0.64	0.57
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.75	1.03	0.76	0.67	0.84	0.86	0.92	0.95
108 Loomis Street, South Branch Chicago River	0.70	0.54	0.58	0.78	0.76	0.71	0.70	0.84	0.96	0.98	0.97
99 Archer Avenue, South Fork South Branch Chicago River	1.32	1.11	1.01	1.18	1.17	1.05	0.95	1.20	0.93	0.87	1.14
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.99	0.86	0.96	0.79	0.83	0.88	1.03	1.03
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	0.89	0.59	0.67	0.83	0.87	0.84	0.68	0.89	0.88	1.08	0.92
41 Harlem Avenue, Chicago Sanitary and Ship Canal	1.06	0.72	0.66	1.02	0.98	0.99	0.83	0.98	1.19	1.18	0.99
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	1.13	1.02	1.03	0.83	0.90	1.11	1.13	0.99
48 Stephen Street, Chicago Sanitary and Ship Canal	0.84	0.58	0.77	0.95	0.95	1.01	0.83	0.86	1.08	1.20	0.96
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.77	0.81	0.74	0.78	0.90	0.91	0.87	0.93	1.04	1.13	1.02
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.88	0.36	0.07	0.16	0.16	0.25	0.32	0.15
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.91	0.51	0.46	0.67	0.61	0.71	0.64	0.55
55 130th Street, Calumet River	ND	ND	ND	0.83	0.40	0.18	0.43	0.47	0.61	0.58	0.47
86 Burnham Avenue, Grand Calumet River	1.14	0.85	1.18	1.24	1.04	1.45	1.29	2.95	2.35	1.76	2.65
56 Indiana Avenue, Little Calumet River	0.83	0.89	0.69	0.82	0.47	0.45	0.67	0.74	0.83	0.90	0.64
76 Halsted Street, Little Calumet River	0.93	0.85	1.15	0.87	0.89	0.93	0.90	1.07	1.04	1.10	0.98
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.73	0.90	1.13	0.98	1.01	1.22	1.46	1.25
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.99	0.98	1.07	1.13	1.16	1.21	1.27	1.31
97 170th Street, Thorn Creek	ND	ND	ND	0.82	0.79	1.08	1.05	0.93	1.24	1.14	1.02
57 Ashland Avenue, Little Calumet River	0.95	0.87	0.80	0.79	0.80	0.92	0.84	0.90	1.16	1.28	1.23
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.81	0.80	0.97	0.79	0.96	1.09	1.17	0.98
59 Cicero Avenue, Calumet-Sag Channel	0.94	0.82	1.14	1.16	0.78	0.90	0.92	0.92	1.02	1.22	1.05
43 Route 83, Calumet-Sag Channel	0.88	0.86	0.86	1.14	0.78	0.88	0.88	0.91	1.10	1.11	0.93
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.86	0.63	0.76	0.76	0.80	0.90	1.02	0.83
110 Springinsguth Road, West Branch DuPage River	1.42	1.26	1.84	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	1.59	1.41	1.56	1.45	1.45	1.61	1.59	1.66
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	1.22	1.40	1.43	1.67	1.59	1.61
111 Arlington Drive, West Branch DuPage River	1.36	1.24	1.37	1.33	1.33	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.87	1.00	0.88	0.87	1.08	1.20	1.16	1.15	1.38	1.33	1.31
80 Arlington Heights Road, Salt Creek	ND	ND	ND	1.12	1.10	1.10	1.16	0.98	1.13	1.26	1.01
18 Devon Avenue, Salt Creek	0.98	0.91	0.92	1.02	1.02	1.24	1.07	0.91	1.01	1.26	1.22
24 Wolf Road, Salt Creek	ND	ND	ND	0.81	0.86	1.82	0.98	0.91	1.03	1.22	1.09
109 Brookfield Avenue, Salt Creek	0.96	0.86	0.83	0.82	0.74	0.81	1.00	0.89	1.00	1.38	1.07
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.88	0.85	0.90	0.73	0.72	0.79	0.75	0.79	1.18	1.17
78 Wille Road, Higgins Creek	1.13	1.07	1.13	0.95	0.89	1.06	0.95	1.22	1.25	1.43	1.24
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.90	1.05	0.82	1.03	1.06	1.02	1.26	1.09	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.87	0.83	1.03	1.00	1.02	1.27	1.32	1.15
17 Oakton Street, Des Plaines River	ND	ND	ND	1.03	0.97	0.98	1.09	1.13	1.17	1.27	1.16
19 Belmont Avenue, Des Plaines River	0.95	0.88	0.86	1.03	0.96	1.00	0.99	1.16	1.33	1.33	1.13
20 Roosevelt Road, Des Plaines River	ND	ND	ND	1.07	0.91	0.99	1.05	1.08	1.19	1.26	1.06
22 Ogden Avenue, Des Plaines River	0.86	0.90	0.86	1.04	0.81	0.93	1.04	1.15	1.14	1.33	1.09
23 Willow Springs Road, Des Plaines River	0.86	0.90	0.88	0.83	0.78	0.84	1.08	1.04	1.09	1.35	1.11
29 Stephen Street, Des Plaines River	ND	ND	ND	1.17	0.86	1.08	0.96	0.99	1.16	1.28	1.18
91 Material Service Road, Des Plaines River	0.88	0.88	0.89	0.88	0.82	0.97	1.00	1.06	1.12	1.36	1.17

ND = No Data.

**TABLE AII-13: NITRITE PLUS NITRATE NITROGEN MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	6.16	8.14	8.56	6.78	5.90	4.63	3.68	7.14
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	3.44	3.82	3.72	3.04	2.12	3.49	3.11	3.88
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.23	0.22	0.17	0.23	0.78	0.24	0.42	0.24
104 Glenview Road, North Branch Chicago River	ND	ND	ND	5.82	4.94	5.88	3.95	3.31	4.52	3.92	5.93
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.47	0.96	0.35	0.35	0.62	0.46	3.15	3.41
105 Frontage Road, Skokie River	ND	ND	ND	7.58	6.98	7.07	5.15	4.03	5.58	5.33	7.00
34 Dempster Street, North Branch Chicago River	ND	ND	ND	4.33	4.39	4.02	3.43	3.00	3.97	3.74	5.06
96 Albany Avenue, North Branch Chicago River	2.78	3.99	3.50	4.40	4.20	4.50	3.60	2.84	4.07	3.83	4.64
35 Central Street, North Shore Channel	ND	ND	ND	0.22	0.30	0.31	0.33	0.28	0.31	0.34	0.23
112 Dempster Street, North Shore Channel	0.68	0.48	1.46	4.30	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	5.01	3.75	3.29	2.73	2.72	3.33	3.81	2.44
36 Touhy Avenue, North Shore Channel	6.04	6.48	6.20	6.87	6.25	6.53	6.47	6.76	6.53	6.01	5.24
101 Foster Avenue, North Shore Channel	ND	ND	ND	7.95	6.67	7.75	7.44	7.23	7.58	7.19	5.97
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	7.59	5.66	7.12	6.93	6.26	7.29	6.94	6.29
73 Diversey Parkway, North Branch Chicago River	6.17	7.01	6.19	6.81	5.98	7.18	6.69	6.47	6.47	6.41	6.04
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	7.36	6.42	6.66	5.79	5.70	6.43	6.22	5.77
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.84	2.66	1.28	0.57	0.93	1.31	1.04	1.07
100 Wells Street, Chicago River	2.14	2.36	4.46	4.88	4.38	2.83	1.94	2.60	2.29	2.15	2.22
39 Madison Street, South Branch Chicago River	ND	ND	ND	5.33	5.76	5.05	4.58	4.31	4.41	4.03	4.37
108 Loomis Street, South Branch Chicago River	4.96	4.35	5.63	5.98	5.31	5.12	4.71	4.40	4.39	4.30	4.35
99 Archer Avenue, South Fork South Branch Chicago River	2.97	2.46	2.87	4.25	4.16	4.80	3.32	3.63	3.91	3.67	4.05
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	5.72	5.18	5.11	4.56	4.22	4.15	4.25	4.22
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	4.34	4.95	6.06	4.51	5.15	3.95	4.49	4.50	3.84	4.06
41 Harlem Avenue, Chicago Sanitary and Ship Canal	5.21	5.83	7.14	8.29	6.29	8.12	6.35	7.25	7.11	7.41	7.67
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	8.10	6.23	6.10	5.29	6.33	6.08	6.00	5.97
48 Stephen Street, Chicago Sanitary and Ship Canal	4.68	4.64	6.24	7.07	5.33	5.83	4.92	5.64	5.59	5.59	5.51
92 Lockport Forebay, Chicago Sanitary and Ship Canal	4.83	4.70	5.97	6.65	5.78	5.91	5.34	5.52	5.45	5.90	6.01
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.35	0.38	0.30	0.33	0.39	0.37	0.38	0.37
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.15	0.10	0.07	0.06	0.09	0.16	0.09	0.13
55 130th Street, Calumet River	ND	0.52	ND	0.55	0.50	0.42	0.55	0.65	0.68	0.71	0.60
86 Burnham Avenue, Grand Calumet River	6.11	2.05	0.49	0.18	0.38	0.29	4.45	1.96	1.81	4.68	5.19
56 Indiana Avenue, Little Calumet River	1.94	1.86	1.60	1.87	1.85	1.12	0.86	1.25	1.40	1.86	1.37
76 Halsted Street, Little Calumet River	5.92	5.19	5.59	6.18	5.53	5.38	4.56	5.16	5.17	5.91	5.33
52 Wentworth Avenue, Little Calumet River	ND	2.84	ND	5.34	2.64	4.34	3.83	4.85	4.18	4.25	4.27
54 Joe Orr Road, Thorn Creek	ND	ND	ND	11.18	7.31	7.39	9.28	10.15	9.18	9.88	6.39
97 170th Street, Thorn Creek	ND	3.21	ND	6.44	4.35	4.53	5.30	6.26	5.49	5.32	5.97
57 Ashland Avenue, Little Calumet River	3.76	3.33	4.47	4.49	2.80	3.41	3.22	4.22	3.25	4.08	3.67
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	5.38	4.67	4.38	4.02	4.84	4.26	5.66	5.17
59 Cicero Avenue, Calumet-Sag Channel	4.34	4.16	4.75	5.11	4.69	4.55	3.54	5.02	3.92	5.32	5.22
43 Route 83, Calumet-Sag Channel	4.72	3.77	4.39	5.25	4.18	4.90	3.76	4.48	4.69	4.78	5.35
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.26	0.34	0.28	0.28	0.31	0.29	0.53	0.39
110 Springinsguth Road, West Branch DuPage River	0.42	0.58	0.49	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	10.96	10.25	11.83	10.32	9.38	7.98	8.57	8.85
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	6.82	8.91	9.11	7.34	8.38	8.64
111 Arlington Drive, West Branch DuPage River	10.06	11.81	12.23	12.65	10.43	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.22	0.20	0.20	0.21	1.77	0.12	1.28	0.23	0.23	0.26	0.27
80 Arlington Heights Road, Salt Creek	ND	ND	ND	7.75	5.97	7.81	7.72	8.84	7.10	6.77	7.98
18 Devon Avenue, Salt Creek	6.95	8.39	8.41	10.19	7.18	8.31	7.60	8.69	7.01	6.92	8.19
24 Wolf Road, Salt Creek	ND	ND	ND	6.40	6.26	6.98	6.08	7.06	6.47	6.22	8.12
109 Brookfield Avenue, Salt Creek	5.51	5.54	5.99	7.84	5.48	6.17	5.18	6.20	5.56	5.67	6.98
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.24	0.30	0.30	0.32	0.35	0.41	0.54	0.40	0.57	0.44
78 Wille Road, Higgins Creek	6.35	11.12	9.08	8.62	8.86	7.90	8.26	7.98	5.83	5.46	9.44
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.22	0.26	0.39	0.36	0.40	0.33	0.31	0.56	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	5.98	4.83	6.45	4.68	5.70	5.26	6.56	7.69
17 Oakton Street, Des Plaines River	ND	ND	ND	5.54	4.17	6.08	3.90	4.52	4.09	5.24	6.43
19 Belmont Avenue, Des Plaines River	4.72	4.35	5.99	7.31	4.28	5.71	4.27	4.59	3.95	4.86	5.93
20 Roosevelt Road, Des Plaines River	ND	ND	ND	4.50	4.09	5.65	3.84	4.47	3.81	4.54	5.49
22 Ogden Avenue, Des Plaines River	4.16	4.38	5.86	7.02	4.36	5.52	4.04	4.80	3.95	4.89	5.79
23 Willow Springs Road, Des Plaines River	4.50	4.04	4.79	6.38	4.23	5.25	3.74	4.88	4.13	4.82	5.69
29 Stephen Street, Des Plaines River	ND	ND	ND	4.39	4.07	5.01	3.66	5.05	4.40	5.08	6.04
91 Material Service Road, Des Plaines River	4.66	4.40	4.91	5.95	3.83	4.78	3.78	4.65	4.28	4.86	6.26

ND = No Data.

TABLE AII-14: TOTAL SOLIDS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	1471	1292	1160	988	1027	1603	900	1050
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	1176	1057	1052	861	863	1146	919	1232
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	890	759	845	659	809	797	794	888
104 Glenview Road, North Branch Chicago River	ND	ND	ND	814	711	781	695	799	761	704	756
32 Lake-Cook Road, Skokie River	ND	ND	ND	926	708	780	637	726	823	709	858
105 Frontage Road, Skokie River	ND	ND	ND	771	670	713	664	775	696	654	696
34 Dempster Street, North Branch Chicago River	ND	ND	ND	1015	734	897	720	763	850	752	885
96 Albany Avenue, North Branch Chicago River	687	942	785	797	785	883	773	913	854	802	934
35 Central Street, North Shore Channel	ND	ND	ND	570	315	255	269	328	260	229	244
112 Dempster Street, North Shore Channel	244	340	446	519	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	513	497	423	407	441	443	381	423
36 Touhy Avenue, North Shore Channel	664	569	486	509	645	534	628	556	646	475	511
101 Foster Avenue, North Shore Channel	ND	ND	ND	572	627	567	600	584	704	491	546
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	660	658	686	630	661	750	527	613
73 Diversey Parkway, North Branch Chicago River	747	651	576	529	589	638	691	703	613	522	570
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	658	596	595	592	706	674	555	597
74 Lake Shore Drive, Chicago River	ND	ND	ND	514	463	310	244	273	365	256	274
100 Wells Street, Chicago River	389	391	461	462	508	411	330	437	409	337	369
39 Madison Street, South Branch Chicago River	ND	ND	ND	595	696	532	496	561	548	456	483
108 Loomis Street, South Branch Chicago River	526	573	536	449	579	591	505	549	592	497	476
99 Archer Avenue, South Fork South Branch Chicago River	542	593	535	531	578	565	491	591	560	425	474
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	644	560	572	501	556	616	481	477
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	637	609	541	549	577	546	502	604	647	481	495
41 Harlem Avenue, Chicago Sanitary and Ship Canal	635	681	569	580	627	621	579	619	764	529	530
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	676	656	635	568	628	616	548	578
48 Stephen Street, Chicago Sanitary and Ship Canal	671	682	611	629	664	665	545	640	606	584	591
92 Lockport Forebay, Chicago Sanitary and Ship Canal	701	716	635	598	665	669	604	729	647	584	618
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	262	280	229	234	227	242	245	223
50 Burnham Avenue, Wolf Lake	ND	ND	ND	385	348	327	304	301	295	241	279
55 130th Street, Calumet River	ND	327	ND	472	406	363	396	405	395	354	300
86 Burnham Avenue, Grand Calumet River	711	637	788	608	532	570	782	794	747	865	665
56 Indiana Avenue, Little Calumet River	454	467	381	540	465	420	440	488	478	428	370
76 Halsted Street, Little Calumet River	600	634	600	620	626	586	579	714	648	590	559
52 Wentworth Avenue, Little Calumet River	ND	515	ND	806	594	646	611	761	679	700	612
54 Joe Orr Road, Thorn Creek	ND	ND	ND	1590	1089	1383	1267	1600	1417	1490	1293
97 170th Street, Thorn Creek	ND	943	ND	1152	980	1073	983	1187	1009	1099	1252
57 Ashland Avenue, Little Calumet River	1130	866	938	948	788	829	743	853	830	877	925
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	759	680	682	574	730	605	638	632
59 Cicero Avenue, Calumet-Sag Channel	668	633	645	686	705	617	577	695	622	683	625
43 Route 83, Calumet-Sag Channel	686	632	641	626	643	679	583	668	628	642	626
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	795	738	817	666	829	784	804	766
110 Springinguth Road, West Branch DuPage River	914	947	781	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	648	685	653	606	649	647	656	619
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	939	664	757	670	683	701
111 Arlington Drive, West Branch DuPage River	710	739	673	663	719	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	922	960	717	936	860	757	725	1012	974	804	1075
80 Arlington Heights Road, Salt Creek	ND	ND	ND	846	787	828	721	965	789	788	733
18 Devon Avenue, Salt Creek	770	883	737	750	800	891	674	983	782	806	866
24 Wolf Road, Salt Creek	ND	ND	ND	840	817	877	752	926	814	737	823
109 Brookfield Avenue, Salt Creek	806	766	764	733	805	845	715	887	786	765	809
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	1208	879	825	737	1183	721	1212	650	1163	1110
78 Wille Road, Higgins Creek	757	758	725	694	801	760	788	833	786	712	716
12 Lake-Cook Road, Buffalo Creek	ND	782	669	862	784	919	717	952	816	819	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	686	641	687	569	746	664	736	742
17 Oakton Street, Des Plaines River	ND	ND	ND	697	682	738	571	763	657	777	779
19 Belmont Avenue, Des Plaines River	753	754	698	671	688	744	617	844	688	779	783
20 Roosevelt Road, Des Plaines River	ND	ND	ND	686	703	747	608	834	704	771	775
22 Ogden Avenue, Des Plaines River	762	721	719	697	724	771	617	813	720	759	778
23 Willow Springs Road, Des Plaines River	727	734	716	712	730	757	621	828	743	744	773
29 Stephen Street, Des Plaines River	ND	ND	ND	764	714	750	623	851	728	758	772
91 Material Service Road, Des Plaines River	801	761	704	713	709	762	636	827	720	771	805

ND = No Data.

TABLE AII-15: TOTAL SUSPENDED SOLIDS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	25.4	33.9	25.1	33.3	61.5	25.5	93.4	31.5
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	22.7	18.1	16.6	28.1	23.3	12.2	34.0	29.7
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	4.5	11.4	11.4	21.9	33.0	16.4	69.3	24.2
104 Glenview Road, North Branch Chicago River	ND	ND	ND	12.0	30.8	11.3	19.4	28.2	14.2	50.1	18.8
32 Lake-Cook Road, Skokie River	ND	ND	ND	12.0	18.3	12.7	21.4	26.7	16.4	47.9	21.6
105 Frontage Road, Skokie River	ND	ND	ND	14.6	18.9	13.8	20.9	24.3	18.5	23.8	18.4
34 Dempster Street, North Branch Chicago River	ND	ND	ND	16.3	16.2	13.4	21.4	27.5	17.2	39.8	25.3
96 Albany Avenue, North Branch Chicago River	29.9	21.4	28.8	11.1	18.3	14.3	22.3	29.7	16.8	28.3	16.8
35 Central Street, North Shore Channel	ND	ND	ND	11.4	9.6	7.1	10.3	12.6	5.3	9.4	8.5
112 Dempster Street, North Shore Channel	12.7	14.4	21.4	13.4	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	17.1	13.8	20.8	13.8	16.5	11.8	16.5	11.6
36 Touhy Avenue, North Shore Channel	8.0	8.9	10.3	7.2	9.2	7.0	8.4	10.4	5.0	11.7	10.9
101 Foster Avenue, North Shore Channel	ND	ND	ND	10.0	8.8	7.7	9.3	14.8	5.7	12.3	12.2
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	9.0	13.3	9.9	15.9	19.0	8.3	14.3	15.0
73 Diversey Parkway, North Branch Chicago River	39.3	12.2	21.5	13.7	12.6	9.5	14.4	15.7	10.6	15.3	13.2
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	12.4	12.9	10.8	16.9	16.0	16.3	17.3	14.5
74 Lake Shore Drive, Chicago River	ND	ND	ND	4.3	3.6	1.2	4.7	5.8	5.6	7.1	5.3
100 Wells Street, Chicago River	7.8	11.9	10.2	7.2	7.2	4.1	5.7	9.0	4.7	9.0	4.5
39 Madison Street, South Branch Chicago River	ND	ND	ND	11.3	10.7	9.5	12.6	13.8	18.3	14.5	8.7
108 Loomis Street, South Branch Chicago River	10.4	10.7	11.0	11.2	13.1	11.4	13.1	17.7	18.5	16.2	12.6
99 Archer Avenue, South Fork South Branch Chicago River	11.4	15.3	12.8	17.1	15.3	11.7	12.0	14.8	10.1	12.4	12.5
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	12.9	12.8	12.0	15.4	15.6	17.9	17.8	12.7
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	11.8	11.2	12.5	13.4	23.3	12.8	16.8	16.8	16.6	19.2	13.0
41 Harlem Avenue, Chicago Sanitary and Ship Canal	6.2	7.0	9.3	9.0	12.1	7.7	9.7	10.3	15.3	12.3	9.6
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	8.3	8.4	6.8	10.7	13.3	21.8	11.7	7.5
48 Stephen Street, Chicago Sanitary and Ship Canal	13.1	11.9	13.3	10.9	13.4	9.3	14.0	19.7	23.8	18.2	15.0
92 Lockport Forebay, Chicago Sanitary and Ship Canal	8.8	10.3	9.9	8.7	11.2	10.4	15.8	22.6	12.9	15.8	14.5
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	9.8	9.2	4.8	5.0	5.7	5.8	7.3	6.7
50 Burnham Avenue, Wolf Lake	ND	ND	ND	9.0	5.8	4.3	6.6	5.3	5.2	6.1	5.3
55 130th Street, Calumet River	ND	5.2	ND	4.3	6.0	5.1	8.4	7.7	6.8	8.5	6.5
86 Burnham Avenue, Grand Calumet River	12.4	11.1	13.6	12.7	16.5	14.4	13.8	23.9	18.5	21.0	49.9
56 Indiana Avenue, Little Calumet River	24.0	16.8	16.4	10.3	11.9	12.9	19.3	33.7	21.6	24.4	25.0
76 Halsted Street, Little Calumet River	11.6	13.5	11.2	8.6	15.1	7.6	12.5	18.8	10.6	12.9	11.3
52 Wentworth Avenue, Little Calumet River	ND	55.3	ND	25.4	89.0	74.3	51.0	30.5	44.7	44.1	37.9
54 Joe Orr Road, Thorn Creek	ND	ND	ND	12.4	34.7	27.4	20.1	8.0	7.1	9.9	115.4
97 170th Street, Thorn Creek	ND	55.0	ND	25.2	81.1	53.4	40.3	23.8	35.5	32.4	55.4
57 Ashland Avenue, Little Calumet River	46.2	54.5	31.2	25.9	65.2	55.1	35.3	19.9	34.6	26.5	45.7
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	11.7	34.5	25.3	17.4	17.7	17.5	16.6	15.0
59 Cicero Avenue, Calumet-Sag Channel	19.8	31.7	21.1	13.3	26.2	18.5	22.0	22.8	20.3	24.9	14.3
43 Route 83, Calumet-Sag Channel	14.8	23.5	17.6	15.9	20.5	14.0	23.5	17.4	16.6	20.1	15.5
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	18.3	12.5	17.6	14.1	21.9	13.9	25.2	15.9
110 Springinsguth Road, West Branch DuPage River	13.4	10.6	36.8	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	15.6	10.8	20.1	11.8	21.6	15.3	10.8	12.3
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	26.7	26.3	34.5	27.5	34.0	38.5
111 Arlington Drive, West Branch DuPage River	24.2	29.6	28.3	33.1	24.8	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	23.7	20.3	21.3	13.2	21.9	31.4	24.4	32.1	33.0	31.2	41.4
80 Arlington Heights Road, Salt Creek	ND	ND	ND	7.6	9.5	8.5	13.8	8.4	10.2	10.2	9.8
18 Devon Avenue, Salt Creek	11.4	9.5	15.3	8.8	9.7	11.1	16.7	12.4	16.3	14.1	14.2
24 Wolf Road, Salt Creek	ND	ND	ND	27.3	17.5	23.5	24.1	31.6	30.6	39.4	28.9
109 Brookfield Avenue, Salt Creek	14.6	14.3	20.4	17.4	16.3	18.3	25.5	30.1	25.1	42.7	25.1
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	12.5	42.3	28.5	25.2	21.0	18.8	50.8	26.4	45.3	29.3
78 Wille Road, Higgins Creek	4.7	4.1	8.4	7.0	4.2	2.4	7.0	8.8	6.5	5.4	3.4
12 Lake-Cook Road, Buffalo Creek	ND	9.3	15.3	18.5	19.7	27.7	27.1	29.3	41.1	29.4	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	15.6	16.2	17.4	20.1	23.3	21.8	27.3	24.0
17 Oakton Street, Des Plaines River	ND	ND	ND	11.7	17.4	16.8	22.3	26.1	22.9	26.1	17.9
19 Belmont Avenue, Des Plaines River	18.6	17.8	16.3	16.8	15.8	18.5	23.0	31.6	26.5	29.4	23.2
20 Roosevelt Road, Des Plaines River	ND	ND	ND	16.1	15.9	22.0	24.3	27.6	26.5	26.9	23.8
22 Ogden Avenue, Des Plaines River	16.7	16.3	17.8	25.8	17.5	20.5	27.6	29.5	29.7	36.3	30.6
23 Willow Springs Road, Des Plaines River	15.0	12.7	15.5	21.1	18.5	17.4	26.2	27.5	23.9	27.8	22.3
29 Stephen Street, Des Plaines River	ND	ND	ND	28.4	18.5	23.6	29.5	28.6	22.8	29.3	29.8
91 Material Service Road, Des Plaines River	16.3	12.7	18.8	18.7	20.8	23.1	26.3	26.4	25.9	27.7	35.0

ND = No Data.

TABLE AII-16: VOLATILE SUSPENDED SOLIDS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	6.60	6.70	3.60	7.55	11.36	2.25	13.60	6.75
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	5.71	4.09	2.40	7.82	5.80	2.91	7.42	7.40
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	2.25	2.78	1.56	4.50	6.40	3.90	11.91	5.10
104 Glenview Road, North Branch Chicago River	ND	ND	ND	4.57	7.67	1.22	5.58	6.17	3.55	11.67	5.50
32 Lake-Cook Road, Skokie River	ND	ND	ND	4.33	5.00	1.33	4.80	6.00	3.20	9.08	6.00
105 Frontage Road, Skokie River	ND	ND	ND	4.00	3.92	1.33	6.75	5.67	4.64	8.50	5.75
34 Dempster Street, North Branch Chicago River	ND	ND	ND	5.00	3.36	1.88	5.92	5.91	2.55	11.75	6.55
96 Albany Avenue, North Branch Chicago River	6.33	5.55	6.25	3.75	4.00	1.82	4.83	5.50	3.73	6.25	5.55
35 Central Street, North Shore Channel	ND	ND	ND	5.20	2.50	1.13	2.89	2.56	2.00	3.11	3.38
112 Dempster Street, North Shore Channel	4.33	6.56	6.20	4.80	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	5.29	3.67	3.18	4.09	4.27	3.75	5.33	3.58
36 Touhy Avenue, North Shore Channel	4.83	5.25	5.45	4.17	4.67	1.45	4.44	4.58	2.58	5.08	4.92
101 Foster Avenue, North Shore Channel	ND	ND	ND	4.00	3.17	0.83	4.50	6.00	1.83	5.33	4.23
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	3.67	3.33	0.67	4.83	5.08	3.08	5.58	4.75
73 Diversey Parkway, North Branch Chicago River	9.33	4.58	6.42	4.50	3.42	0.00	3.33	3.92	3.25	4.83	3.50
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	3.86	3.17	0.92	3.67	4.33	4.27	5.83	3.92
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.50	0.92	0.00	0.67	1.70	1.55	4.82	1.40
100 Wells Street, Chicago River	4.00	4.55	4.42	3.36	1.83	0.00	1.55	2.83	1.45	6.83	1.42
39 Madison Street, South Branch Chicago River	ND	ND	ND	3.67	3.33	0.92	3.73	3.42	3.36	6.92	1.50
108 Loomis Street, South Branch Chicago River	4.00	4.17	4.00	4.08	3.08	2.00	3.42	4.36	3.50	6.83	2.60
99 Archer Avenue, South Fork South Branch Chicago River	5.90	9.27	6.30	7.50	6.83	3.40	5.91	6.75	2.55	6.29	4.36
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	4.29	3.42	2.25	4.55	4.17	3.42	8.00	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	4.17	4.64	4.67	4.33	6.58	1.92	4.75	4.75	4.08	7.00	2.50
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.42	4.45	4.25	3.75	3.58	0.89	4.08	3.67	3.67	5.83	3.50
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	3.29	2.92	0.67	3.80	3.25	3.91	6.67	2.09
48 Stephen Street, Chicago Sanitary and Ship Canal	4.30	4.45	4.08	3.67	3.25	0.58	4.40	4.92	5.36	7.50	2.91
92 Lockport Forebay, Chicago Sanitary and Ship Canal	4.02	4.43	4.30	3.65	2.80	1.08	3.82	4.96	3.00	4.88	3.21
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	3.00	1.50	0.00	1.00	0.33	1.20	2.09	3.09
50 Burnham Avenue, Wolf Lake	ND	ND	ND	3.71	2.27	1.27	3.50	2.42	2.91	4.00	2.50
55 130th Street, Calumet River	ND	4.00	ND	2.00	0.80	0.00	1.78	1.67	1.90	2.55	2.27
86 Burnham Avenue, Grand Calumet River	5.82	7.50	6.89	8.00	7.30	8.00	4.40	12.60	8.70	9.18	20.90
56 Indiana Avenue, Little Calumet River	5.11	4.40	4.00	3.90	1.90	1.10	3.13	6.00	3.56	5.27	4.67
76 Halsted Street, Little Calumet River	5.00	5.25	4.00	3.64	4.27	0.40	3.82	5.33	2.27	4.91	3.58
52 Wentworth Avenue, Little Calumet River	ND	9.00	ND	4.71	12.20	8.82	8.50	6.60	6.82	7.27	7.55
54 Joe Orr Road, Thorn Creek	ND	ND	ND	3.00	5.20	2.44	4.44	1.67	1.70	2.89	19.13
97 170th Street, Thorn Creek	ND	8.67	ND	4.00	11.20	7.55	6.67	4.18	4.09	5.82	7.64
57 Ashland Avenue, Little Calumet River	6.60	8.64	6.20	5.73	9.60	6.70	6.56	4.80	5.18	6.18	9.00
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	3.86	5.82	3.00	3.73	4.75	3.09	5.73	2.58
59 Cicero Avenue, Calumet-Sag Channel	4.60	5.82	4.27	3.70	4.64	2.30	4.20	4.45	3.64	6.55	3.00
43 Route 83, Calumet-Sag Channel	4.09	5.09	4.36	4.64	3.91	1.55	3.80	3.70	4.00	4.36	4.55
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	5.14	3.18	3.50	3.64	4.73	3.36	6.17	4.91
110 Springinguth Road, West Branch DuPage River	6.00	5.75	11.75	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	7.00	5.17	5.42	5.42	5.75	3.67	4.33	5.58
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	6.67	7.58	8.42	8.33	8.58	10.08
111 Arlington Drive, West Branch DuPage River	6.25	6.45	6.67	6.92	5.92	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.22	6.00	6.50	5.45	6.10	8.25	7.50	8.78	9.70	9.00	11.11
80 Arlington Heights Road, Salt Creek	ND	ND	ND	3.86	3.64	2.58	4.83	3.25	3.17	5.08	4.75
18 Devon Avenue, Salt Creek	4.73	4.00	5.25	3.75	3.45	2.20	5.18	4.25	5.83	6.00	4.50
24 Wolf Road, Salt Creek	ND	ND	ND	6.29	3.45	3.90	4.92	6.08	6.91	9.42	6.58
109 Brookfield Avenue, Salt Creek	4.60	4.78	5.36	4.50	3.73	2.55	5.64	6.00	6.00	9.25	5.17
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	4.25	10.25	6.13	4.80	6.00	7.25	9.80	5.20	11.00	9.50
78 Wille Road, Higgins Creek	4.00	4.00	5.08	3.55	1.45	1.33	2.92	3.50	3.25	3.17	1.17
12 Lake-Cook Road, Buffalo Creek	ND	4.00	4.71	3.67	4.78	5.14	6.33	6.91	8.67	7.44	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	3.71	3.82	3.27	5.42	6.08	5.50	8.33	5.75
17 Oakton Street, Des Plaines River	ND	ND	ND	3.71	4.91	3.45	5.45	7.18	5.73	7.58	6.08
19 Belmont Avenue, Des Plaines River	5.09	4.70	4.75	4.17	3.82	3.36	5.83	6.58	6.82	8.17	5.83
20 Roosevelt Road, Des Plaines River	ND	ND	ND	4.71	4.45	4.00	5.45	6.58	5.36	8.00	7.00
22 Ogden Avenue, Des Plaines River	4.90	4.56	4.83	5.58	4.27	3.33	6.27	6.36	7.09	8.75	7.00
23 Willow Springs Road, Des Plaines River	4.11	4.22	4.27	5.42	4.45	3.45	6.45	6.18	5.73	7.75	6.17
29 Stephen Street, Des Plaines River	ND	ND	ND	8.86	4.73	5.08	7.45	6.17	4.64	8.83	7.75
91 Material Service Road, Des Plaines River	4.92	4.40	5.33	4.83	5.18	5.17	7.75	6.08	5.64	7.50	8.92

ND = No Data.

TABLE AII-17: TOTAL DISSOLVED SOLIDS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	1446	1258	1135	955	965	1577	807	1018
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	1154	1039	1036	833	840	1134	885	1202
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	885	747	834	637	776	780	724	864
104 Glenview Road, North Branch Chicago River	ND	ND	ND	802	680	770	676	771	747	654	737
32 Lake-Cook Road, Skokie River	ND	ND	ND	914	690	767	615	699	806	661	836
105 Frontage Road, Skokie River	ND	ND	ND	757	651	699	643	750	677	630	677
34 Dempster Street, North Branch Chicago River	ND	ND	ND	999	718	883	699	735	832	712	860
96 Albany Avenue, North Branch Chicago River	657	920	756	786	766	868	751	883	837	773	917
35 Central Street, North Shore Channel	ND	ND	ND	559	305	248	258	316	254	219	236
112 Dempster Street, North Shore Channel	232	325	425	506	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	495	483	403	394	425	432	364	412
36 Touhy Avenue, North Shore Channel	656	560	476	502	636	527	614	545	641	464	500
101 Foster Avenue, North Shore Channel	ND	ND	ND	562	618	559	591	569	698	479	534
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	651	645	676	614	642	741	513	598
73 Diversey Parkway, North Branch Chicago River	707	639	554	515	576	628	676	687	603	507	557
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	645	583	584	575	690	658	538	582
74 Lake Shore Drive, Chicago River	ND	ND	ND	509	459	309	240	267	359	249	269
100 Wells Street, Chicago River	381	379	451	455	501	407	324	428	404	328	364
39 Madison Street, South Branch Chicago River	ND	ND	ND	584	685	522	483	547	530	441	474
108 Loomis Street, South Branch Chicago River	515	562	525	438	566	580	492	531	573	481	463
99 Archer Avenue, South Fork South Branch Chicago River	531	578	522	514	563	553	479	576	549	413	461
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	631	548	560	485	541	599	463	464
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	625	598	528	536	554	533	485	587	630	462	482
41 Harlem Avenue, Chicago Sanitary and Ship Canal	628	674	560	571	615	614	570	608	749	517	520
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	668	648	629	557	615	594	536	571
48 Stephen Street, Chicago Sanitary and Ship Canal	657	670	598	618	651	656	531	620	583	565	576
92 Lockport Forebay, Chicago Sanitary and Ship Canal	692	706	625	589	650	658	588	706	634	568	604
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	252	270	224	229	221	236	237	217
50 Burnham Avenue, Wolf Lake	ND	ND	ND	376	342	323	297	295	289	235	273
55 130th Street, Calumet River	ND	321	ND	468	400	357	387	397	388	345	293
86 Burnham Avenue, Grand Calumet River	699	626	774	595	516	556	768	770	728	844	615
56 Indiana Avenue, Little Calumet River	430	450	365	530	453	407	421	454	457	404	345
76 Halsted Street, Little Calumet River	588	621	589	611	611	579	566	695	637	577	548
52 Wentworth Avenue, Little Calumet River	ND	436	ND	780	505	572	560	731	634	656	574
54 Joe Orr Road, Thorn Creek	ND	ND	ND	1577	1055	1356	1247	1592	1409	1480	1178
97 170th Street, Thorn Creek	ND	863	ND	1127	899	1020	943	1163	974	1066	1196
57 Ashland Avenue, Little Calumet River	1084	811	907	923	723	774	708	833	795	851	879
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	747	645	657	557	712	588	621	617
59 Cicero Avenue, Calumet-Sag Channel	648	601	624	673	679	598	555	672	602	658	611
43 Route 83, Calumet-Sag Channel	671	609	623	610	623	665	559	651	612	622	610
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	777	726	799	652	807	770	779	750
110 Springinguth Road, West Branch DuPage River	901	937	744	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	633	674	633	594	627	631	645	607
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	912	638	723	643	649	663
111 Arlington Drive, West Branch DuPage River	686	709	645	630	694	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	898	940	695	923	838	726	701	980	941	773	1034
80 Arlington Heights Road, Salt Creek	ND	ND	ND	838	777	820	708	957	779	778	723
18 Devon Avenue, Salt Creek	758	874	722	741	790	880	657	970	766	792	851
24 Wolf Road, Salt Creek	ND	ND	ND	813	799	853	728	895	783	698	794
109 Brookfield Avenue, Salt Creek	791	752	744	715	789	827	690	857	761	722	784
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	1196	837	797	712	1162	703	1161	623	1118	1081
78 Wille Road, Higgins Creek	752	754	717	687	797	758	781	824	780	706	713
12 Lake-Cook Road, Buffalo Creek	ND	773	653	844	764	891	690	923	775	790	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	670	624	670	549	723	642	709	718
17 Oakton Street, Des Plaines River	ND	ND	ND	685	665	721	549	737	634	751	761
19 Belmont Avenue, Des Plaines River	734	736	681	654	672	726	594	812	662	749	760
20 Roosevelt Road, Des Plaines River	ND	ND	ND	670	687	725	584	807	677	744	752
22 Ogden Avenue, Des Plaines River	746	705	701	671	707	750	590	783	690	723	747
23 Willow Springs Road, Des Plaines River	712	722	701	691	712	739	595	801	719	716	751
29 Stephen Street, Des Plaines River	ND	ND	ND	735	696	727	593	822	705	729	743
91 Material Service Road, Des Plaines River	785	749	685	694	688	739	610	801	694	743	770

ND = No Data.

TABLE AII-18: PHENOLS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	5.0	5.0	0.5	0.5	0.0	1.0	0.8	6.8
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	5.0	5.0	0.6	0.5	0.0	1.7	1.1	9.9
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.5	0.3	11.4
104 Glenview Road, North Branch Chicago River	ND	ND	ND	5.0	5.4	0.0	0.0	0.0	0.0	0.3	6.3
32 Lake-Cook Road, Skokie River	ND	ND	ND	5.0	5.1	0.6	0.0	0.0	0.3	0.3	8.0
105 Frontage Road, Skokie River	ND	ND	ND	5.0	5.0	0.6	0.4	0.0	1.1	1.2	5.6
34 Dempster Street, North Branch Chicago River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.9	0.3	8.4
96 Albany Avenue, North Branch Chicago River	4.6	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.3	8.3
35 Central Street, North Shore Channel	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.3	0.3	4.3
112 Dempster Street, North Shore Channel	4.6	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.5	1.0	7.1
36 Touhy Avenue, North Shore Channel	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.0	0.5	9.1
101 Foster Avenue, North Shore Channel	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.5	1.0	9.8
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.2	1.0	8.5
73 Diversey Parkway, North Branch Chicago River	4.7	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.1	1.0	10.8
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.8	1.3	9.8
74 Lake Shore Drive, Chicago River	ND	ND	ND	5.0	5.1	0.0	0.0	0.0	0.4	0.0	4.3
100 Wells Street, Chicago River	4.6	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.6	0.3	4.8
39 Madison Street, South Branch Chicago River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.5	0.0	7.6
108 Loomis Street, South Branch Chicago River	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.0	0.5	7.7
99 Archer Avenue, South Fork South Branch Chicago River	4.7	5.2	5.0	5.7	5.6	0.7	0.5	0.0	0.3	0.7	8.7
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	5.0	5.0	0.5	0.0	0.0	0.6	0.7	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	4.7	5.0	5.0	5.0	5.1	0.0	0.0	0.0	1.5	0.9	6.8
41 Harlem Avenue, Chicago Sanitary and Ship Canal	5.0	5.0	5.0	5.0	5.0	0.7	0.0	0.0	0.8	0.5	6.6
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	5.0	5.0	0.5	0.0	0.0	0.5	0.3	9.5
48 Stephen Street, Chicago Sanitary and Ship Canal	5.0	5.0	5.0	5.0	5.3	0.5	0.0	0.0	0.0	0.0	9.2
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.0	5.0	5.0	4.9	5.0	0.2	0.0	0.0	1.2	0.8	8.8
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.4	0.9	2.0
50 Burnham Avenue, Wolf Lake	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.0	0.0	5.8
55 130th Street, Calumet River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.0	0.4	4.9
86 Burnham Avenue, Grand Calumet River	5.0	5.9	5.1	8.7	5.5	0.7	1.4	1.1	2.3	1.9	16.1
56 Indiana Avenue, Little Calumet River	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.0	0.3	5.0
76 Halsted Street, Little Calumet River	5.1	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.6	0.9	9.9
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.3	0.8	14.4
54 Joe Orr Road, Thorn Creek	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.2	0.0	13.3
97 170th Street, Thorn Creek	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.0	0.0	9.0
57 Ashland Avenue, Little Calumet River	5.0	5.0	5.0	5.0	5.0	0.6	0.0	0.0	0.4	0.3	10.2
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	5.0	5.0	0.5	0.0	0.0	1.1	0.3	9.1
59 Cicero Avenue, Calumet-Sag Channel	5.0	5.0	5.0	5.0	5.0	5.9	0.0	0.0	0.3	0.5	10.5
43 Route 83, Calumet-Sag Channel	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.4	10.0
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	5.0	5.0	0.6	0.0	0.0	1.0	0.0	10.4
110 Springinsguth Road, West Branch DuPage River	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.0	0.0	9.5
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.0	0.0	0.0	0.6	0.3	8.2
111 Arlington Drive, West Branch DuPage River	5.1	5.0	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.5	0.4	10.6
80 Arlington Heights Road, Salt Creek	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.6	0.5	6.0
18 Devon Avenue, Salt Creek	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.2	0.0	5.5
24 Wolf Road, Salt Creek	ND	ND	ND	5.0	5.0	0.6	0.4	0.4	0.6	1.2	5.8
109 Brookfield Avenue, Salt Creek	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.5	0.9	8.6
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	1.9	11.3
78 Wille Road, Higgins Creek	5.0	5.0	5.0	5.0	5.0	0.6	0.0	0.4	1.6	1.0	8.1
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	0.3	0.9	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	5.1	5.0	0.5	0.0	0.5	0.7	0.0	6.2
17 Oakton Street, Des Plaines River	ND	ND	ND	5.0	5.0	0.0	0.0	0.0	1.1	0.3	6.8
19 Belmont Avenue, Des Plaines River	5.2	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.6	1.3	6.5
20 Roosevelt Road, Des Plaines River	ND	ND	ND	5.0	5.0	0.0	0.0	0.5	0.5	0.6	8.4
22 Ogden Avenue, Des Plaines River	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.6	0.7	7.6
23 Willow Springs Road, Des Plaines River	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.6	0.7	2.1	7.6
29 Stephen Street, Des Plaines River	ND	ND	ND	5.0	5.0	0.4	0.0	0.4	0.3	0.9	6.1
91 Material Service Road, Des Plaines River	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.3	1.3	10.5

ND = No Data.

TABLE AII-19: SULFATE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	55.4	56.8	49.2	47.4	52.9	46.6	53.3	63.0
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	64.4	62.0	58.0	56.2	63.1	68.9	77.9	75.4
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	71.0	48.6	46.7	45.1	52.7	57.1	68.0	86.3
104 Glenview Road, North Branch Chicago River	ND	ND	ND	63.0	52.8	54.4	53.0	62.7	60.3	66.8	65.1
32 Lake-Cook Road, Skokie River	ND	ND	ND	60.9	52.6	50.9	51.0	60.0	53.3	61.6	65.4
105 Frontage Road, Skokie River	ND	ND	ND	63.3	54.3	54.2	55.0	62.0	52.7	67.8	63.4
34 Dempster Street, North Branch Chicago River	ND	ND	ND	65.1	56.0	54.6	51.9	60.6	60.3	71.5	68.6
96 Albany Avenue, North Branch Chicago River	50.0	59.3	50.4	56.0	56.4	53.0	54.3	63.6	59.7	73.1	68.3
35 Central Street, North Shore Channel	ND	ND	ND	49.8	30.0	25.3	27.2	34.6	30.4	28.7	26.8
112 Dempster Street, North Shore Channel	27.0	33.8	31.6	46.2	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	46.0	40.3	36.7	38.0	44.1	39.9	43.8	40.9
36 Touhy Avenue, North Shore Channel	51.4	48.0	40.5	44.4	45.5	41.9	47.9	52.1	49.1	50.8	46.6
101 Foster Avenue, North Shore Channel	ND	ND	ND	48.4	45.4	43.2	46.8	52.9	50.6	51.3	59.6
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	49.0	46.5	47.3	46.7	54.8	54.1	58.0	50.8
73 Diversey Parkway, North Branch Chicago River	54.8	53.1	44.0	46.7	46.9	47.3	47.9	56.1	52.3	55.8	50.9
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	53.1	47.5	44.2	45.8	54.9	53.6	57.4	54.1
74 Lake Shore Drive, Chicago River	ND	ND	ND	37.5	33.5	25.8	26.3	30.0	31.7	36.6	29.7
100 Wells Street, Chicago River	32.9	34.5	38.8	40.9	40.7	31.2	32.0	40.9	36.8	39.1	35.4
39 Madison Street, South Branch Chicago River	ND	ND	ND	47.7	48.1	39.8	42.1	47.8	44.9	49.6	47.6
108 Loomis Street, South Branch Chicago River	45.0	45.5	43.6	45.0	44.4	41.4	43.9	52.2	47.2	52.2	49.8
99 Archer Avenue, South Fork South Branch Chicago River	42.4	42.9	41.9	41.4	44.8	44.0	41.8	55.1	46.1	51.1	56.0
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	48.6	45.1	41.2	43.1	49.2	46.3	52.0	49.5
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	45.4	47.4	43.3	46.8	45.7	43.0	41.9	53.6	48.5	51.9	50.1
41 Harlem Avenue, Chicago Sanitary and Ship Canal	67.3	72.7	60.3	59.3	62.5	61.0	56.2	69.4	67.3	72.1	70.7
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	71.1	69.6	65.0	60.9	67.5	72.8	75.1	74.2
48 Stephen Street, Chicago Sanitary and Ship Canal	76.3	87.6	81.8	84.8	75.8	75.5	65.8	78.7	83.8	89.6	85.6
92 Lockport Forebay, Chicago Sanitary and Ship Canal	90.9	92.4	86.3	87.8	80.9	82.5	76.2	86.0	85.7	86.9	88.1
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	27.7	25.5	24.5	26.6	30.2	32.1	29.9	27.0
50 Burnham Avenue, Wolf Lake	ND	ND	ND	47.6	46.1	41.4	47.5	47.8	42.6	39.4	41.0
55 130th Street, Calumet River	ND	ND	ND	64.3	53.1	52.7	61.9	63.2	82.7	60.7	55.2
86 Burnham Avenue, Grand Calumet River	151.2	127.2	161.1	70.6	93.0	96.1	145.6	162.3	196.1	262.4	176.9
56 Indiana Avenue, Little Calumet River	78.0	60.7	49.6	60.5	60.3	61.2	64.4	72.4	90.1	74.7	64.1
76 Halsted Street, Little Calumet River	81.9	85.2	83.3	81.4	82.7	75.2	76.4	97.7	87.7	91.0	91.3
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	123.9	77.7	96.3	98.1	134.9	118.4	130.0	116.2
54 Joe Orr Road, Thorn Creek	ND	ND	ND	723.7	450.9	509.8	506.7	716.6	596.3	620.0	494.6
97 170th Street, Thorn Creek	ND	ND	ND	437.7	267.2	318.3	298.3	422.5	352.0	419.3	465.3
57 Ashland Avenue, Little Calumet River	317.6	245.1	259.8	269.0	171.3	182.2	166.0	270.8	223.0	241.5	289.4
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	111.6	104.2	138.1	88.7	107.4	91.4	107.7	118.2
59 Cicero Avenue, Calumet-Sag Channel	121.2	108.5	118.5	120.0	103.0	96.1	99.3	134.4	94.2	123.1	120.4
43 Route 83, Calumet-Sag Channel	116.7	106.9	113.8	99.7	94.4	103.5	93.7	113.0	104.5	117.1	130.0
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	48.3	44.3	41.6	42.0	52.7	53.9	71.5	54.6
110 Springinguth Road, West Branch DuPage River	61.8	84.2	66.8	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	61.1	60.9	57.7	60.0	70.8	65.7	81.8	68.1
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	59.1	61.0	68.0	65.3	81.9	71.4
111 Arlington Drive, West Branch DuPage River	69.7	75.7	67.2	63.1	60.7	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	65.2	69.7	62.1	59.9	65.2	46.3	62.4	71.1	62.5	81.7	79.4
80 Arlington Heights Road, Salt Creek	ND	ND	ND	75.6	61.9	68.0	62.5	75.1	76.8	85.0	82.9
18 Devon Avenue, Salt Creek	77.7	78.7	68.2	72.0	65.9	72.1	61.6	75.0	75.7	84.5	83.2
24 Wolf Road, Salt Creek	ND	ND	ND	81.1	73.5	75.7	77.3	82.8	84.6	87.0	92.2
109 Brookfield Avenue, Salt Creek	78.7	88.8	73.7	76.8	71.8	72.5	71.7	79.2	79.9	85.2	88.4
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	48.8	43.5	46.9	38.7	39.4	36.3	48.7	37.5	47.1	46.7
78 Wille Road, Higgins Creek	84.8	91.8	79.8	76.7	85.7	77.7	81.7	90.0	91.0	91.7	103.6
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	84.0	73.4	76.8	69.5	87.6	70.8	111.5	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	64.6	57.7	58.7	49.4	72.3	75.7	97.0	84.7
17 Oakton Street, Des Plaines River	ND	ND	ND	64.3	59.0	59.7	52.0	69.8	69.8	92.5	112.2
19 Belmont Avenue, Des Plaines River	67.0	70.5	69.5	69.3	61.3	61.5	57.5	75.3	70.6	90.7	88.0
20 Roosevelt Road, Des Plaines River	ND	ND	ND	65.3	60.9	61.3	54.4	75.5	70.5	89.7	100.1
22 Ogden Avenue, Des Plaines River	69.5	73.8	71.0	71.7	63.0	63.6	56.9	74.7	68.8	90.9	85.1
23 Willow Springs Road, Des Plaines River	70.7	76.4	69.7	74.6	64.2	65.2	58.0	77.7	73.1	88.2	89.3
29 Stephen Street, Des Plaines River	ND	ND	ND	68.7	63.6	65.0	57.3	76.7	76.9	91.1	90.5
91 Material Service Road, Des Plaines River	76.8	78.2	69.4	73.3	62.7	66.8	61.0	75.8	74.9	93.7	105.3

ND = No Data.

**TABLE AII-20: FATS, OILS, AND GREASES MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
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	ND	ND	0.00
112 Dempster Street, North Shore Channel	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.42	0.42
102 Oakton Street, North Shore Channel	ND	ND	ND	5.00	5.00	0.00	0.00	0.00	0.00	0.42	0.42	0.73
36 Touhy Avenue, North Shore Channel	5.17	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.30	0.27	2.14	
101 Foster Avenue, North Shore Channel	ND	ND	ND	5.00	5.00	0.00	0.00	0.00	0.33	0.67	2.02	
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	5.00	5.00	0.00	0.00	0.00	0.67	0.42	2.45	
73 Diversey Parkway, North Branch Chicago River	5.00	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.83	0.86	
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	5.00	5.00	0.00	0.00	0.00	0.27	0.42	1.85	
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	ND	5.00	5.00	0.00	0.00	0.00	0.27	0.00	0.68	
108 Loomis Street, South Branch Chicago River	5.00	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.80	
99 Archer Avenue, South Fork South Branch Chicago River	5.00	5.37	5.00	5.11	5.19	0.00	0.00	0.00	0.00	0.00	0.55	
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	11.71	5.00	0.00	0.00	0.00	0.67	0.00	0.73	
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	5.00	0.00	0.00	0.00	0.25	0.00	1.24	
41 Harlem Avenue, Chicago Sanitary and Ship Canal	5.17	5.82	5.00	5.00	5.00	0.00	0.00	1.17	0.00	0.00	0.65	
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	5.00	5.00	0.00	0.00	0.00	0.55	0.00	0.93	
48 Stephen Street, Chicago Sanitary and Ship Canal	5.00	5.00	5.00	5.00	6.00	0.00	0.00	0.00	0.00	0.00	1.18	
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.00	5.00	5.00	4.90	5.00	0.00	0.22	0.10	0.14	0.37	1.52	
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	5.00	5.11	5.00	5.00	0.00	0.00	0.50	0.60	1.00	1.77	
56 Indiana Avenue, Little Calumet River	5.00	5.00	5.13	5.00	5.00	0.00	0.00	0.56	0.00	1.18	0.00	
76 Halsted Street, Little Calumet River	5.00	5.08	5.18	5.00	5.00	0.00	0.00	0.42	0.00	1.18	0.43	
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	ND	5.00	5.00	0.00	0.00	0.42	0.00	0.73	0.58	
59 Cicero Avenue, Calumet-Sag Channel	5.00	5.00	5.27	5.00	5.00	0.00	0.00	0.45	0.00	0.55	0.78	
43 Route 83, Calumet-Sag Channel	5.00	5.00	5.00	5.00	5.00	0.00	9.80	0.50	0.00	0.73	0.79	
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-21: TOTAL PHOSPHORUS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	1.160	1.232	1.366	1.260	1.198	1.038	0.964	1.508
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.586	0.515	0.523	0.397	0.422	0.669	0.572	0.834
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.125	0.139	0.128	0.016	0.136	0.183	0.158	0.210
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.757	0.712	0.866	0.659	0.643	1.028	0.936	1.413
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.168	0.248	0.126	0.019	0.058	0.175	0.599	0.863
105 Frontage Road, Skokie River	ND	ND	ND	0.943	0.936	1.053	0.883	0.815	1.246	1.174	1.538
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.614	0.616	0.494	0.550	0.602	0.879	0.840	1.199
96 Albany Avenue, North Branch Chicago River	0.511	0.536	0.475	0.608	0.494	0.695	0.538	0.507	0.808	0.760	1.155
35 Central Street, North Shore Channel	ND	ND	ND	0.140	0.135	0.078	0.077	0.000	0.062	0.056	0.016
112 Dempster Street, North Shore Channel	0.189	0.244	0.290	0.760	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.857	0.618	0.530	0.442	0.432	0.538	0.632	0.444
36 Touhy Avenue, North Shore Channel	1.483	1.375	1.182	1.308	1.251	1.154	1.054	1.040	1.388	1.033	1.241
101 Foster Avenue, North Shore Channel	ND	ND	ND	1.286	1.118	1.207	1.113	1.082	1.450	1.384	1.248
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	1.167	0.974	1.024	1.031	0.961	1.287	1.191	1.130
73 Diversey Parkway, North Branch Chicago River	1.192	1.133	1.070	1.192	0.954	1.048	0.931	0.897	1.112	0.986	0.870
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	1.029	0.847	0.950	0.836	0.788	1.115	1.004	1.121
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.333	0.335	0.153	0.003	0.053	0.152	0.125	0.158
100 Wells Street, Chicago River	0.357	0.345	0.575	0.691	0.568	0.336	0.150	0.320	0.308	0.309	0.355
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.867	0.825	0.649	0.669	0.658	0.709	0.661	0.830
108 Loomis Street, South Branch Chicago River	0.936	0.592	0.692	0.850	0.728	0.657	0.574	0.591	0.678	0.723	0.722
99 Archer Avenue, South Fork South Branch Chicago River	0.570	0.473	0.370	0.658	0.671	0.682	0.485	0.580	0.609	0.590	0.767
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.814	0.697	0.670	0.611	0.630	0.686	0.702	0.755
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	0.675	0.573	0.642	0.942	0.598	0.681	0.493	0.637	0.763	0.661	0.746
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.667	0.682	0.725	1.083	0.479	0.791	0.673	0.829	1.008	0.825	0.988
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.771	0.546	0.837	0.609	0.862	0.830	0.602	0.725
48 Stephen Street, Chicago Sanitary and Ship Canal	0.970	0.764	1.034	1.350	0.833	1.008	0.823	0.928	0.964	0.901	1.168
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.994	0.827	0.892	1.263	0.925	1.121	0.864	0.952	0.852	0.935	1.166
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.183	0.070	0.018	0.000	0.000	0.011	0.044	0.025
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.100	0.083	0.043	0.004	0.000	0.037	0.045	0.023
55 130th Street, Calumet River	ND	ND	ND	0.100	0.072	0.000	0.004	0.000	0.031	0.038	0.025
86 Burnham Avenue, Grand Calumet River	0.336	0.690	0.622	1.309	0.750	0.919	0.290	0.835	1.209	0.699	0.878
56 Indiana Avenue, Little Calumet River	0.144	0.420	0.575	0.770	0.364	0.369	0.010	0.340	0.189	0.359	0.372
76 Halsted Street, Little Calumet River	1.620	1.725	2.182	2.845	1.660	2.010	1.493	2.035	1.037	1.835	2.083
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.700	0.391	0.568	0.493	0.587	0.585	0.645	0.609
54 Joe Orr Road, Thorn Creek	ND	ND	ND	1.429	1.186	1.267	1.743	2.664	2.329	2.038	2.113
97 170th Street, Thorn Creek	ND	ND	ND	1.083	0.757	0.920	1.144	1.383	1.479	1.170	1.574
57 Ashland Avenue, Little Calumet River	0.860	0.527	1.040	1.091	0.494	0.758	0.519	0.993	0.834	0.764	1.061
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	2.529	1.395	1.578	1.412	1.957	0.963	1.755	2.077
59 Cicero Avenue, Calumet-Sag Channel	1.930	1.491	1.691	2.870	1.582	1.917	1.258	1.803	0.989	1.802	2.214
43 Route 83, Calumet-Sag Channel	1.555	1.473	1.518	1.764	1.426	1.824	1.329	1.378	1.037	1.318	2.266
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.114	0.093	0.097	0.012	0.000	0.100	0.116	0.087
110 Springinguth Road, West Branch DuPage River	0.178	0.225	0.263	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	2.157	1.797	2.310	2.340	2.426	2.460	2.270	2.670
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	1.148	1.747	2.119	2.062	1.911	2.432
111 Arlington Drive, West Branch DuPage River	2.050	2.018	1.958	2.364	1.666	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.111	0.200	0.200	0.127	0.399	0.120	0.253	0.000	0.132	0.149	0.108
80 Arlington Heights Road, Salt Creek	ND	ND	ND	1.401	1.010	1.533	1.588	0.142	0.513	1.791	2.022
18 Devon Avenue, Salt Creek	1.636	1.355	1.517	2.065	1.286	1.643	1.563	0.133	0.548	1.882	1.981
24 Wolf Road, Salt Creek	ND	ND	ND	1.100	1.015	1.172	1.122	0.761	0.839	1.471	1.896
109 Brookfield Avenue, Salt Creek	1.060	0.889	0.918	1.358	0.915	1.041	0.944	0.733	0.765	1.355	1.603
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.225	0.200	0.163	0.082	0.000	0.035	0.000	0.112	0.123	0.098
78 Wille Road, Higgins Creek	0.680	1.128	1.125	1.400	0.975	1.018	0.936	1.176	0.813	0.663	1.577
12 Lake-Cook Road, Buffalo Creek	ND	0.200	0.200	0.150	0.113	0.086	0.012	0.000	0.167	0.122	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.700	0.603	0.773	0.566	0.915	0.934	1.075	1.498
17 Oakton Street, Des Plaines River	ND	ND	ND	0.657	0.553	0.802	0.502	0.765	0.772	0.873	1.256
19 Belmont Avenue, Des Plaines River	0.664	0.630	0.750	1.058	0.575	0.801	0.532	0.745	0.738	0.816	1.107
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.586	0.580	0.734	0.475	0.682	0.700	0.700	1.069
22 Ogden Avenue, Des Plaines River	0.720	0.667	0.833	1.133	0.621	0.787	0.631	0.656	0.697	0.923	1.224
23 Willow Springs Road, Des Plaines River	0.633	0.600	0.691	1.025	0.587	0.733	0.535	0.641	0.647	0.882	1.173
29 Stephen Street, Des Plaines River	ND	ND	ND	0.643	0.575	0.708	0.535	0.699	0.715	0.930	1.201
91 Material Service Road, Des Plaines River	0.650	0.620	0.658	0.842	0.554	0.678	0.552	0.680	0.733	0.915	1.263

ND = No Data.

**TABLE AII-22: TOTAL CYANIDE MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.007	0.006	0.003	0.002	0.000	0.005	0.001	0.005
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.007	0.006	0.001	0.001	0.000	0.002	0.001	0.003
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.007	0.006	0.001	0.000	0.000	0.001	0.000	0.002
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.007	0.005	0.001	0.001	0.000	0.000	0.000	0.001
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.002
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.006	0.005	0.001	0.000	0.000	0.001	0.000	0.002
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.006	0.006	0.005	0.001	0.000	0.000	0.001	0.001	0.002
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.006	0.005	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.001	0.001	0.002
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.005	0.005	0.001	0.001	0.000	0.002	0.001	0.002
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.005	0.005	0.001	0.001	0.000	0.003	0.001	0.003
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.005	0.001	0.001	0.000	0.002	0.001	0.003
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.006	0.005	0.005	0.001	0.001	0.000	0.002	0.001	0.003
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.002	0.001	0.003
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
100 Wells Street, Chicago River	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.002
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.001	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	0.005	0.000	0.001	0.000	0.001	0.001	0.002
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.005	0.001	0.001	0.000	0.004	0.003	0.003
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.004
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.005	0.002	0.001	0.000	0.002	0.003	0.004
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.006	0.005	0.001	0.000	0.000	0.002	0.003	0.003
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.006	0.000	0.000	0.000	0.001	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.005	0.006	0.005	0.002	0.000	0.002	0.004	0.003	0.005
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.003
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.006	0.005	0.001	0.000	0.001	0.006	0.004	0.006
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.005	0.002	0.001	0.000	0.002	0.002	0.003
97 170th Street, Thorn Creek	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.002
57 Ashland Avenue, Little Calumet River	0.006	0.005	0.006	0.005	0.006	0.002	0.000	0.000	0.003	0.002	0.003
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.005	0.002	0.001	0.000	0.002	0.002	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.003
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.005	0.002	0.000	0.000	0.001	0.001	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.001
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	0.006	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.005	0.006	0.003	0.001	0.001	0.005	0.004	0.004
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.003	0.000	0.000	0.003	0.002	0.004
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.005	0.006	0.001	0.000	0.000	0.002	0.000	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.006	0.005	0.003	0.001	0.000	0.002	0.001	0.003
18 Devon Avenue, Salt Creek	0.005	0.005	0.005	0.005	0.006	0.003	0.001	0.000	0.002	0.001	0.003
24 Wolf Road, Salt Creek	ND	ND	ND	0.005	0.005	0.002	0.000	0.000	0.001	0.000	0.002
109 Brookfield Avenue, Salt Creek	0.006	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.005	0.005	0.005	0.006	0.000	0.000	0.000	0.000	0.003	0.003
78 Wille Road, Higgins Creek	0.005	0.005	0.005	0.005	0.006	0.003	0.000	0.001	0.004	0.002	0.003
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.002
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.005	0.000	0.000	0.002	0.001	0.001	0.005
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.005	0.005	0.005	0.002	0.000	0.003	0.002	0.001	0.009
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.005	0.001	0.000	0.002	0.002	0.001	0.009
22 Ogden Avenue, Des Plaines River	0.006	0.005	0.005	0.006	0.005	0.001	0.000	0.002	0.002	0.001	0.003
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.001	0.002	0.000	0.002
29 Stephen Street, Des Plaines River	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.001	0.000	0.002
91 Material Service Road, Des Plaines River	0.005	0.005	0.005	0.006	0.005	0.000	0.000	0.000	0.001	0.000	0.001

ND = No Data.

TABLE AII-23: WEAK ACID DISSOCIABLE CYANIDE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.002
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.001	0.001
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001
105 Frontage Road, Skokie River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
35 Central Street, North Shore Channel	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.003	0.001	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000
100 Wells Street, Chicago River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	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	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.002	0.001	0.001	0.000	0.000	0.001	0.001	0.001
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.003	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001
76 Halsted Street, Little Calumet River	0.005	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.002	0.001	0.000	0.000	0.000	0.002	0.001	0.002
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001
97 170th Street, Thorn Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.002
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	0.003	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.002	0.002	0.002	0.000	0.001	0.003	0.002	0.002
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.001	0.000	0.000	0.002	0.001	0.001
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.003	0.001	0.001	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.002	0.002	0.001	0.000	0.000	0.002	0.001	0.002
18 Devon Avenue, Salt Creek	0.005	0.005	0.003	0.002	0.002	0.001	0.000	0.000	0.001	0.001	0.001
24 Wolf Road, Salt Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	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	ND	0.005	0.002	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001
78 Wille Road, Higgins Creek	0.005	0.005	0.003	0.001	0.001	0.001	0.000	0.001	0.002	0.001	0.001
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
17 Oakton Street, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
22 Ogden Avenue, Des Plaines River	0.005	0.005	0.003	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
29 Stephen Street, Des Plaines River	ND	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001
91 Material Service Road, Des Plaines River	0.005	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001

ND = No Data.

TABLE AII-24: TOTAL FLUORIDE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.520	0.499	0.505	0.476	0.428	0.345	0.334	0.520
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.443	0.388	0.374	0.355	0.339	0.401	0.370	0.469
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.275	0.229	0.226	0.202	0.216	0.361	0.296	0.375
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.486	0.410	0.497	0.418	0.425	0.519	0.457	0.584
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.317	0.314	0.268	0.225	0.229	0.314	0.379	0.483
105 Frontage Road, Skokie River	ND	ND	ND	0.571	0.511	0.528	0.466	0.441	0.569	0.538	0.614
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.486	0.405	0.395	0.383	0.398	0.485	0.438	0.539
96 Albany Avenue, North Branch Chicago River	0.344	0.398	0.367	0.533	0.381	0.417	0.392	0.332	0.478	0.436	0.516
35 Central Street, North Shore Channel	ND	ND	ND	0.200	0.144	0.134	0.037	0.051	0.198	0.181	0.135
112 Dempster Street, North Shore Channel	0.167	0.182	0.230	0.560	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.557	0.420	0.375	0.272	0.269	0.420	0.456	0.346
36 Touhy Avenue, North Shore Channel	0.620	0.671	0.627	0.733	0.673	0.663	0.614	0.609	0.763	0.662	0.675
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.714	0.636	0.684	0.614	0.618	0.753	0.683	0.685
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.700	0.549	0.614	0.543	0.560	0.710	0.634	0.667
73 Diversey Parkway, North Branch Chicago River	0.578	0.647	0.600	0.708	0.593	0.657	0.575	0.563	0.699	0.615	0.667
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.686	0.573	0.623	0.529	0.533	0.688	0.623	0.720
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.283	0.298	0.208	0.066	0.116	0.229	0.196	0.196
100 Wells Street, Chicago River	0.260	0.282	0.425	0.473	0.426	0.316	0.196	0.280	0.312	0.297	0.316
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.567	0.552	0.493	0.461	0.409	0.465	0.462	0.551
108 Loomis Street, South Branch Chicago River	0.454	0.450	0.533	0.583	0.508	0.498	0.463	0.430	0.467	0.489	0.557
99 Archer Avenue, South Fork South Branch Chicago River	0.450	0.427	0.460	0.567	0.503	0.554	0.456	0.443	0.472	0.461	0.565
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.557	0.499	0.505	0.463	0.433	0.467	0.468	0.555
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	0.453	0.445	0.489	0.567	0.469	0.505	0.418	0.464	0.498	0.479	0.531
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.595	0.573	0.625	0.658	0.591	0.598	0.564	0.562	0.633	0.643	0.740
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.657	0.643	0.643	0.570	0.543	0.685	0.696	0.756
48 Stephen Street, Chicago Sanitary and Ship Canal	0.544	0.545	0.642	0.708	0.582	0.587	0.519	0.519	0.636	0.648	0.701
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.548	0.550	0.590	0.657	0.566	0.584	0.532	0.562	0.634	0.663	0.719
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.150	0.143	0.102	0.000	0.073	0.170	0.156	0.128
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.557	0.365	0.362	0.354	0.338	0.334	0.247	0.275
55 130th Street, Calumet River	ND	ND	ND	0.257	0.239	0.212	0.184	0.240	0.264	0.253	0.219
86 Burnham Avenue, Grand Calumet River	0.600	0.590	0.656	0.591	0.594	0.596	0.768	0.814	0.696	0.809	0.722
56 Indiana Avenue, Little Calumet River	0.333	0.320	0.288	0.340	0.314	0.272	0.235	0.394	0.348	0.324	0.317
76 Halsted Street, Little Calumet River	0.536	0.542	0.591	0.609	0.539	0.530	0.521	0.610	0.534	0.602	0.582
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	1.114	1.157	0.487	0.858	2.284	2.539	2.962	3.129
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.643	0.467	0.482	0.564	0.658	0.549	0.659	0.474
97 170th Street, Thorn Creek	ND	ND	ND	0.500	0.397	0.370	0.471	0.553	0.470	0.539	0.492
57 Ashland Avenue, Little Calumet River	0.636	0.509	0.700	0.555	0.572	0.422	0.766	0.924	0.803	1.115	1.182
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.543	0.524	0.492	0.514	0.593	0.514	0.630	0.646
59 Cicero Avenue, Calumet-Sag Channel	0.521	0.482	0.591	0.580	0.541	0.483	0.499	0.575	0.507	0.639	0.637
43 Route 83, Calumet-Sag Channel	0.507	0.455	0.536	0.564	0.484	0.509	0.457	0.534	0.511	0.562	0.662
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.200	0.179	0.144	0.155	0.150	0.231	0.208	0.209
110 Springinsguth Road, West Branch DuPage River	0.244	0.325	0.225	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.614	0.587	0.643	0.610	0.550	0.643	0.629	0.643
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.377	0.483	0.530	0.569	0.529	0.603
111 Arlington Drive, West Branch DuPage River	0.508	0.564	0.550	0.642	0.530	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.189	0.211	0.188	0.245	0.277	0.179	0.155	0.197	0.259	0.213	0.207
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.557	0.413	0.527	0.458	0.517	0.563	0.523	0.553
18 Devon Avenue, Salt Creek	0.489	0.518	0.508	0.675	0.481	0.566	0.445	0.503	0.564	0.534	0.498
24 Wolf Road, Salt Creek	ND	ND	ND	0.457	0.419	0.433	0.408	0.509	0.498	0.480	0.585
109 Brookfield Avenue, Salt Creek	0.433	0.422	0.391	0.525	0.397	0.424	0.395	0.522	0.474	0.459	0.467
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.200	0.175	0.263	0.204	0.130	0.085	0.244	0.296	0.220	0.190
78 Wille Road, Higgins Creek	0.605	0.692	0.692	0.764	0.654	0.661	0.627	0.715	0.897	0.959	0.879
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.217	0.184	0.120	0.044	0.099	0.234	0.191	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.371	0.331	0.365	0.325	0.401	0.424	0.425	0.438
17 Oakton Street, Des Plaines River	ND	ND	ND	0.357	0.315	0.363	0.292	0.378	0.374	0.369	0.468
19 Belmont Avenue, Des Plaines River	0.358	0.350	0.417	0.550	0.354	0.420	0.355	0.424	0.442	0.468	0.468
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.386	0.343	0.415	0.335	0.416	0.453	0.452	0.449
22 Ogden Avenue, Des Plaines River	0.350	0.367	0.392	0.508	0.352	0.403	0.345	0.443	0.437	0.447	0.440
23 Willow Springs Road, Des Plaines River	0.356	0.367	0.364	0.492	0.350	0.396	0.332	0.417	0.440	0.440	0.530
29 Stephen Street, Des Plaines River	ND	ND	ND	0.357	0.338	0.383	0.328	0.390	0.470	0.453	0.510
91 Material Service Road, Des Plaines River	0.373	0.360	0.358	0.492	0.326	0.373	0.313	0.408	0.421	0.443	0.540

ND = No Data.

TABLE AII-25: TOTAL ORGANIC CARBON MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	4.60	5.24	4.89	4.75	3.97	3.90	4.58	6.43
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	4.29	4.79	4.70	4.53	3.53	4.05	4.08	6.88
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	5.75	6.64	6.79	6.01	5.13	6.75	6.17	9.02
104 Glenview Road, North Branch Chicago River	ND	ND	ND	4.43	7.39	4.66	4.65	4.08	4.40	4.63	5.98
32 Lake-Cook Road, Skokie River	ND	ND	ND	4.70	7.34	5.60	5.09	4.36	4.96	5.43	7.62
105 Frontage Road, Skokie River	ND	ND	ND	4.29	4.69	4.58	4.37	3.73	4.29	4.43	5.64
34 Dempster Street, North Branch Chicago River	ND	ND	ND	4.14	5.32	4.33	4.63	3.96	4.25	4.50	6.97
96 Albany Avenue, North Branch Chicago River	5.44	4.55	4.50	4.58	5.60	5.35	4.51	3.72	4.32	4.51	6.70
35 Central Street, North Shore Channel	ND	ND	ND	3.00	3.24	3.65	2.71	1.67	1.78	1.92	2.49
112 Dempster Street, North Shore Channel	2.33	3.22	2.90	5.00	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	4.29	4.27	4.09	3.26	2.36	2.92	3.38	4.42
36 Touhy Avenue, North Shore Channel	4.42	4.75	4.55	4.63	5.18	4.95	4.16	3.39	4.03	4.12	6.41
101 Foster Avenue, North Shore Channel	ND	ND	ND	4.57	5.21	6.04	3.98	3.37	4.07	4.26	6.48
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	4.67	4.27	4.48	4.02	3.40	3.88	4.32	6.68
73 Diversey Parkway, North Branch Chicago River	4.67	4.67	4.83	4.92	4.57	4.68	3.89	3.32	4.10	4.08	6.26
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	4.86	4.95	4.53	4.13	3.43	4.01	4.25	6.49
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.67	2.78	2.55	2.23	1.77	1.87	1.75	2.54
100 Wells Street, Chicago River	2.50	2.73	3.83	3.55	4.01	2.93	2.53	2.39	2.25	2.27	3.55
39 Madison Street, South Branch Chicago River	ND	ND	ND	4.17	4.97	4.04	3.60	3.09	3.03	3.29	5.03
108 Loomis Street, South Branch Chicago River	4.00	3.75	3.92	4.25	4.21	4.02	3.43	2.96	3.17	3.35	5.52
99 Archer Avenue, South Fork South Branch Chicago River	4.90	5.27	4.70	5.83	4.88	4.44	3.76	3.81	3.34	3.27	5.44
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	4.57	4.08	3.84	3.68	2.93	3.15	3.37	5.52
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	4.08	4.00	4.17	4.00	4.28	3.93	3.51	3.13	3.24	3.75	5.08
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.58	4.36	4.58	4.58	5.09	4.63	4.32	3.56	3.80	4.16	5.92
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	5.01	5.22	4.91	4.27	3.56	4.19	4.39	6.05
48 Stephen Street, Chicago Sanitary and Ship Canal	4.50	4.55	4.92	4.83	5.06	4.93	4.37	3.68	4.20	4.54	6.32
92 Lockport Forebay, Chicago Sanitary and Ship Canal	4.47	4.45	4.63	4.88	5.17	4.83	4.44	3.60	4.34	4.40	6.01
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	2.17	2.28	4.50	1.74	1.29	1.48	1.43	1.77
50 Burnham Avenue, Wolf Lake	ND	ND	ND	6.14	5.31	6.28	4.35	3.83	4.00	3.81	5.37
55 130th Street, Calumet River	ND	ND	ND	3.14	2.91	2.84	3.00	2.31	2.75	2.62	3.39
86 Burnham Avenue, Grand Calumet River	5.82	8.00	9.67	10.64	8.58	10.66	6.76	8.99	17.54	7.45	9.27
56 Indiana Avenue, Little Calumet River	3.89	3.40	3.13	3.50	3.84	3.64	3.70	3.08	3.47	3.39	3.77
76 Halsted Street, Little Calumet River	4.50	4.58	5.01	5.18	4.95	4.96	4.44	4.07	4.19	4.40	5.90
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	6.43	6.87	7.69	6.61	5.54	6.22	9.02	8.54
54 Joe Orr Road, Thorn Creek	ND	ND	ND	5.43	6.24	5.96	6.41	5.09	5.04	5.33	8.00
97 170th Street, Thorn Creek	ND	ND	ND	5.00	5.57	6.19	5.59	4.53	5.22	6.26	6.72
57 Ashland Avenue, Little Calumet River	5.90	6.09	5.10	5.18	5.98	5.60	5.99	4.89	6.68	5.67	7.46
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	5.29	4.99	5.53	4.70	4.19	4.60	4.65	6.04
59 Cicero Avenue, Calumet-Sag Channel	4.80	4.91	5.00	5.20	5.06	5.55	4.71	4.21	4.55	4.77	6.41
43 Route 83, Calumet-Sag Channel	4.64	4.82	5.00	4.73	4.85	4.92	4.70	4.03	4.64	4.77	6.54
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	5.36	5.82	5.67	5.14	4.43	5.13	5.75	7.28
110 Springinguth Road, West Branch DuPage River	43.11	11.00	11.25	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	6.43	7.10	6.54	6.53	6.23	6.73	6.83	9.55
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	5.80	6.18	5.26	6.05	6.23	8.65
111 Arlington Drive, West Branch DuPage River	7.25	6.09	6.33	6.43	6.19	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.67	5.78	5.75	6.18	6.41	6.64	6.03	4.72	5.27	5.60	8.42
80 Arlington Heights Road, Salt Creek	ND	ND	ND	5.09	5.80	5.58	5.47	3.74	4.45	5.00	7.13
18 Devon Avenue, Salt Creek	5.55	5.36	5.42	5.43	5.47	5.59	5.33	3.67	4.49	4.90	6.86
24 Wolf Road, Salt Creek	ND	ND	ND	4.86	5.02	4.95	4.77	3.58	4.07	4.68	6.73
109 Brookfield Avenue, Salt Creek	7.20	5.11	7.82	4.92	5.07	4.87	4.83	3.72	4.29	4.65	7.30
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	4.50	5.25	4.75	4.88	3.80	5.28	3.62	4.66	5.13	7.75
78 Wille Road, Higgins Creek	5.20	4.67	5.33	5.00	4.73	5.02	5.12	4.83	5.03	5.59	7.94
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	5.33	6.21	5.97	6.41	5.79	6.10	5.94	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	5.57	6.13	5.98	6.04	4.81	7.90	7.21	7.48
17 Oakton Street, Des Plaines River	ND	ND	ND	5.29	6.10	5.94	6.06	4.75	5.98	5.40	7.38
19 Belmont Avenue, Des Plaines River	6.55	5.80	5.75	5.17	5.80	5.48	5.77	4.57	5.75	5.56	7.53
20 Roosevelt Road, Des Plaines River	ND	ND	ND	5.00	5.80	5.68	5.85	4.82	5.74	5.52	7.28
22 Ogden Avenue, Des Plaines River	6.20	5.78	5.33	5.33	5.63	5.28	5.58	4.41	5.36	5.14	7.00
23 Willow Springs Road, Des Plaines River	5.67	5.67	5.36	5.25	5.59	5.23	5.55	4.29	6.02	5.20	7.11
29 Stephen Street, Des Plaines River	ND	ND	ND	5.71	5.40	5.45	5.51	3.98	5.20	5.12	7.08
91 Material Service Road, Des Plaines River	5.33	5.30	5.25	5.08	5.28	5.19	5.41	3.99	5.45	5.09	7.19

ND = No Data.

TABLE AII-26: FECAL COLIFORM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (fcu/100mL)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	6260	4663	2364	1818	1453	2476	3196	1130
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	546	797	466	1083	1133	660	893	727
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	511	488	646	586	1836	633	943	536
104 Glenview Road, North Branch Chicago River	ND	ND	ND	301	723	188	372	563	827	855	649
32 Lake-Cook Road, Skokie River	ND	ND	ND	2400	2687	775	655	596	736	657	649
105 Frontage Road, Skokie River	ND	ND	ND	96	72	112	169	151	199	119	160
34 Dempster Street, North Branch Chicago River	ND	ND	ND	441	987	1472	695	1069	600	1026	1121
96 Albany Avenue, North Branch Chicago River	749	1040	966	380	375	507	420	653	520	860	1119
35 Central Street, North Shore Channel	ND	ND	ND	35	124	54	80	168	66	90	144
112 Dempster Street, North Shore Channel	149	322	373	939	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	1663	915	615	343	1627	638	1181	866
36 Touhy Avenue, North Shore Channel	8206	14264	11161	5642	7494	5393	8040	6892	8875	8550	11481
101 Foster Avenue, North Shore Channel	ND	ND	ND	6443	5857	5484	5021	7878	9612	7628	10290
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	5257	5823	4091	5461	5723	7479	6033	9748
73 Diversey Parkway, North Branch Chicago River	5181	7132	4117	3446	2991	3538	3818	4373	3608	4237	5799
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	939	1618	971	1706	3414	1226	2054	1853
74 Lake Shore Drive, Chicago River	ND	ND	ND	81	44	28	241	90	86	31	81
100 Wells Street, Chicago River	2907	587	675	320	792	182	189	947	183	190	150
39 Madison Street, South Branch Chicago River	ND	ND	ND	1351	2467	415	904	2921	922	892	921
108 Loomis Street, South Branch Chicago River	731	364	333	369	589	257	334	1427	371	445	297
99 Archer Avenue, South Fork South Branch Chicago River	420	710	624	620	429	230	384	1625	294	493	156
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	484	378	258	283	940	349	523	223
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	192	183	344	174	314	137	202	649	347	469	129
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3287	2243	2153	3721	3218	1391	3321	4642	4908	3906	2668
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	1217	1163	537	573	1238	1289	1303	1011
48 Stephen Street, Chicago Sanitary and Ship Canal	445	370	640	668	977	199	448	992	645	894	469
92 Lockport Forebay, Chicago Sanitary and Ship Canal	110	278	122	112	239	101	216	255	227	308	205
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	21	10	15	11	13	12	11	12
50 Burnham Avenue, Wolf Lake	ND	ND	ND	16	43	21	26	36	70	21	77
55 130th Street, Calumet River	ND	28	ND	11	32	35	9	25	19	24	37
86 Burnham Avenue, Grand Calumet River	453	2217	1332	533	3416	4613	1158	642	2448	420	2377
56 Indiana Avenue, Little Calumet River	21	67	67	109	120	74	74	111	49	89	73
76 Halsted Street, Little Calumet River	1532	2083	1402	985	1441	1926	2262	2891	3259	2159	2759
52 Wentworth Avenue, Little Calumet River	ND	6359	ND	811	5240	2585	2935	1811	1477	956	1934
54 Joe Orr Road, Thorn Creek	ND	ND	ND	1587	3859	1131	2335	1407	2411	3309	14257
97 170th Street, Thorn Creek	ND	2071	ND	1250	2497	1086	756	780	698	642	2119
57 Ashland Avenue, Little Calumet River	587	913	582	511	1905	1346	563	783	816	431	3181
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	752	1975	1280	1407	2174	2122	1580	2365
59 Cicero Avenue, Calumet-Sag Channel	519	1566	2389	1978	1650	1060	377	945	1178	539	857
43 Route 83, Calumet-Sag Channel	79	383	56	269	272	127	106	108	188	97	57
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	63	148	87	138	163	181	264	417
110 Springinsguth Road, West Branch DuPage River	8990	6145	12357	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	1195	972	549	451	1103	2013	857	2026
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	814	538	684	2406	949	2144
111 Arlington Drive, West Branch DuPage River	1297	1596	918	725	463	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	261	119	95	46	85	154	97	47	250	153	499
80 Arlington Heights Road, Salt Creek	ND	ND	ND	466	222	273	184	377	312	417	389
18 Devon Avenue, Salt Creek	798	531	622	383	358	472	328	734	930	946	1014
24 Wolf Road, Salt Creek	ND	ND	ND	338	229	358	398	298	688	1303	1034
109 Brookfield Avenue, Salt Creek	931	538	980	567	499	560	615	663	1425	1618	1480
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	761	957	361	474	210	1296	857	2370	1915	1932
78 Wille Road, Higgins Creek	233	151	438	283	173	142	475	266	514	275	382
12 Lake-Cook Road, Buffalo Creek	ND	117	213	86	77	140	99	248	823	236	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	229	212	245	193	247	310	362	650
17 Oakton Street, Des Plaines River	ND	ND	ND	343	298	224	208	452	313	616	639
19 Belmont Avenue, Des Plaines River	599	348	588	335	378	423	301	365	516	525	523
20 Roosevelt Road, Des Plaines River	ND	ND	ND	401	353	296	511	523	634	897	950
22 Ogden Avenue, Des Plaines River	722	429	394	501	325	363	356	503	767	1509	1247
23 Willow Springs Road, Des Plaines River	135	127	184	203	261	280	217	187	302	1092	480
29 Stephen Street, Des Plaines River	ND	ND	ND	226	157	162	129	129	184	617	248
91 Material Service Road, Des Plaines River	64	70	109	66	112	63	83	78	192	327	260

ND = No Data.

TABLE AII-27: ESCHERICHIA COLI MEAN HISTORY
2005 THROUGH 2015

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

ND = No Data.

TABLE AII-28: TOTAL CALCIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	81.4	79.4	72.1	68.2	71.1	73.6	62.0	70.3
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	84.9	79.1	75.7	66.4	68.2	75.5	73.9	80.8
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	72.0	62.3	61.3	57.6	62.1	64.2	62.9	65.6
104 Glenview Road, North Branch Chicago River	ND	ND	ND	71.6	62.1	64.3	61.5	65.1	62.8	62.3	61.5
32 Lake-Cook Road, Skokie River	ND	ND	ND	77.7	69.4	67.5	62.7	66.3	75.8	68.5	70.5
105 Frontage Road, Skokie River	ND	ND	ND	72.4	62.5	63.5	62.2	64.3	62.8	62.1	62.0
34 Dempster Street, North Branch Chicago River	ND	ND	ND	80.3	66.2	69.8	61.2	63.0	64.2	65.9	70.6
96 Albany Avenue, North Branch Chicago River	62.1	68.0	58.6	64.8	69.2	65.4	65.4	67.6	65.5	67.9	69.4
35 Central Street, North Shore Channel	ND	ND	ND	51.6	41.0	38.2	37.1	39.6	39.4	37.5	39.1
112 Dempster Street, North Shore Channel	41.2	43.0	45.0	48.0	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	55.4	50.9	48.9	47.2	47.6	49.3	47.7	47.8
36 Touhy Avenue, North Shore Channel	58.9	55.1	50.5	52.5	57.9	52.3	60.2	60.0	56.0	53.3	51.9
101 Foster Avenue, North Shore Channel	ND	ND	ND	57.9	57.2	55.0	58.0	60.3	58.0	54.2	52.9
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	59.2	58.9	59.9	57.9	61.0	59.1	56.4	55.7
73 Diversey Parkway, North Branch Chicago River	60.3	59.6	52.0	53.7	60.2	58.5	58.4	61.7	57.3	56.2	54.7
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	62.3	60.1	57.0	56.4	60.8	57.9	56.9	57.3
74 Lake Shore Drive, Chicago River	ND	ND	ND	48.3	46.0	38.2	36.8	37.3	42.0	38.4	40.6
100 Wells Street, Chicago River	46.0	46.5	50.1	50.1	52.2	43.5	43.8	47.4	44.8	44.1	44.1
39 Madison Street, South Branch Chicago River	ND	ND	ND	58.8	61.1	51.3	53.5	53.6	51.8	51.3	52.0
108 Loomis Street, South Branch Chicago River	56.5	54.8	53.3	53.1	56.2	52.7	55.1	53.9	52.7	53.6	54.3
99 Archer Avenue, South Fork South Branch Chicago River	55.8	54.3	51.2	49.3	56.6	54.9	52.1	56.8	50.3	51.2	51.9
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	58.4	56.6	53.4	53.5	53.9	52.3	53.8	52.9
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	58.6	56.5	52.7	52.1	57.4	53.8	52.9	56.8	53.3	51.2	54.5
41 Harlem Avenue, Chicago Sanitary and Ship Canal	60.5	59.0	54.2	54.0	59.1	59.2	56.9	58.5	56.2	54.8	54.2
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	61.1	61.4	58.5	57.0	57.5	56.0	56.3	56.4
48 Stephen Street, Chicago Sanitary and Ship Canal	63.0	59.9	57.7	59.7	62.8	60.5	56.4	60.1	58.3	59.0	60.1
92 Lockport Forebay, Chicago Sanitary and Ship Canal	63.0	60.7	56.5	58.6	61.2	60.7	57.8	60.8	59.1	58.4	59.5
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	36.5	37.9	35.2	35.9	34.9	37.3	35.9	36.5
50 Burnham Avenue, Wolf Lake	ND	ND	ND	38.6	36.7	35.5	36.1	35.8	36.2	30.9	37.3
55 130th Street, Calumet River	ND	ND	ND	46.4	43.9	41.8	43.3	42.6	46.3	42.6	43.4
86 Burnham Avenue, Grand Calumet River	79.8	84.2	94.6	81.4	81.2	85.3	82.4	96.3	92.0	98.0	68.3
56 Indiana Avenue, Little Calumet River	53.3	50.8	44.5	48.2	51.9	47.6	50.2	50.8	55.0	49.6	47.8
76 Halsted Street, Little Calumet River	64.0	66.3	61.6	61.9	66.5	60.8	62.5	68.1	66.3	65.8	63.1
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	88.4	68.0	72.2	75.1	89.9	79.9	88.1	74.4
54 Joe Orr Road, Thorn Creek	ND	ND	ND	87.9	70.7	79.2	75.7	83.8	78.7	85.4	76.0
97 170th Street, Thorn Creek	ND	ND	ND	95.3	74.0	73.9	75.8	87.0	71.6	87.7	83.0
57 Ashland Avenue, Little Calumet River	83.1	73.2	71.1	73.5	69.7	69.4	70.9	82.3	69.8	86.4	75.4
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	69.6	66.7	65.3	61.8	68.4	61.8	68.3	65.3
59 Cicero Avenue, Calumet-Sag Channel	66.2	63.5	63.0	63.1	67.7	63.9	61.8	67.9	61.8	71.3	65.4
43 Route 83, Calumet-Sag Channel	69.6	63.5	63.1	60.5	63.3	66.9	61.0	66.5	61.8	69.4	64.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	77.3	70.3	75.9	67.3	73.1	68.5	70.9	65.6
110 Springinguth Road, West Branch DuPage River	77.4	83.8	69.0	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	69.0	71.0	65.3	66.1	63.6	61.6	65.8	58.5
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	79.2	65.0	67.3	58.8	63.7	59.7
111 Arlington Drive, West Branch DuPage River	67.2	69.0	61.7	62.4	68.7	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	65.8	67.0	55.6	61.1	70.0	50.6	62.2	70.2	63.5	63.3	65.9
80 Arlington Heights Road, Salt Creek	ND	ND	ND	75.0	61.9	65.8	61.5	69.9	62.7	64.5	66.4
18 Devon Avenue, Salt Creek	66.4	65.6	58.3	64.2	64.2	68.3	60.7	69.4	63.0	65.4	66.4
24 Wolf Road, Salt Creek	ND	ND	ND	75.0	68.4	70.8	68.5	70.9	65.1	64.0	66.1
109 Brookfield Avenue, Salt Creek	65.4	70.0	62.4	65.2	68.9	67.8	66.0	68.2	62.6	63.1	64.2
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	68.5	56.3	64.4	53.4	63.6	51.0	62.4	44.5	54.3	60.1
78 Wille Road, Higgins Creek	74.7	68.1	68.4	69.0	83.8	75.2	79.1	76.6	71.0	69.4	69.2
12 Lake-Cook Road, Buffalo Creek	ND	65.3	59.5	83.0	71.5	76.8	69.5	78.3	69.2	75.3	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	72.9	65.5	67.8	62.1	72.5	67.9	73.3	66.8
17 Oakton Street, Des Plaines River	ND	ND	ND	73.0	66.4	66.3	61.2	70.7	64.2	69.1	66.6
19 Belmont Avenue, Des Plaines River	70.4	70.3	63.4	64.5	67.6	65.1	63.3	72.5	64.2	69.2	67.1
20 Roosevelt Road, Des Plaines River	ND	ND	ND	71.0	67.4	65.1	61.6	72.4	63.9	68.6	65.8
22 Ogden Avenue, Des Plaines River	68.3	68.3	63.1	66.2	66.4	65.3	61.5	68.4	62.6	65.2	63.7
23 Willow Springs Road, Des Plaines River	69.8	69.2	61.5	66.7	67.3	63.3	61.8	69.7	62.7	64.5	66.1
29 Stephen Street, Des Plaines River	ND	ND	ND	72.6	65.9	67.1	61.8	71.1	65.1	69.8	67.4
91 Material Service Road, Des Plaines River	75.1	69.5	61.1	67.3	66.2	67.8	63.6	69.8	66.3	71.0	68.3

ND = No Data.

TABLE AII-29: TOTAL MAGNESIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	33.8	32.6	28.5	28.2	29.7	28.1	25.7	29.0
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	35.0	31.0	29.1	26.4	26.3	29.7	29.7	32.2
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	33.8	26.3	26.4	24.6	25.7	28.7	28.9	33.1
104 Glenview Road, North Branch Chicago River	ND	ND	ND	32.6	25.7	27.0	25.8	27.0	26.9	27.1	27.7
32 Lake-Cook Road, Skokie River	ND	ND	ND	33.8	28.6	28.1	25.4	26.9	31.3	30.3	32.4
105 Frontage Road, Skokie River	ND	ND	ND	33.3	26.2	27.0	26.1	26.5	26.3	26.5	27.2
34 Dempster Street, North Branch Chicago River	ND	ND	ND	35.0	27.6	28.3	25.1	25.9	27.2	27.9	30.7
96 Albany Avenue, North Branch Chicago River	27.9	28.1	24.1	27.9	28.6	26.3	26.3	27.0	27.6	28.3	29.7
35 Central Street, North Shore Channel	ND	ND	ND	19.2	14.1	12.8	12.5	13.3	13.3	12.5	13.3
112 Dempster Street, North Shore Channel	14.6	14.9	15.9	18.6	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	20.1	17.7	16.9	16.4	16.2	16.9	16.7	16.9
36 Touhy Avenue, North Shore Channel	22.3	19.8	18.3	18.8	20.2	18.0	21.0	21.2	19.5	19.0	18.2
101 Foster Avenue, North Shore Channel	ND	ND	ND	20.9	20.1	19.1	20.1	21.4	20.2	19.4	18.6
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	21.8	21.4	22.0	20.8	22.4	21.3	20.9	20.1
73 Diversey Parkway, North Branch Chicago River	23.8	22.0	19.1	19.9	22.0	21.1	20.8	22.5	20.7	20.7	19.5
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	23.4	22.0	20.3	20.0	21.8	20.9	21.0	20.8
74 Lake Shore Drive, Chicago River	ND	ND	ND	17.5	15.7	12.7	12.4	12.6	14.5	12.9	14.2
100 Wells Street, Chicago River	16.7	16.9	18.6	18.2	18.6	15.0	15.1	16.5	15.9	15.3	15.3
39 Madison Street, South Branch Chicago River	ND	ND	ND	22.2	22.1	18.2	19.1	19.1	18.4	18.6	18.6
108 Loomis Street, South Branch Chicago River	21.9	20.3	19.9	19.3	20.3	18.7	19.8	19.4	18.7	19.6	19.8
99 Archer Avenue, South Fork South Branch Chicago River	21.2	19.2	18.5	17.1	20.2	19.4	18.1	20.1	17.7	18.4	18.5
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	21.7	20.4	19.0	19.5	19.4	18.6	19.6	19.2
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	22.6	20.9	19.6	18.9	20.9	19.4	18.7	20.7	18.9	18.3	19.7
41 Harlem Avenue, Chicago Sanitary and Ship Canal	22.5	21.4	19.7	19.1	20.8	20.9	20.0	21.0	19.8	19.9	19.6
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	21.4	21.3	20.1	20.1	20.5	20.2	20.4	20.5
48 Stephen Street, Chicago Sanitary and Ship Canal	24.2	22.0	21.3	21.6	22.3	21.1	19.9	21.4	21.2	21.5	22.2
92 Lockport Forebay, Chicago Sanitary and Ship Canal	24.7	22.0	20.7	21.2	21.6	21.2	20.6	21.6	21.3	21.3	21.8
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	12.3	12.5	11.8	11.7	11.2	12.1	11.5	12.1
50 Burnham Avenue, Wolf Lake	ND	ND	ND	11.1	12.6	12.4	11.8	11.9	12.1	11.9	13.7
55 130th Street, Calumet River	ND	ND	ND	15.9	14.8	14.2	14.4	14.0	15.8	14.2	15.0
86 Burnham Avenue, Grand Calumet River	41.3	35.6	42.7	26.4	28.5	28.2	36.9	39.0	39.3	48.7	44.4
56 Indiana Avenue, Little Calumet River	24.1	19.9	15.9	17.3	18.0	16.2	17.2	17.3	19.8	17.6	17.8
76 Halsted Street, Little Calumet River	25.3	23.8	21.9	21.5	22.7	20.6	21.5	23.2	22.8	22.6	22.3
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	36.1	26.5	28.6	28.4	34.3	31.4	33.9	29.7
54 Joe Orr Road, Thorn Creek	ND	ND	ND	32.9	26.5	28.3	28.2	30.4	30.1	36.3	33.8
97 170th Street, Thorn Creek	ND	ND	ND	40.8	31.2	29.7	29.9	33.9	28.4	37.7	36.6
57 Ashland Avenue, Little Calumet River	37.4	30.0	28.4	29.0	27.5	26.5	27.0	31.2	27.0	35.3	31.6
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	25.0	23.9	23.4	21.6	23.6	21.8	24.2	23.8
59 Cicero Avenue, Calumet-Sag Channel	27.2	23.6	23.2	22.9	24.0	22.4	22.1	23.8	21.8	25.8	23.8
43 Route 83, Calumet-Sag Channel	28.7	23.8	23.7	22.2	22.8	23.7	21.9	23.6	22.4	25.4	23.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	36.9	30.6	32.3	28.7	31.8	30.3	30.6	29.8
110 Springinsguth Road, West Branch DuPage River	29.7	31.5	25.8	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	27.0	27.1	24.2	25.1	24.0	23.0	24.3	22.0
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	28.3	24.4	25.1	22.3	23.6	22.3
111 Arlington Drive, West Branch DuPage River	27.4	27.1	23.6	23.8	25.8	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	30.7	29.4	23.1	27.2	28.3	20.7	26.3	28.5	26.2	26.4	29.5
80 Arlington Heights Road, Salt Creek	ND	ND	ND	29.3	23.3	24.5	23.3	26.2	24.3	24.9	25.9
18 Devon Avenue, Salt Creek	27.7	25.7	23.0	25.1	23.9	25.6	23.0	26.0	24.5	25.2	25.7
24 Wolf Road, Salt Creek	ND	ND	ND	31.0	26.9	27.1	26.6	27.6	26.0	25.6	27.3
109 Brookfield Avenue, Salt Creek	29.4	29.7	25.7	26.9	26.9	26.2	25.8	26.7	25.1	25.3	26.7
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	25.0	22.6	23.1	18.9	20.6	18.2	20.3	14.5	18.5	20.1
78 Wille Road, Higgins Creek	30.8	26.6	25.9	25.9	30.9	27.2	28.9	27.9	25.6	25.1	25.6
12 Lake-Cook Road, Buffalo Creek	ND	29.3	27.0	37.5	30.4	32.6	29.5	33.4	30.4	33.1	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	33.6	29.2	29.5	27.3	31.3	30.0	32.7	29.6
17 Oakton Street, Des Plaines River	ND	ND	ND	33.1	29.1	28.2	26.4	30.0	28.5	30.7	29.9
19 Belmont Avenue, Des Plaines River	32.9	31.5	27.4	27.6	28.8	26.8	26.8	30.1	27.7	29.7	29.1
20 Roosevelt Road, Des Plaines River	ND	ND	ND	31.4	28.7	26.7	26.2	30.1	27.7	29.3	28.7
22 Ogden Avenue, Des Plaines River	31.9	30.6	27.0	28.3	27.7	26.5	25.7	28.1	26.6	27.3	27.5
23 Willow Springs Road, Des Plaines River	32.8	31.1	26.7	28.8	28.2	25.7	26.0	29.0	26.9	27.4	28.8
29 Stephen Street, Des Plaines River	ND	ND	ND	31.7	27.3	27.3	25.8	29.1	28.2	29.5	29.2
91 Material Service Road, Des Plaines River	34.5	30.5	26.2	29.2	27.5	27.8	26.3	28.9	28.2	30.3	29.9

ND = No Data.

TABLE AII-30: HARDNESS MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	342	332	297	286	300	300	261	295
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	356	325	309	274	278	311	307	335
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	319	264	262	245	261	278	276	300
104 Glenview Road, North Branch Chicago River	ND	ND	ND	313	261	272	260	274	268	267	268
32 Lake-Cook Road, Skokie River	ND	ND	ND	333	291	284	261	276	318	296	310
105 Frontage Road, Skokie River	ND	ND	ND	318	264	270	263	270	265	264	267
34 Dempster Street, North Branch Chicago River	ND	ND	ND	345	279	291	256	264	272	279	303
96 Albany Avenue, North Branch Chicago River	270	285	246	277	291	272	272	280	277	286	296
35 Central Street, North Shore Channel	ND	ND	ND	208	161	148	144	154	153	145	153
112 Dempster Street, North Shore Channel	163	169	178	196	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	221	200	192	185	186	193	188	189
36 Touhy Avenue, North Shore Channel	239	219	201	208	228	205	237	237	220	211	205
101 Foster Avenue, North Shore Channel	ND	ND	ND	230	226	216	228	239	228	215	209
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	238	235	240	230	244	235	227	222
73 Diversey Parkway, North Branch Chicago River	249	239	209	216	241	233	231	247	228	226	217
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	252	241	226	223	242	231	229	229
74 Lake Shore Drive, Chicago River	ND	ND	ND	193	179	148	143	145	165	149	160
100 Wells Street, Chicago River	181	186	202	200	207	171	172	187	177	173	173
39 Madison Street, South Branch Chicago River	ND	ND	ND	238	243	203	212	212	205	205	207
108 Loomis Street, South Branch Chicago River	229	220	215	212	224	209	219	214	209	214	217
99 Archer Avenue, South Fork South Branch Chicago River	227	215	204	193	224	217	205	225	198	204	206
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	235	225	211	214	214	207	215	211
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	238	227	212	208	229	214	209	227	211	203	217
41 Harlem Avenue, Chicago Sanitary and Ship Canal	240	235	217	213	233	234	224	233	222	219	216
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	241	241	229	225	228	223	225	225
48 Stephen Street, Chicago Sanitary and Ship Canal	254	240	232	238	249	238	223	238	233	236	241
92 Lockport Forebay, Chicago Sanitary and Ship Canal	258	242	226	233	242	239	229	241	236	234	238
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	142	146	136	138	133	143	137	141
50 Burnham Avenue, Wolf Lake	ND	ND	ND	142	143	140	139	138	140	126	149
55 130th Street, Calumet River	ND	ND	ND	181	171	163	167	164	181	165	170
86 Burnham Avenue, Grand Calumet River	372	357	412	312	320	329	358	401	391	445	354
56 Indiana Avenue, Little Calumet River	232	209	177	192	204	185	196	198	219	196	193
76 Halsted Street, Little Calumet River	262	263	244	243	260	237	245	266	259	258	249
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	370	279	298	304	366	329	360	308
54 Joe Orr Road, Thorn Creek	ND	ND	ND	355	285	314	305	335	321	363	329
97 170th Street, Thorn Creek	ND	ND	ND	406	314	307	312	357	296	374	358
57 Ashland Avenue, Little Calumet River	358	306	295	303	287	283	288	334	285	361	318
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	277	265	259	243	268	244	270	261
59 Cicero Avenue, Calumet-Sag Channel	274	256	253	252	268	252	245	268	244	284	261
43 Route 83, Calumet-Sag Channel	290	257	255	243	252	265	243	263	247	278	259
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	345	302	323	286	314	296	303	287
110 Springinguth Road, West Branch DuPage River	316	339	278	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	283	289	263	268	258	249	265	237
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	314	263	271	239	256	241
111 Arlington Drive, West Branch DuPage River	280	284	251	254	278	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	291	289	234	264	291	212	264	292	266	267	286
80 Arlington Heights Road, Salt Creek	ND	ND	ND	308	251	265	249	282	257	263	273
18 Devon Avenue, Salt Creek	279	270	240	264	259	276	246	280	258	267	272
24 Wolf Road, Salt Creek	ND	ND	ND	315	282	289	280	291	269	265	277
109 Brookfield Avenue, Salt Creek	285	297	262	274	283	277	271	280	260	262	270
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	274	234	256	211	244	203	239	171	212	233
78 Wille Road, Higgins Creek	317	279	278	279	336	300	317	306	283	277	278
12 Lake-Cook Road, Buffalo Creek	ND	284	260	362	304	326	295	333	298	324	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	320	284	291	267	310	293	318	289
17 Oakton Street, Des Plaines River	ND	ND	ND	319	286	282	261	300	278	299	289
19 Belmont Avenue, Des Plaines River	311	305	271	275	288	273	268	305	274	295	287
20 Roosevelt Road, Des Plaines River	ND	ND	ND	307	287	272	262	305	273	292	283
22 Ogden Avenue, Des Plaines River	303	296	269	282	280	272	259	287	266	275	272
23 Willow Springs Road, Des Plaines River	309	301	263	285	284	264	261	293	268	274	284
29 Stephen Street, Des Plaines River	ND	ND	ND	312	277	280	261	297	279	295	288
91 Material Service Road, Des Plaines River	328	299	261	288	278	284	267	293	282	302	293

ND = No Data.

**TABLE AII-31: GROSS ALPHA RADIOACTIVITY MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (pCi/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	3.48	2.91	2.75	4.53	2.95	11.71	6.01	6.20
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	2.87	2.63	3.38	4.20	2.59	7.08	5.73	7.14
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	2.48	2.24	3.42	2.76	2.78	5.25	4.94	5.34
104 Glenview Road, North Branch Chicago River	ND	ND	ND	2.37	2.11	3.56	3.62	2.35	5.37	5.40	5.50
32 Lake-Cook Road, Skokie River	ND	ND	ND	2.55	2.20	3.10	2.71	2.65	5.29	5.04	5.50
105 Frontage Road, Skokie River	ND	ND	ND	2.23	2.30	3.48	3.32	2.28	5.13	4.82	5.03
34 Dempster Street, North Branch Chicago River	ND	ND	ND	2.53	2.08	3.68	3.61	2.38	6.56	5.01	5.91
96 Albany Avenue, North Branch Chicago River	2.08	2.34	2.14	2.32	2.23	3.67	3.93	2.71	6.03	5.04	5.43
35 Central Street, North Shore Channel	ND	ND	ND	1.94	1.36	2.05	1.62	1.36	3.85	3.07	3.30
112 Dempster Street, North Shore Channel	1.28	1.41	1.52	1.64	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	1.69	1.72	2.67	2.57	1.60	4.29	3.56	4.07
36 Touhy Avenue, North Shore Channel	2.11	1.89	1.61	1.75	2.13	2.85	3.25	2.03	5.27	3.73	4.27
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	ND	1.72	1.79	2.37	1.64	1.27	4.29	3.09	3.23
100 Wells Street, Chicago River	1.64	1.49	1.50	1.64	1.95	2.23	2.57	1.73	4.27	3.41	3.61
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	2.00	1.85	1.67	1.74	2.33	3.08	4.73	2.08	5.40	3.84	4.17
41 Harlem Avenue, Chicago Sanitary and Ship Canal	1.94	1.83	1.64	1.89	2.17	3.41	2.96	2.26	6.13	3.88	4.27
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	2.05	1.86	1.85	1.86	1.95	3.43	3.79	2.44	4.89	4.08	4.53
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	1.35	1.35	1.84	1.94	1.37	4.14	3.66	3.03
50 Burnham Avenue, Wolf Lake	ND	ND	ND	1.46	1.55	1.95	1.81	1.41	4.16	3.44	3.33
55 130th Street, Calumet River	ND	ND	ND	1.66	1.57	2.15	2.58	1.72	4.70	3.49	3.50
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	1.58	1.78	1.45	1.63	1.52	2.28	2.82	1.93	5.08	3.65	3.56
76 Halsted Street, Little Calumet River	1.94	1.80	1.85	1.79	1.88	3.07	2.77	2.35	5.28	4.08	4.66
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	2.13	1.99	2.91	2.84	2.62	5.63	4.24	4.88
54 Joe Orr Road, Thorn Creek	ND	ND	ND	3.13	2.49	3.91	4.56	3.98	7.27	6.25	8.99
97 170th Street, Thorn Creek	ND	ND	ND	2.95	2.35	3.98	4.30	3.13	6.27	5.38	7.46
57 Ashland Avenue, Little Calumet River	2.74	2.57	2.47	2.48	2.50	3.64	3.88	2.69	5.46	5.09	6.19
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	ND	2.40	2.04	3.01	3.04	2.49	5.25	5.66	5.19
110 Springinguth Road, West Branch DuPage River	3.00	2.56	2.41	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	1.94	2.18	2.97	3.29	2.38	4.82	4.98	4.77
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	4.93	3.05	2.44	4.85	5.10	5.06
111 Arlington Drive, West Branch DuPage River	1.93	2.03	1.89	2.01	2.35	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.47	2.38	1.89	2.35	2.77	3.23	3.34	2.90	5.39	5.27	6.27
80 Arlington Heights Road, Salt Creek	ND	ND	ND	2.27	2.08	3.16	2.84	2.46	5.18	5.59	5.71
18 Devon Avenue, Salt Creek	2.03	2.29	1.85	2.06	2.10	3.37	2.75	2.44	5.17	5.51	5.85
24 Wolf Road, Salt Creek	ND	ND	ND	2.39	2.30	3.50	3.41	2.66	5.45	5.00	4.81
109 Brookfield Avenue, Salt Creek	1.93	2.06	2.04	2.08	2.48	3.30	4.66	2.77	5.46	5.20	4.76
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	2.68	2.38	2.44	2.54	2.64	2.37	2.76	5.20	6.74	7.77
78 Wille Road, Higgins Creek	1.94	2.05	1.87	2.26	2.18	2.59	3.50	2.38	5.28	4.78	4.79
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	2.45	2.58	3.27	3.11	2.75	5.67	5.13	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	2.03	1.96	3.24	2.88	2.41	5.22	4.86	5.27
17 Oakton Street, Des Plaines River	ND	ND	ND	2.14	2.17	2.71	2.50	2.49	5.35	4.97	5.30
19 Belmont Avenue, Des Plaines River	2.07	2.06	1.88	2.00	1.95	2.84	3.08	2.64	5.33	5.06	5.46
20 Roosevelt Road, Des Plaines River	ND	ND	ND	2.11	2.10	4.18	2.30	2.43	5.36	5.29	5.02
22 Ogden Avenue, Des Plaines River	1.86	2.08	2.05	2.08	2.15	3.46	3.23	2.91	5.54	4.95	5.07
23 Willow Springs Road, Des Plaines River	1.87	2.02	2.01	2.11	2.44	3.65	3.10	2.47	5.25	5.06	4.93
29 Stephen Street, Des Plaines River	ND	ND	ND	2.29	2.49	3.27	3.22	2.85	5.24	5.40	4.93
91 Material Service Road, Des Plaines River	2.18	2.21	2.07	1.98	2.42	3.48	3.43	3.50	5.11	4.84	5.70

ND = No Data.

TABLE AII-32: GROSS BETA RADIOACTIVITY MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (pCi/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	5.08	5.64	8.10	7.18	7.85	11.96	11.59	11.58
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	3.73	3.69	7.99	6.97	4.53	9.70	9.95	11.05
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	2.30	2.62	5.51	5.56	6.34	6.66	7.40	7.15
104 Glenview Road, North Branch Chicago River	ND	ND	ND	3.26	3.56	6.34	6.32	4.70	7.18	9.08	11.27
32 Lake-Cook Road, Skokie River	ND	ND	ND	2.65	2.62	6.18	5.40	4.65	5.94	8.19	8.83
105 Frontage Road, Skokie River	ND	ND	ND	3.66	4.24	7.12	6.50	4.67	8.18	9.65	10.79
34 Dempster Street, North Branch Chicago River	ND	ND	ND	3.14	3.52	5.94	5.74	4.61	9.02	9.39	11.51
96 Albany Avenue, North Branch Chicago River	3.60	2.85	3.20	3.12	3.66	7.06	6.02	4.47	8.16	7.91	10.61
35 Central Street, North Shore Channel	ND	ND	ND	1.74	1.71	4.87	5.08	1.92	4.89	4.50	4.28
112 Dempster Street, North Shore Channel	1.53	1.80	1.90	3.22	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	3.36	3.33	5.19	5.40	3.79	5.91	6.97	6.88
36 Touhy Avenue, North Shore Channel	4.00	3.72	3.23	3.25	4.39	6.36	6.29	4.64	7.70	7.91	7.88
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	ND	2.18	3.31	4.55	4.94	2.06	4.73	4.54	4.29
100 Wells Street, Chicago River	2.01	1.94	2.23	2.29	3.75	5.25	5.04	3.51	5.22	5.22	5.60
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	2.83	2.60	2.66	3.21	4.53	5.97	5.64	5.86	7.36	6.87	7.38
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.13	3.09	3.19	4.26	4.74	7.47	6.32	6.55	9.43	8.29	7.98
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	3.83	3.72	3.95	3.86	4.23	6.85	6.81	6.23	8.06	8.21	8.70
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	1.57	1.62	4.38	4.72	2.69	5.42	5.39	4.99
50 Burnham Avenue, Wolf Lake	ND	ND	ND	4.19	3.64	6.05	5.49	4.30	7.02	6.10	4.94
55 130th Street, Calumet River	ND	ND	ND	2.69	2.97	4.79	5.66	4.14	7.24	6.50	6.14
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	2.72	2.83	2.24	2.49	2.71	5.82	5.59	5.31	7.77	7.82	6.63
76 Halsted Street, Little Calumet River	3.21	3.30	3.65	3.15	3.66	6.34	6.66	6.83	8.74	8.96	9.11
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	4.11	3.55	7.19	5.99	6.96	10.56	10.37	10.90
54 Joe Orr Road, Thorn Creek	ND	ND	ND	4.49	4.05	6.83	8.36	7.63	8.90	10.91	14.81
97 170th Street, Thorn Creek	ND	ND	ND	4.68	4.71	7.91	8.02	7.64	10.69	10.72	13.04
57 Ashland Avenue, Little Calumet River	4.88	3.54	3.65	3.85	4.04	6.80	6.86	7.82	9.52	10.20	11.25
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	ND	2.23	2.26	5.93	5.83	3.48	6.26	7.25	6.75
110 Springinguth Road, West Branch DuPage River	2.78	2.13	3.24	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	4.77	5.46	9.15	9.31	7.04	9.37	9.90	10.62
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	9.39	8.23	7.51	9.31	10.36	10.94
111 Arlington Drive, West Branch DuPage River	4.36	4.87	4.37	5.88	5.16	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.36	2.43	2.01	1.94	3.06	4.79	5.91	4.27	7.55	7.71	8.35
80 Arlington Heights Road, Salt Creek	ND	ND	ND	3.81	3.02	6.94	6.24	5.33	9.10	10.09	10.26
18 Devon Avenue, Salt Creek	3.95	3.50	3.12	4.21	3.54	6.89	6.61	5.24	9.40	9.35	11.03
24 Wolf Road, Salt Creek	ND	ND	ND	3.99	4.30	6.63	7.12	6.85	9.29	11.12	11.39
109 Brookfield Avenue, Salt Creek	3.48	3.49	3.12	3.97	3.76	8.37	7.30	7.67	8.92	10.50	10.71
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	1.95	2.25	2.58	3.00	4.78	4.99	3.74	6.99	8.79	11.23
78 Wille Road, Higgins Creek	4.72	4.85	3.83	5.42	4.44	6.42	7.56	7.43	11.79	12.65	15.45
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	2.23	3.40	5.54	5.44	3.78	8.20	7.37	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	3.29	3.50	7.23	7.12	6.05	8.94	10.05	11.41
17 Oakton Street, Des Plaines River	ND	ND	ND	2.97	3.41	5.94	6.18	5.05	8.40	9.12	10.16
19 Belmont Avenue, Des Plaines River	3.97	3.21	3.21	4.16	3.35	6.60	5.57	5.54	9.81	10.24	11.57
20 Roosevelt Road, Des Plaines River	ND	ND	ND	3.41	3.55	6.24	6.23	6.16	9.70	9.69	10.91
22 Ogden Avenue, Des Plaines River	3.28	3.21	3.40	4.13	4.23	7.06	7.07	8.05	9.27	9.32	11.04
23 Willow Springs Road, Des Plaines River	2.94	3.34	3.35	4.13	3.97	6.11	6.19	7.96	8.01	9.51	10.68
29 Stephen Street, Des Plaines River	ND	ND	ND	3.21	4.50	7.00	6.25	7.55	9.48	10.39	10.87
91 Material Service Road, Des Plaines River	3.74	3.62	3.14	4.15	3.65	8.06	7.02	6.48	9.94	9.65	12.34

ND = No Data.

TABLE AII-33: CHLOROPHYLL *a* MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	19.5	14.7	8.1	7.2	14.4	6.3	10.6	14.6
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	12.4	14.5	14.0	7.5	9.1	12.4	13.4	29.3
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	3.0	8.2	5.0	5.1	10.6	7.7	12.0	8.0
104 Glenview Road, North Branch Chicago River	ND	ND	ND	11.2	8.0	7.0	5.9	10.6	12.2	19.7	10.1
32 Lake-Cook Road, Skokie River	ND	ND	ND	8.2	7.9	7.0	6.2	8.3	8.9	7.6	12.0
105 Frontage Road, Skokie River	ND	ND	ND	16.5	10.5	10.1	9.7	18.4	18.1	32.9	15.6
34 Dempster Street, North Branch Chicago River	ND	ND	ND	16.3	12.2	7.7	5.6	8.7	9.7	16.7	24.2
96 Albany Avenue, North Branch Chicago River	10.2	14.3	10.9	9.1	9.5	8.8	7.1	7.8	9.0	14.0	35.6
35 Central Street, North Shore Channel	ND	ND	ND	29.6	15.3	17.7	9.9	6.3	6.2	4.5	3.6
112 Dempster Street, North Shore Channel	17.0	66.7	12.4	12.4	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	18.7	4.6	16.8	11.3	12.6	16.2	22.6	8.1
36 Touhy Avenue, North Shore Channel	1.7	1.5	6.1	3.0	1.5	2.1	2.0	2.1	1.3	2.0	1.6
101 Foster Avenue, North Shore Channel	ND	ND	ND	1.8	5.1	1.5	1.9	1.4	1.1	1.6	2.2
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	2.9	2.8	2.5	2.8	3.2	2.9	4.7	2.8
73 Diversey Parkway, North Branch Chicago River	4.3	3.0	3.7	4.0	3.5	2.8	2.2	3.6	2.4	4.3	2.6
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	7.7	4.3	2.6	2.7	3.5	4.9	6.1	4.3
74 Lake Shore Drive, Chicago River	ND	ND	ND	1.5	1.5	1.3	1.3	1.6	2.2	1.4	3.3
100 Wells Street, Chicago River	2.3	2.8	3.4	4.2	2.2	1.9	1.6	2.5	2.2	2.5	2.8
39 Madison Street, South Branch Chicago River	ND	ND	ND	4.9	3.4	3.8	1.9	3.5	4.0	4.4	4.2
108 Loomis Street, South Branch Chicago River	4.8	4.4	4.1	4.5	3.7	2.3	2.0	3.0	3.7	6.0	5.4
99 Archer Avenue, South Fork South Branch Chicago River	14.7	28.5	18.2	13.8	28.6	13.3	8.9	10.5	7.4	5.7	21.5
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	6.6	3.8	5.8	7.7	3.4	4.5	5.4	14.1
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	7.5	8.5	7.4	6.9	4.4	4.7	3.0	4.1	5.4	4.7	6.5
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.1	4.3	5.6	5.7	2.7	4.0	1.9	2.3	2.6	2.8	3.6
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	9.8	3.4	5.5	2.9	4.1	5.2	4.1	6.4
48 Stephen Street, Chicago Sanitary and Ship Canal	6.6	5.0	5.9	6.4	3.9	4.7	5.2	5.6	6.1	3.7	5.3
92 Lockport Forebay, Chicago Sanitary and Ship Canal	6.8	5.0	5.0	4.4	4.3	4.7	5.6	5.4	5.5	4.0	5.2
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	4.9	1.1	0.9	2.1	1.7	1.1	1.4	0.9
50 Burnham Avenue, Wolf Lake	ND	ND	ND	6.9	6.4	4.5	5.4	6.7	6.2	4.7	6.8
55 130th Street, Calumet River	ND	ND	ND	2.6	3.0	3.7	6.3	4.6	4.0	3.3	2.9
86 Burnham Avenue, Grand Calumet River	29.2	17.7	30.3	33.3	17.4	75.6	30.8	142.5	101.0	27.4	57.7
56 Indiana Avenue, Little Calumet River	42.5	18.7	7.3	10.9	4.0	14.1	27.0	20.6	14.0	25.8	16.4
76 Halsted Street, Little Calumet River	20.5	9.2	4.7	9.0	3.1	4.1	12.6	7.8	6.6	8.1	7.1
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	4.4	8.3	8.2	7.7	5.5	13.0	4.3	6.0
54 Joe Orr Road, Thorn Creek	ND	ND	ND	3.4	3.7	4.7	4.8	4.1	3.0	3.7	12.4
97 170th Street, Thorn Creek	ND	ND	ND	6.7	8.3	11.2	9.4	8.5	9.2	5.3	8.2
57 Ashland Avenue, Little Calumet River	14.5	10.4	17.3	10.8	7.9	8.0	10.5	8.2	7.1	4.7	9.2
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	9.4	5.4	7.0	11.3	8.0	7.2	9.5	10.4
59 Cicero Avenue, Calumet-Sag Channel	11.7	8.3	4.8	4.6	3.5	4.0	12.4	7.9	7.8	9.0	7.5
43 Route 83, Calumet-Sag Channel	16.2	7.3	4.3	6.9	4.5	5.2	9.0	10.0	6.5	6.3	8.8
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	8.8	7.8	10.0	9.0	8.9	10.9	13.9	12.5
110 Springinsguth Road, West Branch DuPage River	17.8	15.0	25.7	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	6.4	7.0	4.8	5.9	6.6	7.3	5.4	9.1
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	15.9	18.8	19.4	23.2	20.2	24.6
111 Arlington Drive, West Branch DuPage River	12.1	18.4	18.1	15.5	13.7	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	20.5	24.4	32.2	20.2	22.5	26.3	21.3	33.9	39.0	33.9	31.0
80 Arlington Heights Road, Salt Creek	ND	ND	ND	9.2	15.2	15.6	13.6	11.7	13.8	16.5	12.4
18 Devon Avenue, Salt Creek	19.0	13.3	12.1	8.3	11.7	13.6	15.0	13.6	14.3	17.6	14.8
24 Wolf Road, Salt Creek	ND	ND	ND	6.9	5.5	8.6	8.0	8.9	7.4	12.0	11.0
109 Brookfield Avenue, Salt Creek	7.0	10.5	4.7	4.5	6.9	8.2	9.5	6.1	7.3	16.1	11.3
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	22.0	13.3	12.5	8.8	28.3	8.4	25.7	14.7	11.9	14.1
78 Wille Road, Higgins Creek	3.4	2.6	2.7	2.2	2.3	2.6	2.2	2.4	3.8	3.0	2.5
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	11.1	16.8	14.1	18.6	19.7	23.2	20.2	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	7.6	14.4	12.3	10.7	18.8	13.7	16.9	27.5
17 Oakton Street, Des Plaines River	ND	ND	ND	6.7	26.9	14.2	19.2	35.1	12.3	13.0	34.3
19 Belmont Avenue, Des Plaines River	16.2	9.5	10.1	4.4	20.1	13.7	13.7	22.0	6.1	12.3	23.2
20 Roosevelt Road, Des Plaines River	ND	ND	ND	6.3	23.8	12.6	20.1	23.3	6.7	11.4	23.4
22 Ogden Avenue, Des Plaines River	14.9	13.1	9.1	19.1	20.0	11.5	19.7	20.7	6.1	15.8	19.1
23 Willow Springs Road, Des Plaines River	14.0	15.1	9.8	6.0	15.8	12.6	27.5	22.5	5.1	13.5	29.0
29 Stephen Street, Des Plaines River	ND	ND	ND	26.0	14.7	16.9	29.9	22.4	9.5	17.5	49.0
91 Material Service Road, Des Plaines River	19.2	18.3	18.4	10.6	16.3	26.3	24.1	26.3	11.9	23.8	34.6

ND = No Data.

TABLE AII-34: BENZENE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	ND	2.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	2.000	2.000	2.000	2.500	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	2.000	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	2.000	2.000	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	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	2.000	ND	ND	ND	2.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	2.000	2.000	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

**TABLE AII-35: ETHYLBENZENE MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	ND	2.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	2.000	2.200	3.200	2.667	2.120	0.000	0.000	0.400	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	2.000	2.000	2.000	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	2.000	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	2.000	2.000	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	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	2.000	ND	ND	ND	2.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	2.000	2.000	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-36: TOLUENE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	ND	2.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	1.267	0.000	0.000
36 Touhy Avenue, North Shore Channel	2.000	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.333
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.400
73 Diversey Parkway, North Branch Chicago River	2.000	2.950	2.000	2.000	2.183	0.000	0.333	0.000	1.067	0.000	2.200
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	2.000	2.000	0.000	0.000	0.967	0.640	0.000	0.400
74 Lake Shore Drive, Chicago River	ND	ND	ND	2.000	2.000	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	2.050	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	2.000	3.033	0.000	0.000	0.383	0.625	0.000	0.333
108 Loomis Street, South Branch Chicago River	2.000	2.000	2.000	2.000	2.000	0.000	0.000	0.383	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	2.000	3.000	2.000	5.500	2.000	1.200	0.000	0.000	0.000	0.000	0.800
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	7.250	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	2.167	2.000	6.167	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	2.000	2.120	2.000	2.333	2.460	0.000	1.033	0.000	0.000	0.000	0.400
56 Indiana Avenue, Little Calumet River	2.000	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	2.000	2.000	2.167	2.000	2.000	0.000	0.483	0.433	0.000	0.000	0.667
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	2.000	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.400
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	2.000	2.000	0.000	0.467	0.000	0.000	0.000	0.857
59 Cicero Avenue, Calumet-Sag Channel	2.000	2.000	2.000	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	2.000	2.000	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	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	2.000	ND	ND	ND	2.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	2.000	2.000	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	2.000	2.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-37: XYLENE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
112 Dempster Street, North Shore Channel	ND	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	3.000	3.000	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	3.000	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	ND	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	3.000	3.000	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	ND	3.000	3.000	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	3.000	ND	ND	ND	3.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	3.000	3.000	3.000	3.000	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	ND	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-38: META AND/OR PARA XYLENES MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
112 Dempster Street, North Shore Channel	ND	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	3.000	3.000	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	3.000	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	ND	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	3.000	3.000	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	ND	3.000	3.000	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	3.000	ND	ND	ND	3.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	3.000	3.000	3.000	3.000	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	ND	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.000	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-39: ORTHO XYLENE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	3.000	3.000	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	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	3.000	3.000	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	3.000	3.000	3.000	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	3.000	3.000	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	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	3.000	ND	3.000	3.000	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	3.000	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	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	3.000	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	3.000	3.000	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	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	3.000	3.000	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	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	3.000	ND	ND	ND	3.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	3.000	3.000	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	3.000	3.000	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	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	3.000	3.000	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	3.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-40: TOTAL SILVER MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.002	0.004	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	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	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	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	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	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	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	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	0.001	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.001	0.004	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	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	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	0.001	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	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	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	0.001	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	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	0.001	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	0.001	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	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	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.001	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	0.001	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	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	0.001	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	0.001	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	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	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	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	0.001	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	0.001	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	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	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	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001
43 Route 83, Calumet-Sag Channel	0.001	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	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	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	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	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	0.004	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	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	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	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	0.001	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	ND
77 Elmhurst Road, Higgins Creek	ND	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	0.001	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	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	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	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	0.001	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	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	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	0.001	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
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
105 Frontage Road, Skokie River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
35 Central Street, North Shore Channel	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
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	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.050	0.050	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	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.002
55 130th Street, Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	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	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.001
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.050	0.050	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.050	0.050	0.000	0.000	0.545	0.000	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
17 Oakton Street, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.001
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.001
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.002
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.001
29 Stephen Street, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001
91 Material Service Road, Des Plaines River	ND	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.002

ND = No Data.

TABLE AII-42: TOTAL BARIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.072	0.079	0.064	0.060	0.063	0.062	0.056	0.051
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.056	0.055	0.054	0.048	0.048	0.052	0.052	0.055
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.039	0.037	0.039	0.036	0.042	0.041	0.045	0.042
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.034	0.036	0.033	0.032	0.037	0.034	0.037	0.032
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.046	0.043	0.042	0.038	0.042	0.048	0.043	0.041
105 Frontage Road, Skokie River	ND	ND	ND	0.032	0.031	0.030	0.030	0.035	0.032	0.030	0.030
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.046	0.039	0.040	0.035	0.039	0.038	0.040	0.041
96 Albany Avenue, North Branch Chicago River	0.038	0.044	0.038	0.036	0.041	0.038	0.037	0.042	0.039	0.041	0.040
35 Central Street, North Shore Channel	ND	ND	ND	0.029	0.024	0.023	0.021	0.024	0.023	0.022	0.025
112 Dempster Street, North Shore Channel	0.024	0.026	0.027	0.030	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.027	0.026	0.026	0.023	0.025	0.025	0.023	0.025
36 Touhy Avenue, North Shore Channel	0.025	0.025	0.022	0.023	0.026	0.022	0.026	0.026	0.024	0.021	0.022
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.025	0.025	0.023	0.025	0.027	0.024	0.021	0.022
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.027	0.029	0.028	0.027	0.030	0.027	0.025	0.024
73 Diversey Parkway, North Branch Chicago River	0.028	0.029	0.025	0.024	0.028	0.026	0.027	0.030	0.026	0.025	0.024
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.028	0.028	0.026	0.027	0.030	0.028	0.026	0.025
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.026	0.026	0.023	0.022	0.023	0.024	0.022	0.023
100 Wells Street, Chicago River	0.025	0.027	0.026	0.025	0.026	0.023	0.024	0.026	0.024	0.023	0.023
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.029	0.030	0.026	0.027	0.028	0.027	0.025	0.024
108 Loomis Street, South Branch Chicago River	0.027	0.030	0.026	0.025	0.028	0.026	0.027	0.030	0.028	0.026	0.025
99 Archer Avenue, South Fork South Branch Chicago River	0.029	0.031	0.027	0.026	0.029	0.026	0.026	0.030	0.025	0.025	0.025
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.029	0.028	0.027	0.027	0.029	0.028	0.027	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	0.028	0.030	0.025	0.024	0.030	0.026	0.027	0.030	0.027	0.026	0.025
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.022	0.024	0.020	0.020	0.025	0.022	0.023	0.024	0.024	0.021	0.020
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.022	0.021	0.022	0.024	0.022	0.020	0.020
48 Stephen Street, Chicago Sanitary and Ship Canal	0.024	0.025	0.021	0.022	0.025	0.023	0.023	0.026	0.025	0.023	0.023
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.023	0.025	0.022	0.020	0.024	0.023	0.024	0.026	0.023	0.023	0.023
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.023	0.024	0.022	0.022	0.022	0.023	0.022	0.022
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.045	0.036	0.035	0.034	0.034	0.036	0.028	0.033
55 130th Street, Calumet River	ND	ND	ND	0.032	0.030	0.028	0.029	0.030	0.032	0.031	0.030
86 Burnham Avenue, Grand Calumet River	0.029	0.032	0.036	0.034	0.033	0.037	0.028	0.031	0.034	0.029	0.043
56 Indiana Avenue, Little Calumet River	0.027	0.029	0.027	0.028	0.031	0.029	0.033	0.034	0.033	0.031	0.030
76 Halsted Street, Little Calumet River	0.022	0.026	0.022	0.021	0.025	0.021	0.025	0.027	0.024	0.022	0.022
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.039	0.043	0.044	0.039	0.040	0.039	0.043	0.037
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.025	0.032	0.035	0.029	0.031	0.028	0.031	0.042
97 170th Street, Thorn Creek	ND	ND	ND	0.046	0.043	0.041	0.037	0.038	0.035	0.041	0.042
57 Ashland Avenue, Little Calumet River	0.043	0.043	0.035	0.034	0.042	0.039	0.037	0.038	0.036	0.042	0.040
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.025	0.030	0.029	0.027	0.026	0.026	0.024	0.026
59 Cicero Avenue, Calumet-Sag Channel	0.027	0.031	0.026	0.023	0.029	0.026	0.027	0.027	0.027	0.028	0.024
43 Route 83, Calumet-Sag Channel	0.026	0.030	0.025	0.023	0.028	0.026	0.027	0.027	0.027	0.028	0.025
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.071	0.064	0.069	0.062	0.071	0.078	0.095	0.112
110 Springinguth Road, West Branch DuPage River	0.047	0.053	0.048	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.035	0.035	0.031	0.029	0.032	0.029	0.030	0.026
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.046	0.034	0.039	0.031	0.035	0.033
111 Arlington Drive, West Branch DuPage River	0.036	0.039	0.036	0.037	0.037	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.044	0.045	0.039	0.041	0.043	0.038	0.041	0.051	0.045	0.044	0.053
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.035	0.032	0.031	0.027	0.031	0.027	0.033	0.033
18 Devon Avenue, Salt Creek	0.029	0.032	0.029	0.026	0.030	0.034	0.028	0.031	0.028	0.033	0.031
24 Wolf Road, Salt Creek	ND	ND	ND	0.036	0.035	0.037	0.034	0.037	0.034	0.035	0.033
109 Brookfield Avenue, Salt Creek	0.033	0.036	0.033	0.031	0.036	0.036	0.034	0.038	0.034	0.036	0.033
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.060	0.053	0.057	0.047	0.061	0.043	0.064	0.043	0.056	0.056
78 Wille Road, Higgins Creek	0.027	0.024	0.025	0.025	0.029	0.026	0.029	0.026	0.024	0.024	0.020
12 Lake-Cook Road, Buffalo Creek	ND	0.036	ND	0.043	0.043	0.050	0.042	0.049	0.044	0.047	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.046	0.038	0.042	0.033	0.040	0.040	0.045	0.038
17 Oakton Street, Des Plaines River	ND	ND	ND	0.043	0.041	0.044	0.035	0.041	0.040	0.046	0.040
19 Belmont Avenue, Des Plaines River	0.042	0.043	0.038	0.038	0.039	0.040	0.034	0.040	0.038	0.043	0.037
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.039	0.039	0.040	0.034	0.042	0.038	0.044	0.037
22 Ogden Avenue, Des Plaines River	0.038	0.039	0.037	0.038	0.038	0.038	0.034	0.039	0.037	0.042	0.036
23 Willow Springs Road, Des Plaines River	0.039	0.039	0.036	0.036	0.038	0.037	0.033	0.039	0.036	0.039	0.036
29 Stephen Street, Des Plaines River	ND	ND	ND	0.039	0.037	0.038	0.033	0.039	0.037	0.041	0.035
91 Material Service Road, Des Plaines River	0.039	0.038	0.034	0.034	0.038	0.037	0.033	0.039	0.037	0.041	0.035

ND = No Data.

TABLE AII-43: TOTAL BORON MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.138	0.145	0.138	0.160	0.150	0.135	0.129	0.178
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.121	0.125	0.124	0.113	0.104	0.149	0.145	0.191
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.090	0.073	0.067	0.074	0.085	0.121	0.118	0.176
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.113	0.103	0.126	0.107	0.115	0.142	0.142	0.182
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.095	0.093	0.092	0.093	0.097	0.120	0.135	0.161
105 Frontage Road, Skokie River	ND	ND	ND	0.126	0.121	0.137	0.124	0.121	0.149	0.161	0.188
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.116	0.114	0.107	0.103	0.113	0.139	0.143	0.192
96 Albany Avenue, North Branch Chicago River	0.102	0.112	0.098	0.117	0.114	0.118	0.112	0.109	0.138	0.151	0.185
35 Central Street, North Shore Channel	ND	ND	ND	0.052	0.060	0.000	0.011	0.012	0.036	0.037	0.039
112 Dempster Street, North Shore Channel	0.057	0.059	0.067	0.115	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.129	0.100	0.060	0.070	0.060	0.087	0.117	0.093
36 Touhy Avenue, North Shore Channel	0.146	0.151	0.127	0.158	0.150	0.160	0.151	0.173	0.185	0.193	0.180
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.150	0.132	0.151	0.147	0.167	0.182	0.192	0.177
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.138	0.125	0.138	0.128	0.146	0.160	0.173	0.168
73 Diversey Parkway, North Branch Chicago River	0.128	0.140	0.118	0.148	0.128	0.143	0.123	0.142	0.166	0.166	0.160
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.141	0.121	0.132	0.116	0.132	0.154	0.163	0.172
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.077	0.077	0.024	0.023	0.040	0.092	0.067	0.061
100 Wells Street, Chicago River	0.068	0.066	0.083	0.104	0.093	0.044	0.045	0.069	0.079	0.081	0.082
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.117	0.117	0.103	0.102	0.109	0.107	0.128	0.132
108 Loomis Street, South Branch Chicago River	0.100	0.096	0.101	0.125	0.108	0.107	0.103	0.109	0.109	0.131	0.135
99 Archer Avenue, South Fork South Branch Chicago River	0.104	0.104	0.101	0.111	0.110	0.118	0.099	0.125	0.111	0.117	0.134
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.120	0.108	0.108	0.101	0.111	0.106	0.130	0.133
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	0.103	0.102	0.104	0.124	0.109	0.114	0.095	0.125	0.117	0.124	0.133
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.179	0.167	0.147	0.163	0.154	0.152	0.145	0.166	0.168	0.183	0.176
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.256	0.213	0.221	0.164	0.168	0.208	0.223	0.219
48 Stephen Street, Chicago Sanitary and Ship Canal	0.179	0.194	0.208	0.235	0.195	0.204	0.153	0.175	0.192	0.208	0.216
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.187	0.190	0.191	0.215	0.191	0.203	0.162	0.185	0.196	0.218	0.223
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.050	0.060	0.000	0.017	0.017	0.046	0.049	0.042
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.217	0.244	0.242	0.238	0.181	0.171	0.115	0.147
55 130th Street, Calumet River	ND	ND	ND	0.151	0.114	0.089	0.111	0.119	0.146	0.107	0.113
86 Burnham Avenue, Grand Calumet River	0.266	0.549	0.687	0.615	0.805	0.774	0.345	0.682	0.583	0.601	0.287
56 Indiana Avenue, Little Calumet River	0.116	0.140	0.091	0.133	0.132	0.111	0.122	0.145	0.165	0.137	0.116
76 Halsted Street, Little Calumet River	0.175	0.177	0.175	0.189	0.187	0.173	0.171	0.205	0.194	0.224	0.205
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.254	0.140	0.179	0.169	0.262	0.231	0.240	0.224
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.293	0.203	0.221	0.256	0.324	0.313	0.404	0.269
97 170th Street, Thorn Creek	ND	ND	ND	0.238	0.182	0.194	0.207	0.246	0.222	0.297	0.251
57 Ashland Avenue, Little Calumet River	0.227	0.176	0.212	0.223	0.171	0.180	0.191	0.241	0.202	0.258	0.232
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.193	0.171	0.176	0.163	0.202	0.173	0.230	0.206
59 Cicero Avenue, Calumet-Sag Channel	0.182	0.161	0.172	0.189	0.174	0.172	0.154	0.201	0.165	0.224	0.199
43 Route 83, Calumet-Sag Channel	0.178	0.157	0.161	0.190	0.157	0.181	0.148	0.187	0.168	0.204	0.207
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.054	0.060	0.025	0.024	0.047	0.058	0.061	0.071
110 Springinguth Road, West Branch DuPage River	0.072	0.088	0.081	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.181	0.169	0.216	0.203	0.218	0.248	0.247	0.278
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.102	0.149	0.183	0.187	0.190	0.238
111 Arlington Drive, West Branch DuPage River	0.154	0.155	0.139	0.169	0.146	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.074	0.090	0.084	0.081	0.099	0.051	0.079	0.082	0.085	0.091	0.098
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.170	0.134	0.190	0.145	0.176	0.198	0.191	0.205
18 Devon Avenue, Salt Creek	0.199	0.208	0.162	0.218	0.150	0.189	0.135	0.172	0.196	0.196	0.207
24 Wolf Road, Salt Creek	ND	ND	ND	0.166	0.163	0.162	0.145	0.178	0.182	0.188	0.233
109 Brookfield Avenue, Salt Creek	0.206	0.198	0.153	0.196	0.155	0.181	0.150	0.188	0.183	0.210	0.262
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.090	0.078	0.106	0.080	0.000	0.055	0.110	0.089	0.083	0.081
78 Wille Road, Higgins Creek	0.201	0.225	0.204	0.245	0.224	0.202	0.193	0.245	0.260	0.289	0.366
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.073	0.081	0.073	0.091	0.100	0.088	0.107	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.121	0.114	0.141	0.117	0.157	0.155	0.181	0.221
17 Oakton Street, Des Plaines River	ND	ND	ND	0.124	0.113	0.141	0.101	0.144	0.137	0.155	0.215
19 Belmont Avenue, Des Plaines River	0.134	0.130	0.128	0.177	0.125	0.149	0.112	0.154	0.154	0.170	0.236
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.133	0.126	0.155	0.107	0.168	0.151	0.172	0.237
22 Ogden Avenue, Des Plaines River	0.155	0.146	0.136	0.188	0.130	0.151	0.121	0.169	0.155	0.183	0.236
23 Willow Springs Road, Des Plaines River	0.154	0.148	0.134	0.183	0.129	0.155	0.116	0.170	0.161	0.185	0.243
29 Stephen Street, Des Plaines River	ND	ND	ND	0.134	0.120	0.145	0.110	0.160	0.167	0.192	0.243
91 Material Service Road, Des Plaines River	0.155	0.150	0.133	0.173	0.124	0.148	0.116	0.162	0.173	0.198	0.249

ND = No Data.

TABLE AII-44: TOTAL CADMIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.001	0.001	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	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	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	ND	ND	ND	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	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	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	ND	ND	ND	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	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	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
100 Wells Street, Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001	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	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	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	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
55 130th Street, Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001
97 170th Street, Thorn Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.001	0.001	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	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	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	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	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	0.001	0.001	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
18 Devon Avenue, Salt Creek	ND	ND	ND	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	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
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	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
17 Oakton Street, Des Plaines River	ND	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	ND	ND	ND	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	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
29 Stephen Street, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
91 Material Service Road, Des Plaines River	ND	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001

ND = No Data.

TABLE AII-45: TOTAL COPPER MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.014	0.020	0.004	0.003	0.005	0.006	0.012	0.028
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.007	0.020	0.000	0.001	0.000	0.002	0.004	0.017
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.007	0.020	0.000	0.000	0.000	0.001	0.005	0.021
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.007	0.021	0.000	0.001	0.000	0.002	0.005	0.016
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.006	0.021	0.000	0.001	0.000	0.001	0.006	0.017
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.003	0.018
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.006	0.020	0.000	0.000	0.000	0.002	0.004	0.018
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.006	0.020	0.001	0.000	0.000	0.002	0.004	0.017
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.000	0.001	0.014
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	0.006	0.020	0.001	0.000	0.000	0.001	0.003	0.013
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.006	0.020	0.000	0.000	0.000	0.002	0.004	0.017
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.006	0.020	0.000	0.000	0.000	0.003	0.003	0.016
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.006	0.020	0.000	0.000	0.000	0.002	0.003	0.016
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.006	0.020	0.000	0.001	0.000	0.002	0.003	0.017
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.007	0.020	0.003	0.000	0.000	0.003	0.004	0.017
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.006	0.020	0.000	0.000	0.000	0.003	0.002	0.015
100 Wells Street, Chicago River	ND	ND	ND	0.009	0.020	0.001	0.000	0.000	0.004	0.004	0.016
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.007	0.020	0.000	0.000	0.000	0.005	0.004	0.017
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.007	0.020	0.000	0.000	0.001	0.007	0.005	0.018
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.008	0.020	0.000	0.000	0.000	0.003	0.004	0.015
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.008	0.020	0.000	0.000	0.001	0.005	0.006	0.018
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	0.009	0.020	0.000	0.000	0.000	0.005	0.005	0.019
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.007	0.020	0.000	0.000	0.000	0.003	0.003	0.013
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.020	0.000	0.000	0.001	0.005	0.002	0.015
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.008	0.020	0.000	0.000	0.001	0.004	0.002	0.015
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.020	0.000	0.000	0.001	0.002	0.003	0.016
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.004	0.013
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.000	0.002	0.014
55 130th Street, Calumet River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.006	0.013
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.005	0.020	0.001	0.000	0.000	0.004	0.006	0.038
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.006	0.020	0.000	0.002	0.000	0.005	0.004	0.015
76 Halsted Street, Little Calumet River	ND	ND	ND	0.005	0.020	0.000	0.028	0.001	0.001	0.002	0.015
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.020	0.001	0.000	0.000	0.002	0.003	0.015
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.000	0.001	0.020
97 170th Street, Thorn Creek	ND	ND	ND	0.005	0.020	0.001	0.000	0.000	0.003	0.002	0.017
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.017	0.020	0.001	0.007	0.000	0.004	0.002	0.019
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.029	0.020	0.000	0.013	0.000	0.001	0.002	0.020
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.002	0.014
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.002	0.014
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.001	0.015
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	0.008	0.020	0.002	0.003	0.003	0.006	0.007	0.021
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.005	0.006	0.022
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.006	0.020	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.001	0.017
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.003	0.018
18 Devon Avenue, Salt Creek	ND	ND	ND	0.005	0.020	0.000	0.001	0.000	0.002	0.003	0.021
24 Wolf Road, Salt Creek	ND	ND	ND	0.005	0.020	0.001	0.000	0.001	0.005	0.006	0.020
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.005	0.020	0.003	0.001	0.001	0.005	0.007	0.020
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	0.005	0.020	0.000	0.000	0.003	0.005	0.006	0.016
78 Wille Road, Higgins Creek	ND	ND	ND	0.008	0.020	0.000	0.000	0.001	0.001	0.001	0.017
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.002	0.017
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.002	0.016
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.006	0.020	0.000	0.000	0.001	0.002	0.003	0.019
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.006	0.020	0.001	0.000	0.001	0.003	0.003	0.017
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.004	0.004	0.020
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.005	0.020	0.000	0.000	0.000	0.003	0.004	0.021
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.026	0.001	0.000	0.000	0.003	0.004	0.019
91 Material Service Road, Des Plaines River	ND	ND	ND	0.005	0.021	0.000	0.000	0.000	0.003	0.003	0.017

ND = No Data.

TABLE AII-46: TOTAL CHROMIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.010	0.001	0.002	0.002	0.003	0.004	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.010	0.001	0.002	0.001	0.002	0.002	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.005	0.010	0.000	0.001	0.001	0.002	0.003	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.005	0.010	0.000	0.002	0.001	0.001	0.003	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.005	0.010	0.001	0.001	0.001	0.001	0.003	0.000
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.010	0.001	0.000	0.000	0.001	0.001	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.005	0.010	0.000	0.002	0.001	0.002	0.002	0.000
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.010	0.001	0.001	0.002	0.002	0.002	0.001
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.010	0.000	0.000	0.000	0.001	0.001	0.002
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	0.005	0.010	0.000	0.001	0.001	0.001	0.001	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.006	0.010	0.000	0.000	0.000	0.001	0.001	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.005	0.010	0.000	0.000	0.001	0.001	0.001	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.010	0.000	0.000	0.001	0.001	0.001	0.000
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.005	0.020	0.000	0.001	0.000	0.001	0.001	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.010	0.000	0.002	0.003	0.003	0.002	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.005	0.010	0.000	0.000	0.001	0.002	0.001	0.000
100 Wells Street, Chicago River	ND	ND	ND	0.005	0.010	0.000	0.000	0.001	0.003	0.001	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.007	0.010	0.001	0.001	0.002	0.004	0.001	0.000
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.008	0.010	0.001	0.001	0.004	0.004	0.002	0.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.005	0.010	0.000	0.001	0.002	0.002	0.001	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.010	0.001	0.002	0.004	0.003	0.002	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	0.013	0.010	0.001	0.003	0.005	0.003	0.002	0.001
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.010	0.000	0.002	0.008	0.003	0.002	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.045	0.001	0.002	0.002	0.004	0.002	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.022	0.001	0.003	0.002	0.004	0.002	0.002
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.010	0.001	0.003	0.003	0.002	0.002	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.010	0.001	0.000	0.001	0.002	0.001	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.010	0.000	0.001	0.000	0.001	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.005	0.010	0.000	0.001	0.000	0.001	0.002	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.005	0.010	0.000	0.002	0.001	0.003	0.003	0.009
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.005	0.010	0.000	0.004	0.002	0.003	0.002	0.000
76 Halsted Street, Little Calumet River	ND	ND	ND	0.005	0.010	0.000	0.001	0.002	0.002	0.002	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.010	0.003	0.003	0.001	0.002	0.002	0.001
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.010	0.001	0.001	0.000	0.001	0.001	0.004
97 170th Street, Thorn Creek	ND	ND	ND	0.005	0.010	0.002	0.001	0.001	0.002	0.002	0.001
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.005	0.010	0.002	0.003	0.001	0.004	0.002	0.002
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.010	0.001	0.001	0.002	0.003	0.001	0.000
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.010	0.001	0.001	0.003	0.002	0.002	0.000
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.005	0.010	0.000	0.001	0.001	0.002	0.002	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.010	0.002	0.001	0.003	0.001	0.001	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	ND	0.006	0.012	0.002	0.002	0.003	0.001	0.001	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.001	0.001	0.002	0.002	0.002	0.000
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.005	0.010	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.005	0.010	0.001	0.001	0.001	0.002	0.002	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.010	0.000	0.002	0.000	0.001	0.001	0.000
18 Devon Avenue, Salt Creek	ND	ND	ND	0.005	0.010	0.000	0.002	0.000	0.001	0.001	0.001
24 Wolf Road, Salt Creek	ND	ND	ND	0.005	0.010	0.001	0.002	0.001	0.002	0.003	0.001
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.005	0.010	0.001	0.001	0.002	0.002	0.007	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	ND	0.005	0.010	0.000	0.002	0.004	0.003	0.003	0.000
78 Wille Road, Higgins Creek	ND	ND	ND	0.005	0.010	0.000	0.001	0.001	0.001	0.001	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.005	0.010	0.002	0.004	0.001	0.002	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.010	0.000	0.001	0.001	0.001	0.001	0.001
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.010	0.000	0.002	0.001	0.001	0.001	0.000
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.005	0.013	0.001	0.006	0.002	0.002	0.002	0.013
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.010	0.002	0.002	0.002	0.002	0.002	0.004
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.005	0.010	0.002	0.002	0.002	0.002	0.003	0.002
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.005	0.010	0.013	0.002	0.002	0.002	0.003	0.005
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.010	0.001	0.002	0.001	0.002	0.004	0.003
91 Material Service Road, Des Plaines River	ND	ND	ND	0.005	0.010	0.001	0.001	0.003	0.002	0.002	0.002

ND = No Data.

TABLE AII-47: TOTAL HEXAVALENT CHROMIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.500	1.800	3.500
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.727	0.500	1.400
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.000	0.182	1.300
104 Glenview Road, North Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.364	0.667	1.500
32 Lake-Cook Road, Skokie River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.600	0.333	0.909
105 Frontage Road, Skokie River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.364	0.750	1.250
34 Dempster Street, North Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	1.000	1.909
96 Albany Avenue, North Branch Chicago River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.636	0.333	1.273
35 Central Street, North Shore Channel	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.333	0.889	1.750
112 Dempster Street, North Shore Channel	6.000	6.000	6.000	6.000	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.583	0.333	1.750
36 Touhy Avenue, North Shore Channel	6.083	6.000	6.091	6.000	10.000	0.000	0.000	0.000	1.083	0.500	1.333
101 Foster Avenue, North Shore Channel	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.583	0.667	1.846
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.167	0.667	1.833
73 Diversey Parkway, North Branch Chicago River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.333	0.750	1.583
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	0.333	1.667
74 Lake Shore Drive, Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.909	0.364	0.400
100 Wells Street, Chicago River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	1.000	0.417	0.417
39 Madison Street, South Branch Chicago River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	0.750	0.667
108 Loomis Street, South Branch Chicago River	6.182	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.167	0.667	0.500
99 Archer Avenue, South Fork South Branch Chicago River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.364	0.286	0.909
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.583	0.500	0.833
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	6.000	10.000	0.000	0.000	1.417	1.083	0.583	0.750
41 Harlem Avenue, Chicago Sanitary and Ship Canal	6.083	6.000	6.000	6.000	10.000	0.000	0.000	2.909	0.333	0.500	0.667
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.182	0.667	0.818
48 Stephen Street, Chicago Sanitary and Ship Canal	6.000	6.000	6.083	6.000	10.000	0.000	0.000	0.000	0.636	0.667	0.909
92 Lockport Forebay, Chicago Sanitary and Ship Canal	6.216	6.000	6.059	6.078	10.000	0.000	0.000	0.000	0.540	0.627	1.442
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.400	0.364	0.818
50 Burnham Avenue, Wolf Lake	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	0.636	1.167
55 130th Street, Calumet River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.400	0.818	1.091
86 Burnham Avenue, Grand Calumet River	6.000	6.100	6.000	6.000	10.000	0.000	0.000	0.000	0.200	0.818	1.700
56 Indiana Avenue, Little Calumet River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.500	0.818	1.000
76 Halsted Street, Little Calumet River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.909	0.818	1.583
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.727	0.727	1.364
54 Joe Orr Road, Thorn Creek	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.200	0.667	2.500
97 170th Street, Thorn Creek	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	1.000	0.818	1.636
57 Ashland Avenue, Little Calumet River	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.364	1.091	1.545
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.727	0.909	1.500
59 Cicero Avenue, Calumet-Sag Channel	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.273	0.727	1.583
43 Route 83, Calumet-Sag Channel	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.273	1.000	1.273
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.000	0.417	1.455
110 Springinsguth Road, West Branch DuPage River	6.111	6.125	6.000	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.417	0.417	1.250
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.750	0.833	1.583
111 Arlington Drive, West Branch DuPage River	6.083	6.000	6.000	6.000	10.000	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.000	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.200	0.778	1.778
80 Arlington Heights Road, Salt Creek	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.167	0.167	2.250
18 Devon Avenue, Salt Creek	6.182	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.417	0.333	1.667
24 Wolf Road, Salt Creek	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.182	0.417	2.333
109 Brookfield Avenue, Salt Creek	6.300	6.111	6.000	6.250	10.000	0.000	0.000	0.000	0.182	3.500	1.917
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.400	0.714	1.000
78 Wille Road, Higgins Creek	6.300	6.083	6.083	6.000	10.000	0.000	0.000	0.000	0.167	0.500	1.333
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.333	0.778	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.833	0.000	1.583
17 Oakton Street, Des Plaines River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.182	0.167	1.417
19 Belmont Avenue, Des Plaines River	6.273	6.000	6.000	38.417	10.000	0.000	0.000	0.000	0.000	0.583	10.333
20 Roosevelt Road, Des Plaines River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.364	0.417	3.833
22 Ogden Avenue, Des Plaines River	6.100	6.000	9.500	12.583	10.000	0.000	0.000	0.000	0.364	0.667	1.500
23 Willow Springs Road, Des Plaines River	6.444	6.000	8.545	6.000	10.000	11.583	0.000	0.000	0.182	0.833	3.083
29 Stephen Street, Des Plaines River	ND	ND	ND	6.000	10.000	0.000	0.000	0.000	0.000	0.750	1.500
91 Material Service Road, Des Plaines River	6.000	6.000	6.000	6.333	10.000	0.000	0.000	0.000	0.273	0.750	1.417

ND = No Data.

TABLE AII-48: TOTAL IRON MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	2.150	1.310	0.991	1.346	1.915	1.138	2.559	1.173
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.850	0.664	0.571	1.029	0.838	0.573	1.142	0.864
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.350	0.589	0.698	0.894	1.080	0.853	1.924	0.817
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.525	0.967	0.614	0.885	0.909	0.617	1.421	0.598
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.700	0.830	0.602	0.976	1.095	0.846	1.756	0.867
105 Frontage Road, Skokie River	ND	ND	ND	0.300	0.575	0.459	0.631	0.711	0.584	0.591	0.476
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.725	0.618	0.469	0.828	0.921	0.693	1.091	0.697
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.375	0.636	0.605	0.797	1.098	0.595	0.917	0.646
35 Central Street, North Shore Channel	ND	ND	ND	0.250	0.225	0.174	0.278	0.300	0.209	0.322	0.329
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	0.225	0.433	0.553	0.340	0.490	0.388	0.394	0.358
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.150	0.200	0.134	0.173	0.198	0.158	0.180	0.209
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.175	0.250	0.171	0.182	0.259	0.185	0.214	0.306
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.200	0.333	0.309	0.458	0.484	0.322	0.361	0.306
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.250	0.500	0.274	0.478	0.459	0.373	0.401	0.319
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.325	0.375	0.320	0.546	0.479	0.552	0.506	0.386
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.125	0.200	0.090	0.103	0.148	0.161	0.099	0.127
100 Wells Street, Chicago River	ND	ND	ND	0.400	0.275	0.126	0.182	0.292	0.172	0.178	0.171
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.450	0.417	0.336	0.410	0.477	0.527	0.294	0.326
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.425	0.433	0.360	0.437	0.566	0.543	0.397	0.327
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.725	0.467	0.394	0.460	0.483	0.379	0.384	0.393
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.450	0.408	0.393	0.460	0.513	0.495	0.465	0.360
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	0.625	0.692	0.389	0.523	0.473	0.509	0.494	0.401
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.275	0.375	0.207	0.340	0.286	0.418	0.295	0.256
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.225	0.475	0.209	0.307	0.364	0.425	0.247	0.247
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.575	0.625	0.345	0.506	0.630	0.641	0.511	0.473
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.288	0.404	0.338	0.561	0.593	0.454	0.477	0.443
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.400	0.383	0.067	0.173	0.210	0.355	0.308	0.202
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.150	0.200	0.082	0.117	0.065	0.165	0.065	0.148
55 130th Street, Calumet River	ND	ND	ND	0.150	0.270	0.103	0.183	0.234	0.339	0.479	0.257
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	1.275	1.210	1.404	1.010	1.108	1.567	1.217	2.100
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.233	0.380	0.288	0.650	0.861	0.701	0.587	0.684
76 Halsted Street, Little Calumet River	ND	ND	ND	0.200	0.282	0.222	0.381	0.698	0.390	0.380	0.321
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	1.525	3.360	3.213	1.980	1.189	1.842	1.676	1.388
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.625	1.760	1.170	0.739	0.332	0.489	0.317	2.309
97 170th Street, Thorn Creek	ND	ND	ND	1.050	3.330	2.409	1.223	0.825	1.459	1.217	1.516
57 Ashland Avenue, Little Calumet River	ND	ND	ND	1.150	2.440	2.236	1.307	0.785	1.423	1.126	1.514
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.375	1.282	0.906	0.606	0.549	0.757	0.461	0.548
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.500	0.909	0.665	0.643	0.782	0.830	0.780	0.524
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.450	0.855	0.430	0.784	0.578	0.706	0.722	0.514
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.525	0.800	0.796	0.750	0.959	0.672	1.105	1.031
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	0.275	0.358	0.446	0.334	0.607	0.363	0.333	0.383
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.913	0.807	1.035	0.879	1.017	1.009
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	1.000	0.717	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.933	1.100	1.280	1.223	1.264	1.286	1.306	1.534
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.275	0.391	0.298	0.538	0.333	0.447	0.397	0.344
18 Devon Avenue, Salt Creek	ND	ND	ND	0.350	0.391	0.374	0.619	0.427	0.533	0.488	0.421
24 Wolf Road, Salt Creek	ND	ND	ND	0.400	0.655	0.785	0.909	0.929	1.071	1.287	0.875
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.325	0.645	0.716	0.934	0.908	0.941	1.371	0.903
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	0.500	1.100	0.780	0.770	1.844	0.960	1.375	0.866
78 Wille Road, Higgins Creek	ND	ND	ND	0.175	0.200	0.078	0.137	0.236	0.177	0.153	0.160
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.600	0.800	1.391	1.227	1.054	1.261	1.086	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.600	0.582	0.682	0.976	0.788	0.863	0.920	0.892
17 Oakton Street, Des Plaines River	ND	ND	ND	0.525	0.618	0.525	1.019	0.902	0.812	0.875	0.722
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.450	0.609	0.681	0.971	0.975	0.883	0.892	0.682
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.500	0.582	0.698	1.030	0.979	0.865	0.871	0.766
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.425	0.591	0.773	1.055	0.916	1.081	1.161	0.850
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.400	0.636	0.634	0.992	0.872	0.880	0.932	0.727
29 Stephen Street, Des Plaines River	ND	ND	ND	0.400	0.609	0.715	1.074	0.796	0.849	0.907	0.756
91 Material Service Road, Des Plaines River	ND	ND	ND	0.450	0.700	0.713	0.862	0.762	0.765	0.966	0.790

ND = No Data.

TABLE AII-49: TOTAL LEAD MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.022	0.010	0.005	0.007	0.006
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.012	0.004	0.005	0.006	0.005
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.020	0.030	0.000	0.009	0.004	0.006	0.007	0.004
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.019	0.007	0.005	0.008	0.003
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.020	0.030	0.000	0.011	0.006	0.007	0.007	0.003
105 Frontage Road, Skokie River	ND	ND	ND	0.020	0.030	0.000	0.018	0.005	0.006	0.006	0.003
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.016	0.007	0.005	0.007	0.005
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.018	0.009	0.006	0.007	0.005
35 Central Street, North Shore Channel	ND	ND	ND	0.020	0.030	0.000	0.009	0.004	0.002	0.003	0.002
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	0.020	0.030	0.000	0.010	0.007	0.005	0.004	0.004
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.020	0.030	0.000	0.020	0.005	0.004	0.004	0.003
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.020	0.030	0.000	0.017	0.006	0.004	0.004	0.003
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.016	0.007	0.005	0.005	0.003
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.016	0.006	0.005	0.005	0.004
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.016	0.007	0.008	0.007	0.005
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.020	0.030	0.000	0.003	0.006	0.008	0.004	0.004
100 Wells Street, Chicago River	ND	ND	ND	0.020	0.030	0.000	0.004	0.006	0.006	0.010	0.004
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.004	0.007	0.010	0.010	0.006
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.020	0.030	0.001	0.013	0.009	0.010	0.011	0.006
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.020	0.030	0.002	0.006	0.006	0.008	0.007	0.007
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.001	0.007	0.008	0.009	0.011	0.007
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	0.020	0.030	0.001	0.011	0.008	0.010	0.011	0.007
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.000	0.010	0.007	0.008	0.008	0.004
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.001	0.013	0.009	0.008	0.007	0.005
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.000	0.013	0.007	0.009	0.008	0.007
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.000	0.013	0.008	0.006	0.007	0.006
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.020	0.030	0.000	0.000	0.004	0.010	0.004	0.003
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.020	0.030	0.000	0.002	0.004	0.007	0.003	0.004
55 130th Street, Calumet River	ND	ND	ND	0.020	0.030	0.000	0.000	0.002	0.006	0.008	0.004
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.020	0.030	0.000	0.004	0.007	0.012	0.013	0.034
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.020	0.030	0.002	0.000	0.005	0.027	0.006	0.006
76 Halsted Street, Little Calumet River	ND	ND	ND	0.020	0.030	0.000	0.009	0.010	0.042	0.006	0.005
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.020	0.030	0.000	0.006	0.005	0.005	0.006	0.005
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.020	0.031	0.000	0.004	0.002	0.004	0.004	0.016
97 170th Street, Thorn Creek	ND	ND	ND	0.020	0.030	0.000	0.004	0.004	0.007	0.006	0.007
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.020	0.030	0.002	0.002	0.005	0.007	0.006	0.008
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.020	0.030	0.002	0.008	0.006	0.007	0.006	0.010
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.020	0.030	0.000	0.002	0.005	0.006	0.007	0.005
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.020	0.030	0.001	0.003	0.004	0.006	0.008	0.008
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.020	0.030	0.000	0.013	0.007	0.003	0.004	0.003
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	0.020	0.030	0.000	0.015	0.006	0.004	0.005	0.003
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.014	0.007	0.004	0.005	0.012
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.020	0.030	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.020	0.030	0.000	0.002	0.005	0.005	0.006	0.005
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.020	0.030	0.000	0.015	0.007	0.003	0.005	0.003
18 Devon Avenue, Salt Creek	ND	ND	ND	0.020	0.030	0.000	0.011	0.013	0.003	0.004	0.004
24 Wolf Road, Salt Creek	ND	ND	ND	0.020	0.030	0.000	0.014	0.006	0.006	0.007	0.004
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.020	0.030	0.000	0.015	0.007	0.006	0.007	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	ND	0.020	0.030	0.000	0.000	0.006	0.009	0.008	0.004
78 Wille Road, Higgins Creek	ND	ND	ND	0.020	0.030	0.000	0.016	0.007	0.004	0.004	0.004
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.020	0.030	0.002	0.019	0.008	0.006	0.005	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.014	0.007	0.005	0.004	0.003
17 Oakton Street, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.012	0.007	0.005	0.005	0.004
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.015	0.007	0.005	0.006	0.005
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.014	0.007	0.005	0.007	0.005
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.012	0.008	0.006	0.008	0.005
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.012	0.008	0.006	0.007	0.005
29 Stephen Street, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.012	0.008	0.005	0.006	0.005
91 Material Service Road, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.014	0.007	0.007	0.007	0.005

ND = No Data.

TABLE AII-50: TOTAL NICKEL MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.008	0.002	0.000	0.000	0.003	0.003	0.003
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.008	0.001	0.001	0.000	0.001	0.002	0.003
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.002	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.002	0.002
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.005	0.008	0.002	0.000	0.000	0.001	0.002	0.001
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.011	0.001	0.000	0.000	0.001	0.001	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.002
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.002	0.002
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.008	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	ND	0.010	0.008	0.000	0.000	0.000	0.001	0.002	0.002
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.011	0.008	0.000	0.000	0.000	0.001	0.002	0.002
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.010	0.008	0.000	0.001	0.000	0.002	0.002	0.003
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.003
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.011	0.013	0.000	0.001	0.000	0.002	0.002	0.003
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.012	0.008	0.000	0.002	0.000	0.004	0.004	0.004
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.006	0.008	0.000	0.000	0.000	0.001	0.000	0.001
100 Wells Street, Chicago River	ND	ND	ND	0.007	0.008	0.001	0.000	0.000	0.002	0.001	0.002
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.008	0.008	0.000	0.000	0.000	0.012	0.003	0.004
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.010	0.008	0.000	0.000	0.000	0.004	0.003	0.004
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.008	0.008	0.000	0.000	0.000	0.003	0.003	0.004
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.008	0.008	0.000	0.000	0.000	0.003	0.003	0.004
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	0.016	0.008	0.000	0.000	0.000	0.003	0.003	0.004
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.009	0.008	0.001	0.000	0.000	0.004	0.005	0.006
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.010	0.027	0.001	0.000	0.000	0.006	0.005	0.006
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.008	0.016	0.000	0.000	0.000	0.005	0.004	0.006
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.007	0.009	0.000	0.000	0.000	0.004	0.005	0.006
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.009	0.000	0.000	0.000	0.001	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.008	0.002	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.001
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.005
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.004	0.002	0.002
76 Halsted Street, Little Calumet River	ND	ND	ND	0.006	0.008	0.000	0.000	0.000	0.003	0.002	0.004
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.008	0.002	0.000	0.000	0.002	0.002	0.003
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.004
97 170th Street, Thorn Creek	ND	ND	ND	0.006	0.010	0.004	0.000	0.000	0.003	0.004	0.007
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.004	0.003	0.005
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.002	0.003
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.003
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.005	0.008	0.001	0.000	0.000	0.003	0.003	0.004
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.008	0.000	0.000	0.002	0.000	0.001	0.002
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	0.006	0.009	0.001	0.003	0.001	0.002	0.003	0.003
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.004	0.000	0.003	0.004	0.004
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.005	0.008	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.004
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.008	0.003	0.000	0.000	0.003	0.002	0.003
18 Devon Avenue, Salt Creek	ND	ND	ND	0.005	0.008	0.004	0.000	0.000	0.003	0.002	0.003
24 Wolf Road, Salt Creek	ND	ND	ND	0.006	0.008	0.003	0.000	0.000	0.004	0.004	0.005
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.006	0.012	0.002	0.000	0.000	0.004	0.004	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	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.002
78 Wille Road, Higgins Creek	ND	ND	ND	0.007	0.008	0.004	0.000	0.002	0.007	0.007	0.014
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.006	0.008	0.000	0.001	0.000	0.002	0.002	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.006	0.002	0.002	0.005
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.002	0.000	0.001	0.002	0.004
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.005	0.010	0.000	0.002	0.000	0.003	0.003	0.006
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.003	0.006
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.004	0.006
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.006
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.005
91 Material Service Road, Des Plaines River	ND	ND	ND	0.006	0.008	0.000	0.500	0.000	0.003	0.003	0.005

ND = No Data.

TABLE AII-51: TOTAL MANGANESE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.069	0.082	0.094	0.080	0.089	0.075	0.087	0.083
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.096	0.069	0.066	0.076	0.069	0.074	0.068	0.087
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.076	0.081	0.171	0.078	0.084	0.148	0.084	0.128
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.059	0.081	0.072	0.087	0.073	0.062	0.072	0.080
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.103	0.096	0.120	0.085	0.095	0.120	0.086	0.124
105 Frontage Road, Skokie River	ND	ND	ND	0.039	0.054	0.069	0.056	0.059	0.055	0.038	0.045
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.076	0.081	0.069	0.067	0.072	0.068	0.064	0.072
96 Albany Avenue, North Branch Chicago River	ND	0.068	0.068	0.052	0.069	0.058	0.060	0.085	0.068	0.060	0.059
35 Central Street, North Shore Channel	ND	ND	ND	0.022	0.022	0.020	0.019	0.037	0.015	0.019	0.045
112 Dempster Street, North Shore Channel	ND	0.021	0.039	0.041	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.039	0.035	0.041	0.024	0.032	0.021	0.024	0.021
36 Touhy Avenue, North Shore Channel	ND	0.027	0.026	0.032	0.030	0.027	0.016	0.023	0.019	0.014	0.021
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.027	0.030	0.023	0.024	0.024	0.020	0.015	0.021
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.035	0.030	0.033	0.028	0.033	0.026	0.022	0.026
73 Diversey Parkway, North Branch Chicago River	ND	0.045	0.056	0.037	0.092	0.034	0.034	0.043	0.029	0.026	0.026
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.046	0.041	0.032	0.036	0.045	0.054	0.031	0.033
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.021	0.025	0.017	0.013	0.017	0.018	0.008	0.012
100 Wells Street, Chicago River	ND	0.029	0.037	0.039	0.058	0.019	0.018	0.037	0.024	0.013	0.020
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.054	0.049	0.036	0.026	0.038	0.030	0.022	0.069
108 Loomis Street, South Branch Chicago River	ND	0.044	0.032	0.040	0.118	0.036	0.032	0.048	0.042	0.027	0.036
99 Archer Avenue, South Fork South Branch Chicago River	ND	0.045	0.052	0.049	0.044	0.034	0.046	0.049	0.033	0.026	0.038
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.042	0.039	0.034	0.030	0.045	0.032	0.029	0.031
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	0.044	0.035	0.051	0.040	0.033	0.029	0.037	0.034	0.029	0.029
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	0.037	0.028	0.026	0.037	0.039	0.034	0.029	0.031	0.031	0.019
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.032	0.038	0.024	0.022	0.027	0.023	0.020	0.021
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	0.036	0.039	0.047	0.045	0.065	0.041	0.036	0.032	0.039	0.039
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	0.049	0.048	0.041	0.090	0.042	0.041	0.066	0.039	0.036	0.037
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.022	0.033	0.023	0.030	0.018	0.023	0.017	0.016
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.058	0.045	0.058	0.047	0.052	0.081	0.029	0.054
55 130th Street, Calumet River	ND	ND	ND	0.021	0.035	0.026	0.031	0.050	0.028	0.040	0.033
86 Burnham Avenue, Grand Calumet River	ND	0.158	0.345	0.238	0.228	0.221	0.088	0.169	0.176	0.144	0.093
56 Indiana Avenue, Little Calumet River	ND	0.023	0.031	0.021	0.037	0.085	0.052	0.059	0.046	0.029	0.037
76 Halsted Street, Little Calumet River	ND	0.044	0.043	0.040	0.043	0.049	0.037	0.050	0.078	0.041	0.037
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.111	0.137	0.147	0.119	0.121	0.131	0.112	0.115
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.074	0.089	0.073	0.062	0.064	0.066	0.050	0.131
97 170th Street, Thorn Creek	ND	ND	ND	0.088	0.126	0.115	0.092	0.081	0.097	0.080	0.095
57 Ashland Avenue, Little Calumet River	ND	0.126	0.072	0.094	0.109	0.108	0.116	0.085	0.114	0.087	0.123
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.052	0.069	0.081	0.053	0.058	0.061	0.048	0.052
59 Cicero Avenue, Calumet-Sag Channel	ND	0.059	0.054	0.046	0.063	0.064	0.049	0.100	0.056	0.056	0.050
43 Route 83, Calumet-Sag Channel	ND	0.137	0.045	0.054	0.067	0.065	0.053	0.065	0.057	0.054	0.065
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.114	0.076	0.105	0.076	0.126	0.080	0.080	0.147
110 Springinguth Road, West Branch DuPage River	ND	0.082	0.134	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.049	0.035	0.066	0.035	0.059	0.036	0.033	0.044
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.101	0.099	0.075	0.073	0.065	0.087
111 Arlington Drive, West Branch DuPage River	ND	0.057	0.054	0.066	0.061	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	0.083	0.109	0.081	0.120	0.112	0.104	0.119	0.110	0.089	0.138
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.054	0.056	0.061	0.046	0.068	0.059	0.046	0.063
18 Devon Avenue, Salt Creek	ND	0.050	0.054	0.050	0.052	0.079	0.056	0.071	0.057	0.048	0.053
24 Wolf Road, Salt Creek	ND	ND	ND	0.067	0.055	0.061	0.061	0.065	0.065	0.061	0.059
109 Brookfield Avenue, Salt Creek	ND	0.052	0.076	0.060	0.058	0.066	0.059	0.069	0.059	0.061	0.065
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.116	0.103	0.151	0.098	0.090	0.092	0.149	0.112	0.107	0.106
78 Wille Road, Higgins Creek	ND	0.018	0.040	0.026	0.021	0.070	0.032	0.060	0.040	0.030	0.023
12 Lake-Cook Road, Buffalo Creek	ND	0.035	ND	0.242	0.093	0.143	0.117	0.145	0.142	0.107	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.066	0.061	0.084	0.064	0.079	0.067	0.067	0.086
17 Oakton Street, Des Plaines River	ND	ND	ND	0.051	0.065	0.064	0.068	0.084	0.065	0.062	0.080
19 Belmont Avenue, Des Plaines River	ND	0.057	0.057	0.046	0.094	0.084	0.062	0.075	0.060	0.061	0.079
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.054	0.064	0.066	0.062	0.082	0.061	0.061	0.073
22 Ogden Avenue, Des Plaines River	ND	0.044	0.090	0.066	0.054	0.059	0.051	0.074	0.076	0.058	0.068
23 Willow Springs Road, Des Plaines River	ND	0.053	0.053	0.053	0.063	0.058	0.055	0.068	0.050	0.054	0.064
29 Stephen Street, Des Plaines River	ND	ND	ND	0.079	0.075	0.059	0.058	0.085	0.055	0.051	0.066
91 Material Service Road, Des Plaines River	ND	0.038	0.058	0.059	0.080	0.060	0.054	0.068	0.058	0.054	0.068

ND = No Data.

TABLE AII-52: TOTAL MERCURY MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.015	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.015	0.039
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.012	0.013
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.024	0.034
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.005	0.022	0.029
105 Frontage Road, Skokie River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.008	0.011	0.062
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.011	0.010	0.034
96 Albany Avenue, North Branch Chicago River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.027	0.006	0.064
35 Central Street, North Shore Channel	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.007	0.016
112 Dempster Street, North Shore Channel	0.200	0.200	0.200	0.200	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.008	0.009	0.068
36 Touhy Avenue, North Shore Channel	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.011	0.040
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.008	0.011	0.046
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.024	0.041
73 Diversey Parkway, North Branch Chicago River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.011	0.022
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.017	0.009	0.018
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.015	0.005	0.000
100 Wells Street, Chicago River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.012	0.016	0.030
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.013	0.016	0.011
108 Loomis Street, South Branch Chicago River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.013	0.024	0.017
99 Archer Avenue, South Fork South Branch Chicago River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.029	0.020
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.004	0.023	0.007
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	0.200	0.000	0.000	0.000	0.005	0.022	0.029
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.007	0.017	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.018	0.016	0.010
48 Stephen Street, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.018	0.016
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.010	0.015	0.017
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.008	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.010	0.015	0.005
55 130th Street, Calumet River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.015	0.017
86 Burnham Avenue, Grand Calumet River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.049	0.034	0.148
56 Indiana Avenue, Little Calumet River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.018	0.019
76 Halsted Street, Little Calumet River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.021	0.018
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.015	0.036
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.018	0.033
97 170th Street, Thorn Creek	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.005	0.015	0.031
57 Ashland Avenue, Little Calumet River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.012	0.015	0.044
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.015	0.010
59 Cicero Avenue, Calumet-Sag Channel	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.018	0.019
43 Route 83, Calumet-Sag Channel	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.010	0.023
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.019	0.008	0.045
110 Springinsguth Road, West Branch DuPage River	0.200	0.200	0.200	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.008	0.007
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.015	0.009	0.013
111 Arlington Drive, West Branch DuPage River	0.200	0.200	0.200	0.200	0.200	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.200	0.200	0.213	0.209	0.200	0.000	0.000	0.000	0.012	0.000	0.008
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.013	0.023
18 Devon Avenue, Salt Creek	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.018	0.044
24 Wolf Road, Salt Creek	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.013	0.013	0.011
109 Brookfield Avenue, Salt Creek	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.013	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.010	0.000	0.000
78 Wille Road, Higgins Creek	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.013	0.013
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.010	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.006	0.020	0.014
17 Oakton Street, Des Plaines River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.009	0.013	0.017
19 Belmont Avenue, Des Plaines River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.014	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.005	0.013	0.013
22 Ogden Avenue, Des Plaines River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.018	0.013
23 Willow Springs Road, Des Plaines River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.007	0.013	0.013
29 Stephen Street, Des Plaines River	ND	ND	ND	0.200	0.200	0.000	0.000	0.000	0.013	0.047	0.011
91 Material Service Road, Des Plaines River	0.200	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.007	0.012	0.021

ND = No Data.

TABLE AII-53: LOW LEVEL MERCURY MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (ng/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	3.5	3.6	7.0	6.9	3.7	2.4	5.6	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	6.7	3.3	9.7	11.0	6.9	3.6	9.5	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	3.8	2.1	1.9	3.2	2.9	2.0	3.6	ND
104 Glenview Road, North Branch Chicago River	ND	ND	ND	3.8	3.3	3.0	3.8	3.9	1.8	6.8	ND
32 Lake-Cook Road, Skokie River	ND	ND	ND	4.0	2.8	5.2	6.5	6.3	2.8	6.2	ND
105 Frontage Road, Skokie River	ND	ND	ND	3.8	2.1	2.4	3.7	3.6	1.4	3.1	ND
34 Dempster Street, North Branch Chicago River	ND	ND	ND	5.7	2.6	3.3	5.3	5.5	2.9	5.8	ND
96 Albany Avenue, North Branch Chicago River	6.5	5.1	11.0	5.9	2.6	4.3	6.3	8.0	3.4	5.7	ND
35 Central Street, North Shore Channel	ND	ND	ND	4.6	2.2	1.8	2.3	2.3	0.7	1.6	ND
112 Dempster Street, North Shore Channel	5.3	4.0	10.0	7.4	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	4.5	3.0	7.2	4.9	5.4	2.7	4.7	ND
36 Touhy Avenue, North Shore Channel	3.7	ND	ND	5.0	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	4.4	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	4.5	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	1.6	ND	ND	ND	ND	ND	5.9	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	12.0	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	ND	3.7	2.1	1.0	1.7	1.9	1.4	1.3	ND
100 Wells Street, Chicago River	6.5	9.0	12.5	8.3	8.5	2.2	2.9	2.7	1.6	2.1	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	7.4	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	3.1	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	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.4	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	4.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	9.0	ND	ND	ND	ND	ND	6.1	0.0	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	4.4	2.5	0.6	2.1	1.4	0.7	3.1	ND
50 Burnham Avenue, Wolf Lake	ND	ND	ND	3.9	1.9	0.9	1.9	1.6	0.2	1.8	ND
55 130th Street, Calumet River	ND	ND	ND	3.9	2.5	2.2	2.1	1.7	1.6	4.2	ND
86 Burnham Avenue, Grand Calumet River	33.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	13.0	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	3.9	7.1	6.4	8.3	2.7	3.0	6.1	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	5.2	4.6	3.1	4.9	1.6	2.8	2.5	ND
97 170th Street, Thorn Creek	ND	ND	ND	4.4	13.0	15.1	8.3	5.4	5.7	10.5	ND
57 Ashland Avenue, Little Calumet River	4.1	3.7	10.0	6.8	7.3	9.2	8.1	3.6	4.2	7.6	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.3	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	4.2	ND	ND	ND	ND	ND	4.6	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	3.9	2.7	1.5	2.0	1.5	2.6	2.9	ND
110 Springinsguth Road, West Branch DuPage River	3.3	4.4	10.0	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	5.5	3.1	5.1	3.4	3.7	1.6	4.4	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	3.0	3.3	2.6	2.3	4.0	ND
111 Arlington Drive, West Branch DuPage River	3.1	5.3	10.0	4.9	2.9	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.0	10.0	10.0	5.9	4.6	3.3	3.4	2.5	1.5	4.1	ND
80 Arlington Heights Road, Salt Creek	ND	ND	ND	3.9	2.5	2.5	2.5	1.6	0.5	2.3	ND
18 Devon Avenue, Salt Creek	5.6	5.3	9.8	5.5	3.2	2.1	2.7	1.4	0.9	2.2	ND
24 Wolf Road, Salt Creek	ND	ND	ND	5.0	4.4	4.8	4.9	3.1	2.7	6.2	ND
109 Brookfield Avenue, Salt Creek	2.2	3.5	10.0	7.1	2.5	3.9	7.3	3.9	2.5	8.6	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	6.1	10.0	5.9	4.7	5.2	5.8	4.6	2.2	7.8	ND
78 Wille Road, Higgins Creek	1.7	5.7	10.0	6.3	3.5	0.8	2.3	1.7	0.7	2.0	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	3.3	3.9	2.3	4.0	2.1	2.1	3.3	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	4.4	3.3	1.9	2.8	1.5	1.4	3.1	ND
17 Oakton Street, Des Plaines River	ND	ND	ND	3.6	3.3	2.4	3.5	2.2	1.7	3.6	ND
19 Belmont Avenue, Des Plaines River	5.0	4.6	9.8	5.2	3.0	2.8	3.4	2.7	1.8	3.9	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	4.4	3.4	3.7	4.4	2.9	2.0	4.2	ND
22 Ogden Avenue, Des Plaines River	2.1	4.0	9.8	8.7	2.8	3.7	5.5	3.3	2.5	6.9	ND
23 Willow Springs Road, Des Plaines River	2.1	3.6	10.2	5.9	2.4	3.6	5.2	3.4	2.4	5.3	ND
29 Stephen Street, Des Plaines River	ND	ND	ND	4.7	3.0	4.2	5.1	3.3	2.1	6.4	ND
91 Material Service Road, Des Plaines River	2.0	3.2	9.8	5.4	3.4	3.9	4.9	3.0	2.6	6.2	ND

ND = No Data.

TABLE AII-54: TOTAL ZINC MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.040	0.060	0.013	0.027	0.040	0.030	0.045	0.039
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.023	0.060	0.006	0.012	0.014	0.022	0.026	0.028
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.010	0.060	0.002	0.005	0.017	0.019	0.029	0.019
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.025	0.062	0.021	0.053	0.028	0.039	0.049	0.038
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.017	0.065	0.007	0.009	0.021	0.021	0.036	0.027
105 Frontage Road, Skokie River	ND	ND	ND	0.020	0.060	0.015	0.023	0.021	0.026	0.029	0.035
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.023	0.060	0.012	0.015	0.028	0.021	0.025	0.031
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.060	0.007	0.018	0.020	0.023	0.024	0.030
35 Central Street, North Shore Channel	ND	ND	ND	0.010	0.060	0.002	0.009	0.004	0.010	0.011	0.019
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	0.035	0.060	0.012	0.013	0.018	0.030	0.027	0.030
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.035	0.060	0.020	0.027	0.034	0.038	0.035	0.042
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.030	0.060	0.019	0.026	0.033	0.039	0.035	0.039
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.033	0.060	0.018	0.025	0.028	0.036	0.032	0.039
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.030	0.063	0.020	0.025	0.030	0.036	0.032	0.037
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.038	0.060	0.019	0.029	0.033	0.040	0.041	0.049
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.020	0.060	0.001	0.007	0.010	0.030	0.018	0.029
100 Wells Street, Chicago River	ND	ND	ND	0.033	0.060	0.013	0.012	0.018	0.026	0.021	0.030
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.043	0.060	0.013	0.028	0.031	0.046	0.029	0.043
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.045	0.060	0.011	0.030	0.037	0.043	0.033	0.038
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.035	0.060	0.010	0.023	0.033	0.032	0.028	0.039
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.038	0.060	0.015	0.030	0.036	0.043	0.042	0.045
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	0.048	0.062	0.014	0.026	0.034	0.046	0.035	0.040
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.033	0.060	0.020	0.029	0.035	0.046	0.035	0.041
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.030	0.060	0.015	0.028	0.031	0.045	0.032	0.038
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.035	0.060	0.015	0.028	0.033	0.045	0.033	0.044
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.028	0.060	0.016	0.029	0.035	0.038	0.038	0.049
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.010	0.060	0.000	0.008	0.016	0.021	0.016	0.014
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.010	0.060	0.003	0.009	0.007	0.047	0.008	0.015
55 130th Street, Calumet River	ND	ND	ND	0.010	0.060	0.004	0.005	0.008	0.019	0.053	0.022
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.023	0.060	0.021	0.049	0.039	0.053	0.055	0.154
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.013	0.060	0.007	0.015	0.025	0.033	0.021	0.030
76 Halsted Street, Little Calumet River	ND	ND	ND	0.028	0.073	0.016	0.032	0.059	0.053	0.041	0.051
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.020	0.060	0.014	0.027	0.022	0.026	0.027	0.035
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.033	0.063	0.027	0.042	0.046	0.050	0.050	0.103
97 170th Street, Thorn Creek	ND	ND	ND	0.023	0.066	0.025	0.029	0.031	0.038	0.031	0.046
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.018	0.060	0.018	0.033	0.027	0.035	0.027	0.059
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.028	0.062	0.015	0.033	0.059	0.048	0.040	0.069
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.025	0.064	0.012	0.024	0.038	0.032	0.037	0.044
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.025	0.060	0.010	0.026	0.030	0.035	0.034	0.055
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.013	0.060	0.002	0.003	0.014	0.013	0.014	0.035
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	0.040	0.060	0.030	0.038	0.045	0.042	0.039	0.051
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.032	0.035	0.038	0.034	0.044	0.051
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.030	0.060	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.010	0.060	0.004	0.008	0.010	0.020	0.015	0.028
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.018	0.060	0.011	0.023	0.019	0.036	0.025	0.039
18 Devon Avenue, Salt Creek	ND	ND	ND	0.018	0.060	0.011	0.023	0.020	0.024	0.024	0.042
24 Wolf Road, Salt Creek	ND	ND	ND	0.025	0.060	0.016	0.030	0.035	0.034	0.040	0.049
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.030	0.060	0.016	0.028	0.032	0.032	0.040	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	0.010	0.060	0.020	0.021	0.051	0.035	0.042	0.041
78 Wille Road, Higgins Creek	ND	ND	ND	0.040	0.060	0.026	0.036	0.050	0.047	0.049	0.076
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.015	0.060	0.014	0.017	0.016	0.019	0.017	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.010	0.060	0.007	0.019	0.032	0.025	0.024	0.036
17 Oakton Street, Des Plaines River	ND	ND	ND	0.010	0.060	0.003	0.016	0.019	0.023	0.024	0.037
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.020	0.061	0.012	0.020	0.028	0.029	0.033	0.054
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.020	0.060	0.015	0.023	0.033	0.031	0.034	0.046
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.010	0.060	0.017	0.021	0.036	0.037	0.037	0.046
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.013	0.060	0.010	0.020	0.028	0.028	0.034	0.043
29 Stephen Street, Des Plaines River	ND	ND	ND	0.018	0.060	0.015	0.021	0.027	0.033	0.033	0.042
91 Material Service Road, Des Plaines River	ND	ND	ND	0.013	0.060	0.014	0.020	0.027	0.027	0.033	0.040

ND = No Data.

TABLE AII-55: TOTAL SELENIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.006	0.006	0.000	0.011	0.000	0.000	0.003	0.007
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.006
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.006	0.006	0.000	0.000	0.000	0.000	0.001	0.005
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.004
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.007	0.005	0.000	0.000	0.000	0.000	0.001	0.005
105 Frontage Road, Skokie River	ND	ND	ND	0.007	0.005	0.000	0.000	0.000	0.000	0.001	0.006
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.006	0.006	0.000	0.000	0.000	0.000	0.001	0.006
96 Albany Avenue, North Branch Chicago River	0.007	0.015	0.024	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.004
35 Central Street, North Shore Channel	ND	ND	ND	0.006	0.006	0.000	0.013	0.000	0.000	0.001	0.007
112 Dempster Street, North Shore Channel	0.011	0.012	0.024	0.005	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.005	0.005	0.000	0.012	0.000	0.000	0.002	0.004
36 Touhy Avenue, North Shore Channel	0.010	0.016	0.027	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.008
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.006
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.006	0.000	0.000	0.000	0.000	0.001	0.007
73 Diversey Parkway, North Branch Chicago River	0.009	0.016	0.025	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.005
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.009
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.006
100 Wells Street, Chicago River	0.009	0.014	0.018	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.005
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.007
108 Loomis Street, South Branch Chicago River	0.006	0.016	0.017	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.008
99 Archer Avenue, South Fork South Branch Chicago River	0.012	0.016	0.019	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.006
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.000	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	0.008	0.018	0.016	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.010
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.008	0.015	0.019	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
48 Stephen Street, Chicago Sanitary and Ship Canal	0.010	0.015	0.020	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.009	0.016	0.024	0.006	0.005	0.000	0.004	0.000	0.000	0.000	0.007
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.005	0.000	0.014	0.000	0.000	0.000	0.004
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.004
55 130th Street, Calumet River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.005
86 Burnham Avenue, Grand Calumet River	0.008	0.014	0.025	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.005
56 Indiana Avenue, Little Calumet River	0.014	0.010	0.023	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.005
76 Halsted Street, Little Calumet River	0.009	0.018	0.023	0.005	0.006	0.000	0.010	0.000	0.000	0.000	0.006
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.004
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.005
97 170th Street, Thorn Creek	ND	ND	ND	0.006	0.005	0.000	0.011	0.000	0.000	0.000	0.005
57 Ashland Avenue, Little Calumet River	0.012	0.013	0.025	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.005
59 Cicero Avenue, Calumet-Sag Channel	0.011	0.014	0.024	0.006	0.005	0.000	0.013	0.000	0.000	0.000	0.005
43 Route 83, Calumet-Sag Channel	0.010	0.017	0.026	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.005
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.008
110 Springinsguth Road, West Branch DuPage River	0.010	0.012	0.022	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.008
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.008
111 Arlington Drive, West Branch DuPage River	0.007	0.015	0.022	0.005	0.005	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.011	0.009	0.023	0.005	0.005	0.000	0.000	0.000	0.000	0.002	0.007
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.009
18 Devon Avenue, Salt Creek	0.007	0.015	0.022	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008
24 Wolf Road, Salt Creek	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.009
109 Brookfield Avenue, Salt Creek	0.009	0.012	0.022	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.015	0.021	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.010
78 Wille Road, Higgins Creek	0.013	0.012	0.023	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.008
12 Lake-Cook Road, Buffalo Creek	ND	0.005	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
17 Oakton Street, Des Plaines River	ND	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.006
19 Belmont Avenue, Des Plaines River	0.011	0.014	0.023	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007
22 Ogden Avenue, Des Plaines River	0.012	0.011	0.023	0.005	0.005	0.000	0.009	0.000	0.000	0.000	0.010
23 Willow Springs Road, Des Plaines River	0.017	0.010	0.025	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008
91 Material Service Road, Des Plaines River	0.008	0.013	0.023	0.005	0.005	0.000	0.000	0.000	0.000	0.002	0.010

ND = No Data.

TABLE AII-56: SOLUBLE CALCIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	84.3	76.7	75.3	65.8	68.8	70.9	57.9	65.7
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	92.8	74.9	72.4	65.2	65.8	72.2	70.4	74.0
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	79.5	60.2	63.8	55.7	59.0	63.4	58.4	59.4
104 Glenview Road, North Branch Chicago River	ND	ND	ND	79.5	59.8	65.0	59.7	63.2	61.4	58.1	55.5
32 Lake-Cook Road, Skokie River	ND	ND	ND	84.3	66.8	72.2	61.4	62.6	72.8	63.1	64.0
105 Frontage Road, Skokie River	ND	ND	ND	79.5	60.2	63.7	60.5	63.6	60.2	59.9	55.7
34 Dempster Street, North Branch Chicago River	ND	ND	ND	91.0	63.7	71.7	59.5	61.7	62.6	62.8	61.6
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	88.3	67.0	65.8	62.6	65.2	64.7	64.7	63.7
35 Central Street, North Shore Channel	ND	ND	ND	63.5	38.9	38.1	35.3	38.1	38.6	35.3	32.8
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	61.0	48.6	48.4	46.1	45.8	47.0	45.2	42.7
36 Touhy Avenue, North Shore Channel	ND	ND	ND	59.3	55.6	51.7	58.3	57.9	53.7	49.8	46.8
101 Foster Avenue, North Shore Channel	ND	ND	ND	60.8	54.8	55.2	56.0	59.0	56.6	51.5	47.4
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	63.3	56.8	60.0	56.4	60.1	56.8	53.4	49.6
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	65.0	57.3	57.9	56.7	60.8	56.4	53.7	49.1
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	66.8	58.1	55.5	54.8	58.8	56.4	54.0	52.7
74 Lake Shore Drive, Chicago River	ND	ND	ND	54.5	44.5	37.3	36.0	37.5	40.6	36.7	37.9
100 Wells Street, Chicago River	ND	ND	ND	61.5	50.5	43.0	42.6	47.0	44.5	42.3	41.8
39 Madison Street, South Branch Chicago River	ND	ND	ND	63.5	59.3	49.7	51.7	52.8	49.1	49.0	49.0
108 Loomis Street, South Branch Chicago River	ND	ND	ND	63.8	54.2	51.2	52.3	53.1	49.8	50.7	51.2
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	52.3	54.4	54.6	50.6	56.2	49.4	49.3	48.5
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	63.8	54.3	51.9	52.8	52.7	50.4	49.6	49.8
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	64.8	54.5	52.8	50.9	57.0	50.9	48.2	51.1
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	62.5	56.9	58.1	56.2	57.7	53.0	47.5	51.4
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	62.5	59.2	57.4	54.4	57.3	54.1	52.8	53.6
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	69.3	60.2	58.5	54.4	58.8	55.7	55.9	56.1
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	70.0	58.7	59.0	56.3	59.2	56.9	55.0	54.9
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	36.7	35.3	34.4	34.2	34.3	35.1	32.2	34.4
50 Burnham Avenue, Wolf Lake	ND	ND	ND	42.8	34.5	36.0	34.8	35.0	34.7	28.7	34.8
55 130th Street, Calumet River	ND	ND	ND	49.8	41.2	41.5	41.2	41.5	45.6	38.4	40.9
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	110.3	75.3	78.8	80.8	91.4	86.4	92.8	64.3
56 Indiana Avenue, Little Calumet River	ND	ND	ND	59.3	48.6	47.5	47.4	49.4	51.5	45.1	44.7
76 Halsted Street, Little Calumet River	ND	ND	ND	75.0	62.7	61.6	61.1	65.8	63.3	58.2	60.7
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	84.0	61.3	65.1	71.7	88.8	74.3	80.9	70.9
54 Joe Orr Road, Thorn Creek	ND	ND	ND	89.5	65.7	77.0	74.1	84.4	74.9	79.6	66.9
97 170th Street, Thorn Creek	ND	ND	ND	89.5	67.8	68.6	75.3	85.3	68.0	80.8	78.0
57 Ashland Avenue, Little Calumet River	ND	ND	ND	83.3	65.0	68.2	69.2	80.5	66.1	77.8	68.9
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	75.3	62.2	59.7	59.3	65.7	59.6	61.7	63.2
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	71.8	63.5	62.5	60.8	66.3	58.3	65.2	61.6
43 Route 83, Calumet-Sag Channel	ND	ND	ND	77.0	59.0	64.9	59.3	65.4	59.4	63.0	60.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	85.0	68.1	69.9	65.5	70.4	66.6	67.0	60.5
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	ND	78.8	68.7	62.0	64.9	60.4	60.5	63.2	54.8
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	75.0	64.0	64.7	56.5	61.2	56.7
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	84.0	66.7	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	91.7	67.8	47.1	60.4	68.4	61.9	60.6	60.1
80 Arlington Heights Road, Salt Creek	ND	ND	ND	79.5	59.8	63.4	59.0	68.9	61.6	61.9	62.7
18 Devon Avenue, Salt Creek	ND	ND	ND	79.8	62.4	67.5	58.2	67.4	61.5	62.0	61.9
24 Wolf Road, Salt Creek	ND	ND	ND	88.0	66.2	70.4	66.4	69.0	61.9	60.7	59.7
109 Brookfield Avenue, Salt Creek	ND	ND	ND	88.3	66.8	66.1	63.6	65.3	60.7	59.6	58.2
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	85.7	52.3	46.1	50.2	58.8	40.9	52.5	52.2
78 Wille Road, Higgins Creek	ND	ND	ND	84.5	81.8	71.9	76.9	75.0	68.0	66.7	64.0
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	89.3	69.7	72.7	66.9	76.2	68.6	70.9	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	75.3	64.2	64.8	59.7	70.8	64.4	69.4	63.4
17 Oakton Street, Des Plaines River	ND	ND	ND	77.5	64.7	62.9	58.9	68.2	62.6	67.1	62.6
19 Belmont Avenue, Des Plaines River	ND	ND	ND	78.5	65.4	62.1	61.1	69.4	61.6	66.5	62.5
20 Roosevelt Road, Des Plaines River	ND	ND	ND	79.5	64.9	61.6	59.2	69.5	60.4	65.2	60.7
22 Ogden Avenue, Des Plaines River	ND	ND	ND	81.5	64.8	63.3	59.3	65.7	59.5	62.8	58.0
23 Willow Springs Road, Des Plaines River	ND	ND	ND	81.5	64.7	61.9	59.5	67.3	59.4	62.1	59.2
29 Stephen Street, Des Plaines River	ND	ND	ND	80.8	64.2	64.2	59.1	68.5	63.2	66.1	62.3
91 Material Service Road, Des Plaines River	ND	ND	ND	80.8	63.5	66.7	60.5	67.9	62.4	67.2	61.8

ND = No Data.

TABLE AII-57: SOLUBLE MAGNESIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	33.7	31.9	30.8	27.8	29.2	28.1	23.9	27.3
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	37.8	30.0	29.2	26.3	26.0	29.2	28.7	29.9
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	37.5	25.9	28.2	24.3	25.0	28.9	27.0	30.8
104 Glenview Road, North Branch Chicago River	ND	ND	ND	35.8	25.0	28.5	25.6	26.7	26.8	25.5	25.4
32 Lake-Cook Road, Skokie River	ND	ND	ND	37.0	27.8	31.5	25.5	26.0	30.9	28.3	30.2
105 Frontage Road, Skokie River	ND	ND	ND	36.8	25.5	27.9	26.0	26.8	26.0	26.0	25.0
34 Dempster Street, North Branch Chicago River	ND	ND	ND	39.0	26.9	29.9	24.8	25.5	27.0	26.8	27.2
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	38.3	28.0	27.4	26.1	26.4	27.8	27.3	27.7
35 Central Street, North Shore Channel	ND	ND	ND	24.5	13.5	13.1	12.3	13.0	13.3	11.9	11.3
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	ND	22.0	17.0	17.2	16.3	15.8	16.5	15.9	15.2
36 Touhy Avenue, North Shore Channel	ND	ND	ND	21.0	19.7	18.5	20.8	21.0	19.2	18.0	16.8
101 Foster Avenue, North Shore Channel	ND	ND	ND	21.5	19.5	19.8	19.8	21.4	20.1	18.7	16.9
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	23.0	20.9	22.7	20.7	22.4	20.9	20.1	18.2
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	25.0	21.1	21.3	20.6	22.6	20.9	20.0	17.8
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	25.3	21.5	20.4	19.9	21.5	20.8	20.1	19.5
74 Lake Shore Drive, Chicago River	ND	ND	ND	20.3	15.4	12.9	12.3	12.8	14.3	12.6	13.4
100 Wells Street, Chicago River	ND	ND	ND	23.0	18.1	15.2	15.0	16.7	15.7	15.0	14.7
39 Madison Street, South Branch Chicago River	ND	ND	ND	24.3	21.6	18.0	18.9	19.1	17.8	18.2	17.8
108 Loomis Street, South Branch Chicago River	ND	ND	ND	24.3	19.7	18.6	19.0	19.0	18.0	18.8	18.9
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	17.5	19.5	19.7	17.8	20.2	17.6	18.1	17.4
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	23.8	19.8	18.8	19.1	19.2	18.1	18.4	18.3
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	ND	ND	ND	24.0	19.7	19.3	18.4	20.8	18.4	17.6	18.8
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	22.5	20.2	21.0	20.2	21.2	19.0	17.6	18.9
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	22.5	20.7	20.3	19.6	20.7	19.7	19.5	19.8
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	25.5	21.4	20.9	19.5	21.2	20.6	20.7	21.0
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	25.8	20.8	21.2	20.4	21.2	21.0	20.3	20.4
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	12.0	11.8	11.7	11.3	11.4	11.7	10.5	11.5
50 Burnham Avenue, Wolf Lake	ND	ND	ND	13.3	12.1	12.6	11.5	12.0	11.7	11.3	13.1
55 130th Street, Calumet River	ND	ND	ND	16.3	14.2	14.5	14.0	14.0	15.7	13.0	14.2
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	40.0	27.3	27.1	37.1	36.8	38.6	47.6	43.0
56 Indiana Avenue, Little Calumet River	ND	ND	ND	21.3	17.2	16.6	16.5	17.2	19.1	16.3	16.7
76 Halsted Street, Little Calumet River	ND	ND	ND	26.5	21.8	21.3	21.2	23.0	22.3	20.7	21.7
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	33.8	23.8	26.3	27.4	34.6	29.7	32.0	28.6
54 Joe Orr Road, Thorn Creek	ND	ND	ND	34.5	24.9	28.3	28.0	31.7	29.6	34.8	30.2
97 170th Street, Thorn Creek	ND	ND	ND	36.5	28.9	28.2	29.9	34.4	27.3	35.7	35.0
57 Ashland Avenue, Little Calumet River	ND	ND	ND	33.3	25.7	26.5	26.9	31.4	25.9	32.8	29.1
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	27.3	22.6	21.6	21.4	23.4	21.5	22.4	23.2
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	26.3	22.8	22.7	22.0	23.8	20.9	24.1	22.7
43 Route 83, Calumet-Sag Channel	ND	ND	ND	28.8	21.5	23.8	21.9	23.8	21.9	23.6	22.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	37.8	29.6	31.9	28.6	31.6	30.1	29.5	28.2
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	31.0	26.4	23.7	25.1	23.1	23.0	23.9	20.9
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	28.0	24.4	24.3	21.8	22.9	21.8
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	32.5	25.0	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	38.7	27.3	19.5	25.7	28.4	26.0	25.4	27.6
80 Arlington Heights Road, Salt Creek	ND	ND	ND	31.3	22.5	24.4	22.5	26.4	24.3	24.3	25.0
18 Devon Avenue, Salt Creek	ND	ND	ND	31.5	23.1	25.8	22.6	25.8	24.3	24.4	24.6
24 Wolf Road, Salt Creek	ND	ND	ND	35.8	26.0	27.2	26.3	27.4	25.3	24.6	25.3
109 Brookfield Avenue, Salt Creek	ND	ND	ND	35.8	26.0	26.0	25.2	26.2	24.8	24.1	24.6
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	32.0	18.4	15.7	18.1	19.1	13.9	17.7	17.8
78 Wille Road, Higgins Creek	ND	ND	ND	33.3	30.5	26.7	29.0	28.0	25.3	24.9	24.3
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	40.5	29.8	31.6	28.7	33.3	30.2	31.8	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	35.0	28.7	29.0	26.7	31.4	29.4	31.7	28.9
17 Oakton Street, Des Plaines River	ND	ND	ND	35.8	28.4	27.3	25.9	29.7	28.5	30.3	28.6
19 Belmont Avenue, Des Plaines River	ND	ND	ND	35.8	28.0	26.1	26.4	29.5	27.3	29.0	27.7
20 Roosevelt Road, Des Plaines River	ND	ND	ND	36.3	27.7	25.8	25.6	29.7	27.0	28.4	27.2
22 Ogden Avenue, Des Plaines River	ND	ND	ND	36.0	26.9	26.3	25.1	27.6	25.8	26.7	25.6
23 Willow Springs Road, Des Plaines River	ND	ND	ND	35.8	27.1	25.7	25.5	28.5	26.1	26.8	26.4
29 Stephen Street, Des Plaines River	ND	ND	ND	35.5	26.6	26.7	25.1	28.8	27.8	28.4	27.6
91 Material Service Road, Des Plaines River	ND	ND	ND	35.5	26.4	28.0	25.6	28.7	27.5	29.1	27.7

ND = No Data.

TABLE AII-58: SOLUBLE SILVER MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.002	0.002	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	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.002	0.002	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	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	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	0.001	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.001	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.001	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.001	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.001	0.002	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	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.002	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	0.001	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.001	0.002	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	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	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	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	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	0.002	0.002	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	0.001	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	ND	0.002	0.002	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	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.001	0.002	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	0.001	0.002	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	0.001	0.002	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	ND	0.002	0.002	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	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.001	0.002	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	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	0.002	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.002	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	0.002	0.002	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	0.002	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	ND	0.001	0.001	0.001	0.001	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	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	0.001	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.001	0.002	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	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	0.002	0.002	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	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-59: SOLUBLE ARSENIC MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.001	0.001	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.020	0.035	0.029	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.020	0.026	0.025	0.020	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	0.020	0.035	0.028	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.020	0.034	0.028	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	0.020	0.033	0.028	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	0.020	0.037	0.030	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.020	0.035	0.032	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.020	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	0.020	0.036	0.031	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.020	0.035	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	0.020	0.038	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.020	0.038	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.020	0.036	0.041	0.025	0.022	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.020	0.031	0.030	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.020	0.041	0.035	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	0.020	0.034	0.037	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.020	0.036	0.035	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.001
43 Route 83, Calumet-Sag Channel	0.020	0.035	0.037	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.020	0.037	0.036	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	0.020	0.039	0.035	0.020	0.020	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.020	0.034	0.034	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.020	0.039	0.031	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.020	0.034	0.035	0.020	0.020	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	ND	0.040	0.025	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	0.020	0.038	0.036	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.001
17 Oakton Street, Des Plaines River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	0.020	0.036	0.032	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	0.020	0.033	0.034	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	0.020	0.033	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	0.020	0.038	0.032	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-60: SOLUBLE BARIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.066	0.067	0.060	0.051	0.052	0.054	0.042	0.043
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.058	0.049	0.046	0.042	0.043	0.046	0.044	0.046
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.040	0.034	0.037	0.032	0.035	0.037	0.035	0.034
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.036	0.030	0.029	0.028	0.032	0.030	0.028	0.026
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.046	0.037	0.041	0.034	0.036	0.042	0.035	0.035
105 Frontage Road, Skokie River	ND	ND	ND	0.033	0.027	0.027	0.026	0.030	0.027	0.026	0.025
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.049	0.035	0.037	0.030	0.034	0.033	0.033	0.032
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.044	0.036	0.035	0.033	0.037	0.035	0.034	0.033
35 Central Street, North Shore Channel	ND	ND	ND	0.033	0.022	0.022	0.019	0.022	0.022	0.020	0.019
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	0.024	0.023	0.022	0.021	0.022	0.022	0.020	0.021
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.024	0.024	0.020	0.024	0.024	0.022	0.019	0.018
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.025	0.023	0.022	0.023	0.025	0.023	0.020	0.018
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.027	0.026	0.026	0.025	0.027	0.024	0.022	0.020
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.026	0.025	0.024	0.024	0.027	0.023	0.021	0.019
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.027	0.025	0.022	0.023	0.026	0.023	0.021	0.020
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.027	0.025	0.022	0.021	0.022	0.022	0.021	0.021
100 Wells Street, Chicago River	ND	ND	ND	0.027	0.024	0.022	0.023	0.024	0.022	0.021	0.020
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.026	0.026	0.022	0.023	0.024	0.022	0.021	0.020
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.027	0.024	0.023	0.023	0.024	0.022	0.022	0.021
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.025	0.025	0.023	0.023	0.026	0.022	0.021	0.020
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.026	0.024	0.022	0.024	0.024	0.022	0.021	0.020
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	0.025	0.023	0.021	0.022	0.025	0.022	0.020	0.020
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.022	0.021	0.020	0.020	0.022	0.019	0.016	0.016
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.018	0.019	0.018	0.019	0.020	0.017	0.017	0.016
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.021	0.020	0.019	0.019	0.021	0.018	0.018	0.017
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.021	0.021	0.020	0.020	0.021	0.019	0.018	0.017
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.021	0.022	0.021	0.020	0.021	0.020	0.019	0.020
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.035	0.033	0.034	0.032	0.033	0.034	0.025	0.030
55 130th Street, Calumet River	ND	ND	ND	0.031	0.029	0.027	0.028	0.029	0.030	0.026	0.027
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.033	0.025	0.025	0.023	0.025	0.022	0.019	0.016
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.030	0.028	0.026	0.029	0.030	0.029	0.026	0.025
76 Halsted Street, Little Calumet River	ND	ND	ND	0.020	0.022	0.018	0.021	0.021	0.021	0.017	0.018
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.032	0.028	0.030	0.030	0.034	0.029	0.033	0.028
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.026	0.026	0.031	0.026	0.030	0.025	0.029	0.026
97 170th Street, Thorn Creek	ND	ND	ND	0.033	0.029	0.029	0.031	0.034	0.028	0.033	0.032
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.034	0.031	0.031	0.030	0.034	0.029	0.033	0.029
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.022	0.023	0.022	0.022	0.022	0.022	0.019	0.020
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.023	0.023	0.022	0.023	0.023	0.021	0.021	0.019
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.024	0.022	0.023	0.022	0.024	0.023	0.021	0.019
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.064	0.059	0.062	0.059	0.065	0.071	0.085	0.095
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	0.035	0.033	0.027	0.028	0.028	0.027	0.027	0.022
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.038	0.030	0.031	0.026	0.029	0.026
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.038	0.033	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.047	0.038	0.030	0.034	0.042	0.039	0.037	0.041
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.036	0.028	0.027	0.024	0.028	0.024	0.028	0.028
18 Devon Avenue, Salt Creek	ND	ND	ND	0.036	0.028	0.028	0.024	0.028	0.024	0.028	0.027
24 Wolf Road, Salt Creek	ND	ND	ND	0.036	0.031	0.031	0.029	0.032	0.029	0.027	0.025
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.037	0.032	0.031	0.029	0.032	0.029	0.027	0.026
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	0.058	0.041	0.040	0.038	0.051	0.036	0.048	0.049
78 Wille Road, Higgins Creek	ND	ND	ND	0.033	0.028	0.022	0.027	0.023	0.022	0.021	0.018
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.041	0.038	0.042	0.037	0.043	0.039	0.041	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.035	0.035	0.035	0.028	0.034	0.034	0.038	0.031
17 Oakton Street, Des Plaines River	ND	ND	ND	0.036	0.037	0.038	0.029	0.035	0.035	0.041	0.033
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.036	0.034	0.034	0.029	0.035	0.033	0.037	0.031
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.037	0.035	0.034	0.028	0.035	0.033	0.037	0.031
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.038	0.033	0.033	0.028	0.033	0.031	0.033	0.028
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.037	0.033	0.032	0.028	0.034	0.031	0.033	0.029
29 Stephen Street, Des Plaines River	ND	ND	ND	0.037	0.032	0.031	0.028	0.033	0.032	0.034	0.028
91 Material Service Road, Des Plaines River	ND	ND	ND	0.036	0.032	0.032	0.028	0.034	0.032	0.033	0.027

ND = No Data.

**TABLE AII-61: SOLUBLE BORON MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.120	0.147	0.156	0.147	0.146	0.143	0.126	0.176
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.113	0.127	0.125	0.122	0.103	0.149	0.138	0.178
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.070	0.076	0.088	0.074	0.079	0.110	0.111	0.163
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.103	0.108	0.131	0.115	0.111	0.141	0.133	0.170
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.090	0.091	0.109	0.105	0.093	0.115	0.128	0.151
105 Frontage Road, Skokie River	ND	ND	ND	0.115	0.124	0.136	0.129	0.118	0.150	0.151	0.175
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.110	0.115	0.113	0.111	0.113	0.139	0.135	0.174
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.115	0.115	0.123	0.120	0.105	0.139	0.141	0.177
35 Central Street, North Shore Channel	ND	ND	ND	0.060	0.070	0.013	0.036	0.033	0.035	0.035	0.030
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	0.178	0.108	0.077	0.083	0.074	0.088	0.109	0.085
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.170	0.153	0.161	0.156	0.164	0.186	0.180	0.168
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.170	0.137	0.156	0.148	0.162	0.183	0.184	0.164
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.150	0.124	0.142	0.136	0.144	0.160	0.162	0.155
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.168	0.128	0.145	0.131	0.138	0.166	0.155	0.150
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.158	0.123	0.134	0.123	0.129	0.155	0.152	0.161
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.093	0.087	0.040	0.041	0.054	0.057	0.055	0.053
100 Wells Street, Chicago River	ND	ND	ND	0.120	0.101	0.064	0.061	0.077	0.070	0.074	0.073
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.138	0.122	0.109	0.106	0.107	0.107	0.118	0.126
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.138	0.109	0.114	0.106	0.111	0.110	0.121	0.126
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.110	0.110	0.129	0.104	0.122	0.114	0.114	0.128
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.135	0.108	0.115	0.106	0.108	0.108	0.119	0.126
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	0.148	0.110	0.121	0.099	0.128	0.119	0.117	0.126
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.173	0.154	0.160	0.154	0.155	0.168	0.161	0.165
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.253	0.211	0.232	0.171	0.166	0.212	0.205	0.207
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.248	0.193	0.212	0.161	0.168	0.196	0.198	0.201
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.237	0.191	0.203	0.167	0.179	0.198	0.209	0.209
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.050	0.070	0.032	0.038	0.036	0.042	0.044	0.036
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.238	0.238	0.236	0.239	0.172	0.169	0.108	0.142
55 130th Street, Calumet River	ND	ND	ND	0.183	0.116	0.096	0.123	0.117	0.152	0.103	0.109
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	1.000	0.767	0.686	0.357	0.642	0.528	0.578	0.271
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.203	0.131	0.115	0.134	0.146	0.167	0.131	0.111
76 Halsted Street, Little Calumet River	ND	ND	ND	0.210	0.185	0.172	0.176	0.197	0.195	0.218	0.193
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.175	0.132	0.175	0.175	0.250	0.228	0.231	0.216
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.260	0.196	0.220	0.263	0.316	0.314	0.391	0.252
97 170th Street, Thorn Creek	ND	ND	ND	0.193	0.178	0.185	0.214	0.237	0.222	0.290	0.235
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.178	0.168	0.188	0.199	0.227	0.200	0.247	0.222
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.198	0.166	0.159	0.167	0.191	0.174	0.219	0.199
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.193	0.168	0.174	0.163	0.192	0.167	0.214	0.189
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.203	0.153	0.183	0.158	0.176	0.168	0.198	0.195
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.050	0.070	0.037	0.050	0.051	0.055	0.057	0.061
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	0.193	0.172	0.215	0.211	0.214	0.248	0.242	0.267
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.119	0.157	0.183	0.188	0.186	0.222
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.140	0.144	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.070	0.099	0.075	0.085	0.083	0.084	0.088	0.092
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.158	0.132	0.190	0.147	0.168	0.196	0.186	0.192
18 Devon Avenue, Salt Creek	ND	ND	ND	0.148	0.146	0.197	0.143	0.165	0.199	0.190	0.198
24 Wolf Road, Salt Creek	ND	ND	ND	0.165	0.161	0.164	0.150	0.176	0.183	0.184	0.227
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.165	0.155	0.184	0.156	0.180	0.181	0.199	0.254
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	0.177	0.082	0.055	0.067	0.113	0.089	0.078	0.074
78 Wille Road, Higgins Creek	ND	ND	ND	0.230	0.224	0.202	0.201	0.235	0.254	0.285	0.341
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.075	0.081	0.091	0.083	0.088	0.093	0.099	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.088	0.115	0.141	0.121	0.150	0.153	0.170	0.211
17 Oakton Street, Des Plaines River	ND	ND	ND	0.090	0.115	0.144	0.111	0.141	0.138	0.151	0.204
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.103	0.124	0.152	0.121	0.151	0.152	0.166	0.225
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.103	0.124	0.157	0.116	0.163	0.152	0.166	0.230
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.120	0.128	0.152	0.128	0.162	0.156	0.184	0.229
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.115	0.129	0.158	0.125	0.166	0.158	0.182	0.234
29 Stephen Street, Des Plaines River	ND	ND	ND	0.115	0.121	0.146	0.119	0.157	0.167	0.189	0.235
91 Material Service Road, Des Plaines River	ND	ND	ND	0.118	0.124	0.151	0.122	0.158	0.170	0.196	0.241

ND = No Data.

TABLE AII-62: SOLUBLE CADMIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)											
	15	14	13	12	11	10	09	08	07	06	05	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	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	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.001	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001
104 Glenview Road, North Branch Chicago River	ND	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	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	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	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	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
35 Central Street, North Shore Channel	ND	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	0.001	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	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	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	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	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	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	0.001	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	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	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.001	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	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	0.001	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	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	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	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	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001
56 Indiana Avenue, Little Calumet River	0.001	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	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	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	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	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
57 Ashland Avenue, Little Calumet River	0.001	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	ND	0.001	0.001	0.000	0.001	0.000	0.000	0.001	0.001	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.001	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	0.001	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	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	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	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	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	0.001	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	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	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	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	0.001	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	ND
77 Elmhurst Road, Higgins Creek	ND	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
78 Wille Road, Higgins Creek	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	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	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	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	0.001	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	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	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

**TABLE AII-63: SOLUBLE COPPER MEAN HISTORY
2005 THROUGH 2015**

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.007	0.008	0.005	0.001	0.000	0.004	0.003	0.003
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.005	0.006	0.000	0.000	0.000	0.000	0.001	0.001
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.002
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.001
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.005	0.005	0.000	0.002	0.000	0.001	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.002	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.006	0.006	0.001	0.000	0.000	0.001	0.001	0.001
100 Wells Street, Chicago River	0.005	0.005	0.005	0.006	0.005	0.002	0.000	0.000	0.002	0.002	0.002
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.001
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.005	0.005	0.002	0.000	0.000	0.002	0.002	0.002
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.001	0.000	0.000	0.001
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.007	0.005	0.000	0.000	0.000	0.001	0.001	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	0.005	0.000	0.000	0.000	0.001	0.001	0.001
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.006	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.006	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.000
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.005	0.002	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.006	0.006	0.002	0.001	0.001	0.004	0.003	0.004
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.003	0.003	0.003
111 Arlington Drive, West Branch DuPage River	0.007	0.005	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.002
18 Devon Avenue, Salt Creek	0.005	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.002	0.003
24 Wolf Road, Salt Creek	ND	ND	ND	0.005	0.005	0.002	0.000	0.000	0.002	0.002	0.003
109 Brookfield Avenue, Salt Creek	0.005	0.006	0.005	0.005	0.005	0.000	0.000	0.000	0.002	0.001	0.002
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.006	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.001
78 Wille Road, Higgins Creek	0.005	0.005	0.005	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.002
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.001	0.001
19 Belmont Avenue, Des Plaines River	0.006	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.001
22 Ogden Avenue, Des Plaines River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.002
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.001
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.001
91 Material Service Road, Des Plaines River	0.005	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001

ND = No Data.

TABLE AII-64: SOLUBLE CHROMIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.006	0.003	0.000	0.000	0.000	0.001	0.000	0.001
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
100 Wells Street, Chicago River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.000
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.005	0.004	0.000	0.000	0.000	0.001	0.001	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	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	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.002	0.001	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.004	0.001	0.001	0.001
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.005	0.004	0.000	0.000	0.000	0.001	0.001	0.001
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.006	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.003	0.001	0.000	0.000	0.001	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
76 Halsted Street, Little Calumet River	0.006	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.001
97 170th Street, Thorn Creek	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.001
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.001	0.000
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.005	0.004	0.000	0.000	0.000	0.001	0.001	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.001	0.001	0.000
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.005	0.003	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.001	0.000
24 Wolf Road, Salt Creek	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.005	0.005	0.005	0.006	0.003	0.000	0.000	0.000	0.001	0.004	0.002
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.005	0.005	0.005	0.003	0.000	0.001	0.000	0.001	0.002	0.000
78 Wille Road, Higgins Creek	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.005	0.003	0.000	0.001	0.000	0.001	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.000
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.005	0.036	0.003	0.000	0.000	0.000	0.001	0.001	0.014
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.003	0.001	0.000	0.000	0.001	0.001	0.004
22 Ogden Avenue, Des Plaines River	0.005	0.005	0.009	0.011	0.003	0.000	0.000	0.000	0.001	0.001	0.001
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.007	0.005	0.003	0.012	0.000	0.000	0.001	0.002	0.004
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.002	0.002
91 Material Service Road, Des Plaines River	0.005	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001

ND = No Data.

TABLE AII-65: SOLUBLE IRON MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.100	0.200	0.025	0.057	0.054	0.055	0.046	0.041
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.100	0.200	0.023	0.041	0.049	0.024	0.037	0.029
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.100	0.200	0.073	0.074	0.086	0.081	0.063	0.072
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.100	0.208	0.021	0.051	0.054	0.037	0.033	0.029
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.100	0.200	0.032	0.077	0.073	0.060	0.062	0.040
105 Frontage Road, Skokie River	ND	ND	ND	0.100	0.200	0.079	0.042	0.042	0.047	0.026	0.023
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.100	0.200	0.041	0.048	0.058	0.042	0.033	0.025
96 Albany Avenue, North Branch Chicago River	0.100	0.100	0.100	0.100	0.200	0.023	0.042	0.061	0.032	0.050	0.027
35 Central Street, North Shore Channel	ND	ND	ND	0.100	0.200	0.014	0.048	0.015	0.015	0.024	0.022
112 Dempster Street, North Shore Channel	0.100	0.100	0.110	0.100	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.100	0.200	0.025	0.027	0.024	0.026	0.023	0.025
36 Touhy Avenue, North Shore Channel	0.100	0.100	0.100	0.100	0.200	0.021	0.031	0.030	0.028	0.031	0.025
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.100	0.200	0.024	0.032	0.032	0.035	0.029	0.030
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.100	0.200	0.025	0.047	0.042	0.034	0.032	0.035
73 Diversey Parkway, North Branch Chicago River	0.108	0.100	0.100	0.100	0.200	0.028	0.044	0.045	0.039	0.035	0.036
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.100	0.200	0.026	0.041	0.048	0.038	0.033	0.033
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.100	0.200	0.000	0.005	0.014	0.014	0.009	0.008
100 Wells Street, Chicago River	0.100	0.100	0.100	0.100	0.200	0.011	0.017	0.029	0.017	0.014	0.014
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.100	0.200	0.026	0.033	0.043	0.024	0.023	0.025
108 Loomis Street, South Branch Chicago River	0.127	0.100	0.100	0.100	0.200	0.027	0.031	0.045	0.024	0.021	0.033
99 Archer Avenue, South Fork South Branch Chicago River	0.120	0.136	0.110	0.108	0.200	0.045	0.043	0.056	0.025	0.019	0.019
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.100	0.200	0.032	0.039	0.043	0.024	0.021	0.023
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	0.108	0.100	0.100	0.100	0.200	0.026	0.032	0.038	0.020	0.020	0.026
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.108	0.100	0.100	0.100	0.200	0.033	0.037	0.034	0.027	0.027	0.027
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.100	0.317	0.049	0.037	0.037	0.028	0.033	0.028
48 Stephen Street, Chicago Sanitary and Ship Canal	0.100	0.100	0.100	0.117	0.233	0.025	0.043	0.038	0.030	0.033	0.025
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.100	0.100	0.100	0.100	0.204	0.026	0.044	0.035	0.028	0.031	0.025
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.100	0.200	0.000	0.000	0.000	0.006	0.004	0.004
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.129	0.200	0.014	0.014	0.006	0.024	0.007	0.008
55 130th Street, Calumet River	ND	ND	ND	0.100	0.200	0.002	0.014	0.007	0.016	0.008	0.007
86 Burnham Avenue, Grand Calumet River	0.100	0.138	0.182	0.318	0.210	0.110	0.107	0.101	0.128	0.034	0.070
56 Indiana Avenue, Little Calumet River	0.100	0.100	0.100	0.100	0.200	0.003	0.007	0.005	0.009	0.007	0.006
76 Halsted Street, Little Calumet River	0.110	0.100	0.100	0.100	0.200	0.022	0.030	0.034	0.030	0.032	0.038
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.100	0.200	0.071	0.069	0.067	0.072	0.061	0.082
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.100	0.200	0.089	0.084	0.090	0.063	0.056	0.078
97 170th Street, Thorn Creek	ND	ND	ND	0.100	0.200	0.076	0.051	0.051	0.051	0.036	0.040
57 Ashland Avenue, Little Calumet River	0.100	0.109	0.100	0.100	0.200	0.052	0.055	0.051	0.062	0.031	0.046
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.100	0.200	0.047	0.043	0.043	0.040	0.032	0.032
59 Cicero Avenue, Calumet-Sag Channel	0.100	0.100	0.100	0.100	0.200	0.045	0.043	0.036	0.051	0.038	0.029
43 Route 83, Calumet-Sag Channel	0.100	0.100	0.100	0.100	0.200	0.035	0.039	0.029	0.073	0.020	0.017
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.100	0.200	0.058	0.080	0.084	0.054	0.050	0.055
110 Springinsguth Road, West Branch DuPage River	0.278	0.271	0.213	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.100	0.200	0.033	0.051	0.065	0.061	0.050	0.054
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.045	0.048	0.051	0.037	0.037	0.042
111 Arlington Drive, West Branch DuPage River	0.100	0.100	0.100	0.100	0.200	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.100	0.100	0.100	0.100	0.200	0.039	0.052	0.051	0.041	0.027	0.043
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.100	0.200	0.056	0.073	0.056	0.048	0.039	0.044
18 Devon Avenue, Salt Creek	0.100	0.100	0.100	0.100	0.200	0.045	0.070	0.056	0.044	0.038	0.037
24 Wolf Road, Salt Creek	ND	ND	ND	0.100	0.200	0.030	0.051	0.049	0.036	0.032	0.051
109 Brookfield Avenue, Salt Creek	0.100	0.100	0.100	0.100	0.200	0.032	0.049	0.053	0.037	0.034	0.039
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.100	0.100	0.100	0.200	0.035	0.063	0.070	0.059	0.048	0.052
78 Wille Road, Higgins Creek	0.100	0.100	0.100	0.100	0.200	0.032	0.051	0.051	0.044	0.045	0.046
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.100	0.200	0.037	0.059	0.048	0.036	0.027	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.100	0.200	0.036	0.056	0.048	0.055	0.026	0.027
17 Oakton Street, Des Plaines River	ND	ND	ND	0.100	0.200	0.046	0.052	0.045	0.047	0.035	0.028
19 Belmont Avenue, Des Plaines River	0.100	0.100	0.100	0.100	0.200	0.031	0.056	0.045	0.064	0.031	0.033
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.100	0.200	0.025	0.052	0.042	0.052	0.027	0.035
22 Ogden Avenue, Des Plaines River	0.100	0.100	0.100	0.100	0.200	0.036	0.053	0.046	0.046	0.035	0.037
23 Willow Springs Road, Des Plaines River	0.100	0.100	0.100	0.100	0.200	0.035	0.048	0.032	0.051	0.046	0.029
29 Stephen Street, Des Plaines River	ND	ND	ND	0.100	0.200	0.031	0.058	0.036	0.035	0.021	0.019
91 Material Service Road, Des Plaines River	0.100	0.100	0.100	0.100	0.200	0.027	0.043	0.035	0.032	0.023	0.020

ND = No Data.

TABLE AII-66: SOLUBLE LEAD MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.007	0.006	0.004	0.002	0.002
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.000	0.002	0.002	0.003	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.020	0.030	0.000	0.000	0.002	0.002	0.003	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.007	0.006	0.002	0.003	0.002
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.020	0.030	0.000	0.000	0.005	0.001	0.004	0.001
105 Frontage Road, Skokie River	ND	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.007	0.006	0.002	0.004	0.001
96 Albany Avenue, North Branch Chicago River	0.020	0.020	0.020	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001
35 Central Street, North Shore Channel	ND	ND	ND	0.020	0.030	0.000	0.000	0.000	0.001	0.003	0.001
112 Dempster Street, North Shore Channel	0.020	0.020	0.020	0.020	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.020	0.030	0.000	0.000	0.005	0.001	0.003	0.001
36 Touhy Avenue, North Shore Channel	0.020	0.020	0.020	0.020	0.030	0.000	0.007	0.005	0.002	0.003	0.001
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001
73 Diversey Parkway, North Branch Chicago River	0.020	0.020	0.020	0.020	0.030	0.000	0.007	0.005	0.002	0.003	0.001
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.020	0.030	0.000	0.000	0.003	0.001	0.003	0.001
100 Wells Street, Chicago River	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.005	0.002	0.003	0.001
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.020	0.030	0.000	0.000	0.005	0.002	0.004	0.001
108 Loomis Street, South Branch Chicago River	0.020	0.020	0.020	0.020	0.030	0.000	0.005	0.006	0.002	0.003	0.001
99 Archer Avenue, South Fork South Branch Chicago River	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.004	0.001	0.003	0.001
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.000	0.000	0.005	0.001	0.003	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	0.020	0.020	0.020	0.020	0.030	0.000	0.005	0.005	0.002	0.003	0.001
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.020	0.030	0.000	0.006	0.004	0.001	0.003	0.001
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.020	0.030	0.000	0.007	0.007	0.001	0.003	0.002
48 Stephen Street, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.020	0.030	0.002	0.007	0.005	0.001	0.003	0.002
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.020	0.030	0.000	0.005	0.005	0.002	0.003	0.002
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.020	0.030	0.004	0.000	0.000	0.001	0.002	0.001
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.020	0.030	0.002	0.000	0.003	0.001	0.002	0.001
55 130th Street, Calumet River	ND	ND	ND	0.020	0.030	0.002	0.000	0.002	0.001	0.003	0.001
86 Burnham Avenue, Grand Calumet River	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.003	0.002	0.003	0.002
56 Indiana Avenue, Little Calumet River	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.002	0.001	0.002	0.002
76 Halsted Street, Little Calumet River	0.020	0.020	0.020	0.020	0.030	0.000	0.006	0.006	0.001	0.003	0.002
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.020	0.030	0.000	0.000	0.003	0.001	0.003	0.001
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.020	0.030	0.000	0.000	0.000	0.002	0.003	0.002
97 170th Street, Thorn Creek	ND	ND	ND	0.020	0.030	0.000	0.000	0.003	0.002	0.003	0.002
57 Ashland Avenue, Little Calumet River	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.003	0.001	0.003	0.002
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.020	0.030	0.000	0.007	0.005	0.001	0.003	0.002
59 Cicero Avenue, Calumet-Sag Channel	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.002	0.001	0.003	0.002
43 Route 83, Calumet-Sag Channel	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.002	0.001	0.003	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.020	0.030	0.000	0.008	0.004	0.001	0.003	0.002
110 Springinsguth Road, West Branch DuPage River	0.020	0.020	0.020	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.020	0.030	0.000	0.007	0.003	0.002	0.003	0.001
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.009	0.003	0.002	0.004	0.001
111 Arlington Drive, West Branch DuPage River	0.020	0.020	0.020	0.020	0.030	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.020	0.020	0.020	0.020	0.030	0.000	0.000	0.000	0.002	0.003	0.002
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.020	0.030	0.002	0.006	0.003	0.003	0.003	0.001
18 Devon Avenue, Salt Creek	0.020	0.020	0.020	0.020	0.030	0.002	0.007	0.003	0.002	0.003	0.001
24 Wolf Road, Salt Creek	ND	ND	ND	0.020	0.030	0.000	0.007	0.004	0.001	0.003	0.002
109 Brookfield Avenue, Salt Creek	0.020	0.020	0.020	0.020	0.030	0.002	0.006	0.003	0.002	0.003	0.001
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.020	0.020	0.020	0.030	0.000	0.000	0.006	0.002	0.004	0.002
78 Wille Road, Higgins Creek	0.020	0.020	0.020	0.020	0.030	0.005	0.006	0.003	0.001	0.003	0.002
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.020	0.030	0.003	0.009	0.004	0.003	0.003	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.020	0.030	0.002	0.006	0.003	0.002	0.004	0.002
17 Oakton Street, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.006	0.003	0.001	0.004	0.002
19 Belmont Avenue, Des Plaines River	0.020	0.020	0.020	0.020	0.030	0.000	0.006	0.003	0.002	0.003	0.002
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.006	0.003	0.001	0.003	0.002
22 Ogden Avenue, Des Plaines River	0.020	0.020	0.020	0.020	0.030	0.002	0.006	0.003	0.002	0.004	0.001
23 Willow Springs Road, Des Plaines River	0.020	0.020	0.020	0.020	0.030	0.002	0.006	0.004	0.003	0.003	0.002
29 Stephen Street, Des Plaines River	ND	ND	ND	0.020	0.030	0.000	0.006	0.003	0.002	0.003	0.002
91 Material Service Road, Des Plaines River	0.020	0.020	0.020	0.020	0.030	0.002	0.006	0.004	0.002	0.003	0.001

ND = No Data.

TABLE AII-67: SOLUBLE NICKEL MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.001	0.001	0.001	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.005	0.008	0.001	0.001	0.000	0.000	0.000	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.001
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.001
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.005	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.001
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.006	0.005	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.008	0.008	0.000	0.001	0.000	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.006	0.008	0.000	0.001	0.000	0.001	0.001	0.001
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.008	0.008	0.000	0.001	0.000	0.001	0.001	0.002
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.008	0.000	0.001	0.000	0.001	0.001	0.002
73 Diversey Parkway, North Branch Chicago River	0.006	0.005	0.005	0.007	0.010	0.000	0.001	0.000	0.001	0.001	0.002
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.010	0.008	0.000	0.002	0.000	0.002	0.002	0.003
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.006	0.008	0.000	0.000	0.000	0.001	0.002	0.000
100 Wells Street, Chicago River	0.005	0.005	0.005	0.006	0.008	0.000	0.000	0.000	0.001	0.000	0.001
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.006	0.008	0.001	0.000	0.000	0.001	0.001	0.002
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.006	0.008	0.000	0.000	0.000	0.002	0.001	0.002
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.006	0.008	0.000	0.001	0.001	0.002	0.001	0.002
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.008	0.001	0.001	0.000	0.001	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	0.005	0.005	0.005	0.006	0.008	0.000	0.001	0.000	0.002	0.002	0.002
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.006	0.008	0.008	0.001	0.001	0.001	0.003	0.004	0.004
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.008	0.009	0.002	0.002	0.002	0.005	0.004	0.005
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.013	0.007	0.015	0.001	0.002	0.001	0.004	0.003	0.004
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.007	0.006	0.009	0.001	0.002	0.002	0.004	0.004	0.004
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.008	0.000	0.000	0.001	0.001	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.005	0.005	0.009	0.000	0.001	0.001	0.001	0.002	0.002
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.008	0.000	0.000	0.000	0.002	0.000	0.001
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.005	0.008	0.000	0.000	0.001	0.001	0.000	0.002
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.008	0.001	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	ND	0.007	0.008	0.001	0.001	0.001	0.001	0.002	0.004
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.008	0.000	0.001	0.001	0.001	0.002	0.002
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.008	0.000	0.000	0.001	0.001	0.000	0.002
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.006	0.005	0.008	0.000	0.000	0.001	0.001	0.001	0.003
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.008	0.001	0.000	0.001	0.002	0.001	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.005	0.008	0.000	0.000	0.001	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.005	0.009	0.001	0.003	0.002	0.002	0.001	0.002
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.004	0.001	0.002	0.002	0.002
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.005	0.008	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.005	0.008	0.000	0.000	0.001	0.000	0.000	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.006	0.008	0.005	0.001	0.002	0.002	0.001	0.002
18 Devon Avenue, Salt Creek	0.006	0.007	0.006	0.007	0.008	0.006	0.001	0.002	0.002	0.001	0.002
24 Wolf Road, Salt Creek	ND	ND	ND	0.006	0.008	0.003	0.002	0.002	0.002	0.002	0.003
109 Brookfield Avenue, Salt Creek	0.005	0.014	0.005	0.009	0.008	0.003	0.002	0.002	0.002	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	ND	0.005	0.005	0.005	0.008	0.000	0.000	0.000	0.001	0.000	0.001
78 Wille Road, Higgins Creek	0.006	0.006	0.006	0.007	0.008	0.006	0.002	0.005	0.006	0.007	0.012
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.006	0.008	0.000	0.001	0.000	0.000	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.003
17 Oakton Street, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.002	0.000	0.001	0.000	0.002
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.005	0.005	0.010	0.000	0.001	0.001	0.001	0.002	0.005
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.001	0.001	0.001	0.001	0.004
22 Ogden Avenue, Des Plaines River	0.005	0.005	0.006	0.006	0.008	0.000	0.000	0.001	0.001	0.002	0.003
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.005	0.006	0.008	0.000	0.000	0.002	0.001	0.002	0.003
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.008	0.000	0.000	0.001	0.002	0.001	0.003
91 Material Service Road, Des Plaines River	0.005	0.005	0.006	0.005	0.009	0.000	0.000	0.001	0.001	0.001	0.003

ND = No Data.

TABLE AII-68: SOLUBLE MANGANESE MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.053	0.057	0.076	0.054	0.043	0.056	0.039	0.059
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.066	0.041	0.048	0.057	0.046	0.044	0.041	0.054
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.094	0.062	0.154	0.058	0.056	0.124	0.045	0.100
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.049	0.048	0.055	0.063	0.044	0.038	0.033	0.054
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.092	0.071	0.089	0.059	0.067	0.097	0.051	0.094
105 Frontage Road, Skokie River	ND	ND	ND	0.023	0.031	0.025	0.032	0.026	0.021	0.012	0.021
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.056	0.041	0.056	0.043	0.047	0.047	0.033	0.044
96 Albany Avenue, North Branch Chicago River	0.019	0.040	ND	0.056	0.040	0.040	0.036	0.056	0.033	0.031	0.033
35 Central Street, North Shore Channel	ND	ND	ND	0.010	0.017	0.012	0.011	0.025	0.009	0.009	0.005
112 Dempster Street, North Shore Channel	0.005	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.025	0.026	0.025	0.014	0.016	0.013	0.016	0.011
36 Touhy Avenue, North Shore Channel	0.014	0.019	ND	0.029	0.020	0.018	0.010	0.017	0.013	0.009	0.013
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.030	0.025	0.013	0.019	0.015	0.015	0.011	0.013
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.032	0.021	0.025	0.018	0.019	0.019	0.013	0.018
73 Diversey Parkway, North Branch Chicago River	0.045	0.034	ND	0.035	0.072	0.029	0.025	0.021	0.024	0.018	0.019
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.027	0.032	0.025	0.027	0.038	0.039	0.022	0.025
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.025	0.021	0.012	0.011	0.012	0.010	0.004	0.011
100 Wells Street, Chicago River	0.010	0.022	ND	0.041	0.048	0.017	0.013	0.029	0.019	0.010	0.015
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.041	0.042	0.031	0.021	0.028	0.024	0.014	0.040
108 Loomis Street, South Branch Chicago River	0.020	0.022	ND	0.036	0.106	0.028	0.024	0.040	0.032	0.019	0.028
99 Archer Avenue, South Fork South Branch Chicago River	0.038	0.037	ND	0.052	0.038	0.029	0.037	0.043	0.025	0.019	0.028
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.041	0.031	0.026	0.023	0.034	0.024	0.021	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	0.023	0.054	ND	0.037	0.026	0.023	0.025	0.032	0.020	0.019	0.018
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.022	0.022	ND	0.018	0.023	0.041	0.022	0.018	0.018	0.014	0.013
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.025	0.024	0.020	0.017	0.020	0.016	0.015	0.017
48 Stephen Street, Chicago Sanitary and Ship Canal	0.028	0.029	ND	0.035	0.037	0.026	0.022	0.025	0.021	0.023	0.028
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.031	0.037	ND	0.035	0.074	0.031	0.028	0.057	0.030	0.026	0.025
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.016	0.014	0.006	0.021	0.009	0.010	0.007	0.008
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.011	0.016	0.022	0.010	0.013	0.008	0.005	0.008
55 130th Street, Calumet River	ND	ND	ND	0.011	0.019	0.017	0.014	0.036	0.013	0.011	0.012
86 Burnham Avenue, Grand Calumet River	0.054	0.170	ND	0.237	0.197	0.198	0.081	0.157	0.131	0.132	0.067
56 Indiana Avenue, Little Calumet River	0.012	0.014	ND	0.017	0.025	0.029	0.019	0.021	0.019	0.009	0.012
76 Halsted Street, Little Calumet River	0.018	0.021	ND	0.028	0.032	0.038	0.025	0.033	0.035	0.025	0.029
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.099	0.073	0.093	0.084	0.105	0.096	0.084	0.089
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.058	0.057	0.051	0.047	0.058	0.057	0.042	0.060
97 170th Street, Thorn Creek	ND	ND	ND	0.070	0.051	0.062	0.060	0.061	0.058	0.051	0.061
57 Ashland Avenue, Little Calumet River	0.079	0.054	ND	0.074	0.057	0.058	0.065	0.065	0.081	0.065	0.081
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.052	0.045	0.050	0.035	0.042	0.038	0.037	0.039
59 Cicero Avenue, Calumet-Sag Channel	0.040	0.033	ND	0.047	0.047	0.047	0.035	0.056	0.041	0.040	0.036
43 Route 83, Calumet-Sag Channel	0.030	0.033	ND	0.061	0.049	0.047	0.034	0.048	0.042	0.038	0.039
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.063	0.047	0.067	0.054	0.090	0.050	0.047	0.077
110 Springinguth Road, West Branch DuPage River	0.171	0.184	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.037	0.025	0.047	0.023	0.039	0.026	0.024	0.034
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.063	0.044	0.049	0.035	0.037	0.053
111 Arlington Drive, West Branch DuPage River	0.043	0.041	ND	0.056	0.040	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.042	0.034	ND	0.068	0.054	0.025	0.022	0.035	0.033	0.021	0.036
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.031	0.026	0.032	0.023	0.039	0.031	0.014	0.024
18 Devon Avenue, Salt Creek	0.021	0.031	ND	0.026	0.030	0.042	0.030	0.051	0.030	0.017	0.026
24 Wolf Road, Salt Creek	ND	ND	ND	0.036	0.035	0.034	0.034	0.040	0.032	0.027	0.031
109 Brookfield Avenue, Salt Creek	0.029	0.039	ND	0.041	0.038	0.041	0.038	0.040	0.036	0.031	0.035
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.080	ND	0.087	0.061	0.027	0.069	0.077	0.067	0.057	0.072
78 Wille Road, Higgins Creek	0.019	0.013	ND	0.029	0.015	0.022	0.026	0.051	0.028	0.023	0.016
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.249	0.040	0.056	0.056	0.066	0.047	0.043	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.047	0.031	0.036	0.032	0.035	0.030	0.025	0.036
17 Oakton Street, Des Plaines River	ND	ND	ND	0.028	0.029	0.028	0.026	0.030	0.030	0.032	0.039
19 Belmont Avenue, Des Plaines River	0.033	0.028	ND	0.033	0.060	0.038	0.029	0.034	0.032	0.032	0.045
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.031	0.034	0.030	0.025	0.034	0.028	0.034	0.039
22 Ogden Avenue, Des Plaines River	0.021	0.019	ND	0.029	0.024	0.026	0.020	0.033	0.028	0.026	0.029
23 Willow Springs Road, Des Plaines River	0.024	0.021	ND	0.032	0.028	0.027	0.018	0.039	0.028	0.030	0.033
29 Stephen Street, Des Plaines River	ND	ND	ND	0.051	0.043	0.023	0.016	0.032	0.027	0.024	0.022
91 Material Service Road, Des Plaines River	0.019	0.015	ND	0.029	0.037	0.023	0.014	0.030	0.019	0.020	0.021

ND = No Data.

TABLE AII-69: SOLUBLE MERCURY MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)											
	15	14	13	12	11	10	09	08	07	06	05	
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	0.000
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	0.025
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.045
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.080
73 Diversey Parkway, North Branch Chicago River	ND	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	0.000
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	0.000
39 Madison Street, South Branch Chicago River	ND	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	ND
99 Archer Avenue, South Fork South Branch Chicago River	ND	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	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	ND	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	ND
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
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	0.000	ND
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.040	0.085	ND
56 Indiana Avenue, Little Calumet River	ND	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	ND	0.000	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	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	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	0.000	0.000	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.050	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	ND
43 Route 83, Calumet-Sag Channel	ND	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	ND	0.000	ND	0.060	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	0.000
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
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	0.000	0.000	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	0.000
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.080	0.080	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	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	ND
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000

ND = No Data.

TABLE AII-70: SOLUBLE ZINC MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.022	0.023	0.009	0.014	0.015	0.028	0.020	0.019
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.013	0.021	0.005	0.004	0.003	0.016	0.014	0.011
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.010	0.020	0.000	0.003	0.000	0.011	0.012	0.005
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.014	0.022	0.007	0.011	0.010	0.017	0.019	0.018
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.010	0.020	0.000	0.004	0.001	0.011	0.015	0.011
105 Frontage Road, Skokie River	ND	ND	ND	0.017	0.023	0.013	0.014	0.010	0.019	0.022	0.023
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.013	0.020	0.007	0.003	0.004	0.017	0.016	0.014
96 Albany Avenue, North Branch Chicago River	0.010	0.012	0.012	0.011	0.020	0.003	0.006	0.007	0.016	0.021	0.015
35 Central Street, North Shore Channel	ND	ND	ND	0.010	0.020	0.000	0.002	0.003	0.010	0.010	0.004
112 Dempster Street, North Shore Channel	0.011	0.010	0.015	0.012	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	0.021	0.023	0.012	0.010	0.009	0.022	0.025	0.018
36 Touhy Avenue, North Shore Channel	0.025	0.028	0.025	0.028	0.028	0.027	0.023	0.026	0.037	0.034	0.029
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.029	0.023	0.024	0.022	0.026	0.037	0.034	0.028
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.023	0.022	0.018	0.017	0.020	0.032	0.028	0.031
73 Diversey Parkway, North Branch Chicago River	0.022	0.024	0.023	0.023	0.023	0.018	0.017	0.019	0.031	0.027	0.024
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.024	0.022	0.019	0.018	0.019	0.029	0.029	0.028
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.017	0.024	0.003	0.002	0.003	0.016	0.013	0.012
100 Wells Street, Chicago River	0.013	0.015	0.023	0.022	0.022	0.009	0.006	0.011	0.018	0.017	0.014
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.023	0.023	0.012	0.015	0.016	0.021	0.021	0.023
108 Loomis Street, South Branch Chicago River	0.015	0.019	0.021	0.023	0.023	0.018	0.016	0.017	0.025	0.023	0.022
99 Archer Avenue, South Fork South Branch Chicago River	0.013	0.014	0.014	0.016	0.021	0.011	0.013	0.017	0.021	0.020	0.017
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.021	0.021	0.012	0.015	0.016	0.026	0.024	0.023
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	0.015	0.016	0.019	0.022	0.011	0.011	0.020	0.029	0.022	0.021
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.018	0.017	0.018	0.023	0.022	0.022	0.017	0.022	0.030	0.024	0.023
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.023	0.024	0.021	0.018	0.019	0.029	0.026	0.024
48 Stephen Street, Chicago Sanitary and Ship Canal	0.018	0.015	0.025	0.022	0.022	0.014	0.016	0.019	0.027	0.024	0.022
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.017	0.017	0.020	0.020	0.021	0.015	0.017	0.021	0.026	0.027	0.024
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.010	0.020	0.000	0.002	0.001	0.009	0.008	0.005
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.010	0.020	0.000	0.001	0.001	0.010	0.007	0.004
55 130th Street, Calumet River	ND	ND	ND	0.010	0.020	0.003	0.000	0.002	0.012	0.017	0.008
86 Burnham Avenue, Grand Calumet River	0.014	0.014	0.012	0.010	0.020	0.000	0.026	0.008	0.019	0.031	0.020
56 Indiana Avenue, Little Calumet River	0.011	0.012	0.014	0.012	0.021	0.004	0.001	0.003	0.017	0.013	0.009
76 Halsted Street, Little Calumet River	0.016	0.019	0.018	0.019	0.022	0.017	0.016	0.022	0.029	0.026	0.026
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.011	0.020	0.005	0.007	0.010	0.013	0.014	0.013
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.030	0.025	0.024	0.034	0.041	0.041	0.044	0.032
97 170th Street, Thorn Creek	ND	ND	ND	0.013	0.020	0.005	0.013	0.019	0.019	0.021	0.020
57 Ashland Avenue, Little Calumet River	0.012	0.010	0.012	0.014	0.020	0.005	0.011	0.014	0.016	0.016	0.019
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.017	0.022	0.009	0.016	0.028	0.028	0.030	0.036
59 Cicero Avenue, Calumet-Sag Channel	0.013	0.015	0.016	0.017	0.023	0.008	0.011	0.020	0.021	0.025	0.023
43 Route 83, Calumet-Sag Channel	0.014	0.013	0.016	0.017	0.022	0.006	0.012	0.015	0.024	0.024	0.026
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.010	0.020	0.000	0.001	0.005	0.010	0.007	0.005
110 Springinsguth Road, West Branch DuPage River	0.011	0.013	0.010	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	0.039	0.029	0.030	0.032	0.034	0.040	0.034	0.036
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.014	0.022	0.025	0.030	0.029	0.027
111 Arlington Drive, West Branch DuPage River	0.024	0.027	0.027	0.027	0.023	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.010	0.010	0.009	0.010	0.020	0.000	0.005	0.002	0.009	0.007	0.004
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.017	0.020	0.014	0.018	0.015	0.023	0.022	0.021
18 Devon Avenue, Salt Creek	0.015	0.018	0.018	0.019	0.020	0.017	0.017	0.014	0.020	0.018	0.028
24 Wolf Road, Salt Creek	ND	ND	ND	0.019	0.022	0.015	0.016	0.019	0.021	0.024	0.029
109 Brookfield Avenue, Salt Creek	0.015	0.014	0.016	0.019	0.023	0.013	0.013	0.017	0.022	0.023	0.026
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	0.010	0.010	0.011	0.022	0.000	0.007	0.017	0.011	0.020	0.017
78 Wille Road, Higgins Creek	0.028	0.029	0.033	0.034	0.025	0.023	0.032	0.041	0.040	0.047	0.062
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.010	0.020	0.002	0.001	0.002	0.008	0.008	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.011	0.020	0.009	0.007	0.011	0.015	0.016	0.021
17 Oakton Street, Des Plaines River	ND	ND	ND	0.013	0.020	0.006	0.007	0.009	0.013	0.017	0.019
19 Belmont Avenue, Des Plaines River	0.015	0.013	0.016	0.017	0.023	0.009	0.011	0.014	0.018	0.022	0.027
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.011	0.020	0.011	0.008	0.015	0.017	0.022	0.026
22 Ogden Avenue, Des Plaines River	0.013	0.011	0.019	0.016	0.020	0.013	0.008	0.016	0.021	0.023	0.024
23 Willow Springs Road, Des Plaines River	0.010	0.010	0.014	0.016	0.020	0.010	0.006	0.014	0.019	0.021	0.022
29 Stephen Street, Des Plaines River	ND	ND	ND	0.013	0.020	0.010	0.007	0.013	0.021	0.022	0.021
91 Material Service Road, Des Plaines River	0.013	0.012	0.016	0.018	0.022	0.007	0.007	0.012	0.018	0.020	0.018

ND = No Data.

TABLE AII-71: SOLUBLE SELENIUM MEAN HISTORY
2005 THROUGH 2015

Sampling Station (No. Name)	Annual Means (mg/L)										
	15	14	13	12	11	10	09	08	07	06	05
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.011
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.007
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.005
104 Glenview Road, North Branch Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.004	0.006
32 Lake-Cook Road, Skokie River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.003	0.006
105 Frontage Road, Skokie River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.005
34 Dempster Street, North Branch Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.008
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	0.007	0.030	0.000	0.000	0.000	0.002	0.002	0.007
35 Central Street, North Shore Channel	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.001	0.007
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	0.006	0.030	0.000	0.000	0.000	0.002	0.001	0.005
36 Touhy Avenue, North Shore Channel	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.002	0.006
101 Foster Avenue, North Shore Channel	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.007
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.002	0.002	0.008
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.006
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.007
74 Lake Shore Drive, Chicago River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.005
100 Wells Street, Chicago River	ND	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.002	0.003
39 Madison Street, South Branch Chicago River	ND	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.001	0.006
108 Loomis Street, South Branch Chicago River	ND	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.000	0.007
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.005
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006
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	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.005
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.001	0.005
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.005
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.005
50 Burnham Avenue, Wolf Lake	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.004	0.004
55 130th Street, Calumet River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.002
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	0.007	0.030	0.005	0.000	0.000	0.000	0.002	0.006
56 Indiana Avenue, Little Calumet River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.002	0.003
76 Halsted Street, Little Calumet River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.004
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.002	0.004
54 Joe Orr Road, Thorn Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.003	0.005
97 170th Street, Thorn Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.004
57 Ashland Avenue, Little Calumet River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.003	0.004
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.005
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.004
43 Route 83, Calumet-Sag Channel	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.004
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.005
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	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.005
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.002	0.000	0.007
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	0.005	0.030	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.005
80 Arlington Heights Road, Salt Creek	ND	ND	ND	0.005	0.030	0.008	0.000	0.000	0.000	0.001	0.007
18 Devon Avenue, Salt Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.008
24 Wolf Road, Salt Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.006
109 Brookfield Avenue, Salt Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	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	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.009
78 Wille Road, Higgins Creek	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.006
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006
17 Oakton Street, Des Plaines River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.000	0.005
19 Belmont Avenue, Des Plaines River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.001	0.006
20 Roosevelt Road, Des Plaines River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.005
22 Ogden Avenue, Des Plaines River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.001	0.008
23 Willow Springs Road, Des Plaines River	ND	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.006
29 Stephen Street, Des Plaines River	ND	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.001	0.006
91 Material Service Road, Des Plaines River	ND	ND	ND	0.006	0.030	0.008	0.000	0.000	0.000	0.000	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 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE TERENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2015

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	0.068	0.901	...	...
Temp (°C)	1.000	0.983	0.103	0.768	...	...
pH	1.000	0.956	0.201	0.002	...	...
Alk (mg/L)	0.373	0.632	0.031	...	0.012	...
Cl (mg/L)	0.468	0.576	0.000	...	0.010	...
TKN (mg/L)	-	-	-	-	-	-
NH ₄ -N (mg/L)	0.806	0.888	0.000	0.001	...	...
NH ₃ -N (mg/L)	0.953	0.999	0.000	...	0.010	...
ORG-N (mg/L)	0.806	0.933	0.000	...	0.068	...
NO ₂ + NO ₃ (mg/L)	0.078	0.986	0.077	0.000	...	...
TS (mg/L)	0.846	0.878	0.003	...	0.003	...
TSS (mg/L)	0.989	1.000	0.028	...	0.032	...
VSS (mg/L)	0.107	0.041	0.012	...	...	0.739
TDS (mg/L)	0.901	0.884	0.002	...	0.003	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.836	0.998	0.089	0.000	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.350	0.841	0.000	0.000	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.640	1.000	0.058	0.000	...	...
TOC (mg/L)	0.197	0.724	0.053	0.000	...	...
FC (#/100ml)*	0.914	1.000	0.005	0.000	...	...
Ca (mg/L)	0.907	0.994	0.014	...	0.001	...
Mg (mg/L)	0.315	0.985	0.003	...	0.003	...
Hard (mg/L)	0.877	0.995	0.006	...	0.003	...
G. Alpha (pCi/L)	0.985	1.000	0.239	0.009	...	...
G. Beta (pCi/L)	1.000	0.999	0.003	...	0.001	...

TABLE AIII-1 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE TERENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2015

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 ($\mu\text{g/L}$)	0.485	0.484	0.000	...	0.088	...
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)	0.971	0.500	0.001	...	0.625	...
B (mg/L)	0.076	0.999	0.178	0.000	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.802	0.575	0.347	0.592	...	...
Se (mg/L)	0.426	0.831	0.278	0.719	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	-	-	-	-	-	-
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)	0.912	0.908	0.077	0.007	...	...
Sol. Zn (mg/L)	0.042	0.763	0.010	...	...	0.001

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 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2015

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)	0.996	1.000	0.246	0.495	...	...
Temp (°C)	1.000	1.000	0.209	0.525	...	...
pH	0.999	0.995	0.175	0.039	...	...
Alk (mg/L)	1.000	0.900	0.341	0.916	...	...
Cl (mg/L)	0.341	0.784	0.128	0.859	...	...
TKN (mg/L)	0.067	0.625	0.113	0.514	...	...
NH ₄ -N (mg/L)	0.990	0.999	0.294	1.000	...	...
NH ₃ -N (mg/L)	0.235	0.712	0.000	...	0.225	...
ORG-N (mg/L)	0.980	1.000	0.361	0.328	...	...
NO ₂ + NO ₃ (mg/L)	1.000	0.898	0.291	0.139	...	...
TS (mg/L)	0.698	0.935	0.142	0.985	...	...
TSS (mg/L)	0.773	0.503	0.002	...	0.008	...
VSS (mg/L)	0.006	0.006	0.003	...	...	1.000
TDS (mg/L)	0.694	0.946	0.147	0.978	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	1.000	0.924	0.125	0.006	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.987	0.987	0.303	0.942	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.736	0.895	0.489	0.007	...	...
TOC (mg/L)	0.888	0.291	0.340	0.163	...	...
FC (#/100ml)*	0.579	1.000	0.038	...	0.005	...
Ca (mg/L)	0.993	0.928	0.304	0.727	...	...
Mg (mg/L)	0.943	0.996	0.234	0.946	...	...
Hard (mg/L)	0.967	0.976	0.244	0.938	...	...
G. Alpha (pCi/L)	0.997	0.998	0.299	0.809	...	...
G. Beta (pCi/L)	0.998	1.000	0.285	0.071	...	...

TABLE AIII-2 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2015

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 ($\mu\text{g/L}$)	0.552	0.775	0.001	...	0.071	...
Bnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
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)	0.909	0.991	0.176	0.021	...	...
B (mg/L)	0.990	0.273	0.000	...	0.014	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.892	0.926	0.398	0.958	...	...
Se (mg/L)	0.206	0.107	0.077	0.779	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	0.006	0.006	0.500	1.000	...	...
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	0.893	0.940	0.254	0.844	...	...
Sol. Zn (mg/L)	0.268	0.299	0.287	0.298	...	...

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 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2015

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	1.000	0.331	0.045	...	...
Temp (°C)	0.990	0.987	0.360	0.745	...	...
pH	0.842	0.534	0.281	0.001	...	...
Alk (mg/L)	0.950	0.967	0.478	0.109	...	...
Cl (mg/L)	0.987	0.943	0.177	...	...	0.022
TKN (mg/L)	-	-	-	-	-	-
NH ₄ -N (mg/L)	0.640	0.814	0.000	...	0.046	...
NH ₃ -N (mg/L)	0.957	0.973	0.355	0.315	...	...
ORG-N (mg/L)	0.640	0.350	0.000	...	0.566	...
NO ₂ + NO ₃ (mg/L)	0.764	0.984	0.201	0.001	...	...
TS (mg/L)	0.862	0.983	0.415	0.030	...	...
TSS (mg/L)	0.593	0.883	0.001	...	0.155	...
VSS (mg/L)	0.551	0.549	0.288	0.890	...	...
TDS (mg/L)	0.924	0.989	0.332	0.024	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.877	0.983	0.116	0.787	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.247	1.000	0.000	0.000	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.736	0.869	0.387	0.001	...	...
TOC (mg/L)	0.984	0.929	0.267	0.180	...	...
FC (#/100ml)*	0.676	1.000	0.034	0.000	...	...
Ca (mg/L)	0.746	0.999	0.441	0.067	...	...
Mg (mg/L)	0.998	0.968	0.199	0.699	...	...
Hard (mg/L)	0.955	0.837	0.327	0.285	...	...
G. Alpha (pCi/L)	0.655	0.487	0.020	...	0.157	...
G. Beta (pCi/L)	0.996	0.999	0.068	0.342	...	...

TABLE AIII-3 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2015

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	0.966	0.214	0.062	...	...
Bnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
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)	0.999	0.865	0.475	0.005	...	...
B (mg/L)	0.948	1.000	0.104	0.014	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.631	0.988	0.001	...	0.405	...
Se (mg/L)	0.897	0.110	0.087	0.194	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	0.042	0.022	0.435	...	...	1.000
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	0.338	0.685	0.136	0.465	...	...
Sol. Zn (mg/L)	0.042	0.286	0.008	...	...	0.154

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 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2015

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	1.000	0.179	0.218	...	...
Temp (°C)	1.000	1.000	0.476	0.599	...	...
pH	1.000	0.854	0.342	0.872	...	...
Alk (mg/L)	0.998	0.869	0.158	0.222	...	...
Cl (mg/L)	0.808	1.000	0.054	0.220	...	...
TKN (mg/L)	-	-	-	-	-	-
NH ₄ -N (mg/L)	0.107	0.012	0.007	...	...	0.427
NH ₃ -N (mg/L)	0.984	0.656	0.300	0.986	...	...
ORG-N (mg/L)	0.107	0.016	0.000	...	...	0.277
NO ₂ + NO ₃ (mg/L)	0.444	0.547	0.000	0.000	...	...
TS (mg/L)	0.879	0.959	0.048	...	0.350	...
TSS (mg/L)	0.997	0.091	0.474	0.042	...	...
VSS (mg/L)	0.936	0.159	0.127	0.149	...	...
TDS (mg/L)	0.887	0.978	0.050	0.352	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.978	0.728	0.039	...	0.121	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.042	0.976	0.000	...	...	0.000
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.042	0.934	0.000	...	...	0.000
TOC (mg/L)	0.377	0.910	0.001	...	0.344	...
FC (#/100ml)*	0.949	0.914	0.001	...	0.348	...
Ca (mg/L)	0.883	1.000	0.069	0.938	...	...
Mg (mg/L)	1.000	0.939	0.055	0.429	...	...
Hard (mg/L)	0.992	0.994	0.078	0.733	...	...
G. Alpha (pCi/L)	0.710	0.898	0.003	...	0.368	...
G. Beta (pCi/L)	0.974	1.000	0.036	0.001	...	...

TABLE AIII-4 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2015

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 ($\mu\text{g/L}$)	0.968	0.311	0.079	0.853	...	...
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)	0.365	0.890	0.041	...	0.012	...
B (mg/L)	0.973	0.993	0.000	0.001	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.248	0.072	0.004	...	0.622	...
Se (mg/L)	0.750	0.105	0.190	0.203	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	-	-	-	-	-	-
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)	0.652	1.000	0.000	...	0.239	...
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 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2015

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)	0.973	1.000	0.127	0.004	...	...
Temp (°C)	1.000	0.998	0.413	0.607	...	...
pH	1.000	0.988	0.206	0.727	...	...
Alk (mg/L)	0.988	1.000	0.162	0.007	...	...
Cl (mg/L)	0.791	0.996	0.039	...	0.179	...
TKN (mg/L)	0.090	0.299	0.170	0.910	...	...
NH ₄ -N (mg/L)	1.000	0.259	0.008	...	0.798	...
NH ₃ -N (mg/L)	0.217	0.493	0.005	...	0.561	...
ORG-N (mg/L)	0.868	0.903	0.393	0.726	...	...
NO ₂ + NO ₃ (mg/L)	1.000	0.682	0.000	0.000	...	...
TS (mg/L)	0.580	0.978	0.033	...	0.089	...
TSS (mg/L)	1.000	0.996	0.010	...	0.017	...
VSS (mg/L)	0.875	0.627	0.055	0.848	...	...
TDS (mg/L)	0.589	0.983	0.029	...	0.075	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.930	0.997	0.001	...	0.479	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.806	0.871	0.000	0.000	...	...
CN (mg/L)	0.042	0.006	0.321	...	...	0.889
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.247	0.657	0.019	0.000	...	...
TOC (mg/L)	0.048	0.045	0.000	...	...	0.001
FC (#/100ml)*	0.986	0.849	0.167	0.053	...	...
Ca (mg/L)	0.958	0.996	0.037	...	0.133	...
Mg (mg/L)	1.000	0.980	0.059	0.432	...	...
Hard (mg/L)	0.991	0.996	0.057	0.209	...	...
G. Alpha (pCi/L)	0.654	0.784	0.000	...	0.111	...
G. Beta (pCi/L)	0.947	1.000	0.119	0.016	...	...

TABLE AIII-5 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 52 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2015

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 ($\mu\text{g/L}$)	0.897	0.999	0.009	...	0.481	...
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	0.947	0.365	0.000	...	...
B (mg/L)	0.903	1.000	0.008	0.000	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	0.042	0.006	0.321	...	...	0.889
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.461	0.656	0.217	0.883	...	...
Se (mg/L)	0.364	0.036	0.001	...	...	0.624
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	-	-	-	-	-	-
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)	0.194	1.000	0.000	...	0.107	...
Sol. Zn (mg/L)	0.042	0.701	0.002	...	...	0.002

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.