

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 12-46

2011 ANNUAL SUMMARY REPORT

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

November 2012

Protecting Our Water Environment

Board of Commissioners

Terrence J. O'Brien
President
Kathleen Therese Meany
Vice President
Gloria Alitto Majewski
Chairman of Finance
Frank Avila
Patricia Horton
Barbara J. McGowan
Cynthia M. Santos
Debra Shore
Mariyana T. Spyropoulos

Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street

Chicago, Illinois 60611-3154

312.751.5190

Thomas C. Granato, Ph.D.

Director of Monitoring and Research Department
thomas.granato@mwrdd.org

November 29, 2012

Mr. S. Allan Keller, P.E.
Permit Manager
Division of Water Pollution Control
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Dear Mr. Keller:

Subject: Report No. 12-46, Monitoring and Research Department, 2011 Annual Summary Report, Water Quality Within the Waterways System of the Metropolitan Water Reclamation District of Greater Chicago, Special Conditions S.C. 10.10 and S.C. 14.10

The National Pollutant Discharge Elimination System permits for the Calumet Water Reclamation Plant (WRP) (Permit No. IL0028061, S.C. 10.10), Terrence J. O'Brien (formerly North Side) WRP (Permit No. IL0029088, S.C. 10.10), Stickney WRP (Permit No. IL 0028053, S.C. 10.10), James C. Kirie WRP (Permit No. IL0047741, S.C. 14.10) requires the submittal of documentation of water quality data for the waterway systems within the Metropolitan Water Reclamation District of Greater Chicago's jurisdiction.

Enclosed is a copy of a document entitled, *Monitoring and Research Department, 2011 Annual Summary Report, Water Quality Within the Waterways System of the Metropolitan Water Reclamation District of Greater Chicago*, Report No. 12-46, which will be published and available online at our website, www.mwrdd.org.

Very truly yours,

Thomas C. Granato, Ph.D.
Director
Monitoring and Research

TCG:AZ:kq
cc: M. Sharma
T. Liston
M. Joseph
H. Zhang

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

2011 ANNUAL SUMMARY REPORT
WATER QUALITY WITHIN THE WATERWAYS SYSTEM OF
THE METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO

By

Zainul Abedin
Biostatistician

Monitoring and Research Department
Thomas C. Granato, Director

November 2012

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	iv
TABLE LOCATOR BY PARAMETER IN APPENDIX AII	xiii
LIST OF FIGURES	xvi
ACKNOWLEDGEMENTS	xvii
DISCLAIMER	xvii
SUMMARY AND CONCLUSIONS	1
Compliance with Water Quality Standards During 2011	1
General Use Waters	1
Secondary Contact and Indigenous Aquatic Life Waters	1
INTRODUCTION	3
WATER QUALITY NETWORK	4
Description of Waterways	4
Water Use Designations	4
Scope of Waterways Data	4
Water Sampling	6
Water Assays and Water Quality Criteria	8
Special Interpretation of Certain Water Quality Standards	8
COMPLIANCE WITH WATER QUALITY STANDARDS IN GENERAL USE WATERS	15
Sampling Locations and Frequencies	15
River System Compliance Data	15

TABLE OF CONTENTS (Continued)

	<u>Page</u>
Chicago River System	28
Calumet River System	28
Des Plaines River System	28
COMPLIANCE WITH WATER QUALITY STANDARDS IN SECONDARY CONTACT WATERS	34
Sampling Locations and Frequencies	34
River System Compliance Data	34
Chicago River System	34
Calumet River System	42
COMPLIANCE WITH RECEIVING WATER QUALITY STANDARDS UPSTREAM AND DOWNSTREAM OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO OUTFALLS	44
Surface Water Sample Locations and Sample Frequencies	44
Annual Summary Results for Water Quality Upstream and Downstream of the Metropolitan Water Reclamation District of Greater Chicago Outfalls	46
North Side Water Reclamation Plant	65
Stickney Water Reclamation Plant	66
Calumet Water Reclamation Plant	66
John E. Egan Water Reclamation Plant	66
James C. Kirie Water Reclamation Plant	67
Hanover Park Water Reclamation Plant	67
REFERENCES	69

TABLE OF CONTENTS (Continued)

	<u>Page</u>
APPENDICES	
Directory of Water Quality Parameters Assayed and Sampling Locations	AI
Water Quality Results: Annual Mean, Standard Compliance Violation History, and Mean History	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 Bridge Run Samples Collected Monthly During 2011	7
2	Water Sample Assays Performed and Corresponding Water Quality Standards in 2011	9
3	Illinois Pollution Control Board Water Quality Standards and Corresponding Metropolitan Water Reclamation District of Greater Chicago Interpretations for 2011	13
4	Locations Sampled and Annual Sampling Frequencies of General Use Waters in 2011	16
5	Water Quality Parameters Not in Total Compliance in General Use Waters of All River Systems in 2011	18
6	Number of Parameter Concentration Violations of General Use Limits in the General Use Waters of the Chicago River System in 2011	29
7	Number of Parameter Concentration Violations of General Use Limits in the General Use Waters of the Calumet River System in 2011	31
8	Number of Parameter Concentration Violations of General Use Limits in the General Use Waters of the Des Plaines River System in 2011	32
9	Locations Sampled and Annual Sampling Frequencies of Secondary Contact Waters in 2011	35
10	Water Quality Parameters Not in Total Compliance in Secondary Contact Waters of All River Systems in 2011	40
11	Number of Parameter Concentration Violations of Secondary Contact Limits in the Secondary Contact Waters of the Chicago River System in 2011	41
12	Number of Parameter Concentration Violations of Secondary Contact Limits in the Secondary Contact Waters of the Calumet River System in 2011	43
13	Annual Sampling Frequencies at Upstream and Downstream Locations of the Water Reclamation Plants in 2011	45

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
14	Comparison of Levels of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations for the North Side Water Reclamation Plant in 2011	47
15	Comparison of Levels of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Stickney Water Reclamation Plant in 2011	50
16	Comparison of Levels of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Calumet Water Reclamation Plant in 2011	53
17	Comparison of Levels of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations for the John E. Egan Water Reclamation Plant in 2011	56
18	Comparison of Levels of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations for the James C. Kirie Water Reclamation Plant in 2011	59
19	Comparison of Levels of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations for the Hanover Park Water Reclamation Plant in 2011	62
AI-1	Directory of Water Quality Parameters Assayed in 2011	AI-1
AI-2	Directory of Sampling Stations in Water Quality Network	AI-4
AII-1	Waterways Sample Means in 2011	AII-1
AII-2	Dissolved Oxygen Violation History 2004 Through 2011	AII-15
AII-3	Temperature Violation History 2004 Through 2011	AII-16
AII-4	pH Violation History 2004 Through 2011	AII-17
AII-5	Chloride Violation History 2004 Through 2011	AII-18
AII-6	Ammonium Nitrogen Violation History 2004 Through 2011	AII-19
AII-7	Un-ionized Ammonia Violation History 2004 Through 2011	AII-20

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-8	Total Dissolved Solids Violation History 2004 Through 2011	AII-21
AII-9	Phenols Violation History 2004 Through 2011	AII-22
AII-10	Sulfate Violation History 2004 Through 2011	AII-23
AII-11	Fats, Oils, and Greases Violation History 2004 Through 2011	AII-24
AII-12	Total Cyanide Violation History 2004 Through 2011	AII-25
AII-13	Weak Acid Dissociable Cyanide Violation History 2004 Through 2011	AII-26
AII-14	Fluoride Violation History 2004 Through 2011	AII-27
AII-15	Fecal Coliform Violation History 2004 Through 2011	AII-28
AII-16	Gross Beta Radioactivity Violation History 2004 Through 2011	AII-29
AII-17	Benzene Violation History 2004 Through 2011 (Human Health Standard)	AII-30
AII-18	Benzene Violation History 2004 Through 2011 (General Use Standard)	AII-31
AII-19	Ethylbenzene Violation History 2004 Through 2011	AII-32
AII-20	Toluene Violation History 2004 Through 2011	AII-33
AII-21	Xylene Violation History 2004 Through 2011	AII-34
AII-22	Total Silver Violation History 2004 Through 2011	AII-35
AII-23	Total Arsenic Violation History 2004 Through 2011	AII-36
AII-24	Total Barium Violation History 2004 Through 2011	AII-37
AII-25	Total Boron Violation History 2004 Through 2011	AII-38
AII-26	Total Cadmium Violation History 2004 Through 2011	AII-39
AII-27	Total Copper Violation History 2004 Through 2011	AII-40

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-28	Total Hexavalent Chromium Violation History 2004 Through 2011	AII-41
AII-29	Total Iron Violation History 2004 Through 2011	AII-42
AII-30	Total Lead Violation History 2004 Through 2011	AII-43
AII-31	Total Nickel Violation History 2004 Through 2011	AII-44
AII-32	Total Manganese Violation History 2004 Through 2011	AII-45
AII-33	Total Mercury Violation History 2004 Through 2011 (Human Health Standard)	AII-46
AII-34	Total Mercury Violation History 2004 Through 2011 (Secondary Contact Standard)	AII-47
AII-35	Total Zinc Violation History 2004 Through 2011	AII-48
AII-36	Total Selenium Violation History 2004 Through 2011	AII-49
AII-37	Soluble Arsenic Violation History 2004 Through 2011	AII-50
AII-38	Soluble Cadmium Violation History 2004 Through 2011	AII-51
AII-39	Soluble Copper Violation History 2004 Through 2011	AII-52
AII-40	Soluble Chromium Violation History 2004 Through 2011	AII-53
AII-41	Soluble Iron Violation History 2004 Through 2011	AII-54
AII-42	Soluble Lead Violation History 2004 Through 2011	AII-55
AII-43	Soluble Nickel Violation History 2004 Through 2011	AII-56
AII-44	Soluble Mercury Violation History 2004 Through 2011	AII-57
AII-45	Soluble Zinc Violation History 2004 Through 2011	AII-58
AII-46	Biochemical Oxygen Demand Mean History 2001 Through 2011	AII-59
AII-47	Carbonaceous Biochemical Oxygen Demand Mean History 2001 Through 2011	AII-60

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-48	Dissolved Oxygen Mean History 2001 Through 2011	AII-61
AII-49	Temperature Mean History 2001 Through 2011	AII-62
AII-50	pH Mean History 2001 Through 2011	AII-63
AII-51	Total Alkalinity Mean History 2001 Through 2011	AII-64
AII-52	Chloride Mean History 2001 Through 2011	AII-65
AII-53	Turbidity Mean History 2001 Through 2011	AII-66
AII-54	Total Kjeldahl Nitrogen Mean History 2001 Through 2011	AII-67
AII-55	Ammonium Nitrogen Mean History 2001 Through 2011	AII-68
AII-56	Un-ionized Ammonia Mean History 2001 Through 2011	AII-69
AII-57	Organic Nitrogen Mean History 2001 Through 2011	AII-70
AII-58	Nitrite Plus Nitrate Nitrogen Mean History 2001 Through 2011	AII-71
AII-59	Total Solids Mean History 2001 Through 2011	AII-72
AII-60	Total Suspended Solids Mean History 2001 Through 2011	AII-73
AII-61	Volatile Suspended Solids Mean History 2001 Through 2011	AII-74
AII-62	Total Dissolved Solids Mean History 2001 Through 2011	AII-75
AII-63	Phenols Mean History 2001 Through 2011	AII-76
AII-64	Total Nonylphenols Mean History 2001 Through 2011	AII-77
AII-65	Bisphenol A Mean History 2001 Through 2011	AII-78
AII-66	Sulfate Mean History 2001 Through 2011	AII-79
AII-67	Fats, Oils, and Greases Mean History 2001 Through 2011	AII-80

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-68	Total Phosphorus Mean History 2001 Through 2011	AII-81
AII-69	Soluble Phosphorus Mean History 2001 Through 2011	AII-82
AII-70	Total Cyanide Mean History 2001 Through 2011	AII-83
AII-71	Weak Acid Dissociable Cyanide Mean History 2001 Through 2011	AII-84
AII-72	Fluoride Mean History 2001 Through 2011	AII-85
AII-73	Total Organic Carbon Mean History 2001 Through 2011	AII-86
AII-74	Fecal Coliform Mean History 2001 Through 2011	AII-87
AII-75	Escherichia Coli Mean History 2001 Through 2011	AII-88
AII-76	Total Calcium Mean History 2001 Through 2011	AII-89
AII-77	Total Magnesium Mean History 2001 Through 2011	AII-90
AII-78	Hardness Mean History 2001 Through 2011	AII-91
AII-79	Gross Alpha Radioactivity Mean History 2001 Through 2011	AII-92
AII-80	Gross Beta Radioactivity Mean History 2001 Through 2011	AII-93
AII-81	Chlorophyll <i>a</i> Mean History 2001 Through 2011	AII-94
AII-82	Benzene Mean History 2001 Through 2011	AII-95
AII-83	Ethylbenzene Mean History 2001 Through 2011	AII-96
AII-84	Toluene Mean History 2001 Through 2011	AII-97
AII-85	Xylene Mean History 2001 Through 2011	AII-98
AII-86	Meta and/or Para Xylenes Mean History 2001 Through 2011	AII-99
AII-87	Ortho Xylene Mean History 2001 Through 2011	AII-100

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-88	Total Silver Mean History 2001 Through 2011	AII-101
AII-89	Total Arsenic Mean History 2001 Through 2011	AII-102
AII-90	Total Barium Mean History 2001 Through 2011	AII-103
AII-91	Total Boron Mean History 2001 Through 2011	AII-104
AII-92	Total Cadmium Mean History 2001 Through 2011	AII-105
AII-93	Total Copper Mean History 2001 Through 2011	AII-106
AII-94	Total Chromium Mean History 2001 Through 2011	AII-107
AII-95	Total Hexavalent Chromium Mean History 2001 Through 2011	AII-108
AII-96	Total Iron Mean History 2001 Through 2011	AII-109
AII-97	Total Lead Mean History 2001 Through 2011	AII-110
AII-98	Total Nickel Mean History 2001 Through 2011	AII-111
AII-99	Total Manganese Mean History 2001 Through 2011	AII-112
AII-100	Total Mercury Mean History 2001 Through 2011	AII-113
AII-101	Low Level Mercury Mean History 2001 Through 2011	AII-114
AII-102	Total Zinc Mean History 2001 Through 2011	AII-115
AII-103	Total Selenium Mean History 2001 Through 2011	AII-116
AII-104	Soluble Calcium Mean History 2001 Through 2011	AII-117
AII-105	Soluble Magnesium Mean History 2001 Through 2011	AII-118
AII-106	Soluble Silver Mean History 2001 Through 2011	AII-119
AII-107	Soluble Arsenic Mean History 2001 Through 2011	AII-120

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AII-108	Soluble Barium Mean History 2001 Through 2011	AII-121
AII-109	Soluble Boron Mean History 2001 Through 2011	AII-122
AII-110	Soluble Cadmium Mean History 2001 Through 2011	AII-123
AII-111	Soluble Copper Mean History 2001 Through 2011	AII-124
AII-112	Soluble Chromium Mean History 2001 Through 2011	AII-125
AII-113	Soluble Iron Mean History 2001 Through 2011	AII-126
AII-114	Soluble Lead Mean History 2001 Through 2011	AII-127
AII-115	Soluble Nickel Mean History 2001 Through 2011	AII-128
AII-116	Soluble Manganese Mean History 2001 Through 2011	AII-129
AII-117	Soluble Mercury Mean History 2001 Through 2011	AII-130
AII-118	Soluble Zinc Mean History 2001 Through 2011	AII-131
AII-119	Soluble Selenium Mean History 2001 Through 2011	AII-132
AIII-1	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations of the North Side Water Reclamation Plant in 2011	AIII-1
AIII-2	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Stickney Water Reclamation Plant in 2011	AIII-4
AIII-3	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Calumet Water Reclamation Plant in 2011	AIII-7

LIST OF TABLES (Continued)

<u>Table No.</u>		<u>Page</u>
AIII-4	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations of the John E. Egan Water Reclamation Plant in 2011	AIII-10
AIII-5	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations of the James C. Kirie Water Reclamation Plant in 2011	AIII-13
AIII-6	Significance Probabilities Due to or Associated with Testing for Equality of Mean Concentrations of 70 Water Quality Parameters Assayed at Upstream and Downstream Locations of the Hanover Park Water Reclamation Plant in 2011	AIII-16

TABLE LOCATOR BY PARAMETER IN APPENDIX AII

	Sample Mean During 2011	Violation History Through 2011	Mean History Through 2011
Parameter	Page	Page	Page
Biochemical Oxygen Demand			AII-59
Carbonaceous Biochemical Oxygen Demand			AII-60
Dissolved Oxygen	AII-1	AII-15	AII-61
Temperature	AII-2	AII-16	AII-62
pH	AII-3	AII-17	AII-63
Total Alkalinity	AII-4		AII-64
Chloride	AII-5	AII-18	AII-65
Turbidity	AII-6		AII-66
Total Kjeldahl Nitrogen	AII-7		AII-67
Ammonium Nitrogen	AII-8	AII-19	AII-68
Un-ionized Ammonia	AII-9	AII-20	AII-69
Organic Nitrogen	AII-10		AII-70
Nitrite Plus Nitrate Nitrogen	AII-11		AII-71
Total Solids	AII-12		AII-72
Total Suspended Solids	AII-13		AII-73
Volatile Suspended Solids	AII-14		AII-74
Total Dissolved Solids	AII-15	AII-21	AII-75
Phenols	AII-16	AII-22	AII-76
Total Nonylphenols	AII-17		AII-77
Bisphenol A	AII-18		AII-78
Sulfate	AII-19	AII-23	AII-79
Fats, Oils, and Greases	AII-20	AII-24	AII-80
Total Phosphorus	AII-21		AII-81
Soluble Phosphorus			AII-82
Total Cyanide	AII-22	AII-25	AII-83
Weak Acid Dissociable Cyanide	AII-23	AII-26	AII-84

TABLE LOCATOR BY PARAMETER IN APPENDIX AII (Continued)

Parameter	Sample Mean During 2011	Violation History Through 2011	Mean History Through 2011
	Page	Page	Page
Fluoride	AII-24	AII-27	AII-85
Total Organic Carbon	AII-25		AII-86
Fecal Coliform	AII-26	AII-28	AII-87
Escherichia Coli	AII-27		AII-88
Total Calcium	AII-28		AII-89
Total Magnesium	AII-29		AII-90
Hardness	AII-30		AII-91
Gross Alpha Radioactivity	AII-31		AII-92
Gross Beta Radioactivity	AII-32	AII-29	AII-93
Chlorophyll <i>a</i>	AII-33		AII-94
Benzene*		AII-30	
Benzene	AII-34	AII-31	AII-95
Ethylbenzene	AII-35	AII-32	AII-96
Toluene	AII-36	AII-33	AII-97
Xylene	AII-37	AII-34	AII-98
Meta and/or Para Xylenes	AII-38		AII-99
Ortho Xylene	AII-39		AII-100
Total Silver	AII-40	AII-35	AII-101
Total Arsenic	AII-41	AII-36	AII-102
Total Barium	AII-42	AII-37	AII-103
Total Boron	AII-43	AII-38	AII-104
Total Cadmium	AII-44	AII-39	AII-105
Total Copper	AII-45	AII-40	AII-106
Total Chromium	AII-46		AII-107
Total Hexavalent Chromium	AII-47	AII-41	AII-108
Total Iron	AII-48	AII-42	AII-109

TABLE LOCATOR BY PARAMETER IN APPENDIX AII (Continued)

Parameter	Sample Mean During 2011	Violation History Through 2011	Mean History Through 2011
	Page	Page	Page
Total Lead	AII-49	AII-43	AII-110
Total Nickel	AII-50	AII-44	AII-111
Total Manganese	AII-51	AII-45	AII-112
Total Mercury*		AII-46	
Total Mercury	AII-52	AII-47	AII-113
Low Level Mercury	AII-53		AII-114
Total Zinc	AII-54	AII-48	AII-115
Total Selenium	AII-55	AII-49	AII-116
Soluble Calcium	AII-56		AII-117
Soluble Magnesium	AII-57		AII-118
Soluble Silver	AII-58		AII-119
Soluble Arsenic	AII-59	AII-50	AII-120
Soluble Barium	AII-60		AII-121
Soluble Boron	AII-61		AII-122
Soluble Cadmium	AII-62	AII-51	AII-123
Soluble Copper	AII-63	AII-52	AII-124
Soluble Chromium	AII-64	AII-53	AII-125
Soluble Iron	AII-65	AII-54	AII-126
Soluble Lead	AII-66	AII-55	AII-127
Soluble Nickel	AII-67	AII-56	AII-128
Soluble Manganese	AII-68		AII-129
Soluble Mercury		AII-57	AII-130
Soluble Zinc	AII-69	AII-58	AII-131
Soluble Selenium	AII-70		AII-132

*Due to Human Health Standard in General Use Waters.

LIST OF FIGURES

<u>Figure No.</u>		<u>Page</u>
1	Waterways Service Area and Sampling Location Points	5
2	Compliance Rates with Water Quality Standards for the General Use Water Section of the Chicago River in 2010 and 2011	19
3	Compliance Rates with Water Quality Standards for the General Use Water Section of the Calumet River in 2010 and 2011	22
4	Compliance Rates with Water Quality Standards for the General Use Water Section of the Des Plaines River in 2010 and 2011	25
5	Compliance Rates with Water Quality Standards for the Secondary Contact Water Section of the Chicago River in 2010 and 2011	36
6	Compliance Rates with Water Quality Standards for the Secondary Contact Water Section of the Calumet River in 2010 and 2011	38

ACKNOWLEDGEMENTS

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

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

This manuscript was produced by an automated \LaTeX 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 \LaTeX program responsible for final output of the manuscript.

Thanks and special appreciation go to Ms. Laura Franklin, Principal Office Support Specialist, and Ms. Bettina Gregor, Secretary, 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.

SUMMARY AND CONCLUSIONS

Surface water quality data gathered by the Metropolitan Water Reclamation District of Greater Chicago (District) for the waterway systems within its jurisdiction have been evaluated for compliance with the Illinois Pollution Control Board (IPCB) water quality standards for the year 2011. In addition, the District compared these data with data for 2010.

Compliance with Water Quality Standards During 2011

General Use Waters. Thirty out of 70 water quality parameters assayed were subject to IPCB water quality standards. They were dissolved oxygen (DO), temperature, pH, chloride, ammonium nitrogen, total dissolved solids, phenols, sulfate, weak acid dissociable cyanide, fluoride, fecal coliform, gross beta radioactivity, benzene, ethylbenzene, toluene, xylene, total silver, total barium, total boron, total hexavalent chromium, total manganese, total selenium, soluble arsenic, soluble cadmium, soluble copper, soluble chromium, soluble iron, soluble lead, soluble nickel, and soluble zinc. Two parameters (benzene and total mercury) were subject to IPCB Human Health Standards. Water samples were collected from locations throughout the five segments of the river systems including the General Use sectors of the Chicago River System, the Calumet River System, the Des Plaines River System, the West Branch of the DuPage River System, and the Fox River System (Poplar Creek). The sampling of the last two river systems is included in the sampling program of the Des Plaines River System, and so are the analyses in this report.

Twenty-two water quality parameters were in total compliance with the standards in all river systems. They were ammonium nitrogen, phenols, weak acid dissociable cyanide, gross beta radioactivity, benzene, ethylbenzene, toluene, xylene, total silver, total barium, total boron, total hexavalent chromium, total manganese, total selenium, soluble arsenic, soluble cadmium, soluble copper, soluble chromium, soluble iron, soluble lead, soluble nickel, and soluble zinc. Benzene and total mercury were in total compliance with the Human Health Standard in all river systems.

Of the remaining eight parameters, six parameters (DO, temperature, pH, chloride, sulfate, and fluoride) had compliance rates greater than 92.0 percent in all river systems. Total dissolved solids had compliance rates of 86.7, 85.9, and 84.2 percent, respectively, in the Chicago, Calumet, and Des Plaines River Systems. Fecal coliform had the lowest compliance rate in the range of 38.1 to 57.9 percent in all river systems.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates with water quality standards except for temperature and chloride. In the Calumet River System, the compliance rate for chloride significantly increased from 94.5 percent in 2010 to total compliance in 2011. In the Des Plaines River System, the compliance rate for temperature significantly decreased from total compliance in 2010 to 98.2 percent in 2011. Comparison of data for Human Health Standards indicated that there was no significant difference between 2011 and 2010 compliance rates of all parameters in the three river systems.

Secondary Contact and Indigenous Aquatic Life Waters. This water use classification is principally applied to the man-made navigable canal system in the Chicago and Calumet River

Systems. Twenty-three water quality parameters measured in the secondary contact waters during 2011 were subject to IPCB standards. They were DO; temperature; pH; un-ionized ammonia; total dissolved solids; phenols; fats, oils, and greases; total cyanide; fluoride; total silver; total arsenic; total barium; total cadmium; total copper; total hexavalent chromium; total iron; total lead; total nickel; total manganese; total mercury; total zinc; total selenium; and soluble iron.

Seventeen parameters were in total compliance with the IPCB standards in the Chicago and Calumet River Systems in 2011. They were temperature, pH, un-ionized ammonia, phenols, total cyanide, fluoride, total silver, total arsenic, total barium, total cadmium, total copper, total hexavalent chromium, total lead, total nickel, total mercury, total zinc, and total selenium.

The remaining six parameters DO; total dissolved solids; fats, oils, and greases; total iron; total manganese; and soluble iron had compliance rates greater than 92.0 percent in both river systems.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates with water quality standards except for total iron. In the Chicago River System, the compliance rate for total iron significantly decreased from total compliance in 2010 to 97.9 percent in 2011.

INTRODUCTION

It is the responsibility of the District to conduct monitoring of the water quality of the streams and canals within its jurisdiction. Detailed annual water quality summaries (similar to this report) of all water quality data collected have been published by the District for the years 1972 through 2010. Complete tabulations of waterway surveillance data collected by the District are available for the years 1970 through 2011.

It should be noted that the Illinois Environmental Protection Agency has also conducted water quality sampling programs within the District's waterways, and has published annual summaries of its water quality network computerized database since 1971. These findings were consistent with and support the District's evaluation.

The primary purpose of this report is to establish a repository for the waterways data, and to present them in a variety of formats judged to be most useful to the reader. The tables included in the appendices are self-contained to facilitate reproduction and transmittal of specific data requests.

In addition to the data formats included in Appendices AI, AII, and AIII, custom data presentation formats are available in hardcopy and electronic media.

WATER QUALITY NETWORK

Description of Waterways

The District is responsible for monitoring the 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 functions of the canal system are to:

- Provide navigational facilities for boats and barges.
- Serve as receiving waters for the tributary streams and water reclamation plant (WRP) effluents, combined sewer overflows, and stormwater runoff.
- Convey the flows from the Lake Michigan watershed to the Des Plaines River watershed through the waterway system, exiting at the Lockport Powerhouse.

The principal natural river systems germane to the District's surveillance programs are: the Chicago River System, branches flowing south from Lake County into the North Branch of the Chicago River; the Des Plaines River System, flowing south from Lake County and joining with the discharge from the Main Channel downstream of the powerhouse at Lockport; and the Calumet River System, which flows into the Calumet-Sag Channel.

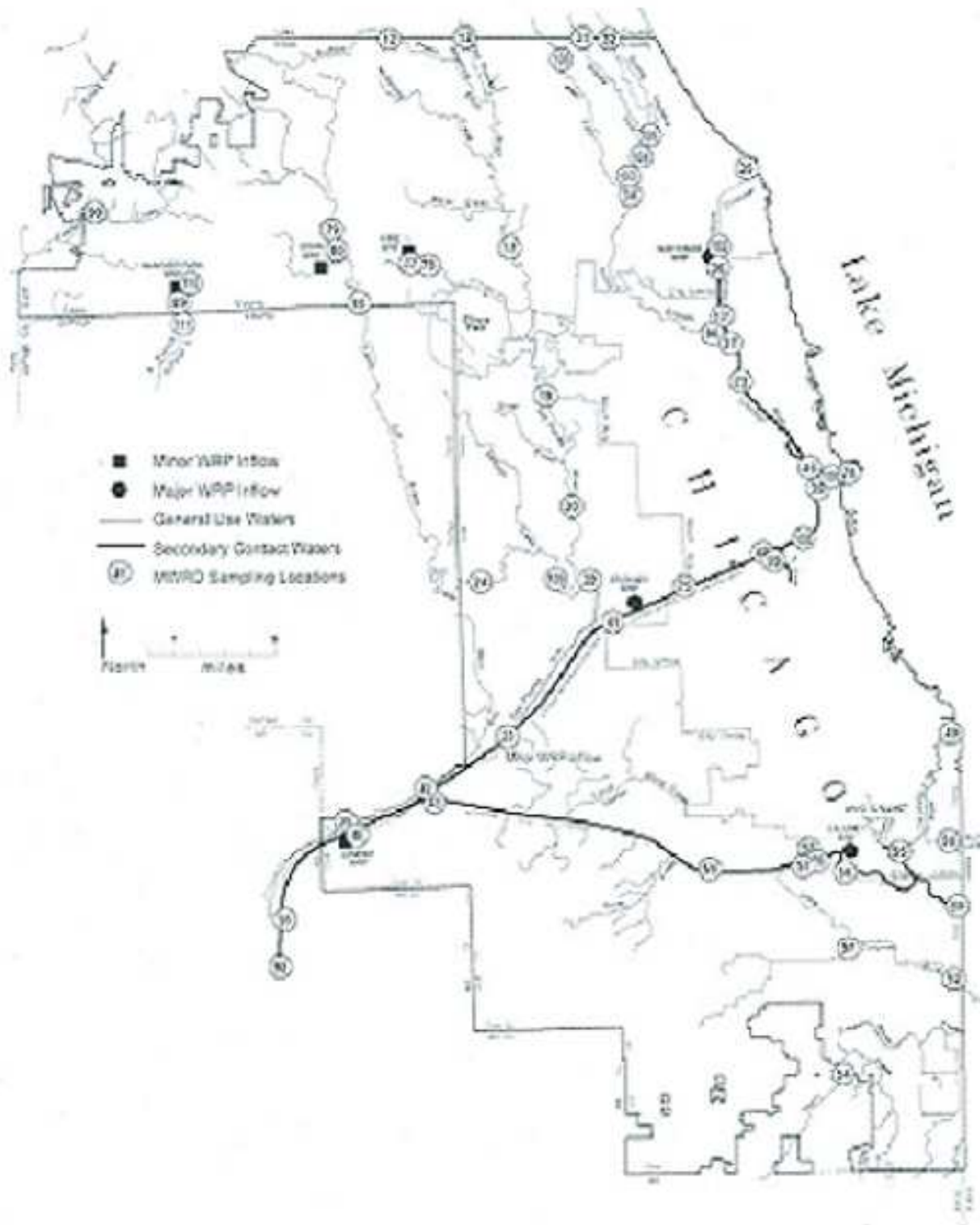
Water Use Designations. IPCB Regulations, Section 303.201, specify that "except as otherwise specifically provided, all waters of the State must meet the General Use standards for Subpart B of Part 302." Section 303.441 delineates those waters which do not qualify for General Use but "... are designated as secondary contact and indigenous aquatic life waters [Secondary Contact Waters] and must meet the water quality standards of 35 Ill. Adm. Code 302, Subpart D." The waters within District boundaries classified for use as Secondary Contact Waters are shown in [Figure 1](#). In general, the Secondary Contact Waters coincide with the man-made canals or modified waterways in the Chicago and Calumet River Systems. A complete listing of the District's waterways sampling station water use designations is shown in [Table AI-2, Appendix AI](#).

Scope of Waterways Data

The waterways data management system was designed to store and manage data resulting from the assays of water samples taken at locations throughout the District's waterways. In addition to storage, retrieval, and updating capabilities, the system includes programs for:

- The generation of reports and graphs.
- The generation of annual summary statistics.

FIGURE 1: WATERWAYS SERVICE AREA AND SAMPLING LOCATION POINTS



- Comparisons of water quality with State of Illinois stream standards.
- Comparisons of water quality with the results from previous years.

The major computations of data are presented in Appendices AII and AIII, and in tables appearing in the main body of this report. The water quality parameter directory is shown in Appendix AI. Water quality parameters assayed in 2011 and sampling stations are listed in Tables AI-1 and AI-2, respectively.

Summary water quality results for 2011 are listed in Appendix AII. Annual mean values of all water quality parameters assayed at all stations sampled (grab samples only) are tabulated in Table AII-1. This table presents the numerical values of various water quality parameters, which can be used to determine any relationships that exist among them. The results of the violations of the standards are tabulated in Tables AII-2 through AII-45. Note that Tables AII-2 through AII-45 list the sampling locations where violations occurred during 2011 and their most recent eight-year history.

In comparing data from a historical perspective, it is desirable to view summary data from past years together with data from the current year. Tables AII-46 through AII-119 (Appendix AII) were designed to present the mean values of various parameters for 1993 through 2010, with the 2011 mean values for each parameter and all locations sampled.

Finally, Tables AIII-1 through AIII-6 were prepared to present comprehensive statistical analysis required to show whether the upstream and downstream means of various water quality parameters for each WRP are significantly different.

Water Sampling

Surface water grab samples were taken at 59 locations during 2011. Their locations, as well as the locations of recently discontinued sampling stations, are as shown in Figure 1. The samples were taken at a nominal 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 2011 is shown in Table 1. Note that samples taken in the West Branch of the DuPage River (upstream and downstream of the Hanover Park WRP outfall), and in the Fox River System (Poplar Creek) are included with the Des Plaines River data. In addition, weekly grab samples were taken at the Lockport Powerhouse.

Reconstruction of the Lockport Powerhouse during 1998 resulted in the Treblar sampler being inactivated. Grab sampling at the Lockport Powerhouse was initiated once per week in 1998 as a substitute for the inoperative sampler. This sampling was discontinued in April 2002. Sampling at the Lockport Powerhouse was replaced by collecting weekly grab samples at Location 92 (Lockport Forebay) in 2002.

Locations sampled in the respective river systems during 2011 are shown without an asterisk in Table AI-2 of Appendix AI. Twenty-six sites were sampled in the Chicago River System, 13 sites in the Calumet River System, and 20 sites in the Des Plaines River System, including four locations in the DuPage and Fox River Systems. The waterways system sampling station numbers

TABLE 1: TOTAL NUMBER OF WATERWAYS BRIDGE RUN SAMPLES
COLLECTED MONTHLY DURING 2011

Month	River System		
	Chicago	Calumet	Des Plaines
January	26	5	17
February	24	13	2
March	28	13	19
April	29	13	20
May	30	12	20
June	29	13	19
July	28	13	18
August	29	12	20
September	26	12	18
October	28	13	19
November	28	12	20
December	26	NS	20

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

correspond to the numbers on the map shown in Figure 1. The complete waterways sampling stations directory of all 107 stations, of which the 59 sampling locations in 2011 are a subset, is listed in Table AI-2, Appendix AI.

Water Assays and Water Quality Criteria

The District's laboratories performed 70 types of analyses on water samples taken in District waterways during 2011. A list of these assays and additional parameters computed from these assays appears in Table 2. Table 2 shows the water quality standard for each parameter as defined by the IPCB in the State of Illinois Rules and Regulations, Title 35(2). The related IPCB rule section numbers are also included.

It should be noted that the General Use Water Quality Standards for ammonia nitrogen and un-ionized ammonia were revised effective November 8, 2002, and those for dissolved metals were adopted effective December 20, 2002. New revised standards are used to assess compliance rates starting from 2003. The General Use Water Quality Standard for DO was revised effective December 2008.

Special Interpretation of Certain Water Quality Standards. In most cases, the standards are unambiguous; that is, a simple numerical limit or range is given which may not be exceeded or must be met. However, there are four water quality parameters (DO, fecal coliform, temperature, and total chromium) which require interpretation due to the excessive cost of sample collection and sample assay techniques at a given frequency. These costs are related to the excessive manpower requirements and cost of performing continuous DO measurements. The interpretations of IPCB standards for DO, temperature, and fecal coliform are given in Table 3. In the case of DO, there are two standards, one based on 16 hours/day and the other based on all times. Since the District samples once per month, it cannot define a 16-hour/day level. The District, therefore, interprets the IPCB standard for DO as the lower of the two numerical limits in each of the two instances shown.

The standard for fecal coliform is complicated by the required minimum of five samples collected over a 30-day period, and the use of a geometric mean. District protocols stipulate sampling once per month, and therefore a geometric mean is not possible. Because of this, the District interprets the IPCB standard limitation as 400 cfu/100 mL in General Use Waters.

The standard for temperature also requires compliance with two temperatures for Secondary Contact Waters, depending on the number of observations. In this case, as temperatures are recorded by the District only once per month, the District interprets the IPCB standard as the maximum limit, or 37.8 °C at any time.

The IPCB water quality standards for chromium are specified separately for the trivalent and hexavalent oxidation states. Prior to 2003, the District did not differentiate between oxidation states when assaying for chromium because of the highly reactive nature of the total hexavalent chromium, but reported the results as total chromium (trivalent plus hexavalent), and applied the IPCB numerical limit for total trivalent chromium to the measured total chromium concentrations. However, since January 2003, the District has assayed for total chromium, total hexavalent chromium, and soluble chromium. The standard currently contains a limit for total hexavalent

TABLE 2: WATER SAMPLE ASSAYS PERFORMED AND CORRESPONDING
WATER QUALITY STANDARDS IN 2011¹

Parameter	Water Use Designations			
	General Use ²		Secondary Contact ³	
	Standard	Section ⁴	Standard	Section ⁴
Dissolved Oxygen	5 mg/L ⁵	302.206	4 mg/L 3 mg/L ⁶	302.405 302.405
Temperature	32 °C ⁷ (Apr-Nov)	302.211	≤34.0 °C 95% of the time	302.408
Temperature	16 °C ⁷ (Dec-Mar)	302.211	≤37.8 °C 100% of the time	302.408
pH	6.5-9.0	302.204	6.0-9.0	302.404
Total Alkalinity	NAS		NAS	
Chloride	500 mg/L	302.208	NAS	
Turbidity	NAS		NAS	
Total Kjeldahl Nitrogen	NAS		NAS	
Ammonium Nitrogen	mg/L ⁸	302.212	NAS	
Un-ionized Ammonia	NAS		0.1 mg/L	302.407
Organic Nitrogen	NAS		NAS	
Nitrite Plus Nitrate Nitrogen	NAS		NAS	
Total Solids	NAS		NAS	
Total Suspended Solids	NAS		NAS	
Volatile Suspended Solids	NAS		NAS	
Total Dissolved Solids	1000 mg/L	302.208	1500 mg/L	302.407
Phenols	100 µg/L	302.208	300 µg/L	302.407
Total Nonylphenols	NAS		NAS	
Bisphenol A	NAS		NAS	
Sulfate	500 mg/L	302.208	NAS	
Fats, Oils, and Greases	NAS		15 mg/L	302.407

TABLE 2 (Continued): WATER SAMPLE ASSAYS PERFORMED AND CORRESPONDING WATER QUALITY STANDARDS IN 2011¹

Parameter	Water Use Designations			
	General Use ²		Secondary Contact ³	
	Standard	Section ⁴	Standard	Section ⁴
Total Phosphorus	NAS		NAS	
Total Cyanide	NAS		0.1 mg/L	302.407
WAD Cyanide	0.022 mg/L	302.208	NAS	
Fluoride	1.4 mg/L	302.208	15 mg/L	302.407
Total Organic Carbon	NAS		NAS	
Fecal Coliform	400 cfu/100mL	302.209	NAS	
Escherichia Coli	NAS		NAS	
Total Calcium	NAS		NAS	
Total Magnesium	NAS		NAS	
Hardness	NAS		NAS	
Gross Alpha Radioactivity	NAS		NAS	
Gross Beta Radioactivity	100 pCi/L	302.207	NAS	
Chlorophyll <i>a</i>	NAS		NAS	
Benzene*	310 µg/L	302.208	NAS	
Benzene	4200 µg/L	302.208	NAS	
Ethylbenzene	150 µg/L	302.208	NAS	
Toluene	2000 µg/L	302.208	NAS	
Xylene	920 µg/L	302.208	NAS	
Meta and/or Para Xylenes	NAS		NAS	
Ortho Xylene	NAS		NAS	
Total Silver	0.005 mg/L	302.208	1.1 mg/L	302.407
Total Arsenic	NAS		1 mg/L	302.407
Total Barium	5 mg/L	302.208	5 mg/L	302.407
Total Boron	1 mg/L	302.208	NAS	

TABLE 2 (Continued): WATER SAMPLE ASSAYS PERFORMED AND CORRESPONDING WATER QUALITY STANDARDS IN 2011¹

Parameter	Water Use Designations			
	General Use ²		Secondary Contact ³	
	Standard	Section ⁴	Standard	Section ⁴
Total Cadmium	NAS		0.15 mg/L	302.407
Total Copper	NAS		1 mg/L	302.407
Total Chromium	NAS		NAS	
Total Hexavalent Chromium	16 µg/L	302.208	300 µg/L	302.407
Total Iron	NAS		2 mg/L	302.407
Total Lead	NAS		0.1 mg/L	302.407
Total Nickel	NAS		1 mg/L	302.407
Total Manganese	1 mg/L	302.208	1 mg/L	302.407
Total Mercury*	0.012 µg/L	302.208	NAS	
Total Mercury	NAS		0.5 µg/L	302.407
Low Level Mercury	NAS		NAS	
Total Zinc	NAS		1 mg/L	302.407
Total Selenium	1 mg/L	302.208	1 mg/L	302.407
Soluble Calcium	NAS		NAS	
Soluble Magnesium	NAS		NAS	
Soluble Silver	NAS		NAS	
Soluble Arsenic	0.36 mg/L	302.208	NAS	
Soluble Barium	NAS		NAS	
Soluble Boron	NAS		NAS	
Soluble Cadmium	mg/L ⁹	302.208	NAS	
Soluble Copper	mg/L ¹⁰	302.208	NAS	
Soluble Chromium	mg/L ¹¹	302.208	NAS	
Soluble Iron	1 mg/L	302.208	0.5 mg/L	302.407
Soluble Lead	mg/L ¹²	302.208	NAS	

TABLE 2 (Continued): WATER SAMPLE ASSAYS PERFORMED AND CORRESPONDING WATER QUALITY STANDARDS IN 2011¹

Parameter	Water Use Designations			
	General Use ²		Secondary Contact ³	
	Standard	Section ⁴	Standard	Section ⁴
Soluble Nickel	mg/L ¹³	302.208	NAS	
Soluble Manganese	NAS		NAS	
Soluble Zinc	mg/L ¹⁴	302.208	NAS	
Soluble Selenium	NAS		NAS	

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

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

³Secondary Contact and Indigenous Aquatic Life Waters Use Designation, defined in section 303.441 from 1 above. See [Figure 1](#), for delineation.

⁴Section Number from 1 above.

⁵Water Quality Standard is 5.0 mg/L in March through July and 3.5 mg/L in other months.

⁶Calumet-Sag Channel only.

⁷The value cannot be exceeded during more than 1% of the hours in the preceding 12-month period. The appropriate value cannot be exceeded by more than 0.7 °C (3 °F) at any time.

⁸ $\text{Min}[0.411/(1 + 10^{7.204-\text{pH}}) + 58.4/(1 + 10^{\text{pH}-7.204}), 15]$

⁹ $\text{Min}[(1.138672 - 0.041838 \ln(\text{Hard})) * e^{-2.918+1.128 \ln(\text{Hard})} * 0.001, 0.05]$

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

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

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

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

¹⁴ $e^{0.9035+0.8473 \ln(\text{Hard})} * 0.000978$

NAS = No Applicable Standard.

*Human Health Standard.

TABLE 3: ILLINOIS POLLUTION CONTROL BOARD WATER QUALITY
STANDARDS AND CORRESPONDING METROPOLITAN WATER RECLAMATION
DISTRICT OF GREATER CHICAGO INTERPRETATIONS FOR 2011

Parameter	Water Use Designation	IPCB Standard	District Interpreted Standard
1. Dissolved Oxygen	General Use Waters	≥ 6.0 mg/L at least 16 hours/day	≥ 5.0 mg/L anytime
	Secondary Contact Waters	≥ 5.0 mg/L at least 16 hours/day	≥ 4.0 mg/L anytime
	Secondary Contact Waters	≥ 4.0 mg/L anytime	
	(Calumet-Sag Channel effective 5/19/88)	≥ 3.0 mg/L anytime	≥ 3.0 mg/L anytime
2. Temperature	Secondary Contact Waters	≤ 34.0 °C, 95% of the time	≤ 37.8 °C
		≤ 37.8 °C, 100% of the time	anytime
3. Fecal Coliform	General Use Waters	Based on a minimum of five samples in a 30-day period geometric mean ≤ 200 cfu/100 mL; ≤ 400 cfu/100 mL in 90% of the samples	≤ 400 cfu/100 mL anytime

chromium and for soluble trivalent chromium. The District applies the analysis of soluble chromium to the soluble trivalent chromium standard.

Starting in January 2003, the IPCB also dropped the water quality standards for total arsenic, total cadmium, total copper, total iron, total lead, total nickel, total mercury, and total zinc, and introduced standards for the dissolved fraction of the above metals in the General Use Waters. The IPCB also introduced standards for total arsenic, total cadmium, total copper, total iron, total lead, total nickel, total mercury, and total zinc in the Secondary Contact Waters. In addition, it should be noted that in 1996, the General Use standard for cyanide was changed from total cyanide to weak acid dissociable cyanide. Thus, beginning with the 1996 report, compliance determinations have been made in terms of weak acid dissociable cyanide.

COMPLIANCE WITH WATER QUALITY STANDARDS IN GENERAL USE WATERS

Sampling Locations and Frequencies

By definition, all sampling locations not in waters classified as Secondary Contact Waters are within General Use Waters. The delineation of these two water use classifications is shown in [Figure 1](#). A tabulation of locations sampled in General Use Waters during 2011 is shown in [Table 4](#). Of the five river systems sampled during 2011, three (Des Plaines, DuPage, and Fox) lie 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.

In the subsequent evaluation, when the Fox River System is referred to in this report, Station 90 is considered to be General Use. Similarly, in the DuPage River System, data from three sampling locations are considered to be General Use: 8,342 feet upstream (Station 110), 1,000 feet downstream (Station 89), and 9,900 feet downstream (Station 111) of the Hanover Park WRP treated effluent discharge into the West Branch of the DuPage River. The frequency of sampling during 2011 was once per month at most locations. [Table 4](#) shows the frequency of sampling at all General Use locations in 2011.

River System Compliance Data

In the General Use Waters, 70 parameters were analyzed in 2011, of which 30 parameters were covered by the State of Illinois Water Quality Standards. Two parameters (benzene and total mercury) were subject to IPCB Human Health Standards. Summary results, including means, number of observations, and number of violations of General Use Standards and Human Health Standards, are shown in [Appendix AII](#) at each sampling station of each of the three river systems.

The 22 parameters which were in 100 percent compliance in all river systems were ammonium nitrogen, phenols, weak acid dissociable cyanide, gross beta radioactivity, benzene, ethylbenzene, toluene, xylene, total silver, total barium, total boron, total hexavalent chromium, total manganese, total selenium, soluble arsenic, soluble cadmium, soluble copper, soluble chromium, soluble iron, soluble lead, soluble nickel, and soluble zinc.

Two parameters, benzene and total mercury, were in total compliance due to the Human Health Standard in all river systems.

The eight water quality parameters which were in less than complete compliance in 2011 are shown in [Table 5](#). The percent compliance for these parameters in each river system is also presented.

Soluble mercury was not assayed in 2010 and 2011 in all three river systems. The compliance rates for remaining water quality parameters with the General Use Standards and compliance rates for two parameters (benzene and total mercury) with the Human Health Standards for the Chicago, Calumet, and Des Plaines River Systems are presented in [Figures 2, 3, and 4](#), respectively. Since soluble mercury was not assayed, it is excluded in [Figure 2](#) through [Figure 4](#).

TABLE 4: LOCATIONS SAMPLED AND ANNUAL SAMPLING
FREQUENCIES OF GENERAL USE WATERS IN 2011

Location No. ¹	Station Name	Annual No. of Samples
<u>Chicago River System</u>		
106	Dundee Road, West Fork North Branch Chicago River	10
103	Golf Road, West Fork North Branch Chicago River	11
31	Lake-Cook Road, Middle Fork North Branch	9
104	Glenview Road, North Branch Chicago River	12
32	Lake-Cook Road, Skokie River	10
105	Frontage Road, Skokie River	12
34	Dempster Street, North Branch Chicago River	11
96	Albany Avenue, North Branch Chicago River	11
35	Central Street, North Shore Channel	8
102	Oakton Street, North Shore Channel	12
74	Lake Shore Drive, Chicago River	12
100	Wells Street, Chicago River	12
		<u>130</u>
<u>Calumet River System</u>		
49	Ewing Avenue, Calumet River	6
50	Burnham Avenue, Wolf Lake	11
55	130th Street, Calumet River	10
52	Wentworth Avenue, Little Calumet River	10
54	Joe Orr Road, Thorn Creek	10
97	170th Street, Thorn Creek	10
57	Ashland Avenue, Little Calumet River	10
		<u>67</u>
<u>Des Plaines River System</u>		
79	Higgins Road, Salt Creek	10
80	Arlington Heights Road, Salt Creek	11
18	Devon Avenue, Salt Creek	11
24	Wolf Road, Salt Creek	11
109	Brookfield Avenue, Salt Creek	11
77	Elmhurst Road, Higgins Creek	5
78	Wille Road, Higgins Creek	11
12	Lake-Cook Road, Buffalo Creek	9
13	Lake-Cook Road, Des Plaines River	11
17	Oakton Street, Des Plaines River	11

TABLE 4 (Continued): LOCATIONS SAMPLED AND ANNUAL SAMPLING FREQUENCIES OF GENERAL USE WATERS IN 2011

Location No. ¹	Station Name	Annual No. of Samples
<u>Des Plaines River System (Continued)</u>		
19	Belmont Avenue, Des Plaines River	11
20	Roosevelt Road, Des Plaines River	11
22	Ogden Avenue, Des Plaines River	11
23	Willow Springs Road, Des Plaines River	11
29	Stephen Street, Des Plaines River	11
91	Material Service Road, Des Plaines River	11
		<u>167</u>
<u>Du Page River System</u>		
110	Springinsguth Road, West Branch DuPage River	10
89	Walnut Lane, West Branch DuPage River	12
111	Arlington Drive, West Branch Du Page River	12
		<u>34</u>
<u>Fox River System</u>		
90	Route 19, Poplar Creek	11
		<u>11</u>

¹Refer to Figure 1.

TABLE 5: WATER QUALITY PARAMETERS NOT IN TOTAL COMPLIANCE
IN GENERAL USE WATERS OF ALL RIVER SYSTEMS IN 2011

Parameter	Estimated Percent Compliance ¹		
	Chicago	Calumet	Des Plaines
Dissolved Oxygen	95.1	98.7	98.2
Temperature	100.0	100.0	98.2
pH	99.2	96.1	100.0
Chloride	92.3	100.0	94.6
Total Dissolved Solids	86.7	85.9	84.2
Sulfate	100.0	93.1	100.0
Fluoride	100.0	95.7	100.0
Fecal Coliform	50.4	38.1	57.9

¹Based on the total number of samples in compliance divided by the total number of samples collected, multiplied by 100.

FIGURE 2: COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE CHICAGO RIVER IN 2010 AND 2011

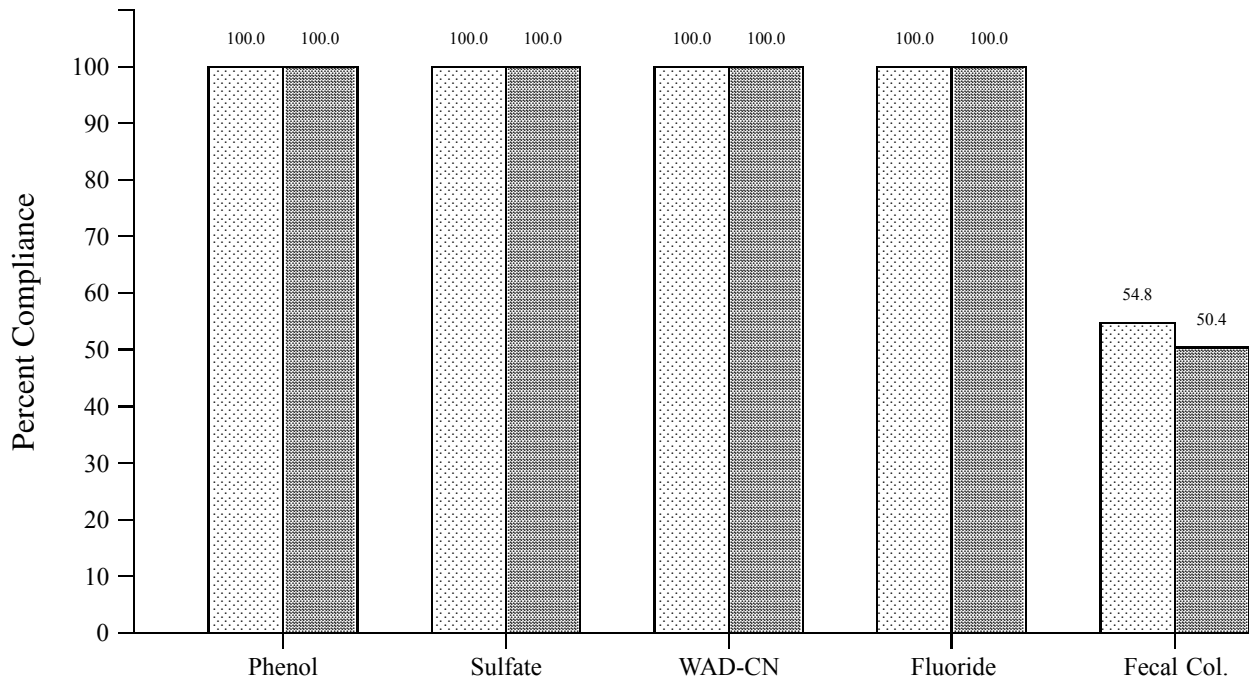
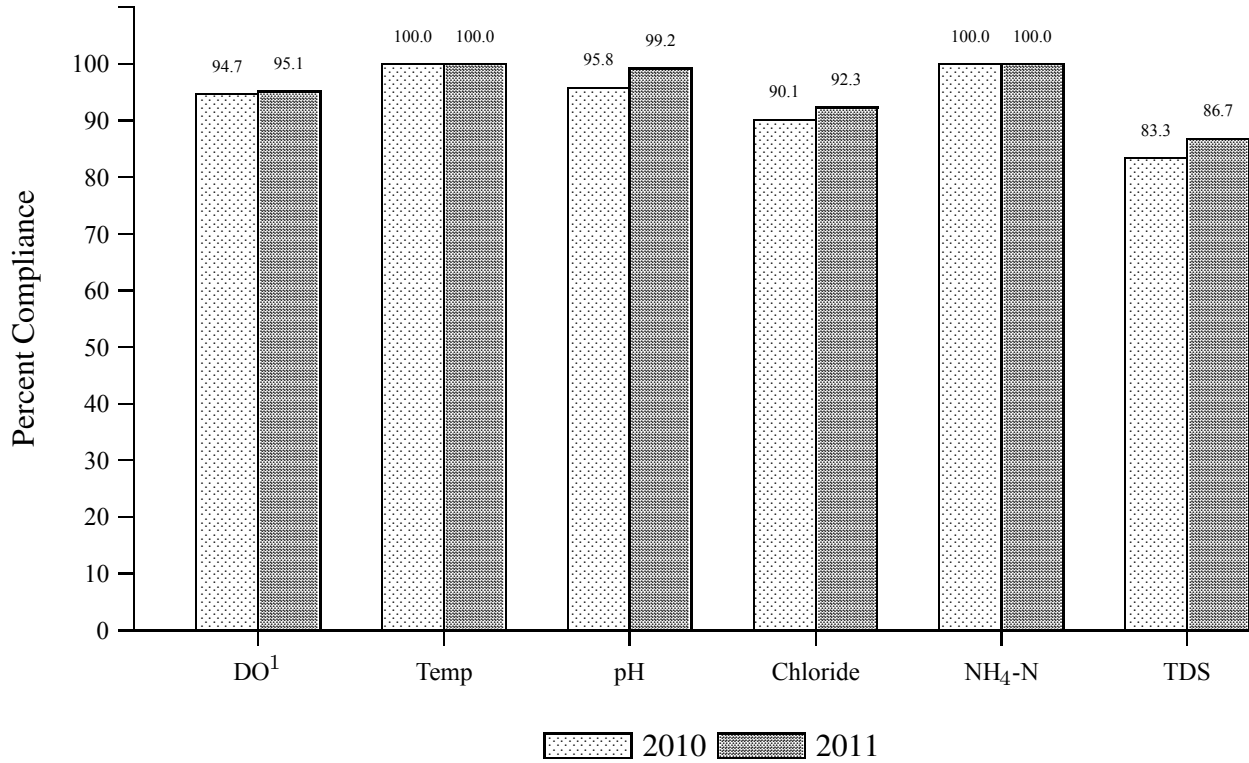


FIGURE 2 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE CHICAGO RIVER IN 2010 AND 2011

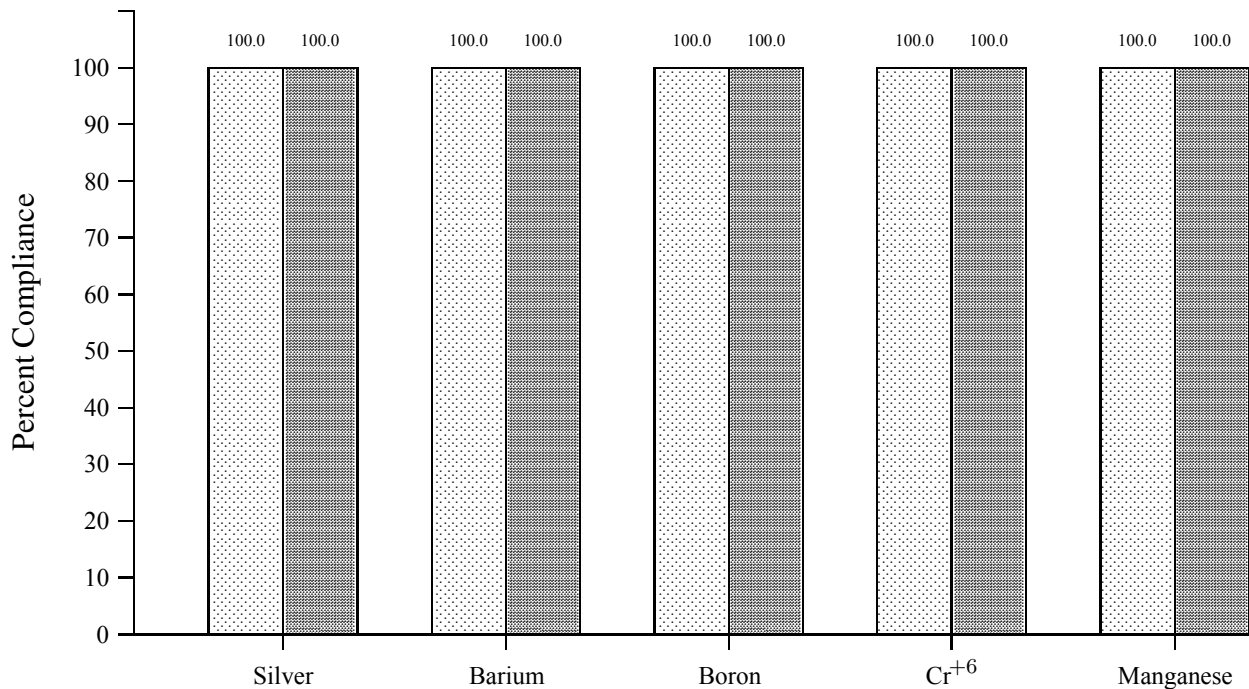
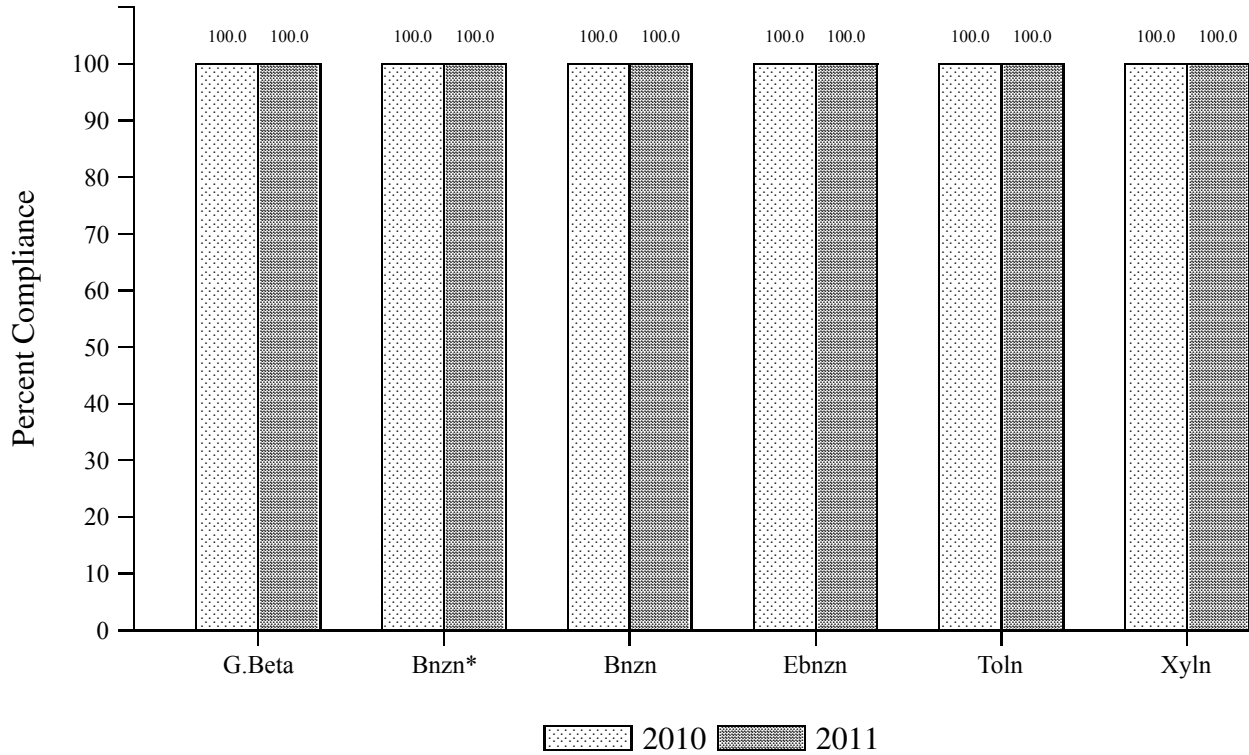
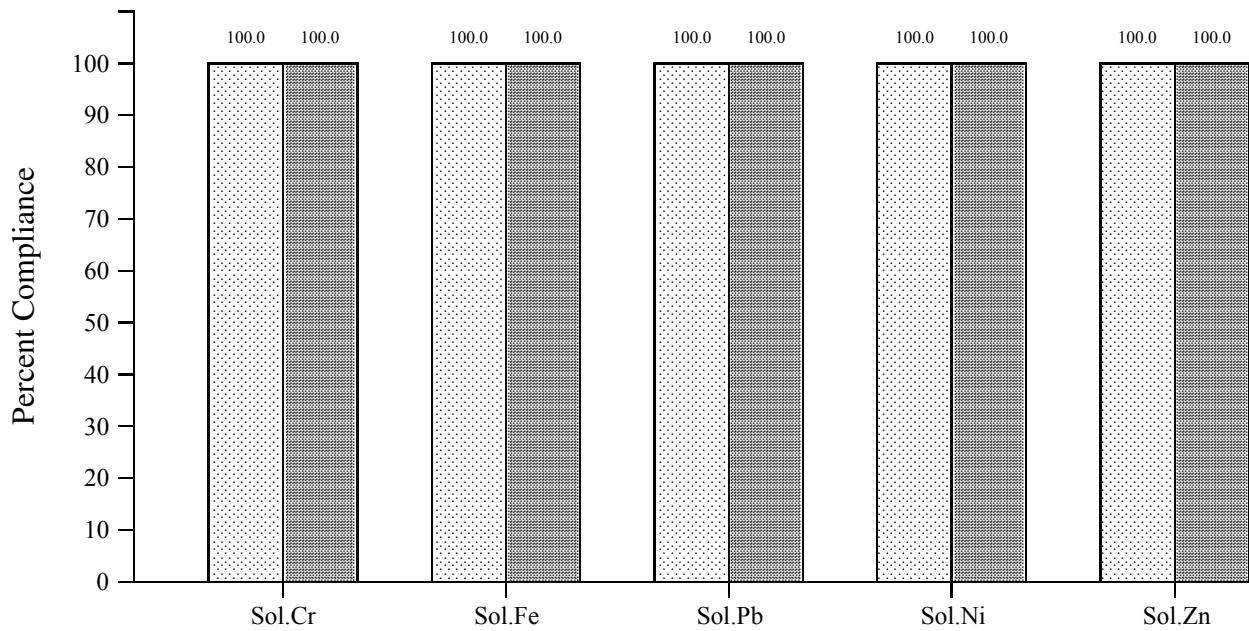
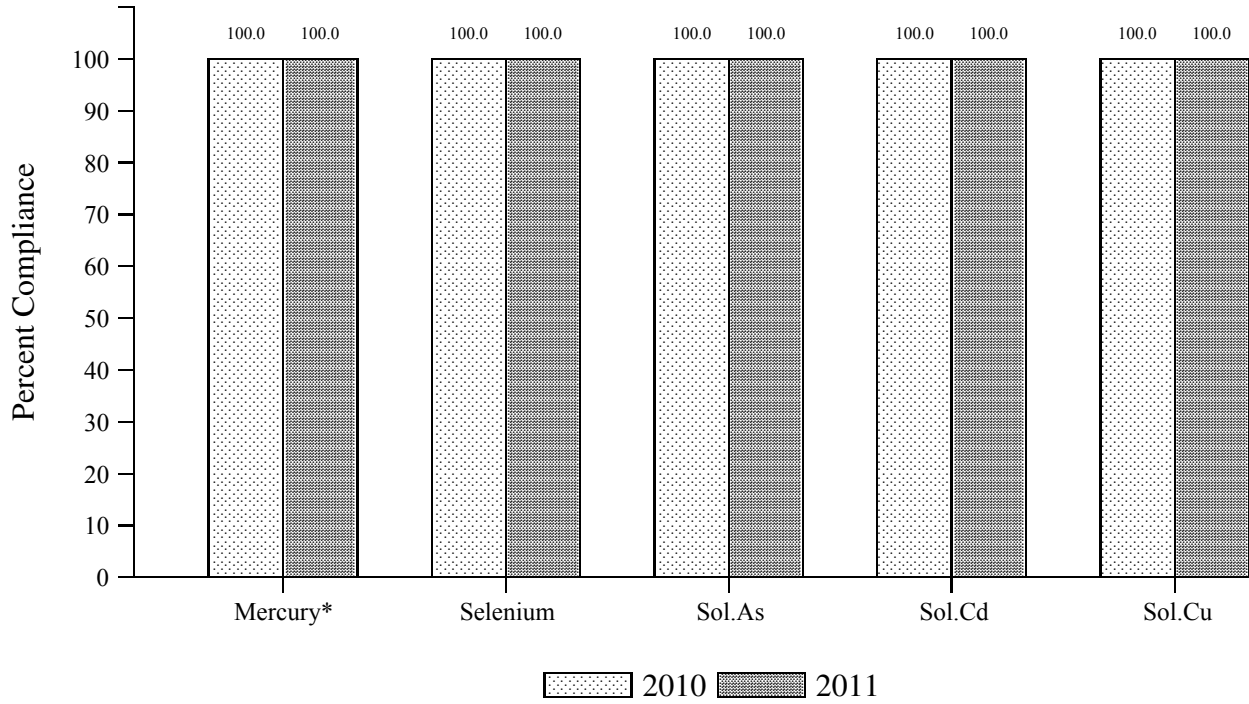


FIGURE 2 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE CHICAGO RIVER IN 2010 AND 2011



¹DO standard for general use waters is 5.0 mg/L from March through July, otherwise 3.5 mg/L.

*Human Health Standard became effective in General Use Waters in December, 2002.

FIGURE 3: COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE CALUMET RIVER IN 2010 AND 2011

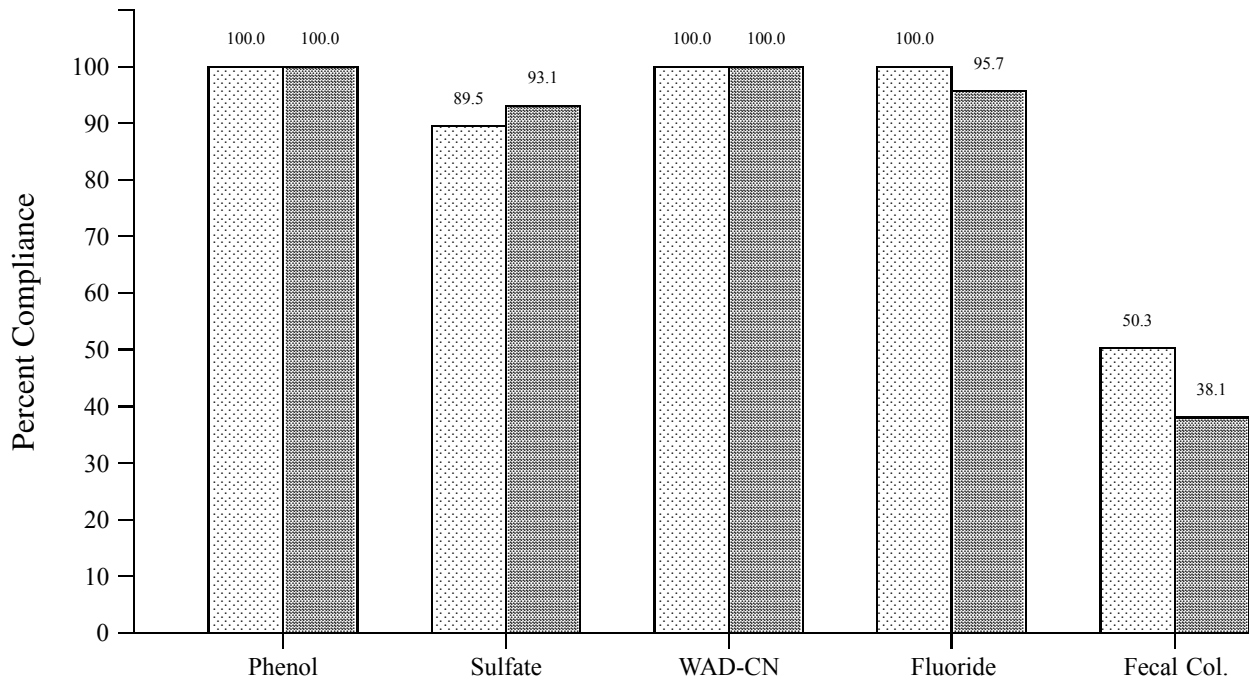
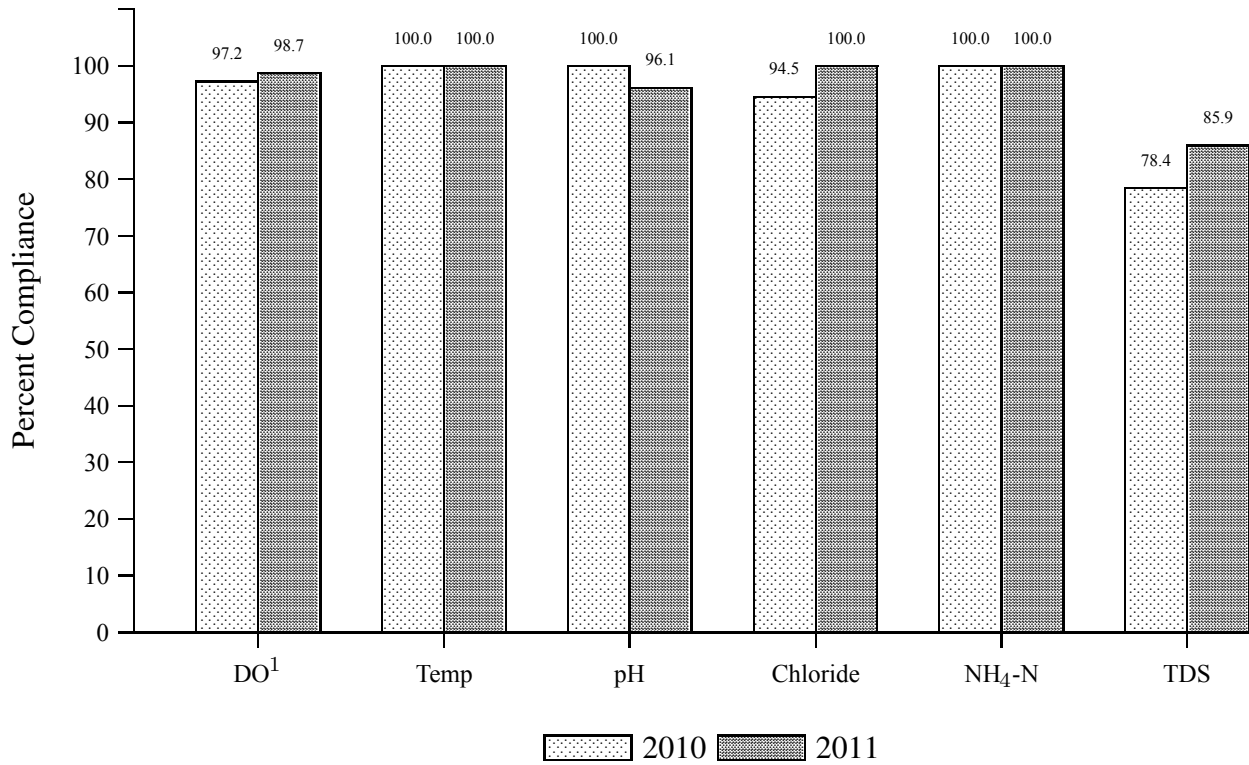


FIGURE 3 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE CALUMET RIVER IN 2010 AND 2011

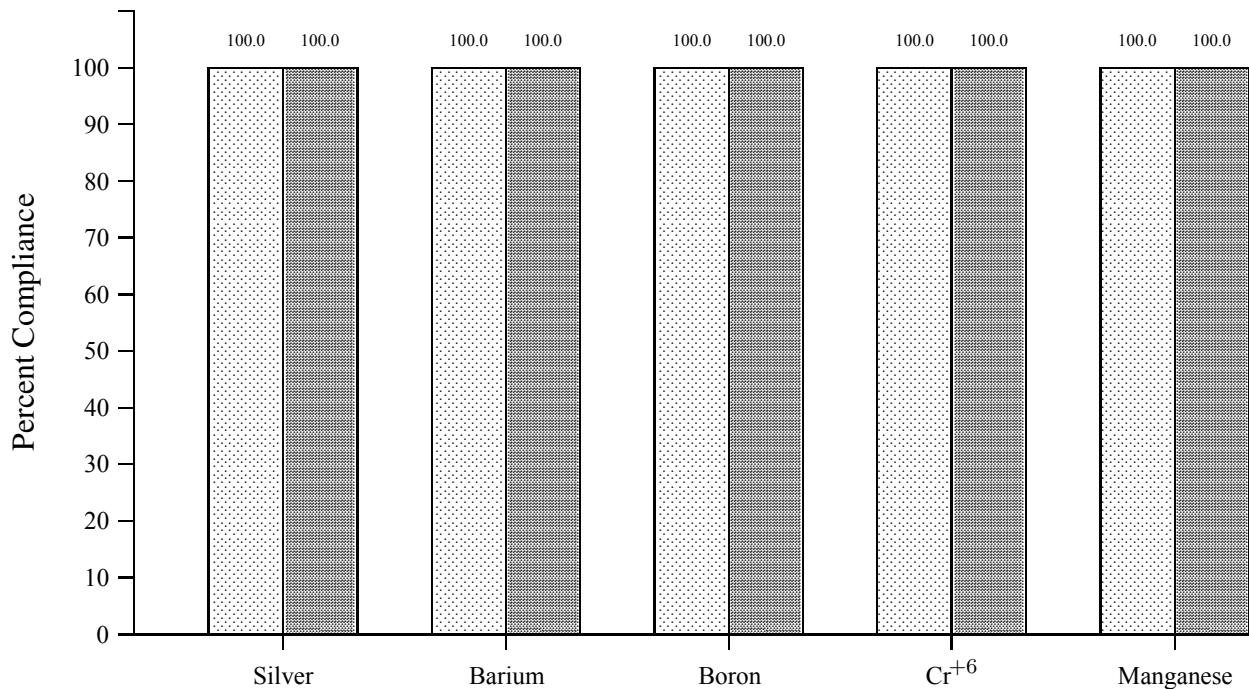
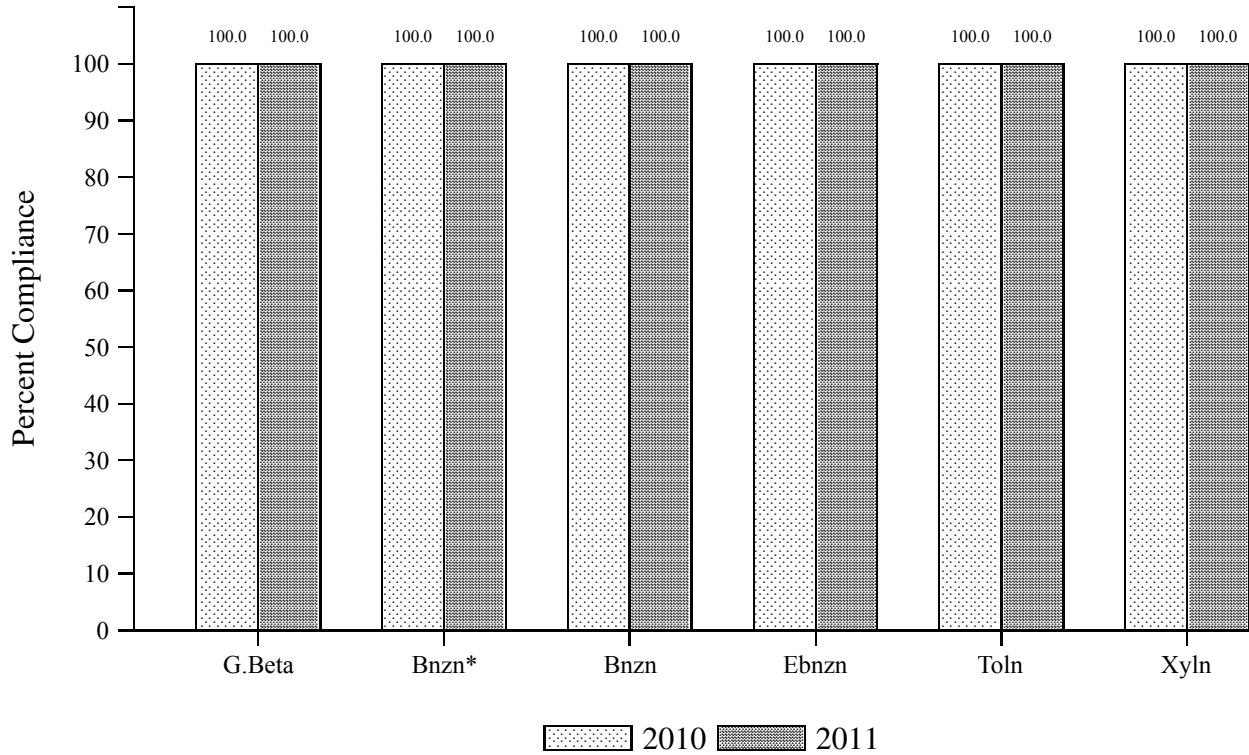
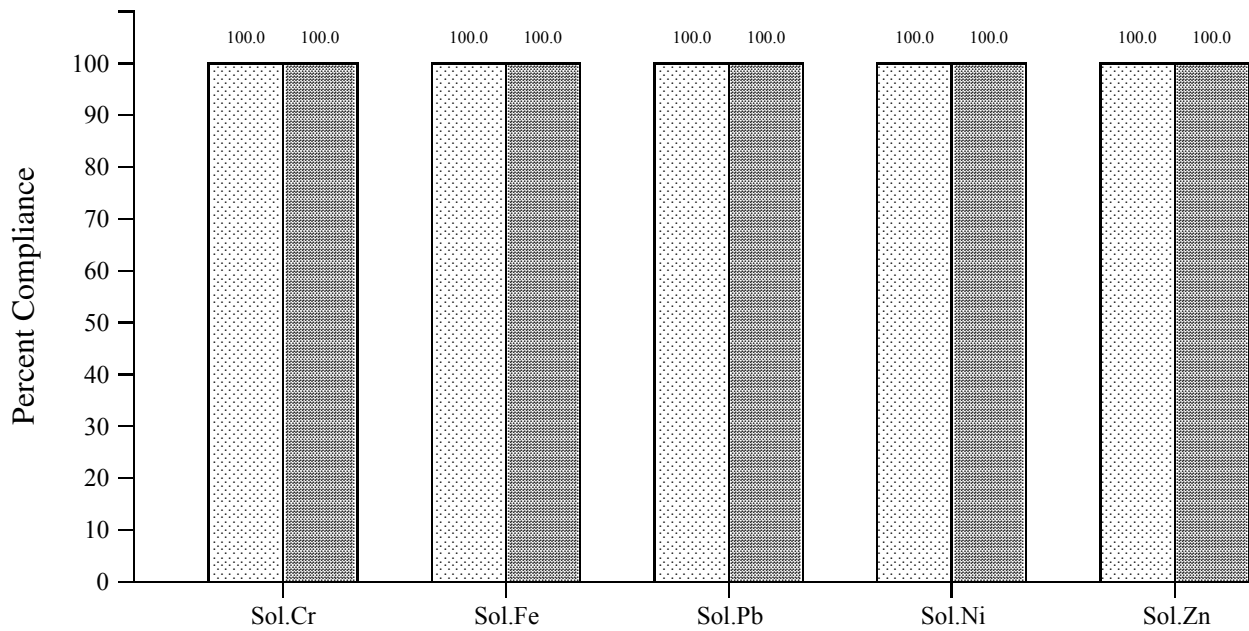
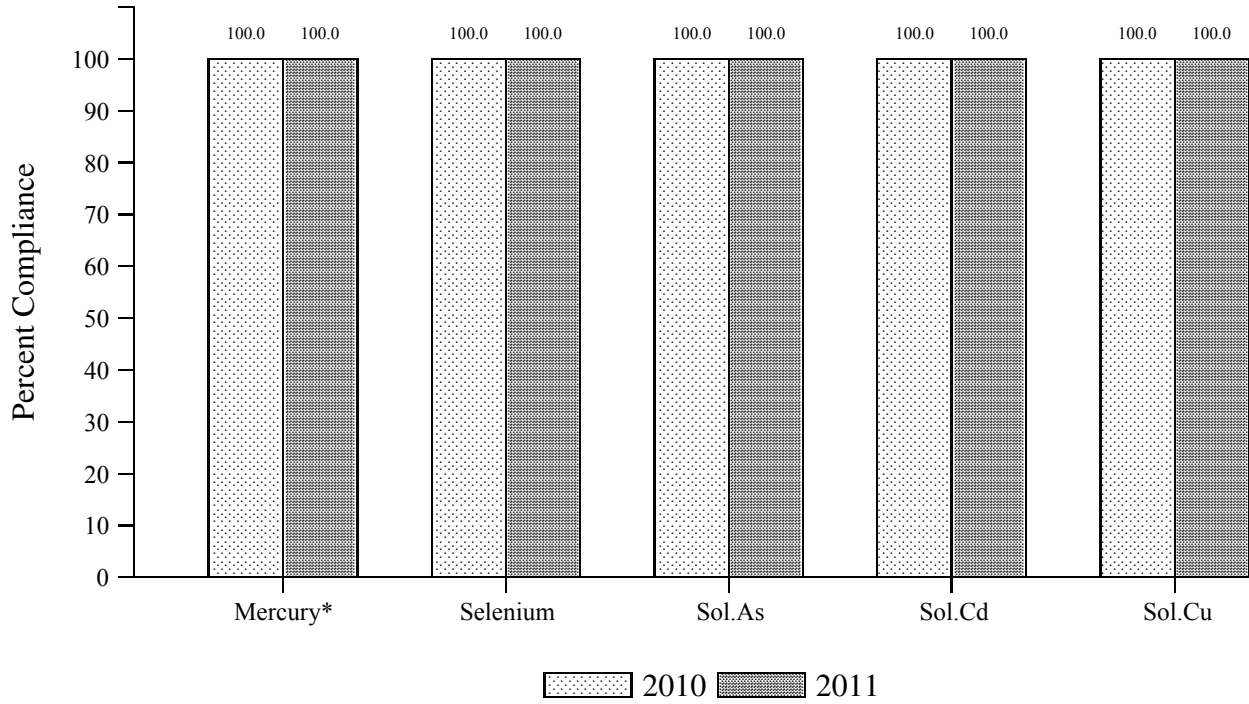


FIGURE 3 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE CALUMET RIVER IN 2010 AND 2011



¹DO standard for general use waters is 5.0 mg/L from March through July, otherwise 3.5 mg/L.

*Human Health Standard became effective in General Use Waters in December, 2002.

FIGURE 4: COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE DES PLAINES RIVER IN 2010 AND 2011

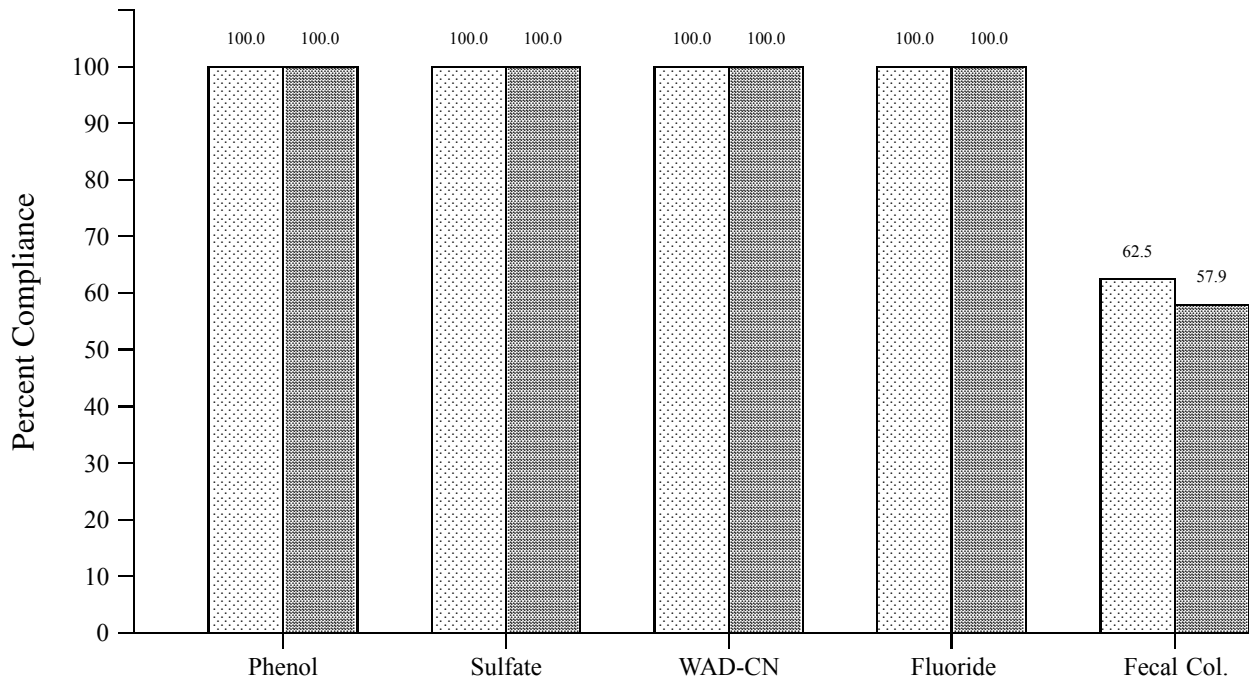
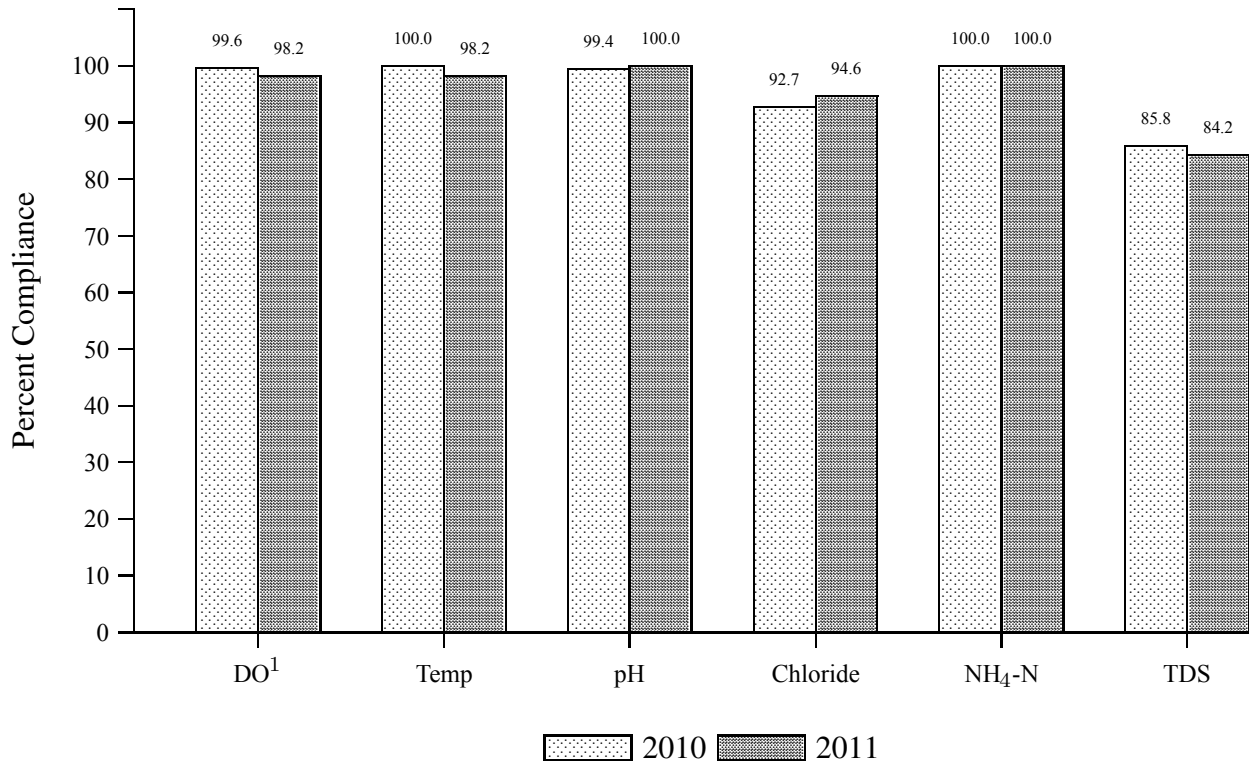


FIGURE 4 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE DES PLAINES RIVER IN 2010 AND 2011

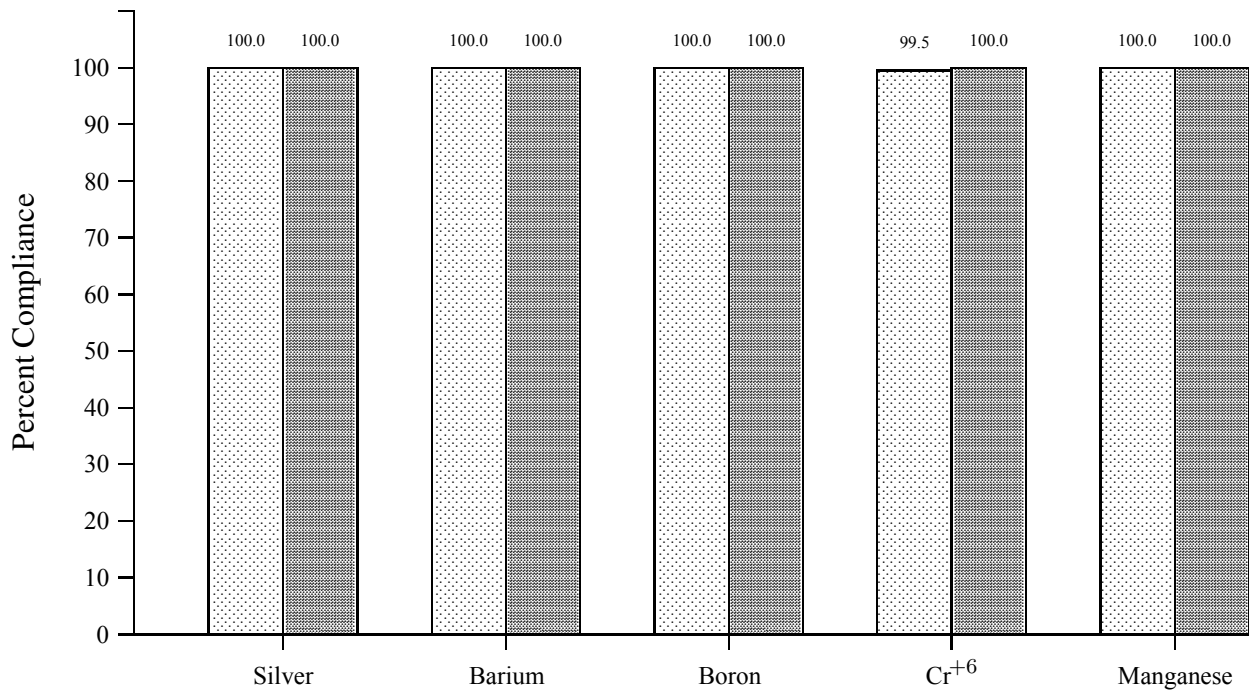
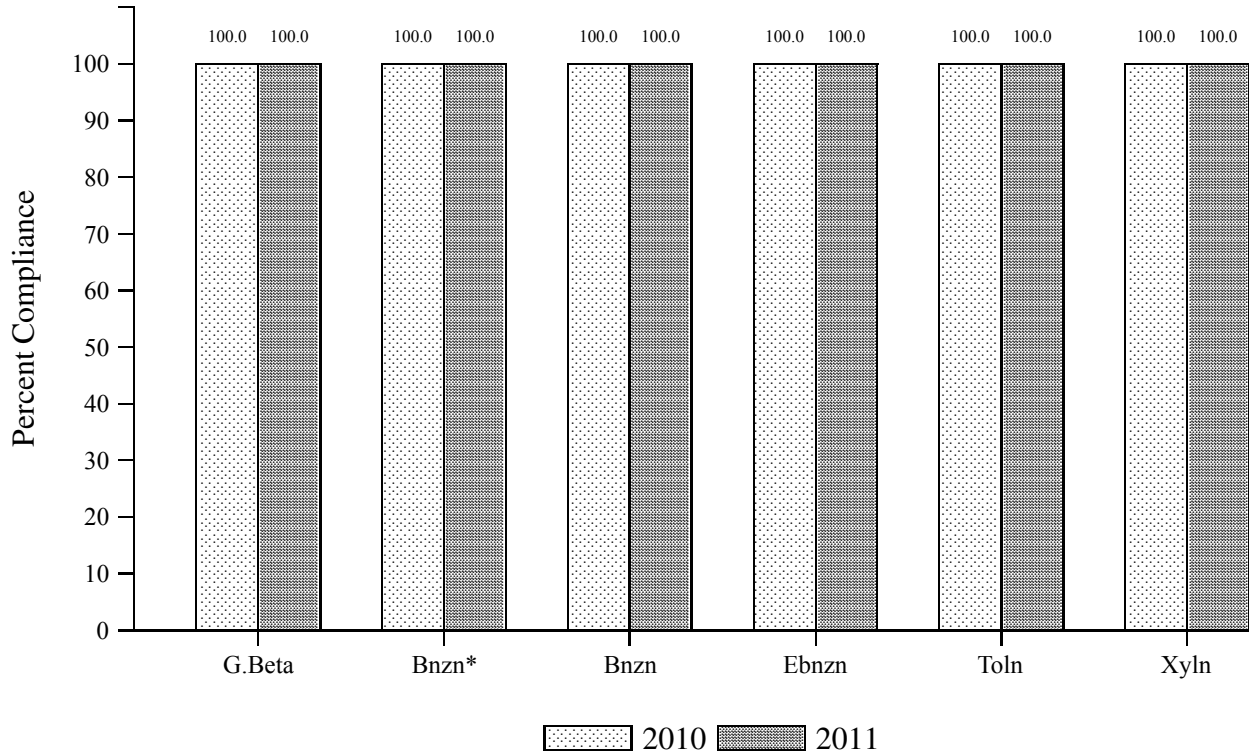
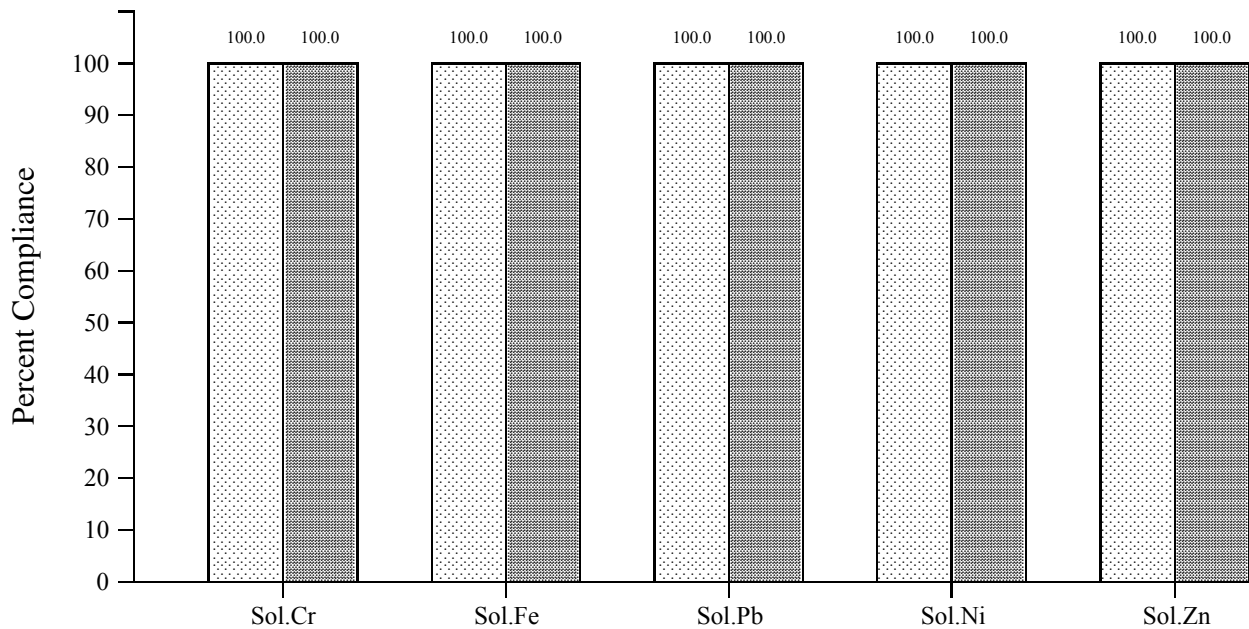
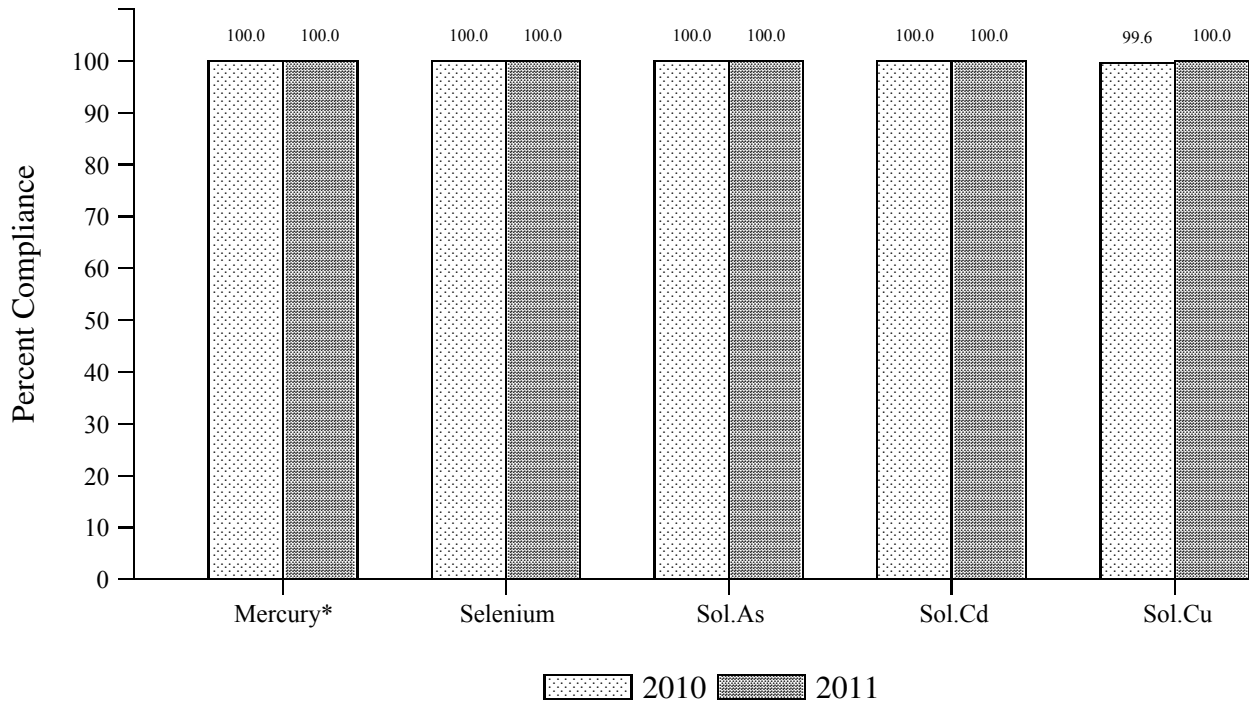


FIGURE 4 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE GENERAL USE WATER SECTION OF THE DES PLAINES RIVER IN 2010 AND 2011



¹DO standard for general use waters is 5.0 mg/L from March through July, otherwise 3.5 mg/L.

*Human Health Standard became effective in General Use Waters in December, 2002.

Chicago River System. There are 12 sampling locations (106, 103, 31, 104, 32, 105, 34, 96, 35, 102, 74, and 100) in the General Use section of the river system.

In addition to the 22 parameters listed above, temperature, sulfate, and fluoride were also in total compliance. Violations of the pertinent General Use Standards for the remaining five parameters (DO, pH, chloride, total dissolved solids, and fecal coliform) are shown in Table 6. There was no violation due to Human Health Standard.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates for all parameters in this river system.

Calumet River System. There are seven sampling locations (49, 50, 55, 52, 54, 97, and 57) in the General Use section of the river system. In addition to the 22 parameters listed above, temperature and chloride were also in total compliance. Detailed violation records for the noncompliant parameters are shown in Table 7.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates except for chloride. In the Calumet River System, the compliance rate for chloride significantly increased from 94.5 percent in 2010 to total compliance in 2011.

Des Plaines River System. All 20 sampling locations (90, 89, 111, 79, 80, 18, 24, 109, 77, 78, 12, 13, 17, 19, 20, 22, 23, 29, 91, and 110) of the river system are in General Use Waters. Three sampling locations (110, 89, and 111) on the DuPage River and one sampling location (90) on Poplar Creek are included in this sampling program. In addition to the 22 parameters listed above, pH, sulfate, and fluoride were also in total compliance. Detailed violation records for the noncompliant parameters are shown in Table 8.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates except for temperature. In the Des Plaines River System, the compliance rate for temperature significantly decreased from total compliance in 2010 to 98.2 percent in 2011.

TABLE 6: NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF
GENERAL USE LIMITS IN THE GENERAL USE WATERS OF
THE CHICAGO RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
DO	106	1	Jul
	31	2	Jul and Oct
	104	1	Jul
	32	1	Jul
	34	1	Jul
	35	1	Nov
			<u>7</u>	Total violations of Dissolved Oxygen (DO)
pH	106	1	Aug
		<u>1</u>	Total violations of pH (pH)
Cl	106	3	Feb, Mar, and Apr
	103	3	Feb, Mar, and Apr
	104	1	Feb
	74	1	Feb
		<u>8</u>	Total violations of Chloride (Cl)
TDS	106	6	Jan, Feb, Mar, Apr, May, and Jun
	103	4	Feb, Mar, Apr, and May
	104	1	Feb
	34	1	Mar
	96	2	Jan and Mar
	74	1	Feb
		<u>15</u>	Total violations of Total Dissolved Solids (TDS)
FC	106	10	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Nov, and Dec
	103	8	Feb, Mar, Apr, Jul, Aug, Sep, Nov, and Dec
	31	5	Mar, May, Jul, Aug, and Nov
	104	4	Jan, Feb, Jul, and Aug
	32	8	Mar, May, Jun, Jul, Aug, Oct, Nov, and Dec
	105	2	Jul and Aug
	34	6	Jan, May, Jun, Jul, Aug, and Dec
	96	3	Jun, Jul, and Aug
	35	2	Jul and Nov
	102	8	Jan, Feb, Apr, May, Jul, Aug, Nov, and Dec

TABLE 6 (Continued): NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF
GENERAL USE LIMITS IN THE GENERAL USE WATERS OF
THE CHICAGO RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
FC (Continued)	100	8 64	Jan, Feb, Mar, Apr, May, Aug, Sep, and Nov Total violations of Fecal Coliform (FC)

¹Number of violations in each month is one unless otherwise indicated in the parenthesis.

TABLE 7: NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF
GENERAL USE LIMITS IN THE GENERAL USE WATERS OF
THE CALUMET RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
DO	57	1	Jul
		<u>1</u>	Total violations of Dissolved Oxygen (DO)
pH	49	2	Feb and Mar
	97	1	Feb
		<u>3</u>	Total violations of pH (pH)
TDS	54	4	Mar, May, Jun, and Aug
	97	4	Mar, May, Jun, and Sep
	57	2	Feb and May
		<u>10</u>	Total violations of Total Dissolved Solids (TDS)
SO ₄	54	4	Mar, May, Jun, and Oct
	97	1	Sep
		<u>5</u>	Total violations of Sulfate (SO₄)
F	52	3	May, Jun, and Aug
		<u>3</u>	Total violations of Fluoride (F)
FC	50	2	Jan and Sep
	52	10	Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, and Nov
	54	10	Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, and Nov
	97	8	Feb, Mar, Apr, Jul, Aug, Sep, Oct, and Nov
	57	9	Feb, Apr, May, Jun, Jul, Aug, Sep, Oct, and Nov
		<u>39</u>	Total violations of Fecal Coliform (FC)

¹Number of violations in each month is one unless otherwise indicated in the parenthesis.

TABLE 8: NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF
GENERAL USE LIMITS IN THE GENERAL USE WATERS OF
THE DES PLAINES RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
DO	110	2	Jul and Nov
	79	1	Jul
	13	1	Jun
		<u>4</u>	Total violations of Dissolved Oxygen (DO)
Temp	111	1	Aug
	109	1	Jul
	22	1	Jul
	23	1	Jul
	<u>4</u>	Total violations of Temperature (Temp)	
Cl	90	1	Mar
	110	2	Mar and Apr
	79	2	Mar and Apr
	80	2	Jan and Mar
	18	2	Jan and Mar
	24	1	Mar
	109	2	Jan and Mar
	<u>12</u>	Total violations of Chloride (Cl)	
TDS	90	3	Jan, Mar, and Apr
	110	2	Mar and Apr
	111	1	Mar
	79	2	Mar and Apr
	80	3	Jan, Mar, and Apr
	18	3	Jan, Mar, and Apr
	24	3	Jan, Mar, and Apr
	109	3	Jan, Mar, and Apr
	77	1	May
	78	2	Jan and Mar
	12	3	Jan, Mar, and Apr
	19	1	Jan
	20	1	Jan
	22	2	Jan and Mar
23	2	Jan and Mar	

TABLE 8 (Continued): NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF GENERAL USE LIMITS IN THE GENERAL USE WATERS OF THE DES PLAINES RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
TDS (Continued)	29	2	Jan and Mar
	91	1	Jan
		35	Total violations of Total Dissolved Solids (TDS)
FC	90	1	Oct
	110	8	Mar, May, Jun, Jul, Aug, Oct, Nov, and Dec
	89	8	Jan, Feb, Mar, Apr, Jun, Sep, Nov, and Dec
	111	7	Jan, Feb, Mar, Apr, Jun, Nov, and Dec
	80	4	Mar, Apr, Nov, and Dec
	18	5	Jan, Mar, Apr, Nov, and Dec
	24	4	Jan, Mar, Apr, and Dec
	109	8	Jan, Mar, Apr, Jun, Aug, Sep, Oct, and Dec
	77	2	Apr and Aug
	78	3	Mar, Apr, and Dec
	13	1	Jan
	17	4	Jan, Mar, Jun, and Nov
	19	4	Jan, Mar, Aug, and Nov
	20	6	Jan, Mar, Apr, Aug, Sep, and Nov
	22	4	Jan, Mar, Aug, and Sep
	23	4	Jan, Mar, Aug, and Dec
	29	3	Jan, Mar, and Dec
91	3	Jan, Mar, and Dec	
	79	Total violations of Fecal Coliform (FC)	

¹Number of violations in each month is one unless otherwise indicated in the parenthesis.

COMPLIANCE WITH WATER QUALITY STANDARDS IN SECONDARY CONTACT WATERS

Sampling Locations and Frequencies

As shown in Figure 1, the waters designated as Secondary Contact Waters include the principal man-made canals in the Chicago and Calumet River Systems. The sampling locations used during 2011 and the annual frequencies of sampling are shown in Table 9. Also, Tables AII-2 through AII-45 show the number of violations and the annual sampling frequencies. In 2002, grab samples were collected at the Lockport Powerhouse (Chicago River System) once per week, but sampling at this location was discontinued after April 2002. Sampling at the Lockport Powerhouse was replaced by the collection of weekly grab samples at Location 92 (Lockport Forebay) in 2002. Location 92 was sampled 52 times in 2011.

River System Compliance Data

In the Secondary Contact Waters, 70 parameters were analyzed in 2011, of which 23 parameters were subject to IPCB Water Quality Standards. They were DO; temperature; pH; un-ionized ammonia; total dissolved solids; phenols; fats, oils, and greases; total cyanide; fluoride; total silver; total arsenic; total barium; total cadmium; total copper; total hexavalent chromium; total iron; total lead; total nickel; total manganese; total mercury; total zinc; total selenium; and soluble iron. Summary results, including means and compliance standards, are shown in Appendix AII for the Chicago and Calumet River Systems.

Generally, compliance with IPCB standards was high in 2011 in both the Chicago and Calumet River Systems. Seventeen water quality parameters were in complete compliance in both of these river systems. They were temperature, pH, un-ionized ammonia, phenols, total cyanide, fluoride, total silver, total arsenic, total barium, total cadmium, total copper, total hexavalent chromium, total lead, total nickel, total mercury, total zinc, and total selenium.

The compliance rates for 23 water quality parameters with Secondary Contact Standards for the Chicago and Calumet River Systems are presented in Figures 5 and 6, respectively.

The six water quality parameters that were not in complete compliance in both of the river systems are listed in Table 10 with observed percent compliance.

Chicago River System. Violations of the pertinent Secondary Contact Standards for the remaining six parameters (DO; total dissolved solids; fats, oils, and greases; total iron; total manganese; and soluble iron) occurred in at least one of the locations sampled. The compliance rates of these six parameters ranged from 93.6 to 99.5 percent. Detailed violation records for the non-compliant parameters are shown in Table 11.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates except for total iron. In the Chicago River System, the compliance rate for total iron significantly decreased from total compliance in 2010 to 97.9 percent in 2011.

TABLE 9: LOCATIONS SAMPLED AND ANNUAL SAMPLING FREQUENCIES OF SECONDARY CONTACT WATERS IN 2011

Location No. ¹	Station Name	Annual No. of Samples
<u>Chicago River System</u>		
36	Touhy Avenue, North Shore Channel	12
101	Foster Avenue, North Shore Channel	12
37	Wilson Avenue, North Branch Chicago River	12
73	Diversey Parkway, North Branch Chicago River	12
46	Grand Avenue, North Branch Chicago River	12
39	Madison Street, South Branch Chicago River	6
108	Loomis Street, South Branch Chicago River	12
99	Archer Avenue, South Fork South Branch Chicago River	12
40	Damen Avenue, Chicago Sanitary & Ship Canal	12
75	Cicero Avenue, Chicago Sanitary & Ship Canal	12
41	Harlem Avenue, Chicago Sanitary & Ship Canal	12
42	Route 83, Chicago Sanitary & Ship Canal	12
48	Stephen Street, Chicago Sanitary & Ship Canal	12
92	Lockport Forebay, Chicago Sanitary & Ship Canal	51
		<u>201</u>
<u>Calumet River System</u>		
86	Burnham Avenue, Grand Calumet River	10
56	Indiana Avenue, Little Calumet River	10
76	Halsted Street, Little Calumet River	11
58	Ashland Avenue, Calumet-Sag Channel	11
59	Cicero Avenue, Calumet-Sag Channel	11
43	Route 83, Calumet-Sag Channel	11
		<u>64</u>

¹Refer to Figure 1.

FIGURE 5: COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE SECONDARY CONTACT WATER SECTION OF THE CHICAGO RIVER IN 2010 AND 2011

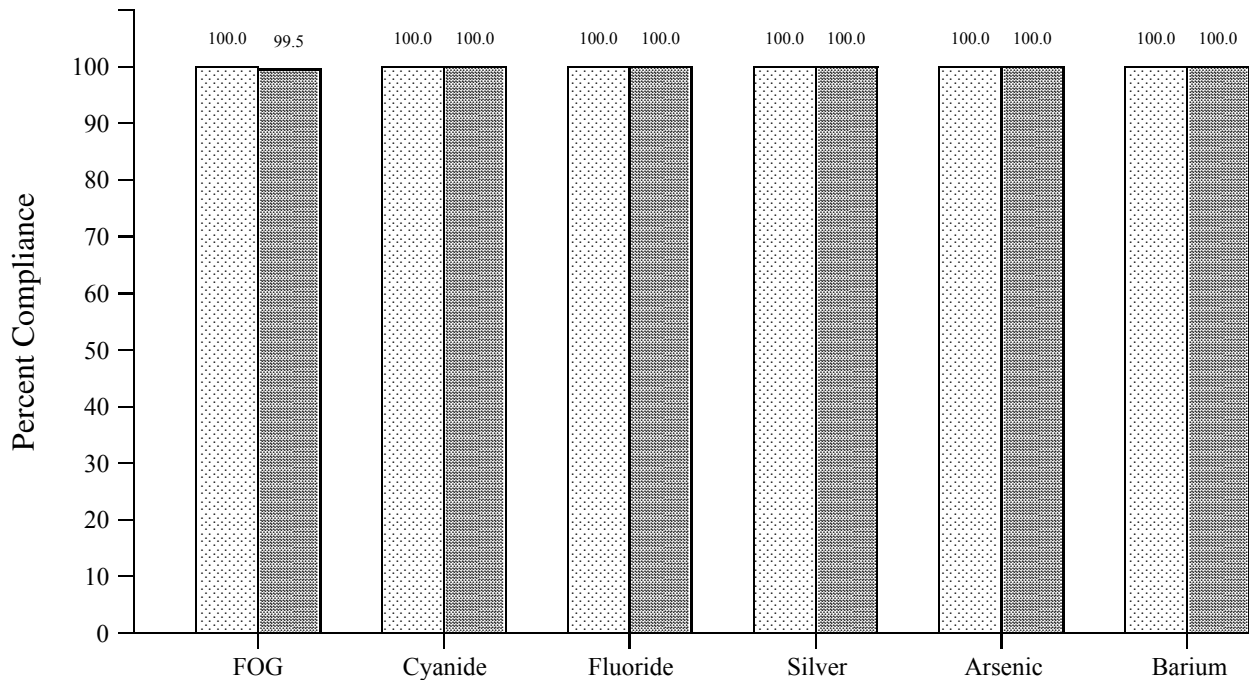
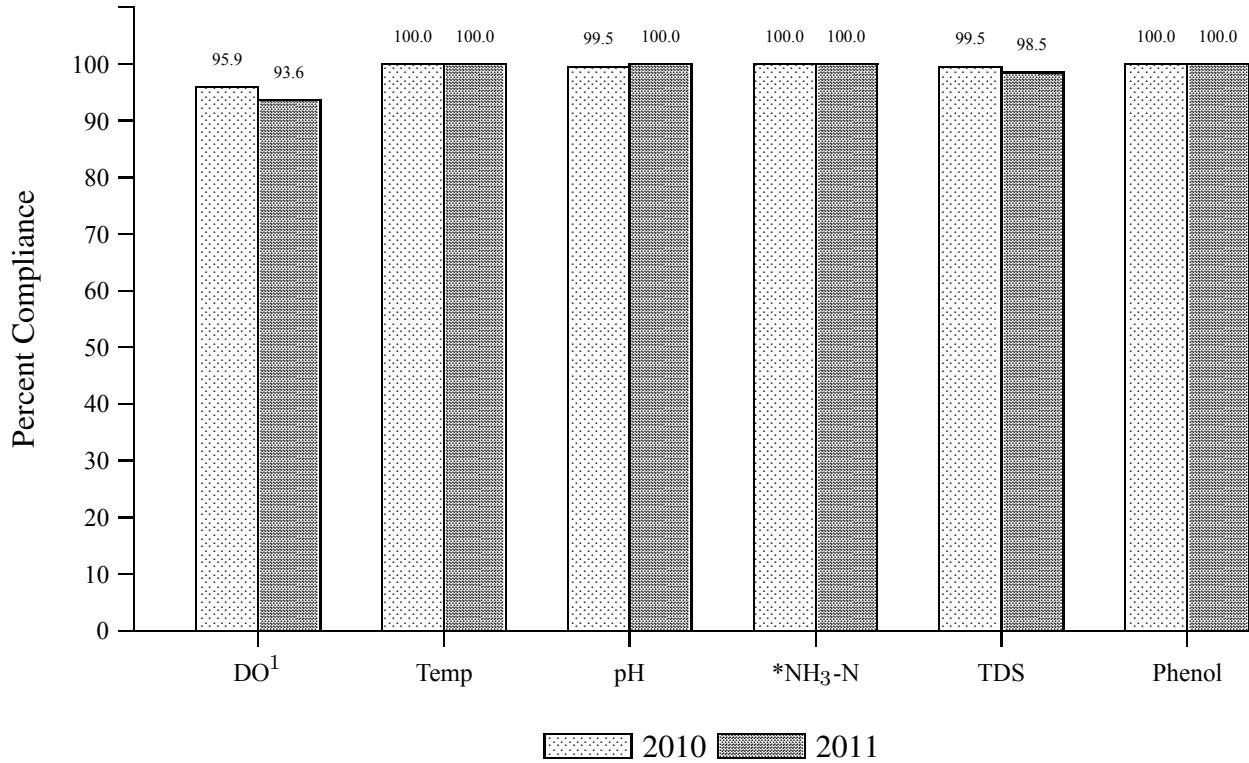
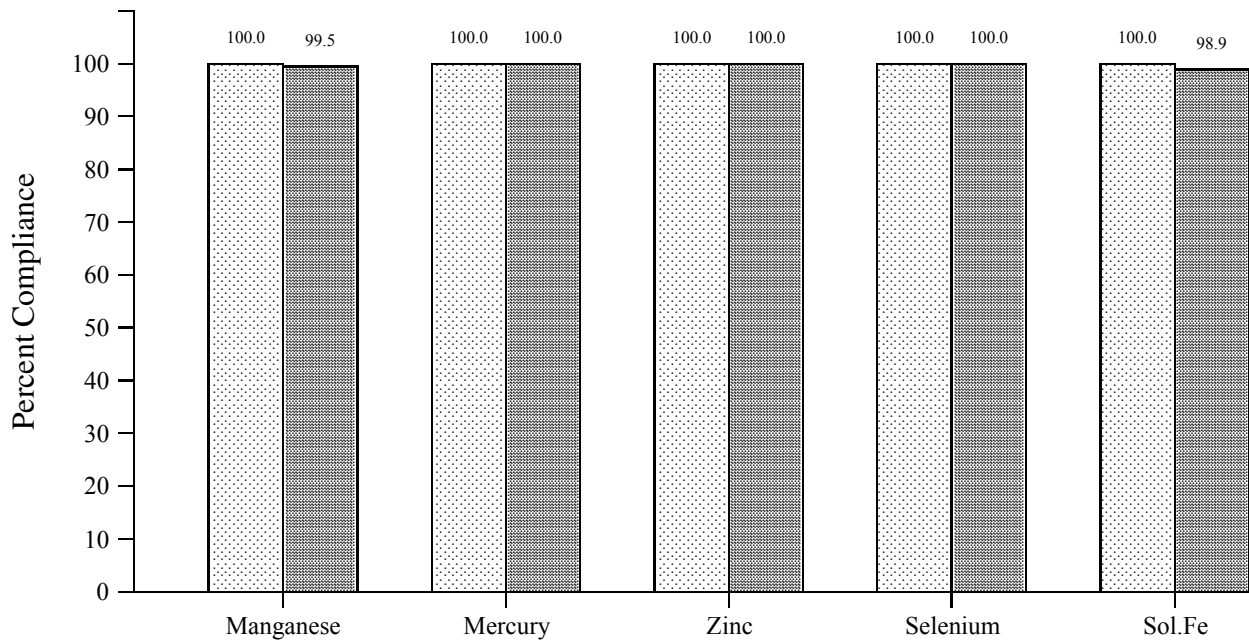
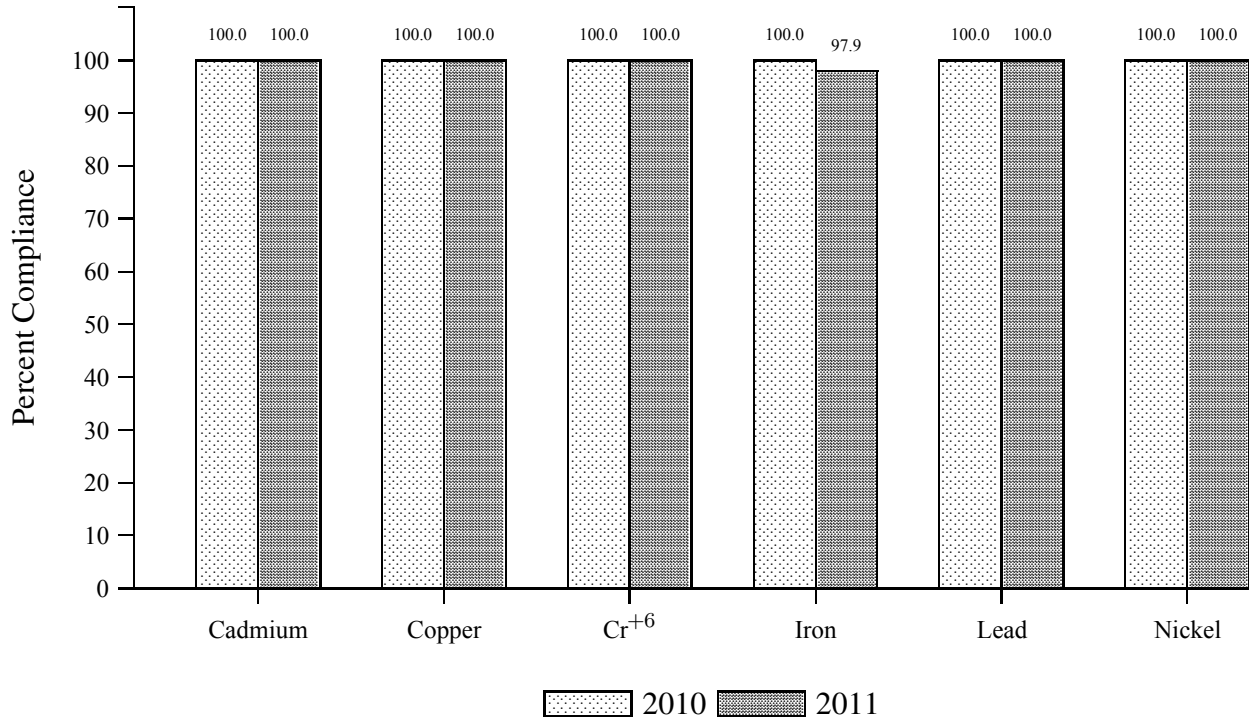


FIGURE 5 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE SECONDARY CONTACT WATER SECTION OF THE CHICAGO RIVER IN 2010 AND 2011



*NH₃-N = Un-ionized Ammonia.

FIGURE 6: COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE SECONDARY CONTACT WATER SECTION OF THE CALUMET RIVER IN 2010 AND 2011

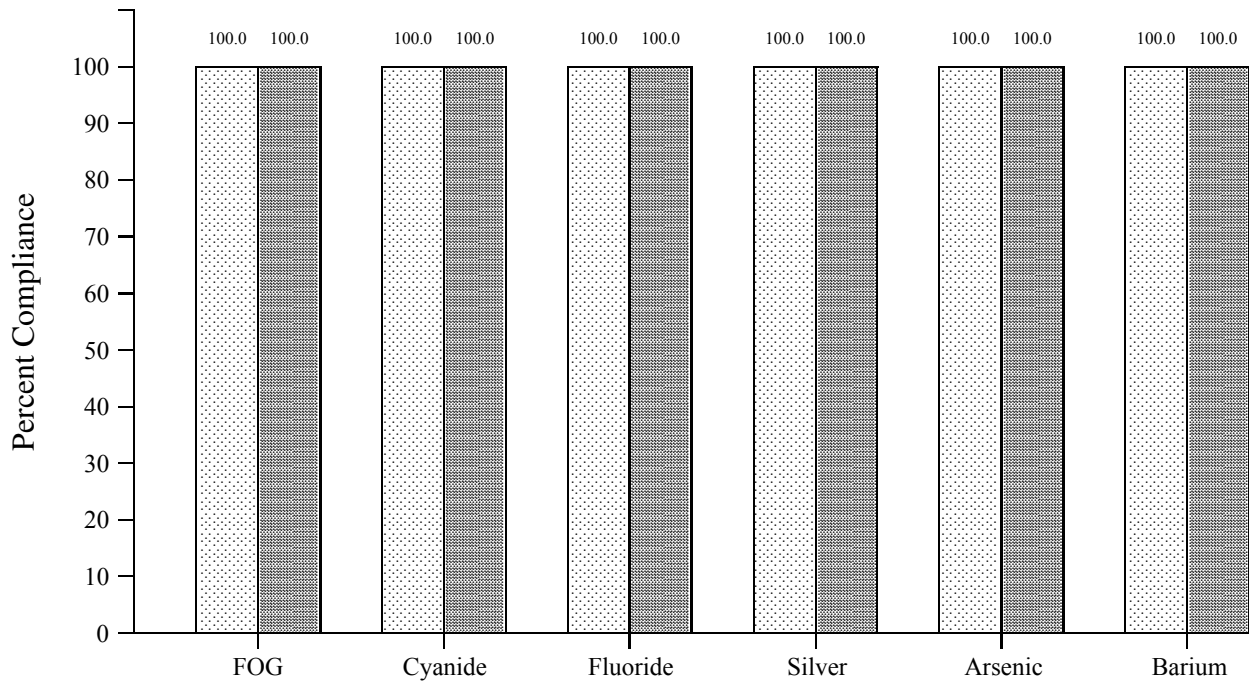
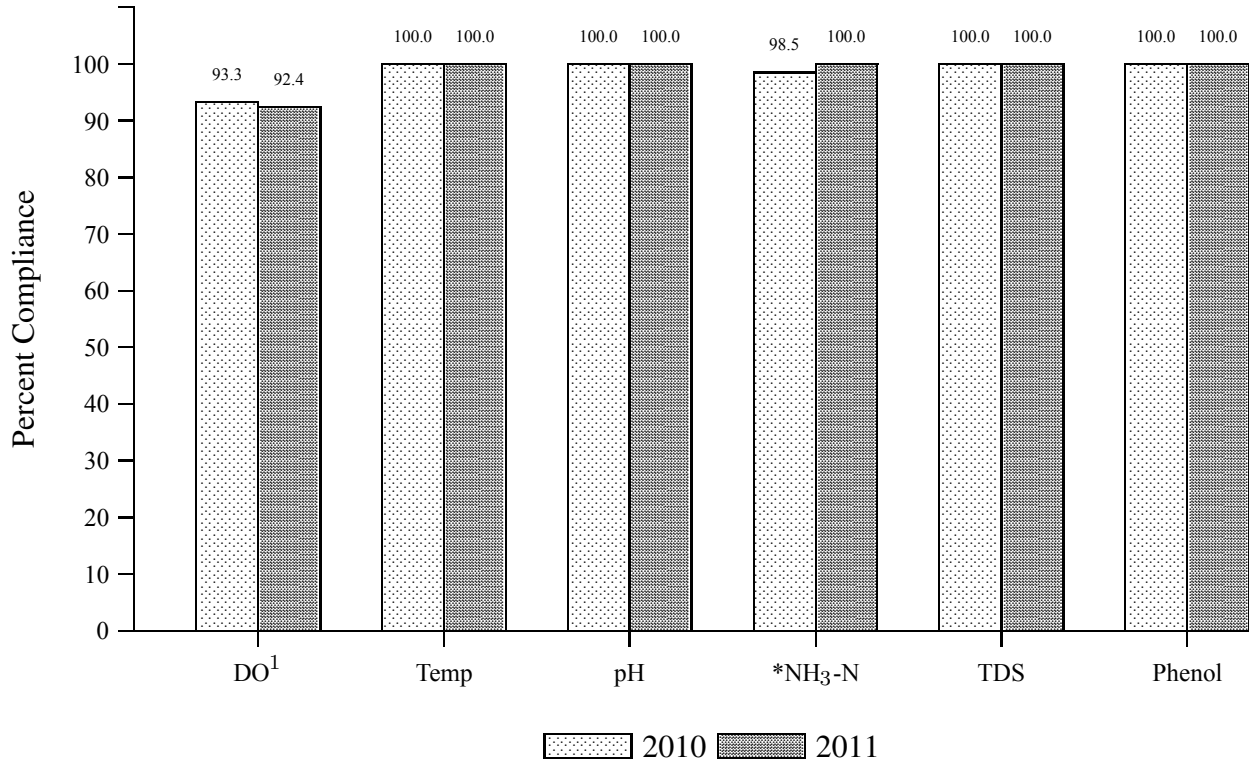
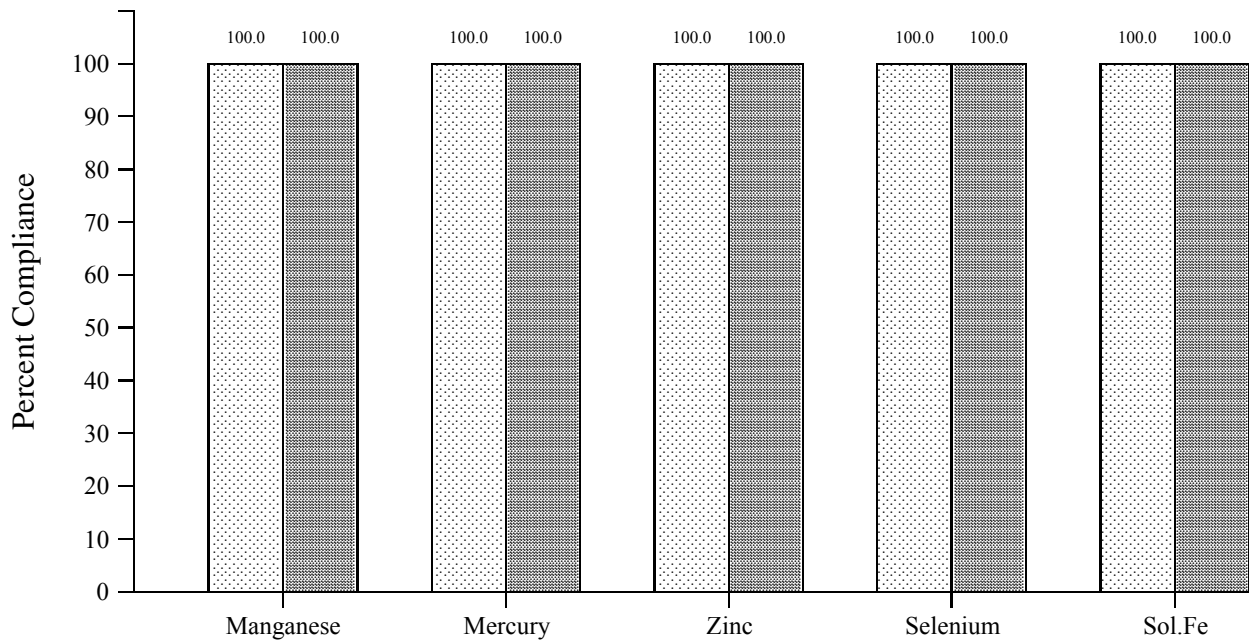
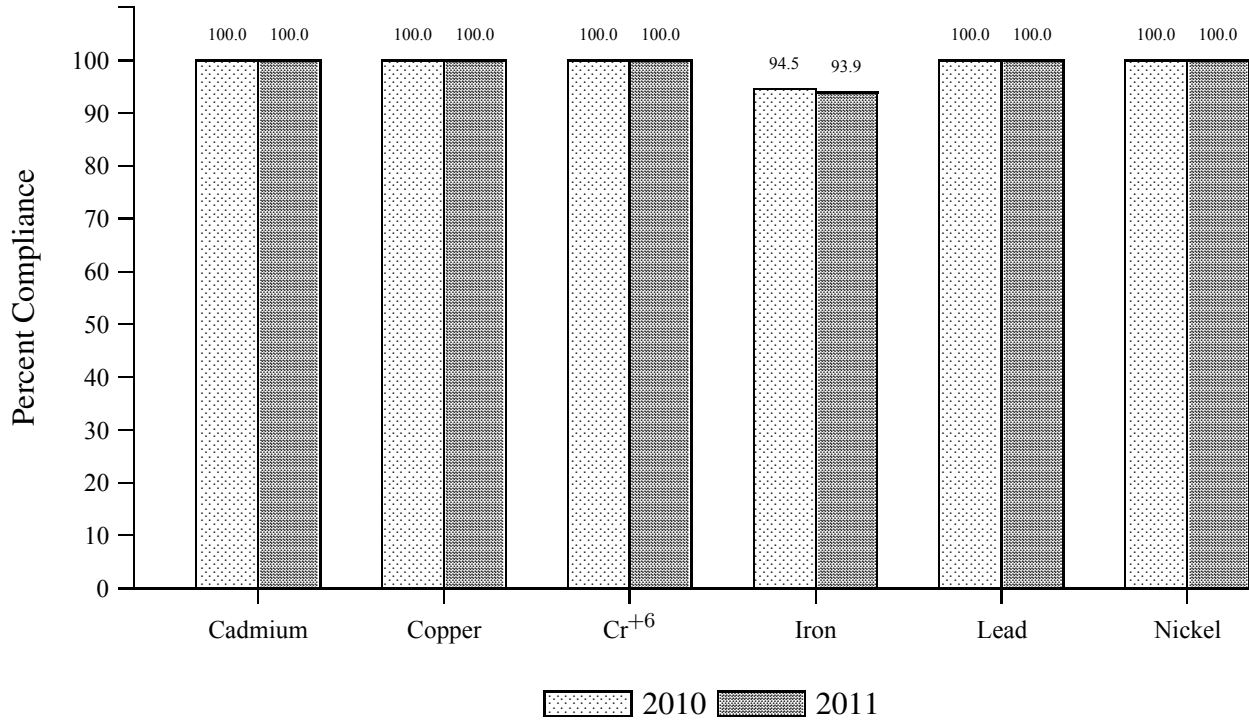


FIGURE 6 (Continued): COMPLIANCE RATES WITH WATER QUALITY STANDARDS FOR THE SECONDARY CONTACT WATER SECTION OF THE CALUMET RIVER IN 2010 AND 2011



*NH₃-N = Un-ionized Ammonia.

TABLE 10: WATER QUALITY PARAMETERS NOT IN TOTAL COMPLIANCE
IN SECONDARY CONTACT WATERS OF ALL RIVER SYSTEMS IN 2011

Parameter	Estimated Percent Compliance ¹	
	Chicago	Calumet
Dissolved Oxygen	93.6	92.4
Total Dissolved Solids	98.5	100.0
Fats, Oils, and Greases	99.5	100.0
Total Iron	97.9	93.9
Total Manganese	99.5	100.0
Soluble Iron	98.9	100.0

¹Based on the total number of samples in compliance divided by the total number of samples collected, multiplied by 100.

TABLE 11: NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF
SECONDARY CONTACT LIMITS IN THE SECONDARY CONTACT WATERS OF
THE CHICAGO RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
DO	46	1	Aug
	99	2	May and Aug
	75	1	Jun
	41	1	Jun
	42	1	Jul
	92	7	Jun(2), Jul(2), and Aug(3)
			13
TDS	36	1	Feb
	101	1	Feb
	37	1	Feb
			3
FOG	48	1	Nov
			1
Fe	73	1	Aug
	75	1	Jun
	42	1	Dec
	48	1	Dec
			4
Mn	92	1	Apr
			1
Sol. Fe	42	1	Dec
	48	1	Dec
			2

¹Number of violations in each month is one unless otherwise indicated in the parenthesis.

Calumet River System. In addition to the 17 parameters listed above, total dissolved solids; fats, oils, and greases; total manganese; and soluble iron were also in total compliance. Violations of the pertinent Secondary Contact Standards for the remaining two parameters (DO and total iron) occurred in at least one of the locations sampled. The compliance rates of these two parameters ranged from 92.4 to 93.9 percent. Detailed violation records for the noncompliant parameters are shown in Table 12.

A comparison of 2011 data with 2010 data indicated that there was no significant difference between 2011 and 2010 compliance rates for all parameters in this river system.

TABLE 12: NUMBER OF PARAMETER CONCENTRATION VIOLATIONS OF
SECONDARY CONTACT LIMITS IN THE SECONDARY CONTACT WATERS OF
THE CALUMET RIVER SYSTEM IN 2011

Parameter	Location No.	Total Violations	Months (No. of Violations) ¹
DO	86	5 <u>5</u>	Jun, Jul, Aug, Oct, and Nov Total violations of Dissolved Oxygen (DO)
Fe	86 58	1 3 <u>4</u>	May Feb, Apr, and Jul Total violations of Total Iron (Fe)

¹Number of violations in each month is one unless otherwise indicated in the parenthesis.

COMPLIANCE WITH RECEIVING WATER QUALITY STANDARDS UPSTREAM AND DOWNSTREAM OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO OUTFALLS

Surface Water Sample Locations and Sample Frequencies

The District currently operates seven WRPs. The receiving waters upstream and downstream of the outfalls (the discharge points of the effluent from the WRPs) for six of these WRPs were sampled during 2011. Three of these WRPs (Hanover Park, John E. Egan, and James C. Kirie) discharge their treated effluents into General Use Waters. The North Side, Stickney, and Calumet WRPs discharge their effluents into Secondary Contact Waters. During 2011, 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, as well as annual sampling frequencies for the respective WRPs, are shown in Table 13.

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, 8,342 feet above the outfall, and the downstream station is located at Walnut Lane, 1,000 feet below the outfall.
2. The upstream station for the John E. Egan WRP is located at Higgins Road, 7,500 feet above the outfall, and the downstream station is located at Arlington Heights Road, 1,300 feet below the outfall.
3. The upstream sampling point for the James C. Kirie WRP is located at Elmhurst Road, about 1,000 feet upstream of the outfall, while the downstream station is at the Wille Road Bridge, about 300 feet downstream of the outfall.

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

1. The North Side WRP discharges its treated effluent into the North Shore Channel. The upstream and downstream sample points are located at Central Road and Touhy Avenue, respectively. Central Road is 17,000 feet 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 7,900 feet above and Harlem Avenue is 9,200 feet below the outfall.
3. The upstream sample point for the Calumet WRP is located at Indiana Avenue on the Little Calumet River. Downstream samples of the outfall are taken at Halsted Street on the Little Calumet River. Indiana Avenue is 5,500 feet above and Halsted Street is 6,600 feet below the outfall.

TABLE 13: ANNUAL SAMPLING FREQUENCIES AT
UPSTREAM AND DOWNSTREAM LOCATIONS OF THE
WATER RECLAMATION PLANTS IN 2011

WRP	Upstream Sample			Downstream Sample		
	Location	No. ¹	Freq.	Location	No. ¹	Freq.
North Side	Central Street, North Shore Channel	35	8	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	10	Halsted Street, Little Calumet River	76	11
John E. Egan	Higgins Road, Salt Creek	79	10	Arlington Heights Road, Salt Creek	80	11
James C. Kirie	Elmhurst Road, Higgins Creek	77	5	Wille Road, Higgins Creek	78	11
Hanover Park	Springinsguth Road, West Branch, Du Page River	110	10	Walnut Lane, West Branch, Du Page River	89	12

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

Annual Summary Results for Water Quality Upstream and Downstream of the Metropolitan Water Reclamation District of Greater Chicago Outfalls

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 see 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 14 through 19. Tables AIII-1 through AIII-6 in Appendix AIII show in detail the significance probability for testing normality and equality of variances of the upstream and downstream data, and the significance probability for testing the equality of upstream and downstream means employing an appropriate test.

Seventy water quality parameters, including 41 parameters which have either IPCB General Use, Human Health, or Secondary Contact limits, were assayed for all WRPs in 2011. Comparison of the mean concentrations of the common parameters (maximum 70) 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 14 through 19. 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 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 observed at the upstream and downstream locations.
2. Determine if the mean concentration levels at the upstream and downstream locations for a parameter are different, and if the difference in the levels is attributable to wastewater treatment processing.
3. Determine if the fluctuations in the concentration levels of the parameter adversely affect the quality of the receiving stream as assessed by compliance with the water quality standard for that parameter.

TABLE 14: COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE NORTH SIDE WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	7.9		7.3	0.549
Temperature	Temp (°C)	17		15	0.444
pH	pH	7.7		7.2	0.029
Total Alkalinity	Alk (mg/L)	121		149	0.019
Chloride	Cl (mg/L)	63		221	0.105
Turbidity	Turb (NTU)	6.3		4.2	0.067
Total Kjeldahl Nitrogen	TKN (mg/L)	0.56		2.35	0.001
Ammonium Nitrogen	NH ₄ -N (mg/L)	0.12		1.31	0.001
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.003		0.006	0.094
Organic Nitrogen	ORG-N (mg/L)	0.45		1.04	0.032
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.30		6.25	0.000
Total Solids	TS (mg/L)	315		645	0.050
Total Suspended Solids	TSS (mg/L)	9.6		9.2	0.809
Volatile Suspended Solids	VSS (mg/L)	2.5		4.7	0.138
Total Dissolved Solids	TDS (mg/L)	305		636	0.049
Phenols	Phenol (µg/L)	<5		<5	-
Total Nonylphenols	NPS (µg/L)	<1.3		<1.3	-
Bisphenol A	BPA (µg/L)	<1		<1	-
Sulfate	SO ₄ (mg/L)	30		45	0.011
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.14		1.25	0.000
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	<0.001		0.0013	-
Fluoride	F (mg/L)	0.14		0.67	0.000
Total Organic Carbon	TOC (mg/L)	3.2		5.2	0.034
Fecal Coliform *	FC (#/100ml)	124		7494	0.001
Escherichia Coli *	EColi (#/100ml)	47		8437	0.182
Total Calcium	Ca (mg/L)	41		58	0.005

TABLE 14 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM
LOCATIONS FOR THE NORTH SIDE WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Total Magnesium	Mg (mg/L)	14		20	0.006
Hardness	Hard (mg/L)	161		228	0.005
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.4		2.1	0.072
Gross Beta Radioactivity	G. Beta (pCi/L)	1.7		4.4	0.001
Chlorophyll <i>a</i>	Chlrphl (μ g/L)	15		1	0.283
Benzene	Bnzn (μ g/L)	<2		<2	-
Ethylbenzene	Ebnzn (μ g/L)	<2		<2	-
Toluene	Toln (μ g/L)	<2		<2	-
Xylene	Xyln (μ g/L)	<3		<3	-
Meta and/or Para Xylenes	xylnmp (μ g/L)	<3		<3	-
Ortho Xylene	xylno (μ g/L)	<3		<3	-
Total Silver	Ag (mg/L)	<0.004		<0.004	-
Total Arsenic	As (mg/L)	<0.05		<0.05	-
Total Barium	Ba (mg/L)	0.024		0.026	0.411
Total Boron	B (mg/L)	<0.06		0.150	-
Total Cadmium	Cd (mg/L)	<0.001		<0.001	-
Total Copper	Cu (mg/L)	<0.02		<0.02	-
Total Chromium	Cr (mg/L)	<0.01		<0.01	-
Total Hexavalent Chromium	Cr ⁺⁶ (μ g/L)	<10		<10	-
Total Iron	Fe (mg/L)	0.225		<0.2	-
Total Lead	Pb (mg/L)	<0.03		<0.03	-
Total Nickel	Ni (mg/L)	<0.008		<0.008	-
Total Manganese	Mn (mg/L)	0.022		0.030	0.323
Total Mercury	Hg (μ g/L)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	<2.3		<2.3	-
Total Zinc	Zn (mg/L)	<0.06		<0.06	-
Total Selenium	Se (mg/L)	0.006		<0.005	0.699
Soluble Calcium	Sol. Ca (mg/L)	38.9		55.6	0.007

TABLE 14 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE NORTH SIDE WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Soluble Magnesium	Sol. Mg (mg/L)	13.5		19.7	0.008
Soluble Silver	Sol. Ag (mg/L)	<0.001		0.002	-
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Barium	Sol. Ba (mg/L)	0.022		0.024	0.601
Soluble Boron	Sol. B (mg/L)	<0.07		0.153	-
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)	<0.003		<0.003	-
Soluble Iron	Sol. Fe (mg/L)	<0.2		<0.2	-
Soluble Lead	Sol. Pb (mg/L)	<0.03		<0.03	-
Soluble Nickel	Sol. Ni (mg/L)	<0.008		<0.008	-
Soluble Manganese	Sol. Mn (mg/L)	0.017		0.020	0.711
Soluble Zinc	Sol. Zn (mg/L)	<0.02		0.028	-
Soluble Selenium	Sol. Se (mg/L)	<0.03		<0.03	-

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 15: COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE STICKNEY WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	5.9		6.4	0.454
Temperature	Temp (°C)	18		17	0.531
pH	pH	7.1		7.1	0.861
Total Alkalinity	Alk (mg/L)	147		144	0.826
Chloride	Cl (mg/L)	180		187	0.890
Turbidity	Turb (NTU)	13		8	0.037
Total Kjeldahl Nitrogen	TKN (mg/L)	1.6		1.7	0.737
Ammonium Nitrogen	NH ₄ -N (mg/L)	0.77		0.76	0.985
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.005		0.004	0.642
Organic Nitrogen	ORG-N (mg/L)	0.87		0.98	0.505
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	4.5		6.3	0.045
Total Solids	TS (mg/L)	577		627	0.588
Total Suspended Solids	TSS (mg/L)	23		12	0.154
Volatile Suspended Solids	VSS (mg/L)	6.6		3.6	0.135
Total Dissolved Solids	TDS (mg/L)	554		615	0.520
Phenols	Phenol (µg/L)	5.1		<5	-
Total Nonylphenols	NPS (µg/L)	<1.3		<1.3	-
Bisphenol A	BPA (µg/L)	<1		<1	-
Sulfate	SO ₄ (mg/L)	46		63	0.014
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.60		0.48	0.184
Total Cyanide	CN (mg/L)	<0.005		<0.005	1.000
WAD Cyanide	WAD-CN (mg/L)	0.0012		0.0011	0.611
Fluoride	F (mg/L)	0.47		0.59	0.046
Total Organic Carbon	TOC (mg/L)	4.3		5.1	0.061
Fecal Coliform *	FC (#/100ml)	314		3218	0.024
Escherichia Coli *	EColi (#/100ml)	617		5172	0.175
Total Calcium	Ca (mg/L)	57		59	0.785

TABLE 15 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE STICKNEY WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Total Magnesium	Mg (mg/L)	21		21	0.969
Hardness	Hard (mg/L)	229		233	0.880
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.3		2.2	0.638
Gross Beta Radioactivity	G. Beta (pCi/L)	4.5		4.7	0.826
Chlorophyll <i>a</i>	Chlrphl (μ g/L)	4.4		2.7	0.157
Benzene	Bnzn (μ g/L)	<2		<2	-
Ethylbenzene	Ebnzn (μ g/L)	<2		<2	-
Toluene	Toln (μ g/L)	<2		<2	-
Xylene	Xyln (μ g/L)	<3		<3	-
Meta and/or Para Xylenes	xylnmp (μ g/L)	<3		<3	-
Ortho Xylene	xylno (μ g/L)	<3		<3	-
Total Silver	Ag (mg/L)	<0.004		<0.004	-
Total Arsenic	As (mg/L)	<0.05		<0.05	-
Total Barium	Ba (mg/L)	0.030		0.025	0.051
Total Boron	B (mg/L)	0.109		0.154	0.005
Total Cadmium	Cd (mg/L)	<0.001		<0.001	-
Total Copper	Cu (mg/L)	<0.02		<0.02	-
Total Chromium	Cr (mg/L)	<0.01		<0.01	-
Total Hexavalent Chromium	Cr ⁺⁶ (μ g/L)	<10		<10	-
Total Iron	Fe (mg/L)	0.692		0.375	0.118
Total Lead	Pb (mg/L)	<0.03		<0.03	-
Total Nickel	Ni (mg/L)	<0.008		<0.008	1.000
Total Manganese	Mn (mg/L)	0.040		0.037	0.565
Total Mercury	Hg (μ g/L)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	<2.3		<2.3	-
Total Zinc	Zn (mg/L)	0.062		<0.06	-
Total Selenium	Se (mg/L)	<0.005		<0.005	-
Soluble Calcium	Sol. Ca (mg/L)	54.5		56.9	0.687

TABLE 15 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE STICKNEY WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Soluble Magnesium	Sol. Mg (mg/L)	19.7		20.2	0.862
Soluble Silver	Sol. Ag (mg/L)	0.002		0.002	0.860
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Barium	Sol. Ba (mg/L)	0.023		0.021	0.372
Soluble Boron	Sol. B (mg/L)	0.110		0.154	0.005
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)	<0.003		<0.003	-
Soluble Iron	Sol. Fe (mg/L)	<0.2		<0.2	-
Soluble Lead	Sol. Pb (mg/L)	<0.03		<0.03	-
Soluble Nickel	Sol. Ni (mg/L)	<0.008		<0.008	-
Soluble Manganese	Sol. Mn (mg/L)	0.026		0.023	0.542
Soluble Zinc	Sol. Zn (mg/L)	0.022		0.022	1.000
Soluble Selenium	Sol. Se (mg/L)	<0.03		<0.03	-

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 16: COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE CALUMET WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	7.7		6.8	0.293
Temperature	Temp (°C)	15		15	0.822
pH	pH	7.2		7.1	0.421
Total Alkalinity	Alk (mg/L)	131		159	0.038
Chloride	Cl (mg/L)	120		175	0.135
Turbidity	Turb (NTU)	10		9	0.727
Total Kjeldahl Nitrogen	TKN (mg/L)	0.74		1.35	0.002
Ammonium Nitrogen	NH ₄ -N (mg/L)	0.28		0.47	0.112
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.001		0.002	0.226
Organic Nitrogen	ORG-N (mg/L)	0.47		0.89	0.003
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	1.9		5.5	0.001
Total Solids	TS (mg/L)	465		626	0.058
Total Suspended Solids	TSS (mg/L)	12		15	0.671
Volatile Suspended Solids	VSS (mg/L)	1.9		4.3	0.176
Total Dissolved Solids	TDS (mg/L)	453		611	0.070
Phenols	Phenol (µg/L)	<5		<5	-
Total Nonylphenols	NPS (µg/L)	<1.3		<1.3	-
Bisphenol A	BPA (µg/L)	<1		<1	0.979
Sulfate	SO ₄ (mg/L)	60		83	0.098
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.36		1.66	0.002
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0011		0.0012	0.086
Fluoride	F (mg/L)	0.31		0.54	0.000
Total Organic Carbon	TOC (mg/L)	3.8		5.0	0.008
Fecal Coliform *	FC (#/100ml)	120		1441	0.007
Escherichia Coli *	EColi (#/100ml)	1549		785	0.695
Total Calcium	Ca (mg/L)	52		66	0.032

TABLE 16 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE CALUMET WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Total Magnesium	Mg (mg/L)	18		23	0.052
Hardness	Hard (mg/L)	204		260	0.038
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.5		1.9	0.016
Gross Beta Radioactivity	G. Beta (pCi/L)	2.7		3.7	0.188
Chlorophyll <i>a</i>	Chlrphl (μ g/L)	4.0		3.1	0.523
Benzene	Bnzn (μ g/L)	<2		<2	-
Ethylbenzene	Ebnzn (μ g/L)	<2		<2	-
Toluene	Toln (μ g/L)	<2		<2	-
Xylene	Xyln (μ g/L)	<3		<3	-
Meta and/or Para Xylenes	xylnmp (μ g/L)	<3		<3	-
Ortho Xylene	xylno (μ g/L)	<3		<3	-
Total Silver	Ag (mg/L)	<0.004		<0.004	-
Total Arsenic	As (mg/L)	<0.05		<0.05	-
Total Barium	Ba (mg/L)	0.031		0.025	0.021
Total Boron	B (mg/L)	0.132		0.187	0.031
Total Cadmium	Cd (mg/L)	<0.001		<0.001	-
Total Copper	Cu (mg/L)	<0.02		<0.02	-
Total Chromium	Cr (mg/L)	<0.01		<0.01	-
Total Hexavalent Chromium	Cr ⁺⁶ (μ g/L)	<10		<10	-
Total Iron	Fe (mg/L)	0.380		0.282	0.115
Total Lead	Pb (mg/L)	<0.03		<0.03	-
Total Nickel	Ni (mg/L)	<0.008		<0.008	-
Total Manganese	Mn (mg/L)	0.037		0.043	0.388
Total Mercury	Hg (μ g/L)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	<2.3		<2.3	-
Total Zinc	Zn (mg/L)	<0.06		0.073	-
Total Selenium	Se (mg/L)	<0.005		0.006	-
Soluble Calcium	Sol. Ca (mg/L)	48.6		62.7	0.033

TABLE 16 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE CALUMET WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Soluble Magnesium	Sol. Mg (mg/L)	17.2		21.8	0.066
Soluble Silver	Sol. Ag (mg/L)	<0.001		0.002	0.500
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Barium	Sol. Ba (mg/L)	0.028		0.022	0.049
Soluble Boron	Sol. B (mg/L)	0.131		0.185	0.028
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)	<0.003		<0.003	-
Soluble Iron	Sol. Fe (mg/L)	<0.2		<0.2	-
Soluble Lead	Sol. Pb (mg/L)	<0.03		<0.03	-
Soluble Nickel	Sol. Ni (mg/L)	<0.008		<0.008	-
Soluble Manganese	Sol. Mn (mg/L)	0.025		0.032	0.271
Soluble Zinc	Sol. Zn (mg/L)	0.021		0.022	0.685
Soluble Selenium	Sol. Se (mg/L)	<0.03		<0.03	-

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 17: COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	7.1		7.9	0.281
Temperature	Temp (°C)	16		15	0.838
pH	pH	7.4		7.5	0.466
Total Alkalinity	Alk (mg/L)	180		144	0.001
Chloride	Cl (mg/L)	319		298	0.822
Turbidity	Turb (NTU)	18		8	0.015
Total Kjeldahl Nitrogen	TKN (mg/L)	1.2		1.2	0.883
Ammonium Nitrogen	NH ₄ -N (mg/L)	0.11		0.12	0.754
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.002		0.002	0.707
Organic Nitrogen	ORG-N (mg/L)	1.1		1.1	0.925
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	1.8		6.0	0.036
Total Solids	TS (mg/L)	860		787	0.627
Total Suspended Solids	TSS (mg/L)	22		9	0.024
Volatile Suspended Solids	VSS (mg/L)	6.1		3.6	0.054
Total Dissolved Solids	TDS (mg/L)	838		777	0.682
Phenols	Phenol (µg/L)	<5		<5	-
Total Nonylphenols	NPS (µg/L)	<1.3		<1.3	-
Bisphenol A	BPA (µg/L)	<1		<1	-
Sulfate	SO ₄ (mg/L)	65		62	0.605
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.40		1.01	0.003
Total Cyanide	CN (mg/L)	0.006		<0.005	0.918
WAD Cyanide	WAD-CN (mg/L)	0.0014		0.0016	0.529
Fluoride	F (mg/L)	0.28		0.41	0.161
Total Organic Carbon	TOC (mg/L)	6.4		5.8	0.373
Fecal Coliform *	FC (#/100ml)	85		222	0.193
Escherichia Coli *	EColi (#/100ml)	14		19	0.755
Total Calcium	Ca (mg/L)	70		62	0.186

TABLE 17 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM
LOCATIONS FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Total Magnesium	Mg (mg/L)	28		23	0.044
Hardness	Hard (mg/L)	291		251	0.105
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.8		2.1	0.188
Gross Beta Radioactivity	G. Beta (pCi/L)	3.1		3.0	0.938
Chlorophyll <i>a</i>	Chlrphl (μ g/L)	23		15	0.224
Benzene	Bnzn (μ g/L)	<2		<2	-
Ethylbenzene	Ebnzn (μ g/L)	<2		<2	-
Toluene	Toln (μ g/L)	<2		<2	-
Xylene	Xyln (μ g/L)	<3		<3	-
Meta and/or Para Xylenes	xylnmp (μ g/L)	<3		<3	-
Ortho Xylene	xylno (μ g/L)	<3		<3	-
Total Silver	Ag (mg/L)	<0.004		<0.004	-
Total Arsenic	As (mg/L)	<0.05		<0.05	-
Total Barium	Ba (mg/L)	0.043		0.032	0.055
Total Boron	B (mg/L)	0.099		0.134	0.206
Total Cadmium	Cd (mg/L)	<0.001		<0.001	-
Total Copper	Cu (mg/L)	<0.02		<0.02	-
Total Chromium	Cr (mg/L)	<0.01		<0.01	-
Total Hexavalent Chromium	Cr ⁺⁶ (μ g/L)	<10		<10	-
Total Iron	Fe (mg/L)	1.100		0.391	0.005
Total Lead	Pb (mg/L)	<0.03		<0.03	-
Total Nickel	Ni (mg/L)	<0.008		<0.008	-
Total Manganese	Mn (mg/L)	0.120		0.056	0.034
Total Mercury	Hg (μ g/L)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	4.570		2.530	0.157
Total Zinc	Zn (mg/L)	<0.06		<0.06	-
Total Selenium	Se (mg/L)	<0.005		<0.005	-
Soluble Calcium	Sol. Ca (mg/L)	67.8		59.8	0.188

TABLE 17 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Soluble Magnesium	Sol. Mg (mg/L)	27.3		22.5	0.046
Soluble Silver	Sol. Ag (mg/L)	<0.001		0.002	0.661
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Barium	Sol. Ba (mg/L)	0.038		0.028	0.066
Soluble Boron	Sol. B (mg/L)	0.099		0.132	0.193
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)	<0.003		<0.003	-
Soluble Iron	Sol. Fe (mg/L)	<0.2		<0.2	-
Soluble Lead	Sol. Pb (mg/L)	<0.03		<0.03	-
Soluble Nickel	Sol. Ni (mg/L)	<0.008		<0.008	-
Soluble Manganese	Sol. Mn (mg/L)	0.054		0.026	0.173
Soluble Zinc	Sol. Zn (mg/L)	<0.02		<0.02	-
Soluble Selenium	Sol. Se (mg/L)	<0.03		<0.03	-

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 18: COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	8.9		8.6	0.691
Temperature	Temp (°C)	15		16	0.619
pH	pH	7.5		7.6	0.490
Total Alkalinity	Alk (mg/L)	142		195	0.005
Chloride	Cl (mg/L)	285		235	0.443
Turbidity	Turb (NTU)	21		2	0.039
Total Kjeldahl Nitrogen	TKN (mg/L)	0.95		1.15	0.271
Ammonium Nitrogen	NH ₄ -N (mg/L)	0.22		0.26	0.662
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.003		0.005	0.264
Organic Nitrogen	ORG-N (mg/L)	0.73		0.89	0.287
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.32		8.86	0.000
Total Solids	TS (mg/L)	737		801	0.562
Total Suspended Solids	TSS (mg/L)	25		<4	0.023
Volatile Suspended Solids	VSS (mg/L)	4.8		1.5	0.042
Total Dissolved Solids	TDS (mg/L)	712		797	0.442
Phenols	Phenol (µg/L)	<5		<5	-
Total Nonylphenols	NPS (µg/L)	<1.3		<1.3	-
Bisphenol A	BPA (µg/L)	<1		<1	-
Sulfate	SO ₄ (mg/L)	39		86	0.000
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	<0.1		0.98	0.002
Total Cyanide	CN (mg/L)	0.006		0.006	1.000
WAD Cyanide	WAD-CN (mg/L)	<0.001		0.0015	0.259
Fluoride	F (mg/L)	0.20		0.65	0.000
Total Organic Carbon	TOC (mg/L)	4.9		4.7	0.788
Fecal Coliform *	FC (#/100ml)	474		173	0.381
Escherichia Coli *	EColi (#/100ml)	550		295	-
Total Calcium	Ca (mg/L)	53		84	0.000

TABLE 18 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM
LOCATIONS FOR THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Total Magnesium	Mg (mg/L)	19		31	0.001
Hardness	Hard (mg/L)	211		336	0.000
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.5		2.2	0.394
Gross Beta Radioactivity	G. Beta (pCi/L)	3.0		4.4	0.041
Chlorophyll <i>a</i>	Chlrphl (μ g/L)	8.8		2.3	0.025
Benzene	Bnzn (μ g/L)	<2		<2	-
Ethylbenzene	Ebnzn (μ g/L)	<2		<2	-
Toluene	Toln (μ g/L)	<2		<2	-
Xylene	Xyln (μ g/L)	<3		<3	-
Meta and/or Para Xylenes	xylnmp (μ g/L)	<3		<3	-
Ortho Xylene	xylno (μ g/L)	<3		<3	-
Total Silver	Ag (mg/L)	<0.004		<0.004	-
Total Arsenic	As (mg/L)	<0.05		<0.05	-
Total Barium	Ba (mg/L)	0.047		0.029	0.005
Total Boron	B (mg/L)	0.080		0.224	0.000
Total Cadmium	Cd (mg/L)	<0.001		<0.001	-
Total Copper	Cu (mg/L)	<0.02		<0.02	-
Total Chromium	Cr (mg/L)	<0.01		<0.01	-
Total Hexavalent Chromium	Cr ⁺⁶ (μ g/L)	<10		<10	-
Total Iron	Fe (mg/L)	1.100		<0.2	-
Total Lead	Pb (mg/L)	<0.03		<0.03	-
Total Nickel	Ni (mg/L)	<0.008		<0.008	-
Total Manganese	Mn (mg/L)	0.098		0.021	0.003
Total Mercury	Hg (μ g/L)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	4.720		3.491	0.685
Total Zinc	Zn (mg/L)	<0.06		<0.06	-
Total Selenium	Se (mg/L)	<0.005		<0.005	-
Soluble Calcium	Sol. Ca (mg/L)	52.3		81.8	0.000

TABLE 18 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Soluble Magnesium	Sol. Mg (mg/L)	18.4		30.5	0.000
Soluble Silver	Sol. Ag (mg/L)	<0.001		0.002	0.003
Soluble Arsenic	Sol. As (mg/L)	<0.02		<0.02	-
Soluble Barium	Sol. Ba (mg/L)	0.041		0.028	0.019
Soluble Boron	Sol. B (mg/L)	0.082		0.224	0.000
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)	<0.003		<0.003	-
Soluble Iron	Sol. Fe (mg/L)	<0.2		<0.2	-
Soluble Lead	Sol. Pb (mg/L)	<0.03		<0.03	-
Soluble Nickel	Sol. Ni (mg/L)	<0.008		<0.008	-
Soluble Manganese	Sol. Mn (mg/L)	0.061		0.015	0.008
Soluble Zinc	Sol. Zn (mg/L)	0.022		0.026	0.397
Soluble Selenium	Sol. Se (mg/L)	<0.03		<0.03	-

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

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

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

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

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

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

TABLE 19: COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	5.9		7.8	0.075
Temperature	Temp (°C)	16		16	0.924
pH	pH	7.6		7.5	0.516
Total Alkalinity	Alk (mg/L)	238		175	0.007
Chloride	Cl (mg/L)	271		204	0.245
Turbidity	Turb (NTU)	13		6	0.155
Total Kjeldahl Nitrogen	TKN (mg/L)	1.6		1.6	0.814
Ammonium Nitrogen	NH ₄ -N (mg/L)	0.26		0.19	0.300
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.004		0.002	0.172
Organic Nitrogen	ORG-N (mg/L)	1.4		1.4	0.790
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	2.2		10.3	0.001
Total Solids	TS (mg/L)	872		685	0.048
Total Suspended Solids	TSS (mg/L)	18		11	0.413
Volatile Suspended Solids	VSS (mg/L)	4.7		5.2	0.770
Total Dissolved Solids	TDS (mg/L)	854		674	0.057
Phenols	Phenol (µg/L)	<5		<5	-
Total Nonylphenols	NPS (µg/L)	<1.3		<1.3	-
Bisphenol A	BPA (µg/L)	<1		<1	-
Sulfate	SO ₄ (mg/L)	74		61	0.100
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.39		1.80	0.002
Total Cyanide	CN (mg/L)	0.006		0.006	0.853
WAD Cyanide	WAD-CN (mg/L)	0.0014		0.0018	0.389
Fluoride	F (mg/L)	0.33		0.59	0.005
Total Organic Carbon	TOC (mg/L)	11		7	0.014
Fecal Coliform *	FC (#/100ml)	1267		972	0.677
Escherichia Coli *	EColi (#/100ml)	1460		1793	0.923
Total Calcium	Ca (mg/L)	89		71	0.016

TABLE 19 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM
LOCATIONS FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Total Magnesium	Mg (mg/L)	33		27	0.055
Hardness	Hard (mg/L)	356		289	0.026
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.5		2.2	0.141
Gross Beta Radioactivity	G. Beta (pCi/L)	2.8		5.5	0.016
Chlorophyll <i>a</i>	Chlrphl (μ g/L)	14		7	0.149
Benzene	Bnzn (μ g/L)	<2		<2	-
Ethylbenzene	Ebnzn (μ g/L)	<2		<2	-
Toluene	Toln (μ g/L)	<2		<2	-
Xylene	Xyln (μ g/L)	<3		<3	-
Meta and/or Para Xylenes	xylnmp (μ g/L)	<3		<3	-
Ortho Xylene	xylno (μ g/L)	<3		<3	-
Total Silver	Ag (mg/L)	<0.004		<0.004	-
Total Arsenic	As (mg/L)	<0.05		<0.05	-
Total Barium	Ba (mg/L)	0.050		0.035	0.003
Total Boron	B (mg/L)	0.093		0.169	0.003
Total Cadmium	Cd (mg/L)	<0.001		<0.001	-
Total Copper	Cu (mg/L)	<0.02		<0.02	-
Total Chromium	Cr (mg/L)	<0.01		0.012	-
Total Hexavalent Chromium	Cr ⁺⁶ (μ g/L)	<10		<10	-
Total Iron	Fe (mg/L)	0.800		0.358	0.001
Total Lead	Pb (mg/L)	<0.03		<0.03	-
Total Nickel	Ni (mg/L)	<0.008		0.009	-
Total Manganese	Mn (mg/L)	0.106		0.035	0.018
Total Mercury	Hg (μ g/L)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	2.680		3.092	0.670
Total Zinc	Zn (mg/L)	<0.06		<0.06	-
Total Selenium	Se (mg/L)	<0.005		<0.005	0.895
Soluble Calcium	Sol. Ca (mg/L)	84.9		68.7	0.011

TABLE 19 (Continued): COMPARISON OF LEVELS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2011

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Soluble Magnesium	Sol. Mg (mg/L)	31.2		26.4	0.046
Soluble Silver	Sol. Ag (mg/L)	0.002		0.002	0.963
Soluble Arsenic	Sol. As (mg/L)	0.021		<0.02	-
Soluble Barium	Sol. Ba (mg/L)	0.045		0.033	0.004
Soluble Boron	Sol. B (mg/L)	0.095		0.172	0.002
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		0.006	-
Soluble Chromium	Sol. Cr (mg/L)	<0.003		0.004	-
Soluble Iron	Sol. Fe (mg/L)	0.250		<0.2	-
Soluble Lead	Sol. Pb (mg/L)	<0.03		<0.03	-
Soluble Nickel	Sol. Ni (mg/L)	0.009		0.009	1.000
Soluble Manganese	Sol. Mn (mg/L)	0.096		0.025	0.021
Soluble Zinc	Sol. Zn (mg/L)	<0.02		0.029	0.015
Soluble Selenium	Sol. Se (mg/L)	<0.03		<0.03	-

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

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

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

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

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

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

A study of the concentrations of the water quality parameters presented in Tables 14 through 19 and the tables in Appendix AII revealed that the quality of effluents from the District's WRPs was high with respect to most parameters. This conclusion was based on the interpretation of the statistical inferences. In general, statistically significant differences existed between upstream and downstream locations for those parameters that were affected by wastewater treatment. Parameters which are significantly different in the downstream location from the upstream location and were subject to water quality limits are identified for each WRP. For some of the parameters, water quality standards exist whereas for others there are no such standards. A discussion of the results from each WRP follows.

North Side Water Reclamation Plant. Locations 35 and 36, upstream and downstream, respectively, of the North Side WRP, are classified as General Use and Secondary Contact waters. Seventy water quality parameters were considered for comparison of mean concentrations between upstream and downstream locations. The following 19 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- pH, total alkalinity, total Kjeldahl nitrogen, ammonium nitrogen, organic nitrogen, nitrite plus nitrate nitrogen, total solids, total dissolved solids, sulfate, total phosphorus, fluoride, total organic carbon, fecal coliform, total calcium, total magnesium, hardness, gross beta radioactivity, soluble calcium, and soluble magnesium.

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

Out of the 19 parameters listed above, seven parameters have either IPCB Human Health, General Use, or Secondary Contact Water quality limits. These parameters are:

- pH, ammonium nitrogen, total dissolved solids, sulfate, fluoride, fecal coliform, and gross beta radioactivity.

Of the seven parameters referenced with IPCB Human Health, General Use, or Secondary Contact limits, six parameters were in total compliance at the upstream location. These parameters were:

- pH, ammonium nitrogen, total dissolved solids, sulfate, fluoride, and gross beta radioactivity.

The percent compliance rate of fecal coliform was 75.0 percent.

Of the seven parameters referenced with IPCB Human Health, General Use, or Secondary Contact limits, two parameters were in total compliance at the downstream location. These parameters were:

- pH and fluoride.

The percent compliance rate of total dissolved solids was 91.7 percent. The remaining four parameters (ammonium nitrogen, sulfate, fecal coliform, and gross beta radioactivity) were not regulated by IPCB Secondary Contact limits.

Stickney Water Reclamation Plant. Both the upstream and downstream sampling locations (75 and 41, respectively) of the Stickney WRP are located in the Secondary Contact Waters of the Chicago River System. Seventy water quality parameters were considered 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:

- turbidity, nitrite plus nitrate nitrogen, sulfate, fluoride, fecal coliform, total boron, and soluble boron.

All parameters had significantly higher means downstream than upstream except (turbidity), which had higher means upstream than downstream.

Out of the seven parameters listed above, only fluoride has IPCB Secondary Contact Water quality limits and was in total compliance at both locations.

Calumet Water Reclamation Plant. Both the upstream and downstream sampling locations (56 and 76, respectively) of the Calumet WRP are located in the Secondary Contact Waters of the Calumet River System. Seventy water quality parameters were considered for comparison of mean concentrations between upstream and downstream locations. The following 16 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- total alkalinity, total Kjeldahl nitrogen, organic nitrogen, nitrite plus nitrate nitrogen, total phosphorus, fluoride, total organic carbon, fecal coliform, total calcium, hardness, gross alpha radioactivity, total barium, total boron, soluble calcium, soluble barium, and soluble boron.

All parameters had significantly higher means downstream than upstream except (total barium and soluble barium), which had higher means upstream than downstream.

Out of the 16 parameters listed above, two parameters have IPCB Secondary Contact Water quality limits. These parameters are:

- fluoride and total barium.

All of the parameters listed above were in total compliance at both locations.

John E. Egan Water Reclamation Plant. Both the upstream and downstream sampling locations (79 and 80, respectively) of the John E. Egan WRP are located in the General Use Waters of the Des Plaines River System. Seventy water quality parameters were considered for comparison of mean concentrations between upstream and downstream locations.

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

- total alkalinity, turbidity, nitrite plus nitrate nitrogen, total suspended solids, total phosphorus, total magnesium, total iron, total manganese, and soluble magnesium.

All parameters had significantly higher means upstream than downstream except (nitrite plus nitrate nitrogen and total phosphorus) which had higher means downstream than upstream.

Out of the nine parameter listed above, only total manganese has IPCB General Use or Human Health water quality limits and was in total compliance at both locations.

James C. Kirie Water Reclamation Plant. Both the upstream and downstream sampling locations (77 and 78, respectively) of the James C. Kirie WRP are located in the General Use Waters of the Des Plaines River System. Seventy water quality parameters were considered 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:

- total alkalinity, turbidity, nitrite plus nitrate nitrogen, total suspended solids, volatile suspended solids, sulfate, total phosphorus, fluoride, total calcium, total magnesium, hardness, gross beta radioactivity, chlorophyll *a*, total barium, total boron, total manganese, soluble calcium, soluble magnesium, soluble silver, soluble barium, soluble boron, and soluble manganese.

Eight parameters had significantly higher mean concentrations upstream than downstream. These parameters were:

- turbidity, total suspended solids, volatile suspended solids, chlorophyll *a*, total barium, total manganese, soluble barium, and soluble manganese.

The remaining 14 parameters had significantly higher mean concentrations downstream than upstream. These parameters were:

- total alkalinity, nitrite plus nitrate nitrogen, sulfate, total phosphorus, fluoride, total calcium, total magnesium, hardness, gross beta radioactivity, total boron, soluble calcium, soluble magnesium, soluble silver, and soluble boron.

Out of the 22 parameters listed above, six parameters have IPCB General Use or Human Health water quality limits. These parameters are:

- sulfate, fluoride, gross beta radioactivity, total barium, total boron, and total manganese.

All of the parameters listed above were in total compliance at both locations.

Hanover Park Water Reclamation Plant. Both the upstream and downstream sampling locations (110 and 89, respectively) of the Hanover Park WRP are located in the General Use Waters of the Des Plaines River System.

Seventy water quality parameters were considered for comparison of mean concentrations between upstream and downstream locations.

The following 19 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- total alkalinity, nitrite plus nitrate nitrogen, total solids, total phosphorus, fluoride, total organic carbon, total calcium, hardness, gross beta radioactivity, total barium, total boron, total iron, total manganese, soluble calcium, soluble magnesium, soluble barium, soluble boron, soluble manganese, and soluble zinc.

Twelve parameters had significantly higher mean concentrations upstream than downstream. These parameters were:

- total alkalinity, total solids, total organic carbon, total calcium, hardness, total barium, total iron, total manganese, soluble calcium, soluble magnesium, soluble barium, and soluble manganese.

The remaining seven parameters had significantly higher mean concentrations downstream than upstream. These parameters were:

- nitrite plus nitrate nitrogen, total phosphorus, fluoride, gross beta radioactivity, total boron, soluble boron, and soluble zinc.

Out of the 19 parameters listed above, six parameters have IPCB General Use or Human Health water quality limits. These parameters are:

- fluoride, gross beta radioactivity, total barium, total boron, total manganese, and soluble zinc.

All of the parameters listed above were in total compliance at both locations.

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. Illinois Pollution Control Board - Amendments to Title 35, Subtitle C (Toxic Control) R88-21, District A, January 25, 1990.
4. Illinois Pollution Control Board - Amendments to Water Quality and Effluent Standards Applicable to the Chicago River System and Calumet River System, R87-27, May 19, 1988.
5. Metropolitan Sanitary District of Greater Chicago Facilities Planning Study, Update Supplement and Summary, May 1986.
6. Metropolitan Sanitary District of Greater Chicago, Facilities Planning Study, Update Supplement and Summary, May 1984.
7. Metropolitan Water Reclamation District of Greater Chicago, Research and Development Department, Annual Reports 1983 - 1993.
8. Sedita, S. J., D. R. Zenz, C. Lue-Hing, and P. O'Brien, "Fecal Coliform Levels in the Man-Made Waterways of the Metropolitan Sanitary District of Greater Chicago, Before and After Cessation of Chlorination at the West-Southwest, Calumet and North Side Sewage Treatment Works," Report No. 87-22, Research and Development Department, Metropolitan Sanitary District of Greater Chicago, December 1987.
9. State of Illinois Rules and Regulations, Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board, December 1, 1982.
10. State of Illinois Rules and Regulations, Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board, February 1, 1986.
11. State of Illinois Rules and Regulations, Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board, January 14, 2002.
12. Walpole, R. E. and R. H. Myers, *Probability and Statistics for Engineers and Scientists*, Fourth Edition, Macmillan Publishing Company, New York, 1989.
13. Wichura, Michael J., *The Table Manual and the PiCTex Manual*, Personal TeX, Inc. \LaTeX , Version 6, 725 Greenwich Street, San Francisco, California.
14. Personal TeX, Inc. \LaTeX , Version 5, 725 Greenwich Street, San Francisco, California.
15. SAS Institute, *SAS Software*, Version 9.1, Cary, North Carolina.

APPENDIX AI

DIRECTORY OF WATER QUALITY PARAMETERS ASSAYED AND SAMPLING
LOCATIONS

TABLE AI-1: DIRECTORY OF WATER QUALITY PARAMETERS
ASSAYED IN 2011

Symbol	Parameter	Unit	MDL ²	Water Quality Standard ¹	
				General Use	Secondary Contact
DO	Dissolved Oxygen	mg/L	1	(3.5, 5.0) ³	(3.0, 4.0) ⁴
Temp	Temperature	°C	-	16 (32 Apr - Nov)	37.8
pH	pH		-	6.5 - 9.0	6.0 - 9.0
Alk	Total Alkalinity	mg/L	10	None	None
Cl	Chloride	mg/L	10	500	None
Turb	Turbidity	NTU	1	None	None
TKN	Total Kjeldahl Nitrogen	mg/L	0.5	None	None
NH ₄ -N	Ammonium Nitrogen	mg/L	0.1	15 ⁵	None
NH ₃ -N	Un-ionized Ammonia	mg/L	-	None	0.1
ORG-N	Organic Nitrogen	mg/L	-	None	None
NO ₂ + NO ₃	Nitrite Plus Nitrate Nitrogen	mg/L	0.04	None	None
TS	Total Solids	mg/L	-	None	None
TSS	Total Suspended Solids	mg/L	4	None	None
VSS	Volatile Suspended Solids	mg/L	-	None	None
TDS	Total Dissolved Solids	mg/L	60	1,000	1,500
Phenol	Phenols	µg/L	5	100	300
NPS	Total Nonylphenols	µg/L	5	None	None
BPA	Bisphenol A	µg/L	1	None	None
SO ₄	Sulfate	mg/L	2	500	None
FOG	Fats, Oils, and Greases	mg/L	5	None	15
TP	Total Phosphorus	mg/L	0.1	None	None
CN	Total Cyanide	mg/L	0.005	None	0.1
WAD-CN	Weak Acid Dissociable Cyanide	mg/L	0.001	0.022	None
F	Fluoride	mg/L	0.1	1.4	15
TOC	Total Organic Carbon	mg/L	1	None	None
FC	Fecal Coliform	cfu/100mL	10	400	None
EColi	Escherichia Coli	cfu/100mL	-	None	None
Ca	Total Calcium	mg/L	0.3	None	None

TABLE AI-1 (Continued): DIRECTORY OF WATER QUALITY PARAMETERS
ASSAYED IN 2011

Symbol	Parameter	Unit	MDL ²	Water Quality Standard ¹	
				General Use	Secondary Contact
Mg	Total Magnesium	mg/L	0.3	None	None
Hard	Hardness	mg/L	-	None	None
Alpha	Gross Alpha Radioactivity	pCi/L	-	None	None
Beta	Gross Beta Radioactivity	pCi/L	-	100	None
Chlrphl	Chlorophyll <i>a</i>	μg/L	-	None	None
Bzn	Benzene*	μg/L	2	310	None
Bzn	Benzene	μg/L	2	4,200	None
Ebnzn	Ethylbenzene	μg/L	2	150	None
Toln	Toluene	μg/L	2	2,000	None
Xyln	Xylene	μg/L	3	920	None
xylnmp	Meta and/or Para Xylenes	μg/L	3	None	None
xylno	Ortho Xylene	μg/L	3	None	None
Ag	Total Silver	mg/L	0.004	0.005	1.1
As	Total Arsenic	mg/L	0.05	None	1
Ba	Total Barium	mg/L	0.004	5	5
B	Total Boron	mg/L	0.06	1	None
Cd	Total Cadmium	mg/L	0.001	None	0.15
Cu	Total Copper	mg/L	0.02	None	1
Cr	Total Chromium	mg/L	0.01	None	None
Cr ⁺⁶	Total Hexavalent Chromium	μg/L	10	16	300
Fe	Total Iron	mg/L	0.2	None	2
Pb	Total Lead	mg/L	0.03	None	0.1
Ni	Total Nickel	mg/L	0.008	None	1
Mn	Total Manganese	mg/L	0.003	1	1
Hg	Total Mercury*	μg/L	0.2	0.012	None
Hg	Total Mercury	μg/L	0.2	None	0.5
Hg-	Low Level Mercury	ng/L	2.3	None	None
Zn	Total Zinc	mg/L	0.06	None	1

TABLE AI-1 (Continued): DIRECTORY OF WATER QUALITY PARAMETERS
ASSAYED IN 2011

Symbol	Parameter	Unit	MDL ²	Water Quality Standard ¹	
				General Use	Secondary Contact
Se	Total Selenium	mg/L	0.005	1	1
Sol. Ca	Soluble Calcium	mg/L	0.3	None	None
Sol. Mg	Soluble Magnesium	mg/L	0.3	None	None
Sol. Ag	Soluble Silver	mg/L	0.001	None	None
Sol. As	Soluble Arsenic	mg/L	0.02	0.36	None
Sol. Ba	Soluble Barium	mg/L	0.004	None	None
Sol. B	Soluble Boron	mg/L	0.07	None	None
Sol. Cd	Soluble Cadmium	mg/L	0.001	0.033 ⁶	None
Sol. Cu	Soluble Copper	mg/L	0.005	0.052 ⁷	None
Sol. Cr	Soluble Chromium	mg/L	0.003	1.443 ⁸	None
Sol. Fe	Soluble Iron	mg/L	0.2	1	0.5
Sol. Pb	Soluble Lead	mg/L	0.03	0.266 ⁹	None
Sol. Ni	Soluble Nickel	mg/L	0.008	0.224 ¹⁰	None
Sol. Mn	Soluble Manganese	mg/L	0.003	None	None
Sol. Zn	Soluble Zinc	mg/L	0.02	0.325 ¹¹	None
Sol. Se	Soluble Selenium	mg/L	0.03	None	None

¹As per Illinois Pollution Control Board, except as modified (see text).

²MDL=Minimum detection limit. Average MDL value is used where referenced in this report.

³Standard is 5.0 mg/L in March through July and 3.5 mg/L in other months.

⁴Standard is 3.0 mg/L for locations (43,58, and 59) and 4.0 mg/L for other Secondary Contact locations .

⁵Based on $\text{Min} \left(\frac{0.411}{1+10^{7.204+\text{pH}}} + \frac{58.4}{1+10^{\text{pH}-7.204}}, 15 \right)$.

⁶Based on $\text{Min} \left(e^{-2.98+1.128 \times \ln(\text{Hard})} * (1.138672 - 0.041838 \times \ln(\text{Hard}))/1000, 0.005 \right)$.

⁷Based on $0.00090 e^{-1.464+0.9422 \times \ln(\text{Hard})}$.

⁸Based on $0.000316 e^{3.688+0.819 \times \ln(\text{Hard})}$.

⁹Based on $e^{-1.301+1.1.273 \times \ln(\text{Hard})} * (1.46203 - 0.145712 \times \ln(\text{Hard})) / 1000$.

¹⁰Based on $0.000998 e^{0.5173+0.846 \times \ln(\text{Hard})}$.

¹¹Based on $0.000978 e^{0.9035+0.8473 \times \ln(\text{Hard})}$.

- No minimum detection limit reported.

*As Human Health Standard.

TABLE AI-2: DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

Sampling Station (No. Name)	Sample Type	Water Use	River System
1 Wilmette Harbor*	Auto	GEN	Chicago
2 Outer Drive Bridge*	Auto	GEN	Chicago
3 South District Water Filtration Plant*	Auto	GEN	Chicago
4 O'Brien Locks*	Auto	SEC	Chicago
5 Ohio Street*	Auto	SEC	Chicago
6 Willow Springs Road*	Auto	SEC	Chicago
7 Highway 83 and Archer*	Auto	SEC	Chicago
9 North Side WRP, Outfall*	Auto	EFF	Chicago
10 Southwest WRP, Outfall*	Auto	EFF	Chicago
11 Calumet WRP, Outfall*	Auto	EFF	Calumet
12 Lake-Cook Road, Buffalo Creek	Grab	GEN	Des Plaines
13 Lake-Cook Road, Des Plaines River	Grab	GEN	Des Plaines
14 Hintz Road, Wheeling Drain Ditch*	Grab	GEN	Des Plaines
15 Palatine Road, Des Plaines River*	Grab	GEN	Des Plaines
16 Central Road, Des Plaines River*	Grab	GEN	Des Plaines
17 Oakton Street, Des Plaines River	Grab	GEN	Des Plaines
18 Devon Avenue, Salt Creek	Grab	GEN	Des Plaines
19 Belmont Avenue, Des Plaines River	Grab	GEN	Des Plaines
20 Roosevelt Road, Des Plaines River	Grab	GEN	Des Plaines
21 First Avenue, Salt Creek*	Grab	GEN	Des Plaines
22 Ogden Avenue, Des Plaines River	Grab	GEN	Des Plaines
23 Willow Springs Road, Des Plaines River	Grab	GEN	Des Plaines
24 Wolf Road, Salt Creek	Grab	GEN	Des Plaines
25 Grand Avenue, Des Plaines River*	Grab	GEN	Des Plaines
26 Lawrence Avenue, Des Plaines River*	Grab	GEN	Des Plaines
27 York Road, Salt Creek*	Grab	GEN	Des Plaines
28 Highway 83 and Des Plaines River*	Grab	GEN	Des Plaines
29 Stephen Street, Des Plaines River	Grab	GEN	Des Plaines

TABLE AI-2 (Continued): DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

Sampling Station (No. Name)	Sample Type	Water Use	River System
30 Lake-Cook Road, West Fork North Branch*	Grab	GEN	Chicago
31 Lake-Cook Road, Middle Fork North Branch	Grab	GEN	Chicago
32 Lake-Cook Road, Skokie River	Grab	GEN	Chicago
33 East Lake Avenue, Middle Fork North Branch Chicago River*	Grab	GEN	Chicago
34 Dempster Street, North Branch Chicago River	Grab	GEN	Chicago
35 Central Street, North Shore Channel	Grab	GEN	Chicago
36 Touhy Avenue, North Shore Channel	Grab	SEC	Chicago
37 Wilson Avenue, North Branch Chicago River	Grab	SEC	Chicago
38 Ohio Street, North Branch Chicago River*	Grab	SEC	Chicago
39 Madison Street, South Branch Chicago River	Grab	SEC	Chicago
40 Damen Avenue, Chicago Sanitary & Ship Canal	Grab	SEC	Chicago
41 Harlem Avenue, Chicago Sanitary & Ship Canal	Grab	SEC	Chicago
42 Route 83, Chicago Sanitary & Ship Canal	Grab	SEC	Chicago
43 Route 83, Calumet-Sag Channel	Grab	SEC	Calumet
44 Howard Street, North Shore Channel*	Grab	SEC	Chicago
45 Lawrence Avenue, North Branch Chicago River*	Grab	SEC	Chicago
46 Grand Avenue, North Branch Chicago River	Grab	SEC	Chicago
47 Randolph Street, South Branch Chicago River*	Grab	SEC	Chicago
48 Stephen Street, Chicago Sanitary & Ship Canal	Grab	SEC	Chicago
49 Ewing Avenue, Calumet River	Grab	GEN	Calumet
50 Burnham Avenue, Wolf Lake	Grab	GEN	Calumet
51 IHB Railroad Bridge, Grand Calumet River*	Grab	SEC	Calumet
52 Wentworth Avenue, Little Calumet River	Grab	GEN	Calumet
53 Wentworth Avenue, North Creek*	Grab	GEN	Calumet
54 Joe Orr Road, Thorn Creek	Grab	GEN	Calumet
55 130th Street, Calumet River	Grab	GEN	Calumet
56 Indiana Avenue, Little Calumet River	Grab	SEC	Calumet
57 Ashland Avenue, Little Calumet River	Grab	GEN	Calumet

TABLE AI-2 (Continued): DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

Sampling Station (No. Name)	Sample Type	Water Use	River System
58 Ashland Avenue, Calumet-Sag Channel	Grab	SEC	Calumet
59 Cicero Avenue, Calumet-Sag Channel	Grab	SEC	Calumet
60 Crawford Avenue, Calumet-Sag Channel*	Grab	SEC	Calumet
61 Ashland Avenue, South Branch Chicago River*	Grab	SEC	Chicago
62 Stephen Street, Chicago Sanitary & Ship Canal*	Grab	SEC	Chicago
63 Longmeadow Lane, West Branch DuPage River*	Grab	GEN	Des Plaines
64 Lake Street, West Branch DuPage River*	Grab	GEN	Des Plaines
65 Oltendorf Road, Poplar Creek*	Grab	GEN	Des Plaines
66 Bartlett Road, Poplar Creek*	Grab	GEN	Des Plaines
67 171st Street, Union Drainage Ditch*	Grab	GEN	Calumet
68 Park Street, Union Drainage Ditch*	Grab	GEN	Calumet
69 Lincoln Highway, Deer Creek*	Grab	GEN	Calumet
70 Joe Orr Road, Deer Creek*	Grab	GEN	Calumet
71 Route 83, Chicago Sanitary & Ship Canal*	Grab	SEC	Chicago
72 Stephen Street, Chicago Sanitary & Ship Canal*	Grab	SEC	Chicago
73 Diversey Parkway, North Branch Chicago River	Grab	SEC	Chicago
74 Lake Shore Drive, Chicago River	Grab	GEN	Chicago
75 Cicero Avenue, Chicago Sanitary & Ship Canal	Grab	SEC	Chicago
76 Halsted Street, Little Calumet River	Grab	SEC	Calumet
77 Elmhurst Road, Higgins Creek	Grab	GEN	Des Plaines
78 Wille Road, Higgins Creek	Grab	GEN	Des Plaines
79 Higgins Road, Salt Creek	Grab	GEN	Des Plaines
80 Arlington Heights Road, Salt Creek	Grab	GEN	Des Plaines
81 Lockport Forebay*	Auto	SEC	Chicago
82 Lockport Trebler, Chicago Sanitary & Ship Canal*	Auto	SEC	Chicago
83 Lockport Solenoid*	Auto	SEC	Chicago
84 Lockport 16th Street Bridge*	Grab	SEC	Chicago
85 Dempster Street, North Shore Channel*	Grab	SEC	Chicago

TABLE AI-2 (Continued): DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

Sampling Station (No. Name)	Sample Type	Water Use	River System
86 Burnham Avenue, Grand Calumet River	Grab	SEC	Calumet
89 Walnut Lane, West Branch DuPage River	Grab	GEN	Des Plaines
90 Route 19, Poplar Creek	Grab	GEN	Des Plaines
91 Material Service Road, Des Plaines River	Grab	GEN	Des Plaines
92 Lockport Forebay, Chicago Sanitary & Ship Canal	Auto	SEC	Chicago
93 Jefferson Street, Joliet, Des Plaines River ²	Grab	SEC	Des Plaines
94 Empress Casino, Des Plaines River ²	Grab	SEC	Des Plaines
95 I-55, Des Plaines River ²	Grab	SEC	Des Plaines
96 Albany Avenue, North Branch Chicago River	Grab	GEN	Chicago
97 170th Street, Thorn Creek	Grab	GEN	Calumet
98 Halsted Street, South Branch Chicago River*	Grab	SEC	Chicago
99 Archer Avenue, South Fork South Branch Chicago River	Grab	SEC	Chicago
100 Wells Street, Chicago River	Grab	GEN	Chicago
101 Foster Avenue, North Shore Channel	Grab	SEC	Chicago
102 Oakton Street, North Shore Channel	Grab	GEN	Chicago
103 Golf Road, West Fork North Branch Chicago River	Grab	GEN	Chicago
104 Glenview Road, North Branch Chicago River	Grab	GEN	Chicago
105 Frontage Road, Skokie River	Grab	GEN	Chicago
106 Dundee Road, West Fork North Branch Chicago River	Grab	GEN	Chicago
107 Western Avenue, Chicago Sanitary & Ship Canal*	Grab	SEC	Chicago
108 Loomis Street, South Branch Chicago River	Grab	SEC	Chicago
109 Brookfield Avenue, Salt Creek	Grab	GEN	Des Plaines
110 Springinsguth Road, West Branch DuPage River	Grab	GEN	Des Plaines
111 Arlington Drive, West Branch Du Page River	Grab	GEN	Des Plaines

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

²Kept for Special Studies Separately

*Excluded in 2011 Sampling

APPENDIX AII

WATER QUALITY RESULTS: ANNUAL MEAN,
STANDARD COMPLIANCE VIOLATION HISTORY, AND MEAN HISTORY

TABLE AII-1: WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	DO mg/L	Temp °C	pH	Alk mg/L	Cl mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	7.83	12.7	7.14	178	555
103 Golf Road, West Fork North Branch Chicago River	7.75	14.8	7.59	192	402
31 Lake-Cook Road, Middle Fork North Branch	7.13	14.2	7.54	191	266
104 Glenview Road, North Branch Chicago River	7.68	13.4	7.73	169	231
32 Lake-Cook Road, Skokie River	7.29	15.2	7.69	204	215
105 Frontage Road, Skokie River	7.40	13.8	7.66	166	207
34 Dempster Street, North Branch Chicago River	7.28	13.7	7.72	179	247
96 Albany Avenue, North Branch Chicago River	8.68	14.1	7.67	187	273
35 Central Street, North Shore Channel	7.91	17.2	7.73	121	63
102 Oakton Street, North Shore Channel	7.39	15.0	7.49	133	150
36 Touhy Avenue, North Shore Channel	7.29	15.1	7.21	149	221
101 Foster Avenue, North Shore Channel	6.99	15.3	7.14	146	214
37 Wilson Avenue, North Branch Chicago River	7.23	14.7	7.38	152	223
73 Diversey Parkway, North Branch Chicago River	6.63	15.3	7.26	153	182
46 Grand Avenue, North Branch Chicago River	6.28	14.8	7.42	155	182
74 Lake Shore Drive, Chicago River	8.17	13.9	7.10	123	150
100 Wells Street, Chicago River	7.36	14.2	7.13	136	155
39 Madison Street, South Branch Chicago River	7.23	10.7	7.10	149	247
108 Loomis Street, South Branch Chicago River	6.77	15.4	7.40	144	182
99 Archer Avenue, South Fork South Branch Chicago River	5.11	14.9	7.28	152	177
40 Damen Avenue, Chicago Sanitary & Ship Canal	6.18	15.1	7.40	146	179
75 Cicero Avenue, Chicago Sanitary & Ship Canal	5.89	18.4	7.13	147	180
41 Harlem Avenue, Chicago Sanitary & Ship Canal	6.38	16.6	7.15	144	187
42 Route 83, Chicago Sanitary & Ship Canal	5.87	17.2	6.81	151	202
48 Stephen Street, Chicago Sanitary & Ship Canal	5.89	15.8	7.01	156	194
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.54	17.0	7.27	150	200
Calumet River System					
49 Ewing Avenue, Calumet River	9.43	12.1	7.08	110	52
50 Burnham Avenue, Wolf Lake	8.67	13.7	7.65	99	90
55 130th Street, Calumet River	8.86	14.2	7.77	112	107
86 Burnham Avenue, Grand Calumet River	4.57	14.2	7.34	232	59
56 Indiana Avenue, Little Calumet River	7.71	15.4	7.22	131	120
76 Halsted Street, Little Calumet River	6.78	14.6	7.09	159	175
52 Wentworth Avenue, Little Calumet River	7.21	14.4	7.42	171	101
54 Joe Orr Road, Thorn Creek	8.08	15.0	7.05	163	144
97 170th Street, Thorn Creek	7.43	14.5	7.45	167	147
57 Ashland Avenue, Little Calumet River	7.27	14.5	7.58	166	161
58 Ashland Avenue, Calumet-Sag Channel	7.19	14.4	7.28	159	173
59 Cicero Avenue, Calumet-Sag Channel	6.66	15.0	7.32	163	190
43 Route 83, Calumet-Sag Channel	6.98	15.6	7.41	155	169
Des Plaines River System					
90 Route 19, Poplar Creek	8.45	14.0	7.95	218	251
110 Springinguth Road, West Branch DuPage River	5.94	15.9	7.61	238	271
89 Walnut Lane, West Branch DuPage River	7.78	15.6	7.54	175	204
111 Arlington Drive, West Branch Du Page River	8.08	15.9	7.73	162	216
79 Higgins Road, Salt Creek	7.09	16.0	7.42	180	319
80 Arlington Heights Road, Salt Creek	7.94	15.3	7.54	144	298
18 Devon Avenue, Salt Creek	8.06	14.9	7.62	146	293
24 Wolf Road, Salt Creek	8.64	14.5	7.28	157	279
109 Brookfield Avenue, Salt Creek	8.07	14.7	7.68	159	279
77 Elmhurst Road, Higgins Creek	8.94	14.6	7.51	142	285
78 Wille Road, Higgins Creek	8.65	16.3	7.65	195	235
12 Lake-Cook Road, Buffalo Creek	9.44	12.9	7.56	200	258
13 Lake-Cook Road, Des Plaines River	8.35	14.0	7.73	189	175
17 Oakton Street, Des Plaines River	8.83	14.5	7.85	188	196
19 Belmont Avenue, Des Plaines River	8.44	14.3	7.88	186	207
20 Roosevelt Road, Des Plaines River	8.26	15.1	7.86	184	214
22 Ogden Avenue, Des Plaines River	9.19	14.5	7.88	176	227
23 Willow Springs Road, Des Plaines River	9.05	14.5	7.93	175	231
29 Stephen Street, Des Plaines River	9.18	15.1	7.78	173	225
91 Material Service Road, Des Plaines River	9.05	15.2	7.89	173	226

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Turb NTU	TKN mg/L	NH ₄ -N mg/L	NH ₃ -N ¹ mg/L	ORG-N mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	25.4	2.06	1.028	0.005	1.03
103 Golf Road, West Fork North Branch Chicago River	14.2	1.26	0.264	0.003	1.00
31 Lake-Cook Road, Middle Fork North Branch	9.9	0.87	0.120	0.002	0.75
104 Glenview Road, North Branch Chicago River	14.8	1.38	0.298	0.004	1.08
32 Lake-Cook Road, Skokie River	12.9	1.21	0.393	0.007	0.81
105 Frontage Road, Skokie River	11.9	0.94	0.179	0.003	0.76
34 Dempster Street, North Branch Chicago River	12.5	1.05	0.167	0.003	0.88
96 Albany Avenue, North Branch Chicago River	10.6	0.97	0.169	0.002	0.80
35 Central Street, North Shore Channel	6.3	0.56	0.120	0.003	0.45
102 Oakton Street, North Shore Channel	10.0	1.32	0.638	0.005	0.68
36 Touhy Avenue, North Shore Channel	4.2	2.35	1.313	0.006	1.04
101 Foster Avenue, North Shore Channel	5.5	2.42	1.522	0.006	0.90
37 Wilson Avenue, North Branch Chicago River	6.7	2.10	1.231	0.008	0.87
73 Diversey Parkway, North Branch Chicago River	8.8	2.20	1.086	0.005	1.12
46 Grand Avenue, North Branch Chicago River	8.4	2.03	1.088	0.008	0.94
74 Lake Shore Drive, Chicago River	2.0	0.84	0.370	0.001	0.47
100 Wells Street, Chicago River	6.3	1.31	0.651	0.003	0.66
39 Madison Street, South Branch Chicago River	9.3	2.24	1.208	0.006	1.03
108 Loomis Street, South Branch Chicago River	10.2	1.46	0.696	0.005	0.76
99 Archer Avenue, South Fork South Branch Chicago River	9.9	2.19	1.018	0.006	1.17
40 Damen Avenue, Chicago Sanitary & Ship Canal	10.2	1.61	0.748	0.007	0.86
75 Cicero Avenue, Chicago Sanitary & Ship Canal	12.6	1.63	0.767	0.005	0.87
41 Harlem Avenue, Chicago Sanitary & Ship Canal	7.8	1.74	0.763	0.004	0.98
42 Route 83, Chicago Sanitary & Ship Canal	5.6	1.91	0.888	0.003	1.02
48 Stephen Street, Chicago Sanitary & Ship Canal	9.6	1.65	0.693	0.003	0.95
92 Lockport Forebay, Chicago Sanitary & Ship Canal	8.9	1.61	0.716	0.006	0.90
Calumet River System					
49 Ewing Avenue, Calumet River	7.7	0.48	0.125	0.001	0.36
50 Burnham Avenue, Wolf Lake	3.5	0.62	0.110	0.003	0.51
55 130th Street, Calumet River	5.4	0.60	0.213	0.004	0.40
86 Burnham Avenue, Grand Calumet River	9.1	3.11	2.076	0.022	1.04
56 Indiana Avenue, Little Calumet River	10.2	0.74	0.275	0.001	0.47
76 Halsted Street, Little Calumet River	8.9	1.35	0.465	0.002	0.89
52 Wentworth Avenue, Little Calumet River	71.6	1.16	0.259	0.003	0.90
54 Joe Orr Road, Thorn Creek	36.9	1.45	0.466	0.003	0.98
97 170th Street, Thorn Creek	64.3	0.97	0.180	0.002	0.79
57 Ashland Avenue, Little Calumet River	47.5	1.01	0.215	0.003	0.80
58 Ashland Avenue, Calumet-Sag Channel	26.2	1.18	0.383	0.003	0.80
59 Cicero Avenue, Calumet-Sag Channel	18.5	1.26	0.480	0.003	0.78
43 Route 83, Calumet-Sag Channel	17.9	1.28	0.499	0.005	0.78
Des Plaines River System					
90 Route 19, Poplar Creek	9.2	0.81	0.186	0.005	0.63
110 Springinguth Road, West Branch DuPage River	13.4	1.64	0.262	0.004	1.37
89 Walnut Lane, West Branch DuPage River	6.1	1.60	0.190	0.002	1.41
111 Arlington Drive, West Branch DuPage River	13.7	1.58	0.248	0.004	1.33
79 Higgins Road, Salt Creek	18.2	1.20	0.111	0.002	1.08
80 Arlington Heights Road, Salt Creek	7.7	1.21	0.117	0.002	1.10
18 Devon Avenue, Salt Creek	6.8	1.17	0.147	0.002	1.02
24 Wolf Road, Salt Creek	11.1	1.01	0.154	0.001	0.86
109 Brookfield Avenue, Salt Creek	10.8	0.89	0.149	0.002	0.74
77 Elmhurst Road, Higgins Creek	21.4	0.95	0.224	0.003	0.73
78 Wille Road, Higgins Creek	1.9	1.15	0.256	0.005	0.89
12 Lake-Cook Road, Buffalo Creek	14.8	0.98	0.159	0.002	0.82
13 Lake-Cook Road, Des Plaines River	10.2	1.00	0.166	0.003	0.83
17 Oakton Street, Des Plaines River	12.1	1.11	0.141	0.004	0.97
19 Belmont Avenue, Des Plaines River	10.6	1.10	0.137	0.005	0.96
20 Roosevelt Road, Des Plaines River	11.6	1.08	0.169	0.013	0.91
22 Ogden Avenue, Des Plaines River	11.7	0.95	0.141	0.003	0.81
23 Willow Springs Road, Des Plaines River	12.8	0.93	0.149	0.004	0.78
29 Stephen Street, Des Plaines River	12.4	1.00	0.138	0.002	0.86
91 Material Service Road, Des Plaines River	12.8	0.96	0.142	0.003	0.82

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	NO ₂ + NO ₃ mg/L	TS mg/L	TSS mg/L	VSS mg/L	TDS mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	8.14	1,292	33.9	6.70	1,258
103 Golf Road, West Fork North Branch Chicago River	3.82	1,057	18.1	4.09	1,039
31 Lake-Cook Road, Middle Fork North Branch	0.22	759	11.4	2.78	747
104 Glenview Road, North Branch Chicago River	4.94	711	30.8	7.67	680
32 Lake-Cook Road, Skokie River	0.96	708	18.3	5.00	690
105 Frontage Road, Skokie River	6.98	670	18.9	3.92	651
34 Dempster Street, North Branch Chicago River	4.39	734	16.2	3.36	718
96 Albany Avenue, North Branch Chicago River	4.20	785	18.3	4.00	766
35 Central Street, North Shore Channel	0.30	315	9.6	2.50	305
102 Oakton Street, North Shore Channel	3.75	497	13.8	3.67	483
36 Touhy Avenue, North Shore Channel	6.25	645	9.2	4.67	636
101 Foster Avenue, North Shore Channel	6.67	627	8.8	3.17	618
37 Wilson Avenue, North Branch Chicago River	5.66	658	13.3	3.33	645
73 Diversey Parkway, North Branch Chicago River	5.98	589	12.6	3.42	576
46 Grand Avenue, North Branch Chicago River	6.42	596	12.9	3.17	583
74 Lake Shore Drive, Chicago River	2.66	463	3.6	0.92	459
100 Wells Street, Chicago River	4.38	508	7.2	1.83	501
39 Madison Street, South Branch Chicago River	5.76	696	10.7	3.33	685
108 Loomis Street, South Branch Chicago River	5.31	579	13.1	3.08	566
99 Archer Avenue, South Fork South Branch Chicago River	4.16	578	15.3	6.83	563
40 Damen Avenue, Chicago Sanitary & Ship Canal	5.18	560	12.8	3.42	548
75 Cicero Avenue, Chicago Sanitary & Ship Canal	4.51	577	23.3	6.58	554
41 Harlem Avenue, Chicago Sanitary & Ship Canal	6.29	627	12.1	3.58	615
42 Route 83, Chicago Sanitary & Ship Canal	6.23	656	8.4	2.92	648
48 Stephen Street, Chicago Sanitary & Ship Canal	5.33	664	13.4	3.25	651
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.78	665	11.2	2.80	650
Calumet River System					
49 Ewing Avenue, Calumet River	0.38	280	9.2	1.50	270
50 Burnham Avenue, Wolf Lake	0.10	348	5.8	2.27	342
55 130th Street, Calumet River	0.50	406	6.0	0.80	400
86 Burnham Avenue, Grand Calumet River	0.38	532	16.5	7.30	516
56 Indiana Avenue, Little Calumet River	1.85	465	11.9	1.90	453
76 Halsted Street, Little Calumet River	5.53	626	15.1	4.27	611
52 Wentworth Avenue, Little Calumet River	2.64	594	89.0	12.20	505
54 Joe Orr Road, Thorn Creek	7.31	1,089	34.7	5.20	1,055
97 170th Street, Thorn Creek	4.35	980	81.1	11.20	899
57 Ashland Avenue, Little Calumet River	2.80	788	65.2	9.60	723
58 Ashland Avenue, Calumet-Sag Channel	4.67	680	34.5	5.82	645
59 Cicero Avenue, Calumet-Sag Channel	4.67	705	26.2	4.64	679
43 Route 83, Calumet-Sag Channel	4.18	643	20.5	3.91	623
Des Plaines River System					
90 Route 19, Poplar Creek	0.34	738	12.5	3.18	726
110 Springinsguth Road, West Branch DuPage River	2.23	872	17.5	4.70	854
89 Walnut Lane, West Branch DuPage River	10.25	685	10.8	5.17	674
111 Arlington Drive, West Branch Du Page River	10.43	719	24.8	5.92	694
79 Higgins Road, Salt Creek	1.77	860	21.9	6.10	838
80 Arlington Heights Road, Salt Creek	5.97	787	9.5	3.64	777
18 Devon Avenue, Salt Creek	7.18	800	9.7	3.45	790
24 Wolf Road, Salt Creek	6.26	817	17.5	3.45	799
109 Brookfield Avenue, Salt Creek	5.48	805	16.3	3.73	789
77 Elmhurst Road, Higgins Creek	0.32	737	25.2	4.80	712
78 Wille Road, Higgins Creek	8.86	801	4.2	1.45	797
12 Lake-Cook Road, Buffalo Creek	0.39	784	19.7	4.78	764
13 Lake-Cook Road, Des Plaines River	4.83	641	16.2	3.82	624
17 Oakton Street, Des Plaines River	4.17	682	17.4	4.91	665
19 Belmont Avenue, Des Plaines River	4.28	688	15.8	3.82	672
20 Roosevelt Road, Des Plaines River	4.09	703	15.9	4.45	687
22 Ogden Avenue, Des Plaines River	4.36	724	17.5	4.27	707
23 Willow Springs Road, Des Plaines River	4.23	730	18.5	4.45	712
29 Stephen Street, Des Plaines River	4.07	714	18.5	4.73	696
91 Material Service Road, Des Plaines River	3.83	709	20.8	5.18	688

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Phenol μg/L	NPS μg/L	BPA μg/L	SO ₄ mg/L	FOG mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	5.0	ND	ND	56.8	ND
103 Golf Road, West Fork North Branch Chicago River	5.0	ND	ND	62.0	ND
31 Lake-Cook Road, Middle Fork North Branch	5.0	ND	ND	48.6	ND
104 Glenview Road, North Branch Chicago River	5.4	ND	ND	52.8	ND
32 Lake-Cook Road, Skokie River	5.1	ND	ND	52.6	ND
105 Frontage Road, Skokie River	5.0	ND	ND	54.3	ND
34 Dempster Street, North Branch Chicago River	5.0	ND	ND	56.0	ND
96 Albany Avenue, North Branch Chicago River	5.0	ND	ND	56.4	ND
35 Central Street, North Shore Channel	5.0	ND	ND	30.0	ND
102 Oakton Street, North Shore Channel	5.0	0.00	0.00	40.3	5.00
36 Touhy Avenue, North Shore Channel	5.0	0.00	0.00	45.5	5.00
101 Foster Avenue, North Shore Channel	5.0	ND	ND	45.4	5.00
37 Wilson Avenue, North Branch Chicago River	5.0	ND	ND	46.5	5.00
73 Diversey Parkway, North Branch Chicago River	5.0	ND	ND	46.9	5.00
46 Grand Avenue, North Branch Chicago River	5.0	0.00	0.00	47.5	5.00
74 Lake Shore Drive, Chicago River	5.1	ND	ND	33.5	ND
100 Wells Street, Chicago River	5.0	ND	ND	40.7	ND
39 Madison Street, South Branch Chicago River	5.0	ND	ND	48.1	5.00
108 Loomis Street, South Branch Chicago River	5.0	ND	ND	44.4	5.00
99 Archer Avenue, South Fork South Branch Chicago River	5.6	ND	ND	44.8	5.19
40 Damen Avenue, Chicago Sanitary & Ship Canal	5.0	ND	ND	45.1	5.00
75 Cicero Avenue, Chicago Sanitary & Ship Canal	5.1	0.00	0.00	45.7	5.00
41 Harlem Avenue, Chicago Sanitary & Ship Canal	5.0	0.00	0.00	62.5	5.00
42 Route 83, Chicago Sanitary & Ship Canal	5.0	ND	ND	69.6	5.00
48 Stephen Street, Chicago Sanitary & Ship Canal	5.3	0.00	0.17	75.8	6.00
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.0	0.00	0.00	80.9	5.00
Calumet River System					
49 Ewing Avenue, Calumet River	5.0	ND	ND	25.5	ND
50 Burnham Avenue, Wolf Lake	5.0	ND	ND	46.1	ND
55 130th Street, Calumet River	5.0	ND	ND	53.1	ND
86 Burnham Avenue, Grand Calumet River	5.5	ND	ND	93.0	5.00
56 Indiana Avenue, Little Calumet River	5.0	0.00	0.12	60.3	5.00
76 Halsted Street, Little Calumet River	5.0	0.00	0.12	82.7	5.00
52 Wentworth Avenue, Little Calumet River	5.0	ND	ND	77.7	ND
54 Joe Orr Road, Thorn Creek	5.0	ND	ND	450.9	ND
97 170th Street, Thorn Creek	5.0	ND	ND	267.2	ND
57 Ashland Avenue, Little Calumet River	5.0	ND	ND	171.3	ND
58 Ashland Avenue, Calumet-Sag Channel	5.0	ND	ND	104.2	5.00
59 Cicero Avenue, Calumet-Sag Channel	5.0	0.00	0.00	103.0	5.00
43 Route 83, Calumet-Sag Channel	5.0	ND	ND	94.4	5.00
Des Plaines River System					
90 Route 19, Poplar Creek	5.0	ND	ND	44.3	ND
110 Springinsguth Road, West Branch DuPage River	5.0	ND	ND	74.3	ND
89 Walnut Lane, West Branch DuPage River	5.0	0.00	0.00	60.9	ND
111 Arlington Drive, West Branch Du Page River	5.0	0.00	0.00	60.7	ND
79 Higgins Road, Salt Creek	5.0	0.00	0.00	65.2	ND
80 Arlington Heights Road, Salt Creek	5.0	0.00	0.00	61.9	ND
18 Devon Avenue, Salt Creek	5.0	ND	ND	65.9	ND
24 Wolf Road, Salt Creek	5.0	0.00	0.00	73.5	ND
109 Brookfield Avenue, Salt Creek	5.0	ND	ND	71.8	ND
77 Elmhurst Road, Higgins Creek	5.0	0.00	0.00	38.7	ND
78 Wille Road, Higgins Creek	5.0	0.00	0.00	85.7	ND
12 Lake-Cook Road, Buffalo Creek	5.0	ND	ND	73.4	ND
13 Lake-Cook Road, Des Plaines River	5.0	ND	ND	57.7	ND
17 Oakton Street, Des Plaines River	5.0	ND	ND	59.0	ND
19 Belmont Avenue, Des Plaines River	5.0	ND	ND	61.3	ND
20 Roosevelt Road, Des Plaines River	5.0	ND	ND	60.9	ND
22 Ogden Avenue, Des Plaines River	5.0	0.00	0.00	63.0	ND
23 Willow Springs Road, Des Plaines River	5.0	ND	ND	64.2	ND
29 Stephen Street, Des Plaines River	5.0	ND	ND	63.6	ND
91 Material Service Road, Des Plaines River	5.0	ND	ND	62.7	ND

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	TP mg/L	CN mg/L	WAD-CN mg/L	F mg/L	TOC mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	1.232	0.006	0.001	0.499	5.24
103 Golf Road, West Fork North Branch Chicago River	0.515	0.006	0.001	0.388	4.79
31 Lake-Cook Road, Middle Fork North Branch	0.139	0.005	0.001	0.229	6.64
104 Glenview Road, North Branch Chicago River	0.712	0.006	0.002	0.410	7.39
32 Lake-Cook Road, Skokie River	0.248	0.005	0.001	0.314	7.34
105 Frontage Road, Skokie River	0.936	0.005	0.001	0.511	4.69
34 Dempster Street, North Branch Chicago River	0.616	0.005	0.001	0.405	5.32
96 Albany Avenue, North Branch Chicago River	0.494	0.005	0.001	0.381	5.60
35 Central Street, North Shore Channel	0.135	0.005	0.001	0.144	3.24
102 Oakton Street, North Shore Channel	0.618	0.005	0.001	0.420	4.27
36 Touhy Avenue, North Shore Channel	1.251	0.005	0.001	0.673	5.18
101 Foster Avenue, North Shore Channel	1.118	0.005	0.001	0.636	5.21
37 Wilson Avenue, North Branch Chicago River	0.974	0.005	0.001	0.549	4.27
73 Diversey Parkway, North Branch Chicago River	0.954	0.005	0.001	0.593	4.57
46 Grand Avenue, North Branch Chicago River	0.847	0.005	0.001	0.573	4.95
74 Lake Shore Drive, Chicago River	0.335	0.005	0.001	0.298	2.78
100 Wells Street, Chicago River	0.568	0.005	0.001	0.426	4.01
39 Madison Street, South Branch Chicago River	0.825	0.005	0.001	0.552	4.97
108 Loomis Street, South Branch Chicago River	0.728	0.005	0.001	0.508	4.21
99 Archer Avenue, South Fork South Branch Chicago River	0.671	0.005	0.001	0.503	4.88
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.697	0.005	0.001	0.499	4.08
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.598	0.005	0.001	0.469	4.28
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.479	0.005	0.001	0.591	5.09
42 Route 83, Chicago Sanitary & Ship Canal	0.546	0.005	0.001	0.643	5.22
48 Stephen Street, Chicago Sanitary & Ship Canal	0.833	0.005	0.001	0.582	5.06
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.925	0.005	0.001	0.566	5.17
Calumet River System					
49 Ewing Avenue, Calumet River	0.070	0.005	0.001	0.143	2.28
50 Burnham Avenue, Wolf Lake	0.083	0.006	0.001	0.365	5.31
55 130th Street, Calumet River	0.072	0.005	0.001	0.239	2.91
86 Burnham Avenue, Grand Calumet River	0.750	0.005	0.001	0.594	8.58
56 Indiana Avenue, Little Calumet River	0.364	0.005	0.001	0.314	3.84
76 Halsted Street, Little Calumet River	1.660	0.005	0.001	0.539	4.95
52 Wentworth Avenue, Little Calumet River	0.391	0.005	0.001	1.157	6.87
54 Joe Orr Road, Thorn Creek	1.186	0.005	0.001	0.467	6.24
97 170th Street, Thorn Creek	0.757	0.005	0.001	0.397	5.57
57 Ashland Avenue, Little Calumet River	0.494	0.006	0.001	0.572	5.98
58 Ashland Avenue, Calumet-Sag Channel	1.395	0.005	0.001	0.524	4.99
59 Cicero Avenue, Calumet-Sag Channel	1.582	0.005	0.001	0.541	5.06
43 Route 83, Calumet-Sag Channel	1.426	0.005	0.001	0.484	4.85
Des Plaines River System					
90 Route 19, Poplar Creek	0.093	0.005	0.001	0.179	5.82
110 Springinsguth Road, West Branch DuPage River	0.392	0.006	0.001	0.329	10.88
89 Walnut Lane, West Branch DuPage River	1.797	0.006	0.002	0.587	7.10
111 Arlington Drive, West Branch DuPage River	1.666	0.005	0.001	0.530	6.19
79 Higgins Road, Salt Creek	0.399	0.006	0.001	0.277	6.41
80 Arlington Heights Road, Salt Creek	1.010	0.005	0.002	0.413	5.80
18 Devon Avenue, Salt Creek	1.286	0.006	0.002	0.481	5.47
24 Wolf Road, Salt Creek	1.015	0.005	0.001	0.419	5.02
109 Brookfield Avenue, Salt Creek	0.915	0.005	0.001	0.397	5.07
77 Elmhurst Road, Higgins Creek	0.082	0.006	0.001	0.204	4.88
78 Wille Road, Higgins Creek	0.975	0.006	0.001	0.654	4.73
12 Lake-Cook Road, Buffalo Creek	0.113	0.005	0.001	0.184	6.21
13 Lake-Cook Road, Des Plaines River	0.603	0.005	0.001	0.331	6.13
17 Oakton Street, Des Plaines River	0.553	0.005	0.001	0.315	6.10
19 Belmont Avenue, Des Plaines River	0.575	0.005	0.001	0.354	5.80
20 Roosevelt Road, Des Plaines River	0.580	0.005	0.001	0.343	5.80
22 Ogden Avenue, Des Plaines River	0.621	0.005	0.001	0.352	5.63
23 Willow Springs Road, Des Plaines River	0.587	0.005	0.001	0.350	5.59
29 Stephen Street, Des Plaines River	0.575	0.005	0.001	0.338	5.40
91 Material Service Road, Des Plaines River	0.554	0.005	0.001	0.326	5.28

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	FC ² cfu/100mL	EColi ² cfu/100mL	Ca mg/L	Mg mg/L	Hard mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	4,663	1,133	79.4	32.6	332
103 Golf Road, West Fork North Branch Chicago River	797	665	79.1	31.0	325
31 Lake-Cook Road, Middle Fork North Branch	488	348	62.3	26.3	264
104 Glenview Road, North Branch Chicago River	723	6,813	62.1	25.7	261
32 Lake-Cook Road, Skokie River	2,687	4,555	69.4	28.6	291
105 Frontage Road, Skokie River	72	126	62.5	26.2	264
34 Dempster Street, North Branch Chicago River	987	2,970	66.2	27.6	279
96 Albany Avenue, North Branch Chicago River	375	549	69.2	28.6	291
35 Central Street, North Shore Channel	124	47	41.0	14.1	161
102 Oakton Street, North Shore Channel	915	1,595	50.9	17.7	200
36 Touhy Avenue, North Shore Channel	7,494	8,437	57.9	20.2	228
101 Foster Avenue, North Shore Channel	5,857	8,728	57.2	20.1	226
37 Wilson Avenue, North Branch Chicago River	5,823	9,398	58.9	21.4	235
73 Diversey Parkway, North Branch Chicago River	2,991	6,808	60.2	22.0	241
46 Grand Avenue, North Branch Chicago River	1,618	2,378	60.1	22.0	241
74 Lake Shore Drive, Chicago River	44	25	46.0	15.7	179
100 Wells Street, Chicago River	792	573	52.2	18.6	207
39 Madison Street, South Branch Chicago River	2,467	1,124	61.1	22.1	243
108 Loomis Street, South Branch Chicago River	589	199	56.2	20.3	224
99 Archer Avenue, South Fork South Branch Chicago River	429	108	56.6	20.2	224
40 Damen Avenue, Chicago Sanitary & Ship Canal	378	1,113	56.6	20.4	225
75 Cicero Avenue, Chicago Sanitary & Ship Canal	314	617	57.4	20.9	229
41 Harlem Avenue, Chicago Sanitary & Ship Canal	3,218	5,172	59.1	20.8	233
42 Route 83, Chicago Sanitary & Ship Canal	1,163	3,446	61.4	21.3	241
48 Stephen Street, Chicago Sanitary & Ship Canal	977	4,432	62.8	22.3	249
92 Lockport Forebay, Chicago Sanitary & Ship Canal	239	357	61.2	21.6	242
Calumet River System					
49 Ewing Avenue, Calumet River	10	10	37.9	12.5	146
50 Burnham Avenue, Wolf Lake	43	98	36.7	12.6	143
55 130th Street, Calumet River	32	20	43.9	14.8	171
86 Burnham Avenue, Grand Calumet River	3,416	10,775	81.2	28.5	320
56 Indiana Avenue, Little Calumet River	120	1,549	51.9	18.0	204
76 Halsted Street, Little Calumet River	1,441	785	66.5	22.7	260
52 Wentworth Avenue, Little Calumet River	5,240	2,504	68.0	26.5	279
54 Joe Orr Road, Thorn Creek	3,859	1,650	70.7	26.5	285
97 170th Street, Thorn Creek	2,497	1,754	74.0	31.2	314
57 Ashland Avenue, Little Calumet River	1,905	1,322	69.7	27.5	287
58 Ashland Avenue, Calumet-Sag Channel	1,975	512	66.7	23.9	265
59 Cicero Avenue, Calumet-Sag Channel	1,650	1,065	67.7	24.0	268
43 Route 83, Calumet-Sag Channel	272	150	63.3	22.8	252
Des Plaines River System					
90 Route 19, Poplar Creek	148	195	70.3	30.6	302
110 Springinguth Road, West Branch DuPage River	1,267	1,460	88.7	32.6	356
89 Walnut Lane, West Branch DuPage River	972	1,793	71.0	27.1	289
111 Arlington Drive, West Branch DuPage River	463	1,270	68.7	25.8	278
79 Higgins Road, Salt Creek	85	14	70.0	28.3	291
80 Arlington Heights Road, Salt Creek	222	19	61.9	23.3	251
18 Devon Avenue, Salt Creek	358	9	64.2	23.9	259
24 Wolf Road, Salt Creek	229	85	68.4	26.9	282
109 Brookfield Avenue, Salt Creek	499	420	68.9	26.9	283
77 Elmhurst Road, Higgins Creek	474	550	53.4	18.9	211
78 Wille Road, Higgins Creek	173	295	83.8	30.9	336
12 Lake-Cook Road, Buffalo Creek	77	147	71.5	30.4	304
13 Lake-Cook Road, Des Plaines River	212	136	65.5	29.2	284
17 Oakton Street, Des Plaines River	298	243	66.4	29.1	286
19 Belmont Avenue, Des Plaines River	378	264	67.6	28.8	288
20 Roosevelt Road, Des Plaines River	353	285	67.4	28.7	287
22 Ogden Avenue, Des Plaines River	325	370	66.4	27.7	280
23 Willow Springs Road, Des Plaines River	261	319	67.3	28.2	284
29 Stephen Street, Des Plaines River	157	206	65.9	27.3	277
91 Material Service Road, Des Plaines River	112	62	66.2	27.5	278

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Alpha pCi/L	Beta pCi/L	Chlrphl µg/L	Bnzn µg/L	Ebnzn µg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	2.91	5.64	14.7	2.000	2.000
103 Golf Road, West Fork North Branch Chicago River	2.63	3.69	14.5	2.000	2.000
31 Lake-Cook Road, Middle Fork North Branch	2.24	2.62	8.2	2.000	2.000
104 Glenview Road, North Branch Chicago River	2.11	3.56	8.0	2.000	2.000
32 Lake-Cook Road, Skokie River	2.20	2.62	7.9	2.000	2.000
105 Frontage Road, Skokie River	2.30	4.24	10.5	2.000	2.000
34 Dempster Street, North Branch Chicago River	2.08	3.52	12.2	2.000	2.000
96 Albany Avenue, North Branch Chicago River	2.23	3.66	9.5	2.000	2.000
35 Central Street, North Shore Channel	1.36	1.71	15.3	2.000	2.000
102 Oakton Street, North Shore Channel	1.72	3.33	4.6	2.000	2.000
36 Touhy Avenue, North Shore Channel	2.13	4.39	1.5	2.000	2.000
101 Foster Avenue, North Shore Channel	ND	ND	5.1	2.000	2.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	2.8	2.000	2.000
73 Diversey Parkway, North Branch Chicago River	ND	ND	3.5	2.000	2.000
46 Grand Avenue, North Branch Chicago River	ND	ND	4.3	2.000	2.000
74 Lake Shore Drive, Chicago River	1.79	3.31	1.5	2.000	2.000
100 Wells Street, Chicago River	1.95	3.75	2.2	2.000	2.000
39 Madison Street, South Branch Chicago River	ND	ND	3.4	2.000	2.000
108 Loomis Street, South Branch Chicago River	ND	ND	3.7	2.000	2.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	28.6	2.000	2.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	ND	ND	3.8	2.000	2.000
75 Cicero Avenue, Chicago Sanitary & Ship Canal	2.33	4.53	4.4	2.000	2.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.17	4.74	2.7	2.000	2.000
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	3.4	2.000	2.000
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	3.9	2.000	2.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	1.95	4.23	4.3	2.000	2.000
Calumet River System					
49 Ewing Avenue, Calumet River	1.35	1.62	1.1	2.000	2.000
50 Burnham Avenue, Wolf Lake	1.55	3.64	6.4	2.000	2.000
55 130th Street, Calumet River	1.57	2.97	3.0	2.000	2.000
86 Burnham Avenue, Grand Calumet River	ND	ND	17.4	2.000	2.120
56 Indiana Avenue, Little Calumet River	1.52	2.71	4.0	2.000	2.000
76 Halsted Street, Little Calumet River	1.88	3.66	3.1	2.000	2.000
52 Wentworth Avenue, Little Calumet River	1.99	3.55	8.3	2.000	2.000
54 Joe Orr Road, Thorn Creek	2.49	4.05	3.7	2.000	2.000
97 170th Street, Thorn Creek	2.35	4.71	8.3	2.000	2.000
57 Ashland Avenue, Little Calumet River	2.50	4.04	7.9	2.000	2.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	5.4	2.000	2.000
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	3.5	2.000	2.000
43 Route 83, Calumet-Sag Channel	ND	ND	4.5	2.000	2.000
Des Plaines River System					
90 Route 19, Poplar Creek	2.04	2.26	7.8	2.000	2.000
110 Springinsguth Road, West Branch DuPage River	2.54	2.81	13.7	2.000	2.000
89 Walnut Lane, West Branch DuPage River	2.18	5.46	7.0	2.000	2.000
111 Arlington Drive, West Branch DuPage River	2.35	5.16	13.7	2.000	2.000
79 Higgins Road, Salt Creek	2.77	3.06	22.5	2.000	2.000
80 Arlington Heights Road, Salt Creek	2.08	3.02	15.2	2.000	2.000
18 Devon Avenue, Salt Creek	2.10	3.54	11.7	2.000	2.000
24 Wolf Road, Salt Creek	2.30	4.30	5.5	2.000	2.000
109 Brookfield Avenue, Salt Creek	2.48	3.76	6.9	2.000	2.000
77 Elmhurst Road, Higgins Creek	2.54	3.00	8.8	2.000	2.000
78 Wille Road, Higgins Creek	2.18	4.44	2.3	2.000	2.000
12 Lake-Cook Road, Buffalo Creek	2.58	3.40	16.8	2.000	2.000
13 Lake-Cook Road, Des Plaines River	1.96	3.50	14.4	2.000	2.000
17 Oakton Street, Des Plaines River	2.17	3.41	26.9	2.000	2.000
19 Belmont Avenue, Des Plaines River	1.95	3.35	20.1	2.000	2.000
20 Roosevelt Road, Des Plaines River	2.10	3.55	23.8	2.000	2.000
22 Ogden Avenue, Des Plaines River	2.15	4.23	20.0	2.000	2.000
23 Willow Springs Road, Des Plaines River	2.44	3.97	15.8	2.000	2.000
29 Stephen Street, Des Plaines River	2.49	4.50	14.7	2.000	2.000
91 Material Service Road, Des Plaines River	2.42	3.65	16.3	2.000	2.000

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Toln μg/L	Xyln μg/L	xylnmp μg/L	xylno μg/L	Ag mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
103 Golf Road, West Fork North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
31 Lake-Cook Road, Middle Fork North Branch	2.000	3.000	3.000	3.000	0.004
104 Glenview Road, North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
32 Lake-Cook Road, Skokie River	2.000	3.000	3.000	3.000	0.004
105 Frontage Road, Skokie River	2.000	3.000	3.000	3.000	0.004
34 Dempster Street, North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
96 Albany Avenue, North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
35 Central Street, North Shore Channel	2.000	3.000	3.000	3.000	0.004
102 Oakton Street, North Shore Channel	2.000	3.000	3.000	3.000	0.004
36 Touhy Avenue, North Shore Channel	2.000	3.000	3.000	3.000	0.004
101 Foster Avenue, North Shore Channel	2.000	3.000	3.000	3.000	0.004
37 Wilson Avenue, North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
73 Diversey Parkway, North Branch Chicago River	2.183	3.000	3.000	3.000	0.004
46 Grand Avenue, North Branch Chicago River	2.000	3.000	3.000	3.000	0.004
74 Lake Shore Drive, Chicago River	2.000	3.000	3.000	3.000	0.004
100 Wells Street, Chicago River	2.050	3.000	3.000	3.000	0.004
39 Madison Street, South Branch Chicago River	3.033	3.000	3.000	3.000	0.004
108 Loomis Street, South Branch Chicago River	2.000	3.000	3.000	3.000	0.004
99 Archer Avenue, South Fork South Branch Chicago River	2.000	3.000	3.000	3.000	0.004
40 Damen Avenue, Chicago Sanitary & Ship Canal	2.000	3.000	3.000	3.000	0.004
75 Cicero Avenue, Chicago Sanitary & Ship Canal	2.000	3.000	3.000	3.000	0.004
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.000	3.000	3.000	3.000	0.004
42 Route 83, Chicago Sanitary & Ship Canal	2.000	3.000	3.000	3.000	0.004
48 Stephen Street, Chicago Sanitary & Ship Canal	2.000	3.000	3.000	3.000	0.004
92 Lockport Forebay, Chicago Sanitary & Ship Canal	2.000	3.000	3.000	3.000	0.004
Calumet River System					
49 Ewing Avenue, Calumet River	2.000	3.000	3.000	3.000	0.004
50 Burnham Avenue, Wolf Lake	2.000	3.000	3.000	3.000	0.004
55 130th Street, Calumet River	2.000	3.000	3.000	3.000	0.004
86 Burnham Avenue, Grand Calumet River	2.460	3.000	3.000	3.000	0.004
56 Indiana Avenue, Little Calumet River	2.000	3.000	3.000	3.000	0.004
76 Halsted Street, Little Calumet River	2.000	3.000	3.000	3.000	0.004
52 Wentworth Avenue, Little Calumet River	2.000	3.000	3.000	3.000	0.004
54 Joe Orr Road, Thorn Creek	2.000	3.000	3.000	3.000	0.004
97 170th Street, Thorn Creek	2.000	3.000	3.000	3.000	0.004
57 Ashland Avenue, Little Calumet River	2.000	3.000	3.000	3.000	0.004
58 Ashland Avenue, Calumet-Sag Channel	2.000	3.000	3.000	3.000	0.004
59 Cicero Avenue, Calumet-Sag Channel	2.000	3.000	3.000	3.000	0.004
43 Route 83, Calumet-Sag Channel	2.000	3.000	3.000	3.000	0.004
Des Plaines River System					
90 Route 19, Poplar Creek	2.000	3.000	3.000	3.000	0.004
110 Springinsguth Road, West Branch DuPage River	2.000	3.000	3.000	3.000	0.004
89 Walnut Lane, West Branch DuPage River	2.000	3.000	3.000	3.000	0.004
111 Arlington Drive, West Branch Du Page River	2.000	3.000	3.000	3.000	0.004
79 Higgins Road, Salt Creek	2.000	3.000	3.000	3.000	0.004
80 Arlington Heights Road, Salt Creek	2.000	3.000	3.000	3.000	0.004
18 Devon Avenue, Salt Creek	2.000	3.000	3.000	3.000	0.004
24 Wolf Road, Salt Creek	2.000	3.000	3.000	3.000	0.004
109 Brookfield Avenue, Salt Creek	2.000	3.000	3.000	3.000	0.004
77 Elmhurst Road, Higgins Creek	2.000	3.000	3.000	3.000	0.004
78 Wille Road, Higgins Creek	2.000	3.000	3.000	3.000	0.004
12 Lake-Cook Road, Buffalo Creek	2.000	3.000	3.000	3.000	0.004
13 Lake-Cook Road, Des Plaines River	2.000	3.000	3.000	3.000	0.004
17 Oakton Street, Des Plaines River	2.000	3.000	3.000	3.000	0.004
19 Belmont Avenue, Des Plaines River	2.000	3.000	3.000	3.000	0.004
20 Roosevelt Road, Des Plaines River	2.000	3.000	3.000	3.000	0.004
22 Ogden Avenue, Des Plaines River	2.000	3.000	3.000	3.000	0.004
23 Willow Springs Road, Des Plaines River	2.000	3.000	3.000	3.000	0.004
29 Stephen Street, Des Plaines River	2.000	3.000	3.000	3.000	0.004
91 Material Service Road, Des Plaines River	2.000	3.000	3.000	3.000	0.004

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	As mg/L	Ba mg/L	B mg/L	Cd mg/L	Cu mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	0.050	0.079	0.145	0.001	0.020
103 Golf Road, West Fork North Branch Chicago River	0.050	0.055	0.125	0.001	0.020
31 Lake-Cook Road, Middle Fork North Branch	0.050	0.037	0.073	0.001	0.020
104 Glenview Road, North Branch Chicago River	0.050	0.036	0.103	0.001	0.021
32 Lake-Cook Road, Skokie River	0.050	0.043	0.093	0.001	0.021
105 Frontage Road, Skokie River	0.050	0.031	0.121	0.001	0.020
34 Dempster Street, North Branch Chicago River	0.050	0.039	0.114	0.001	0.020
96 Albany Avenue, North Branch Chicago River	0.050	0.041	0.114	0.001	0.020
35 Central Street, North Shore Channel	0.050	0.024	0.060	0.001	0.020
102 Oakton Street, North Shore Channel	0.050	0.026	0.100	0.001	0.020
36 Touhy Avenue, North Shore Channel	0.050	0.026	0.150	0.001	0.020
101 Foster Avenue, North Shore Channel	0.050	0.025	0.132	0.001	0.020
37 Wilson Avenue, North Branch Chicago River	0.050	0.029	0.125	0.001	0.020
73 Diversey Parkway, North Branch Chicago River	0.050	0.028	0.128	0.001	0.020
46 Grand Avenue, North Branch Chicago River	0.050	0.028	0.121	0.001	0.020
74 Lake Shore Drive, Chicago River	0.050	0.026	0.077	0.001	0.020
100 Wells Street, Chicago River	0.050	0.026	0.093	0.001	0.020
39 Madison Street, South Branch Chicago River	0.050	0.030	0.117	0.001	0.020
108 Loomis Street, South Branch Chicago River	0.050	0.028	0.108	0.001	0.020
99 Archer Avenue, South Fork South Branch Chicago River	0.050	0.029	0.110	0.001	0.020
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.050	0.028	0.108	0.001	0.020
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.050	0.030	0.109	0.001	0.020
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.050	0.025	0.154	0.001	0.020
42 Route 83, Chicago Sanitary & Ship Canal	0.050	0.022	0.213	0.001	0.020
48 Stephen Street, Chicago Sanitary & Ship Canal	0.050	0.025	0.195	0.001	0.020
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.050	0.024	0.191	0.001	0.020
Calumet River System					
49 Ewing Avenue, Calumet River	0.050	0.024	0.060	0.001	0.020
50 Burnham Avenue, Wolf Lake	0.050	0.036	0.244	0.001	0.020
55 130th Street, Calumet River	0.050	0.030	0.114	0.001	0.020
86 Burnham Avenue, Grand Calumet River	0.050	0.033	0.805	0.001	0.020
56 Indiana Avenue, Little Calumet River	0.050	0.031	0.132	0.001	0.020
76 Halsted Street, Little Calumet River	0.050	0.025	0.187	0.001	0.020
52 Wentworth Avenue, Little Calumet River	0.050	0.043	0.140	0.001	0.020
54 Joe Orr Road, Thorn Creek	0.050	0.032	0.203	0.001	0.020
97 170th Street, Thorn Creek	0.050	0.043	0.182	0.001	0.020
57 Ashland Avenue, Little Calumet River	0.050	0.042	0.171	0.001	0.020
58 Ashland Avenue, Calumet-Sag Channel	0.050	0.030	0.171	0.001	0.020
59 Cicero Avenue, Calumet-Sag Channel	0.050	0.029	0.174	0.001	0.020
43 Route 83, Calumet-Sag Channel	0.050	0.028	0.157	0.001	0.020
Des Plaines River System					
90 Route 19, Poplar Creek	0.050	0.064	0.060	0.001	0.020
110 Springinsguth Road, West Branch DuPage River	0.050	0.050	0.093	0.001	0.020
89 Walnut Lane, West Branch DuPage River	0.050	0.035	0.169	0.001	0.020
111 Arlington Drive, West Branch Du Page River	0.050	0.037	0.146	0.001	0.020
79 Higgins Road, Salt Creek	0.050	0.043	0.099	0.001	0.020
80 Arlington Heights Road, Salt Creek	0.050	0.032	0.134	0.001	0.020
18 Devon Avenue, Salt Creek	0.050	0.030	0.150	0.001	0.020
24 Wolf Road, Salt Creek	0.050	0.035	0.163	0.001	0.020
109 Brookfield Avenue, Salt Creek	0.050	0.036	0.155	0.001	0.020
77 Elmhurst Road, Higgins Creek	0.050	0.047	0.080	0.001	0.020
78 Wille Road, Higgins Creek	0.050	0.029	0.224	0.001	0.020
12 Lake-Cook Road, Buffalo Creek	0.050	0.043	0.081	0.001	0.020
13 Lake-Cook Road, Des Plaines River	0.050	0.038	0.114	0.001	0.020
17 Oakton Street, Des Plaines River	0.050	0.041	0.113	0.001	0.020
19 Belmont Avenue, Des Plaines River	0.050	0.039	0.125	0.001	0.020
20 Roosevelt Road, Des Plaines River	0.050	0.039	0.126	0.001	0.020
22 Ogden Avenue, Des Plaines River	0.050	0.038	0.130	0.001	0.020
23 Willow Springs Road, Des Plaines River	0.050	0.038	0.129	0.001	0.020
29 Stephen Street, Des Plaines River	0.050	0.037	0.120	0.001	0.026
91 Material Service Road, Des Plaines River	0.050	0.038	0.124	0.001	0.021

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Cr mg/L	Cr ⁺⁶ μg/L	Fe mg/L	Pb mg/L	Ni mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	0.010	10.000	1.310	0.030	0.008
103 Golf Road, West Fork North Branch Chicago River	0.010	10.000	0.664	0.030	0.008
31 Lake-Cook Road, Middle Fork North Branch	0.010	10.000	0.589	0.030	0.008
104 Glenview Road, North Branch Chicago River	0.010	10.000	0.967	0.030	0.008
32 Lake-Cook Road, Skokie River	0.010	10.000	0.830	0.030	0.008
105 Frontage Road, Skokie River	0.010	10.000	0.575	0.030	0.011
34 Dempster Street, North Branch Chicago River	0.010	10.000	0.618	0.030	0.008
96 Albany Avenue, North Branch Chicago River	0.010	10.000	0.636	0.030	0.008
35 Central Street, North Shore Channel	0.010	10.000	0.225	0.030	0.008
102 Oakton Street, North Shore Channel	0.010	10.000	0.433	0.030	0.008
36 Touhy Avenue, North Shore Channel	0.010	10.000	0.200	0.030	0.008
101 Foster Avenue, North Shore Channel	0.010	10.000	0.250	0.030	0.008
37 Wilson Avenue, North Branch Chicago River	0.010	10.000	0.333	0.030	0.008
73 Diversey Parkway, North Branch Chicago River	0.020	10.000	0.500	0.030	0.013
46 Grand Avenue, North Branch Chicago River	0.010	10.000	0.375	0.030	0.008
74 Lake Shore Drive, Chicago River	0.010	10.000	0.200	0.030	0.008
100 Wells Street, Chicago River	0.010	10.000	0.275	0.030	0.008
39 Madison Street, South Branch Chicago River	0.010	10.000	0.417	0.030	0.008
108 Loomis Street, South Branch Chicago River	0.010	10.000	0.433	0.030	0.008
99 Archer Avenue, South Fork South Branch Chicago River	0.010	10.000	0.467	0.030	0.008
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.010	10.000	0.408	0.030	0.008
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.010	10.000	0.692	0.030	0.008
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.010	10.000	0.375	0.030	0.008
42 Route 83, Chicago Sanitary & Ship Canal	0.045	10.000	0.475	0.030	0.027
48 Stephen Street, Chicago Sanitary & Ship Canal	0.022	10.000	0.625	0.030	0.016
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.010	10.000	0.404	0.030	0.009
Calumet River System					
49 Ewing Avenue, Calumet River	0.010	10.000	0.383	0.030	0.009
50 Burnham Avenue, Wolf Lake	0.010	10.000	0.200	0.030	0.008
55 130th Street, Calumet River	0.010	10.000	0.270	0.030	0.008
86 Burnham Avenue, Grand Calumet River	0.010	10.000	1.210	0.030	0.008
56 Indiana Avenue, Little Calumet River	0.010	10.000	0.380	0.030	0.008
76 Halsted Street, Little Calumet River	0.010	10.000	0.282	0.030	0.008
52 Wentworth Avenue, Little Calumet River	0.010	10.000	3.360	0.030	0.008
54 Joe Orr Road, Thorn Creek	0.010	10.000	1.760	0.031	0.008
97 170th Street, Thorn Creek	0.010	10.000	3.330	0.030	0.010
57 Ashland Avenue, Little Calumet River	0.010	10.000	2.440	0.030	0.008
58 Ashland Avenue, Calumet-Sag Channel	0.010	10.000	1.282	0.030	0.008
59 Cicero Avenue, Calumet-Sag Channel	0.010	10.000	0.909	0.030	0.008
43 Route 83, Calumet-Sag Channel	0.010	10.000	0.855	0.030	0.008
Des Plaines River System					
90 Route 19, Poplar Creek	0.010	10.000	0.800	0.030	0.008
110 Springinguth Road, West Branch DuPage River	0.010	10.000	0.800	0.030	0.008
89 Walnut Lane, West Branch DuPage River	0.012	10.000	0.358	0.030	0.009
111 Arlington Drive, West Branch DuPage River	0.010	10.000	0.717	0.030	0.008
79 Higgins Road, Salt Creek	0.010	10.000	1.100	0.030	0.008
80 Arlington Heights Road, Salt Creek	0.010	10.000	0.391	0.030	0.008
18 Devon Avenue, Salt Creek	0.010	10.000	0.391	0.030	0.008
24 Wolf Road, Salt Creek	0.010	10.000	0.655	0.030	0.008
109 Brookfield Avenue, Salt Creek	0.010	10.000	0.645	0.030	0.012
77 Elmhurst Road, Higgins Creek	0.010	10.000	1.100	0.030	0.008
78 Wille Road, Higgins Creek	0.010	10.000	0.200	0.030	0.008
12 Lake-Cook Road, Buffalo Creek	0.010	10.000	0.800	0.030	0.008
13 Lake-Cook Road, Des Plaines River	0.010	10.000	0.582	0.030	0.008
17 Oakton Street, Des Plaines River	0.010	10.000	0.618	0.030	0.008
19 Belmont Avenue, Des Plaines River	0.013	10.000	0.609	0.030	0.010
20 Roosevelt Road, Des Plaines River	0.010	10.000	0.582	0.030	0.008
22 Ogden Avenue, Des Plaines River	0.010	10.000	0.591	0.030	0.008
23 Willow Springs Road, Des Plaines River	0.010	10.000	0.636	0.030	0.008
29 Stephen Street, Des Plaines River	0.010	10.000	0.609	0.030	0.008
91 Material Service Road, Des Plaines River	0.010	10.000	0.700	0.030	0.008

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Mn mg/L	Hg μg/L	Hg- ηg/L	Zn mg/L	Se mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	0.082	0.200	3.6	0.060	0.006
103 Golf Road, West Fork North Branch Chicago River	0.069	0.200	3.3	0.060	0.005
31 Lake-Cook Road, Middle Fork North Branch	0.081	0.200	2.1	0.060	0.006
104 Glenview Road, North Branch Chicago River	0.081	0.200	3.3	0.062	0.005
32 Lake-Cook Road, Skokie River	0.096	0.200	2.8	0.065	0.005
105 Frontage Road, Skokie River	0.054	0.200	2.1	0.060	0.005
34 Dempster Street, North Branch Chicago River	0.081	0.200	2.6	0.060	0.006
96 Albany Avenue, North Branch Chicago River	0.069	0.200	2.6	0.060	0.005
35 Central Street, North Shore Channel	0.022	0.200	2.2	0.060	0.006
102 Oakton Street, North Shore Channel	0.035	0.200	3.0	0.060	0.005
36 Touhy Avenue, North Shore Channel	0.030	0.200	ND	0.060	0.005
101 Foster Avenue, North Shore Channel	0.030	0.200	ND	0.060	0.005
37 Wilson Avenue, North Branch Chicago River	0.030	0.200	ND	0.060	0.006
73 Diversey Parkway, North Branch Chicago River	0.092	0.200	ND	0.063	0.005
46 Grand Avenue, North Branch Chicago River	0.041	0.200	ND	0.060	0.005
74 Lake Shore Drive, Chicago River	0.025	0.200	2.1	0.060	0.005
100 Wells Street, Chicago River	0.058	0.200	8.5	0.060	0.005
39 Madison Street, South Branch Chicago River	0.049	0.200	ND	0.060	0.006
108 Loomis Street, South Branch Chicago River	0.118	0.200	ND	0.060	0.005
99 Archer Avenue, South Fork South Branch Chicago River	0.044	0.200	ND	0.060	0.005
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.039	0.200	ND	0.060	0.005
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.040	0.200	ND	0.062	0.005
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.037	0.200	ND	0.060	0.005
42 Route 83, Chicago Sanitary & Ship Canal	0.038	0.200	ND	0.060	0.005
48 Stephen Street, Chicago Sanitary & Ship Canal	0.045	0.200	ND	0.060	0.005
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.090	0.200	ND	0.060	0.005
Calumet River System					
49 Ewing Avenue, Calumet River	0.033	0.200	2.5	0.060	0.005
50 Burnham Avenue, Wolf Lake	0.045	0.200	1.9	0.060	0.005
55 130th Street, Calumet River	0.035	0.200	2.5	0.060	0.005
86 Burnham Avenue, Grand Calumet River	0.228	0.200	ND	0.060	0.005
56 Indiana Avenue, Little Calumet River	0.037	0.200	ND	0.060	0.005
76 Halsted Street, Little Calumet River	0.043	0.200	ND	0.073	0.006
52 Wentworth Avenue, Little Calumet River	0.137	0.200	7.1	0.060	0.005
54 Joe Orr Road, Thorn Creek	0.089	0.200	4.6	0.063	0.005
97 170th Street, Thorn Creek	0.126	0.200	13.0	0.066	0.005
57 Ashland Avenue, Little Calumet River	0.109	0.200	7.3	0.060	0.005
58 Ashland Avenue, Calumet-Sag Channel	0.069	0.200	ND	0.062	0.005
59 Cicero Avenue, Calumet-Sag Channel	0.063	0.200	ND	0.064	0.005
43 Route 83, Calumet-Sag Channel	0.067	0.200	ND	0.060	0.005
Des Plaines River System					
90 Route 19, Poplar Creek	0.076	0.200	2.7	0.060	0.005
110 Springinsguth Road, West Branch DuPage River	0.106	0.200	2.7	0.060	0.005
89 Walnut Lane, West Branch DuPage River	0.035	0.200	3.1	0.060	0.005
111 Arlington Drive, West Branch DuPage River	0.061	0.200	2.9	0.060	0.005
79 Higgins Road, Salt Creek	0.120	0.200	4.6	0.060	0.005
80 Arlington Heights Road, Salt Creek	0.056	0.200	2.5	0.060	0.005
18 Devon Avenue, Salt Creek	0.052	0.200	3.2	0.060	0.005
24 Wolf Road, Salt Creek	0.055	0.200	4.4	0.060	0.005
109 Brookfield Avenue, Salt Creek	0.058	0.200	2.5	0.060	0.005
77 Elmhurst Road, Higgins Creek	0.098	0.200	4.7	0.060	0.005
78 Wille Road, Higgins Creek	0.021	0.200	3.5	0.060	0.005
12 Lake-Cook Road, Buffalo Creek	0.093	0.200	3.9	0.060	0.005
13 Lake-Cook Road, Des Plaines River	0.061	0.200	3.3	0.060	0.005
17 Oakton Street, Des Plaines River	0.065	0.200	3.3	0.060	0.005
19 Belmont Avenue, Des Plaines River	0.094	0.200	3.0	0.061	0.005
20 Roosevelt Road, Des Plaines River	0.064	0.200	3.4	0.060	0.005
22 Ogden Avenue, Des Plaines River	0.054	0.200	2.8	0.060	0.005
23 Willow Springs Road, Des Plaines River	0.063	0.200	2.4	0.060	0.005
29 Stephen Street, Des Plaines River	0.075	0.200	3.0	0.060	0.005
91 Material Service Road, Des Plaines River	0.080	0.200	3.4	0.060	0.005

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Sol. Ca mg/L	Sol. Mg mg/L	Sol. Ag mg/L	Sol. As mg/L	Sol. Ba mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	76.7	31.9	0.002	0.021	0.067
103 Golf Road, West Fork North Branch Chicago River	74.9	30.0	0.002	0.020	0.049
31 Lake-Cook Road, Middle Fork North Branch	60.2	25.9	0.001	0.020	0.034
104 Glenview Road, North Branch Chicago River	59.8	25.0	0.002	0.020	0.030
32 Lake-Cook Road, Skokie River	66.8	27.8	0.002	0.020	0.037
105 Frontage Road, Skokie River	60.2	25.5	0.002	0.020	0.027
34 Dempster Street, North Branch Chicago River	63.7	26.9	0.002	0.020	0.035
96 Albany Avenue, North Branch Chicago River	67.0	28.0	0.002	0.020	0.036
35 Central Street, North Shore Channel	38.9	13.5	0.001	0.020	0.022
102 Oakton Street, North Shore Channel	48.6	17.0	0.002	0.020	0.023
36 Touhy Avenue, North Shore Channel	55.6	19.7	0.002	0.020	0.024
101 Foster Avenue, North Shore Channel	54.8	19.5	0.002	0.020	0.023
37 Wilson Avenue, North Branch Chicago River	56.8	20.9	0.002	0.020	0.026
73 Diversey Parkway, North Branch Chicago River	57.3	21.1	0.002	0.020	0.025
46 Grand Avenue, North Branch Chicago River	58.1	21.5	0.002	0.020	0.025
74 Lake Shore Drive, Chicago River	44.5	15.4	0.002	0.020	0.025
100 Wells Street, Chicago River	50.5	18.1	0.002	0.020	0.024
39 Madison Street, South Branch Chicago River	59.3	21.6	0.002	0.020	0.026
108 Loomis Street, South Branch Chicago River	54.2	19.7	0.002	0.020	0.024
99 Archer Avenue, South Fork South Branch Chicago River	54.4	19.5	0.002	0.020	0.025
40 Damen Avenue, Chicago Sanitary & Ship Canal	54.3	19.8	0.002	0.020	0.024
75 Cicero Avenue, Chicago Sanitary & Ship Canal	54.5	19.7	0.002	0.020	0.023
41 Harlem Avenue, Chicago Sanitary & Ship Canal	56.9	20.2	0.002	0.020	0.021
42 Route 83, Chicago Sanitary & Ship Canal	59.2	20.7	0.002	0.020	0.019
48 Stephen Street, Chicago Sanitary & Ship Canal	60.2	21.4	0.002	0.020	0.020
92 Lockport Forebay, Chicago Sanitary & Ship Canal	58.7	20.8	0.002	0.020	0.021
Calumet River System					
49 Ewing Avenue, Calumet River	35.3	11.8	0.001	0.020	0.022
50 Burnham Avenue, Wolf Lake	34.5	12.1	0.002	0.020	0.033
55 130th Street, Calumet River	41.2	14.2	0.001	0.020	0.029
86 Burnham Avenue, Grand Calumet River	75.3	27.3	0.002	0.022	0.025
56 Indiana Avenue, Little Calumet River	48.6	17.2	0.001	0.020	0.028
76 Halsted Street, Little Calumet River	62.7	21.8	0.002	0.020	0.022
52 Wentworth Avenue, Little Calumet River	61.3	23.8	0.002	0.020	0.028
54 Joe Orr Road, Thorn Creek	65.7	24.9	0.002	0.020	0.026
97 170th Street, Thorn Creek	67.8	28.9	0.002	0.020	0.029
57 Ashland Avenue, Little Calumet River	65.0	25.7	0.002	0.020	0.031
58 Ashland Avenue, Calumet-Sag Channel	62.2	22.6	0.002	0.020	0.023
59 Cicero Avenue, Calumet-Sag Channel	63.5	22.8	0.002	0.020	0.023
43 Route 83, Calumet-Sag Channel	59.0	21.5	0.002	0.020	0.022
Des Plaines River System					
90 Route 19, Poplar Creek	68.1	29.6	0.002	0.020	0.059
110 Springinsguth Road, West Branch DuPage River	84.9	31.2	0.002	0.021	0.045
89 Walnut Lane, West Branch DuPage River	68.7	26.4	0.002	0.020	0.033
111 Arlington Drive, West Branch DuPage River	66.7	25.0	0.002	0.020	0.033
79 Higgins Road, Salt Creek	67.8	27.3	0.001	0.020	0.038
80 Arlington Heights Road, Salt Creek	59.8	22.5	0.002	0.020	0.028
18 Devon Avenue, Salt Creek	62.4	23.1	0.002	0.020	0.028
24 Wolf Road, Salt Creek	66.2	26.0	0.002	0.020	0.031
109 Brookfield Avenue, Salt Creek	66.8	26.0	0.002	0.020	0.032
77 Elmhurst Road, Higgins Creek	52.3	18.4	0.001	0.020	0.041
78 Wille Road, Higgins Creek	81.8	30.5	0.002	0.020	0.028
12 Lake-Cook Road, Buffalo Creek	69.7	29.8	0.002	0.020	0.038
13 Lake-Cook Road, Des Plaines River	64.2	28.7	0.002	0.020	0.035
17 Oakton Street, Des Plaines River	64.7	28.4	0.002	0.020	0.037
19 Belmont Avenue, Des Plaines River	65.4	28.0	0.002	0.020	0.034
20 Roosevelt Road, Des Plaines River	64.9	27.7	0.002	0.020	0.035
22 Ogden Avenue, Des Plaines River	64.8	26.9	0.002	0.020	0.033
23 Willow Springs Road, Des Plaines River	64.7	27.1	0.002	0.020	0.033
29 Stephen Street, Des Plaines River	64.2	26.6	0.002	0.020	0.032
91 Material Service Road, Des Plaines River	63.5	26.4	0.002	0.020	0.032

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Sol. B mg/L	Sol. Cd mg/L	Sol. Cu mg/L	Sol. Cr mg/L	Sol. Fe mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	0.147	0.001	0.008	0.003	0.200
103 Golf Road, West Fork North Branch Chicago River	0.127	0.001	0.005	0.003	0.200
31 Lake-Cook Road, Middle Fork North Branch	0.076	0.001	0.005	0.003	0.200
104 Glenview Road, North Branch Chicago River	0.108	0.001	0.005	0.003	0.208
32 Lake-Cook Road, Skokie River	0.091	0.001	0.006	0.003	0.200
105 Frontage Road, Skokie River	0.124	0.001	0.005	0.003	0.200
34 Dempster Street, North Branch Chicago River	0.115	0.001	0.005	0.003	0.200
96 Albany Avenue, North Branch Chicago River	0.115	0.001	0.005	0.003	0.200
35 Central Street, North Shore Channel	0.070	0.001	0.005	0.003	0.200
102 Oakton Street, North Shore Channel	0.108	0.001	0.005	0.003	0.200
36 Touhy Avenue, North Shore Channel	0.153	0.001	0.005	0.003	0.200
101 Foster Avenue, North Shore Channel	0.137	0.001	0.005	0.003	0.200
37 Wilson Avenue, North Branch Chicago River	0.124	0.001	0.005	0.003	0.200
73 Diversey Parkway, North Branch Chicago River	0.128	0.001	0.005	0.003	0.200
46 Grand Avenue, North Branch Chicago River	0.123	0.001	0.005	0.003	0.200
74 Lake Shore Drive, Chicago River	0.087	0.001	0.006	0.003	0.200
100 Wells Street, Chicago River	0.101	0.001	0.005	0.003	0.200
39 Madison Street, South Branch Chicago River	0.122	0.001	0.005	0.003	0.200
108 Loomis Street, South Branch Chicago River	0.109	0.001	0.005	0.004	0.200
99 Archer Avenue, South Fork South Branch Chicago River	0.110	0.001	0.005	0.003	0.200
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.108	0.001	0.005	0.003	0.200
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.110	0.001	0.005	0.003	0.200
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.154	0.001	0.005	0.003	0.200
42 Route 83, Chicago Sanitary & Ship Canal	0.211	0.001	0.005	0.004	0.317
48 Stephen Street, Chicago Sanitary & Ship Canal	0.193	0.001	0.005	0.003	0.233
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.191	0.001	0.005	0.003	0.204
Calumet River System					
49 Ewing Avenue, Calumet River	0.070	0.001	0.005	0.003	0.200
50 Burnham Avenue, Wolf Lake	0.238	0.001	0.005	0.003	0.200
55 130th Street, Calumet River	0.116	0.001	0.005	0.003	0.200
86 Burnham Avenue, Grand Calumet River	0.767	0.001	0.005	0.003	0.210
56 Indiana Avenue, Little Calumet River	0.131	0.001	0.005	0.003	0.200
76 Halsted Street, Little Calumet River	0.185	0.001	0.005	0.003	0.200
52 Wentworth Avenue, Little Calumet River	0.132	0.001	0.005	0.003	0.200
54 Joe Orr Road, Thorn Creek	0.196	0.001	0.005	0.003	0.200
97 170th Street, Thorn Creek	0.178	0.001	0.005	0.003	0.200
57 Ashland Avenue, Little Calumet River	0.168	0.001	0.005	0.003	0.200
58 Ashland Avenue, Calumet-Sag Channel	0.166	0.001	0.005	0.003	0.200
59 Cicero Avenue, Calumet-Sag Channel	0.168	0.001	0.005	0.003	0.200
43 Route 83, Calumet-Sag Channel	0.153	0.001	0.005	0.003	0.200
Des Plaines River System					
90 Route 19, Poplar Creek	0.070	0.001	0.005	0.003	0.200
110 Springinsguth Road, West Branch DuPage River	0.095	0.001	0.005	0.003	0.250
89 Walnut Lane, West Branch DuPage River	0.172	0.001	0.006	0.004	0.200
111 Arlington Drive, West Branch Du Page River	0.144	0.001	0.005	0.003	0.200
79 Higgins Road, Salt Creek	0.099	0.001	0.005	0.003	0.200
80 Arlington Heights Road, Salt Creek	0.132	0.001	0.005	0.003	0.200
18 Devon Avenue, Salt Creek	0.146	0.001	0.005	0.003	0.200
24 Wolf Road, Salt Creek	0.161	0.001	0.005	0.003	0.200
109 Brookfield Avenue, Salt Creek	0.155	0.001	0.005	0.003	0.200
77 Elmhurst Road, Higgins Creek	0.082	0.001	0.005	0.003	0.200
78 Wille Road, Higgins Creek	0.224	0.001	0.005	0.003	0.200
12 Lake-Cook Road, Buffalo Creek	0.081	0.001	0.005	0.003	0.200
13 Lake-Cook Road, Des Plaines River	0.115	0.001	0.005	0.003	0.200
17 Oakton Street, Des Plaines River	0.115	0.001	0.005	0.003	0.200
19 Belmont Avenue, Des Plaines River	0.124	0.001	0.005	0.003	0.200
20 Roosevelt Road, Des Plaines River	0.124	0.001	0.005	0.003	0.200
22 Ogden Avenue, Des Plaines River	0.128	0.001	0.005	0.003	0.200
23 Willow Springs Road, Des Plaines River	0.129	0.001	0.005	0.003	0.200
29 Stephen Street, Des Plaines River	0.121	0.001	0.007	0.003	0.200
91 Material Service Road, Des Plaines River	0.124	0.001	0.005	0.003	0.200

TABLE AII-1 (Continued): WATERWAYS SAMPLE MEANS IN 2011

Sampling Station (No. Name)	Sol. Pb mg/L	Sol. Ni mg/L	Sol. Mn mg/L	Sol. Zn mg/L	Sol. Se mg/L
Chicago River System					
106 Dundee Road, West Fork North Branch Chicago River	0.030	0.008	0.057	0.023	0.030
103 Golf Road, West Fork North Branch Chicago River	0.030	0.008	0.041	0.021	0.030
31 Lake-Cook Road, Middle Fork North Branch	0.030	0.008	0.062	0.020	0.030
104 Glenview Road, North Branch Chicago River	0.030	0.008	0.048	0.022	0.030
32 Lake-Cook Road, Skokie River	0.030	0.008	0.071	0.020	0.030
105 Frontage Road, Skokie River	0.030	0.008	0.031	0.023	0.030
34 Dempster Street, North Branch Chicago River	0.030	0.008	0.041	0.020	0.030
96 Albany Avenue, North Branch Chicago River	0.030	0.008	0.040	0.020	0.030
35 Central Street, North Shore Channel	0.030	0.008	0.017	0.020	0.030
102 Oakton Street, North Shore Channel	0.030	0.008	0.026	0.023	0.030
36 Touhy Avenue, North Shore Channel	0.030	0.008	0.020	0.028	0.030
101 Foster Avenue, North Shore Channel	0.030	0.008	0.025	0.023	0.030
37 Wilson Avenue, North Branch Chicago River	0.030	0.008	0.021	0.022	0.030
73 Diversey Parkway, North Branch Chicago River	0.030	0.010	0.072	0.023	0.030
46 Grand Avenue, North Branch Chicago River	0.030	0.008	0.032	0.022	0.030
74 Lake Shore Drive, Chicago River	0.030	0.008	0.021	0.024	0.030
100 Wells Street, Chicago River	0.030	0.008	0.048	0.022	0.030
39 Madison Street, South Branch Chicago River	0.030	0.008	0.042	0.023	0.030
108 Loomis Street, South Branch Chicago River	0.030	0.008	0.106	0.023	0.030
99 Archer Avenue, South Fork South Branch Chicago River	0.030	0.008	0.038	0.021	0.030
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.030	0.008	0.031	0.021	0.030
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.030	0.008	0.026	0.022	0.030
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.030	0.008	0.023	0.022	0.030
42 Route 83, Chicago Sanitary & Ship Canal	0.030	0.009	0.024	0.024	0.030
48 Stephen Street, Chicago Sanitary & Ship Canal	0.030	0.015	0.037	0.022	0.030
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.030	0.009	0.074	0.021	0.030
Calumet River System					
49 Ewing Avenue, Calumet River	0.030	0.008	0.014	0.020	0.030
50 Burnham Avenue, Wolf Lake	0.030	0.008	0.016	0.020	0.030
55 130th Street, Calumet River	0.030	0.008	0.019	0.020	0.030
86 Burnham Avenue, Grand Calumet River	0.030	0.009	0.197	0.020	0.030
56 Indiana Avenue, Little Calumet River	0.030	0.008	0.025	0.021	0.030
76 Halsted Street, Little Calumet River	0.030	0.008	0.032	0.022	0.030
52 Wentworth Avenue, Little Calumet River	0.030	0.008	0.073	0.020	0.030
54 Joe Orr Road, Thorn Creek	0.030	0.008	0.057	0.025	0.030
97 170th Street, Thorn Creek	0.030	0.008	0.051	0.020	0.030
57 Ashland Avenue, Little Calumet River	0.030	0.008	0.057	0.020	0.030
58 Ashland Avenue, Calumet-Sag Channel	0.030	0.008	0.045	0.022	0.030
59 Cicero Avenue, Calumet-Sag Channel	0.030	0.008	0.047	0.023	0.030
43 Route 83, Calumet-Sag Channel	0.030	0.008	0.049	0.022	0.030
Des Plaines River System					
90 Route 19, Poplar Creek	0.030	0.008	0.047	0.020	0.030
110 Springinguth Road, West Branch DuPage River	0.030	0.009	0.096	0.019	0.030
89 Walnut Lane, West Branch DuPage River	0.030	0.009	0.025	0.029	0.030
111 Arlington Drive, West Branch Du Page River	0.030	0.008	0.040	0.023	0.030
79 Higgins Road, Salt Creek	0.030	0.008	0.054	0.020	0.030
80 Arlington Heights Road, Salt Creek	0.030	0.008	0.026	0.020	0.030
18 Devon Avenue, Salt Creek	0.030	0.008	0.030	0.020	0.030
24 Wolf Road, Salt Creek	0.030	0.008	0.035	0.022	0.030
109 Brookfield Avenue, Salt Creek	0.030	0.008	0.038	0.023	0.030
77 Elmhurst Road, Higgins Creek	0.030	0.008	0.061	0.022	0.030
78 Wille Road, Higgins Creek	0.030	0.008	0.015	0.025	0.030
12 Lake-Cook Road, Buffalo Creek	0.030	0.008	0.040	0.020	0.030
13 Lake-Cook Road, Des Plaines River	0.030	0.008	0.031	0.020	0.030
17 Oakton Street, Des Plaines River	0.030	0.008	0.029	0.020	0.030
19 Belmont Avenue, Des Plaines River	0.030	0.010	0.060	0.023	0.030
20 Roosevelt Road, Des Plaines River	0.030	0.008	0.034	0.020	0.030
22 Ogden Avenue, Des Plaines River	0.030	0.008	0.024	0.020	0.030
23 Willow Springs Road, Des Plaines River	0.030	0.008	0.028	0.020	0.030
29 Stephen Street, Des Plaines River	0.030	0.008	0.043	0.020	0.030
91 Material Service Road, Des Plaines River	0.030	0.009	0.037	0.022	0.030

ND = No Data.

¹Un-ionized Ammonia.

²Geometric Mean.

**TABLE AII-2: DISSOLVED OXYGEN VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	1/10	0/10	1/11	2/11	0/4	0/5	0/4	1/6
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	2/11	2/10	3/11	0/12	2/10	1/10
31 Lake-Cook Road, Middle Fork North Branch	2/9	1/9	0/10	2/10	4/10	2/11	6/10	5/10
104 Glenview Road, North Branch Chicago River	1/12	0/9	1/12	3/12	4/11	0/12	1/12	1/12
32 Lake-Cook Road, Skokie River	1/10	1/9	0/10	1/10	3/10	1/12	2/11	2/10
105 Frontage Road, Skokie River	0/12	1/12	0/12	1/12	1/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	1/11	1/8	1/12	5/11	4/11	1/12	3/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	1/11	0/12	1/12	1/11	0/12	1/11	0/11
35 Central Street, North Shore Channel	1/8	0/8	1/9	2/9	0/9	1/9	2/8	1/9
102 Oakton Street, North Shore Channel	0/12	2/11	1/11	2/11	2/12	0/12	0/12	2/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/11	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	1/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	1/12	0/12	1/12	0/12	0/12	1/12	0/12
46 Grand Avenue, North Branch Chicago River	1/12	0/12	0/12	1/12	0/11	0/11	1/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	1/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	1/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	1/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	2/12	1/10	4/11	4/12	1/11	1/7	1/11	2/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	2/12	1/12	0/12	0/12	1/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	1/12	0/12	1/12	3/12	1/12	1/13	1/12	1/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	1/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	1/12	0/12	0/10	0/12	0/11	1/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	1/11	1/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	7/51	6/51	1/50	2/51	4/51	3/53	5/52	3/50
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	1/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	1/12	2/11	0/11	1/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	1/9	0/10	1/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	5/10	4/7	1/5	3/10	4/10	4/11	4/10	5/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	2/9	0/8	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	1/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	1/10	4/10	4/11	0/11	5/11	3/9
54 Joe Orr Road, Thorn Creek	0/10	1/9	0/9	0/9	0/10	0/9	2/8	0/6
97 170th Street, Thorn Creek	0/10	0/11	0/9	2/10	0/11	1/11	1/11	0/11
57 Ashland Avenue, Little Calumet River	1/10	1/10	1/9	5/10	4/11	0/11	5/11	4/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/10	0/10
110 Springinsguth Road, West Branch DuPage River	2/10	0/8	3/9	6/11	6/10	5/11	4/11	5/9
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/10
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	1/12	0/12	0/12	0/12	1/11
111 Arlington Drive, West Branch Du Page River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1/10	0/8	0/8	3/9	1/10	1/9	3/9	0/10
80 Arlington Heights Road, Salt Creek	0/11	0/12	1/12	0/12	0/12	0/12	0/12	0/11
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/11
24 Wolf Road, Salt Creek	0/11	0/10	2/12	0/12	0/11	0/12	0/12	1/10
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	1/11	0/11	2/12	1/12	0/10
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	1/7	0/4	0/3
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	1/7	0/9	1/11	0/9	1/9	0/7	0/6
13 Lake-Cook Road, Des Plaines River	1/11	0/11	0/12	0/12	1/12	1/12	0/12	0/10
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	2/11	1/12	2/12	0/10
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	1/12	2/11	1/12	3/12	3/10
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	1/12	2/11	1/12	2/12	3/10
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/10
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	1/12	0/10
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/11	0/10
91 Material Service Road, Des Plaines River	0/11	0/12	1/12	1/12	0/11	0/12	0/12	1/10

ND = No Data.

TABLE AII-3: TEMPERATURE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/10	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	1/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	1/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/9	0/12	1/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	1/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/11
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/11	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/51	0/50
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/9	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/10	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/9	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/9	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	1/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/10
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/11	0/11
111 Arlington Drive, West Branch DuPage River	1/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	1/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	1/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	1/11	0/12	0/12	0/11	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/10	0/9	0/9	0/6	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/11	0/12	0/12	0/11	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/11	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/11	0/11	0/12	0/11	1/11
20 Roosevelt Road, Des Plaines River	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
22 Ogden Avenue, Des Plaines River	1/11	0/12	0/11	0/11	0/11	0/12	0/12	0/10
23 Willow Springs Road, Des Plaines River	1/11	0/11	0/11	0/11	0/11	0/12	0/12	0/10
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/10
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/10

ND = No Data.

TABLE AII-4: pH VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	1/10	0/10	0/11	0/10	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	2/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/9	0/12	2/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	2/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/11	2/11	0/11
35 Central Street, North Shore Channel	0/8	1/8	0/9	0/9	0/9	0/8	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	1/11	0/11	0/11	0/12	0/11	1/12	0/11
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/11	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/11	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	1/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/11	1/12	0/11	0/12	0/11	0/12	1/12	0/12
39 Madison Street, South Branch Chicago River	0/6	1/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/11
42 Route 83, Chicago Sanitary & Ship Canal	0/11	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/11	0/12	0/10	0/12	0/10	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/50	1/52	1/51	0/50
Calumet River System								
49 Ewing Avenue, Calumet River	2/6	0/6	0/7	0/9	0/10	0/11	0/11	1/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	1/12	1/11	2/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	1/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	1/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	1/11	1/10	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	1/10	0/9	0/8	0/6
97 170th Street, Thorn Creek	1/10	0/11	0/9	0/11	0/11	0/11	1/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	2/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	1/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	1/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	1/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	1/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	1/12	0/12	0/10
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	1/12	0/11	0/11
111 Arlington Drive, West Branch Du Page River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	1/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	1/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	2/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	2/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/10	0/9	0/12	0/11	0/12	0/12	1/11	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/10	0/9	1/9	0/6	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/11	1/12	0/12	2/11	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	1/11	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/11	0/11	0/12	1/11	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/10	0/11	0/11	0/11	0/12	1/11	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	2/12	0/12	0/10
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	1/12	0/12	0/10
29 Stephen Street, Des Plaines River	0/11	0/12	1/11	0/12	0/11	1/12	0/12	0/10
91 Material Service Road, Des Plaines River	0/11	0/12	1/11	0/12	0/11	0/12	0/12	0/10

ND = No Data.

TABLE AII-5: CHLORIDE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	3/10	3/10	4/11	3/11	0/4	1/5	2/4	3/8
103 Golf Road, West Fork North Branch Chicago River	3/11	2/10	3/11	2/10	2/10	2/12	5/10	0/9
31 Lake-Cook Road, Middle Fork North Branch	0/9	1/9	0/10	1/10	0/10	1/11	0/10	0/9
104 Glenview Road, North Branch Chicago River	1/12	1/9	0/12	1/12	1/11	1/12	1/12	1/11
32 Lake-Cook Road, Skokie River	0/10	1/9	0/10	1/10	0/10	0/12	2/11	0/9
105 Frontage Road, Skokie River	0/12	0/12	0/12	2/12	0/11	0/12	0/12	0/11
34 Dempster Street, North Branch Chicago River	0/11	1/8	0/12	2/11	1/11	1/12	2/11	1/11
96 Albany Avenue, North Branch Chicago River	0/11	2/11	1/12	3/12	1/11	2/12	1/11	0/10
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/8
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/11
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	1/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	1/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/10	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	1/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	1/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	1/10	0/9	0/10	0/11	0/11	1/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	1/11	1/10	0/11	1/11	1/11	2/12	1/11	0/11
110 Springinsguth Road, West Branch DuPage River	2/10	0/8	1/9	1/11	1/10	2/11	3/11	1/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	1/12	0/12	1/12	0/12	1/11
64 Lake Street, West Branch DuPage River	ND	1/6	0/12	1/12	1/12	0/12	0/12	1/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2/10	0/8	0/8	2/9	2/10	1/9	2/9	2/11
80 Arlington Heights Road, Salt Creek	2/11	1/12	0/12	3/12	1/12	2/12	2/12	1/12
18 Devon Avenue, Salt Creek	2/11	1/10	0/11	3/12	1/12	2/12	2/12	1/12
24 Wolf Road, Salt Creek	1/11	1/10	0/12	3/12	1/11	0/12	1/12	1/11
109 Brookfield Avenue, Salt Creek	2/11	1/11	0/11	2/11	1/11	1/12	1/12	1/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	1/1	1/4	2/5	0/5	2/7	2/4	3/6
78 Wille Road, Higgins Creek	0/11	0/9	1/12	1/12	1/12	0/12	1/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	1/7	0/9	3/11	1/9	0/9	1/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	1/11	0/11	0/11	0/11	1/12	1/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	1/11	0/12	1/12	0/11	2/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	1/11	0/11	3/12	0/11	2/12	1/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	1/12	0/11	2/11	0/11	1/12	1/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	1/11	0/11	2/11	2/11	1/12	1/12	0/11
29 Stephen Street, Des Plaines River	0/11	1/12	0/11	3/12	1/11	1/12	1/12	1/11
91 Material Service Road, Des Plaines River	0/11	1/12	0/12	2/12	1/11	1/12	1/12	1/11

NA = Not Applicable.
ND = No Data.

**TABLE AII-6: AMMONIUM NITROGEN VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.

ND = No Data.

TABLE AII-7: UN-IONIZED AMMONIA VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/11	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/11	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	1/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	1/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	1/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/11	0/9	0/12	0/12	0/12	0/13	0/12	0/11
42 Route 83, Chicago Sanitary & Ship Canal	0/11	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/11	0/12	0/10	0/12	0/10	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/50	0/52	0/51	0/49
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	1/7	0/5	0/10	1/9	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/8
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

**TABLE AII-8: TOTAL DISSOLVED SOLIDS VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	6/10	5/10	5/11	4/11	1/4	2/5	2/4	4/8
103 Golf Road, West Fork North Branch Chicago River	4/11	4/10	3/11	2/10	5/11	4/12	6/10	3/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	3/9	0/10	2/10	3/10	1/11	3/10	0/10
104 Glenview Road, North Branch Chicago River	1/12	1/9	1/12	3/12	1/11	1/12	1/12	1/12
32 Lake-Cook Road, Skokie River	0/10	1/9	0/10	1/10	3/10	0/12	5/11	0/10
105 Frontage Road, Skokie River	0/12	1/12	1/12	3/12	1/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	1/11	2/8	2/12	3/11	1/11	2/12	3/11	1/12
96 Albany Avenue, North Branch Chicago River	2/11	3/11	2/12	4/12	2/11	2/12	4/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	1/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	1/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	1/12	0/12	0/12	0/12	2/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	1/12	0/12	1/12	0/12	2/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	1/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	1/12	1/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	1/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	1/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	1/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	1/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	1/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	1/51	0/51	3/51	0/51	0/53	1/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	1/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	4/10	6/9	5/9	8/8	9/10	9/9	5/8	6/7
97 170th Street, Thorn Creek	4/10	5/11	3/9	6/11	4/11	5/11	9/11	6/11
57 Ashland Avenue, Little Calumet River	2/10	2/10	0/9	4/10	2/11	3/11	2/11	4/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	3/11	1/10	0/11	1/11	1/11	3/12	3/11	1/11
110 Springinsguth Road, West Branch DuPage River	2/10	0/8	1/9	5/11	3/10	3/11	6/11	5/10
89 Walnut Lane, West Branch DuPage River	0/12	1/12	0/12	1/12	1/12	1/12	0/12	2/11
64 Lake Street, West Branch DuPage River	ND	1/6	0/12	2/12	1/12	0/12	1/12	1/12
111 Arlington Drive, West Branch DuPage River	1/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2/10	0/8	0/8	4/9	5/10	1/9	4/9	5/11
80 Arlington Heights Road, Salt Creek	3/11	3/12	0/12	4/12	2/12	2/12	2/12	1/12
18 Devon Avenue, Salt Creek	3/11	3/10	0/11	4/12	2/12	3/12	4/12	1/12
24 Wolf Road, Salt Creek	3/11	2/10	1/12	5/12	1/11	2/12	3/12	1/11
109 Brookfield Avenue, Salt Creek	3/11	3/11	1/11	4/11	2/11	3/12	3/12	1/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	1/5	1/1	1/4	3/5	0/5	2/7	2/4	3/6
78 Wille Road, Higgins Creek	2/11	1/9	1/12	2/12	2/12	2/12	1/12	0/11
12 Lake-Cook Road, Buffalo Creek	3/9	1/7	0/9	3/11	1/9	2/9	5/7	1/7
13 Lake-Cook Road, Des Plaines River	0/11	1/11	0/12	0/12	0/12	1/12	1/12	0/11
17 Oakton Street, Des Plaines River	0/11	1/11	0/11	1/11	0/11	2/12	1/12	0/11
19 Belmont Avenue, Des Plaines River	1/11	2/11	0/12	2/12	0/11	2/12	1/12	2/11
20 Roosevelt Road, Des Plaines River	1/11	2/11	0/11	3/12	0/11	2/12	1/12	1/11
22 Ogden Avenue, Des Plaines River	2/11	2/12	0/11	2/11	2/11	2/12	1/12	1/11
23 Willow Springs Road, Des Plaines River	2/11	1/11	0/11	2/11	2/11	1/12	2/12	1/11
29 Stephen Street, Des Plaines River	2/11	1/12	0/11	3/12	1/11	1/12	2/12	1/11
91 Material Service Road, Des Plaines River	1/11	1/12	0/12	3/12	1/11	1/12	2/12	1/11

ND = No Data.

TABLE AII-9: PHENOLS VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/11
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/10
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/11
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/11	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

TABLE AII-10: SULFATE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/10	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/11	0/9	0/11	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/9	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/11
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	4/10	4/9	4/9	9/9	4/10	6/8	4/8	5/7
97 170th Street, Thorn Creek	1/10	3/11	1/9	3/11	3/11	3/10	4/11	4/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	1/11	0/11	1/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/11
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/11	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/8	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/11	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-11: FATS, OILS, AND GREASES VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/10	0/11	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	1/12
48 Stephen Street, Chicago Sanitary & Ship Canal	1/12	0/12	0/10	0/12	0/11	0/13	0/11	1/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/50	0/50	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	1/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

TABLE AII-12: TOTAL CYANIDE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/10	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

**TABLE AII-13: WEAK ACID DISSOCIABLE CYANIDE VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/10	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/8	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/10	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

**TABLE AII-14: FLUORIDE VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	3/10	0/11	2/10	6/10	8/11	9/11	7/11	4/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	1/9	1/10	0/11	2/11	3/11	2/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	1/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

**TABLE AII-15: FECAL COLIFORM VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	10/10	9/10	11/11	10/11	3/4	4/5	3/4	8/8
103 Golf Road, West Fork North Branch Chicago River	8/11	6/10	8/11	9/10	8/11	8/12	8/10	7/10
31 Lake-Cook Road, Middle Fork North Branch	5/9	6/9	5/10	9/10	7/10	10/11	5/10	7/10
104 Glenview Road, North Branch Chicago River	4/12	2/9	6/12	7/12	7/11	7/12	9/12	11/12
32 Lake-Cook Road, Skokie River	8/10	4/9	6/10	6/10	10/10	5/12	7/11	9/10
105 Frontage Road, Skokie River	2/12	2/12	3/12	1/12	1/11	1/12	2/12	1/12
34 Dempster Street, North Branch Chicago River	6/11	6/8	6/12	9/11	7/11	11/12	9/11	11/12
96 Albany Avenue, North Branch Chicago River	3/11	7/11	7/12	8/12	6/11	10/12	9/11	9/11
35 Central Street, North Shore Channel	2/8	2/8	1/9	2/9	1/9	2/9	1/8	5/9
102 Oakton Street, North Shore Channel	8/12	6/11	4/11	8/11	8/12	9/12	7/12	9/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/11	3/9	2/10	2/11	0/11	2/10	1/9
100 Wells Street, Chicago River	8/12	3/12	2/11	7/12	2/11	3/12	3/12	2/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	2/11	0/11	0/10	0/12	2/11	0/11	2/12	1/12
55 130th Street, Calumet River	0/10	1/10	0/9	1/9	1/10	1/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	10/10	11/11	10/10	8/10	10/11	10/11	10/11	8/9
54 Joe Orr Road, Thorn Creek	10/10	7/9	9/9	8/9	8/10	9/9	8/8	5/7
97 170th Street, Thorn Creek	8/10	7/11	6/9	10/11	7/11	8/11	11/11	10/11
57 Ashland Avenue, Little Calumet River	9/10	7/10	4/9	9/10	10/11	6/11	10/11	9/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	1/11	1/10	2/11	2/11	4/11	5/12	5/11	1/11
110 Springinsguth Road, West Branch DuPage River	8/10	7/8	8/9	9/11	9/10	11/11	9/11	8/10
89 Walnut Lane, West Branch DuPage River	8/12	7/12	7/12	8/12	8/12	7/12	10/12	7/11
64 Lake Street, West Branch DuPage River	ND	4/6	7/12	8/12	9/12	10/12	10/12	7/12
111 Arlington Drive, West Branch DuPage River	7/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	2/8	1/8	1/9	6/10	3/9	3/9	1/11
80 Arlington Heights Road, Salt Creek	4/11	4/12	3/12	5/12	5/12	6/12	6/12	6/12
18 Devon Avenue, Salt Creek	5/11	6/10	5/11	7/12	7/12	10/12	9/12	9/12
24 Wolf Road, Salt Creek	4/11	5/10	7/12	4/12	6/11	9/12	9/12	5/11
109 Brookfield Avenue, Salt Creek	8/11	6/11	7/11	6/11	8/11	10/12	10/12	9/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	2/5	0/1	3/4	3/5	5/5	7/7	3/4	4/6
78 Wille Road, Higgins Creek	3/11	5/9	7/12	6/12	9/12	7/12	5/12	5/11
12 Lake-Cook Road, Buffalo Creek	0/9	1/7	2/9	3/11	4/9	3/9	3/7	2/7
13 Lake-Cook Road, Des Plaines River	1/11	3/11	2/12	5/12	6/12	4/12	6/12	2/11
17 Oakton Street, Des Plaines River	4/11	4/11	2/11	6/11	4/11	7/12	7/12	5/11
19 Belmont Avenue, Des Plaines River	4/11	4/11	4/12	5/12	5/11	8/12	7/11	5/11
20 Roosevelt Road, Des Plaines River	6/11	2/11	6/11	7/12	7/11	10/12	8/12	6/11
22 Ogden Avenue, Des Plaines River	4/11	5/12	3/11	5/11	4/11	11/12	10/12	8/11
23 Willow Springs Road, Des Plaines River	4/11	4/11	2/11	2/11	5/11	8/12	6/12	4/11
29 Stephen Street, Des Plaines River	3/11	2/12	1/11	3/12	3/11	6/12	5/12	3/11
91 Material Service Road, Des Plaines River	3/11	0/12	1/12	2/12	4/11	6/12	5/12	2/11

NA = Not Applicable.
ND = No Data.

**TABLE AII-16: GROSS BETA RADIOACTIVITY VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/10
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/6	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/8	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/7	0/8	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/10	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/11	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/11	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-17: BENZENE VIOLATION HISTORY
2004 THROUGH 2011 (Human Health Standard)¹

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/5	0/5	0/6	0/5	0/2	0/2	0/8	0/7
103 Golf Road, West Fork North Branch Chicago River	0/6	0/5	0/6	0/4	0/5	0/4	0/4	0/3
31 Lake-Cook Road, Middle Fork North Branch	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
104 Glenview Road, North Branch Chicago River	0/6	0/5	0/6	0/6	0/5	0/4	0/5	0/4
32 Lake-Cook Road, Skokie River	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
105 Frontage Road, Skokie River	0/6	0/6	0/6	0/6	0/5	0/4	0/5	0/4
34 Dempster Street, North Branch Chicago River	0/5	0/4	0/6	0/5	0/5	0/3	0/5	0/4
96 Albany Avenue, North Branch Chicago River	0/5	0/6	0/6	0/6	0/5	0/4	0/5	0/8
35 Central Street, North Shore Channel	0/4	0/3	0/4	0/4	0/4	0/3	0/4	0/3
102 Oakton Street, North Shore Channel	0/6	0/5	0/6	0/5	0/6	0/4	0/5	0/4
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/6	0/5	0/4	0/5	0/5	0/3	0/5	0/3
100 Wells Street, Chicago River	0/6	0/6	0/5	0/6	0/5	0/3	0/6	0/4
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/2	0/4	0/4	0/5	0/6	0/4	0/5	0/4
50 Burnham Avenue, Wolf Lake	0/6	0/6	0/5	0/6	0/6	0/4	0/6	0/4
55 130th Street, Calumet River	0/5	0/6	0/5	0/4	0/6	0/4	0/5	0/4
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/5	0/6	0/5	0/5	0/6	0/4	0/5	0/2
54 Joe Orr Road, Thorn Creek	0/5	0/6	0/4	0/4	0/5	0/3	0/4	0/3
97 170th Street, Thorn Creek	0/5	0/6	0/5	0/6	0/6	0/4	0/6	0/3
57 Ashland Avenue, Little Calumet River	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/2
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/4
110 Springinsguth Road, West Branch DuPage River	0/3	0/4	0/5	0/5	0/4	0/4	0/5	0/4
89 Walnut Lane, West Branch DuPage River	0/6	0/6	0/6	0/6	0/6	0/4	0/6	0/4
64 Lake Street, West Branch DuPage River	NA	0/3	0/6	0/6	0/6	0/4	0/6	0/4
111 Arlington Drive, West Branch DuPage River	0/3	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	0/5	0/4	0/4	0/4	0/5	0/3	0/4	0/4
80 Arlington Heights Road, Salt Creek	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
18 Devon Avenue, Salt Creek	0/5	0/4	0/5	0/6	0/6	0/4	0/6	0/4
24 Wolf Road, Salt Creek	0/5	0/5	0/6	0/6	0/5	0/4	0/6	0/4
109 Brookfield Avenue, Salt Creek	0/5	0/6	0/5	0/5	0/5	0/4	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	0/3	0/1	0/2	0/2	0/4	0/1	0/3	0/3
78 Wille Road, Higgins Creek	0/5	0/4	0/6	0/6	0/6	0/4	0/5	0/3
12 Lake-Cook Road, Buffalo Creek	0/4	0/4	0/4	0/6	0/5	0/2	0/3	0/3
13 Lake-Cook Road, Des Plaines River	0/5	0/5	0/6	0/6	0/6	0/4	0/6	0/4
17 Oakton Street, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
19 Belmont Avenue, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
20 Roosevelt Road, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
22 Ogden Avenue, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
23 Willow Springs Road, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
29 Stephen Street, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
91 Material Service Road, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4

¹Human Health Standard in General Use Waters became effective in December 2002.

NA = Not Applicable.

TABLE AII-18: BENZENE VIOLATION HISTORY
2004 THROUGH 2011 (General Use Standard)¹

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/5	0/5	0/6	0/5	0/2	0/2	0/8	0/7
103 Golf Road, West Fork North Branch Chicago River	0/6	0/5	0/6	0/4	0/5	0/4	0/4	0/3
31 Lake-Cook Road, Middle Fork North Branch	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
104 Glenview Road, North Branch Chicago River	0/6	0/5	0/6	0/6	0/5	0/4	0/5	0/4
32 Lake-Cook Road, Skokie River	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
105 Frontage Road, Skokie River	0/6	0/6	0/6	0/6	0/5	0/4	0/5	0/4
34 Dempster Street, North Branch Chicago River	0/5	0/4	0/6	0/5	0/5	0/3	0/5	0/4
96 Albany Avenue, North Branch Chicago River	0/5	0/6	0/6	0/6	0/5	0/4	0/5	0/8
35 Central Street, North Shore Channel	0/4	0/3	0/4	0/4	0/4	0/3	0/4	0/3
102 Oakton Street, North Shore Channel	0/6	0/5	0/6	0/5	0/6	0/4	0/5	0/4
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/6	0/5	0/4	0/5	0/5	0/3	0/5	0/3
100 Wells Street, Chicago River	0/6	0/6	0/5	0/6	0/5	0/3	0/6	0/4
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/2	0/4	0/4	0/5	0/6	0/4	0/5	0/4
50 Burnham Avenue, Wolf Lake	0/6	0/6	0/5	0/6	0/6	0/4	0/6	0/4
55 130th Street, Calumet River	0/5	0/6	0/5	0/4	0/6	0/4	0/5	0/4
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/5	0/6	0/5	0/5	0/6	0/4	0/5	0/2
54 Joe Orr Road, Thorn Creek	0/5	0/6	0/4	0/4	0/5	0/3	0/4	0/3
97 170th Street, Thorn Creek	0/5	0/6	0/5	0/6	0/6	0/4	0/6	0/3
57 Ashland Avenue, Little Calumet River	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/2
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/4
110 Springinsguth Road, West Branch DuPage River	0/3	0/4	0/5	0/5	0/4	0/4	0/5	0/4
89 Walnut Lane, West Branch DuPage River	0/6	0/6	0/6	0/6	0/6	0/4	0/6	0/4
64 Lake Street, West Branch DuPage River	NA	0/3	0/6	0/6	0/6	0/4	0/6	0/4
111 Arlington Drive, West Branch DuPage River	0/3	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	0/5	0/4	0/4	0/4	0/5	0/3	0/4	0/4
80 Arlington Heights Road, Salt Creek	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
18 Devon Avenue, Salt Creek	0/5	0/4	0/5	0/6	0/6	0/4	0/6	0/4
24 Wolf Road, Salt Creek	0/5	0/5	0/6	0/6	0/5	0/4	0/6	0/4
109 Brookfield Avenue, Salt Creek	0/5	0/6	0/5	0/5	0/5	0/4	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	0/3	0/1	0/2	0/2	0/4	0/1	0/3	0/3
78 Wille Road, Higgins Creek	0/5	0/4	0/6	0/6	0/6	0/4	0/5	0/3
12 Lake-Cook Road, Buffalo Creek	0/4	0/4	0/4	0/6	0/5	0/2	0/3	0/3
13 Lake-Cook Road, Des Plaines River	0/5	0/5	0/6	0/6	0/6	0/4	0/6	0/4
17 Oakton Street, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
19 Belmont Avenue, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
20 Roosevelt Road, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
22 Ogden Avenue, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
23 Willow Springs Road, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
29 Stephen Street, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
91 Material Service Road, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4

¹Based on General Use Water quality standards.
NA = Not Applicable.

TABLE AII-19: ETHYLBENZENE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/5	0/5	0/6	0/5	0/2	0/2	0/8	0/7
103 Golf Road, West Fork North Branch Chicago River	0/6	0/5	0/6	0/4	0/5	0/4	0/4	0/3
31 Lake-Cook Road, Middle Fork North Branch	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
104 Glenview Road, North Branch Chicago River	0/6	0/5	0/6	0/6	0/5	0/4	0/5	0/4
32 Lake-Cook Road, Skokie River	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
105 Frontage Road, Skokie River	0/6	0/6	0/6	0/6	0/5	0/4	0/5	0/4
34 Dempster Street, North Branch Chicago River	0/5	0/4	0/6	0/5	0/5	0/3	0/5	0/4
96 Albany Avenue, North Branch Chicago River	0/5	0/6	0/6	0/6	0/5	0/4	0/5	0/8
35 Central Street, North Shore Channel	0/4	0/3	0/4	0/4	0/4	0/3	0/4	0/3
102 Oakton Street, North Shore Channel	0/6	0/5	0/6	0/5	0/6	0/4	0/5	0/4
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/6	0/5	0/4	0/5	0/5	0/3	0/5	0/3
100 Wells Street, Chicago River	0/6	0/6	0/5	0/6	0/5	0/3	0/6	0/4
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/2	0/4	0/4	0/5	0/6	0/4	0/5	0/4
50 Burnham Avenue, Wolf Lake	0/6	0/6	0/5	0/6	0/6	0/4	0/6	0/4
55 130th Street, Calumet River	0/5	0/6	0/5	0/4	0/6	0/4	0/5	0/4
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/5	0/6	0/5	0/5	0/6	0/4	0/5	0/2
54 Joe Orr Road, Thorn Creek	0/5	0/6	0/4	0/4	0/5	0/3	0/4	0/3
97 170th Street, Thorn Creek	0/5	0/6	0/5	0/6	0/6	0/4	0/6	0/3
57 Ashland Avenue, Little Calumet River	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/2
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/4
110 Springinsguth Road, West Branch DuPage River	0/3	0/4	0/5	0/5	0/4	0/4	0/5	0/4
89 Walnut Lane, West Branch DuPage River	0/6	0/6	0/6	0/6	0/6	0/4	0/6	0/4
64 Lake Street, West Branch DuPage River	ND	0/3	0/6	0/6	0/6	0/4	0/6	0/4
111 Arlington Drive, West Branch DuPage River	0/3	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/5	0/4	0/4	0/4	0/5	0/3	0/4	0/4
80 Arlington Heights Road, Salt Creek	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
18 Devon Avenue, Salt Creek	0/5	0/4	0/5	0/6	0/6	0/4	0/6	0/4
24 Wolf Road, Salt Creek	0/5	0/5	0/6	0/6	0/5	0/4	0/6	0/4
109 Brookfield Avenue, Salt Creek	0/5	0/6	0/5	0/5	0/5	0/4	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/3	0/1	0/2	0/2	0/4	0/1	0/3	0/3
78 Wille Road, Higgins Creek	0/5	0/4	0/6	0/6	0/6	0/4	0/5	0/3
12 Lake-Cook Road, Buffalo Creek	0/4	0/4	0/4	0/6	0/5	0/2	0/3	0/3
13 Lake-Cook Road, Des Plaines River	0/5	0/5	0/6	0/6	0/6	0/4	0/6	0/4
17 Oakton Street, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
19 Belmont Avenue, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
20 Roosevelt Road, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
22 Ogden Avenue, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
23 Willow Springs Road, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
29 Stephen Street, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
91 Material Service Road, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4

NA = Not Applicable.
ND = No Data.

TABLE AII-20: TOLUENE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/5	0/5	0/6	0/5	0/2	0/2	0/8	0/7
103 Golf Road, West Fork North Branch Chicago River	0/6	0/5	0/6	0/4	0/5	0/4	0/4	0/3
31 Lake-Cook Road, Middle Fork North Branch	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
104 Glenview Road, North Branch Chicago River	0/6	0/5	0/6	0/6	0/5	0/4	0/5	0/4
32 Lake-Cook Road, Skokie River	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
105 Frontage Road, Skokie River	0/6	0/6	0/6	0/6	0/5	0/4	0/5	0/4
34 Dempster Street, North Branch Chicago River	0/5	0/4	0/6	0/5	0/5	0/3	0/5	0/4
96 Albany Avenue, North Branch Chicago River	0/5	0/6	0/6	0/6	0/5	0/4	0/5	0/8
35 Central Street, North Shore Channel	0/4	0/3	0/4	0/4	0/4	0/3	0/4	0/3
102 Oakton Street, North Shore Channel	0/6	0/5	0/6	0/5	0/6	0/4	0/5	0/4
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/6	0/5	0/4	0/5	0/5	0/3	0/5	0/3
100 Wells Street, Chicago River	0/6	0/6	0/5	0/6	0/5	0/3	0/6	0/4
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/2	0/4	0/4	0/5	0/6	0/4	0/5	0/4
50 Burnham Avenue, Wolf Lake	0/6	0/6	0/5	0/6	0/6	0/4	0/6	0/4
55 130th Street, Calumet River	0/5	0/6	0/5	0/4	0/6	0/4	0/5	0/4
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/5	0/6	0/5	0/5	0/6	0/4	0/5	0/2
54 Joe Orr Road, Thorn Creek	0/5	0/6	0/4	0/4	0/5	0/3	0/4	0/3
97 170th Street, Thorn Creek	0/5	0/6	0/5	0/6	0/6	0/4	0/6	0/3
57 Ashland Avenue, Little Calumet River	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/2
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/4
110 Springinsguth Road, West Branch DuPage River	0/3	0/4	0/5	0/5	0/4	0/4	0/5	0/4
89 Walnut Lane, West Branch DuPage River	0/6	0/6	0/6	0/6	0/6	0/4	0/6	0/4
64 Lake Street, West Branch DuPage River	ND	0/3	0/6	0/6	0/6	0/4	0/6	0/4
111 Arlington Drive, West Branch DuPage River	0/3	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/5	0/4	0/4	0/4	0/5	0/3	0/4	0/4
80 Arlington Heights Road, Salt Creek	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
18 Devon Avenue, Salt Creek	0/5	0/4	0/5	0/6	0/6	0/4	0/6	0/4
24 Wolf Road, Salt Creek	0/5	0/5	0/6	0/6	0/5	0/4	0/6	0/4
109 Brookfield Avenue, Salt Creek	0/5	0/6	0/5	0/5	0/5	0/4	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/3	0/1	0/2	0/2	0/4	0/1	0/3	0/3
78 Wille Road, Higgins Creek	0/5	0/4	0/6	0/6	0/6	0/4	0/5	0/3
12 Lake-Cook Road, Buffalo Creek	0/4	0/4	0/4	0/6	0/5	0/2	0/3	0/3
13 Lake-Cook Road, Des Plaines River	0/5	0/5	0/6	0/6	0/6	0/4	0/6	0/4
17 Oakton Street, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
19 Belmont Avenue, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
20 Roosevelt Road, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
22 Ogden Avenue, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
23 Willow Springs Road, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
29 Stephen Street, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
91 Material Service Road, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4

NA = Not Applicable.

ND = No Data.

TABLE AII-21: XYLENE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/5	0/5	0/6	0/5	0/2	0/2	0/8	0/7
103 Golf Road, West Fork North Branch Chicago River	0/6	0/5	0/6	0/4	0/5	0/4	0/4	0/3
31 Lake-Cook Road, Middle Fork North Branch	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
104 Glenview Road, North Branch Chicago River	0/6	0/5	0/6	0/6	0/5	0/4	0/5	0/4
32 Lake-Cook Road, Skokie River	0/5	0/4	0/5	0/4	0/4	0/4	0/5	0/3
105 Frontage Road, Skokie River	0/6	0/6	0/6	0/6	0/5	0/4	0/5	0/4
34 Dempster Street, North Branch Chicago River	0/5	0/4	0/6	0/5	0/5	0/3	0/5	0/4
96 Albany Avenue, North Branch Chicago River	0/5	0/6	0/6	0/6	0/5	0/4	0/5	0/8
35 Central Street, North Shore Channel	0/4	0/3	0/4	0/4	0/4	0/3	0/4	0/3
102 Oakton Street, North Shore Channel	0/6	0/5	0/6	0/5	0/6	0/4	0/5	0/4
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/6	0/5	0/4	0/5	0/5	0/3	0/5	0/3
100 Wells Street, Chicago River	0/6	0/6	0/5	0/6	0/5	0/3	0/6	0/4
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/2	0/4	0/4	0/5	0/6	0/4	0/5	0/4
50 Burnham Avenue, Wolf Lake	0/6	0/6	0/5	0/6	0/6	0/4	0/6	0/4
55 130th Street, Calumet River	0/5	0/6	0/5	0/4	0/6	0/4	0/5	0/4
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/5	0/6	0/5	0/5	0/6	0/4	0/5	0/2
54 Joe Orr Road, Thorn Creek	0/5	0/6	0/4	0/4	0/5	0/3	0/4	0/3
97 170th Street, Thorn Creek	0/5	0/6	0/5	0/6	0/6	0/4	0/6	0/3
57 Ashland Avenue, Little Calumet River	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/2
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/5	0/5	0/5	0/5	0/6	0/4	0/5	0/4
110 Springinsguth Road, West Branch DuPage River	0/3	0/4	0/5	0/5	0/4	0/4	0/5	0/4
89 Walnut Lane, West Branch DuPage River	0/6	0/6	0/6	0/6	0/6	0/4	0/6	0/4
64 Lake Street, West Branch DuPage River	ND	0/3	0/6	0/6	0/6	0/4	0/6	0/4
111 Arlington Drive, West Branch DuPage River	0/3	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/5	0/4	0/4	0/4	0/5	0/3	0/4	0/4
80 Arlington Heights Road, Salt Creek	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
18 Devon Avenue, Salt Creek	0/5	0/4	0/5	0/6	0/6	0/4	0/6	0/4
24 Wolf Road, Salt Creek	0/5	0/5	0/6	0/6	0/5	0/4	0/6	0/4
109 Brookfield Avenue, Salt Creek	0/5	0/6	0/5	0/5	0/5	0/4	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/3	0/1	0/2	0/2	0/4	0/1	0/3	0/3
78 Wille Road, Higgins Creek	0/5	0/4	0/6	0/6	0/6	0/4	0/5	0/3
12 Lake-Cook Road, Buffalo Creek	0/4	0/4	0/4	0/6	0/5	0/2	0/3	0/3
13 Lake-Cook Road, Des Plaines River	0/5	0/5	0/6	0/6	0/6	0/4	0/6	0/4
17 Oakton Street, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
19 Belmont Avenue, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4
20 Roosevelt Road, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
22 Ogden Avenue, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
23 Willow Springs Road, Des Plaines River	0/5	0/6	0/5	0/5	0/5	0/4	0/6	0/4
29 Stephen Street, Des Plaines River	0/5	0/6	0/5	0/6	0/5	0/4	0/6	0/4
91 Material Service Road, Des Plaines River	0/5	0/6	0/6	0/6	0/5	0/4	0/6	0/4

NA = Not Applicable.
ND = No Data.

**TABLE AII-22: TOTAL SILVER VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/11
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

TABLE AII-23: TOTAL ARSENIC VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

TABLE AII-24: TOTAL BARIUM VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

TABLE AII-25: TOTAL BORON VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-26: TOTAL CADMIUM VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

TABLE AII-27: TOTAL COPPER VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

TABLE AII-28: TOTAL HEXAVALENT CHROMIUM VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/11	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/50	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/8	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	1/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	1/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	1/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	1/12	0/11	0/11	0/11	0/12	1/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

TABLE AII-29: TOTAL IRON VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	1/12	0/12	1/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	1/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	1/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	1/12	0/12	0/10	0/12	1/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	2/51	2/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	1/10	1/7	0/5	1/10	2/10	0/11	2/10	1/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	1/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	3/11	1/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	1/10	0/10	0/11	0/11	1/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	1/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

**TABLE AII-30: TOTAL LEAD VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	1/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	1/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

**TABLE AII-31: TOTAL NICKEL VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.
ND = No Data.

TABLE AII-32: TOTAL MANGANESE VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/8	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/11	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	1/51	0/51	0/51	1/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/9	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/10	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/7	0/9	0/11	0/10	0/11	1/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/9	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

TABLE AII-33: TOTAL MERCURY VIOLATION HISTORY
2004 THROUGH 2011 (Human Health Standard)¹

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/5	0/10	0/11	0/11	1/4	0/5	0/4	4/8
103 Golf Road, West Fork North Branch Chicago River	0/6	0/10	0/11	0/10	0/11	3/12	5/10	4/10
31 Lake-Cook Road, Middle Fork North Branch	0/5	0/9	0/10	0/10	0/10	2/11	2/10	3/10
104 Glenview Road, North Branch Chicago River	0/6	0/9	0/12	0/12	1/11	4/12	6/12	5/12
32 Lake-Cook Road, Skokie River	0/5	0/9	0/10	0/10	1/10	4/12	3/11	5/10
105 Frontage Road, Skokie River	0/6	0/12	0/12	0/12	1/11	2/12	5/12	5/12
34 Dempster Street, North Branch Chicago River	0/5	0/8	0/12	0/11	2/11	2/12	4/11	6/12
96 Albany Avenue, North Branch Chicago River	0/5	0/11	0/12	0/12	3/11	1/12	4/11	2/11
35 Central Street, North Shore Channel	0/4	0/8	0/9	0/9	0/9	1/9	1/8	0/9
102 Oakton Street, North Shore Channel	0/6	0/11	0/11	0/11	2/12	2/12	3/12	6/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/6	0/11	0/9	0/10	2/11	1/11	0/10	4/9
100 Wells Street, Chicago River	0/6	0/12	0/11	0/12	1/11	3/12	3/12	3/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/2	0/6	0/7	0/9	0/10	1/11	0/11	2/10
50 Burnham Avenue, Wolf Lake	0/6	0/11	0/10	0/12	2/11	2/11	1/12	3/12
55 130th Street, Calumet River	0/5	0/10	0/9	0/9	0/10	2/11	3/11	2/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/5	0/11	0/10	0/10	0/11	2/11	5/11	2/9
54 Joe Orr Road, Thorn Creek	0/5	0/9	0/9	0/9	0/10	2/9	2/8	0/7
97 170th Street, Thorn Creek	0/5	0/11	0/9	0/11	1/11	2/11	5/11	3/11
57 Ashland Avenue, Little Calumet River	0/5	0/10	0/9	0/10	1/11	2/11	4/11	3/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/5	0/10	0/11	0/11	2/11	1/12	3/11	4/11
110 Springinsguth Road, West Branch DuPage River	0/3	0/8	0/9	0/11	1/10	1/11	3/11	3/10
89 Walnut Lane, West Branch DuPage River	0/6	0/12	0/12	0/12	1/12	1/12	2/12	4/11
64 Lake Street, West Branch DuPage River	NA	0/6	0/12	0/12	3/12	2/12	2/12	3/12
111 Arlington Drive, West Branch DuPage River	0/3	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	0/5	0/8	0/8	0/9	2/10	0/9	1/9	1/11
80 Arlington Heights Road, Salt Creek	0/5	0/12	0/12	0/12	0/12	2/12	2/12	2/12
18 Devon Avenue, Salt Creek	0/5	0/10	0/11	0/12	1/12	3/12	2/12	4/12
24 Wolf Road, Salt Creek	0/5	0/10	0/12	0/12	2/11	2/12	2/12	2/11
109 Brookfield Avenue, Salt Creek	0/5	0/11	0/11	0/11	1/11	2/12	0/11	7/11
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	0/3	0/1	0/4	0/5	1/5	0/7	0/4	2/6
78 Wille Road, Higgins Creek	0/5	0/9	0/12	0/12	1/12	2/12	2/12	3/11
12 Lake-Cook Road, Buffalo Creek	0/4	0/7	0/9	0/11	1/9	1/9	1/7	2/7
13 Lake-Cook Road, Des Plaines River	0/5	0/11	0/12	0/12	1/12	3/12	1/12	3/11
17 Oakton Street, Des Plaines River	0/5	0/11	0/11	0/11	2/11	2/12	2/12	2/11
19 Belmont Avenue, Des Plaines River	0/5	0/11	0/12	0/12	0/11	2/12	0/12	4/11
20 Roosevelt Road, Des Plaines River	0/5	0/11	0/11	0/12	1/11	2/12	2/12	3/11
22 Ogden Avenue, Des Plaines River	0/5	0/12	0/11	0/11	1/11	3/12	2/12	2/11
23 Willow Springs Road, Des Plaines River	0/5	0/12	0/11	0/11	1/11	2/12	2/12	1/11
29 Stephen Street, Des Plaines River	0/5	0/12	0/11	0/12	2/11	2/12	2/12	2/11
91 Material Service Road, Des Plaines River	0/5	0/12	0/12	0/12	1/11	2/12	2/12	2/11

¹Human Health Standard in General Use Waters became effective in December 2002.

NA = Not Applicable.

TABLE AII-34: TOTAL MERCURY VIOLATION HISTORY
2004 THROUGH 2011 (Secondary Contact Standard)¹

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	1/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

¹Based upon Secondary Contact Water quality standards which became effective in December 2002.
NA = Not Applicable.

TABLE AII-35: TOTAL ZINC VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
103 Golf Road, West Fork North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
31 Lake-Cook Road, Middle Fork North Branch	NA	NA	NA	NA	NA	NA	NA	NA
104 Glenview Road, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
32 Lake-Cook Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
105 Frontage Road, Skokie River	NA	NA	NA	NA	NA	NA	NA	NA
34 Dempster Street, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
96 Albany Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
35 Central Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
102 Oakton Street, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
100 Wells Street, Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
50 Burnham Avenue, Wolf Lake	NA	NA	NA	NA	NA	NA	NA	NA
55 130th Street, Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
54 Joe Orr Road, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
97 170th Street, Thorn Creek	NA	NA	NA	NA	NA	NA	NA	NA
57 Ashland Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	NA	NA	NA	NA	NA	NA	NA	NA
110 Springinsguth Road, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
89 Walnut Lane, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
64 Lake Street, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
111 Arlington Drive, West Branch DuPage River	NA	NA	NA	NA	NA	NA	NA	NA
79 Higgins Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
80 Arlington Heights Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
18 Devon Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
24 Wolf Road, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
109 Brookfield Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
21 First Avenue, Salt Creek	NA	NA	NA	NA	NA	NA	NA	NA
77 Elmhurst Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
78 Wille Road, Higgins Creek	NA	NA	NA	NA	NA	NA	NA	NA
12 Lake-Cook Road, Buffalo Creek	NA	NA	NA	NA	NA	NA	NA	NA
13 Lake-Cook Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
17 Oakton Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
19 Belmont Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
20 Roosevelt Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
22 Ogden Avenue, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
23 Willow Springs Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
29 Stephen Street, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA
91 Material Service Road, Des Plaines River	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable.

ND = No Data.

TABLE AII-36: TOTAL SELENIUM VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/10	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/10	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/9	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/9	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/9	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/8	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/11	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/8	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/11	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/11	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/12	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/12	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/11	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/12	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/12	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/11	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/10	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/12	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/9	0/12	0/12	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	0/12	0/12	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/51	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/6	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/11	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/10	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/7	0/5	0/10	0/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/10	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/11	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/11	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/10	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/10	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/10	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/11	0/10	0/10	0/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/11
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

**TABLE AII-37: SOLUBLE ARSENIC VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.

ND = No Data.

TABLE AII-38: SOLUBLE CADMIUM VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-39: SOLUBLE COPPER VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	1/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	1/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-40: SOLUBLE CHROMIUM VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-41: SOLUBLE IRON VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	0/12	0/10	0/10	0/12	0/12	0/12	0/12	0/12
101 Foster Avenue, North Shore Channel	0/12	0/11	0/12	0/12	0/12	0/12	0/13	0/12
37 Wilson Avenue, North Branch Chicago River	0/12	0/11	0/12	0/12	0/12	0/12	0/12	0/12
73 Diversey Parkway, North Branch Chicago River	0/12	0/11	0/12	0/12	0/12	0/12	0/12	0/12
46 Grand Avenue, North Branch Chicago River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	0/6	0/11	0/11	0/12	0/11	0/12	0/12	0/12
108 Loomis Street, South Branch Chicago River	0/12	0/10	0/12	0/11	0/12	0/12	0/10	0/12
99 Archer Avenue, South Fork South Branch Chicago River	0/12	0/9	0/11	0/12	0/11	0/7	0/11	0/12
40 Damen Avenue, Chicago Sanitary & Ship Canal	0/12	0/11	0/11	0/12	0/12	0/12	0/12	0/12
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0/12	0/11	0/12	0/12	0/12	0/13	0/12	0/12
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0/12	0/8	0/11	0/11	0/12	0/13	0/12	0/12
42 Route 83, Chicago Sanitary & Ship Canal	1/12	0/11	0/10	0/12	0/11	0/13	0/11	0/12
48 Stephen Street, Chicago Sanitary & Ship Canal	1/12	0/11	0/10	0/12	0/11	0/13	0/11	0/12
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0/51	0/47	0/51	0/51	0/51	0/53	0/52	0/52
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	0/10	0/6	0/5	0/10	1/10	0/11	0/10	0/9
56 Indiana Avenue, Little Calumet River	0/10	0/9	0/8	0/9	0/9	0/11	0/9	0/9
76 Halsted Street, Little Calumet River	0/11	0/9	0/11	0/12	0/11	0/11	0/12	0/12
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	0/11	0/9	0/11	0/12	0/11	0/11	0/12	0/12
59 Cicero Avenue, Calumet-Sag Channel	0/11	0/9	0/10	0/11	0/11	0/11	0/12	0/12
43 Route 83, Calumet-Sag Channel	0/11	0/10	0/10	0/10	1/11	0/11	0/11	0/10
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

ND = No Data.

**TABLE AII-42: SOLUBLE LEAD VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/8	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-43: SOLUBLE NICKEL VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/11	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/5	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/11	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

TABLE AII-44: SOLUBLE MERCURY VIOLATION HISTORY
2004 THROUGH 2011

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0/3
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	0/1	0/3
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	ND	0/3
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0/5
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	0/2	0/4
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	0/2	0/5
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	0/1	0/4
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	0/1	0/2
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	0/1	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	0/1	0/5
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	0/3
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	0/1	0/3
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	0/1
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	0/2
55 130th Street, Calumet River	ND	ND	ND	ND	ND	0/1	ND	0/2
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	0/1	0/1	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	0/1	0/3	0/2
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	ND	ND	ND	ND	0/1	ND	0/2	0/4
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	0/1	0/3
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	0/3
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	0/3
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	0/1
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	0/2	0/2
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	0/2	0/3
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	0/2
109 Brookfield Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	0/5
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	0/2
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	0/1	0/1	0/2
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	0/1	0/1
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0/1	0/3
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	0/1	0/1	0/1
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	0/3
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	0/3
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	0/2
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0/1	0/1
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	0/1	ND	0/2
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0/1	0/1

NA = Not Applicable.
ND = No Data.

**TABLE AII-45: SOLUBLE ZINC VIOLATION HISTORY
2004 THROUGH 2011**

Sampling Station (No. Name)	Ratio of Violations/Sampling Frequency Per Year							
	11	10	09	08	07	06	05	04
Chicago River System								
106 Dundee Road, West Fork North Branch Chicago River	0/10	0/9	0/11	0/11	0/4	0/5	0/4	0/8
103 Golf Road, West Fork North Branch Chicago River	0/11	0/9	0/11	0/10	0/11	0/12	0/10	0/10
31 Lake-Cook Road, Middle Fork North Branch	0/9	0/8	0/10	0/10	0/10	0/11	0/10	0/10
104 Glenview Road, North Branch Chicago River	0/12	0/8	0/12	0/12	0/11	0/12	0/12	0/12
32 Lake-Cook Road, Skokie River	0/10	0/8	0/10	0/10	0/10	0/12	0/11	0/10
105 Frontage Road, Skokie River	0/12	0/11	0/12	0/12	0/11	0/12	0/12	0/12
34 Dempster Street, North Branch Chicago River	0/11	0/7	0/12	0/11	0/11	0/12	0/11	0/12
96 Albany Avenue, North Branch Chicago River	0/11	0/10	0/12	0/12	0/11	0/12	0/11	0/11
35 Central Street, North Shore Channel	0/8	0/7	0/9	0/9	0/9	0/9	0/8	0/9
102 Oakton Street, North Shore Channel	0/12	0/10	0/11	0/11	0/12	0/12	0/12	0/12
36 Touhy Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
101 Foster Avenue, North Shore Channel	NA	NA	NA	NA	NA	NA	NA	NA
37 Wilson Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
73 Diversey Parkway, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
46 Grand Avenue, North Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
74 Lake Shore Drive, Chicago River	0/12	0/10	0/9	0/10	0/11	0/11	0/10	0/9
100 Wells Street, Chicago River	0/12	0/11	0/11	0/12	0/11	0/12	0/12	0/12
39 Madison Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
108 Loomis Street, South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
99 Archer Avenue, South Fork South Branch Chicago River	NA	NA	NA	NA	NA	NA	NA	NA
40 Damen Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
107 Western Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
75 Cicero Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
41 Harlem Avenue, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
42 Route 83, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
48 Stephen Street, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
92 Lockport Forebay, Chicago Sanitary & Ship Canal	NA	NA	NA	NA	NA	NA	NA	NA
Calumet River System								
49 Ewing Avenue, Calumet River	0/6	0/5	0/7	0/9	0/10	0/11	0/11	0/10
50 Burnham Avenue, Wolf Lake	0/11	0/10	0/10	0/12	0/11	0/11	0/12	0/12
55 130th Street, Calumet River	0/10	0/9	0/9	0/9	0/10	0/11	0/11	0/11
86 Burnham Avenue, Grand Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
56 Indiana Avenue, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
76 Halsted Street, Little Calumet River	NA	NA	NA	NA	NA	NA	NA	NA
52 Wentworth Avenue, Little Calumet River	0/10	0/10	0/10	0/10	0/11	0/11	0/11	0/9
54 Joe Orr Road, Thorn Creek	0/10	0/9	0/9	0/9	0/10	0/9	0/8	0/7
97 170th Street, Thorn Creek	0/10	0/10	0/9	0/11	0/11	0/11	0/11	0/11
57 Ashland Avenue, Little Calumet River	0/10	0/9	0/9	0/10	0/11	0/11	0/11	0/10
58 Ashland Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
59 Cicero Avenue, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
43 Route 83, Calumet-Sag Channel	NA	NA	NA	NA	NA	NA	NA	NA
Des Plaines River System								
90 Route 19, Poplar Creek	0/11	0/10	0/11	0/11	0/11	0/12	0/11	0/11
110 Springinsguth Road, West Branch DuPage River	0/10	0/8	0/9	0/11	0/10	0/11	0/11	0/10
89 Walnut Lane, West Branch DuPage River	0/12	0/12	0/12	0/12	0/12	0/12	0/12	0/11
64 Lake Street, West Branch DuPage River	ND	0/6	0/12	0/12	0/12	0/12	0/12	0/12
111 Arlington Drive, West Branch DuPage River	0/12	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0/10	0/8	0/8	0/9	0/10	0/9	0/9	0/11
80 Arlington Heights Road, Salt Creek	0/11	0/12	0/12	0/12	0/12	0/12	0/12	0/12
18 Devon Avenue, Salt Creek	0/11	0/10	0/11	0/12	0/12	0/12	0/12	0/12
24 Wolf Road, Salt Creek	0/11	0/10	0/12	0/12	0/11	0/12	0/12	0/11
109 Brookfield Avenue, Salt Creek	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0/5	0/1	0/4	0/5	0/5	0/7	0/4	0/6
78 Wille Road, Higgins Creek	0/11	0/9	0/12	0/12	0/12	0/12	0/12	0/10
12 Lake-Cook Road, Buffalo Creek	0/9	0/7	0/9	0/11	0/9	0/9	0/7	0/7
13 Lake-Cook Road, Des Plaines River	0/11	0/11	0/12	0/12	0/12	0/12	0/12	0/11
17 Oakton Street, Des Plaines River	0/11	0/11	0/11	0/11	0/11	0/12	0/12	0/11
19 Belmont Avenue, Des Plaines River	0/11	0/11	0/12	0/12	0/11	0/12	0/12	0/11
20 Roosevelt Road, Des Plaines River	0/11	0/11	0/11	0/12	0/11	0/12	0/12	0/11
22 Ogden Avenue, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
23 Willow Springs Road, Des Plaines River	0/11	0/12	0/11	0/11	0/11	0/12	0/12	0/11
29 Stephen Street, Des Plaines River	0/11	0/12	0/11	0/12	0/11	0/12	0/12	0/11
91 Material Service Road, Des Plaines River	0/11	0/12	0/12	0/12	0/11	0/12	0/12	0/11

NA = Not Applicable.
ND = No Data.

**TABLE AII-46: BIOCHEMICAL OXYGEN DEMAND MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (mg/L)											
	11	10	09	08	07	06	05	04	03	02	01	
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	4.00	2.00	2.89	3.50	3.30	
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	1.00	2.00	2.56	1.56	
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	8.00	3.33	3.30	3.45	2.30	
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	11.00	6.42	7.58	6.58	6.90	
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	8.00	5.92	5.42	6.58	4.90	
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	10.00	5.67	5.25	4.92	4.10	
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	6.00	3.25	3.25	3.00	3.80	
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	2.00	3.17	2.67	1.83	4.00	
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	1.33	2.70	2.08	0.80	
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	3.00	2.17	3.25	2.33	1.57	
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	4.00	2.92	3.91	2.58	2.50	
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	3.00	2.92	4.25	2.92	1.89	
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	6.08	3.73	4.83	4.80	
40 Damen Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	4.00	2.42	ND	ND	ND	
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.75	4.60	
75 Cicero Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	4.00	3.75	4.67	2.58	2.20	
41 Harlem Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	5.00	3.17	3.33	2.25	2.90	
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	0.00	2.83	2.75	2.58	2.90	
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	3.00	1.83	2.50	1.25	1.67	
92 Lockport Forebay, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	3.14	1.50	1.65	1.74	2.82	
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	1.10	0.92	0.92	0.60	
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	0.27	1.90	1.67	0.60	
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.50	
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	1.78	2.36	2.42	2.75	
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	4.00	1.75	2.64	1.58	2.90	
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.50	
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	2.40	4.50	2.17	3.33	
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	3.00	0.83	3.00	1.25	2.50	
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	3.00	1.55	2.00	2.50	2.30	
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	1.89	2.00	1.58	2.30	
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 Du Page 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-47: CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)											
	11	10	09	08	07	06	05	04	03	02	01	
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	3.00	1.86	1.78	2.36	2.30	
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	1.00	1.67	1.11	0.22	
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	0.00	2.08	1.44	1.91	2.00	
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	4.00	2.50	2.25	2.00	2.20	
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	2.00	1.92	1.75	2.33	1.30	
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	4.00	1.67	2.50	2.08	1.40	
73 Diversy Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	2.00	1.33	1.17	1.33	1.20	
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	1.50	1.50	0.92	0.50	0.50	
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	1.11	2.80	1.50	0.50	
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	3.00	1.58	1.67	1.64	0.00	
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	2.00	1.42	2.00	1.42	1.10	
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	0.00	1.25	2.58	1.50	0.89	
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	3.08	1.58	2.25	3.50	
40 Damen Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	2.00	1.42	ND	ND	ND	
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.75	1.40	
75 Cicero Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	3.00	1.67	0.83	0.75	1.30	
41 Harlem Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	3.00	1.50	1.33	0.50	1.30	
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	2.00	0.50	1.25	0.58	1.10	
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	0.00	0.58	1.17	0.50	1.00	
92 Lockport Forebay, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	0.71	0.61	0.52	0.40	0.00	
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	0.50	1.33	0.83	0.60	
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	0.27	1.40	1.25	0.50	
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.50	
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	0.00	1.36	1.92	1.38	
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	4.00	1.08	1.00	0.67	1.40	
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.00	
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	1.40	2.10	1.58	1.78	
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	3.00	1.08	1.50	0.67	1.10	
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	4.00	0.83	1.27	0.92	1.50	
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	0.60	1.18	0.83	0.70	
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 Du Page 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-48: DISSOLVED OXYGEN MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	7.83	8.03	7.78	6.93	8.75	8.10	10.30	8.02	7.00	9.12	9.54
103 Golf Road, West Fork North Branch Chicago River	7.75	7.70	7.27	7.21	7.31	8.58	7.38	7.64	6.86	7.10	6.98
31 Lake-Cook Road, Middle Fork North Branch	7.13	6.18	7.88	6.55	6.16	7.15	5.42	6.46	6.22	6.55	6.91
104 Glenview Road, North Branch Chicago River	7.68	8.20	7.53	7.39	6.90	7.98	8.12	8.03	7.47	8.08	7.36
32 Lake-Cook Road, Skokie River	7.29	7.23	7.75	7.35	7.21	7.75	7.75	7.73	6.67	7.14	7.65
105 Frontage Road, Skokie River	7.40	7.63	7.77	7.61	7.76	9.27	8.79	8.33	7.95	8.15	7.49
34 Dempster Street, North Branch Chicago River	7.28	8.25	7.88	7.01	6.52	8.23	7.16	8.21	7.45	7.75	7.29
96 Albany Avenue, North Branch Chicago River	8.68	8.47	8.64	8.22	8.19	9.18	8.63	9.12	7.77	7.71	7.42
35 Central Street, North Shore Channel	7.91	8.39	9.23	7.30	8.23	8.63	7.50	7.53	8.08	7.34	8.03
102 Oakton Street, North Shore Channel	7.39	7.02	8.19	7.57	7.76	8.73	7.95	7.26	6.32	6.58	5.80
36 Touhy Avenue, North Shore Channel	7.29	7.15	8.29	7.83	7.65	7.93	7.98	8.10	7.54	6.90	7.39
101 Foster Avenue, North Shore Channel	6.99	7.18	7.67	7.21	7.13	7.20	7.30	7.58	7.42	6.53	6.87
37 Wilson Avenue, North Branch Chicago River	7.23	7.51	8.43	7.43	7.58	7.83	7.03	7.55	7.14	6.74	7.13
73 Diversey Parkway, North Branch Chicago River	6.63	6.91	7.91	6.94	6.75	7.25	6.44	6.71	6.25	5.74	6.18
46 Grand Avenue, North Branch Chicago River	6.28	6.57	7.25	6.73	6.67	6.85	6.30	6.47	6.12	5.86	6.00
74 Lake Shore Drive, Chicago River	8.17	9.05	9.27	8.76	9.00	9.19	9.08	8.50	7.62	9.03	7.99
100 Wells Street, Chicago River	7.36	8.11	8.57	8.03	8.39	8.68	8.96	8.56	7.54	7.83	7.27
39 Madison Street, South Branch Chicago River	7.23	7.36	7.27	7.53	7.45	7.79	7.85	6.86	5.73	6.38	6.32
108 Loomis Street, South Branch Chicago River	6.77	7.51	6.84	6.89	7.21	7.81	7.78	7.23	5.97	5.86	5.79
99 Archer Avenue, South Fork South Branch Chicago River	5.11	5.60	4.76	5.33	6.19	6.00	6.65	5.63	5.29	3.91	2.62
40 Damen Avenue, Chicago Sanitary & Ship Canal	6.18	7.02	6.97	6.49	7.25	7.44	7.59	6.71	5.68	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.60	5.34
75 Cicero Avenue, Chicago Sanitary & Ship Canal	5.89	6.02	6.43	5.32	6.22	6.04	6.11	5.77	5.18	5.18	5.28
41 Harlem Avenue, Chicago Sanitary & Ship Canal	6.38	7.56	6.68	7.13	6.59	7.30	7.29	6.92	6.81	6.95	6.60
42 Route 83, Chicago Sanitary & Ship Canal	5.87	5.93	6.31	6.23	6.00	5.46	5.90	6.06	5.85	6.09	5.46
48 Stephen Street, Chicago Sanitary & Ship Canal	5.89	6.48	7.00	6.78	5.98	5.43	6.25	6.25	5.78	5.73	5.38
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.54	5.69	6.28	6.19	6.07	5.68	5.86	5.67	5.57	5.32	5.34
Calumet River System											
49 Ewing Avenue, Calumet River	9.43	8.90	9.07	8.84	9.66	9.50	9.99	9.24	9.73	9.65	8.99
50 Burnham Avenue, Wolf Lake	8.67	8.12	8.45	8.58	8.79	9.63	9.25	9.79	8.91	9.77	8.70
55 130th Street, Calumet River	8.86	9.16	8.43	8.22	8.91	8.45	9.26	9.13	8.27	9.17	8.41
86 Burnham Avenue, Grand Calumet River	4.57	4.89	4.66	6.51	4.21	6.20	4.80	4.93	3.94	6.22	4.19
56 Indiana Avenue, Little Calumet River	7.71	8.71	8.45	7.89	7.49	9.61	8.83	7.71	8.40	8.69	8.59
76 Halsted Street, Little Calumet River	6.78	6.89	7.14	6.30	6.35	6.27	6.98	7.13	7.00	6.92	6.69
52 Wentworth Avenue, Little Calumet River	7.21	7.08	7.10	6.22	6.43	7.49	6.45	6.40	6.53	6.47	6.20
54 Joe Orr Road, Thorn Creek	8.08	7.72	8.04	8.21	8.19	7.72	7.65	8.57	8.40	8.54	8.27
97 170th Street, Thorn Creek	7.43	7.87	7.24	7.01	7.34	7.15	7.85	8.37	7.80	8.37	7.29
57 Ashland Avenue, Little Calumet River	7.27	7.46	6.79	6.54	6.50	7.27	6.35	6.99	5.42	7.29	5.75
58 Ashland Avenue, Calumet-Sag Channel	7.19	7.44	7.52	6.63	6.54	7.15	7.23	7.25	6.98	6.48	6.41
59 Cicero Avenue, Calumet-Sag Channel	6.66	6.20	7.02	6.92	6.79	6.24	6.56	6.80	7.23	6.85	5.93
43 Route 83, Calumet-Sag Channel	6.98	6.49	6.72	7.22	6.51	6.70	7.38	6.39	7.88	6.93	6.04
Des Plaines River System											
90 Route 19, Poplar Creek	8.45	8.80	8.58	8.61	9.64	9.78	8.47	10.16	9.16	8.94	9.52
110 Springinsguth Road, West Branch DuPage River	5.94	5.34	6.23	6.16	6.17	6.23	6.80	6.31	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	7.78	8.53	8.75	8.35	8.68	8.28	7.78	8.03	7.48	7.64	6.82
64 Lake Street, West Branch DuPage River	ND	8.42	9.03	8.65	8.91	8.68	8.61	7.41	8.05	8.38	8.25
111 Arlington Drive, West Branch Du Page River	8.08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	7.09	6.88	7.41	7.18	7.80	8.78	6.24	8.97	7.37	7.59	8.88
80 Arlington Heights Road, Salt Creek	7.94	8.43	8.11	7.83	8.78	8.77	8.48	8.01	7.79	8.07	8.29
18 Devon Avenue, Salt Creek	8.06	8.25	8.09	8.48	8.94	8.89	9.04	8.33	7.59	7.96	8.24
24 Wolf Road, Salt Creek	8.64	7.41	8.82	8.27	8.23	8.51	8.61	8.19	8.64	7.79	8.50
109 Brookfield Avenue, Salt Creek	8.07	7.37	8.39	7.35	7.59	7.58	7.81	8.02	8.13	5.98	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.90	7.98
77 Elmhurst Road, Higgins Creek	8.94	8.70	8.55	8.82	8.66	8.43	9.15	8.80	7.48	8.22	8.42
78 Wille Road, Higgins Creek	8.65	8.98	8.81	8.46	8.76	9.04	8.88	9.15	8.16	8.55	8.93
12 Lake-Cook Road, Buffalo Creek	9.44	7.31	9.26	8.84	8.83	8.69	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	8.35	8.11	8.43	8.00	8.55	8.76	8.59	8.83	8.30	9.35	9.02
17 Oakton Street, Des Plaines River	8.83	8.58	9.38	8.34	8.39	8.35	8.39	8.83	7.57	8.17	9.00
19 Belmont Avenue, Des Plaines River	8.44	8.41	8.34	7.50	7.67	8.43	7.55	7.91	7.64	7.74	8.59
20 Roosevelt Road, Des Plaines River	8.26	7.91	8.60	7.55	7.62	8.16	7.57	8.13	7.16	7.96	8.31
22 Ogden Avenue, Des Plaines River	9.19	7.89	9.14	8.24	8.94	9.00	9.13	9.27	12.06	9.34	9.20
23 Willow Springs Road, Des Plaines River	9.05	8.07	8.80	8.00	8.65	8.24	9.08	9.19	8.66	8.99	9.44
29 Stephen Street, Des Plaines River	9.18	8.37	9.97	8.94	8.56	8.90	9.91	9.62	9.95	9.53	9.98
91 Material Service Road, Des Plaines River	9.05	9.04	9.33	8.78	9.38	9.68	10.31	10.65	9.65	10.31	8.71

ND = No Data.

TABLE AII-49: TEMPERATURE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (°C)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	12.7	13.1	11.3	13.6	9.8	13.2	12.4	12.1	19.4	10.8	16.9
103 Golf Road, West Fork North Branch Chicago River	14.8	15.7	13.4	13.8	15.4	13.4	15.2	16.7	15.2	12.5	15.8
31 Lake-Cook Road, Middle Fork North Branch	14.2	14.8	12.4	12.7	15.7	12.6	16.1	15.3	16.7	11.7	14.2
104 Glenview Road, North Branch Chicago River	13.4	12.7	12.5	11.5	14.8	12.9	15.1	13.9	16.5	10.4	15.9
32 Lake-Cook Road, Skokie River	15.2	15.2	13.4	12.3	16.2	12.9	17.1	15.2	16.1	11.9	14.4
105 Frontage Road, Skokie River	13.8	13.5	12.3	12.3	14.9	13.1	14.4	13.9	15.1	12.7	16.7
34 Dempster Street, North Branch Chicago River	13.7	12.7	11.9	13.5	14.7	12.8	16.7	15.3	14.3	12.3	14.2
96 Albany Avenue, North Branch Chicago River	14.1	14.5	12.1	12.6	15.1	13.0	15.5	14.3	15.2	12.9	15.3
35 Central Street, North Shore Channel	17.2	16.9	14.9	15.9	15.5	18.6	17.9	17.4	17.9	14.3	15.3
102 Oakton Street, North Shore Channel	15.0	15.4	13.2	14.7	14.3	15.0	16.1	12.8	16.2	14.9	16.8
36 Touhy Avenue, North Shore Channel	15.1	16.2	13.9	14.8	17.0	15.6	16.4	14.7	17.0	16.5	16.9
101 Foster Avenue, North Shore Channel	15.3	15.3	14.8	14.7	16.7	15.8	16.8	15.8	17.9	15.3	17.8
37 Wilson Avenue, North Branch Chicago River	14.7	15.7	13.7	14.2	15.7	15.2	17.5	17.3	17.1	15.1	15.1
73 Diverser Parkway, North Branch Chicago River	15.3	15.0	13.8	13.5	15.5	15.0	17.4	16.9	16.0	15.2	15.3
46 Grand Avenue, North Branch Chicago River	14.8	14.6	13.4	13.6	16.5	14.9	17.5	16.7	14.5	15.3	15.6
74 Lake Shore Drive, Chicago River	13.9	13.5	13.7	14.6	14.5	14.0	15.2	17.5	15.5	12.8	14.0
100 Wells Street, Chicago River	14.2	13.9	13.7	12.8	14.5	13.9	13.4	14.4	14.1	14.0	16.4
39 Madison Street, South Branch Chicago River	10.7	13.9	13.7	12.4	14.1	14.0	13.3	14.3	12.7	14.1	15.0
108 Loomis Street, South Branch Chicago River	15.4	15.7	16.4	15.3	16.3	16.7	15.5	18.4	17.1	17.8	20.0
99 Archer Avenue, South Fork South Branch Chicago River	14.9	12.8	15.4	14.6	16.6	18.9	15.8	16.5	16.1	17.2	18.5
40 Damen Avenue, Chicago Sanitary & Ship Canal	15.1	16.1	15.4	14.4	16.3	16.6	15.5	16.9	16.8	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.1	17.8
75 Cicero Avenue, Chicago Sanitary & Ship Canal	18.4	19.3	17.3	17.9	20.2	17.7	20.0	18.1	20.8	18.8	18.1
41 Harlem Avenue, Chicago Sanitary & Ship Canal	16.6	17.2	16.4	16.8	16.3	16.4	17.3	17.6	17.5	16.9	17.1
42 Route 83, Chicago Sanitary & Ship Canal	17.2	16.1	16.5	17.7	18.7	18.4	17.7	15.3	17.5	16.6	16.9
48 Stephen Street, Chicago Sanitary & Ship Canal	15.8	16.5	15.8	16.8	17.4	16.3	16.1	15.8	15.6	16.4	16.9
92 Lockport Forebay, Chicago Sanitary & Ship Canal	17.0	18.0	17.4	17.9	19.8	19.4	19.3	18.1	17.9	18.7	18.3
Calumet River System											
49 Ewing Avenue, Calumet River	12.1	17.3	14.0	15.0	16.3	14.0	16.2	14.2	12.4	12.7	13.0
50 Burnham Avenue, Wolf Lake	13.7	15.6	17.0	11.5	16.3	13.9	14.5	13.0	14.2	12.1	14.1
55 130th Street, Calumet River	14.2	16.0	16.6	14.6	17.6	13.5	15.8	15.6	14.4	12.3	15.1
86 Burnham Avenue, Grand Calumet River	14.2	18.0	17.8	11.9	16.8	13.7	16.2	15.4	15.6	12.9	15.5
56 Indiana Avenue, Little Calumet River	15.4	17.6	17.1	16.2	18.6	14.6	16.0	16.7	16.2	13.6	17.8
76 Halsted Street, Little Calumet River	14.6	16.6	14.4	14.1	17.2	15.3	16.4	13.5	15.7	14.8	15.0
52 Wentworth Avenue, Little Calumet River	14.4	15.2	15.9	13.2	14.9	14.1	14.5	14.3	16.2	13.1	13.9
54 Joe Orr Road, Thorn Creek	15.0	15.0	16.7	13.9	16.3	15.1	15.0	15.3	14.9	15.0	15.9
97 170th Street, Thorn Creek	14.5	15.0	16.4	12.1	15.4	14.7	13.4	14.7	15.3	14.4	15.5
57 Ashland Avenue, Little Calumet River	14.5	14.4	16.5	15.4	15.3	15.7	15.7	16.2	17.1	12.9	15.7
58 Ashland Avenue, Calumet-Sag Channel	14.4	15.5	14.3	13.8	16.3	14.3	15.8	14.2	15.1	14.5	14.7
59 Cicero Avenue, Calumet-Sag Channel	15.0	16.0	15.9	14.2	16.5	16.6	15.0	16.6	16.9	16.3	14.5
43 Route 83, Calumet-Sag Channel	15.6	15.8	16.2	15.4	17.3	15.1	16.7	20.0	16.8	14.9	14.2
Des Plaines River System											
90 Route 19, Poplar Creek	14.0	15.4	13.6	14.5	14.3	13.2	15.1	15.0	13.8	16.3	14.0
110 Springinguth Road, West Branch DuPage River	15.9	17.9	13.7	13.5	14.9	13.2	15.1	15.3	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	15.6	16.3	15.7	16.3	15.7	13.8	16.9	16.1	16.6	15.5	15.8
64 Lake Street, West Branch DuPage River	ND	12.1	13.5	15.3	14.8	14.5	16.5	15.9	14.4	14.2	16.0
111 Arlington Drive, West Branch Du Page River	15.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	16.0	18.9	16.7	18.2	15.8	18.6	19.2	15.0	15.1	18.9	16.8
80 Arlington Heights Road, Salt Creek	15.3	15.0	13.6	15.0	15.0	14.6	16.4	15.9	14.9	14.2	14.5
18 Devon Avenue, Salt Creek	14.9	13.4	14.0	14.6	14.3	14.0	15.3	15.4	16.0	14.6	14.5
24 Wolf Road, Salt Creek	14.5	11.3	12.1	14.6	14.6	13.5	14.8	16.2	12.9	12.3	13.8
109 Brookfield Avenue, Salt Creek	14.7	13.8	12.3	15.2	14.5	12.8	14.9	15.1	14.1	15.9	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4	13.5
77 Elmhurst Road, Higgins Creek	14.6	14.8	12.2	10.5	14.0	13.3	12.3	12.7	15.4	15.0	14.5
78 Wille Road, Higgins Creek	16.3	17.7	13.8	17.6	16.2	16.1	17.1	15.6	15.4	16.0	15.6
12 Lake-Cook Road, Buffalo Creek	12.9	14.9	10.5	13.9	14.2	11.1	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	14.0	14.1	11.1	14.7	13.1	12.9	15.8	14.1	12.4	12.2	13.3
17 Oakton Street, Des Plaines River	14.5	15.1	12.8	15.8	14.4	13.6	15.9	15.2	15.5	14.4	13.5
19 Belmont Avenue, Des Plaines River	14.3	15.0	11.8	15.3	14.8	14.2	15.3	16.2	13.6	12.1	13.5
20 Roosevelt Road, Des Plaines River	15.1	15.3	13.4	15.7	15.2	13.8	15.4	15.7	15.3	12.2	13.8
22 Ogden Avenue, Des Plaines River	14.5	13.0	11.8	14.9	14.4	13.0	15.1	16.5	6.0	11.3	13.9
23 Willow Springs Road, Des Plaines River	14.5	14.1	12.1	15.2	15.7	12.7	14.7	16.1	15.0	14.4	13.6
29 Stephen Street, Des Plaines River	15.1	13.5	12.6	14.3	15.5	13.4	15.1	17.2	13.8	12.3	14.2
91 Material Service Road, Des Plaines River	15.2	14.0	11.7	14.7	15.8	13.8	15.0	17.1	13.2	12.5	16.2

ND = No Data.

TABLE AII-50: pH MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	7.14	7.25	7.18	7.52	7.64	7.22	7.53	7.33	7.57	7.54	7.38
103 Golf Road, West Fork North Branch Chicago River	7.59	7.63	7.49	7.44	7.50	7.47	7.42	7.72	7.65	7.77	7.75
31 Lake-Cook Road, Middle Fork North Branch	7.54	7.61	7.60	7.64	7.67	7.47	7.26	7.32	7.59	7.44	7.60
104 Glenview Road, North Branch Chicago River	7.73	7.71	7.76	7.86	7.85	7.71	7.22	7.45	7.97	7.73	7.63
32 Lake-Cook Road, Skokie River	7.69	7.70	7.66	7.74	7.85	7.66	7.19	7.34	7.59	7.43	7.61
105 Frontage Road, Skokie River	7.66	7.56	7.64	7.77	7.88	7.68	7.19	7.47	7.65	7.69	7.70
34 Dempster Street, North Branch Chicago River	7.72	7.70	7.78	7.61	7.67	7.74	7.45	7.72	7.72	7.59	7.62
96 Albany Avenue, North Branch Chicago River	7.67	7.94	7.88	7.80	7.77	7.59	7.30	7.53	7.69	7.81	7.40
35 Central Street, North Shore Channel	7.73	7.62	7.83	7.80	7.78	7.70	7.65	7.89	7.31	7.90	7.77
102 Oakton Street, North Shore Channel	7.49	7.57	7.67	7.69	7.58	7.56	7.35	7.73	7.13	7.36	7.37
36 Touhy Avenue, North Shore Channel	7.21	7.30	7.33	7.40	7.40	7.23	7.14	7.41	7.25	7.38	7.19
101 Foster Avenue, North Shore Channel	7.14	7.11	7.33	7.31	7.25	7.13	7.18	7.27	7.13	7.28	7.14
37 Wilson Avenue, North Branch Chicago River	7.38	7.35	7.54	7.40	7.44	7.39	7.32	7.59	7.50	7.44	7.29
73 Diversey Parkway, North Branch Chicago River	7.26	7.31	7.30	7.42	7.21	7.36	7.23	7.37	7.26	7.45	7.12
46 Grand Avenue, North Branch Chicago River	7.42	7.39	7.49	7.43	7.45	7.37	7.21	7.47	7.41	7.36	7.09
74 Lake Shore Drive, Chicago River	7.10	7.39	7.49	7.64	7.60	7.75	7.52	7.73	7.33	7.43	7.95
100 Wells Street, Chicago River	7.13	7.38	7.68	7.62	7.68	7.72	7.44	7.49	7.30	7.23	7.66
39 Madison Street, South Branch Chicago River	7.10	7.23	7.45	7.42	7.65	7.49	7.41	7.31	7.25	7.23	7.39
108 Loomis Street, South Branch Chicago River	7.40	7.33	7.42	7.59	7.50	7.46	7.44	7.30	7.36	7.25	7.02
99 Archer Avenue, South Fork South Branch Chicago River	7.28	7.34	7.25	7.42	7.45	7.38	7.27	7.27	7.35	7.13	7.03
40 Damen Avenue, Chicago Sanitary & Ship Canal	7.40	7.40	7.46	7.54	7.49	7.46	7.39	7.40	7.38	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.10	7.06
75 Cicero Avenue, Chicago Sanitary & Ship Canal	7.13	7.04	7.14	7.19	7.29	7.22	7.23	7.47	7.27	7.16	7.23
41 Harlem Avenue, Chicago Sanitary & Ship Canal	7.15	7.23	7.24	7.41	7.27	7.20	7.11	7.47	7.23	7.17	7.19
42 Route 83, Chicago Sanitary & Ship Canal	6.81	7.02	6.96	7.10	7.13	6.92	7.08	7.40	7.12	7.22	7.13
48 Stephen Street, Chicago Sanitary & Ship Canal	7.01	7.24	7.28	7.57	7.32	7.08	7.03	7.34	7.25	7.26	7.23
92 Lockport Forebay, Chicago Sanitary & Ship Canal	7.27	7.33	7.39	7.40	7.31	7.29	7.20	7.38	7.33	7.27	7.11
Calumet River System											
49 Ewing Avenue, Calumet River	7.08	7.57	7.45	7.45	7.77	7.72	7.48	8.01	7.65	7.55	7.47
50 Burnham Avenue, Wolf Lake	7.65	7.74	7.81	8.04	8.29	8.26	7.65	7.82	8.18	7.91	7.76
55 130th Street, Calumet River	7.77	7.86	7.84	7.92	7.85	7.94	7.64	7.78	7.86	7.87	7.41
86 Burnham Avenue, Grand Calumet River	7.34	7.27	7.35	7.69	7.64	7.43	7.30	7.51	7.58	7.73	7.39
56 Indiana Avenue, Little Calumet River	7.22	7.57	7.49	7.49	7.65	7.81	7.06	7.67	7.73	7.63	7.79
76 Halsted Street, Little Calumet River	7.09	7.30	7.31	7.34	7.40	7.51	7.11	7.40	7.36	7.35	7.21
52 Wentworth Avenue, Little Calumet River	7.42	7.63	7.77	7.86	7.77	7.75	7.16	7.43	7.63	7.56	7.31
54 Joe Orr Road, Thorn Creek	7.05	7.27	7.03	7.32	7.17	7.32	7.10	7.38	7.37	7.37	7.12
97 170th Street, Thorn Creek	7.45	7.66	7.76	7.83	7.71	7.70	6.96	7.44	7.61	7.58	7.14
57 Ashland Avenue, Little Calumet River	7.58	7.60	7.78	7.79	7.71	7.74	7.07	7.42	7.39	7.55	7.20
58 Ashland Avenue, Calumet-Sag Channel	7.28	7.38	7.48	7.44	7.42	7.40	6.91	7.33	7.47	7.37	7.26
59 Cicero Avenue, Calumet-Sag Channel	7.32	7.48	7.42	7.46	7.39	7.38	7.04	7.40	7.54	7.07	7.19
43 Route 83, Calumet-Sag Channel	7.41	7.47	7.55	7.70	7.51	7.55	7.25	7.46	7.66	6.99	7.16
Des Plaines River System											
90 Route 19, Poplar Creek	7.95	7.83	7.91	7.88	7.95	7.80	7.70	7.65	7.58	7.64	7.54
110 Springinguth Road, West Branch DuPage River	7.61	7.41	7.53	7.40	7.76	7.54	7.43	7.49	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	7.54	7.51	7.48	7.58	7.59	7.43	7.40	7.44	7.37	7.46	7.42
64 Lake Street, West Branch DuPage River	ND	7.71	7.77	7.74	7.81	7.64	7.57	7.48	7.48	7.66	7.50
111 Arlington Drive, West Branch DuPage River	7.73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	7.42	7.51	7.77	7.57	7.80	7.94	7.39	7.54	7.54	7.74	7.50
80 Arlington Heights Road, Salt Creek	7.54	7.52	7.46	7.39	7.59	7.50	7.45	7.42	7.34	7.56	7.44
18 Devon Avenue, Salt Creek	7.62	7.60	7.55	7.51	7.63	7.55	7.44	7.35	7.39	7.26	7.58
24 Wolf Road, Salt Creek	7.28	7.48	7.30	7.41	7.52	7.31	7.30	7.67	7.31	7.45	7.63
109 Brookfield Avenue, Salt Creek	7.68	7.58	7.69	7.54	7.72	7.40	7.32	7.56	7.44	7.13	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.40	7.43
77 Elmhurst Road, Higgins Creek	7.51	7.68	7.76	7.88	7.80	7.40	7.39	7.80	7.54	7.35	7.65
78 Wille Road, Higgins Creek	7.65	7.61	7.58	7.63	7.67	7.54	7.37	7.66	7.58	7.14	7.72
12 Lake-Cook Road, Buffalo Creek	7.56	7.47	7.37	7.80	7.70	7.73	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	7.73	7.58	7.72	7.89	7.69	7.68	7.44	7.77	7.62	7.52	7.68
17 Oakton Street, Des Plaines River	7.85	7.74	7.78	8.01	7.79	7.57	7.44	7.63	7.67	7.34	7.69
19 Belmont Avenue, Des Plaines River	7.88	7.82	7.82	7.98	7.83	7.67	7.45	7.62	7.68	7.40	7.65
20 Roosevelt Road, Des Plaines River	7.86	7.85	7.91	8.02	7.84	7.89	7.49	7.67	7.71	7.32	7.59
22 Ogden Avenue, Des Plaines River	7.88	7.81	7.72	7.62	7.96	7.50	7.49	7.63	7.46	7.49	7.55
23 Willow Springs Road, Des Plaines River	7.93	7.86	7.91	7.86	7.79	7.62	7.62	7.63	7.59	7.60	7.66
29 Stephen Street, Des Plaines River	7.78	7.86	7.90	7.92	7.72	7.64	7.55	7.51	7.67	7.82	7.71
91 Material Service Road, Des Plaines River	7.89	7.97	8.13	8.04	7.98	7.87	7.74	7.65	7.80	7.85	7.40

ND = No Data.

TABLE AII-51: TOTAL ALKALINITY MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	178	158	173	171	163	147	152	178	138	187	180
103 Golf Road, West Fork North Branch Chicago River	192	181	180	165	186	178	172	179	168	185	177
31 Lake-Cook Road, Middle Fork North Branch	191	192	196	177	205	185	199	196	194	213	201
104 Glenview Road, North Branch Chicago River	169	171	184	168	173	165	156	182	170	183	189
32 Lake-Cook Road, Skokie River	204	196	203	188	215	184	183	209	191	210	210
105 Frontage Road, Skokie River	166	170	187	170	168	164	154	178	160	178	182
34 Dempster Street, North Branch Chicago River	179	183	180	165	175	170	164	175	159	180	179
96 Albany Avenue, North Branch Chicago River	187	172	186	164	174	173	167	169	170	176	186
35 Central Street, North Shore Channel	121	118	119	113	121	117	115	116	117	119	111
102 Oakton Street, North Shore Channel	133	131	136	120	133	134	126	137	128	130	119
36 Touhy Avenue, North Shore Channel	149	136	156	145	142	144	136	151	140	149	151
101 Foster Avenue, North Shore Channel	146	139	149	145	142	145	135	144	137	149	142
37 Wilson Avenue, North Branch Chicago River	152	139	149	146	145	146	138	159	139	148	156
73 Diverser Parkway, North Branch Chicago River	153	149	152	147	147	146	135	156	139	144	155
46 Grand Avenue, North Branch Chicago River	155	145	150	141	147	147	144	156	145	147	157
74 Lake Shore Drive, Chicago River	123	110	118	111	124	120	120	119	116	120	125
100 Wells Street, Chicago River	136	119	130	125	125	127	123	125	130	130	132
39 Madison Street, South Branch Chicago River	149	134	150	134	135	142	137	137	140	141	147
108 Loomis Street, South Branch Chicago River	144	135	149	134	136	143	142	136	138	154	137
99 Archer Avenue, South Fork South Branch Chicago River	152	146	149	143	135	147	138	142	133	148	157
40 Damen Avenue, Chicago Sanitary & Ship Canal	146	136	152	136	136	142	138	138	136	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	150	139
75 Cicero Avenue, Chicago Sanitary & Ship Canal	147	140	145	141	137	158	140	142	132	153	141
41 Harlem Avenue, Chicago Sanitary & Ship Canal	144	138	144	134	131	130	126	132	117	137	139
42 Route 83, Chicago Sanitary & Ship Canal	151	143	149	132	138	139	138	137	126	140	137
48 Stephen Street, Chicago Sanitary & Ship Canal	156	145	146	137	142	146	142	143	138	158	144
92 Lockport Forebay, Chicago Sanitary & Ship Canal	150	146	149	137	146	143	138	140	133	141	148
Calumet River System											
49 Ewing Avenue, Calumet River	110	107	113	104	113	113	109	111	110	110	112
50 Burnham Avenue, Wolf Lake	99	103	102	98	104	100	109	111	104	96	96
55 130th Street, Calumet River	112	108	117	105	114	112	112	116	111	117	116
86 Burnham Avenue, Grand Calumet River	232	250	225	243	262	248	170	203	196	176	165
56 Indiana Avenue, Little Calumet River	131	120	136	125	137	127	125	129	127	138	126
76 Halsted Street, Little Calumet River	159	147	162	155	162	162	153	159	146	156	159
52 Wentworth Avenue, Little Calumet River	171	184	204	216	208	222	175	206	208	225	190
54 Joe Orr Road, Thorn Creek	163	178	190	185	177	189	152	183	158	183	195
97 170th Street, Thorn Creek	167	163	204	195	176	205	172	186	172	190	182
57 Ashland Avenue, Little Calumet River	166	166	193	192	174	208	168	180	182	194	174
58 Ashland Avenue, Calumet-Sag Channel	159	159	163	158	156	167	154	158	155	167	163
59 Cicero Avenue, Calumet-Sag Channel	163	153	165	154	154	171	150	150	151	157	161
43 Route 83, Calumet-Sag Channel	155	158	160	154	151	168	151	153	150	152	161
Des Plaines River System											
90 Route 19, Poplar Creek	218	222	227	211	210	190	188	216	185	209	207
110 Springinguth Road, West Branch DuPage River	238	209	226	203	191	191	179	183	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	175	154	179	147	152	160	150	148	135	158	165
64 Lake Street, West Branch DuPage River	ND	180	170	145	150	184	133	147	129	157	162
111 Arlington Drive, West Branch Du Page River	162	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	180	135	183	176	159	155	142	197	127	166	182
80 Arlington Heights Road, Salt Creek	144	148	152	126	133	142	136	149	133	151	147
18 Devon Avenue, Salt Creek	146	154	149	125	132	142	135	149	132	147	145
24 Wolf Road, Salt Creek	157	154	172	141	140	145	134	156	126	154	159
109 Brookfield Avenue, Salt Creek	159	150	169	142	139	144	133	160	125	128	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	185	161
77 Elmhurst Road, Higgins Creek	142	114	149	128	118	121	120	158	102	139	168
78 Wille Road, Higgins Creek	195	176	204	165	175	179	150	192	159	181	195
12 Lake-Cook Road, Buffalo Creek	200	204	211	197	188	181	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	189	192	201	199	201	189	179	196	168	214	210
17 Oakton Street, Des Plaines River	188	180	194	192	187	179	171	192	167	206	201
19 Belmont Avenue, Des Plaines River	186	171	196	180	179	177	167	189	155	192	203
20 Roosevelt Road, Des Plaines River	184	170	189	185	182	172	166	190	153	199	202
22 Ogden Avenue, Des Plaines River	176	169	182	170	164	163	151	176	155	181	190
23 Willow Springs Road, Des Plaines River	175	165	184	171	168	162	154	180	141	177	189
29 Stephen Street, Des Plaines River	173	170	180	173	172	169	159	180	149	181	188
91 Material Service Road, Des Plaines River	173	175	184	170	175	173	163	184	146	185	183

ND = No Data.

TABLE AII-52: CHLORIDE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	555	470	403	388	297	339	456	552	181	293	371
103 Golf Road, West Fork North Branch Chicago River	402	400	321	330	329	344	501	298	270	244	227
31 Lake-Cook Road, Middle Fork North Branch	266	304	219	293	286	258	318	205	217	185	203
104 Glenview Road, North Branch Chicago River	231	257	222	287	258	222	258	265	215	171	177
32 Lake-Cook Road, Skokie River	215	251	196	265	290	214	310	239	220	190	218
105 Frontage Road, Skokie River	207	217	208	275	228	207	236	203	177	162	167
34 Dempster Street, North Branch Chicago River	247	316	246	265	277	254	337	322	205	205	249
96 Albany Avenue, North Branch Chicago River	273	319	274	345	283	256	346	236	230	223	228
35 Central Street, North Shore Channel	63	30	44	90	51	37	35	31	47	64	16
102 Oakton Street, North Shore Channel	150	106	107	138	133	90	135	104	80	99	36
36 Touhy Avenue, North Shore Channel	221	155	210	168	212	116	150	172	143	105	152
101 Foster Avenue, North Shore Channel	214	170	199	175	231	134	165	143	123	111	121
37 Wilson Avenue, North Branch Chicago River	223	222	218	216	249	145	209	183	159	133	192
73 Diversy Parkway, North Branch Chicago River	182	199	248	235	190	140	196	193	168	136	199
46 Grand Avenue, North Branch Chicago River	182	175	195	248	204	154	186	219	174	133	191
74 Lake Shore Drive, Chicago River	150	78	48	60	106	64	62	62	73	69	98
100 Wells Street, Chicago River	155	122	84	148	127	89	109	103	108	88	98
39 Madison Street, South Branch Chicago River	247	168	152	191	174	125	156	129	136	102	179
108 Loomis Street, South Branch Chicago River	182	188	152	193	207	143	158	141	137	122	96
99 Archer Avenue, South Fork South Branch Chicago River	177	171	146	194	190	110	150	148	134	127	117
40 Damen Avenue, Chicago Sanitary & Ship Canal	179	185	154	190	218	137	153	142	137	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	138
75 Cicero Avenue, Chicago Sanitary & Ship Canal	180	161	155	211	228	136	156	161	150	130	148
41 Harlem Avenue, Chicago Sanitary & Ship Canal	187	188	187	195	267	146	162	167	149	124	170
42 Route 83, Chicago Sanitary & Ship Canal	202	196	174	214	187	151	170	221	156	144	203
48 Stephen Street, Chicago Sanitary & Ship Canal	194	202	163	199	165	152	164	179	160	156	202
92 Lockport Forebay, Chicago Sanitary & Ship Canal	200	181	170	230	194	158	181	195	166	151	187
Calumet River System											
49 Ewing Avenue, Calumet River	52	35	38	33	46	44	38	31	35	40	59
50 Burnham Avenue, Wolf Lake	90	86	79	66	68	47	59	55	42	43	45
55 130th Street, Calumet River	107	83	98	104	88	83	75	69	64	68	93
86 Burnham Avenue, Grand Calumet River	59	80	148	134	144	155	137	138	176	200	180
56 Indiana Avenue, Little Calumet River	120	104	100	116	109	98	82	82	88	109	95
76 Halsted Street, Little Calumet River	175	159	150	202	181	153	174	154	133	127	162
52 Wentworth Avenue, Little Calumet River	101	122	110	150	132	122	140	160	179	189	137
54 Joe Orr Road, Thorn Creek	144	210	145	171	176	183	212	235	94	191	187
97 170th Street, Thorn Creek	147	192	163	183	158	182	228	222	217	194	163
57 Ashland Avenue, Little Calumet River	161	182	135	176	171	174	205	200	193	173	168
58 Ashland Avenue, Calumet-Sag Channel	173	159	147	207	161	161	180	167	155	147	167
59 Cicero Avenue, Calumet-Sag Channel	190	160	136	170	167	155	171	167	150	145	167
43 Route 83, Calumet-Sag Channel	169	178	139	164	164	150	144	156	142	144	179
Des Plaines River System											
90 Route 19, Poplar Creek	251	273	215	282	277	279	278	241	201	220	229
110 Springinsguth Road, West Branch DuPage River	271	239	254	340	267	466	355	310	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	204	171	170	196	187	193	181	207	205	169	171
64 Lake Street, West Branch DuPage River	ND	340	188	232	235	201	211	198	186	190	198
111 Arlington Drive, West Branch Du Page River	216	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	319	266	258	385	353	287	409	363	235	260	327
80 Arlington Heights Road, Salt Creek	298	289	248	389	268	280	323	225	241	213	234
18 Devon Avenue, Salt Creek	293	327	231	384	287	283	320	236	250	204	247
24 Wolf Road, Salt Creek	279	313	244	346	275	241	261	250	241	254	268
109 Brookfield Avenue, Salt Creek	279	293	231	321	271	257	258	264	208	135	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	654	260
77 Elmhurst Road, Higgins Creek	285	583	305	548	259	571	478	514	424	460	479
78 Wille Road, Higgins Creek	235	220	233	274	247	217	220	190	213	259	221
12 Lake-Cook Road, Buffalo Creek	258	310	218	357	272	259	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	175	185	148	220	184	210	221	176	202	188	158
17 Oakton Street, Des Plaines River	196	221	154	238	195	245	251	197	202	224	182
19 Belmont Avenue, Des Plaines River	207	231	173	279	208	250	230	225	255	236	188
20 Roosevelt Road, Des Plaines River	214	232	164	285	214	249	260	211	173	265	190
22 Ogden Avenue, Des Plaines River	227	250	173	270	228	244	255	218	261	269	205
23 Willow Springs Road, Des Plaines River	231	239	177	275	238	234	268	222	197	226	204
29 Stephen Street, Des Plaines River	225	235	172	290	242	236	255	212	210	267	199
91 Material Service Road, Des Plaines River	226	242	185	284	225	242	249	212	200	251	198

ND = No Data.

**TABLE AII-53: TURBIDITY MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (NTU)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	25.4	18.0	26.9	31.4	29.0	66.6	30.1	49.5	32.2	19.2	24.6
103 Golf Road, West Fork North Branch Chicago River	14.2	12.4	24.1	18.4	14.1	32.2	25.6	20.1	16.9	20.7	18.5
31 Lake-Cook Road, Middle Fork North Branch	9.9	10.6	18.3	18.3	14.9	46.2	16.7	22.8	13.1	16.6	22.3
104 Glenview Road, North Branch Chicago River	14.8	7.6	15.0	16.9	13.7	32.9	15.2	18.2	14.7	15.3	14.1
32 Lake-Cook Road, Skokie River	12.9	9.2	16.2	18.5	14.6	37.0	16.8	19.8	12.6	13.4	15.6
105 Frontage Road, Skokie River	11.9	9.5	14.8	13.1	15.6	16.5	13.4	16.7	12.0	12.5	12.9
34 Dempster Street, North Branch Chicago River	12.5	9.4	17.0	17.8	15.3	28.9	18.9	19.1	14.5	18.0	18.1
96 Albany Avenue, North Branch Chicago River	10.6	13.1	17.4	20.2	14.6	23.5	16.0	18.3	14.1	14.5	13.3
35 Central Street, North Shore Channel	6.3	5.5	8.1	9.7	5.1	9.3	5.9	7.3	8.2	10.6	10.3
102 Oakton Street, North Shore Channel	10.0	14.3	7.9	15.0	10.3	13.2	12.2	11.3	11.6	14.1	14.4
36 Touhy Avenue, North Shore Channel	4.2	4.0	5.1	4.8	4.2	5.8	6.5	7.6	7.1	8.1	6.7
101 Foster Avenue, North Shore Channel	5.5	4.6	4.4	5.4	5.1	5.9	7.0	7.5	8.0	9.5	8.7
37 Wilson Avenue, North Branch Chicago River	6.7	6.6	11.4	8.2	8.2	9.3	9.5	10.5	9.2	11.3	11.4
73 Diversey Parkway, North Branch Chicago River	8.8	6.5	10.6	10.3	8.8	10.4	10.0	11.4	9.5	12.4	11.8
46 Grand Avenue, North Branch Chicago River	8.4	8.0	12.6	10.0	13.2	13.4	11.3	14.9	10.2	13.2	12.0
74 Lake Shore Drive, Chicago River	2.0	2.2	3.8	4.6	3.5	2.8	3.3	3.4	5.5	6.0	5.9
100 Wells Street, Chicago River	6.3	3.8	4.1	7.4	4.0	3.5	4.7	4.7	7.0	6.8	7.9
39 Madison Street, South Branch Chicago River	9.3	8.4	9.7	10.8	10.7	8.0	9.1	11.1	9.8	11.6	12.5
108 Loomis Street, South Branch Chicago River	10.2	8.5	9.7	11.6	10.1	11.3	9.6	10.7	9.1	10.0	12.6
99 Archer Avenue, South Fork South Branch Chicago River	9.9	7.6	8.4	10.8	7.4	8.8	8.7	9.9	9.3	10.4	12.5
40 Damen Avenue, Chicago Sanitary & Ship Canal	10.2	8.9	11.1	10.3	11.8	11.4	10.4	11.5	10.3	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.9
75 Cicero Avenue, Chicago Sanitary & Ship Canal	12.6	8.9	11.5	10.7	8.6	13.1	11.6	13.7	10.5	10.6	13.6
41 Harlem Avenue, Chicago Sanitary & Ship Canal	7.8	5.0	6.1	6.0	6.0	6.9	6.4	6.9	7.2	8.3	8.5
42 Route 83, Chicago Sanitary & Ship Canal	5.6	4.2	5.5	8.3	6.9	5.4	5.8	6.6	8.0	8.6	8.0
48 Stephen Street, Chicago Sanitary & Ship Canal	9.6	6.9	11.0	13.9	10.2	11.6	11.5	11.4	9.9	9.9	10.4
92 Lockport Forebay, Chicago Sanitary & Ship Canal	8.9	6.0	11.1	14.4	9.0	11.2	10.6	10.6	9.5	10.0	11.4
Calumet River System											
49 Ewing Avenue, Calumet River	7.7	2.9	3.6	4.2	4.0	7.2	5.6	7.7	6.9	7.5	9.8
50 Burnham Avenue, Wolf Lake	3.5	3.5	3.5	4.2	3.8	2.9	5.3	3.8	5.3	5.2	6.6
55 130th Street, Calumet River	5.4	2.7	4.3	6.0	6.3	6.3	5.9	6.4	7.8	9.4	10.8
86 Burnham Avenue, Grand Calumet River	9.1	13.0	6.0	11.9	10.3	12.8	25.3	11.5	9.4	9.3	10.0
56 Indiana Avenue, Little Calumet River	10.2	8.9	18.2	25.2	20.3	19.6	24.8	19.6	16.8	18.9	17.9
76 Halsted Street, Little Calumet River	8.9	4.9	8.9	11.5	8.4	9.3	10.2	11.1	8.4	10.3	11.1
52 Wentworth Avenue, Little Calumet River	71.6	61.2	38.2	17.7	31.2	33.6	32.2	30.9	16.1	22.6	24.7
54 Joe Orr Road, Thorn Creek	36.9	24.1	15.8	5.8	9.8	5.8	63.6	17.8	29.4	8.0	10.3
97 170th Street, Thorn Creek	64.3	51.5	21.5	16.3	25.4	26.5	46.2	29.2	19.8	14.9	27.6
57 Ashland Avenue, Little Calumet River	47.5	42.1	25.9	16.0	28.2	24.3	42.5	27.5	20.1	16.6	26.2
58 Ashland Avenue, Calumet-Sag Channel	26.2	19.7	12.9	13.6	16.6	11.5	13.4	14.7	14.5	12.0	14.8
59 Cicero Avenue, Calumet-Sag Channel	18.5	14.1	12.9	14.9	18.8	14.3	14.2	17.8	14.3	14.6	15.2
43 Route 83, Calumet-Sag Channel	17.9	9.2	13.6	12.8	14.5	18.6	14.2	15.7	20.7	16.2	22.0
Des Plaines River System											
90 Route 19, Poplar Creek	9.2	12.0	10.4	14.1	7.9	20.3	14.7	10.0	17.1	11.9	13.2
110 Springinsguth Road, West Branch DuPage River	13.4	10.1	25.1	22.2	16.2	19.1	25.2	32.9	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	6.1	7.0	5.5	13.5	7.5	7.4	7.6	8.3	10.2	7.5	9.0
64 Lake Street, West Branch DuPage River	ND	18.5	17.7	22.9	19.2	25.4	26.3	22.5	19.0	18.6	21.3
111 Arlington Drive, West Branch Du Page River	13.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	18.2	25.4	21.1	23.8	25.1	30.4	42.9	23.2	30.3	24.6	22.5
80 Arlington Heights Road, Salt Creek	7.7	6.0	12.5	5.8	9.1	9.8	6.5	5.7	8.1	6.9	9.8
18 Devon Avenue, Salt Creek	6.8	6.9	12.4	7.5	10.1	11.1	10.1	11.6	9.6	9.2	11.8
24 Wolf Road, Salt Creek	11.1	14.2	17.0	19.4	24.0	28.7	20.1	16.2	22.6	13.8	17.2
109 Brookfield Avenue, Salt Creek	10.8	19.4	18.9	18.9	21.1	32.5	23.3	17.0	27.8	13.0	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.1
77 Elmhurst Road, Higgins Creek	21.4	19.3	18.9	44.3	23.9	32.5	29.3	29.5	23.0	22.2	18.8
78 Wille Road, Higgins Creek	1.9	3.1	4.0	7.1	4.5	4.8	3.9	5.1	7.1	6.9	7.3
12 Lake-Cook Road, Buffalo Creek	14.8	23.9	21.4	20.4	26.7	25.6	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	10.2	12.9	20.9	17.0	16.5	20.7	19.4	18.5	18.7	15.8	16.9
17 Oakton Street, Des Plaines River	12.1	13.5	21.5	20.0	16.9	19.5	15.1	18.4	21.7	15.6	18.4
19 Belmont Avenue, Des Plaines River	10.6	12.7	21.6	25.6	18.6	20.7	17.6	17.1	20.8	17.1	16.7
20 Roosevelt Road, Des Plaines River	11.6	16.6	22.7	22.0	19.0	21.3	17.5	16.8	21.3	16.1	16.9
22 Ogden Avenue, Des Plaines River	11.7	15.3	23.8	20.6	21.7	28.3	23.8	16.3	24.2	15.0	17.3
23 Willow Springs Road, Des Plaines River	12.8	13.1	23.7	21.5	21.2	26.3	20.9	19.1	19.6	15.8	22.9
29 Stephen Street, Des Plaines River	12.4	16.6	24.8	18.5	18.0	26.2	23.0	20.2	20.9	15.9	26.0
91 Material Service Road, Des Plaines River	12.8	15.0	22.0	17.6	21.7	22.1	25.8	20.5	22.4	16.9	24.7

ND = No Data.

TABLE AII-54: TOTAL KJELDAHL NITROGEN MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	2.06	1.24	1.40	1.59	1.30	1.90	1.31	1.58	1.88	1.52	2.16
103 Golf Road, West Fork North Branch Chicago River	1.26	1.15	1.10	1.05	1.34	1.36	1.41	1.04	1.25	2.01	1.50
31 Lake-Cook Road, Middle Fork North Branch	0.87	0.95	0.94	1.16	1.20	1.09	1.36	1.05	1.24	1.26	1.34
104 Glenview Road, North Branch Chicago River	1.38	0.88	0.99	1.14	1.27	1.54	1.22	0.99	1.33	1.21	1.43
32 Lake-Cook Road, Skokie River	1.21	0.81	0.88	0.86	1.08	1.29	1.67	1.08	0.97	1.18	1.17
105 Frontage Road, Skokie River	0.94	1.01	1.01	1.06	1.31	1.32	1.25	0.96	1.16	1.26	1.36
34 Dempster Street, North Branch Chicago River	1.05	1.53	1.08	1.14	1.23	1.43	1.22	1.04	1.12	1.58	1.71
96 Albany Avenue, North Branch Chicago River	0.97	0.94	0.86	1.03	1.16	1.27	1.31	0.94	1.17	1.40	1.96
35 Central Street, North Shore Channel	0.56	0.32	0.45	0.43	0.58	0.57	0.39	0.54	0.84	1.02	0.63
102 Oakton Street, North Shore Channel	1.32	1.46	0.85	1.08	1.27	1.41	1.54	1.45	1.91	1.81	1.10
36 Touhy Avenue, North Shore Channel	2.35	2.06	1.38	1.59	2.07	1.99	3.08	2.35	2.75	2.60	2.66
101 Foster Avenue, North Shore Channel	2.42	2.10	1.37	1.82	2.39	2.07	3.53	3.31	3.02	2.98	2.70
37 Wilson Avenue, North Branch Chicago River	2.10	1.84	1.32	1.60	1.92	1.97	3.19	3.07	2.63	2.60	2.66
73 Diversey Parkway, North Branch Chicago River	2.20	1.77	1.19	1.36	1.79	1.71	2.25	2.20	2.39	2.33	2.43
46 Grand Avenue, North Branch Chicago River	2.03	1.96	1.49	1.56	1.94	1.85	2.82	2.26	2.16	2.51	2.34
74 Lake Shore Drive, Chicago River	0.84	0.29	0.26	0.43	0.55	0.48	0.73	0.66	0.73	0.67	1.01
100 Wells Street, Chicago River	1.31	0.65	0.54	0.88	0.85	0.87	1.15	1.25	1.59	1.10	1.08
39 Madison Street, South Branch Chicago River	2.24	1.29	1.12	1.33	1.44	1.46	2.32	1.93	2.35	2.46	1.94
108 Loomis Street, South Branch Chicago River	1.46	1.29	1.11	1.36	1.47	1.71	2.33	2.00	1.69	2.03	1.60
99 Archer Avenue, South Fork South Branch Chicago River	2.19	1.98	1.66	1.97	1.57	1.49	2.46	2.07	2.07	2.62	3.35
40 Damen Avenue, Chicago Sanitary & Ship Canal	1.61	1.57	1.27	1.41	1.45	1.64	2.31	1.99	1.97	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.20
75 Cicero Avenue, Chicago Sanitary & Ship Canal	1.63	1.40	1.12	1.55	1.47	1.70	2.10	1.80	1.96	2.15	1.92
41 Harlem Avenue, Chicago Sanitary & Ship Canal	1.74	1.51	1.41	1.49	1.75	1.55	1.93	1.20	1.51	1.68	1.91
42 Route 83, Chicago Sanitary & Ship Canal	1.91	1.83	1.33	1.48	1.79	1.61	1.81	1.45	1.62	1.97	1.94
48 Stephen Street, Chicago Sanitary & Ship Canal	1.65	1.54	1.27	1.33	1.56	1.74	1.76	1.32	1.57	1.91	1.87
92 Lockport Forebay, Chicago Sanitary & Ship Canal	1.61	1.49	1.29	1.40	1.55	1.61	1.67	1.38	1.58	1.66	1.86
Calumet River System											
49 Ewing Avenue, Calumet River	0.48	0.07	0.18	0.19	0.34	0.38	0.25	0.18	0.23	0.35	0.41
50 Burnham Avenue, Wolf Lake	0.62	0.52	0.77	0.71	0.85	0.74	0.73	0.57	0.52	0.49	0.62
55 130th Street, Calumet River	0.60	0.25	0.53	0.63	0.77	0.76	0.70	0.45	0.58	0.71	0.85
86 Burnham Avenue, Grand Calumet River	3.11	4.57	2.31	5.15	4.57	3.19	4.31	2.65	3.85	2.89	2.58
56 Indiana Avenue, Little Calumet River	0.74	0.64	0.99	1.00	1.13	1.09	0.84	0.88	1.02	1.02	1.05
76 Halsted Street, Little Calumet River	1.35	1.30	1.22	1.42	1.34	1.35	1.26	1.00	1.16	1.39	1.58
52 Wentworth Avenue, Little Calumet River	1.16	1.39	1.34	1.28	1.51	1.64	1.61	1.45	1.58	1.58	1.73
54 Joe Orr Road, Thorn Creek	1.45	1.24	1.39	1.39	1.50	1.42	1.55	1.27	1.19	1.47	1.53
97 170th Street, Thorn Creek	0.97	1.21	1.18	1.11	1.43	1.28	1.34	1.11	1.28	1.46	1.58
57 Ashland Avenue, Little Calumet River	1.01	1.11	1.03	1.10	1.39	1.43	1.58	1.15	1.23	1.42	1.60
58 Ashland Avenue, Calumet-Sag Channel	1.18	1.28	1.09	1.32	1.40	1.47	1.30	1.03	1.22	1.35	1.55
59 Cicero Avenue, Calumet-Sag Channel	1.26	1.33	1.17	1.31	1.28	1.50	1.41	1.19	1.26	1.49	1.67
43 Route 83, Calumet-Sag Channel	1.28	1.29	1.20	1.24	1.41	1.37	1.25	1.15	1.32	1.50	1.94
Des Plaines River System											
90 Route 19, Poplar Creek	0.81	0.86	0.81	0.86	0.99	1.13	0.94	0.68	1.03	0.87	1.03
110 Springinsguth Road, West Branch DuPage River	1.64	1.64	2.28	2.10	2.04	2.35	2.49	2.35	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	1.60	1.68	1.53	1.60	1.85	1.72	1.93	1.56	2.28	1.83	2.30
64 Lake Street, West Branch DuPage River	ND	1.97	1.55	1.68	2.01	1.84	2.09	1.93	2.37	2.05	2.53
111 Arlington Drive, West Branch Du Page River	1.58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.20	1.30	1.22	1.19	1.51	1.45	1.41	1.07	1.47	1.60	1.49
80 Arlington Heights Road, Salt Creek	1.21	1.30	1.19	1.04	1.24	1.37	1.16	1.27	1.84	1.83	1.64
18 Devon Avenue, Salt Creek	1.17	1.46	1.11	0.96	1.12	1.38	1.42	1.35	1.86	1.87	1.74
24 Wolf Road, Salt Creek	1.01	2.00	1.09	1.07	1.19	1.38	1.25	0.91	1.48	1.44	1.52
109 Brookfield Avenue, Salt Creek	0.89	1.02	1.11	1.08	1.18	1.53	1.23	0.88	1.48	1.41	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.56
77 Elmhurst Road, Higgins Creek	0.95	0.72	0.93	0.96	0.96	1.38	1.29	0.74	1.40	1.31	1.34
78 Wille Road, Higgins Creek	1.15	1.28	1.22	1.59	1.60	1.84	1.51	1.45	1.49	1.65	1.85
12 Lake-Cook Road, Buffalo Creek	0.98	1.11	1.12	1.10	1.37	1.21	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	1.00	1.07	1.10	1.09	1.38	1.40	1.34	0.98	1.51	1.78	1.48
17 Oakton Street, Des Plaines River	1.11	1.04	1.16	1.19	1.27	1.39	1.31	1.02	1.54	1.52	1.55
19 Belmont Avenue, Des Plaines River	1.10	1.09	1.07	1.27	1.45	1.46	1.28	0.96	1.66	1.42	1.66
20 Roosevelt Road, Des Plaines River	1.08	1.05	1.11	1.17	1.28	1.37	1.20	1.03	1.65	1.35	1.56
22 Ogden Avenue, Des Plaines River	0.95	1.04	1.11	1.23	1.27	1.45	1.25	0.92	2.00	1.36	1.60
23 Willow Springs Road, Des Plaines River	0.93	0.92	1.19	1.10	1.22	1.50	1.23	0.99	1.26	1.57	1.69
29 Stephen Street, Des Plaines River	1.00	1.15	1.01	1.06	1.26	1.42	1.29	1.02	1.52	1.50	1.87
91 Material Service Road, Des Plaines River	0.96	0.99	1.08	1.11	1.20	1.49	1.29	1.02	1.62	1.49	1.63

ND = No Data.

TABLE AII-55: AMMONIUM NITROGEN MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1.028	0.346	0.475	0.487	0.323	0.714	0.228	0.565	0.327	0.145	0.445
103 Golf Road, West Fork North Branch Chicago River	0.264	0.181	0.251	0.200	0.221	0.251	0.265	0.232	0.215	0.797	0.277
31 Lake-Cook Road, Middle Fork North Branch	0.120	0.064	0.094	0.181	0.145	0.119	0.190	0.205	0.178	0.124	0.139
104 Glenview Road, North Branch Chicago River	0.298	0.048	0.126	0.171	0.175	0.198	0.144	0.223	0.113	0.086	0.103
32 Lake-Cook Road, Skokie River	0.393	0.080	0.109	0.126	0.198	0.213	0.320	0.166	0.221	0.110	0.190
105 Frontage Road, Skokie River	0.179	0.068	0.108	0.121	0.121	0.114	0.152	0.166	0.103	0.058	0.100
34 Dempster Street, North Branch Chicago River	0.167	0.190	0.170	0.185	0.164	0.201	0.154	0.191	0.167	0.361	0.336
96 Albany Avenue, North Branch Chicago River	0.169	0.082	0.097	0.149	0.110	0.108	0.153	0.158	0.153	0.241	0.477
35 Central Street, North Shore Channel	0.120	0.125	0.164	0.114	0.166	0.139	0.071	0.310	0.331	0.313	0.183
102 Oakton Street, North Shore Channel	0.638	0.589	0.303	0.347	0.521	0.553	0.773	0.885	0.930	0.696	0.376
36 Touhy Avenue, North Shore Channel	1.313	0.826	0.396	0.584	0.837	0.685	1.718	1.348	1.548	0.987	1.063
101 Foster Avenue, North Shore Channel	1.522	1.061	0.485	0.758	1.210	0.876	2.104	2.176	1.828	1.428	1.185
37 Wilson Avenue, North Branch Chicago River	1.231	0.807	0.433	0.574	0.879	0.770	1.881	2.005	1.365	1.153	1.083
73 Diversey Parkway, North Branch Chicago River	1.086	0.900	0.312	0.427	0.698	0.643	1.091	1.276	1.197	0.959	0.863
46 Grand Avenue, North Branch Chicago River	1.088	1.021	0.519	0.613	0.710	0.638	1.617	1.415	1.216	1.171	0.968
74 Lake Shore Drive, Chicago River	0.370	0.145	0.092	0.088	0.185	0.105	0.400	0.339	0.348	0.238	0.413
100 Wells Street, Chicago River	0.651	0.338	0.175	0.297	0.297	0.229	0.583	0.686	0.798	0.500	0.462
39 Madison Street, South Branch Chicago River	1.208	0.532	0.450	0.491	0.574	0.541	1.361	1.197	1.270	1.142	0.879
108 Loomis Street, South Branch Chicago River	0.696	0.579	0.413	0.522	0.513	0.730	1.360	1.251	0.819	0.988	0.587
99 Archer Avenue, South Fork South Branch Chicago River	1.018	0.937	0.715	0.771	0.637	0.620	1.320	1.136	1.062	1.123	1.715
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.748	0.613	0.484	0.580	0.563	0.618	1.277	1.185	0.969	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.968	0.878
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.767	0.562	0.436	0.660	0.590	0.617	1.175	1.107	0.941	0.869	0.769
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.763	0.521	0.583	0.505	0.556	0.364	0.941	0.508	0.499	0.534	0.754
42 Route 83, Chicago Sanitary & Ship Canal	0.888	0.799	0.497	0.573	0.687	0.482	0.816	0.649	0.643	0.655	0.756
48 Stephen Street, Chicago Sanitary & Ship Canal	0.693	0.536	0.441	0.465	0.478	0.544	0.797	0.564	0.598	0.718	0.721
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.716	0.573	0.418	0.471	0.516	0.479	0.654	0.635	0.588	0.502	0.654
Calumet River System											
49 Ewing Avenue, Calumet River	0.125	0.038	0.016	0.023	0.087	0.057	0.109	0.114	0.124	0.063	0.108
50 Burnham Avenue, Wolf Lake	0.110	0.080	0.093	0.102	0.132	0.098	0.183	0.203	0.118	0.018	0.087
55 130th Street, Calumet River	0.213	0.071	0.106	0.162	0.161	0.180	0.235	0.240	0.249	0.098	0.214
86 Burnham Avenue, Grand Calumet River	2.076	3.121	1.014	2.198	2.218	1.434	1.659	1.399	1.735	0.952	0.934
56 Indiana Avenue, Little Calumet River	0.275	0.202	0.324	0.261	0.306	0.193	0.199	0.256	0.317	0.115	0.127
76 Halsted Street, Little Calumet River	0.465	0.368	0.323	0.343	0.295	0.259	0.284	0.298	0.268	0.188	0.355
52 Wentworth Avenue, Little Calumet River	0.259	0.264	0.364	0.262	0.290	0.178	0.365	0.360	0.319	0.230	0.274
54 Joe Orr Road, Thorn Creek	0.466	0.166	0.252	0.227	0.295	0.153	0.240	0.324	0.127	0.116	0.110
97 170th Street, Thorn Creek	0.180	0.134	0.134	0.182	0.191	0.135	0.315	0.304	0.248	0.253	0.275
57 Ashland Avenue, Little Calumet River	0.215	0.196	0.191	0.203	0.232	0.154	0.355	0.379	0.330	0.182	0.248
58 Ashland Avenue, Calumet-Sag Channel	0.383	0.334	0.301	0.354	0.301	0.302	0.320	0.298	0.294	0.186	0.415
59 Cicero Avenue, Calumet-Sag Channel	0.480	0.428	0.258	0.389	0.263	0.278	0.360	0.356	0.256	0.252	0.448
43 Route 83, Calumet-Sag Channel	0.499	0.407	0.314	0.335	0.310	0.261	0.321	0.438	0.260	0.317	0.513
Des Plaines River System											
90 Route 19, Poplar Creek	0.186	0.094	0.052	0.062	0.094	0.113	0.108	0.107	0.149	0.034	0.105
110 Springinsguth Road, West Branch DuPage River	0.262	0.313	0.563	0.616	0.344	0.555	0.454	0.541	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.190	0.118	0.081	0.152	0.242	0.122	0.273	0.332	0.482	0.117	0.294
64 Lake Street, West Branch DuPage River	ND	0.755	0.153	0.249	0.340	0.252	0.482	0.552	0.596	0.287	0.460
111 Arlington Drive, West Branch Du Page River	0.248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.111	0.098	0.063	0.039	0.129	0.111	0.100	0.140	0.214	0.090	0.106
80 Arlington Heights Road, Salt Creek	0.117	0.202	0.028	0.055	0.107	0.114	0.157	0.382	0.465	0.299	0.192
18 Devon Avenue, Salt Creek	0.147	0.221	0.045	0.046	0.112	0.124	0.193	0.313	0.501	0.360	0.228
24 Wolf Road, Salt Creek	0.154	0.180	0.117	0.160	0.162	0.153	0.163	0.195	0.241	0.218	0.171
109 Brookfield Avenue, Salt Creek	0.149	0.224	0.116	0.196	0.174	0.154	0.166	0.186	0.211	0.178	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.347	0.160
77 Elmhurst Road, Higgins Creek	0.224	0.000	0.135	0.214	0.172	0.199	0.123	0.180	0.240	0.107	0.187
78 Wille Road, Higgins Creek	0.256	0.221	0.268	0.373	0.353	0.405	0.269	0.437	0.331	0.211	0.250
12 Lake-Cook Road, Buffalo Creek	0.159	0.084	0.060	0.083	0.110	0.117	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.166	0.040	0.097	0.068	0.103	0.086	0.190	0.179	0.162	0.091	0.104
17 Oakton Street, Des Plaines River	0.141	0.065	0.071	0.061	0.099	0.115	0.145	0.192	0.150	0.071	0.093
19 Belmont Avenue, Des Plaines River	0.137	0.086	0.086	0.107	0.117	0.124	0.143	0.273	0.198	0.118	0.157
20 Roosevelt Road, Des Plaines River	0.169	0.065	0.057	0.098	0.088	0.107	0.143	0.188	0.166	0.097	0.140
22 Ogden Avenue, Des Plaines River	0.141	0.107	0.079	0.073	0.130	0.122	0.161	0.134	0.144	0.107	0.127
23 Willow Springs Road, Des Plaines River	0.149	0.088	0.113	0.059	0.131	0.147	0.124	0.155	0.162	0.072	0.134
29 Stephen Street, Des Plaines River	0.138	0.069	0.054	0.064	0.105	0.133	0.111	0.109	0.166	0.100	0.121
91 Material Service Road, Des Plaines River	0.142	0.028	0.080	0.047	0.085	0.137	0.122	0.119	0.161	0.057	0.115

ND = No Data.

TABLE AII-56: UN-IONIZED AMMONIA MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.005	0.002	0.002	0.005	0.002	0.002	0.002	0.006	0.006	0.001	0.007
103 Golf Road, West Fork North Branch Chicago River	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.005	0.003	0.008	0.007
31 Lake-Cook Road, Middle Fork North Branch	0.002	0.001	0.001	0.003	0.003	0.001	0.002	0.002	0.003	0.001	0.002
104 Glenview Road, North Branch Chicago River	0.004	0.001	0.002	0.003	0.004	0.003	0.002	0.002	0.003	0.001	0.003
32 Lake-Cook Road, Skokie River	0.007	0.001	0.001	0.002	0.005	0.003	0.011	0.002	0.003	0.001	0.003
105 Frontage Road, Skokie River	0.003	0.001	0.001	0.002	0.002	0.003	0.001	0.002	0.001	0.001	0.004
34 Dempster Street, North Branch Chicago River	0.003	0.002	0.002	0.002	0.002	0.005	0.002	0.003	0.002	0.003	0.003
96 Albany Avenue, North Branch Chicago River	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.004	0.007
35 Central Street, North Shore Channel	0.003	0.001	0.001	0.002	0.002	0.002	0.002	0.009	0.003	0.008	0.004
102 Oakton Street, North Shore Channel	0.005	0.005	0.003	0.004	0.005	0.004	0.005	0.011	0.007	0.006	0.003
36 Touhy Avenue, North Shore Channel	0.006	0.005	0.002	0.004	0.007	0.005	0.012	0.010	0.009	0.013	0.007
101 Foster Avenue, North Shore Channel	0.006	0.005	0.004	0.004	0.009	0.005	0.019	0.011	0.007	0.011	0.006
37 Wilson Avenue, North Branch Chicago River	0.008	0.007	0.004	0.004	0.008	0.007	0.021	0.035	0.017	0.010	0.011
73 Diversey Parkway, North Branch Chicago River	0.005	0.006	0.002	0.004	0.004	0.016	0.009	0.012	0.008	0.007	0.003
46 Grand Avenue, North Branch Chicago River	0.008	0.006	0.005	0.005	0.007	0.005	0.012	0.017	0.010	0.011	0.004
74 Lake Shore Drive, Chicago River	0.001	0.000	0.001	0.001	0.002	0.002	0.004	0.005	0.002	0.002	0.008
100 Wells Street, Chicago River	0.003	0.003	0.002	0.003	0.004	0.003	0.005	0.006	0.004	0.003	0.010
39 Madison Street, South Branch Chicago River	0.006	0.004	0.003	0.004	0.008	0.007	0.014	0.007	0.006	0.007	0.008
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.004	0.008	0.006	0.009	0.017	0.012	0.007	0.014	0.004
99 Archer Avenue, South Fork South Branch Chicago River	0.006	0.006	0.004	0.006	0.006	0.006	0.009	0.008	0.008	0.010	0.018
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.007	0.006	0.005	0.005	0.007	0.007	0.011	0.011	0.007	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.009	0.006
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.005	0.003	0.002	0.004	0.006	0.005	0.023	0.011	0.008	0.019	0.005
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.004	0.003	0.004	0.005	0.004	0.002	0.007	0.006	0.003	0.003	0.005
42 Route 83, Chicago Sanitary & Ship Canal	0.003	0.003	0.002	0.004	0.004	0.002	0.006	0.006	0.003	0.004	0.004
48 Stephen Street, Chicago Sanitary & Ship Canal	0.003	0.004	0.003	0.011	0.004	0.003	0.003	0.004	0.003	0.005	0.004
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.006	0.006	0.004	0.005	0.005	0.005	0.007	0.007	0.006	0.005	0.004
Calumet River System											
49 Ewing Avenue, Calumet River	0.001	0.001	0.000	0.000	0.002	0.001	0.001	0.004	0.002	0.002	0.002
50 Burnham Avenue, Wolf Lake	0.003	0.004	0.002	0.012	0.022	0.012	0.003	0.004	0.008	0.001	0.003
55 130th Street, Calumet River	0.004	0.001	0.003	0.003	0.004	0.005	0.004	0.005	0.006	0.004	0.002
86 Burnham Avenue, Grand Calumet River	0.022	0.034	0.007	0.020	0.044	0.012	0.015	0.016	0.048	0.024	0.009
56 Indiana Avenue, Little Calumet River	0.001	0.002	0.005	0.002	0.005	0.008	0.001	0.003	0.004	0.002	0.004
76 Halsted Street, Little Calumet River	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.002	0.002	0.002	0.002
52 Wentworth Avenue, Little Calumet River	0.003	0.004	0.011	0.005	0.006	0.004	0.002	0.004	0.005	0.003	0.003
54 Joe Orr Road, Thorn Creek	0.003	0.001	0.001	0.001	0.003	0.003	0.001	0.002	0.001	0.001	0.001
97 170th Street, Thorn Creek	0.002	0.003	0.003	0.005	0.003	0.003	0.001	0.003	0.003	0.004	0.002
57 Ashland Avenue, Little Calumet River	0.003	0.003	0.004	0.009	0.003	0.004	0.002	0.009	0.004	0.002	0.002
58 Ashland Avenue, Calumet-Sag Channel	0.003	0.002	0.003	0.003	0.004	0.002	0.001	0.002	0.003	0.002	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.003	0.004	0.002	0.003	0.003	0.003	0.002	0.003	0.003	0.001	0.006
43 Route 83, Calumet-Sag Channel	0.005	0.004	0.003	0.005	0.004	0.004	0.002	0.006	0.004	0.001	0.009
Des Plaines River System											
90 Route 19, Poplar Creek	0.005	0.002	0.002	0.001	0.003	0.003	0.002	0.002	0.002	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	0.004	0.006	0.006	0.005	0.007	0.007	0.005	0.006	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.002	0.001	0.001	0.002	0.003	0.001	0.003	0.003	0.004	0.001	0.004
64 Lake Street, West Branch DuPage River	ND	0.007	0.001	0.005	0.007	0.003	0.005	0.005	0.005	0.006	0.006
111 Arlington Drive, West Branch Du Page River	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.002	0.002	0.001	0.000	0.003	0.004	0.002	0.001	0.002	0.004	0.001
80 Arlington Heights Road, Salt Creek	0.002	0.001	0.000	0.000	0.002	0.001	0.006	0.003	0.004	0.002	0.002
18 Devon Avenue, Salt Creek	0.002	0.002	0.000	0.000	0.002	0.002	0.006	0.002	0.005	0.002	0.011
24 Wolf Road, Salt Creek	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.002	0.003	0.003
109 Brookfield Avenue, Salt Creek	0.002	0.002	0.001	0.002	0.003	0.002	0.002	0.002	0.002	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001	0.002
77 Elmhurst Road, Higgins Creek	0.003	0.000	0.003	0.005	0.004	0.002	0.003	0.003	0.003	0.001	0.004
78 Wille Road, Higgins Creek	0.005	0.004	0.004	0.006	0.006	0.005	0.003	0.007	0.005	0.001	0.005
12 Lake-Cook Road, Buffalo Creek	0.002	0.001	0.000	0.002	0.002	0.003	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.003	0.001	0.002	0.003	0.002	0.001	0.003	0.004	0.002	0.002	0.002
17 Oakton Street, Des Plaines River	0.004	0.001	0.002	0.001	0.002	0.002	0.002	0.003	0.003	0.001	0.002
19 Belmont Avenue, Des Plaines River	0.005	0.001	0.001	0.003	0.003	0.002	0.002	0.004	0.004	0.001	0.003
20 Roosevelt Road, Des Plaines River	0.013	0.001	0.001	0.001	0.002	0.003	0.001	0.004	0.004	0.001	0.002
22 Ogden Avenue, Des Plaines River	0.003	0.001	0.001	0.001	0.004	0.002	0.002	0.002	0.001	0.001	0.002
23 Willow Springs Road, Des Plaines River	0.004	0.001	0.010	0.001	0.003	0.003	0.003	0.002	0.003	0.001	0.002
29 Stephen Street, Des Plaines River	0.002	0.001	0.004	0.001	0.002	0.002	0.002	0.001	0.003	0.002	0.002
91 Material Service Road, Des Plaines River	0.003	0.000	0.001	0.001	0.002	0.004	0.003	0.002	0.003	0.002	0.003

ND = No Data.

TABLE AII-57: ORGANIC NITROGEN MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1.03	0.89	0.92	1.11	0.98	1.19	1.08	1.01	1.56	1.38	1.71
103 Golf Road, West Fork North Branch Chicago River	1.00	0.97	0.85	0.85	1.12	1.11	1.15	0.81	1.04	1.21	1.22
31 Lake-Cook Road, Middle Fork North Branch	0.75	0.88	0.84	0.98	1.06	0.97	1.17	0.85	1.06	1.14	1.20
104 Glenview Road, North Branch Chicago River	1.08	0.83	0.86	0.97	1.10	1.34	1.07	0.77	1.22	1.12	1.33
32 Lake-Cook Road, Skokie River	0.81	0.73	0.77	0.73	0.88	1.08	1.35	0.91	0.75	1.07	0.98
105 Frontage Road, Skokie River	0.76	0.95	0.90	0.94	1.19	1.20	1.10	0.80	1.05	1.20	1.26
34 Dempster Street, North Branch Chicago River	0.88	1.34	0.91	0.96	1.07	1.23	1.06	0.85	0.95	1.22	1.38
96 Albany Avenue, North Branch Chicago River	0.80	0.86	0.76	0.88	1.05	1.16	1.16	0.78	1.01	1.15	1.48
35 Central Street, North Shore Channel	0.45	0.21	0.28	0.34	0.41	0.44	0.32	0.24	0.51	0.71	0.44
102 Oakton Street, North Shore Channel	0.68	0.88	0.56	0.74	0.75	0.86	0.77	0.57	0.98	1.11	0.73
36 Touhy Avenue, North Shore Channel	1.04	1.24	0.98	1.00	1.24	1.32	1.37	1.00	1.21	1.61	1.60
101 Foster Avenue, North Shore Channel	0.90	1.04	0.89	1.06	1.18	1.20	1.43	1.14	1.19	1.55	1.52
37 Wilson Avenue, North Branch Chicago River	0.87	1.04	0.89	1.03	1.04	1.20	1.31	1.06	1.27	1.45	1.57
73 Diversey Parkway, North Branch Chicago River	1.12	0.87	0.88	0.93	1.09	1.07	1.16	0.92	1.20	1.37	1.57
46 Grand Avenue, North Branch Chicago River	0.94	0.94	0.97	0.95	1.23	1.22	1.20	0.84	0.94	1.34	1.37
74 Lake Shore Drive, Chicago River	0.47	0.15	0.18	0.35	0.37	0.37	0.34	0.31	0.38	0.43	0.59
100 Wells Street, Chicago River	0.66	0.41	0.37	0.58	0.55	0.64	0.57	0.56	0.79	0.60	0.61
39 Madison Street, South Branch Chicago River	1.03	0.76	0.67	0.84	0.86	0.92	0.95	0.73	1.08	1.32	1.06
108 Loomis Street, South Branch Chicago River	0.76	0.71	0.70	0.84	0.96	0.98	0.97	0.75	0.87	1.04	1.01
99 Archer Avenue, South Fork South Branch Chicago River	1.17	1.05	0.95	1.20	0.93	0.87	1.14	0.94	1.01	1.50	1.64
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.86	0.96	0.79	0.83	0.88	1.03	1.03	0.81	1.00	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.23	1.14
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.87	0.84	0.68	0.89	0.88	1.08	0.92	0.70	1.02	1.28	1.15
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.98	0.99	0.83	0.98	1.19	1.18	0.99	0.69	1.01	1.15	1.16
42 Route 83, Chicago Sanitary & Ship Canal	1.02	1.03	0.83	0.90	1.11	1.13	0.99	0.80	0.98	1.31	1.18
48 Stephen Street, Chicago Sanitary & Ship Canal	0.95	1.01	0.83	0.86	1.08	1.20	0.96	0.76	0.98	1.19	1.15
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.90	0.91	0.87	0.93	1.04	1.13	1.02	0.75	0.99	1.16	1.21
Calumet River System											
49 Ewing Avenue, Calumet River	0.36	0.07	0.16	0.16	0.25	0.32	0.15	0.09	0.12	0.29	0.30
50 Burnham Avenue, Wolf Lake	0.51	0.46	0.67	0.61	0.71	0.64	0.55	0.37	0.40	0.47	0.53
55 130th Street, Calumet River	0.40	0.18	0.43	0.47	0.61	0.58	0.47	0.20	0.33	0.61	0.64
86 Burnham Avenue, Grand Calumet River	1.04	1.45	1.29	2.95	2.35	1.76	2.65	1.25	2.12	1.94	1.64
56 Indiana Avenue, Little Calumet River	0.47	0.45	0.67	0.74	0.83	0.90	0.64	0.69	0.69	0.90	0.92
76 Halsted Street, Little Calumet River	0.89	0.93	0.90	1.07	1.04	1.10	0.98	0.70	0.89	1.20	1.23
52 Wentworth Avenue, Little Calumet River	0.90	1.13	0.98	1.01	1.22	1.46	1.25	1.09	1.26	1.35	1.46
54 Joe Orr Road, Thorn Creek	0.98	1.07	1.13	1.16	1.21	1.27	1.31	0.94	1.06	1.36	1.42
97 170th Street, Thorn Creek	0.79	1.08	1.05	0.93	1.24	1.14	1.02	0.81	1.03	1.21	1.30
57 Ashland Avenue, Little Calumet River	0.80	0.92	0.84	0.90	1.16	1.28	1.23	0.77	0.90	1.24	1.35
58 Ashland Avenue, Calumet-Sag Channel	0.80	0.97	0.79	0.96	1.09	1.17	0.98	0.73	0.93	1.16	1.13
59 Cicero Avenue, Calumet-Sag Channel	0.78	0.90	0.92	0.92	1.02	1.22	1.05	0.83	1.01	1.24	1.22
43 Route 83, Calumet-Sag Channel	0.78	0.88	0.88	0.91	1.10	1.11	0.93	0.72	1.06	1.19	1.43
Des Plaines River System											
90 Route 19, Poplar Creek	0.63	0.76	0.76	0.80	0.90	1.02	0.83	0.57	0.88	0.83	0.92
110 Springinsguth Road, West Branch DuPage River	1.37	1.33	1.72	1.48	1.70	1.80	2.04	1.81	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	1.41	1.56	1.45	1.45	1.61	1.59	1.66	1.23	1.79	1.71	2.00
64 Lake Street, West Branch DuPage River	ND	1.22	1.40	1.43	1.67	1.59	1.61	1.37	1.77	1.77	2.07
111 Arlington Drive, West Branch Du Page River	1.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.08	1.20	1.16	1.15	1.38	1.33	1.31	0.93	1.25	1.51	1.38
80 Arlington Heights Road, Salt Creek	1.10	1.10	1.16	0.98	1.13	1.26	1.01	0.88	1.37	1.53	1.45
18 Devon Avenue, Salt Creek	1.02	1.24	1.07	0.91	1.01	1.26	1.22	1.04	1.36	1.51	1.52
24 Wolf Road, Salt Creek	0.86	1.82	0.98	0.91	1.03	1.22	1.09	0.71	1.23	1.23	1.35
109 Brookfield Avenue, Salt Creek	0.74	0.81	1.00	0.89	1.00	1.38	1.07	0.70	1.27	1.23	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.22	1.23
77 Elmhurst Road, Higgins Creek	0.73	0.72	0.79	0.75	0.79	1.18	1.17	0.56	1.16	1.20	1.16
78 Wille Road, Higgins Creek	0.89	1.06	0.95	1.22	1.25	1.43	1.24	1.01	1.16	1.44	1.60
12 Lake-Cook Road, Buffalo Creek	0.82	1.03	1.06	1.02	1.26	1.09	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.83	1.03	1.00	1.02	1.27	1.32	1.15	0.80	1.35	1.69	1.38
17 Oakton Street, Des Plaines River	0.97	0.98	1.09	1.13	1.17	1.27	1.16	0.83	1.39	1.45	1.45
19 Belmont Avenue, Des Plaines River	0.96	1.00	0.99	1.16	1.33	1.33	1.13	0.68	1.47	1.30	1.51
20 Roosevelt Road, Des Plaines River	0.91	0.99	1.05	1.08	1.19	1.26	1.06	0.84	1.48	1.25	1.42
22 Ogden Avenue, Des Plaines River	0.81	0.93	1.04	1.15	1.14	1.33	1.09	0.79	1.86	1.26	1.47
23 Willow Springs Road, Des Plaines River	0.78	0.84	1.08	1.04	1.09	1.35	1.11	0.83	1.10	1.50	1.56
29 Stephen Street, Des Plaines River	0.86	1.08	0.96	0.99	1.16	1.28	1.18	0.91	1.35	1.40	1.74
91 Material Service Road, Des Plaines River	0.82	0.97	1.00	1.06	1.12	1.36	1.17	0.90	1.45	1.44	1.51

ND = No Data.

TABLE AII-58: NITRITE PLUS NITRATE NITROGEN MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	8.14	8.56	6.78	5.90	4.63	3.68	7.14	9.95	5.27	4.00	5.14
103 Golf Road, West Fork North Branch Chicago River	3.82	3.72	3.04	2.12	3.49	3.11	3.88	2.86	2.97	4.03	3.11
31 Lake-Cook Road, Middle Fork North Branch	0.22	0.17	0.23	0.78	0.24	0.42	0.24	0.33	0.35	0.38	0.37
104 Glenview Road, North Branch Chicago River	4.94	5.88	3.95	3.31	4.52	3.92	5.93	4.79	3.81	4.67	3.22
32 Lake-Cook Road, Skokie River	0.96	0.35	0.35	0.62	0.46	3.15	3.41	0.77	1.07	0.46	0.46
105 Frontage Road, Skokie River	6.98	7.07	5.15	4.03	5.58	5.33	7.00	5.74	6.42	5.83	3.87
34 Dempster Street, North Branch Chicago River	4.39	4.02	3.43	3.00	3.97	3.74	5.06	4.24	5.10	4.57	2.65
96 Albany Avenue, North Branch Chicago River	4.20	4.50	3.60	2.84	4.07	3.83	4.64	4.75	4.24	4.24	3.05
35 Central Street, North Shore Channel	0.30	0.31	0.33	0.28	0.31	0.34	0.23	0.35	1.00	0.34	0.28
102 Oakton Street, North Shore Channel	3.75	3.29	2.73	2.72	3.33	3.81	2.44	2.13	2.25	3.66	1.27
36 Touhy Avenue, North Shore Channel	6.25	6.53	6.47	6.76	6.53	6.01	5.24	5.37	5.90	5.58	5.57
101 Foster Avenue, North Shore Channel	6.67	7.75	7.44	7.23	7.58	7.19	5.97	5.93	6.72	6.11	6.69
37 Wilson Avenue, North Branch Chicago River	5.66	7.12	6.93	6.26	7.29	6.94	6.29	6.26	6.50	5.84	5.94
73 Diversey Parkway, North Branch Chicago River	5.98	7.18	6.69	6.47	6.47	6.41	6.04	6.50	6.02	5.29	5.48
46 Grand Avenue, North Branch Chicago River	6.42	6.66	5.79	5.70	6.43	6.22	5.77	5.36	5.86	5.47	4.86
74 Lake Shore Drive, Chicago River	2.66	1.28	0.57	0.93	1.31	1.04	1.07	1.50	1.38	1.38	1.93
100 Wells Street, Chicago River	4.38	2.83	1.94	2.60	2.29	2.15	2.22	2.52	3.41	2.31	2.33
39 Madison Street, South Branch Chicago River	5.76	5.05	4.58	4.31	4.41	4.03	4.37	4.68	5.19	4.37	3.61
108 Loomis Street, South Branch Chicago River	5.31	5.12	4.71	4.40	4.39	4.30	4.35	4.76	4.40	4.27	3.45
99 Archer Avenue, South Fork South Branch Chicago River	4.16	4.80	3.32	3.63	3.91	3.67	4.05	4.17	4.52	3.55	2.55
40 Damen Avenue, Chicago Sanitary & Ship Canal	5.18	5.11	4.56	4.22	4.15	4.25	4.22	4.64	4.73	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.24	3.27
75 Cicero Avenue, Chicago Sanitary & Ship Canal	4.51	5.15	3.95	4.49	4.50	3.84	4.06	4.63	4.49	4.30	3.54
41 Harlem Avenue, Chicago Sanitary & Ship Canal	6.29	8.12	6.35	7.25	7.11	7.41	7.67	7.64	7.84	6.81	6.26
42 Route 83, Chicago Sanitary & Ship Canal	6.23	6.10	5.29	6.33	6.08	6.00	5.97	6.93	7.17	6.24	5.61
48 Stephen Street, Chicago Sanitary & Ship Canal	5.33	5.83	4.92	5.64	5.59	5.59	5.51	6.27	6.36	5.77	5.27
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.78	5.91	5.34	5.52	5.45	5.90	6.01	5.74	6.24	5.94	5.31
Calumet River System											
49 Ewing Avenue, Calumet River	0.38	0.30	0.33	0.39	0.37	0.38	0.37	0.36	0.35	0.50	0.46
50 Burnham Avenue, Wolf Lake	0.10	0.07	0.06	0.09	0.16	0.09	0.13	0.11	0.09	0.10	0.16
55 130th Street, Calumet River	0.50	0.42	0.55	0.65	0.68	0.71	0.60	0.52	0.48	0.57	0.67
86 Burnham Avenue, Grand Calumet River	0.38	0.29	4.45	1.96	1.81	4.68	5.19	5.00	5.91	8.56	9.06
56 Indiana Avenue, Little Calumet River	1.85	1.12	0.86	1.25	1.40	1.86	1.37	1.36	1.78	2.39	1.95
76 Halsted Street, Little Calumet River	5.53	5.38	4.56	5.16	5.17	5.91	5.33	4.79	4.57	5.36	4.80
52 Wentworth Avenue, Little Calumet River	2.64	4.34	3.83	4.85	4.18	4.25	4.27	3.57	4.16	5.39	3.32
54 Joe Orr Road, Thorn Creek	7.31	7.39	9.28	10.15	9.18	9.88	6.39	7.33	7.67	9.86	6.81
97 170th Street, Thorn Creek	4.35	4.53	5.30	6.26	5.49	5.32	5.97	5.67	6.76	7.13	4.04
57 Ashland Avenue, Little Calumet River	2.80	3.41	3.22	4.22	3.25	4.08	3.67	3.06	4.01	4.35	3.07
58 Ashland Avenue, Calumet-Sag Channel	4.67	4.38	4.02	4.84	4.26	5.66	5.17	4.51	4.57	5.39	4.57
59 Cicero Avenue, Calumet-Sag Channel	4.69	4.55	3.54	5.02	3.92	5.32	5.22	4.58	4.48	5.39	4.26
43 Route 83, Calumet-Sag Channel	4.18	4.90	3.76	4.48	4.69	4.78	5.35	4.38	4.11	4.67	4.25
Des Plaines River System											
90 Route 19, Poplar Creek	0.34	0.28	0.28	0.31	0.29	0.53	0.39	0.34	0.61	0.28	0.49
110 Springinsguth Road, West Branch DuPage River	2.23	0.36	0.64	0.59	0.62	0.96	0.69	1.22	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	10.25	11.83	10.32	9.38	7.98	8.57	8.85	9.43	7.58	7.13	7.24
64 Lake Street, West Branch DuPage River	ND	6.82	8.91	9.11	7.34	8.38	8.64	8.83	7.32	6.70	6.79
111 Arlington Drive, West Branch Du Page River	10.43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.77	0.12	1.28	0.23	0.23	0.26	0.27	0.25	0.45	0.23	0.28
80 Arlington Heights Road, Salt Creek	5.97	7.81	7.72	8.84	7.10	6.77	7.98	6.01	6.22	7.69	6.92
18 Devon Avenue, Salt Creek	7.18	8.31	7.60	8.69	7.01	6.92	8.19	6.40	6.46	7.32	7.22
24 Wolf Road, Salt Creek	6.26	6.98	6.08	7.06	6.47	6.22	8.12	6.54	6.71	7.66	5.87
109 Brookfield Avenue, Salt Creek	5.48	6.17	5.18	6.20	5.56	5.67	6.98	5.78	5.42	8.16	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.10	5.34
77 Elmhurst Road, Higgins Creek	0.32	0.35	0.41	0.54	0.40	0.57	0.44	0.47	0.55	0.41	0.58
78 Wille Road, Higgins Creek	8.86	7.90	8.26	7.98	5.83	5.46	9.44	5.42	4.85	5.67	5.44
12 Lake-Cook Road, Buffalo Creek	0.39	0.36	0.40	0.33	0.31	0.56	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	4.83	6.45	4.68	5.70	5.26	6.56	7.69	6.53	6.79	6.05	4.94
17 Oakton Street, Des Plaines River	4.17	6.08	3.90	4.52	4.09	5.24	6.43	5.46	4.97	4.84	4.18
19 Belmont Avenue, Des Plaines River	4.28	5.71	4.27	4.59	3.95	4.86	5.93	4.69	4.56	4.62	3.87
20 Roosevelt Road, Des Plaines River	4.09	5.65	3.84	4.47	3.81	4.54	5.49	4.38	4.40	4.50	3.69
22 Ogden Avenue, Des Plaines River	4.36	5.52	4.04	4.80	3.95	4.89	5.79	4.70	5.91	5.21	3.98
23 Willow Springs Road, Des Plaines River	4.23	5.25	3.74	4.88	4.13	4.82	5.69	4.67	4.30	4.93	3.85
29 Stephen Street, Des Plaines River	4.07	5.01	3.66	5.05	4.40	5.08	6.04	4.69	5.03	5.18	3.70
91 Material Service Road, Des Plaines River	3.83	4.78	3.78	4.65	4.28	4.86	6.26	4.39	4.83	4.98	3.68

ND = No Data.

TABLE AII-59: TOTAL SOLIDS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1292	1160	988	1027	1603	900	1050	1300	645	926	941
103 Golf Road, West Fork North Branch Chicago River	1057	1052	861	863	1146	919	1232	776	790	749	741
31 Lake-Cook Road, Middle Fork North Branch	759	845	659	809	797	794	888	646	687	693	708
104 Glenview Road, North Branch Chicago River	711	781	695	799	761	704	756	711	733	631	631
32 Lake-Cook Road, Skokie River	708	780	637	726	823	709	858	712	682	661	737
105 Frontage Road, Skokie River	670	713	664	775	696	654	696	622	637	606	611
34 Dempster Street, North Branch Chicago River	734	897	720	763	850	752	885	808	880	688	754
96 Albany Avenue, North Branch Chicago River	785	883	773	913	854	802	934	684	651	724	674
35 Central Street, North Shore Channel	315	255	269	328	260	229	244	250	292	321	230
102 Oakton Street, North Shore Channel	497	423	407	441	443	381	423	344	359	416	270
36 Touhy Avenue, North Shore Channel	645	534	628	556	646	475	511	511	491	461	542
101 Foster Avenue, North Shore Channel	627	567	600	584	704	491	546	493	469	478	473
37 Wilson Avenue, North Branch Chicago River	658	686	630	661	750	527	613	565	561	520	616
73 Diversy Parkway, North Branch Chicago River	589	638	691	703	613	522	570	543	565	514	642
46 Grand Avenue, North Branch Chicago River	596	595	592	706	674	555	597	591	610	503	602
74 Lake Shore Drive, Chicago River	463	310	244	273	365	256	274	300	312	314	403
100 Wells Street, Chicago River	508	411	330	437	409	337	369	382	409	366	378
39 Madison Street, South Branch Chicago River	696	532	496	561	548	456	483	464	500	469	565
108 Loomis Street, South Branch Chicago River	579	591	505	549	592	497	476	459	495	476	419
99 Archer Avenue, South Fork South Branch Chicago River	578	565	491	591	560	425	474	471	484	476	451
40 Damen Avenue, Chicago Sanitary & Ship Canal	560	572	501	556	616	481	477	487	485	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	482
75 Cicero Avenue, Chicago Sanitary & Ship Canal	577	546	502	604	647	481	495	514	502	498	522
41 Harlem Avenue, Chicago Sanitary & Ship Canal	627	621	579	619	764	529	530	550	531	506	584
42 Route 83, Chicago Sanitary & Ship Canal	656	635	568	628	616	548	578	597	568	557	636
48 Stephen Street, Chicago Sanitary & Ship Canal	664	665	545	640	606	584	591	607	602	580	630
92 Lockport Forebay, Chicago Sanitary & Ship Canal	665	669	604	729	647	584	618	622	610	576	643
Calumet River System											
49 Ewing Avenue, Calumet River	280	229	234	227	242	245	223	234	241	268	302
50 Burnham Avenue, Wolf Lake	348	327	304	301	295	241	279	275	245	247	265
55 130th Street, Calumet River	406	363	396	405	395	354	300	340	334	341	395
86 Burnham Avenue, Grand Calumet River	532	570	782	794	747	865	665	787	911	874	799
56 Indiana Avenue, Little Calumet River	465	420	440	488	478	428	370	410	405	475	414
76 Halsted Street, Little Calumet River	626	586	579	714	648	590	559	579	547	547	622
52 Wentworth Avenue, Little Calumet River	594	646	611	761	679	700	612	745	828	838	706
54 Joe Orr Road, Thorn Creek	1089	1383	1267	1600	1417	1490	1293	1530	979	1602	1230
97 170th Street, Thorn Creek	980	1073	983	1187	1009	1099	1252	1165	1308	1285	861
57 Ashland Avenue, Little Calumet River	788	829	743	853	830	877	925	885	951	913	779
58 Ashland Avenue, Calumet-Sag Channel	680	682	574	730	605	638	632	626	609	700	668
59 Cicero Avenue, Calumet-Sag Channel	705	617	577	695	622	683	625	666	633	618	656
43 Route 83, Calumet-Sag Channel	643	679	583	668	628	642	626	630	625	621	674
Des Plaines River System											
90 Route 19, Poplar Creek	738	817	666	829	784	804	766	756	662	711	733
110 Springinsguth Road, West Branch DuPage River	872	763	786	961	902	1173	1077	986	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	685	653	606	649	647	656	619	650	608	591	645
64 Lake Street, West Branch DuPage River	ND	939	664	757	670	683	701	697	632	661	710
111 Arlington Drive, West Branch Du Page River	719	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	860	757	725	1012	974	804	1075	960	701	746	896
80 Arlington Heights Road, Salt Creek	787	828	721	965	789	788	733	679	668	666	743
18 Devon Avenue, Salt Creek	800	891	674	983	782	806	866	751	714	648	754
24 Wolf Road, Salt Creek	817	877	752	926	814	737	823	762	739	774	783
109 Brookfield Avenue, Salt Creek	805	845	715	887	786	765	809	812	707	565	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	1387	810
77 Elmhurst Road, Higgins Creek	737	1183	721	1212	650	1163	1110	1213	908	958	1120
78 Wille Road, Higgins Creek	801	760	788	833	786	712	716	707	672	764	785
12 Lake-Cook Road, Buffalo Creek	784	919	717	952	816	819	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	641	687	569	746	664	736	742	699	713	707	676
17 Oakton Street, Des Plaines River	682	738	571	763	657	777	779	689	663	733	711
19 Belmont Avenue, Des Plaines River	688	744	617	844	688	779	783	749	749	758	702
20 Roosevelt Road, Des Plaines River	703	747	608	834	704	771	775	732	648	774	703
22 Ogden Avenue, Des Plaines River	724	771	617	813	720	759	778	732	712	813	743
23 Willow Springs Road, Des Plaines River	730	757	621	828	743	744	773	724	670	732	724
29 Stephen Street, Des Plaines River	714	750	623	851	728	758	772	702	667	754	733
91 Material Service Road, Des Plaines River	709	762	636	827	720	771	805	731	708	788	712

ND = No Data.

TABLE AII-60: TOTAL SUSPENDED SOLIDS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	33.9	25.1	33.3	61.5	25.5	93.4	31.5	56.1	50.7	39.8	46.8
103 Golf Road, West Fork North Branch Chicago River	18.1	16.6	28.1	23.3	12.2	34.0	29.7	23.6	25.6	28.5	32.1
31 Lake-Cook Road, Middle Fork North Branch	11.4	11.4	21.9	33.0	16.4	69.3	24.2	22.0	21.2	30.6	38.8
104 Glenview Road, North Branch Chicago River	30.8	11.3	19.4	28.2	14.2	50.1	18.8	22.8	30.3	25.9	22.8
32 Lake-Cook Road, Skokie River	18.3	12.7	21.4	26.7	16.4	47.9	21.6	21.0	18.7	18.1	21.8
105 Frontage Road, Skokie River	18.9	13.8	20.9	24.3	18.5	23.8	18.4	25.2	19.4	21.6	22.4
34 Dempster Street, North Branch Chicago River	16.2	13.4	21.4	27.5	17.2	39.8	25.3	21.8	20.9	30.2	25.8
96 Albany Avenue, North Branch Chicago River	18.3	14.3	22.3	29.7	16.8	28.3	16.8	22.5	20.3	24.4	21.6
35 Central Street, North Shore Channel	9.6	7.1	10.3	12.6	5.3	9.4	8.5	11.3	9.9	12.8	9.8
102 Oakton Street, North Shore Channel	13.8	20.8	13.8	16.5	11.8	16.5	11.6	15.2	19.7	20.5	16.6
36 Touhy Avenue, North Shore Channel	9.2	7.0	8.4	10.4	5.0	11.7	10.9	15.4	9.4	15.3	8.5
101 Foster Avenue, North Shore Channel	8.8	7.7	9.3	14.8	5.7	12.3	12.2	12.7	9.6	15.4	10.4
37 Wilson Avenue, North Branch Chicago River	13.3	9.9	15.9	19.0	8.3	14.3	15.0	13.9	12.3	18.5	16.8
73 Diverser Parkway, North Branch Chicago River	12.6	9.5	14.4	15.7	10.6	15.3	13.2	15.1	14.1	19.3	17.9
46 Grand Avenue, North Branch Chicago River	12.9	10.8	16.9	16.0	16.3	17.3	14.5	21.3	13.5	18.3	17.6
74 Lake Shore Drive, Chicago River	3.6	1.2	4.7	5.8	5.6	7.1	5.3	4.9	2.5	4.0	4.8
100 Wells Street, Chicago River	7.2	4.1	5.7	9.0	4.7	9.0	4.5	6.3	6.4	6.3	10.0
39 Madison Street, South Branch Chicago River	10.7	9.5	12.6	13.8	18.3	14.5	8.7	14.0	11.6	18.4	16.8
108 Loomis Street, South Branch Chicago River	13.1	11.4	13.1	17.7	18.5	16.2	12.6	11.8	12.5	12.2	17.9
99 Archer Avenue, South Fork South Branch Chicago River	15.3	11.7	12.0	14.8	10.1	12.4	12.5	13.2	11.8	14.4	19.8
40 Damen Avenue, Chicago Sanitary & Ship Canal	12.8	12.0	15.4	15.6	17.9	17.8	12.7	14.6	13.7	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.3	19.6
75 Cicero Avenue, Chicago Sanitary & Ship Canal	23.3	12.8	16.8	16.8	16.6	19.2	13.0	17.8	13.9	15.1	20.8
41 Harlem Avenue, Chicago Sanitary & Ship Canal	12.1	7.7	9.7	10.3	15.3	12.3	9.6	8.5	8.1	11.6	10.8
42 Route 83, Chicago Sanitary & Ship Canal	8.4	6.8	10.7	13.3	21.8	11.7	7.5	9.0	10.6	11.5	12.1
48 Stephen Street, Chicago Sanitary & Ship Canal	13.4	9.3	14.0	19.7	23.8	18.2	15.0	15.8	16.2	13.4	15.2
92 Lockport Forebay, Chicago Sanitary & Ship Canal	11.2	10.4	15.8	22.6	12.9	15.8	14.5	14.6	14.7	15.1	15.5
Calumet River System											
49 Ewing Avenue, Calumet River	9.2	4.8	5.0	5.7	5.8	7.3	6.7	9.7	8.7	7.1	11.3
50 Burnham Avenue, Wolf Lake	5.8	4.3	6.6	5.3	5.2	6.1	5.3	5.4	5.8	3.6	7.4
55 130th Street, Calumet River	6.0	5.1	8.4	7.7	6.8	8.5	6.5	7.7	9.3	12.5	20.7
86 Burnham Avenue, Grand Calumet River	16.5	14.4	13.8	23.9	18.5	21.0	49.9	18.9	17.0	16.2	16.9
56 Indiana Avenue, Little Calumet River	11.9	12.9	19.3	33.7	21.6	24.4	25.0	22.0	29.9	27.8	29.6
76 Halsted Street, Little Calumet River	15.1	7.6	12.5	18.8	10.6	12.9	11.3	14.8	10.5	15.2	15.4
52 Wentworth Avenue, Little Calumet River	89.0	74.3	51.0	30.5	44.7	44.1	37.9	32.4	28.7	30.5	53.5
54 Joe Orr Road, Thorn Creek	34.7	27.4	20.1	8.0	7.1	9.9	115.4	17.6	42.0	7.4	11.6
97 170th Street, Thorn Creek	81.1	53.4	40.3	23.8	35.5	32.4	55.4	40.5	30.2	24.1	38.3
57 Ashland Avenue, Little Calumet River	65.2	55.1	35.3	19.9	34.6	26.5	45.7	30.5	33.0	23.0	39.4
58 Ashland Avenue, Calumet-Sag Channel	34.5	25.3	17.4	17.7	17.5	16.6	15.0	18.8	24.4	17.3	27.7
59 Cicero Avenue, Calumet-Sag Channel	26.2	18.5	22.0	22.8	20.3	24.9	14.3	20.3	24.0	21.1	20.7
43 Route 83, Calumet-Sag Channel	20.5	14.0	23.5	17.4	16.6	20.1	15.5	20.1	35.9	25.9	35.8
Des Plaines River System											
90 Route 19, Poplar Creek	12.5	17.6	14.1	21.9	13.9	25.2	15.9	15.3	30.4	18.9	18.2
110 Springinguth Road, West Branch DuPage River	17.5	11.0	22.8	29.1	22.3	17.9	30.5	49.2	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	10.8	20.1	11.8	21.6	15.3	10.8	12.3	15.4	18.3	16.1	18.8
64 Lake Street, West Branch DuPage River	ND	26.7	26.3	34.5	27.5	34.0	38.5	32.5	40.3	33.2	42.0
111 Arlington Drive, West Branch Du Page River	24.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	21.9	31.4	24.4	32.1	33.0	31.2	41.4	25.5	44.6	38.0	33.9
80 Arlington Heights Road, Salt Creek	9.5	8.5	13.8	8.4	10.2	10.2	9.8	9.0	8.8	8.3	11.3
18 Devon Avenue, Salt Creek	9.7	11.1	16.7	12.4	16.3	14.1	14.2	19.0	19.9	15.7	23.1
24 Wolf Road, Salt Creek	17.5	23.5	24.1	31.6	30.6	39.4	28.9	23.1	43.3	23.4	31.0
109 Brookfield Avenue, Salt Creek	16.3	18.3	25.5	30.1	25.1	42.7	25.1	19.9	56.1	18.7	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.7	29.3
77 Elmhurst Road, Higgins Creek	25.2	21.0	18.8	50.8	26.4	45.3	29.3	29.2	34.8	36.0	28.2
78 Wille Road, Higgins Creek	4.2	2.4	7.0	8.8	6.5	5.4	3.4	7.6	5.9	7.0	5.5
12 Lake-Cook Road, Buffalo Creek	19.7	27.7	27.1	29.3	41.1	29.4	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	16.2	17.4	20.1	23.3	21.8	27.3	24.0	23.2	36.8	28.7	29.8
17 Oakton Street, Des Plaines River	17.4	16.8	22.3	26.1	22.9	26.1	17.9	23.0	42.1	28.8	29.8
19 Belmont Avenue, Des Plaines River	15.8	18.5	23.0	31.6	26.5	29.4	23.2	22.3	41.8	28.5	26.3
20 Roosevelt Road, Des Plaines River	15.9	22.0	24.3	27.6	26.5	26.9	23.8	21.7	43.4	31.0	26.6
22 Ogden Avenue, Des Plaines River	17.5	20.5	27.6	29.5	29.7	36.3	30.6	21.3	52.6	23.2	27.3
23 Willow Springs Road, Des Plaines River	18.5	17.4	26.2	27.5	23.9	27.8	22.3	24.0	33.4	24.0	33.2
29 Stephen Street, Des Plaines River	18.5	23.6	29.5	28.6	22.8	29.3	29.8	26.5	41.6	28.3	44.1
91 Material Service Road, Des Plaines River	20.8	23.1	26.3	26.4	25.9	27.7	35.0	28.2	46.1	30.1	45.1

ND = No Data.

TABLE AII-61: VOLATILE SUSPENDED SOLIDS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	6.70	3.60	7.55	11.36	2.25	13.60	6.75	9.38	13.33	6.50	7.60
103 Golf Road, West Fork North Branch Chicago River	4.09	2.40	7.82	5.80	2.91	7.42	7.40	7.30	5.63	5.64	6.20
31 Lake-Cook Road, Middle Fork North Branch	2.78	1.56	4.50	6.40	3.90	11.91	5.10	4.30	4.78	6.00	6.36
104 Glenview Road, North Branch Chicago River	7.67	1.22	5.58	6.17	3.55	11.67	5.50	5.42	7.33	5.22	5.30
32 Lake-Cook Road, Skokie River	5.00	1.33	4.80	6.00	3.20	9.08	6.00	5.20	4.56	4.70	4.45
105 Frontage Road, Skokie River	3.92	1.33	6.75	5.67	4.64	8.50	5.75	5.50	5.33	4.58	5.60
34 Dempster Street, North Branch Chicago River	3.36	1.88	5.92	5.91	2.55	11.75	6.55	5.25	4.91	6.08	5.67
96 Albany Avenue, North Branch Chicago River	4.00	1.82	4.83	5.50	3.73	6.25	5.55	5.27	5.10	5.33	6.33
35 Central Street, North Shore Channel	2.50	1.13	2.89	2.56	2.00	3.11	3.38	1.67	2.56	3.78	2.22
102 Oakton Street, North Shore Channel	3.67	3.18	4.09	4.27	3.75	5.33	3.58	3.75	4.10	5.27	3.00
36 Touhy Avenue, North Shore Channel	4.67	1.45	4.44	4.58	2.58	5.08	4.92	4.92	4.33	5.08	3.83
101 Foster Avenue, North Shore Channel	3.17	0.83	4.50	6.00	1.83	5.33	4.23	4.75	3.33	5.50	3.60
37 Wilson Avenue, North Branch Chicago River	3.33	0.67	4.83	5.08	3.08	5.58	4.75	3.92	3.83	4.75	4.92
73 Diversey Parkway, North Branch Chicago River	3.42	0.00	3.33	3.92	3.25	4.83	3.50	3.67	3.83	5.08	5.08
46 Grand Avenue, North Branch Chicago River	3.17	0.92	3.67	4.33	4.27	5.83	3.92	4.58	3.42	4.50	4.25
74 Lake Shore Drive, Chicago River	0.92	0.00	0.67	1.70	1.55	4.82	1.40	0.33	0.90	1.25	1.42
100 Wells Street, Chicago River	1.83	0.00	1.55	2.83	1.45	6.83	1.42	0.67	2.17	1.67	3.00
39 Madison Street, South Branch Chicago River	3.33	0.92	3.73	3.42	3.36	6.92	1.50	1.92	3.09	4.25	3.33
108 Loomis Street, South Branch Chicago River	3.08	2.00	3.42	4.36	3.50	6.83	2.60	2.50	2.92	2.33	3.89
99 Archer Avenue, South Fork South Branch Chicago River	6.83	3.40	5.91	6.75	2.55	6.29	4.36	4.75	3.83	4.25	7.70
40 Damen Avenue, Chicago Sanitary & Ship Canal	3.42	2.25	4.55	4.17	3.42	8.00	3.00	3.00	3.33	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.50	4.40
75 Cicero Avenue, Chicago Sanitary & Ship Canal	6.58	1.92	4.75	4.75	4.08	7.00	2.50	4.17	3.67	3.00	5.00
41 Harlem Avenue, Chicago Sanitary & Ship Canal	3.58	0.89	4.08	3.67	3.67	5.83	3.50	1.67	2.50	2.92	3.17
42 Route 83, Chicago Sanitary & Ship Canal	2.92	0.67	3.80	3.25	3.91	6.67	2.09	1.83	3.00	2.42	3.17
48 Stephen Street, Chicago Sanitary & Ship Canal	3.25	0.58	4.40	4.92	5.36	7.50	2.91	2.17	3.58	2.58	3.42
92 Lockport Forebay, Chicago Sanitary & Ship Canal	2.80	1.08	3.82	4.96	3.00	4.88	3.21	2.94	3.69	3.48	3.57
Calumet River System											
49 Ewing Avenue, Calumet River	1.50	0.00	1.00	0.33	1.20	2.09	3.09	0.40	1.25	1.42	1.58
50 Burnham Avenue, Wolf Lake	2.27	1.27	3.50	2.42	2.91	4.00	2.50	1.58	2.83	1.58	3.45
55 130th Street, Calumet River	0.80	0.00	1.78	1.67	1.90	2.55	2.27	0.45	1.70	2.67	4.09
86 Burnham Avenue, Grand Calumet River	7.30	8.00	4.40	12.60	8.70	9.18	20.90	8.67	8.20	7.09	5.90
56 Indiana Avenue, Little Calumet River	1.90	1.10	3.13	6.00	3.56	5.27	4.67	3.67	5.00	4.58	5.38
76 Halsted Street, Little Calumet River	4.27	0.40	3.82	5.33	2.27	4.91	3.58	2.00	2.55	3.67	4.25
52 Wentworth Avenue, Little Calumet River	12.20	8.82	8.50	6.60	6.82	7.27	7.55	5.89	5.50	5.45	9.55
54 Joe Orr Road, Thorn Creek	5.20	2.44	4.44	1.67	1.70	2.89	19.13	2.71	6.67	2.71	2.58
97 170th Street, Thorn Creek	11.20	7.55	6.67	4.18	4.09	5.82	7.64	6.45	5.60	4.17	5.90
57 Ashland Avenue, Little Calumet River	9.60	6.70	6.56	4.80	5.18	6.18	9.00	5.10	6.30	4.75	6.70
58 Ashland Avenue, Calumet-Sag Channel	5.82	3.00	3.73	4.75	3.09	5.73	2.58	3.92	5.00	3.58	5.83
59 Cicero Avenue, Calumet-Sag Channel	4.64	2.30	4.20	4.45	3.64	6.55	3.00	3.08	4.91	4.25	4.17
43 Route 83, Calumet-Sag Channel	3.91	1.55	3.80	3.70	4.00	4.36	4.55	4.30	5.64	5.50	6.25
Des Plaines River System											
90 Route 19, Poplar Creek	3.18	3.50	3.64	4.73	3.36	6.17	4.91	3.60	6.20	4.78	4.45
110 Springinguth Road, West Branch DuPage River	4.70	3.00	7.22	9.45	8.40	5.91	13.55	10.44	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	5.17	5.42	5.42	5.75	3.67	4.33	5.58	5.18	6.36	4.58	4.75
64 Lake Street, West Branch DuPage River	ND	6.67	7.58	8.42	8.33	8.58	10.08	8.09	8.75	7.33	9.00
111 Arlington Drive, West Branch Du Page River	5.92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.10	8.25	7.50	8.78	9.70	9.00	11.11	8.50	9.56	9.38	9.30
80 Arlington Heights Road, Salt Creek	3.64	2.58	4.83	3.25	3.17	5.08	4.75	3.55	3.67	3.30	3.75
18 Devon Avenue, Salt Creek	3.45	2.20	5.18	4.25	5.83	6.00	4.50	4.82	5.50	4.10	5.00
24 Wolf Road, Salt Creek	3.45	3.90	4.92	6.08	6.91	9.42	6.58	5.20	8.00	5.25	5.50
109 Brookfield Avenue, Salt Creek	3.73	2.55	5.64	6.00	6.00	9.25	5.17	5.80	9.80	3.67	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00	4.75
77 Elmhurst Road, Higgins Creek	4.80	6.00	7.25	9.80	5.20	11.00	9.50	7.60	7.00	6.83	6.36
78 Wille Road, Higgins Creek	1.45	1.33	2.92	3.50	3.25	3.17	1.17	3.40	2.50	2.58	2.75
12 Lake-Cook Road, Buffalo Creek	4.78	5.14	6.33	6.91	8.67	7.44	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	3.82	3.27	5.42	6.08	5.50	8.33	5.75	6.80	7.58	7.50	6.92
17 Oakton Street, Des Plaines River	4.91	3.45	5.45	7.18	5.73	7.58	6.08	5.30	8.70	7.09	6.17
19 Belmont Avenue, Des Plaines River	3.82	3.36	5.83	6.58	6.82	8.17	5.83	5.50	7.75	5.75	5.83
20 Roosevelt Road, Des Plaines River	4.45	4.00	5.45	6.58	5.36	8.00	7.00	5.40	7.86	6.08	5.75
22 Ogden Avenue, Des Plaines River	4.27	3.33	6.27	6.36	7.09	8.75	7.00	4.70	11.00	5.33	5.92
23 Willow Springs Road, Des Plaines River	4.45	3.45	6.45	6.18	5.73	7.75	6.17	5.90	7.00	6.00	6.75
29 Stephen Street, Des Plaines River	4.73	5.08	7.45	6.17	4.64	8.83	7.75	7.20	8.82	6.58	9.50
91 Material Service Road, Des Plaines River	5.18	5.17	7.75	6.08	5.64	7.50	8.92	8.00	9.83	7.50	8.98

ND = No Data.

TABLE AII-62: TOTAL DISSOLVED SOLIDS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1258	1135	955	965	1577	807	1018	1244	595	886	894
103 Golf Road, West Fork North Branch Chicago River	1039	1036	833	840	1134	885	1202	753	764	721	709
31 Lake-Cook Road, Middle Fork North Branch	747	834	637	776	780	724	864	624	666	663	669
104 Glenview Road, North Branch Chicago River	680	770	676	771	747	654	737	689	703	605	608
32 Lake-Cook Road, Skokie River	690	767	615	699	806	661	836	691	664	643	715
105 Frontage Road, Skokie River	651	699	643	750	677	630	677	596	617	584	589
34 Dempster Street, North Branch Chicago River	718	883	699	735	832	712	860	786	859	658	729
96 Albany Avenue, North Branch Chicago River	766	868	751	883	837	773	917	662	630	700	652
35 Central Street, North Shore Channel	305	248	258	316	254	219	236	239	282	309	220
102 Oakton Street, North Shore Channel	483	403	394	425	432	364	412	329	339	395	254
36 Touhy Avenue, North Shore Channel	636	527	614	545	641	464	500	496	481	446	534
101 Foster Avenue, North Shore Channel	618	559	591	569	698	479	534	480	460	463	463
37 Wilson Avenue, North Branch Chicago River	645	676	614	642	741	513	598	551	548	501	600
73 Diversey Parkway, North Branch Chicago River	576	628	676	687	603	507	557	528	551	495	624
46 Grand Avenue, North Branch Chicago River	583	584	575	690	658	538	582	570	597	485	585
74 Lake Shore Drive, Chicago River	459	309	240	267	359	249	269	295	309	310	398
100 Wells Street, Chicago River	501	407	324	428	404	328	364	376	403	360	368
39 Madison Street, South Branch Chicago River	685	522	483	547	530	441	474	450	488	450	548
108 Loomis Street, South Branch Chicago River	566	580	492	531	573	481	463	448	482	463	401
99 Archer Avenue, South Fork South Branch Chicago River	563	553	479	576	549	413	461	458	473	462	431
40 Damen Avenue, Chicago Sanitary & Ship Canal	548	560	485	541	599	463	464	472	471	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	463	469
75 Cicero Avenue, Chicago Sanitary & Ship Canal	554	533	485	587	630	462	482	496	488	483	502
41 Harlem Avenue, Chicago Sanitary & Ship Canal	615	614	570	608	749	517	520	541	523	495	574
42 Route 83, Chicago Sanitary & Ship Canal	648	629	557	615	594	536	571	588	558	546	624
48 Stephen Street, Chicago Sanitary & Ship Canal	651	656	531	620	583	565	576	591	586	566	615
92 Lockport Forebay, Chicago Sanitary & Ship Canal	650	658	588	706	634	568	604	602	595	561	628
Calumet River System											
49 Ewing Avenue, Calumet River	270	224	229	221	236	237	217	225	232	261	290
50 Burnham Avenue, Wolf Lake	342	323	297	295	289	235	273	269	239	243	258
55 130th Street, Calumet River	400	357	387	397	388	345	293	332	325	329	374
86 Burnham Avenue, Grand Calumet River	516	556	768	770	728	844	615	768	894	858	782
56 Indiana Avenue, Little Calumet River	453	407	421	454	457	404	345	388	375	447	385
76 Halsted Street, Little Calumet River	611	579	566	695	637	577	548	564	536	532	606
52 Wentworth Avenue, Little Calumet River	505	572	560	731	634	656	574	712	800	808	653
54 Joe Orr Road, Thorn Creek	1055	1356	1247	1592	1409	1480	1178	1512	937	1594	1218
97 170th Street, Thorn Creek	899	1020	943	1163	974	1066	1196	1124	1277	1261	822
57 Ashland Avenue, Little Calumet River	723	774	708	833	795	851	879	854	918	890	739
58 Ashland Avenue, Calumet-Sag Channel	645	657	557	712	588	621	617	608	585	683	641
59 Cicero Avenue, Calumet-Sag Channel	679	598	555	672	602	658	611	646	609	597	636
43 Route 83, Calumet-Sag Channel	623	665	559	651	612	622	610	610	589	595	638
Des Plaines River System											
90 Route 19, Poplar Creek	726	799	652	807	770	779	750	740	631	692	715
110 Springinguth Road, West Branch DuPage River	854	752	763	932	879	1155	1047	915	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	674	633	594	627	631	645	607	635	590	575	626
64 Lake Street, West Branch DuPage River	ND	912	638	723	643	649	663	654	592	627	668
111 Arlington Drive, West Branch Du Page River	694	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	838	726	701	980	941	773	1034	903	656	708	862
80 Arlington Heights Road, Salt Creek	777	820	708	957	779	778	723	663	659	658	732
18 Devon Avenue, Salt Creek	790	880	657	970	766	792	851	721	694	632	731
24 Wolf Road, Salt Creek	799	853	728	895	783	698	794	723	696	750	752
109 Brookfield Avenue, Salt Creek	789	827	690	857	761	722	784	772	650	547	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	1366	780
77 Elmhurst Road, Higgins Creek	712	1162	703	1161	623	1118	1081	1040	873	922	1092
78 Wille Road, Higgins Creek	797	758	781	824	780	706	713	688	666	757	780
12 Lake-Cook Road, Buffalo Creek	764	891	690	923	775	790	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	624	670	549	723	642	709	718	664	677	678	646
17 Oakton Street, Des Plaines River	665	721	549	737	634	751	761	651	620	704	681
19 Belmont Avenue, Des Plaines River	672	726	594	812	662	749	760	707	708	730	676
20 Roosevelt Road, Des Plaines River	687	725	584	807	677	744	752	691	605	743	676
22 Ogden Avenue, Des Plaines River	707	750	590	783	690	723	747	691	660	790	716
23 Willow Springs Road, Des Plaines River	712	739	595	801	719	716	751	675	637	708	690
29 Stephen Street, Des Plaines River	696	727	593	822	705	729	743	648	625	726	689
91 Material Service Road, Des Plaines River	688	739	610	801	694	743	770	679	662	758	667

ND = No Data.

TABLE AII-63: PHENOLS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	5.0	0.5	0.5	0.0	1.0	0.8	6.8	8.9	9.0	5.5	18.2
103 Golf Road, West Fork North Branch Chicago River	5.0	0.6	0.5	0.0	1.7	1.1	9.9	8.7	5.6	7.6	14.1
31 Lake-Cook Road, Middle Fork North Branch	5.0	0.0	0.0	0.0	1.5	0.3	11.4	11.5	9.4	11.6	16.5
104 Glenview Road, North Branch Chicago River	5.4	0.0	0.0	0.0	0.0	0.3	6.3	7.6	4.3	5.2	11.4
32 Lake-Cook Road, Skokie River	5.1	0.6	0.0	0.0	0.3	0.3	8.0	11.6	7.9	9.1	15.3
105 Frontage Road, Skokie River	5.0	0.6	0.4	0.0	1.1	1.2	5.6	5.7	3.2	5.4	10.3
34 Dempster Street, North Branch Chicago River	5.0	0.0	0.0	0.0	0.9	0.3	8.4	6.8	5.5	7.3	11.7
96 Albany Avenue, North Branch Chicago River	5.0	0.0	0.0	0.0	0.0	0.3	8.3	8.9	6.4	6.6	13.1
35 Central Street, North Shore Channel	5.0	0.0	0.0	0.0	0.3	0.3	4.3	6.6	2.8	4.5	4.6
102 Oakton Street, North Shore Channel	5.0	0.0	0.0	0.0	1.5	1.0	7.1	7.8	6.5	6.0	7.9
36 Touhy Avenue, North Shore Channel	5.0	0.0	0.0	0.0	1.0	0.5	9.1	9.4	7.3	9.0	14.3
101 Foster Avenue, North Shore Channel	5.0	0.0	0.0	0.0	0.5	1.0	9.8	9.8	6.2	9.0	12.2
37 Wilson Avenue, North Branch Chicago River	5.0	0.0	0.0	0.0	1.2	1.0	8.5	8.9	6.5	8.3	13.3
73 Diversey Parkway, North Branch Chicago River	5.0	0.0	0.0	0.0	1.1	1.0	10.8	8.4	6.8	8.6	13.8
46 Grand Avenue, North Branch Chicago River	5.0	0.0	0.0	0.0	0.8	1.3	9.8	10.3	5.3	8.5	15.0
74 Lake Shore Drive, Chicago River	5.1	0.0	0.0	0.0	0.4	0.0	4.3	4.4	3.0	2.7	7.3
100 Wells Street, Chicago River	5.0	0.0	0.0	0.0	0.6	0.3	4.8	7.6	3.8	3.8	11.9
39 Madison Street, South Branch Chicago River	5.0	0.0	0.0	0.0	0.5	0.0	7.6	9.1	7.6	6.7	10.9
108 Loomis Street, South Branch Chicago River	5.0	0.0	0.0	0.0	1.0	0.5	7.7	8.6	5.5	7.4	9.6
99 Archer Avenue, South Fork South Branch Chicago River	5.6	0.7	0.5	0.0	0.3	0.7	8.7	9.5	5.8	9.5	17.7
40 Damen Avenue, Chicago Sanitary & Ship Canal	5.0	0.5	0.0	0.0	0.6	0.7	8.3	8.3	5.6	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.5	11.8
75 Cicero Avenue, Chicago Sanitary & Ship Canal	5.1	0.0	0.0	0.0	1.5	0.9	6.8	7.9	5.0	7.7	11.7
41 Harlem Avenue, Chicago Sanitary & Ship Canal	5.0	0.7	0.0	0.0	0.8	0.5	6.6	8.5	5.6	6.8	14.8
42 Route 83, Chicago Sanitary & Ship Canal	5.0	0.5	0.0	0.0	0.5	0.3	9.5	9.7	6.2	8.7	13.4
48 Stephen Street, Chicago Sanitary & Ship Canal	5.3	0.5	0.0	0.0	0.0	0.0	9.2	9.0	6.6	8.3	12.8
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.0	0.2	0.0	0.0	1.2	0.8	8.8	8.6	5.7	7.5	10.9
Calumet River System											
49 Ewing Avenue, Calumet River	5.0	0.0	0.0	0.0	0.4	0.9	2.0	2.7	1.6	1.7	3.3
50 Burnham Avenue, Wolf Lake	5.0	0.0	0.0	0.0	0.0	0.0	5.8	7.4	3.2	3.8	5.0
55 130th Street, Calumet River	5.0	0.0	0.0	0.0	0.0	0.4	4.9	3.6	1.1	1.8	5.0
86 Burnham Avenue, Grand Calumet River	5.5	0.7	1.4	1.1	2.3	1.9	16.1	11.9	7.6	6.1	8.0
56 Indiana Avenue, Little Calumet River	5.0	0.0	0.0	0.0	1.0	0.3	5.0	5.6	2.5	4.1	6.0
76 Halsted Street, Little Calumet River	5.0	0.0	0.0	0.0	1.6	0.9	9.9	8.9	7.2	9.4	11.4
52 Wentworth Avenue, Little Calumet River	5.0	0.0	0.0	0.0	1.3	0.8	14.4	22.4	12.6	16.5	12.5
54 Joe Orr Road, Thorn Creek	5.0	0.0	0.0	0.0	1.2	0.0	13.3	9.3	6.0	9.0	10.2
97 170th Street, Thorn Creek	5.0	0.0	0.0	0.0	1.0	0.0	9.0	9.7	6.2	8.0	7.8
57 Ashland Avenue, Little Calumet River	5.0	0.6	0.0	0.0	0.4	0.3	10.2	10.9	7.5	8.4	11.9
58 Ashland Avenue, Calumet-Sag Channel	5.0	0.5	0.0	0.0	1.1	0.3	9.1	9.3	7.8	8.8	11.8
59 Cicero Avenue, Calumet-Sag Channel	5.0	5.9	0.0	0.0	0.3	0.5	10.5	10.3	7.9	9.3	13.5
43 Route 83, Calumet-Sag Channel	5.0	0.0	0.0	0.0	0.0	0.4	10.0	9.7	5.5	10.2	11.5
Des Plaines River System											
90 Route 19, Poplar Creek	5.0	0.6	0.0	0.0	1.0	0.0	10.4	8.6	6.5	5.3	10.4
110 Springinguth Road, West Branch DuPage River	5.0	0.0	0.0	0.0	1.2	1.3	15.7	18.0	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	5.0	0.0	0.0	0.0	1.0	0.0	9.5	13.3	8.8	7.8	17.1
64 Lake Street, West Branch DuPage River	ND	0.0	0.0	0.0	0.6	0.3	8.2	9.1	7.9	6.3	15.8
111 Arlington Drive, West Branch Du Page River	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	5.0	0.0	0.0	0.0	1.5	0.4	10.6	8.4	7.9	6.1	13.4
80 Arlington Heights Road, Salt Creek	5.0	0.0	0.0	0.0	0.6	0.5	6.0	9.3	5.0	6.6	15.3
18 Devon Avenue, Salt Creek	5.0	0.0	0.0	0.0	1.2	0.0	5.5	10.4	6.3	5.1	16.2
24 Wolf Road, Salt Creek	5.0	0.6	0.4	0.4	0.6	1.2	5.8	6.7	6.0	5.7	12.4
109 Brookfield Avenue, Salt Creek	5.0	0.0	0.0	0.0	0.5	0.9	8.6	7.6	5.4	5.7	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7	11.9
77 Elmhurst Road, Higgins Creek	5.0	0.0	0.0	0.0	0.0	1.9	11.3	13.0	12.2	5.8	14.9
78 Wille Road, Higgins Creek	5.0	0.6	0.0	0.4	1.6	1.0	8.1	15.5	8.8	11.3	19.0
12 Lake-Cook Road, Buffalo Creek	5.0	0.0	0.0	0.0	0.3	0.9	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	5.0	0.5	0.0	0.5	0.7	0.0	6.2	7.6	4.4	4.6	11.4
17 Oakton Street, Des Plaines River	5.0	0.0	0.0	0.0	1.1	0.3	6.8	7.9	5.0	6.4	11.5
19 Belmont Avenue, Des Plaines River	5.0	0.0	0.0	0.0	0.6	1.3	6.5	9.5	5.8	5.3	11.8
20 Roosevelt Road, Des Plaines River	5.0	0.0	0.0	0.5	0.5	0.6	8.4	9.7	6.0	5.3	11.3
22 Ogden Avenue, Des Plaines River	5.0	0.0	0.0	0.0	0.6	0.7	7.6	8.8	7.6	5.0	12.5
23 Willow Springs Road, Des Plaines River	5.0	0.0	0.0	0.6	0.7	2.1	7.6	8.7	4.5	5.6	11.5
29 Stephen Street, Des Plaines River	5.0	0.4	0.0	0.4	0.3	0.9	6.1	8.4	5.3	5.2	14.8
91 Material Service Road, Des Plaines River	5.0	0.0	0.0	0.0	0.3	1.3	10.5	7.5	5.5	5.1	9.9

ND = No Data.

TABLE AII-64: TOTAL NONYLPHENOLS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)											
	11	10	09	08	07	06	05	04	03	02	01	
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	ND
102 Oakton Street, North Shore Channel	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	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	ND
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	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
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	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 & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.00	0.00	0.00	0.65	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.00	0.00	0.00	0.67	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	0.00	0.00	0.00	0.35	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.00	0.00	0.00	0.22	ND	ND	ND	ND	ND	ND	ND	ND
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	0.00	0.00	0.00	0.60	ND	ND	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
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	0.00	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	ND
59 Cicero Avenue, Calumet-Sag Channel	0.00	0.00	0.00	0.00	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	ND
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch Du Page River	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	0.00	0.00	0.00	0.25	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	0.00	0.00	0.00	0.00	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-65: BISPHENOL A MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)											
	11	10	09	08	07	06	05	04	03	02	01	
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	ND
102 Oakton Street, North Shore Channel	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	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	ND
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	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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	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 & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
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	ND
59 Cicero Avenue, Calumet-Sag Channel	0.00	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	ND
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.00	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 Du Page River	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	0.00	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	0.00	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	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	0.00	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	0.00	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-66: SULFATE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	56.8	49.2	47.4	52.9	46.6	53.3	63.0	76.5	64.3	61.8	67.2
103 Golf Road, West Fork North Branch Chicago River	62.0	58.0	56.2	63.1	68.9	77.9	75.4	75.3	76.4	64.5	61.8
31 Lake-Cook Road, Middle Fork North Branch	48.6	46.7	45.1	52.7	57.1	68.0	86.3	76.3	76.4	72.3	69.0
104 Glenview Road, North Branch Chicago River	52.8	54.4	53.0	62.7	60.3	66.8	65.1	69.8	67.8	64.1	64.8
32 Lake-Cook Road, Skokie River	52.6	50.9	51.0	60.0	53.3	61.6	65.4	76.6	80.4	62.3	70.4
105 Frontage Road, Skokie River	54.3	54.2	55.0	62.0	52.7	67.8	63.4	67.4	64.9	64.8	62.3
34 Dempster Street, North Branch Chicago River	56.0	54.6	51.9	60.6	60.3	71.5	68.6	72.4	71.6	61.9	63.2
96 Albany Avenue, North Branch Chicago River	56.4	53.0	54.3	63.6	59.7	73.1	68.3	72.3	74.0	69.0	65.8
35 Central Street, North Shore Channel	30.0	25.3	27.2	34.6	30.4	28.7	26.8	33.8	36.6	34.9	25.6
102 Oakton Street, North Shore Channel	40.3	36.7	38.0	44.1	39.9	43.8	40.9	41.7	43.0	43.3	28.2
36 Touhy Avenue, North Shore Channel	45.5	41.9	47.9	52.1	49.1	50.8	46.6	51.7	53.4	53.3	79.8
101 Foster Avenue, North Shore Channel	45.4	43.2	46.8	52.9	50.6	51.3	59.6	56.8	53.2	50.6	49.0
37 Wilson Avenue, North Branch Chicago River	46.5	47.3	46.7	54.8	54.1	58.0	50.8	59.9	57.3	57.1	57.3
73 Diversey Parkway, North Branch Chicago River	46.9	47.3	47.9	56.1	52.3	55.8	50.9	62.2	59.0	55.6	58.2
46 Grand Avenue, North Branch Chicago River	47.5	44.2	45.8	54.9	53.6	57.4	54.1	60.6	58.9	56.3	56.3
74 Lake Shore Drive, Chicago River	33.5	25.8	26.3	30.0	31.7	36.6	29.7	36.8	35.6	32.0	32.0
100 Wells Street, Chicago River	40.7	31.2	32.0	40.9	36.8	39.1	35.4	40.5	44.3	36.6	36.0
39 Madison Street, South Branch Chicago River	48.1	39.8	42.1	47.8	44.9	49.6	47.6	51.8	54.8	49.1	45.8
108 Loomis Street, South Branch Chicago River	44.4	41.4	43.9	52.2	47.2	52.2	49.8	55.2	53.2	49.3	43.3
99 Archer Avenue, South Fork South Branch Chicago River	44.8	44.0	41.8	55.1	46.1	51.1	56.0	52.8	55.1	51.6	51.8
40 Damen Avenue, Chicago Sanitary & Ship Canal	45.1	41.2	43.1	49.2	46.3	52.0	49.5	53.0	53.1	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	49.6	43.9
75 Cicero Avenue, Chicago Sanitary & Ship Canal	45.7	43.0	41.9	53.6	48.5	51.9	50.1	55.4	52.5	54.3	46.8
41 Harlem Avenue, Chicago Sanitary & Ship Canal	62.5	61.0	56.2	69.4	67.3	72.1	70.7	76.4	72.9	69.5	63.6
42 Route 83, Chicago Sanitary & Ship Canal	69.6	65.0	60.9	67.5	72.8	75.1	74.2	80.8	82.5	78.5	67.1
48 Stephen Street, Chicago Sanitary & Ship Canal	75.8	75.5	65.8	78.7	83.8	89.6	85.6	91.7	94.6	88.1	88.9
92 Lockport Forebay, Chicago Sanitary & Ship Canal	80.9	82.5	76.2	86.0	85.7	86.9	88.1	89.8	96.7	88.7	91.1
Calumet River System											
49 Ewing Avenue, Calumet River	25.5	24.5	26.6	30.2	32.1	29.9	27.0	28.3	29.2	28.4	28.3
50 Burnham Avenue, Wolf Lake	46.1	41.4	47.5	47.8	42.6	39.4	41.0	43.5	35.2	36.6	38.9
55 130th Street, Calumet River	53.1	52.7	61.9	63.2	82.7	60.7	55.2	57.2	54.2	54.7	63.3
86 Burnham Avenue, Grand Calumet River	93.0	96.1	145.6	162.3	196.1	262.4	176.9	204.9	260.1	219.9	184.3
56 Indiana Avenue, Little Calumet River	60.3	61.2	64.4	72.4	90.1	74.7	64.1	70.4	74.3	78.9	73.4
76 Halsted Street, Little Calumet River	82.7	75.2	76.4	97.7	87.7	91.0	91.3	91.6	100.7	91.2	113.3
52 Westworth Avenue, Little Calumet River	77.7	96.3	98.1	134.9	118.4	130.0	116.2	143.9	180.2	146.0	122.5
54 Joe Orr Road, Thorn Creek	450.9	509.8	506.7	716.6	596.3	620.0	494.6	620.8	460.4	724.5	521.3
97 170th Street, Thorn Creek	267.2	318.3	298.3	422.5	352.0	419.3	465.3	403.1	498.3	445.9	255.8
57 Ashland Avenue, Little Calumet River	171.3	182.2	166.0	270.8	223.0	241.5	289.4	235.0	293.1	241.9	161.0
58 Ashland Avenue, Calumet-Sag Channel	104.2	138.1	88.7	107.4	91.4	107.7	118.2	116.5	142.4	146.2	110.3
59 Cicero Avenue, Calumet-Sag Channel	103.0	96.1	99.3	134.4	94.2	123.1	120.4	128.6	136.4	118.2	124.3
43 Route 83, Calumet-Sag Channel	94.4	103.5	93.7	113.0	104.5	117.1	130.0	122.7	128.4	109.3	116.6
Des Plaines River System											
90 Route 19, Poplar Creek	44.3	41.6	42.0	52.7	53.9	71.5	54.6	66.7	46.9	62.8	63.0
110 Springinguth Road, West Branch DuPage River	74.3	48.0	64.2	77.9	85.1	112.4	80.5	98.7	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	60.9	57.7	60.0	70.8	65.7	81.8	68.1	77.2	68.1	65.4	73.5
64 Lake Street, West Branch DuPage River	ND	59.1	61.0	68.0	65.3	81.9	71.4	78.0	68.1	68.0	77.8
111 Arlington Drive, West Branch Du Page River	60.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	65.2	46.3	62.4	71.1	62.5	81.7	79.4	93.3	72.8	76.0	89.5
80 Arlington Heights Road, Salt Creek	61.9	68.0	62.5	75.1	76.8	85.0	82.9	84.9	77.7	79.3	84.4
18 Devon Avenue, Salt Creek	65.9	72.1	61.6	75.0	75.7	84.5	83.2	84.6	76.4	79.5	82.4
24 Wolf Road, Salt Creek	73.5	75.7	77.3	82.8	84.6	87.0	92.2	96.7	84.1	95.0	98.7
109 Brookfield Avenue, Salt Creek	71.8	72.5	71.7	79.2	79.9	85.2	88.4	97.9	82.4	84.5	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	95.8	94.2
77 Elmhurst Road, Higgins Creek	38.7	39.4	36.3	48.7	37.5	47.1	46.7	66.3	44.8	47.8	60.9
78 Wille Road, Higgins Creek	85.7	77.7	81.7	90.0	91.0	91.7	103.6	100.2	90.4	97.1	107.8
12 Lake-Cook Road, Buffalo Creek	73.4	76.8	69.5	87.6	70.8	111.5	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	57.7	58.7	49.4	72.3	75.7	97.0	84.7	88.9	91.6	84.9	76.8
17 Oakton Street, Des Plaines River	59.0	59.7	52.0	69.8	69.8	92.5	112.2	89.9	88.4	86.3	85.8
19 Belmont Avenue, Des Plaines River	61.3	61.5	57.5	75.3	70.6	90.7	88.0	91.2	85.4	85.6	79.5
20 Roosevelt Road, Des Plaines River	60.9	61.3	54.4	75.5	70.5	89.7	100.1	90.6	85.7	87.4	80.5
22 Ogden Avenue, Des Plaines River	63.0	63.6	56.9	74.7	68.8	90.9	85.1	87.9	89.1	87.5	98.9
23 Willow Springs Road, Des Plaines River	64.2	65.2	58.0	77.7	73.1	88.2	89.3	92.8	92.2	90.0	83.8
29 Stephen Street, Des Plaines River	63.6	65.0	57.3	76.7	76.9	91.1	90.5	91.4	95.6	90.6	82.9
91 Material Service Road, Des Plaines River	62.7	66.8	61.0	75.8	74.9	93.7	105.3	94.3	97.5	95.8	81.2

ND = No Data.

**TABLE AII-67: FATS, OILS, AND GREASES MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (mg/L)											
	11	10	09	08	07	06	05	04	03	02	01	
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	0.00	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	5.00	0.00	0.00	0.00	0.42	0.42	0.73	2.48	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	5.00	0.00	0.00	0.00	0.30	0.27	2.14	2.37	4.47	5.54	4.79	4.79
101 Foster Avenue, North Shore Channel	5.00	0.00	0.00	0.00	0.33	0.67	2.02	1.94	2.73	4.84	3.96	3.96
37 Wilson Avenue, North Branch Chicago River	5.00	0.00	0.00	0.00	0.67	0.42	2.45	1.85	3.38	5.45	4.56	4.56
73 Diversey Parkway, North Branch Chicago River	5.00	0.00	0.00	0.00	0.00	0.83	0.86	2.33	3.38	3.85	3.85	8.94
46 Grand Avenue, North Branch Chicago River	5.00	0.00	0.00	0.00	0.27	0.42	1.85	2.97	2.59	4.72	3.88	3.88
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	5.00	0.00	0.00	0.00	0.27	0.00	0.68	1.93	3.56	5.70	4.16	4.16
108 Loomis Street, South Branch Chicago River	5.00	0.00	0.00	0.00	0.00	0.00	0.80	1.64	2.87	4.68	4.79	4.79
99 Archer Avenue, South Fork South Branch Chicago River	5.19	0.00	0.00	0.00	0.00	0.00	0.55	2.77	2.96	4.41	4.03	4.03
40 Damen Avenue, Chicago Sanitary & Ship Canal	5.00	0.00	0.00	0.00	0.67	0.00	0.73	3.03	3.16	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.37	3.89	3.89
75 Cicero Avenue, Chicago Sanitary & Ship Canal	5.00	0.00	0.00	0.00	0.25	0.00	1.24	1.59	2.89	5.57	4.09	4.09
41 Harlem Avenue, Chicago Sanitary & Ship Canal	5.00	0.00	0.00	1.17	0.00	0.00	0.65	2.03	2.73	5.16	4.09	4.09
42 Route 83, Chicago Sanitary & Ship Canal	5.00	0.00	0.00	0.00	0.55	0.00	0.93	2.64	2.06	5.31	5.79	5.79
48 Stephen Street, Chicago Sanitary & Ship Canal	6.00	0.00	0.00	0.00	0.00	0.00	1.18	4.29	2.74	4.10	3.37	3.37
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.00	0.00	0.22	0.10	0.14	0.37	1.52	1.95	3.85	4.76	3.92	3.92
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	0.00	0.00	0.50	0.60	1.00	1.77	1.46	6.40	5.76	3.17	3.17
56 Indiana Avenue, Little Calumet River	5.00	0.00	0.00	0.56	0.00	1.18	0.00	1.41	3.66	4.87	3.39	3.39
76 Halsted Street, Little Calumet River	5.00	0.00	0.00	0.42	0.00	1.18	0.43	1.28	2.91	4.39	4.54	4.54
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	5.00	0.00	0.00	0.42	0.00	0.73	0.58	1.98	3.36	5.33	4.20	4.20
59 Cicero Avenue, Calumet-Sag Channel	5.00	0.00	0.00	0.45	0.00	0.55	0.78	1.78	2.58	4.45	3.92	3.92
43 Route 83, Calumet-Sag Channel	5.00	0.00	9.80	0.50	0.00	0.73	0.79	2.29	3.41	4.38	4.33	4.33
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch Du Page 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-68: TOTAL PHOSPHORUS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1.232	1.366	1.260	1.198	1.038	0.964	1.508	2.120	1.620	0.963	1.102
103 Golf Road, West Fork North Branch Chicago River	0.515	0.523	0.397	0.422	0.669	0.572	0.834	0.550	0.614	0.752	0.663
31 Lake-Cook Road, Middle Fork North Branch	0.139	0.128	0.016	0.136	0.183	0.158	0.210	0.145	0.112	0.155	0.143
104 Glenview Road, North Branch Chicago River	0.712	0.866	0.659	0.643	1.028	0.936	1.413	1.014	1.033	1.256	0.844
32 Lake-Cook Road, Skokie River	0.248	0.126	0.019	0.058	0.175	0.599	0.863	0.237	0.331	0.187	0.150
105 Frontage Road, Skokie River	0.936	1.053	0.883	0.815	1.246	1.174	1.538	1.223	1.708	1.477	0.932
34 Dempster Street, North Branch Chicago River	0.616	0.494	0.550	0.602	0.879	0.840	1.199	0.925	1.269	1.153	0.624
96 Albany Avenue, North Branch Chicago River	0.494	0.695	0.538	0.507	0.808	0.760	1.155	0.795	1.002	1.037	0.718
35 Central Street, North Shore Channel	0.135	0.078	0.077	0.000	0.062	0.056	0.016	0.088	0.213	0.101	0.058
102 Oakton Street, North Shore Channel	0.618	0.530	0.442	0.432	0.538	0.632	0.444	0.489	0.548	0.655	0.221
36 Touhy Avenue, North Shore Channel	1.251	1.154	1.054	1.040	1.388	1.033	1.241	1.170	1.377	1.057	1.259
101 Foster Avenue, North Shore Channel	1.118	1.207	1.113	1.082	1.450	1.384	1.248	1.328	1.287	1.148	1.406
37 Wilson Avenue, North Branch Chicago River	0.974	1.024	1.031	0.961	1.287	1.191	1.130	1.227	1.143	1.043	1.198
73 Diversey Parkway, North Branch Chicago River	0.954	1.048	0.931	0.897	1.112	0.986	0.870	1.065	1.055	0.905	0.889
46 Grand Avenue, North Branch Chicago River	0.847	0.950	0.836	0.788	1.115	1.004	1.121	0.923	0.982	0.953	0.800
74 Lake Shore Drive, Chicago River	0.335	0.153	0.003	0.053	0.152	0.125	0.158	0.228	0.226	0.191	0.291
100 Wells Street, Chicago River	0.568	0.336	0.150	0.320	0.308	0.309	0.355	0.443	0.639	0.429	0.387
39 Madison Street, South Branch Chicago River	0.825	0.649	0.669	0.658	0.709	0.661	0.830	0.908	1.089	0.756	0.611
108 Loomis Street, South Branch Chicago River	0.728	0.657	0.574	0.591	0.678	0.723	0.722	0.860	0.775	0.732	0.573
99 Archer Avenue, South Fork South Branch Chicago River	0.671	0.682	0.485	0.580	0.609	0.590	0.767	0.804	0.857	0.719	0.610
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.697	0.670	0.611	0.630	0.686	0.702	0.755	0.843	0.884	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.738	0.609
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.598	0.681	0.493	0.637	0.763	0.661	0.746	0.803	0.867	0.723	0.671
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.479	0.791	0.673	0.829	1.008	0.825	0.988	0.953	1.100	0.984	0.990
42 Route 83, Chicago Sanitary & Ship Canal	0.546	0.837	0.609	0.862	0.830	0.602	0.725	0.978	0.836	0.918	0.760
48 Stephen Street, Chicago Sanitary & Ship Canal	0.833	1.008	0.823	0.928	0.964	0.901	1.168	1.103	1.083	1.180	1.096
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.925	1.121	0.864	0.952	0.852	0.935	1.166	1.014	1.138	1.197	1.032
Calumet River System											
49 Ewing Avenue, Calumet River	0.070	0.018	0.000	0.000	0.011	0.044	0.025	0.060	0.032	0.060	0.081
50 Burnham Avenue, Wolf Lake	0.083	0.043	0.004	0.000	0.037	0.045	0.023	0.053	0.029	0.035	0.070
55 130th Street, Calumet River	0.072	0.000	0.004	0.000	0.031	0.038	0.025	0.049	0.035	0.039	0.127
86 Burnham Avenue, Grand Calumet River	0.750	0.919	0.290	0.835	1.209	0.699	0.878	0.584	0.607	0.613	0.666
56 Indiana Avenue, Little Calumet River	0.364	0.369	0.010	0.340	0.189	0.359	0.372	0.538	0.504	0.495	0.554
76 Halsted Street, Little Calumet River	1.660	2.010	1.493	2.035	1.037	1.835	2.083	1.638	2.126	2.038	1.386
52 Wentworth Avenue, Little Calumet River	0.391	0.568	0.493	0.587	0.585	0.645	0.609	0.543	0.561	0.595	0.495
54 Joe Orr Road, Thorn Creek	1.186	1.267	1.743	2.664	2.329	2.038	2.113	2.054	1.650	5.909	5.645
97 170th Street, Thorn Creek	0.757	0.920	1.144	1.383	1.479	1.170	1.574	1.502	2.101	2.607	2.296
57 Ashland Avenue, Little Calumet River	0.494	0.758	0.519	0.993	0.834	0.764	1.061	0.812	1.223	1.481	1.537
58 Ashland Avenue, Calumet-Sag Channel	1.395	1.578	1.412	1.957	0.963	1.755	2.077	1.562	1.898	2.070	1.442
59 Cicero Avenue, Calumet-Sag Channel	1.582	1.917	1.258	1.803	0.989	1.802	2.214	1.646	2.048	2.129	1.511
43 Route 83, Calumet-Sag Channel	1.426	1.824	1.329	1.378	1.037	1.318	2.266	1.483	1.686	1.814	1.619
Des Plaines River System											
90 Route 19, Poplar Creek	0.093	0.097	0.012	0.000	0.100	0.116	0.087	0.075	0.108	0.066	0.060
110 Springinsguth Road, West Branch DuPage River	0.392	0.190	0.093	0.111	0.179	0.184	0.325	0.205	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	1.797	2.310	2.340	2.426	2.460	2.270	2.670	2.745	2.440	2.603	2.428
64 Lake Street, West Branch DuPage River	ND	1.148	1.747	2.119	2.062	1.911	2.432	2.400	2.338	2.245	2.030
111 Arlington Drive, West Branch Du Page River	1.666	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.399	0.120	0.253	0.000	0.132	0.149	0.108	0.097	0.106	0.109	0.106
80 Arlington Heights Road, Salt Creek	1.010	1.533	1.588	0.142	0.513	1.791	2.022	1.850	1.980	1.992	1.687
18 Devon Avenue, Salt Creek	1.286	1.643	1.563	0.133	0.548	1.882	1.981	1.899	2.007	1.955	1.810
24 Wolf Road, Salt Creek	1.015	1.172	1.122	0.761	0.839	1.471	1.896	1.595	1.584	1.773	1.227
109 Brookfield Avenue, Salt Creek	0.915	1.041	0.944	0.733	0.765	1.355	1.603	1.317	1.328	1.943	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.043	1.073
77 Elmhurst Road, Higgins Creek	0.082	0.000	0.035	0.000	0.112	0.123	0.098	0.108	0.290	0.117	0.112
78 Wille Road, Higgins Creek	0.975	1.018	0.936	1.176	0.813	0.663	1.577	0.662	0.478	0.864	0.508
12 Lake-Cook Road, Buffalo Creek	0.113	0.086	0.012	0.000	0.167	0.122	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.603	0.773	0.566	0.915	0.934	1.075	1.498	0.985	1.333	1.268	0.826
17 Oakton Street, Des Plaines River	0.553	0.802	0.502	0.765	0.772	0.873	1.256	0.889	0.958	1.033	0.691
19 Belmont Avenue, Des Plaines River	0.575	0.801	0.532	0.745	0.738	0.816	1.107	0.688	0.852	0.883	0.590
20 Roosevelt Road, Des Plaines River	0.580	0.734	0.475	0.682	0.700	0.700	1.069	0.631	0.891	0.875	0.546
22 Ogden Avenue, Des Plaines River	0.621	0.787	0.631	0.656	0.697	0.923	1.224	0.811	1.272	1.095	0.658
23 Willow Springs Road, Des Plaines River	0.587	0.733	0.535	0.641	0.647	0.882	1.173	0.796	0.919	1.060	0.618
29 Stephen Street, Des Plaines River	0.575	0.708	0.535	0.699	0.715	0.930	1.201	0.834	1.077	0.998	0.672
91 Material Service Road, Des Plaines River	0.554	0.678	0.552	0.680	0.733	0.915	1.263	0.778	1.104	0.969	0.679

ND = No Data.

**TABLE AII-69: SOLUBLE PHOSPHORUS MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.910
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.448
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.028
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.530
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.026
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.633
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.418
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.525
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.053
102 Oakton Street, North Shore Channel	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	0.928
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.168
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.830
73 Diverser Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.707
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.682
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.390
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.500
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.594
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.555
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.490
40 Damen Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.537
75 Cicero Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.646
41 Harlem Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.618
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.646
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.970
92 Lockport Forebay, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.846
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.046
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.032
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.013
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.155
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.090
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.372
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.240
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.608
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.620
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.915
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.300
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.312
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.046
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.020
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	ND	ND	ND	ND	ND	ND	1.970
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.772
111 Arlington Drive, West Branch Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.265
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.287
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.987
109 Brookfield Avenue, Salt Creek	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	0.937
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.026
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.265
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.412
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.352
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.315
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.313
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.443
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.443
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.488
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.380

ND = No Data.

TABLE AII-70: TOTAL CYANIDE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.006	0.003	0.002	0.000	0.005	0.001	0.005	0.005	0.002	0.003	0.005
103 Golf Road, West Fork North Branch Chicago River	0.006	0.001	0.001	0.000	0.002	0.001	0.003	0.002	0.002	0.003	0.003
31 Lake-Cook Road, Middle Fork North Branch	0.005	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.001	0.002	0.001
104 Glenview Road, North Branch Chicago River	0.006	0.001	0.000	0.000	0.001	0.000	0.002	0.003	0.002	0.003	0.003
32 Lake-Cook Road, Skokie River	0.005	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.002
105 Frontage Road, Skokie River	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.002	0.002	0.002	0.004
34 Dempster Street, North Branch Chicago River	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.003	0.003	0.008	0.004
96 Albany Avenue, North Branch Chicago River	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.003	0.002	0.002	0.004
35 Central Street, North Shore Channel	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001
102 Oakton Street, North Shore Channel	0.005	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.002	0.004	0.002
36 Touhy Avenue, North Shore Channel	0.005	0.001	0.001	0.000	0.002	0.001	0.002	0.004	0.003	0.004	0.006
101 Foster Avenue, North Shore Channel	0.005	0.001	0.001	0.000	0.003	0.001	0.003	0.003	0.003	0.004	0.005
37 Wilson Avenue, North Branch Chicago River	0.005	0.001	0.001	0.000	0.002	0.001	0.003	0.003	0.003	0.004	0.005
73 Diversy Parkway, North Branch Chicago River	0.005	0.001	0.001	0.000	0.002	0.001	0.003	0.003	0.003	0.003	0.006
46 Grand Avenue, North Branch Chicago River	0.005	0.001	0.000	0.000	0.002	0.001	0.003	0.004	0.003	0.004	0.005
74 Lake Shore Drive, Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.002
100 Wells Street, Chicago River	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.002
39 Madison Street, South Branch Chicago River	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.003	0.004	0.004	0.004
108 Loomis Street, South Branch Chicago River	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.003	0.003	0.003	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.002	0.003	0.003	0.005
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.003	0.003	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.004
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.001	0.000	0.001	0.001	0.002	0.003	0.003	0.003	0.004
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.005	0.001	0.001	0.000	0.004	0.003	0.003	0.003	0.003	0.005	0.006
42 Route 83, Chicago Sanitary & Ship Canal	0.005	0.001	0.000	0.000	0.002	0.002	0.004	0.003	0.004	0.005	0.006
48 Stephen Street, Chicago Sanitary & Ship Canal	0.005	0.002	0.001	0.000	0.002	0.003	0.004	0.004	0.003	0.006	0.007
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.005	0.001	0.000	0.000	0.002	0.003	0.003	0.004	0.003	0.005	0.006
Calumet River System											
49 Ewing Avenue, Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002
50 Burnham Avenue, Wolf Lake	0.006	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.001	0.001
55 130th Street, Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002
86 Burnham Avenue, Grand Calumet River	0.005	0.002	0.000	0.002	0.004	0.003	0.005	0.005	0.005	0.006	0.010
56 Indiana Avenue, Little Calumet River	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.002	0.002
76 Halsted Street, Little Calumet River	0.005	0.001	0.000	0.000	0.002	0.002	0.003	0.003	0.003	0.005	0.007
52 Wentworth Avenue, Little Calumet River	0.005	0.001	0.000	0.001	0.006	0.004	0.006	0.016	0.005	0.006	0.009
54 Joe Orr Road, Thorn Creek	0.005	0.002	0.001	0.000	0.002	0.002	0.003	0.004	0.003	0.006	0.005
97 170th Street, Thorn Creek	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.002	0.002	0.004	0.004
57 Ashland Avenue, Little Calumet River	0.006	0.002	0.000	0.000	0.003	0.002	0.003	0.005	0.004	0.005	0.005
58 Ashland Avenue, Calumet-Sag Channel	0.005	0.002	0.001	0.000	0.002	0.002	0.003	0.004	0.003	0.005	0.007
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.001	0.000	0.000	0.002	0.002	0.003	0.003	0.003	0.005	0.006
43 Route 83, Calumet-Sag Channel	0.005	0.002	0.000	0.000	0.001	0.001	0.002	0.003	0.002	0.004	0.006
Des Plaines River System											
90 Route 19, Poplar Creek	0.005	0.001	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.002	0.002
110 Springinsguth Road, West Branch DuPage River	0.006	0.000	0.001	0.002	0.002	0.002	0.003	0.003	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.006	0.003	0.001	0.001	0.005	0.004	0.004	0.006	0.005	0.007	0.010
64 Lake Street, West Branch DuPage River	ND	0.003	0.000	0.000	0.003	0.002	0.004	0.004	0.004	0.005	0.008
111 Arlington Drive, West Branch Du Page River	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.006	0.001	0.000	0.000	0.002	0.000	0.001	0.002	0.002	0.002	0.003
80 Arlington Heights Road, Salt Creek	0.005	0.003	0.001	0.000	0.002	0.001	0.003	0.004	0.003	0.005	0.008
18 Devon Avenue, Salt Creek	0.006	0.003	0.001	0.000	0.002	0.001	0.003	0.004	0.003	0.005	0.008
24 Wolf Road, Salt Creek	0.005	0.002	0.000	0.000	0.001	0.000	0.002	0.003	0.003	0.004	0.006
109 Brookfield Avenue, Salt Creek	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.002	0.003	0.003	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.006	0.005
77 Elmhurst Road, Higgins Creek	0.006	0.000	0.000	0.000	0.000	0.003	0.003	0.004	0.003	0.004	0.003
78 Wille Road, Higgins Creek	0.006	0.003	0.000	0.001	0.004	0.002	0.003	0.004	0.004	0.005	0.007
12 Lake-Cook Road, Buffalo Creek	0.005	0.001	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.005	0.001	0.000	0.000	0.000	0.000	0.002	0.001	0.002	0.003	0.006
17 Oakton Street, Des Plaines River	0.005	0.000	0.000	0.002	0.001	0.001	0.005	0.002	0.002	0.003	0.005
19 Belmont Avenue, Des Plaines River	0.005	0.002	0.000	0.003	0.002	0.001	0.009	0.002	0.003	0.003	0.005
20 Roosevelt Road, Des Plaines River	0.005	0.001	0.000	0.002	0.002	0.001	0.009	0.002	0.002	0.004	0.005
22 Ogden Avenue, Des Plaines River	0.005	0.001	0.000	0.002	0.002	0.001	0.003	0.002	0.003	0.003	0.005
23 Willow Springs Road, Des Plaines River	0.005	0.000	0.000	0.001	0.002	0.000	0.002	0.002	0.002	0.003	0.004
29 Stephen Street, Des Plaines River	0.005	0.000	0.000	0.000	0.001	0.000	0.002	0.002	0.002	0.004	0.004
91 Material Service Road, Des Plaines River	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.002	0.002	0.004	0.004

ND = No Data.

**TABLE AII-71: WEAK ACID DISSOCIABLE CYANIDE MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.001	0.001	0.001
103 Golf Road, West Fork North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000
104 Glenview Road, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000
32 Lake-Cook Road, Skokie River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000
105 Frontage Road, Skokie River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.000
34 Dempster Street, North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.000
35 Central Street, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
102 Oakton Street, North Shore Channel	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
101 Foster Avenue, North Shore Channel	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
37 Wilson Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
73 Diversey Parkway, North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
46 Grand Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
74 Lake Shore Drive, Chicago River	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001
100 Wells Street, Chicago River	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.001	0.000
39 Madison Street, South Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
108 Loomis Street, South Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
99 Archer Avenue, South Fork South Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
42 Route 83, Chicago Sanitary & Ship Canal	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
48 Stephen Street, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.001
50 Burnham Avenue, Wolf Lake	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
56 Indiana Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.000
76 Halsted Street, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
52 Wentworth Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.002	0.001	0.002	0.004	0.001	0.001	0.001
54 Joe Orr Road, Thorn Creek	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
97 170th Street, Thorn Creek	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
57 Ashland Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.001	0.001	0.001
58 Ashland Avenue, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.001	0.001	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
43 Route 83, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.000
110 Springinsguth Road, West Branch DuPage River	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.002	0.002	0.000	0.001	0.003	0.002	0.002	0.002	0.002	0.003	0.002
64 Lake Street, West Branch DuPage River	ND	0.001	0.000	0.000	0.002	0.001	0.001	0.002	0.002	0.001	0.001
111 Arlington Drive, West Branch Du Page River	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.001	0.001
80 Arlington Heights Road, Salt Creek	0.002	0.001	0.000	0.000	0.002	0.001	0.002	0.002	0.001	0.002	0.002
18 Devon Avenue, Salt Creek	0.002	0.001	0.000	0.000	0.001	0.001	0.001	0.002	0.001	0.002	0.001
24 Wolf Road, Salt Creek	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
77 Elmhurst Road, Higgins Creek	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
78 Wille Road, Higgins Creek	0.001	0.001	0.000	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001
12 Lake-Cook Road, Buffalo Creek	0.001	0.000	0.000	0.000	0.001	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
17 Oakton Street, Des Plaines River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
19 Belmont Avenue, Des Plaines River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
20 Roosevelt Road, Des Plaines River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
22 Ogden Avenue, Des Plaines River	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
23 Willow Springs Road, Des Plaines River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
29 Stephen Street, Des Plaines River	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
91 Material Service Road, Des Plaines River	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001

ND = No Data.

**TABLE AII-72: FLUORIDE MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.499	0.505	0.476	0.428	0.345	0.334	0.520	0.553	0.450	0.433	0.408
103 Golf Road, West Fork North Branch Chicago River	0.388	0.374	0.355	0.339	0.401	0.370	0.469	0.360	0.394	0.425	0.387
31 Lake-Cook Road, Middle Fork North Branch	0.229	0.226	0.202	0.216	0.361	0.296	0.375	0.289	0.334	0.343	0.266
104 Glenview Road, North Branch Chicago River	0.410	0.497	0.418	0.425	0.519	0.457	0.584	0.513	0.460	0.617	0.464
32 Lake-Cook Road, Skokie River	0.314	0.268	0.225	0.229	0.314	0.379	0.483	0.291	0.364	0.354	0.247
105 Frontage Road, Skokie River	0.511	0.528	0.466	0.441	0.569	0.538	0.614	0.557	0.686	0.703	0.500
34 Dempster Street, North Branch Chicago River	0.405	0.395	0.383	0.398	0.485	0.438	0.539	0.473	0.581	0.605	0.378
96 Albany Avenue, North Branch Chicago River	0.381	0.417	0.392	0.332	0.478	0.436	0.516	0.439	0.528	0.567	0.446
35 Central Street, North Shore Channel	0.144	0.134	0.037	0.051	0.198	0.181	0.135	0.136	0.233	0.307	0.138
102 Oakton Street, North Shore Channel	0.420	0.375	0.272	0.269	0.420	0.456	0.346	0.318	0.376	0.512	0.238
36 Touhy Avenue, North Shore Channel	0.673	0.663	0.614	0.609	0.763	0.662	0.675	0.619	0.721	0.749	0.694
101 Foster Avenue, North Shore Channel	0.636	0.684	0.614	0.618	0.753	0.683	0.685	0.652	0.717	0.745	0.722
37 Wilson Avenue, North Branch Chicago River	0.549	0.614	0.543	0.560	0.710	0.634	0.667	0.617	0.678	0.693	0.623
73 Diversey Parkway, North Branch Chicago River	0.593	0.657	0.575	0.563	0.699	0.615	0.667	0.624	0.688	0.684	0.648
46 Grand Avenue, North Branch Chicago River	0.573	0.623	0.529	0.533	0.688	0.623	0.720	0.601	0.690	0.717	0.665
74 Lake Shore Drive, Chicago River	0.298	0.208	0.066	0.116	0.229	0.196	0.196	0.229	0.250	0.238	0.353
100 Wells Street, Chicago River	0.426	0.316	0.196	0.280	0.312	0.297	0.316	0.322	0.458	0.423	0.363
39 Madison Street, South Branch Chicago River	0.552	0.493	0.461	0.409	0.465	0.462	0.551	0.550	0.665	0.590	0.537
108 Loomis Street, South Branch Chicago River	0.508	0.498	0.463	0.430	0.467	0.489	0.557	0.551	0.596	0.581	0.543
99 Archer Avenue, South Fork South Branch Chicago River	0.503	0.554	0.456	0.443	0.472	0.461	0.565	0.516	0.578	0.565	0.595
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.499	0.505	0.463	0.433	0.467	0.468	0.555	0.525	0.592	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.532	0.538
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.469	0.505	0.418	0.464	0.498	0.479	0.531	0.503	0.578	0.578	0.471
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.591	0.598	0.564	0.562	0.633	0.643	0.740	0.686	0.727	0.743	0.633
42 Route 83, Chicago Sanitary & Ship Canal	0.643	0.643	0.570	0.543	0.685	0.696	0.756	0.768	0.825	0.809	0.715
48 Stephen Street, Chicago Sanitary & Ship Canal	0.582	0.587	0.519	0.519	0.636	0.648	0.701	0.683	0.800	0.809	0.752
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.566	0.584	0.532	0.562	0.634	0.663	0.719	0.634	0.769	0.802	0.751
Calumet River System											
49 Ewing Avenue, Calumet River	0.143	0.102	0.000	0.073	0.170	0.156	0.128	0.115	0.150	0.188	0.144
50 Burnham Avenue, Wolf Lake	0.365	0.362	0.354	0.338	0.334	0.247	0.275	0.228	0.223	0.213	0.208
55 130th Street, Calumet River	0.239	0.212	0.184	0.240	0.264	0.253	0.219	0.220	0.312	0.248	0.247
86 Burnham Avenue, Grand Calumet River	0.594	0.596	0.768	0.814	0.696	0.809	0.722	0.740	0.812	0.873	0.783
56 Indiana Avenue, Little Calumet River	0.314	0.272	0.235	0.394	0.348	0.324	0.317	0.278	0.375	0.394	0.375
76 Halsted Street, Little Calumet River	0.539	0.530	0.521	0.610	0.534	0.602	0.582	0.536	0.665	0.633	0.730
52 Wentworth Avenue, Little Calumet River	1.157	0.487	0.858	2.284	2.539	2.962	3.129	1.764	2.838	12.390	4.096
54 Joe Orr Road, Thorn Creek	0.467	0.482	0.564	0.658	0.549	0.659	0.474	0.626	0.483	0.746	0.674
97 170th Street, Thorn Creek	0.397	0.370	0.471	0.553	0.470	0.539	0.492	0.543	0.634	1.613	0.520
57 Ashland Avenue, Little Calumet River	0.572	0.422	0.766	0.924	0.803	1.115	1.182	0.887	1.107	2.865	1.627
58 Ashland Avenue, Calumet-Sag Channel	0.524	0.492	0.514	0.593	0.514	0.630	0.646	0.563	1.020	1.188	0.828
59 Cicero Avenue, Calumet-Sag Channel	0.541	0.483	0.499	0.575	0.507	0.639	0.637	0.575	0.719	0.935	0.935
43 Route 83, Calumet-Sag Channel	0.484	0.509	0.457	0.534	0.511	0.562	0.662	0.590	0.659	0.925	0.805
Des Plaines River System											
90 Route 19, Poplar Creek	0.179	0.144	0.155	0.150	0.231	0.208	0.209	0.198	0.206	0.234	0.257
110 Springinsguth Road, West Branch DuPage River	0.329	0.239	0.233	0.218	0.265	0.240	0.251	0.302	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.587	0.643	0.610	0.550	0.643	0.629	0.643	0.568	0.625	0.744	0.721
64 Lake Street, West Branch DuPage River	ND	0.377	0.483	0.530	0.569	0.529	0.603	0.572	0.601	0.631	0.540
111 Arlington Drive, West Branch Du Page River	0.530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.277	0.179	0.155	0.197	0.259	0.213	0.207	0.189	0.191	0.238	0.253
80 Arlington Heights Road, Salt Creek	0.413	0.527	0.458	0.517	0.563	0.523	0.553	0.546	0.547	0.602	0.573
18 Devon Avenue, Salt Creek	0.481	0.566	0.445	0.503	0.564	0.534	0.498	0.549	0.568	0.578	0.558
24 Wolf Road, Salt Creek	0.419	0.433	0.408	0.509	0.498	0.480	0.585	0.565	0.542	0.634	0.523
109 Brookfield Avenue, Salt Creek	0.397	0.424	0.395	0.522	0.474	0.459	0.467	0.511	0.474	0.698	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.447	0.499
77 Elmhurst Road, Higgins Creek	0.204	0.130	0.085	0.244	0.296	0.220	0.190	0.223	0.222	0.208	0.315
78 Wille Road, Higgins Creek	0.654	0.661	0.627	0.715	0.897	0.959	0.879	0.812	0.858	0.788	0.762
12 Lake-Cook Road, Buffalo Creek	0.184	0.120	0.044	0.099	0.234	0.191	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.331	0.365	0.325	0.401	0.424	0.425	0.438	0.400	0.525	0.508	0.393
17 Oakton Street, Des Plaines River	0.315	0.363	0.292	0.378	0.374	0.369	0.468	0.382	0.459	0.459	0.367
19 Belmont Avenue, Des Plaines River	0.354	0.420	0.355	0.424	0.442	0.468	0.468	0.435	0.541	0.502	0.425
20 Roosevelt Road, Des Plaines River	0.343	0.415	0.335	0.416	0.453	0.452	0.449	0.417	0.496	0.516	0.464
22 Ogden Avenue, Des Plaines River	0.352	0.403	0.345	0.443	0.437	0.447	0.440	0.429	0.592	0.541	0.408
23 Willow Springs Road, Des Plaines River	0.350	0.396	0.332	0.417	0.440	0.440	0.530	0.431	0.488	0.557	0.420
29 Stephen Street, Des Plaines River	0.338	0.383	0.328	0.390	0.470	0.453	0.510	0.427	0.536	0.516	0.386
91 Material Service Road, Des Plaines River	0.326	0.373	0.313	0.408	0.421	0.443	0.540	0.419	0.545	0.518	0.377

ND = No Data.

TABLE AII-73: TOTAL ORGANIC CARBON MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	5.24	4.89	4.75	3.97	3.90	4.58	6.43	8.88	10.67	9.50	12.60
103 Golf Road, West Fork North Branch Chicago River	4.79	4.70	4.53	3.53	4.05	4.08	6.88	8.40	8.88	9.36	8.40
31 Lake-Cook Road, Middle Fork North Branch	6.64	6.79	6.01	5.13	6.75	6.17	9.02	10.10	11.00	11.40	9.73
104 Glenview Road, North Branch Chicago River	7.39	4.66	4.65	4.08	4.40	4.63	5.98	8.33	9.00	8.00	8.10
32 Lake-Cook Road, Skokie River	7.34	5.60	5.09	4.36	4.96	5.43	7.62	9.30	9.89	10.60	9.36
105 Frontage Road, Skokie River	4.69	4.58	4.37	3.73	4.29	4.43	5.64	7.17	7.75	8.92	7.60
34 Dempster Street, North Branch Chicago River	5.32	4.33	4.63	3.96	4.25	4.50	6.97	9.67	8.82	8.50	7.83
96 Albany Avenue, North Branch Chicago River	5.60	5.35	4.51	3.72	4.32	4.51	6.70	8.18	9.30	8.92	8.33
35 Central Street, North Shore Channel	3.24	3.65	2.71	1.67	1.78	1.92	2.49	4.22	4.89	5.33	3.33
102 Oakton Street, North Shore Channel	4.27	4.09	3.26	2.36	2.92	3.38	4.42	5.92	7.44	7.27	4.20
36 Touhy Avenue, North Shore Channel	5.18	4.95	4.16	3.39	4.03	4.12	6.41	8.08	8.92	8.83	8.00
101 Foster Avenue, North Shore Channel	5.21	6.04	3.98	3.37	4.07	4.26	6.48	8.25	8.42	8.67	7.60
37 Wilson Avenue, North Branch Chicago River	4.27	4.48	4.02	3.40	3.88	4.32	6.68	8.08	8.67	9.17	7.75
73 Diversey Parkway, North Branch Chicago River	4.57	4.68	3.89	3.32	4.10	4.08	6.26	7.83	8.92	9.25	7.92
46 Grand Avenue, North Branch Chicago River	4.95	4.53	4.13	3.43	4.01	4.25	6.49	7.92	8.92	8.50	7.83
74 Lake Shore Drive, Chicago River	2.78	2.55	2.23	1.77	1.87	1.75	2.54	4.22	4.30	4.42	4.58
100 Wells Street, Chicago River	4.01	2.93	2.53	2.39	2.25	2.27	3.55	5.17	6.25	5.33	4.71
39 Madison Street, South Branch Chicago River	4.97	4.04	3.60	3.09	3.03	3.29	5.03	7.00	7.91	7.75	6.67
108 Loomis Street, South Branch Chicago River	4.21	4.02	3.43	2.96	3.17	3.35	5.52	6.83	8.00	7.00	6.22
99 Archer Avenue, South Fork South Branch Chicago River	4.88	4.44	3.76	3.81	3.34	3.27	5.44	7.08	7.83	8.17	8.50
40 Damen Avenue, Chicago Sanitary & Ship Canal	4.08	3.84	3.68	2.93	3.15	3.37	5.52	6.67	7.67	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.58	6.90
75 Cicero Avenue, Chicago Sanitary & Ship Canal	4.28	3.93	3.51	3.13	3.24	3.75	5.08	7.00	7.33	7.50	6.58
41 Harlem Avenue, Chicago Sanitary & Ship Canal	5.09	4.63	4.32	3.56	3.80	4.16	5.92	7.50	8.25	7.92	7.25
42 Route 83, Chicago Sanitary & Ship Canal	5.22	4.91	4.27	3.56	4.19	4.39	6.05	8.17	8.00	8.83	7.67
48 Stephen Street, Chicago Sanitary & Ship Canal	5.06	4.93	4.37	3.68	4.20	4.54	6.32	7.75	7.92	8.67	7.92
92 Lockport Forebay, Chicago Sanitary & Ship Canal	5.17	4.83	4.44	3.60	4.34	4.40	6.01	8.00	8.29	8.26	7.59
Calumet River System											
49 Ewing Avenue, Calumet River	2.28	4.50	1.74	1.29	1.48	1.43	1.77	3.40	3.17	3.75	3.25
50 Burnham Avenue, Wolf Lake	5.31	6.28	4.35	3.83	4.00	3.81	5.37	6.42	6.17	5.50	5.18
55 130th Street, Calumet River	2.91	2.84	3.00	2.31	2.75	2.62	3.39	4.55	4.70	4.92	4.73
86 Burnham Avenue, Grand Calumet River	8.58	10.66	6.76	8.99	17.54	7.45	9.27	12.33	12.90	11.36	9.90
56 Indiana Avenue, Little Calumet River	3.84	3.64	3.70	3.08	3.47	3.39	3.77	5.11	5.64	6.42	5.75
76 Halsted Street, Little Calumet River	4.95	4.96	4.44	4.07	4.19	4.40	5.90	7.67	8.45	8.33	7.50
52 Wentworth Avenue, Little Calumet River	6.87	7.69	6.61	5.54	6.22	9.02	8.54	12.22	11.60	10.73	10.18
54 Joe Orr Road, Thorn Creek	6.24	5.96	6.41	5.09	5.04	5.33	8.00	10.43	9.67	10.43	9.08
97 170th Street, Thorn Creek	5.57	6.19	5.59	4.53	5.22	6.26	6.72	9.27	9.60	9.17	9.10
57 Ashland Avenue, Little Calumet River	5.98	5.60	5.99	4.89	6.68	5.67	7.46	9.60	9.60	9.00	9.10
58 Ashland Avenue, Calumet-Sag Channel	4.99	5.53	4.70	4.19	4.60	4.65	6.04	8.00	8.50	8.75	8.25
59 Cicero Avenue, Calumet-Sag Channel	5.06	5.55	4.71	4.21	4.55	4.77	6.41	8.17	8.64	8.67	8.17
43 Route 83, Calumet-Sag Channel	4.85	4.92	4.70	4.03	4.64	4.77	6.54	8.00	8.55	8.25	8.25
Des Plaines River System											
90 Route 19, Poplar Creek	5.82	5.67	5.14	4.43	5.13	5.75	7.28	8.64	9.90	9.22	8.82
110 Springinguth Road, West Branch DuPage River	10.88	11.70	9.94	10.90	11.28	12.02	13.02	15.70	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	7.10	6.54	6.53	6.23	6.73	6.83	9.55	12.45	11.91	11.75	11.17
64 Lake Street, West Branch DuPage River	ND	5.80	6.18	5.26	6.05	6.23	8.65	10.09	10.83	10.25	10.64
111 Arlington Drive, West Branch Du Page River	6.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.41	6.64	6.03	4.72	5.27	5.60	8.42	9.45	9.56	10.00	9.20
80 Arlington Heights Road, Salt Creek	5.80	5.58	5.47	3.74	4.45	5.00	7.13	9.42	9.92	10.50	9.83
18 Devon Avenue, Salt Creek	5.47	5.59	5.33	3.67	4.49	4.90	6.86	9.58	10.08	9.80	9.42
24 Wolf Road, Salt Creek	5.02	4.95	4.77	3.58	4.07	4.68	6.73	8.27	8.67	8.45	8.33
109 Brookfield Avenue, Salt Creek	5.07	4.87	4.83	3.72	4.29	4.65	7.30	10.82	8.70	8.83	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.67	8.50
77 Elmhurst Road, Higgins Creek	4.88	3.80	5.28	3.62	4.66	5.13	7.75	11.00	10.40	9.83	10.09
78 Wille Road, Higgins Creek	4.73	5.02	5.12	4.83	5.03	5.59	7.94	10.55	10.25	9.83	9.92
12 Lake-Cook Road, Buffalo Creek	6.21	5.97	6.41	5.79	6.10	5.94	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	6.13	5.98	6.04	4.81	7.90	7.21	7.48	9.27	9.67	9.25	8.67
17 Oakton Street, Des Plaines River	6.10	5.94	6.06	4.75	5.98	5.40	7.38	8.73	9.40	9.55	8.83
19 Belmont Avenue, Des Plaines River	5.80	5.48	5.77	4.57	5.75	5.56	7.53	9.27	9.50	9.67	8.92
20 Roosevelt Road, Des Plaines River	5.80	5.68	5.85	4.82	5.74	5.52	7.28	9.36	9.00	9.33	8.75
22 Ogden Avenue, Des Plaines River	5.63	5.28	5.58	4.41	5.36	5.14	7.00	9.27	9.20	9.25	8.50
23 Willow Springs Road, Des Plaines River	5.59	5.23	5.55	4.29	6.02	5.20	7.11	8.82	9.10	9.00	9.67
29 Stephen Street, Des Plaines River	5.40	5.45	5.51	3.98	5.20	5.12	7.08	8.45	9.36	9.00	9.25
91 Material Service Road, Des Plaines River	5.28	5.19	5.41	3.99	5.45	5.09	7.19	8.45	8.92	8.83	8.63

ND = No Data.

TABLE AII-74: FECAL COLIFORM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (fcu/100mL)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	4663	2364	1818	1453	2476	3196	1130	2494	3740	1344	1782
103 Golf Road, West Fork North Branch Chicago River	797	466	1083	1133	660	893	727	622	839	704	854
31 Lake-Cook Road, Middle Fork North Branch	488	646	586	1836	633	943	536	760	773	1143	767
104 Glenview Road, North Branch Chicago River	723	188	372	563	827	855	649	1326	777	904	1112
32 Lake-Cook Road, Skokie River	2687	775	655	596	736	657	649	1042	546	718	1750
105 Frontage Road, Skokie River	72	112	169	151	199	119	160	159	225	357	490
34 Dempster Street, North Branch Chicago River	987	1472	695	1069	600	1026	1121	996	1333	924	1377
96 Albany Avenue, North Branch Chicago River	375	507	420	653	520	860	1119	1029	1498	1508	2517
35 Central Street, North Shore Channel	124	54	80	168	66	90	144	330	291	483	356
102 Oakton Street, North Shore Channel	915	615	343	1627	638	1181	866	963	1487	1954	580
36 Touhy Avenue, North Shore Channel	7494	5393	8040	6892	8875	8550	11481	5518	7588	8349	4211
101 Foster Avenue, North Shore Channel	5857	5484	5021	7878	9612	7628	10290	6872	7917	10250	8703
37 Wilson Avenue, North Branch Chicago River	5823	4091	5461	5723	7479	6033	9748	5896	5940	7358	5958
73 Diversey Parkway, North Branch Chicago River	2991	3538	3818	4373	3608	4237	5799	3426	4228	5833	3832
46 Grand Avenue, North Branch Chicago River	1618	971	1706	3414	1226	2054	1853	1583	2402	1919	1840
74 Lake Shore Drive, Chicago River	44	28	241	90	86	31	81	46	53	36	66
100 Wells Street, Chicago River	792	182	189	947	183	190	150	65	301	288	159
39 Madison Street, South Branch Chicago River	2467	415	904	2921	922	892	921	680	799	800	1622
108 Loomis Street, South Branch Chicago River	589	257	334	1427	371	445	297	179	181	253	325
99 Archer Avenue, South Fork South Branch Chicago River	429	230	384	1625	294	493	156	202	294	548	1530
40 Damen Avenue, Chicago Sanitary & Ship Canal	378	258	283	940	349	523	223	164	173	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	393
75 Cicero Avenue, Chicago Sanitary & Ship Canal	314	137	202	649	347	469	129	104	153	245	303
41 Harlem Avenue, Chicago Sanitary & Ship Canal	3218	1391	3321	4642	4908	3906	2668	2637	4314	3609	4126
42 Route 83, Chicago Sanitary & Ship Canal	1163	537	573	1238	1289	1303	1011	935	866	460	1580
48 Stephen Street, Chicago Sanitary & Ship Canal	977	199	448	992	645	894	469	386	345	419	812
92 Lockport Forebay, Chicago Sanitary & Ship Canal	239	101	216	255	227	308	205	186	179	159	291
Calumet River System											
49 Ewing Avenue, Calumet River	10	15	11	13	12	11	12	11	12	12	20
50 Burnham Avenue, Wolf Lake	43	21	26	36	70	21	77	53	37	13	32
55 130th Street, Calumet River	32	35	9	25	19	24	37	26	32	19	82
86 Burnham Avenue, Grand Calumet River	3416	4613	1158	642	2448	420	2377	1104	1695	488	2056
56 Indiana Avenue, Little Calumet River	120	74	74	111	49	89	73	103	75	89	364
76 Halsted Street, Little Calumet River	1441	1926	2262	2891	3259	2159	2759	2775	2990	2024	2550
52 Wentworth Avenue, Little Calumet River	5240	2585	2935	1811	1477	956	1934	1284	2247	976	2211
54 Joe Orr Road, Thorn Creek	3859	1131	2335	1407	2411	3309	14257	1588	2922	1083	1083
97 170th Street, Thorn Creek	2497	1086	756	780	698	642	2119	1292	1347	637	1197
57 Ashland Avenue, Little Calumet River	1905	1346	563	783	816	431	3181	4103	2329	576	1623
58 Ashland Avenue, Calumet-Sag Channel	1975	1280	1407	2174	2122	1580	2365	2616	2135	1157	3095
59 Cicero Avenue, Calumet-Sag Channel	1650	1060	377	945	1178	539	857	1041	1105	471	1057
43 Route 83, Calumet-Sag Channel	272	127	106	108	188	97	57	147	103	93	298
Des Plaines River System											
90 Route 19, Poplar Creek	148	87	138	163	181	264	417	92	387	113	129
110 Springinsguth Road, West Branch DuPage River	1267	1500	2621	3454	6187	3225	3763	2603	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	972	549	451	1103	2013	857	2026	1121	2181	1600	1273
64 Lake Street, West Branch DuPage River	ND	814	538	684	2406	949	2144	967	1731	1532	1739
111 Arlington Drive, West Branch Du Page River	463	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	85	154	97	47	250	153	499	84	568	82	49
80 Arlington Heights Road, Salt Creek	222	273	184	377	312	417	389	529	678	303	426
18 Devon Avenue, Salt Creek	358	472	328	734	930	946	1014	1214	1668	939	1140
24 Wolf Road, Salt Creek	229	358	398	298	688	1303	1034	337	2012	440	507
109 Brookfield Avenue, Salt Creek	499	560	615	663	1425	1618	1480	1499	3461	2056	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	782	599
77 Elmhurst Road, Higgins Creek	474	210	1296	857	2370	1915	1932	488	7317	2395	598
78 Wille Road, Higgins Creek	173	142	475	266	514	275	382	162	559	475	256
12 Lake-Cook Road, Buffalo Creek	77	140	99	248	823	236	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	212	245	193	247	310	362	650	240	566	284	269
17 Oakton Street, Des Plaines River	298	224	208	452	313	616	639	342	1128	345	492
19 Belmont Avenue, Des Plaines River	378	423	301	365	516	525	523	410	1021	709	440
20 Roosevelt Road, Des Plaines River	353	296	511	523	634	897	950	662	1309	913	422
22 Ogden Avenue, Des Plaines River	325	363	356	503	767	1509	1247	792	1023	900	519
23 Willow Springs Road, Des Plaines River	261	280	217	187	302	1092	480	303	1664	351	232
29 Stephen Street, Des Plaines River	157	162	129	129	184	617	248	202	568	276	275
91 Material Service Road, Des Plaines River	112	63	83	78	192	327	260	135	564	122	367

ND = No Data.

**TABLE AII-75: ESCHERICHIA COLI MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (fcu/100mL)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1133	1195	2068	1008	1800	2068	ND	2140	5099	ND	1232
103 Golf Road, West Fork North Branch Chicago River	665	411	968	507	347	374	943	451	380	506	541
31 Lake-Cook Road, Middle Fork North Branch	348	348	466	1005	921	799	243	956	319	429	467
104 Glenview Road, North Branch Chicago River	6813	174	240	353	266	291	443	432	180	254	629
32 Lake-Cook Road, Skokie River	4555	697	344	312	527	147	515	579	418	581	905
105 Frontage Road, Skokie River	126	129	247	121	118	71	276	142	134	387	634
34 Dempster Street, North Branch Chicago River	2970	2277	343	446	386	840	734	604	1110	534	812
96 Albany Avenue, North Branch Chicago River	549	1244	148	559	400	470	791	337	934	1553	9471
35 Central Street, North Shore Channel	47	81	53	231	44	222	78	267	271	4382	139
102 Oakton Street, North Shore Channel	1595	3345	362	2052	562	782	974	835	4035	1409	217
36 Touhy Avenue, North Shore Channel	8437	5491	6119	6748	8540	5772	10341	3302	7271	9539	861
101 Foster Avenue, North Shore Channel	8728	4095	4701	7533	12046	6040	10236	5652	8204	14164	8842
37 Wilson Avenue, North Branch Chicago River	9398	3511	5609	5922	9093	5411	9844	6376	7083	9158	3387
73 Diversey Parkway, North Branch Chicago River	6808	2336	4607	3816	3900	3231	7280	2569	4688	6747	2627
46 Grand Avenue, North Branch Chicago River	2378	573	1599	3263	1197	1245	2667	1272	2882	2128	1123
74 Lake Shore Drive, Chicago River	25	17	38	55	81	16	24	49	44	20	24
100 Wells Street, Chicago River	573	33	93	411	169	184	119	49	231	307	175
39 Madison Street, South Branch Chicago River	1124	180	973	1683	584	1253	461	463	427	565	417
108 Loomis Street, South Branch Chicago River	199	68	201	621	336	599	61	72	70	176	183
99 Archer Avenue, South Fork South Branch Chicago River	108	201	164	907	115	448	102	78	251	173	810
40 Damen Avenue, Chicago Sanitary & Ship Canal	1113	230	260	632	ND	ND	156	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	342	77
75 Cicero Avenue, Chicago Sanitary & Ship Canal	617	58	161	488	932	403	78	177	94	224	67
41 Harlem Avenue, Chicago Sanitary & Ship Canal	5172	1106	1669	2877	5416	3330	2267	2567	2488	2925	3795
42 Route 83, Chicago Sanitary & Ship Canal	3446	667	399	1007	867	1365	1340	553	787	715	2345
48 Stephen Street, Chicago Sanitary & Ship Canal	4432	202	379	724	645	1049	796	407	322	530	922
92 Lockport Forebay, Chicago Sanitary & Ship Canal	357	81	175	457	251	316	148	128	81	177	69
Calumet River System											
49 Ewing Avenue, Calumet River	10	23	10	10	10	10	12	10	14	10	10
50 Burnham Avenue, Wolf Lake	98	26	23	29	89	19	183	37	58	12	9
55 130th Street, Calumet River	20	43	14	23	12	16	57	15	90	14	10
86 Burnham Avenue, Grand Calumet River	10775	204450	1302	2342	682	262	11506	6199	6709	449	220
56 Indiana Avenue, Little Calumet River	1549	126	257	77	29	181	63	48	142	101	228
76 Halsted Street, Little Calumet River	785	3724	2486	2012	1929	2372	2838	2420	2787	1815	3240
52 Wentworth Avenue, Little Calumet River	2504	2785	1724	1090	2677	829	2278	3794	1169	846	3688
54 Joe Orr Road, Thorn Creek	1650	1368	1428	699	2611	2124	16399	1508	22000	721	1339
97 170th Street, Thorn Creek	1754	435	815	697	1138	364	2442	1631	2984	529	2237
57 Ashland Avenue, Little Calumet River	1322	552	285	1027	1530	288	5565	5967	2705	615	1622
58 Ashland Avenue, Calumet-Sag Channel	512	436	943	1738	3512	1259	2253	2454	1264	690	2661
59 Cicero Avenue, Calumet-Sag Channel	1065	360	193	471	1793	396	797	1139	418	500	271
43 Route 83, Calumet-Sag Channel	150	26	46	86	822	24	60	218	39	75	145
Des Plaines River System											
90 Route 19, Poplar Creek	195	144	118	149	148	514	775	42	103	82	251
110 Springinsguth Road, West Branch DuPage River	1460	1606	1719	1739	6129	2664	2794	2596	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	1793	588	399	1836	720	675	2202	727	2139	1366	395
64 Lake Street, West Branch DuPage River	ND	1509	399	1472	1714	1451	2216	908	1357	1150	1102
111 Arlington Drive, West Branch Du Page River	1270	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	14	209	63	109	114	22	158	89	423	61	34
80 Arlington Heights Road, Salt Creek	19	280	76	443	221	427	487	370	552	209	294
18 Devon Avenue, Salt Creek	9	552	134	1239	483	530	1202	1164	2722	1146	3950
24 Wolf Road, Salt Creek	85	218	232	278	286	711	1077	165	7589	336	30
109 Brookfield Avenue, Salt Creek	420	442	367	450	492	723	1289	2994	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	375
77 Elmhurst Road, Higgins Creek	550	200	660	220	1897	1217	890	268	5717	2097	687
78 Wille Road, Higgins Creek	295	179	315	186	221	207	1077	127	539	425	71
12 Lake-Cook Road, Buffalo Creek	147	280	117	109	287	216	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	136	333	320	218	274	398	684	77	223	569	163
17 Oakton Street, Des Plaines River	243	185	352	503	232	555	295	161	147	553	185
19 Belmont Avenue, Des Plaines River	264	477	399	323	271	839	439	458	277	1018	202
20 Roosevelt Road, Des Plaines River	285	335	953	391	457	1165	480	524	773	903	419
22 Ogden Avenue, Des Plaines River	370	364	579	681	667	1618	606	724	88	837	515
23 Willow Springs Road, Des Plaines River	319	154	295	110	268	855	169	202	1220	506	253
29 Stephen Street, Des Plaines River	206	179	197	118	165	431	186	122	117	641	273
91 Material Service Road, Des Plaines River	62	59	103	69	263	381	114	248	363	90	644

ND = No Data.

TABLE AII-76: TOTAL CALCIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	79.4	72.1	68.2	71.1	73.6	62.0	70.3	85.3	54.9	79.0	79.8
103 Golf Road, West Fork North Branch Chicago River	79.1	75.7	66.4	68.2	75.5	73.9	80.8	71.5	70.9	72.8	71.0
31 Lake-Cook Road, Middle Fork North Branch	62.3	61.3	57.6	62.1	64.2	62.9	65.6	64.3	64.1	71.9	74.2
104 Glenview Road, North Branch Chicago River	62.1	64.3	61.5	65.1	62.8	62.3	61.5	64.4	65.5	69.0	68.8
32 Lake-Cook Road, Skokie River	69.4	67.5	62.7	66.3	75.8	68.5	70.5	74.2	69.8	75.4	79.4
105 Frontage Road, Skokie River	62.5	63.5	62.2	64.3	62.8	62.1	62.0	63.2	59.9	67.7	66.2
34 Dempster Street, North Branch Chicago River	66.2	69.8	61.2	63.0	64.2	65.9	70.6	68.7	65.7	70.0	70.6
96 Albany Avenue, North Branch Chicago River	69.2	65.4	65.4	67.6	65.5	67.9	69.4	65.1	64.6	69.2	72.8
35 Central Street, North Shore Channel	41.0	38.2	37.1	39.6	39.4	37.5	39.1	38.8	41.0	43.6	37.7
102 Oakton Street, North Shore Channel	50.9	48.9	47.2	47.6	49.3	47.7	47.8	45.8	50.4	51.9	42.6
36 Touhy Avenue, North Shore Channel	57.9	52.3	60.2	60.0	56.0	53.3	51.9	57.1	53.4	58.5	61.8
101 Foster Avenue, North Shore Channel	57.2	55.0	58.0	60.3	58.0	54.2	52.9	57.7	54.3	58.8	57.6
37 Wilson Avenue, North Branch Chicago River	58.9	59.9	57.9	61.0	59.1	56.4	55.7	59.8	56.4	60.9	63.9
73 Diversey Parkway, North Branch Chicago River	60.2	58.5	58.4	61.7	57.3	56.2	54.7	60.8	55.4	61.7	65.3
46 Grand Avenue, North Branch Chicago River	60.1	57.0	56.4	60.8	57.9	56.9	57.3	62.1	56.6	60.2	64.3
74 Lake Shore Drive, Chicago River	46.0	38.2	36.8	37.3	42.0	38.4	40.6	44.2	40.9	43.1	46.1
100 Wells Street, Chicago River	52.2	43.5	43.8	47.4	44.8	44.1	44.1	46.0	48.0	49.3	49.4
39 Madison Street, South Branch Chicago River	61.1	51.3	53.5	53.6	51.8	51.3	52.0	52.8	55.2	57.3	58.4
108 Loomis Street, South Branch Chicago River	56.2	52.7	55.1	53.9	52.7	53.6	54.3	52.0	52.8	56.8	51.5
99 Archer Avenue, South Fork South Branch Chicago River	56.6	54.9	52.1	56.8	50.3	51.2	51.9	53.3	52.5	56.7	58.0
40 Damen Avenue, Chicago Sanitary & Ship Canal	56.6	53.4	53.5	53.9	52.3	53.8	52.9	53.1	53.4	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	57.8	56.1
75 Cicero Avenue, Chicago Sanitary & Ship Canal	57.4	53.8	52.9	56.8	53.3	51.2	54.5	55.1	52.1	59.9	55.7
41 Harlem Avenue, Chicago Sanitary & Ship Canal	59.1	59.2	56.9	58.5	56.2	54.8	54.2	54.6	53.8	57.3	59.6
42 Route 83, Chicago Sanitary & Ship Canal	61.4	58.5	57.0	57.5	56.0	56.3	56.4	56.5	56.6	58.7	59.8
48 Stephen Street, Chicago Sanitary & Ship Canal	62.8	60.5	56.4	60.1	58.3	59.0	60.1	59.8	58.7	61.6	63.4
92 Lockport Forebay, Chicago Sanitary & Ship Canal	61.2	60.7	57.8	60.8	59.1	58.4	59.5	59.9	59.0	62.6	63.8
Calumet River System											
49 Ewing Avenue, Calumet River	37.9	35.2	35.9	34.9	37.3	35.9	36.5	37.1	38.6	41.1	40.2
50 Burnham Avenue, Wolf Lake	36.7	35.5	36.1	35.8	36.2	30.9	37.3	36.6	35.3	35.9	34.5
55 130th Street, Calumet River	43.9	41.8	43.3	42.6	46.3	42.6	43.4	43.2	43.4	47.2	48.8
86 Burnham Avenue, Grand Calumet River	81.2	85.3	82.4	96.3	92.0	98.0	68.3	82.5	86.9	79.6	85.6
56 Indiana Avenue, Little Calumet River	51.9	47.6	50.2	50.8	55.0	49.6	47.8	49.2	52.0	58.6	52.5
76 Halsted Street, Little Calumet River	66.5	60.8	62.5	68.1	66.3	65.8	63.1	62.1	62.2	64.8	71.1
52 Wentworth Avenue, Little Calumet River	68.0	72.2	75.1	89.9	79.9	88.1	74.4	86.4	96.3	94.5	82.8
54 Joe Orr Road, Thorn Creek	70.7	79.2	75.7	83.8	78.7	85.4	76.0	80.8	64.1	85.5	85.5
97 170th Street, Thorn Creek	74.0	73.9	75.8	87.0	71.6	87.7	83.0	84.0	80.6	100.8	88.6
57 Ashland Avenue, Little Calumet River	69.7	69.4	70.9	82.3	69.8	86.4	75.4	78.9	84.3	86.5	79.0
58 Ashland Avenue, Calumet-Sag Channel	66.7	65.3	61.8	68.4	61.8	68.3	65.3	65.4	66.2	73.7	76.2
59 Cicero Avenue, Calumet-Sag Channel	67.7	63.9	61.8	67.9	61.8	71.3	65.4	66.4	64.8	68.2	72.7
43 Route 83, Calumet-Sag Channel	63.3	66.9	61.0	66.5	61.8	69.4	64.7	63.1	65.3	69.8	72.5
Des Plaines River System											
90 Route 19, Poplar Creek	70.3	75.9	67.3	73.1	68.5	70.9	65.6	76.3	61.3	77.0	78.0
110 Springinguth Road, West Branch DuPage River	88.7	72.1	74.8	82.5	77.8	85.6	77.1	86.8	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	71.0	65.3	66.1	63.6	61.6	65.8	58.5	64.5	55.8	63.1	67.8
64 Lake Street, West Branch DuPage River	ND	79.2	65.0	67.3	58.8	63.7	59.7	70.4	55.6	65.0	69.3
111 Arlington Drive, West Branch Du Page River	68.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	70.0	50.6	62.2	70.2	63.5	63.3	65.9	75.8	58.1	67.5	79.3
80 Arlington Heights Road, Salt Creek	61.9	65.8	61.5	69.9	62.7	64.5	66.4	64.1	60.9	68.7	69.2
18 Devon Avenue, Salt Creek	64.2	68.3	60.7	69.4	63.0	65.4	66.4	64.4	58.9	68.2	68.9
24 Wolf Road, Salt Creek	68.4	70.8	68.5	70.9	65.1	64.0	66.1	69.7	59.2	73.7	75.3
109 Brookfield Avenue, Salt Creek	68.9	67.8	66.0	68.2	62.6	63.1	64.2	69.9	58.5	58.5	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	92.5	80.7
77 Elmhurst Road, Higgins Creek	53.4	63.6	51.0	62.4	44.5	54.3	60.1	73.7	48.3	63.2	79.6
78 Wille Road, Higgins Creek	83.8	75.2	79.1	76.6	71.0	69.4	69.2	70.9	63.4	74.4	80.9
12 Lake-Cook Road, Buffalo Creek	71.5	76.8	69.5	78.3	69.2	75.3	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	65.5	67.8	62.1	72.5	67.9	73.3	66.8	71.1	65.2	76.8	76.5
17 Oakton Street, Des Plaines River	66.4	66.3	61.2	70.7	64.2	69.1	66.6	72.2	64.1	75.6	81.1
19 Belmont Avenue, Des Plaines River	67.6	65.1	63.3	72.5	64.2	69.2	67.1	72.7	62.4	74.7	77.9
20 Roosevelt Road, Des Plaines River	67.4	65.1	61.6	72.4	63.9	68.6	65.8	71.0	60.9	74.7	75.4
22 Ogden Avenue, Des Plaines River	66.4	65.3	61.5	68.4	62.6	65.2	63.7	69.9	68.7	73.8	75.4
23 Willow Springs Road, Des Plaines River	67.3	63.3	61.8	69.7	62.7	64.5	66.1	69.7	61.7	70.8	75.5
29 Stephen Street, Des Plaines River	65.9	67.1	61.8	71.1	65.1	69.8	67.4	70.0	65.9	76.6	76.6
91 Material Service Road, Des Plaines River	66.2	67.8	63.6	69.8	66.3	71.0	68.3	71.1	65.6	74.9	73.0

ND = No Data.

**TABLE AII-77: TOTAL MAGNESIUM MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	32.6	28.5	28.2	29.7	28.1	25.7	29.0	35.4	23.6	34.0	37.7
103 Golf Road, West Fork North Branch Chicago River	31.0	29.1	26.4	26.3	29.7	29.7	32.2	27.6	28.3	30.5	31.6
31 Lake-Cook Road, Middle Fork North Branch	26.3	26.4	24.6	25.7	28.7	28.9	33.1	29.2	29.2	33.0	33.9
104 Glenview Road, North Branch Chicago River	25.7	27.0	25.8	27.0	26.9	27.1	27.7	27.3	28.3	29.6	31.3
32 Lake-Cook Road, Skokie River	28.6	28.1	25.4	26.9	31.3	30.3	32.4	31.6	29.8	33.5	35.4
105 Frontage Road, Skokie River	26.2	27.0	26.1	26.5	26.3	26.5	27.2	26.9	25.3	29.2	30.5
34 Dempster Street, North Branch Chicago River	27.6	28.3	25.1	25.9	27.2	27.9	30.7	28.4	27.0	29.8	31.8
96 Albany Avenue, North Branch Chicago River	28.6	26.3	26.3	27.0	27.6	28.3	29.7	26.8	26.6	29.3	31.4
35 Central Street, North Shore Channel	14.1	12.8	12.5	13.3	13.3	12.5	13.3	13.1	14.1	15.2	12.2
102 Oakton Street, North Shore Channel	17.7	16.9	16.4	16.2	16.9	16.7	16.9	15.8	17.5	17.9	14.4
36 Touhy Avenue, North Shore Channel	20.2	18.0	21.0	21.2	19.5	19.0	18.2	20.3	19.1	21.2	23.2
101 Foster Avenue, North Shore Channel	20.1	19.1	20.1	21.4	20.2	19.4	18.6	20.8	19.4	21.3	21.3
37 Wilson Avenue, North Branch Chicago River	21.4	22.0	20.8	22.4	21.3	20.9	20.1	22.2	20.5	22.8	25.1
73 Diversey Parkway, North Branch Chicago River	22.0	21.1	20.8	22.5	20.7	20.7	19.5	22.4	20.0	23.1	25.6
46 Grand Avenue, North Branch Chicago River	22.0	20.3	20.0	21.8	20.9	21.0	20.8	22.3	20.4	22.5	24.8
74 Lake Shore Drive, Chicago River	15.7	12.7	12.4	12.6	14.5	12.9	14.2	15.5	13.7	14.7	16.1
100 Wells Street, Chicago River	18.6	15.0	15.1	16.5	15.9	15.3	15.3	16.3	16.7	17.4	18.0
39 Madison Street, South Branch Chicago River	22.1	18.2	19.1	19.1	18.4	18.6	18.6	19.0	19.9	21.1	22.2
108 Loomis Street, South Branch Chicago River	20.3	18.7	19.8	19.4	18.7	19.6	19.8	19.0	18.8	21.0	19.0
99 Archer Avenue, South Fork South Branch Chicago River	20.2	19.4	18.1	20.1	17.7	18.4	18.5	19.2	18.7	20.6	21.7
40 Damen Avenue, Chicago Sanitary & Ship Canal	20.4	19.0	19.5	19.4	18.6	19.6	19.2	19.3	19.1	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.4	21.2
75 Cicero Avenue, Chicago Sanitary & Ship Canal	20.9	19.4	18.7	20.7	18.9	18.3	19.7	19.9	18.5	21.9	21.3
41 Harlem Avenue, Chicago Sanitary & Ship Canal	20.8	20.9	20.0	21.0	19.8	19.9	19.6	19.9	19.2	21.1	23.1
42 Route 83, Chicago Sanitary & Ship Canal	21.3	20.1	20.1	20.5	20.2	20.4	20.5	20.6	20.2	21.8	23.0
48 Stephen Street, Chicago Sanitary & Ship Canal	22.3	21.1	19.9	21.4	21.2	21.5	22.2	21.9	21.3	22.9	24.6
92 Lockport Forebay, Chicago Sanitary & Ship Canal	21.6	21.2	20.6	21.6	21.3	21.3	21.8	22.0	21.4	23.0	24.9
Calumet River System											
49 Ewing Avenue, Calumet River	12.5	11.8	11.7	11.2	12.1	11.5	12.1	12.3	12.8	13.2	13.1
50 Burnham Avenue, Wolf Lake	12.6	12.4	11.8	11.9	12.1	11.9	13.7	13.4	13.2	14.4	12.6
55 130th Street, Calumet River	14.8	14.2	14.4	14.0	15.8	14.2	15.0	14.8	14.8	15.9	16.8
86 Burnham Avenue, Grand Calumet River	28.5	28.2	36.9	39.0	39.3	48.7	44.4	53.9	65.6	67.1	57.1
56 Indiana Avenue, Little Calumet River	18.0	16.2	17.2	17.3	19.8	17.6	17.8	18.5	19.2	23.8	20.1
76 Halsted Street, Little Calumet River	22.7	20.6	21.5	23.2	22.8	22.6	22.3	22.0	21.5	23.0	26.5
52 Wentworth Avenue, Little Calumet River	26.5	28.6	28.4	34.3	31.4	33.9	29.7	34.3	37.2	38.4	33.6
54 Joe Orr Road, Thorn Creek	26.5	28.3	28.2	30.4	30.1	36.3	33.8	33.9	26.5	38.4	39.3
97 170th Street, Thorn Creek	31.2	29.7	29.9	33.9	28.4	37.7	36.6	36.7	34.6	49.1	41.3
57 Ashland Avenue, Little Calumet River	27.5	26.5	27.0	31.2	27.0	35.3	31.6	32.5	35.0	37.3	35.1
58 Ashland Avenue, Calumet-Sag Channel	23.9	23.4	21.6	23.6	21.8	24.2	23.8	23.8	24.2	27.9	28.3
59 Cicero Avenue, Calumet-Sag Channel	24.0	22.4	22.1	23.8	21.8	25.8	23.8	24.7	23.7	25.4	27.7
43 Route 83, Calumet-Sag Channel	22.8	23.7	21.9	23.6	22.4	25.4	23.7	23.6	24.1	26.0	27.8
Des Plaines River System											
90 Route 19, Poplar Creek	30.6	32.3	28.7	31.8	30.3	30.6	29.8	34.4	27.5	34.6	36.7
110 Springinsguth Road, West Branch DuPage River	32.6	25.5	27.1	29.8	28.3	30.4	28.0	31.9	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	27.1	24.2	25.1	24.0	23.0	24.3	22.0	23.9	20.2	23.9	26.8
64 Lake Street, West Branch DuPage River	ND	28.3	24.4	25.1	22.3	23.6	22.3	26.2	20.3	24.8	27.8
111 Arlington Drive, West Branch Du Page River	25.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	28.3	20.7	26.3	28.5	26.2	26.4	29.5	31.4	23.2	31.2	36.7
80 Arlington Heights Road, Salt Creek	23.3	24.5	23.3	26.2	24.3	24.9	25.9	24.4	23.4	27.0	28.6
18 Devon Avenue, Salt Creek	23.9	25.6	23.0	26.0	24.5	25.2	25.7	24.5	22.7	26.6	28.5
24 Wolf Road, Salt Creek	26.9	27.1	26.6	27.6	26.0	25.6	27.3	28.2	23.3	30.1	32.5
109 Brookfield Avenue, Salt Creek	26.9	26.2	25.8	26.7	25.1	25.3	26.7	28.3	23.2	24.0	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	37.4	34.6
77 Elmhurst Road, Higgins Creek	18.9	20.6	18.2	20.3	14.5	18.5	20.1	26.3	15.6	22.5	32.5
78 Wille Road, Higgins Creek	30.9	27.2	28.9	27.9	25.6	25.1	25.6	26.2	22.8	27.9	32.6
12 Lake-Cook Road, Buffalo Creek	30.4	32.6	29.5	33.4	30.4	33.1	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	29.2	29.5	27.3	31.3	30.0	32.7	29.6	31.8	28.7	35.1	36.1
17 Oakton Street, Des Plaines River	29.1	28.2	26.4	30.0	28.5	30.7	29.9	32.5	27.9	33.9	37.7
19 Belmont Avenue, Des Plaines River	28.8	26.8	26.8	30.1	27.7	29.7	29.1	31.1	25.9	33.0	35.8
20 Roosevelt Road, Des Plaines River	28.7	26.7	26.2	30.1	27.7	29.3	28.7	31.4	25.5	33.0	35.0
22 Ogden Avenue, Des Plaines River	27.7	26.5	25.7	28.1	26.6	27.3	27.5	30.1	27.8	31.6	33.8
23 Willow Springs Road, Des Plaines River	28.2	25.7	26.0	29.0	26.9	27.4	28.8	30.3	25.9	31.0	34.4
29 Stephen Street, Des Plaines River	27.3	27.3	25.8	29.1	28.2	29.5	29.2	30.2	27.4	32.7	35.7
91 Material Service Road, Des Plaines River	27.5	27.8	26.3	28.9	28.2	30.3	29.9	30.9	27.5	32.5	32.8

ND = No Data.

TABLE AII-78: HARDNESS MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	332	297	286	300	300	261	295	359	234	337	354
103 Golf Road, West Fork North Branch Chicago River	325	309	274	278	311	307	335	292	294	307	307
31 Lake-Cook Road, Middle Fork North Branch	264	262	245	261	278	276	300	281	280	316	325
104 Glenview Road, North Branch Chicago River	261	272	260	274	268	267	268	273	280	294	301
32 Lake-Cook Road, Skokie River	291	284	261	276	318	296	310	316	297	326	344
105 Frontage Road, Skokie River	264	270	263	270	265	264	267	269	254	289	291
34 Dempster Street, North Branch Chicago River	279	291	256	264	272	279	303	289	275	297	307
96 Albany Avenue, North Branch Chicago River	291	272	272	280	277	286	296	273	271	293	311
35 Central Street, North Shore Channel	161	148	144	154	153	145	153	151	160	171	144
102 Oakton Street, North Shore Channel	200	192	185	186	193	188	189	179	198	203	166
36 Touhy Avenue, North Shore Channel	228	205	237	237	220	211	205	226	212	233	250
101 Foster Avenue, North Shore Channel	226	216	228	239	228	215	209	229	215	235	231
37 Wilson Avenue, North Branch Chicago River	235	240	230	244	235	227	222	241	225	246	263
73 Diverser Parkway, North Branch Chicago River	241	233	231	247	228	226	217	244	221	249	268
46 Grand Avenue, North Branch Chicago River	241	226	223	242	231	229	229	247	226	243	263
74 Lake Shore Drive, Chicago River	179	148	143	145	165	149	160	174	159	168	182
100 Wells Street, Chicago River	207	171	172	187	177	173	173	182	189	195	198
39 Madison Street, South Branch Chicago River	243	203	212	212	205	205	207	210	219	230	237
108 Loomis Street, South Branch Chicago River	224	209	219	214	209	214	217	208	209	228	207
99 Archer Avenue, South Fork South Branch Chicago River	224	217	205	225	198	204	206	212	208	226	234
40 Damen Avenue, Chicago Sanitary & Ship Canal	225	211	214	214	207	215	211	212	212	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	233	228
75 Cicero Avenue, Chicago Sanitary & Ship Canal	229	214	209	227	211	203	217	219	206	240	227
41 Harlem Avenue, Chicago Sanitary & Ship Canal	233	234	224	233	222	219	216	218	213	230	244
42 Route 83, Chicago Sanitary & Ship Canal	241	229	225	228	223	225	225	226	225	236	244
48 Stephen Street, Chicago Sanitary & Ship Canal	249	238	223	238	233	236	241	240	234	248	260
92 Lockport Forebay, Chicago Sanitary & Ship Canal	242	239	229	241	236	234	238	240	235	251	262
Calumet River System											
49 Ewing Avenue, Calumet River	146	136	138	133	143	137	141	143	149	157	154
50 Burnham Avenue, Wolf Lake	143	140	139	138	140	126	149	146	143	149	138
55 130th Street, Calumet River	171	163	167	164	181	165	170	169	169	183	191
86 Burnham Avenue, Grand Calumet River	320	329	358	401	391	445	354	428	487	475	449
56 Indiana Avenue, Little Calumet River	204	185	196	198	219	196	193	199	209	244	214
76 Halsted Street, Little Calumet River	260	237	245	266	259	258	249	246	244	256	287
52 Wentworth Avenue, Little Calumet River	279	298	304	366	329	360	308	357	393	394	345
54 Joe Orr Road, Thorn Creek	285	314	305	335	321	363	329	341	269	371	375
97 170th Street, Thorn Creek	314	307	312	357	296	374	358	361	344	454	391
57 Ashland Avenue, Little Calumet River	287	283	288	334	285	361	318	331	355	370	342
58 Ashland Avenue, Calumet-Sag Channel	265	259	243	268	244	270	261	261	265	299	307
59 Cicero Avenue, Calumet-Sag Channel	268	252	245	268	244	284	261	268	260	275	296
43 Route 83, Calumet-Sag Channel	252	265	243	263	247	278	259	255	262	282	295
Des Plaines River System											
90 Route 19, Poplar Creek	302	323	286	314	296	303	287	332	266	335	346
110 Springinguth Road, West Branch DuPage River	356	285	298	329	311	339	308	348	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	289	263	268	258	249	265	237	260	222	256	280
64 Lake Street, West Branch DuPage River	ND	314	263	271	239	256	241	283	222	264	287
111 Arlington Drive, West Branch Du Page River	278	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	291	212	264	292	266	267	286	319	241	297	349
80 Arlington Heights Road, Salt Creek	251	265	249	282	257	263	273	261	248	283	290
18 Devon Avenue, Salt Creek	259	276	246	280	258	267	272	262	241	280	289
24 Wolf Road, Salt Creek	282	289	280	291	269	265	277	290	244	308	322
109 Brookfield Avenue, Salt Creek	283	277	271	280	260	262	270	291	242	245	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	385	344
77 Elmhurst Road, Higgins Creek	211	244	203	239	171	212	233	292	185	250	332
78 Wille Road, Higgins Creek	336	300	317	306	283	277	278	285	252	301	336
12 Lake-Cook Road, Buffalo Creek	304	326	295	333	298	324	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	284	291	267	310	293	318	289	308	281	336	340
17 Oakton Street, Des Plaines River	286	282	261	300	278	299	289	314	275	328	358
19 Belmont Avenue, Des Plaines River	288	273	268	305	274	295	287	310	263	322	342
20 Roosevelt Road, Des Plaines River	287	272	262	305	273	292	283	307	257	323	333
22 Ogden Avenue, Des Plaines River	280	272	259	287	266	275	272	298	286	314	327
23 Willow Springs Road, Des Plaines River	284	264	261	293	268	274	284	299	260	305	330
29 Stephen Street, Des Plaines River	277	280	261	297	279	295	288	299	278	326	338
91 Material Service Road, Des Plaines River	278	284	267	293	282	302	293	305	277	321	317

ND = No Data.

TABLE AII-79: GROSS ALPHA RADIOACTIVITY MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (pCi/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	2.91	2.75	4.53	2.95	11.71	6.01	6.20	6.38	3.79	4.49	4.77
103 Golf Road, West Fork North Branch Chicago River	2.63	3.38	4.20	2.59	7.08	5.73	7.14	4.36	4.80	4.41	4.67
31 Lake-Cook Road, Middle Fork North Branch	2.24	3.42	2.76	2.78	5.25	4.94	5.34	4.74	4.53	3.82	6.05
104 Glenview Road, North Branch Chicago River	2.11	3.56	3.62	2.35	5.37	5.40	5.50	4.19	4.47	3.72	4.57
32 Lake-Cook Road, Skokie River	2.20	3.10	2.71	2.65	5.29	5.04	5.50	4.51	4.34	3.78	4.86
105 Frontage Road, Skokie River	2.30	3.48	3.32	2.28	5.13	4.82	5.03	4.26	3.87	3.79	4.53
34 Dempster Street, North Branch Chicago River	2.08	3.68	3.61	2.38	6.56	5.01	5.91	4.84	4.92	4.15	4.88
96 Albany Avenue, North Branch Chicago River	2.23	3.67	3.93	2.71	6.03	5.04	5.43	4.01	4.25	4.39	4.71
35 Central Street, North Shore Channel	1.36	2.05	1.62	1.36	3.85	3.07	3.30	3.00	3.43	3.40	3.45
102 Oakton Street, North Shore Channel	1.72	2.67	2.57	1.60	4.29	3.56	4.07	3.23	3.67	3.64	4.03
36 Touhy Avenue, North Shore Channel	2.13	2.85	3.25	2.03	5.27	3.73	4.27	3.62	3.54	3.72	4.29
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	1.79	2.37	1.64	1.27	4.29	3.09	3.23	3.43	3.14	3.27	4.01
100 Wells Street, Chicago River	1.95	2.23	2.57	1.73	4.27	3.41	3.61	3.44	3.41	3.45	4.25
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 & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	2.33	3.08	4.73	2.08	5.40	3.84	4.17	3.87	3.67	3.70	4.32
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.17	3.41	2.96	2.26	6.13	3.88	4.27	3.93	3.49	3.66	4.49
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	1.95	3.43	3.79	2.44	4.89	4.08	4.53	4.00	3.62	3.83	4.50
Calumet River System											
49 Ewing Avenue, Calumet River	1.35	1.84	1.94	1.37	4.14	3.66	3.03	2.90	3.22	3.00	3.79
50 Burnham Avenue, Wolf Lake	1.55	1.95	1.81	1.41	4.16	3.44	3.33	2.94	3.12	2.95	3.44
55 130th Street, Calumet River	1.57	2.15	2.58	1.72	4.70	3.49	3.50	3.17	3.50	3.30	3.76
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	1.52	2.28	2.82	1.93	5.08	3.65	3.56	3.43	3.76	3.57	4.25
76 Halsted Street, Little Calumet River	1.88	3.07	2.77	2.35	5.28	4.08	4.66	3.68	3.99	3.72	4.34
52 Wentworth Avenue, Little Calumet River	1.99	2.91	2.84	2.62	5.63	4.24	4.88	3.80	4.59	4.46	4.43
54 Joe Orr Road, Thorn Creek	2.49	3.91	4.56	3.98	7.27	6.25	8.99	6.72	4.00	8.21	5.73
97 170th Street, Thorn Creek	2.35	3.98	4.30	3.13	6.27	5.38	7.46	6.43	6.15	5.67	4.99
57 Ashland Avenue, Little Calumet River	2.50	3.64	3.88	2.69	5.46	5.09	6.19	4.35	4.73	4.68	4.63
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	2.04	3.01	3.04	2.49	5.25	5.66	5.19	4.76	3.92	4.37	5.63
110 Springinsguth Road, West Branch DuPage River	2.54	2.55	3.90	3.26	6.14	7.04	6.48	5.09	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	2.18	2.97	3.29	2.38	4.82	4.98	4.77	4.32	3.78	4.07	4.53
64 Lake Street, West Branch DuPage River	ND	4.93	3.05	2.44	4.85	5.10	5.06	4.51	3.69	4.18	4.91
111 Arlington Drive, West Branch Du Page River	2.35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.77	3.23	3.34	2.90	5.39	5.27	6.27	5.20	4.65	4.23	5.54
80 Arlington Heights Road, Salt Creek	2.08	3.16	2.84	2.46	5.18	5.59	5.71	4.59	4.28	4.00	5.07
18 Devon Avenue, Salt Creek	2.10	3.37	2.75	2.44	5.17	5.51	5.85	4.59	4.28	3.97	5.06
24 Wolf Road, Salt Creek	2.30	3.50	3.41	2.66	5.45	5.00	4.81	4.52	4.32	4.79	4.45
109 Brookfield Avenue, Salt Creek	2.48	3.30	4.66	2.77	5.46	5.20	4.76	4.55	4.26	3.38	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.16	4.98
77 Elmhurst Road, Higgins Creek	2.54	2.64	2.37	2.76	5.20	6.74	7.77	5.90	4.54	6.04	5.82
78 Wille Road, Higgins Creek	2.18	2.59	3.50	2.38	5.28	4.78	4.79	4.19	3.98	4.43	5.44
12 Lake-Cook Road, Buffalo Creek	2.58	3.27	3.11	2.75	5.67	5.13	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	1.96	3.24	2.88	2.41	5.22	4.86	5.27	4.08	4.04	4.10	5.26
17 Oakton Street, Des Plaines River	2.17	2.71	2.50	2.49	5.35	4.97	5.30	4.27	4.08	4.50	5.26
19 Belmont Avenue, Des Plaines River	1.95	2.84	3.08	2.64	5.33	5.06	5.46	4.09	4.15	4.56	4.69
20 Roosevelt Road, Des Plaines River	2.10	4.18	2.30	2.43	5.36	5.29	5.02	4.43	4.15	4.92	4.80
22 Ogden Avenue, Des Plaines River	2.15	3.46	3.23	2.91	5.54	4.95	5.07	4.10	4.25	4.62	4.83
23 Willow Springs Road, Des Plaines River	2.44	3.65	3.10	2.47	5.25	5.06	4.93	4.21	4.19	4.17	4.85
29 Stephen Street, Des Plaines River	2.49	3.27	3.22	2.85	5.24	5.40	4.93	4.19	4.29	4.74	4.86
91 Material Service Road, Des Plaines River	2.42	3.48	3.43	3.50	5.11	4.84	5.70	4.72	4.19	4.13	5.12

ND = No Data.

TABLE AII-80: GROSS BETA RADIOACTIVITY MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (pCi/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	5.64	8.10	7.18	7.85	11.96	11.59	11.58	16.75	8.90	8.00	11.92
103 Golf Road, West Fork North Branch Chicago River	3.69	7.99	6.97	4.53	9.70	9.95	11.05	11.05	10.27	9.99	7.77
31 Lake-Cook Road, Middle Fork North Branch	2.62	5.51	5.56	6.34	6.66	7.40	7.15	7.41	7.37	6.64	7.80
104 Glenview Road, North Branch Chicago River	3.56	6.34	6.32	4.70	7.18	9.08	11.27	9.48	8.90	12.84	7.59
32 Lake-Cook Road, Skokie River	2.62	6.18	5.40	4.65	5.94	8.19	8.83	7.13	7.35	6.70	6.56
105 Frontage Road, Skokie River	4.24	7.12	6.50	4.67	8.18	9.65	10.79	9.60	9.93	8.46	7.77
34 Dempster Street, North Branch Chicago River	3.52	5.94	5.74	4.61	9.02	9.39	11.51	8.93	10.17	9.49	7.41
96 Albany Avenue, North Branch Chicago River	3.66	7.06	6.02	4.47	8.16	7.91	10.61	9.09	9.53	8.47	7.24
35 Central Street, North Shore Channel	1.71	4.87	5.08	1.92	4.89	4.50	4.28	4.48	4.82	6.79	4.44
102 Oakton Street, North Shore Channel	3.33	5.19	5.40	3.79	5.91	6.97	6.88	5.78	6.45	6.70	5.43
36 Touhy Avenue, North Shore Channel	4.39	6.36	6.29	4.64	7.70	7.91	7.88	8.29	7.70	7.94	7.12
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	3.31	4.55	4.94	2.06	4.73	4.54	4.29	5.52	4.80	4.87	5.82
100 Wells Street, Chicago River	3.75	5.25	5.04	3.51	5.22	5.22	5.60	6.57	6.36	5.36	7.03
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 & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	4.53	5.97	5.64	5.86	7.36	6.87	7.38	8.91	8.13	6.80	8.01
41 Harlem Avenue, Chicago Sanitary & Ship Canal	4.74	7.47	6.32	6.55	9.43	8.29	7.98	8.92	8.38	6.66	8.32
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	4.23	6.85	6.81	6.23	8.06	8.21	8.70	9.03	9.22	8.31	7.93
Calumet River System											
49 Ewing Avenue, Calumet River	1.62	4.38	4.72	2.69	5.42	5.39	4.99	4.77	3.99	4.31	4.92
50 Burnham Avenue, Wolf Lake	3.64	6.05	5.49	4.30	7.02	6.10	4.94	7.01	4.81	4.77	4.89
55 130th Street, Calumet River	2.97	4.79	5.66	4.14	7.24	6.50	6.14	6.79	6.10	5.72	6.36
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	2.71	5.82	5.59	5.31	7.77	7.82	6.63	6.99	7.48	6.80	8.20
76 Halsted Street, Little Calumet River	3.66	6.34	6.66	6.83	8.74	8.96	9.11	8.41	9.54	9.00	7.44
52 Wentworth Avenue, Little Calumet River	3.55	7.19	5.99	6.96	10.56	10.37	10.90	12.00	12.91	12.46	9.42
54 Joe Orr Road, Thorn Creek	4.05	6.83	8.36	7.63	8.90	10.91	14.81	12.20	10.77	12.05	7.95
97 170th Street, Thorn Creek	4.71	7.91	8.02	7.64	10.69	10.72	13.04	11.68	12.14	12.41	8.40
57 Ashland Avenue, Little Calumet River	4.04	6.80	6.86	7.82	9.52	10.20	11.25	10.88	10.93	10.76	8.89
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	2.26	5.93	5.83	3.48	6.26	7.25	6.75	5.59	6.76	5.70	5.91
110 Springinsguth Road, West Branch DuPage River	2.81	4.53	5.60	4.87	7.41	8.04	8.52	8.22	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	5.46	9.15	9.31	7.04	9.37	9.90	10.62	9.17	10.50	10.82	9.50
64 Lake Street, West Branch DuPage River	ND	9.39	8.23	7.51	9.31	10.36	10.94	10.71	10.56	10.72	10.14
111 Arlington Drive, West Branch Du Page River	5.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.06	4.79	5.91	4.27	7.55	7.71	8.35	8.15	8.41	8.09	7.05
80 Arlington Heights Road, Salt Creek	3.02	6.94	6.24	5.33	9.10	10.09	10.26	9.43	9.54	9.12	9.32
18 Devon Avenue, Salt Creek	3.54	6.89	6.61	5.24	9.40	9.35	11.03	9.86	10.54	9.77	8.27
24 Wolf Road, Salt Creek	4.30	6.63	7.12	6.85	9.29	11.12	11.39	9.45	10.43	10.71	9.13
109 Brookfield Avenue, Salt Creek	3.76	8.37	7.30	7.67	8.92	10.50	10.71	8.96	9.41	10.31	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.68
77 Elmhurst Road, Higgins Creek	3.00	4.78	4.99	3.74	6.99	8.79	11.23	8.33	9.76	8.82	7.32
78 Wille Road, Higgins Creek	4.44	6.42	7.56	7.43	11.79	12.65	15.45	13.34	13.15	15.24	15.72
12 Lake-Cook Road, Buffalo Creek	3.40	5.54	5.44	3.78	8.20	7.37	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	3.50	7.23	7.12	6.05	8.94	10.05	11.41	9.53	10.71	9.94	8.21
17 Oakton Street, Des Plaines River	3.41	5.94	6.18	5.05	8.40	9.12	10.16	9.23	10.61	9.39	7.81
19 Belmont Avenue, Des Plaines River	3.35	6.60	5.57	5.54	9.81	10.24	11.57	9.77	10.62	10.73	8.37
20 Roosevelt Road, Des Plaines River	3.55	6.24	6.23	6.16	9.70	9.69	10.91	8.99	10.23	10.38	7.89
22 Ogden Avenue, Des Plaines River	4.23	7.06	7.07	8.05	9.27	9.32	11.04	9.51	9.44	10.33	7.92
23 Willow Springs Road, Des Plaines River	3.97	6.11	6.19	7.96	8.01	9.51	10.68	9.37	9.32	10.28	8.78
29 Stephen Street, Des Plaines River	4.50	7.00	6.25	7.55	9.48	10.39	10.87	9.16	10.23	10.53	8.36
91 Material Service Road, Des Plaines River	3.65	8.06	7.02	6.48	9.94	9.65	12.34	9.48	10.75	9.88	8.77

ND = No Data.

TABLE AII-81: CHLOROPHYLL *a* MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	14.7	8.1	7.2	14.4	6.3	10.6	14.6	29.1	47.9	9.6	ND
103 Golf Road, West Fork North Branch Chicago River	14.5	14.0	7.5	9.1	12.4	13.4	29.3	21.1	19.0	14.4	ND
31 Lake-Cook Road, Middle Fork North Branch	8.2	5.0	5.1	10.6	7.7	12.0	8.0	6.7	11.1	11.6	ND
104 Glenview Road, North Branch Chicago River	8.0	7.0	5.9	10.6	12.2	19.7	10.1	12.1	32.9	18.1	ND
32 Lake-Cook Road, Skokie River	7.9	7.0	6.2	8.3	8.9	7.6	12.0	22.5	10.3	11.5	ND
105 Frontage Road, Skokie River	10.5	10.1	9.7	18.4	18.1	32.9	15.6	20.4	21.5	21.5	ND
34 Dempster Street, North Branch Chicago River	12.2	7.7	5.6	8.7	9.7	16.7	24.2	15.8	16.7	16.2	ND
96 Albany Avenue, North Branch Chicago River	9.5	8.8	7.1	7.8	9.0	14.0	35.6	21.5	18.1	11.7	ND
35 Central Street, North Shore Channel	15.3	17.7	9.9	6.3	6.2	4.5	3.6	2.9	8.1	12.5	ND
102 Oakton Street, North Shore Channel	4.6	16.8	11.3	12.6	16.2	22.6	8.1	12.5	4.8	17.0	ND
36 Touhy Avenue, North Shore Channel	1.5	2.1	2.0	2.1	1.3	2.0	1.6	1.4	1.2	1.5	ND
101 Foster Avenue, North Shore Channel	5.1	1.5	1.9	1.4	1.1	1.6	2.2	1.9	4.3	1.9	ND
37 Wilson Avenue, North Branch Chicago River	2.8	2.5	2.8	3.2	2.9	4.7	2.8	4.0	4.9	4.9	ND
73 Diversey Parkway, North Branch Chicago River	3.5	2.8	2.2	3.6	2.4	4.3	2.6	3.8	4.7	3.9	ND
46 Grand Avenue, North Branch Chicago River	4.3	2.6	2.7	3.5	4.9	6.1	4.3	5.8	5.7	3.6	ND
74 Lake Shore Drive, Chicago River	1.5	1.3	1.3	1.6	2.2	1.4	3.3	4.7	3.2	2.7	ND
100 Wells Street, Chicago River	2.2	1.9	1.6	2.5	2.2	2.5	2.8	3.0	3.7	3.0	ND
39 Madison Street, South Branch Chicago River	3.4	3.8	1.9	3.5	4.0	4.4	4.2	4.1	5.2	4.6	ND
108 Loomis Street, South Branch Chicago River	3.7	2.3	2.0	3.0	3.7	6.0	5.4	7.2	6.1	3.4	ND
99 Archer Avenue, South Fork South Branch Chicago River	28.6	13.3	8.9	10.5	7.4	5.7	21.5	27.4	9.5	9.2	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	3.8	5.8	7.7	3.4	4.5	5.4	14.1	7.9	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	4.4	4.7	3.0	4.1	5.4	4.7	6.5	6.0	6.3	5.0	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.7	4.0	1.9	2.3	2.6	2.8	3.6	3.4	2.7	2.4	ND
42 Route 83, Chicago Sanitary & Ship Canal	3.4	5.5	2.9	4.1	5.2	4.1	6.4	4.2	4.4	4.2	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	3.9	4.7	5.2	5.6	6.1	3.7	5.3	3.5	7.2	3.9	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	4.3	4.7	5.6	5.4	5.5	4.0	5.2	3.9	7.2	5.3	ND
Calumet River System											
49 Ewing Avenue, Calumet River	1.1	0.9	2.1	1.7	1.1	1.4	0.9	1.4	1.6	1.7	ND
50 Burnham Avenue, Wolf Lake	6.4	4.5	5.4	6.7	6.2	4.7	6.8	4.8	8.7	3.8	ND
55 130th Street, Calumet River	3.0	3.7	6.3	4.6	4.0	3.3	2.9	4.0	7.1	9.9	ND
86 Burnham Avenue, Grand Calumet River	17.4	75.6	30.8	142.5	101.0	27.4	57.7	61.9	38.1	31.1	ND
56 Indiana Avenue, Little Calumet River	4.0	14.1	27.0	20.6	14.0	25.8	16.4	7.2	24.4	26.4	ND
76 Halsted Street, Little Calumet River	3.1	4.1	12.6	7.8	6.6	8.1	7.1	3.8	10.3	9.1	ND
52 Wentworth Avenue, Little Calumet River	8.3	8.2	7.7	5.5	13.0	4.3	6.0	5.5	9.0	5.7	ND
54 Joe Orr Road, Thorn Creek	3.7	4.7	4.8	4.1	3.0	3.7	12.4	6.7	8.5	9.2	ND
97 170th Street, Thorn Creek	8.3	11.2	9.4	8.5	9.2	5.3	8.2	8.8	11.5	10.4	ND
57 Ashland Avenue, Little Calumet River	7.9	8.0	10.5	8.2	7.1	4.7	9.2	7.5	10.0	11.2	ND
58 Ashland Avenue, Calumet-Sag Channel	5.4	7.0	11.3	8.0	7.2	9.5	10.4	4.8	15.3	11.5	ND
59 Cicero Avenue, Calumet-Sag Channel	3.5	4.0	12.4	7.9	7.8	9.0	7.5	5.2	20.3	11.8	ND
43 Route 83, Calumet-Sag Channel	4.5	5.2	9.0	10.0	6.5	6.3	8.8	4.4	24.5	15.8	ND
Des Plaines River System											
90 Route 19, Poplar Creek	7.8	10.0	9.0	8.9	10.9	13.9	12.5	8.1	14.6	15.9	ND
110 Springinsguth Road, West Branch DuPage River	13.7	17.2	14.0	14.3	21.4	14.5	59.8	10.6	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	7.0	4.8	5.9	6.6	7.3	5.4	9.1	3.7	9.0	5.9	ND
64 Lake Street, West Branch DuPage River	ND	15.9	18.8	19.4	23.2	20.2	24.6	15.4	29.5	24.9	ND
111 Arlington Drive, West Branch Du Page River	13.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	22.5	26.3	21.3	33.9	39.0	33.9	31.0	36.4	37.4	30.6	ND
80 Arlington Heights Road, Salt Creek	15.2	15.6	13.6	11.7	13.8	16.5	12.4	11.2	18.6	12.9	ND
18 Devon Avenue, Salt Creek	11.7	13.6	15.0	13.6	14.3	17.6	14.8	15.7	19.5	16.2	ND
24 Wolf Road, Salt Creek	5.5	8.6	8.0	8.9	7.4	12.0	11.0	6.4	12.9	13.7	ND
109 Brookfield Avenue, Salt Creek	6.9	8.2	9.5	6.1	7.3	16.1	11.3	9.9	17.9	12.8	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	22.8	ND
77 Elmhurst Road, Higgins Creek	8.8	28.3	8.4	25.7	14.7	11.9	14.1	8.5	11.4	14.3	ND
78 Wille Road, Higgins Creek	2.3	2.6	2.2	2.4	3.8	3.0	2.5	2.6	4.3	2.8	ND
12 Lake-Cook Road, Buffalo Creek	16.8	14.1	18.6	19.7	23.2	20.2	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	14.4	12.3	10.7	18.8	13.7	16.9	27.5	21.0	34.1	27.3	ND
17 Oakton Street, Des Plaines River	26.9	14.2	19.2	35.1	12.3	13.0	34.3	18.3	42.2	20.5	ND
19 Belmont Avenue, Des Plaines River	20.1	13.7	13.7	22.0	6.1	12.3	23.2	13.0	35.3	11.2	ND
20 Roosevelt Road, Des Plaines River	23.8	12.6	20.1	23.3	6.7	11.4	23.4	14.2	28.7	10.0	ND
22 Ogden Avenue, Des Plaines River	20.0	11.5	19.7	20.7	6.1	15.8	19.1	14.1	45.5	12.9	ND
23 Willow Springs Road, Des Plaines River	15.8	12.6	27.5	22.5	5.1	13.5	29.0	15.9	33.0	20.6	ND
29 Stephen Street, Des Plaines River	14.7	16.9	29.9	22.4	9.5	17.5	49.0	25.5	49.1	34.5	ND
91 Material Service Road, Des Plaines River	16.3	26.3	24.1	26.3	11.9	23.8	34.6	40.4	56.2	35.3	ND

ND = No Data.

TABLE AII-82: BENZENE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
103 Golf Road, West Fork North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
104 Glenview Road, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
32 Lake-Cook Road, Skokie River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
105 Frontage Road, Skokie River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
34 Dempster Street, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
96 Albany Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
35 Central Street, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
102 Oakton Street, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
36 Touhy Avenue, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
101 Foster Avenue, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
37 Wilson Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
73 Diversey Parkway, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
46 Grand Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
74 Lake Shore Drive, Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
100 Wells Street, Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
39 Madison Street, South Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
108 Loomis Street, South Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
50 Burnham Avenue, Wolf Lake	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
55 130th Street, Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
86 Burnham Avenue, Grand Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
56 Indiana Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
76 Halsted Street, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
52 Wentworth Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
54 Joe Orr Road, Thorn Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
97 170th Street, Thorn Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
57 Ashland Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
43 Route 83, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
110 Springinsguth Road, West Branch DuPage River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
111 Arlington Drive, West Branch Du Page River	2.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
80 Arlington Heights Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
18 Devon Avenue, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
24 Wolf Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
109 Brookfield Avenue, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
78 Wille Road, Higgins Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
12 Lake-Cook Road, Buffalo Creek	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
17 Oakton Street, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
19 Belmont Avenue, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
20 Roosevelt Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
22 Ogden Avenue, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
23 Willow Springs Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
29 Stephen Street, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
91 Material Service Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND

ND = No Data.

TABLE AII-83: ETHYLBENZENE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
103 Golf Road, West Fork North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
104 Glenview Road, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
32 Lake-Cook Road, Skokie River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
105 Frontage Road, Skokie River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
34 Dempster Street, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
96 Albany Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
35 Central Street, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
102 Oakton Street, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
36 Touhy Avenue, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
101 Foster Avenue, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
37 Wilson Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
73 Diversey Parkway, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
46 Grand Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
74 Lake Shore Drive, Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
100 Wells Street, Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
39 Madison Street, South Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
108 Loomis Street, South Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
50 Burnham Avenue, Wolf Lake	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
55 130th Street, Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
86 Burnham Avenue, Grand Calumet River	2.120	0.000	0.000	0.400	0.000	0.000	0.000	0.000	0.000	ND	ND
56 Indiana Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
76 Halsted Street, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
52 Wentworth Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
54 Joe Orr Road, Thorn Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
97 170th Street, Thorn Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
57 Ashland Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
43 Route 83, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
110 Springinsguth Road, West Branch DuPage River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
111 Arlington Drive, West Branch Du Page River	2.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
80 Arlington Heights Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
18 Devon Avenue, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
24 Wolf Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
109 Brookfield Avenue, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
78 Wille Road, Higgins Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
12 Lake-Cook Road, Buffalo Creek	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
17 Oakton Street, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
19 Belmont Avenue, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
20 Roosevelt Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
22 Ogden Avenue, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
23 Willow Springs Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
29 Stephen Street, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
91 Material Service Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND

ND = No Data.

TABLE AII-84: TOLUENE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
103 Golf Road, West Fork North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
104 Glenview Road, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
32 Lake-Cook Road, Skokie River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
105 Frontage Road, Skokie River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
34 Dempster Street, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
96 Albany Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
35 Central Street, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
102 Oakton Street, North Shore Channel	2.000	0.000	0.000	0.000	1.267	0.000	0.000	0.500	0.000	ND	ND
36 Touhy Avenue, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
101 Foster Avenue, North Shore Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.333	0.667	0.000	ND	ND
37 Wilson Avenue, North Branch Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.400	0.000	0.000	ND	ND
73 Diversy Parkway, North Branch Chicago River	2.183	0.000	0.333	0.000	1.067	0.000	2.200	1.000	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	2.000	0.000	0.000	0.967	0.640	0.000	0.400	0.000	0.000	ND	ND
74 Lake Shore Drive, Chicago River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
100 Wells Street, Chicago River	2.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
39 Madison Street, South Branch Chicago River	3.033	0.000	0.000	0.383	0.625	0.000	0.333	0.000	0.000	ND	ND
108 Loomis Street, South Branch Chicago River	2.000	0.000	0.000	0.383	0.000	0.000	0.000	0.000	0.000	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	2.000	1.200	0.000	0.000	0.000	0.000	0.800	0.000	0.000	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
50 Burnham Avenue, Wolf Lake	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
55 130th Street, Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
86 Burnham Avenue, Grand Calumet River	2.460	0.000	1.033	0.000	0.000	0.000	0.400	0.000	0.000	ND	ND
56 Indiana Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
76 Halsted Street, Little Calumet River	2.000	0.000	0.483	0.433	0.000	0.000	0.667	0.000	0.000	ND	ND
52 Wentworth Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
54 Joe Orr Road, Thorn Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
97 170th Street, Thorn Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
57 Ashland Avenue, Little Calumet River	2.000	0.000	0.000	0.000	0.000	0.000	0.400	0.000	0.000	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	2.000	0.000	0.467	0.000	0.000	0.000	0.857	0.000	0.000	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
43 Route 83, Calumet-Sag Channel	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
110 Springinsguth Road, West Branch DuPage River	2.000	0.000	0.000	0.000	0.625	0.000	2.200	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
111 Arlington Drive, West Branch Du Page River	2.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
80 Arlington Heights Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
18 Devon Avenue, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
24 Wolf Road, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
109 Brookfield Avenue, Salt Creek	2.000	0.000	0.000	0.000	0.000	0.000	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	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
78 Wille Road, Higgins Creek	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
12 Lake-Cook Road, Buffalo Creek	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
17 Oakton Street, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
19 Belmont Avenue, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
20 Roosevelt Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
22 Ogden Avenue, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
23 Willow Springs Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
29 Stephen Street, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
91 Material Service Road, Des Plaines River	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND

ND = No Data.

TABLE AII-85: XYLENE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
103 Golf Road, West Fork North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
104 Glenview Road, North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
32 Lake-Cook Road, Skokie River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
105 Frontage Road, Skokie River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
34 Dempster Street, North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
35 Central Street, North Shore Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
102 Oakton Street, North Shore Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
101 Foster Avenue, North Shore Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
37 Wilson Avenue, North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
46 Grand Avenue, North Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
74 Lake Shore Drive, Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
100 Wells Street, Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
39 Madison Street, South Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
50 Burnham Avenue, Wolf Lake	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
55 130th Street, Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
76 Halsted Street, Little Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
52 Wentworth Avenue, Little Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
54 Joe Orr Road, Thorn Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
97 170th Street, Thorn Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
110 Springinsguth Road, West Branch DuPage River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
111 Arlington Drive, West Branch Du Page River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
80 Arlington Heights Road, Salt Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
18 Devon Avenue, Salt Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
24 Wolf Road, Salt Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
78 Wille Road, Higgins Creek	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
12 Lake-Cook Road, Buffalo Creek	3.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
17 Oakton Street, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
20 Roosevelt Road, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
29 Stephen Street, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
91 Material Service Road, Des Plaines River	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND

ND = No Data.

TABLE AII-86: META AND/OR PARA XYLENES MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	3.000	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
111 Arlington Drive, West Branch Du Page River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	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
77 Elmhurst Road, Higgins Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-87: ORTHO XYLENE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	3.000	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
111 Arlington Drive, West Branch Du Page River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	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
77 Elmhurst Road, Higgins Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-88: TOTAL SILVER MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
103 Golf Road, West Fork North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
31 Lake-Cook Road, Middle Fork North Branch	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
104 Glenview Road, North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.000
32 Lake-Cook Road, Skokie River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000
105 Frontage Road, Skokie River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
34 Dempster Street, North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
96 Albany Avenue, North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
35 Central Street, North Shore Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
102 Oakton Street, North Shore Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001
36 Touhy Avenue, North Shore Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001
101 Foster Avenue, North Shore Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001
37 Wilson Avenue, North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
73 Diversey Parkway, North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
46 Grand Avenue, North Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.001
74 Lake Shore Drive, Chicago River	0.004	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
100 Wells Street, Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.000
39 Madison Street, South Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
108 Loomis Street, South Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001	0.000
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000
42 Route 83, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001
50 Burnham Avenue, Wolf Lake	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002
55 130th Street, Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
86 Burnham Avenue, Grand Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
56 Indiana Avenue, Little Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002
76 Halsted Street, Little Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
52 Wentworth Avenue, Little Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001
54 Joe Orr Road, Thorn Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
97 170th Street, Thorn Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
57 Ashland Avenue, Little Calumet River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
58 Ashland Avenue, Calumet-Sag Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.002
43 Route 83, Calumet-Sag Channel	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
111 Arlington Drive, West Branch Du Page River	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
80 Arlington Heights Road, Salt Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
18 Devon Avenue, Salt Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
24 Wolf Road, Salt Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.001
77 Elmhurst Road, Higgins Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
78 Wille Road, Higgins Creek	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.001
12 Lake-Cook Road, Buffalo Creek	0.004	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
17 Oakton Street, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
19 Belmont Avenue, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
20 Roosevelt Road, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
23 Willow Springs Road, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
29 Stephen Street, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001
91 Material Service Road, Des Plaines River	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001

ND = No Data.

TABLE AII-89: TOTAL ARSENIC MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.000
103 Golf Road, West Fork North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.005
31 Lake-Cook Road, Middle Fork North Branch	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.006
104 Glenview Road, North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.008
32 Lake-Cook Road, Skokie River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.004	0.007
105 Frontage Road, Skokie River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.009
34 Dempster Street, North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
96 Albany Avenue, North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.005
35 Central Street, North Shore Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.006
102 Oakton Street, North Shore Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.010
36 Touhy Avenue, North Shore Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005
101 Foster Avenue, North Shore Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
37 Wilson Avenue, North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.010
73 Diversey Parkway, North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.005
46 Grand Avenue, North Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.004
74 Lake Shore Drive, Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004
100 Wells Street, Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
108 Loomis Street, South Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
99 Archer Avenue, South Fork South Branch Chicago River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.006
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.004
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.004
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.006
42 Route 83, Chicago Sanitary & Ship Canal	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
48 Stephen Street, Chicago Sanitary & Ship Canal	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.006
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.004
Calumet River System											
49 Ewing Avenue, Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.007
50 Burnham Avenue, Wolf Lake	0.050	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.006	0.007
55 130th Street, Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.005
86 Burnham Avenue, Grand Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
56 Indiana Avenue, Little Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.004
76 Halsted Street, Little Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.010	0.005
52 Wentworth Avenue, Little Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
54 Joe Orr Road, Thorn Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.006
97 170th Street, Thorn Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.005
57 Ashland Avenue, Little Calumet River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.007
58 Ashland Avenue, Calumet-Sag Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.004	0.006
59 Cicero Avenue, Calumet-Sag Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.005
43 Route 83, Calumet-Sag Channel	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.006
Des Plaines River System											
90 Route 19, Poplar Creek	0.050	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.003	0.005
110 Springinsguth Road, West Branch DuPage River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.006
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.004	0.005
111 Arlington Drive, West Branch Du Page River	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.007
80 Arlington Heights Road, Salt Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003
18 Devon Avenue, Salt Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.006
24 Wolf Road, Salt Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.007	0.000
109 Brookfield Avenue, Salt Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.003
77 Elmhurst Road, Higgins Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.004
78 Wille Road, Higgins Creek	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.002
12 Lake-Cook Road, Buffalo Creek	0.050	0.000	0.000	0.545	0.000	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.008	0.003
17 Oakton Street, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.005	0.008
19 Belmont Avenue, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.004	0.003
20 Roosevelt Road, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.003
22 Ogden Avenue, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.006
23 Willow Springs Road, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.003	0.003
29 Stephen Street, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.004	0.002
91 Material Service Road, Des Plaines River	0.050	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.003	0.004

ND = No Data.

TABLE AII-90: TOTAL BARIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.079	0.064	0.060	0.063	0.062	0.056	0.051	0.069	0.048	0.054	0.072
103 Golf Road, West Fork North Branch Chicago River	0.055	0.054	0.048	0.048	0.052	0.052	0.055	0.048	0.051	0.051	0.052
31 Lake-Cook Road, Middle Fork North Branch	0.037	0.039	0.036	0.042	0.041	0.045	0.042	0.040	0.045	0.045	0.054
104 Glenview Road, North Branch Chicago River	0.036	0.033	0.032	0.037	0.034	0.037	0.032	0.034	0.038	0.035	0.039
32 Lake-Cook Road, Skokie River	0.043	0.042	0.038	0.042	0.048	0.043	0.041	0.046	0.045	0.047	0.053
105 Frontage Road, Skokie River	0.031	0.030	0.030	0.035	0.032	0.030	0.030	0.033	0.029	0.032	0.036
34 Dempster Street, North Branch Chicago River	0.039	0.040	0.035	0.039	0.038	0.040	0.041	0.040	0.039	0.040	0.047
96 Albany Avenue, North Branch Chicago River	0.041	0.038	0.037	0.042	0.039	0.041	0.040	0.037	0.039	0.043	0.044
35 Central Street, North Shore Channel	0.024	0.023	0.021	0.024	0.023	0.022	0.025	0.023	0.024	0.030	0.026
102 Oakton Street, North Shore Channel	0.026	0.026	0.023	0.025	0.025	0.023	0.025	0.023	0.026	0.025	0.027
36 Touhy Avenue, North Shore Channel	0.026	0.022	0.026	0.026	0.024	0.021	0.022	0.023	0.020	0.024	0.027
101 Foster Avenue, North Shore Channel	0.025	0.023	0.025	0.027	0.024	0.021	0.022	0.023	0.021	0.024	0.024
37 Wilson Avenue, North Branch Chicago River	0.029	0.028	0.027	0.030	0.027	0.025	0.024	0.026	0.024	0.028	0.031
73 Diversey Parkway, North Branch Chicago River	0.028	0.026	0.027	0.030	0.026	0.025	0.024	0.026	0.027	0.029	0.033
46 Grand Avenue, North Branch Chicago River	0.028	0.026	0.027	0.030	0.028	0.026	0.025	0.028	0.024	0.028	0.031
74 Lake Shore Drive, Chicago River	0.026	0.023	0.022	0.023	0.024	0.022	0.023	0.025	0.023	0.025	0.026
100 Wells Street, Chicago River	0.026	0.023	0.024	0.026	0.024	0.023	0.023	0.024	0.023	0.027	0.028
39 Madison Street, South Branch Chicago River	0.030	0.026	0.027	0.028	0.027	0.025	0.024	0.024	0.023	0.027	0.031
108 Loomis Street, South Branch Chicago River	0.028	0.026	0.027	0.030	0.028	0.026	0.025	0.025	0.024	0.027	0.029
99 Archer Avenue, South Fork South Branch Chicago River	0.029	0.026	0.026	0.030	0.025	0.025	0.025	0.025	0.023	0.029	0.036
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.028	0.027	0.027	0.029	0.028	0.027	0.025	0.025	0.025	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.029	0.033
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.030	0.026	0.027	0.030	0.027	0.026	0.025	0.026	0.024	0.029	0.031
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.025	0.022	0.023	0.024	0.024	0.021	0.020	0.020	0.019	0.023	0.026
42 Route 83, Chicago Sanitary & Ship Canal	0.022	0.021	0.022	0.024	0.022	0.020	0.020	0.020	0.021	0.023	0.025
48 Stephen Street, Chicago Sanitary & Ship Canal	0.025	0.023	0.023	0.026	0.025	0.023	0.023	0.023	0.023	0.024	0.027
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.024	0.023	0.024	0.026	0.023	0.023	0.023	0.024	0.022	0.026	0.028
Calumet River System											
49 Ewing Avenue, Calumet River	0.024	0.022	0.022	0.022	0.023	0.022	0.022	0.023	0.024	0.026	0.030
50 Burnham Avenue, Wolf Lake	0.036	0.035	0.034	0.034	0.036	0.028	0.033	0.032	0.028	0.029	0.031
55 130th Street, Calumet River	0.030	0.028	0.029	0.030	0.032	0.031	0.030	0.030	0.031	0.035	0.040
86 Burnham Avenue, Grand Calumet River	0.033	0.037	0.028	0.031	0.034	0.029	0.043	0.027	0.031	0.029	0.030
56 Indiana Avenue, Little Calumet River	0.031	0.029	0.033	0.034	0.033	0.031	0.030	0.030	0.030	0.037	0.035
76 Halsted Street, Little Calumet River	0.025	0.021	0.025	0.027	0.024	0.022	0.022	0.022	0.020	0.024	0.030
52 Wentworth Avenue, Little Calumet River	0.043	0.044	0.039	0.040	0.039	0.043	0.037	0.042	0.043	0.045	0.047
54 Joe Orr Road, Thorn Creek	0.032	0.035	0.029	0.031	0.028	0.031	0.042	0.034	0.030	0.030	0.032
97 170th Street, Thorn Creek	0.043	0.041	0.037	0.038	0.035	0.041	0.042	0.042	0.038	0.041	0.043
57 Ashland Avenue, Little Calumet River	0.042	0.039	0.037	0.038	0.036	0.042	0.040	0.043	0.039	0.040	0.044
58 Ashland Avenue, Calumet-Sag Channel	0.030	0.029	0.027	0.026	0.026	0.024	0.026	0.025	0.029	0.029	0.030
59 Cicero Avenue, Calumet-Sag Channel	0.029	0.026	0.027	0.027	0.027	0.028	0.024	0.027	0.026	0.028	0.035
43 Route 83, Calumet-Sag Channel	0.028	0.026	0.027	0.027	0.027	0.028	0.025	0.026	0.028	0.030	0.034
Des Plaines River System											
90 Route 19, Poplar Creek	0.064	0.069	0.062	0.071	0.078	0.095	0.112	0.102	0.079	0.071	0.067
110 Springinsguth Road, West Branch DuPage River	0.050	0.047	0.045	0.053	0.048	0.054	0.053	0.056	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.035	0.031	0.029	0.032	0.029	0.030	0.026	0.028	0.028	0.031	0.035
64 Lake Street, West Branch DuPage River	ND	0.046	0.034	0.039	0.031	0.035	0.033	0.035	0.033	0.037	0.042
111 Arlington Drive, West Branch Du Page River	0.037	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.043	0.038	0.041	0.051	0.045	0.044	0.053	0.052	0.045	0.048	0.061
80 Arlington Heights Road, Salt Creek	0.032	0.031	0.027	0.031	0.027	0.033	0.033	0.030	0.031	0.030	0.035
18 Devon Avenue, Salt Creek	0.030	0.034	0.028	0.031	0.028	0.033	0.031	0.029	0.030	0.031	0.035
24 Wolf Road, Salt Creek	0.035	0.037	0.034	0.037	0.034	0.035	0.033	0.034	0.031	0.036	0.042
109 Brookfield Avenue, Salt Creek	0.036	0.036	0.034	0.038	0.034	0.036	0.033	0.036	0.034	0.028	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.046	0.048
77 Elmhurst Road, Higgins Creek	0.047	0.061	0.043	0.064	0.043	0.056	0.056	0.067	0.050	0.060	0.072
78 Wille Road, Higgins Creek	0.029	0.026	0.029	0.026	0.024	0.024	0.020	0.024	0.022	0.030	0.032
12 Lake-Cook Road, Buffalo Creek	0.043	0.050	0.042	0.049	0.044	0.047	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.038	0.042	0.033	0.040	0.040	0.045	0.038	0.038	0.038	0.044	0.044
17 Oakton Street, Des Plaines River	0.041	0.044	0.035	0.041	0.040	0.046	0.040	0.040	0.041	0.044	0.047
19 Belmont Avenue, Des Plaines River	0.039	0.040	0.034	0.040	0.038	0.043	0.037	0.038	0.037	0.040	0.045
20 Roosevelt Road, Des Plaines River	0.039	0.040	0.034	0.042	0.038	0.044	0.037	0.038	0.035	0.042	0.043
22 Ogden Avenue, Des Plaines River	0.038	0.038	0.034	0.039	0.037	0.042	0.036	0.038	0.036	0.040	0.045
23 Willow Springs Road, Des Plaines River	0.038	0.037	0.033	0.039	0.036	0.039	0.036	0.037	0.034	0.038	0.045
29 Stephen Street, Des Plaines River	0.037	0.038	0.033	0.039	0.037	0.041	0.035	0.037	0.036	0.040	0.045
91 Material Service Road, Des Plaines River	0.038	0.037	0.033	0.039	0.037	0.041	0.035	0.038	0.036	0.039	0.044

ND = No Data.

TABLE AII-91: TOTAL BORON MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.145	0.138	0.160	0.150	0.135	0.129	0.178	0.203	0.147	0.139	0.186
103 Golf Road, West Fork North Branch Chicago River	0.125	0.124	0.113	0.104	0.149	0.145	0.191	0.139	0.137	0.159	0.151
31 Lake-Cook Road, Middle Fork North Branch	0.073	0.067	0.074	0.085	0.121	0.118	0.176	0.170	0.113	0.122	0.104
104 Glenview Road, North Branch Chicago River	0.103	0.126	0.107	0.115	0.142	0.142	0.182	0.155	0.138	0.167	0.156
32 Lake-Cook Road, Skokie River	0.093	0.092	0.093	0.097	0.120	0.135	0.161	0.129	0.137	0.120	0.122
105 Frontage Road, Skokie River	0.121	0.137	0.124	0.121	0.149	0.161	0.188	0.172	0.193	0.186	0.166
34 Dempster Street, North Branch Chicago River	0.114	0.107	0.103	0.113	0.139	0.143	0.192	0.153	0.176	0.172	0.132
96 Albany Avenue, North Branch Chicago River	0.114	0.118	0.112	0.109	0.138	0.151	0.185	0.150	0.164	0.169	0.157
35 Central Street, North Shore Channel	0.060	0.000	0.011	0.012	0.036	0.037	0.039	0.037	0.050	0.052	0.030
102 Oakton Street, North Shore Channel	0.100	0.060	0.070	0.060	0.087	0.117	0.093	0.076	0.091	0.118	0.058
36 Touhy Avenue, North Shore Channel	0.150	0.160	0.151	0.173	0.185	0.193	0.180	0.172	0.190	0.185	0.211
101 Foster Avenue, North Shore Channel	0.132	0.151	0.147	0.167	0.182	0.192	0.177	0.174	0.176	0.176	0.201
37 Wilson Avenue, North Branch Chicago River	0.125	0.138	0.128	0.146	0.160	0.173	0.168	0.161	0.166	0.160	0.183
73 Diversey Parkway, North Branch Chicago River	0.128	0.143	0.123	0.142	0.166	0.166	0.160	0.162	0.175	0.161	0.173
46 Grand Avenue, North Branch Chicago River	0.121	0.132	0.116	0.132	0.154	0.163	0.172	0.160	0.162	0.161	0.178
74 Lake Shore Drive, Chicago River	0.077	0.024	0.023	0.040	0.092	0.067	0.061	0.073	0.057	0.055	0.082
100 Wells Street, Chicago River	0.093	0.044	0.045	0.069	0.079	0.081	0.082	0.092	0.103	0.080	0.091
39 Madison Street, South Branch Chicago River	0.117	0.103	0.102	0.109	0.107	0.128	0.132	0.144	0.149	0.140	0.135
108 Loomis Street, South Branch Chicago River	0.108	0.107	0.103	0.109	0.109	0.131	0.135	0.143	0.144	0.136	0.128
99 Archer Avenue, South Fork South Branch Chicago River	0.110	0.118	0.099	0.125	0.111	0.117	0.134	0.139	0.143	0.135	0.148
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.108	0.108	0.101	0.111	0.106	0.130	0.133	0.141	0.145	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.136	0.129
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.109	0.114	0.095	0.125	0.117	0.124	0.133	0.144	0.145	0.145	0.143
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.154	0.152	0.145	0.166	0.168	0.183	0.176	0.207	0.192	0.184	0.190
42 Route 83, Chicago Sanitary & Ship Canal	0.213	0.221	0.164	0.168	0.208	0.223	0.219	0.261	0.226	0.232	0.206
48 Stephen Street, Chicago Sanitary & Ship Canal	0.195	0.204	0.153	0.175	0.192	0.208	0.216	0.221	0.217	0.227	0.219
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.191	0.203	0.162	0.185	0.196	0.218	0.223	0.206	0.203	0.206	0.209
Calumet River System											
49 Ewing Avenue, Calumet River	0.060	0.000	0.017	0.017	0.046	0.049	0.042	0.046	0.035	0.039	0.045
50 Burnham Avenue, Wolf Lake	0.244	0.242	0.238	0.181	0.171	0.115	0.147	0.144	0.105	0.104	0.100
55 130th Street, Calumet River	0.114	0.089	0.111	0.119	0.146	0.107	0.113	0.111	0.084	0.120	0.146
86 Burnham Avenue, Grand Calumet River	0.805	0.774	0.345	0.682	0.583	0.601	0.287	0.429	0.430	0.383	0.370
56 Indiana Avenue, Little Calumet River	0.132	0.111	0.122	0.145	0.165	0.137	0.116	0.127	0.128	0.161	0.152
76 Halsted Street, Little Calumet River	0.187	0.173	0.171	0.205	0.194	0.224	0.205	0.189	0.187	0.201	0.228
52 Wentworth Avenue, Little Calumet River	0.140	0.179	0.169	0.262	0.231	0.240	0.224	0.242	0.267	0.321	0.209
54 Joe Orr Road, Thorn Creek	0.203	0.221	0.256	0.324	0.313	0.404	0.269	0.320	0.252	0.353	0.351
97 170th Street, Thorn Creek	0.182	0.194	0.207	0.246	0.222	0.297	0.251	0.269	0.279	0.332	0.254
57 Ashland Avenue, Little Calumet River	0.171	0.180	0.191	0.241	0.202	0.258	0.232	0.223	0.265	0.270	0.212
58 Ashland Avenue, Calumet-Sag Channel	0.171	0.176	0.163	0.202	0.173	0.230	0.206	0.194	0.210	0.226	0.232
59 Cicero Avenue, Calumet-Sag Channel	0.174	0.172	0.154	0.201	0.165	0.224	0.199	0.193	0.192	0.207	0.228
43 Route 83, Calumet-Sag Channel	0.157	0.181	0.148	0.187	0.168	0.204	0.207	0.187	0.182	0.194	0.215
Des Plaines River System											
90 Route 19, Poplar Creek	0.060	0.025	0.024	0.047	0.058	0.061	0.071	0.056	0.056	0.056	0.063
110 Springinsguth Road, West Branch DuPage River	0.093	0.051	0.075	0.088	0.075	0.079	0.078	0.125	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.169	0.216	0.203	0.218	0.248	0.247	0.278	0.274	0.264	0.285	0.296
64 Lake Street, West Branch DuPage River	ND	0.102	0.149	0.183	0.187	0.190	0.238	0.225	0.228	0.224	0.243
111 Arlington Drive, West Branch Du Page River	0.146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.099	0.051	0.079	0.082	0.085	0.091	0.098	0.089	0.073	0.100	0.099
80 Arlington Heights Road, Salt Creek	0.134	0.190	0.145	0.176	0.198	0.191	0.205	0.197	0.191	0.207	0.223
18 Devon Avenue, Salt Creek	0.150	0.189	0.135	0.172	0.196	0.196	0.207	0.189	0.187	0.192	0.211
24 Wolf Road, Salt Creek	0.163	0.162	0.145	0.178	0.182	0.188	0.233	0.193	0.177	0.227	0.184
109 Brookfield Avenue, Salt Creek	0.155	0.181	0.150	0.188	0.183	0.210	0.262	0.195	0.198	0.247	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.179	0.196
77 Elmhurst Road, Higgins Creek	0.080	0.000	0.055	0.110	0.089	0.083	0.081	0.084	0.063	0.074	0.116
78 Wille Road, Higgins Creek	0.224	0.202	0.193	0.245	0.260	0.289	0.366	0.303	0.282	0.335	0.377
12 Lake-Cook Road, Buffalo Creek	0.081	0.073	0.091	0.100	0.088	0.107	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.114	0.141	0.117	0.157	0.155	0.181	0.221	0.191	0.192	0.189	0.167
17 Oakton Street, Des Plaines River	0.113	0.141	0.101	0.144	0.137	0.155	0.215	0.167	0.186	0.191	0.158
19 Belmont Avenue, Des Plaines River	0.125	0.149	0.112	0.154	0.154	0.170	0.236	0.181	0.209	0.207	0.178
20 Roosevelt Road, Des Plaines River	0.126	0.155	0.107	0.168	0.151	0.172	0.237	0.182	0.207	0.218	0.169
22 Ogden Avenue, Des Plaines River	0.130	0.151	0.121	0.169	0.155	0.183	0.236	0.194	0.211	0.214	0.169
23 Willow Springs Road, Des Plaines River	0.129	0.155	0.116	0.170	0.161	0.185	0.243	0.182	0.176	0.219	0.172
29 Stephen Street, Des Plaines River	0.120	0.145	0.110	0.160	0.167	0.192	0.243	0.177	0.195	0.204	0.172
91 Material Service Road, Des Plaines River	0.124	0.148	0.116	0.162	0.173	0.198	0.249	0.179	0.217	0.213	0.165

ND = No Data.

TABLE AII-92: TOTAL CADMIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.001	0.001
103 Golf Road, West Fork North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.004
104 Glenview Road, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
32 Lake-Cook Road, Skokie River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001
105 Frontage Road, Skokie River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
34 Dempster Street, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001
96 Albany Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
35 Central Street, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
102 Oakton Street, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
101 Foster Avenue, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
37 Wilson Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
73 Diversey Parkway, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
46 Grand Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
74 Lake Shore Drive, Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.000
100 Wells Street, Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.001
108 Loomis Street, South Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.001
99 Archer Avenue, South Fork South Branch Chicago River	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.001
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000
42 Route 83, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001
48 Stephen Street, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.000
55 130th Street, Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001
56 Indiana Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.002
76 Halsted Street, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	0.000
52 Wentworth Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
54 Joe Orr Road, Thorn Creek	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.002	0.001
97 170th Street, Thorn Creek	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.001
57 Ashland Avenue, Little Calumet River	0.001	0.000	0.000	0.001	0.001	0.001	0.000	0.001	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
43 Route 83, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001
111 Arlington Drive, West Branch Du Page River	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001
80 Arlington Heights Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001
18 Devon Avenue, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
24 Wolf Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.004
77 Elmhurst Road, Higgins Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.002	0.001
78 Wille Road, Higgins Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
12 Lake-Cook Road, Buffalo Creek	0.001	0.002	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.001
17 Oakton Street, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
19 Belmont Avenue, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
20 Roosevelt Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001
22 Ogden Avenue, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001
23 Willow Springs Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001
29 Stephen Street, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001
91 Material Service Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001

ND = No Data.

TABLE AII-93: TOTAL COPPER MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.020	0.004	0.003	0.005	0.006	0.012	0.028	0.025	0.020	0.023	0.027
103 Golf Road, West Fork North Branch Chicago River	0.020	0.000	0.001	0.000	0.002	0.004	0.017	0.013	0.015	0.024	0.021
31 Lake-Cook Road, Middle Fork North Branch	0.020	0.000	0.000	0.000	0.001	0.005	0.021	0.012	0.013	0.022	0.022
104 Glenview Road, North Branch Chicago River	0.021	0.000	0.001	0.000	0.002	0.005	0.016	0.013	0.013	0.020	0.018
32 Lake-Cook Road, Skokie River	0.021	0.000	0.001	0.000	0.001	0.006	0.017	0.012	0.011	0.019	0.020
105 Frontage Road, Skokie River	0.020	0.000	0.000	0.000	0.002	0.003	0.018	0.014	0.018	0.020	0.017
34 Dempster Street, North Branch Chicago River	0.020	0.000	0.000	0.000	0.002	0.004	0.018	0.013	0.015	0.021	0.020
96 Albany Avenue, North Branch Chicago River	0.020	0.001	0.000	0.000	0.002	0.004	0.017	0.016	0.016	0.022	0.021
35 Central Street, North Shore Channel	0.020	0.000	0.000	0.000	0.000	0.001	0.014	0.011	0.012	0.023	0.016
102 Oakton Street, North Shore Channel	0.020	0.001	0.000	0.000	0.001	0.003	0.013	0.012	0.014	0.021	0.016
36 Touhy Avenue, North Shore Channel	0.020	0.000	0.000	0.000	0.002	0.004	0.017	0.012	0.015	0.024	0.018
101 Foster Avenue, North Shore Channel	0.020	0.000	0.000	0.000	0.003	0.003	0.016	0.014	0.013	0.023	0.014
37 Wilson Avenue, North Branch Chicago River	0.020	0.000	0.000	0.000	0.002	0.003	0.016	0.013	0.015	0.023	0.019
73 Diversey Parkway, North Branch Chicago River	0.020	0.000	0.001	0.000	0.002	0.003	0.017	0.011	0.015	0.022	0.021
46 Grand Avenue, North Branch Chicago River	0.020	0.003	0.000	0.000	0.003	0.004	0.017	0.015	0.017	0.022	0.017
74 Lake Shore Drive, Chicago River	0.020	0.000	0.000	0.000	0.003	0.002	0.015	0.013	0.014	0.013	0.015
100 Wells Street, Chicago River	0.020	0.001	0.000	0.000	0.004	0.004	0.016	0.015	0.015	0.019	0.015
39 Madison Street, South Branch Chicago River	0.020	0.000	0.000	0.000	0.005	0.004	0.017	0.015	0.015	0.020	0.016
108 Loomis Street, South Branch Chicago River	0.020	0.000	0.000	0.001	0.007	0.005	0.018	0.018	0.016	0.020	0.017
99 Archer Avenue, South Fork South Branch Chicago River	0.020	0.000	0.000	0.000	0.003	0.004	0.015	0.014	0.016	0.017	0.015
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.001	0.005	0.006	0.018	0.015	0.017	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.021	0.027
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.005	0.005	0.019	0.015	0.015	0.020	0.020
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.003	0.003	0.013	0.012	0.013	0.016	0.014
42 Route 83, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.001	0.005	0.002	0.015	0.016	0.014	0.017	0.017
48 Stephen Street, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.001	0.004	0.002	0.015	0.020	0.015	0.017	0.015
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.001	0.002	0.003	0.016	0.013	0.014	0.020	0.016
Calumet River System											
49 Ewing Avenue, Calumet River	0.020	0.000	0.000	0.000	0.001	0.004	0.013	0.010	0.011	0.015	0.015
50 Burnham Avenue, Wolf Lake	0.020	0.000	0.000	0.000	0.000	0.002	0.014	0.011	0.013	0.013	0.018
55 130th Street, Calumet River	0.020	0.000	0.000	0.000	0.001	0.006	0.013	0.013	0.012	0.015	0.017
86 Burnham Avenue, Grand Calumet River	0.020	0.001	0.000	0.000	0.004	0.006	0.038	0.016	0.017	0.020	0.022
56 Indiana Avenue, Little Calumet River	0.020	0.000	0.002	0.000	0.005	0.004	0.015	0.013	0.013	0.020	0.014
76 Halsted Street, Little Calumet River	0.020	0.000	0.028	0.001	0.001	0.002	0.015	0.010	0.010	0.016	0.017
52 Wentworth Avenue, Little Calumet River	0.020	0.001	0.000	0.000	0.002	0.003	0.015	0.015	0.012	0.019	0.019
54 Joe Orr Road, Thorn Creek	0.020	0.000	0.000	0.000	0.000	0.001	0.020	0.014	0.008	0.013	0.017
97 170th Street, Thorn Creek	0.020	0.001	0.000	0.000	0.003	0.002	0.017	0.016	0.014	0.016	0.018
57 Ashland Avenue, Little Calumet River	0.020	0.001	0.007	0.000	0.004	0.002	0.019	0.014	0.010	0.017	0.021
58 Ashland Avenue, Calumet-Sag Channel	0.020	0.000	0.013	0.000	0.001	0.002	0.020	0.011	0.011	0.017	0.017
59 Cicero Avenue, Calumet-Sag Channel	0.020	0.000	0.000	0.000	0.001	0.002	0.014	0.011	0.011	0.016	0.018
43 Route 83, Calumet-Sag Channel	0.020	0.000	0.000	0.000	0.001	0.002	0.014	0.012	0.013	0.018	0.019
Des Plaines River System											
90 Route 19, Poplar Creek	0.020	0.000	0.000	0.000	0.001	0.001	0.015	0.009	0.012	0.016	0.014
110 Springinsguth Road, West Branch DuPage River	0.020	0.000	0.000	0.000	0.002	0.001	0.017	0.012	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.020	0.002	0.003	0.003	0.006	0.007	0.021	0.018	0.018	0.023	0.020
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.005	0.006	0.022	0.016	0.019	0.021	0.019
111 Arlington Drive, West Branch Du Page River	0.020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.020	0.000	0.000	0.000	0.002	0.001	0.017	0.011	0.014	0.021	0.014
80 Arlington Heights Road, Salt Creek	0.020	0.000	0.000	0.000	0.002	0.003	0.018	0.013	0.017	0.018	0.021
18 Devon Avenue, Salt Creek	0.020	0.000	0.001	0.000	0.002	0.003	0.021	0.012	0.016	0.019	0.016
24 Wolf Road, Salt Creek	0.020	0.001	0.000	0.001	0.005	0.006	0.020	0.013	0.017	0.020	0.018
109 Brookfield Avenue, Salt Creek	0.020	0.003	0.001	0.001	0.005	0.007	0.020	0.014	0.022	0.024	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.016	0.022
77 Elmhurst Road, Higgins Creek	0.020	0.000	0.000	0.003	0.005	0.006	0.016	0.017	0.018	0.019	0.017
78 Wille Road, Higgins Creek	0.020	0.000	0.000	0.001	0.001	0.001	0.017	0.012	0.014	0.018	0.016
12 Lake-Cook Road, Buffalo Creek	0.020	0.000	0.000	0.000	0.002	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.020	0.000	0.000	0.000	0.001	0.002	0.017	0.013	0.016	0.019	0.015
17 Oakton Street, Des Plaines River	0.020	0.000	0.000	0.000	0.002	0.002	0.016	0.012	0.015	0.018	0.014
19 Belmont Avenue, Des Plaines River	0.020	0.000	0.000	0.001	0.002	0.003	0.019	0.014	0.016	0.021	0.017
20 Roosevelt Road, Des Plaines River	0.020	0.001	0.000	0.001	0.003	0.003	0.017	0.011	0.017	0.022	0.015
22 Ogden Avenue, Des Plaines River	0.020	0.000	0.000	0.000	0.004	0.004	0.020	0.012	0.017	0.020	0.019
23 Willow Springs Road, Des Plaines River	0.020	0.000	0.000	0.000	0.003	0.004	0.021	0.012	0.015	0.023	0.017
29 Stephen Street, Des Plaines River	0.026	0.001	0.000	0.000	0.003	0.004	0.019	0.011	0.016	0.022	0.017
91 Material Service Road, Des Plaines River	0.021	0.000	0.000	0.000	0.003	0.003	0.017	0.014	0.015	0.019	0.019

ND = No Data.

TABLE AII-94: TOTAL CHROMIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.010	0.001	0.002	0.002	0.003	0.004	0.000	0.001	0.003	0.006	0.005
103 Golf Road, West Fork North Branch Chicago River	0.010	0.001	0.002	0.001	0.002	0.002	0.000	0.000	0.001	0.007	0.006
31 Lake-Cook Road, Middle Fork North Branch	0.010	0.000	0.001	0.001	0.002	0.003	0.000	0.000	0.001	0.006	0.004
104 Glenview Road, North Branch Chicago River	0.010	0.000	0.002	0.001	0.001	0.003	0.000	0.001	0.000	0.005	0.003
32 Lake-Cook Road, Skokie River	0.010	0.001	0.001	0.001	0.001	0.003	0.000	0.000	0.000	0.001	0.005
105 Frontage Road, Skokie River	0.010	0.001	0.000	0.000	0.001	0.001	0.000	0.001	0.002	0.003	0.001
34 Dempster Street, North Branch Chicago River	0.010	0.000	0.002	0.001	0.002	0.002	0.000	0.000	0.001	0.007	0.003
96 Albany Avenue, North Branch Chicago River	0.010	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.004
35 Central Street, North Shore Channel	0.010	0.000	0.000	0.000	0.001	0.001	0.002	0.000	0.000	0.008	0.003
102 Oakton Street, North Shore Channel	0.010	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.002	0.003	0.004
36 Touhy Avenue, North Shore Channel	0.010	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.005	0.002
101 Foster Avenue, North Shore Channel	0.010	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.001	0.003	0.001
37 Wilson Avenue, North Branch Chicago River	0.010	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.001	0.006	0.003
73 Diversey Parkway, North Branch Chicago River	0.020	0.000	0.001	0.000	0.001	0.001	0.000	0.000	0.002	0.004	0.004
46 Grand Avenue, North Branch Chicago River	0.010	0.000	0.002	0.003	0.003	0.002	0.000	0.001	0.003	0.005	0.002
74 Lake Shore Drive, Chicago River	0.010	0.000	0.000	0.001	0.002	0.001	0.000	0.000	0.001	0.003	0.002
100 Wells Street, Chicago River	0.010	0.000	0.000	0.001	0.003	0.001	0.000	0.000	0.001	0.004	0.005
39 Madison Street, South Branch Chicago River	0.010	0.001	0.001	0.002	0.004	0.001	0.000	0.001	0.002	0.005	0.003
108 Loomis Street, South Branch Chicago River	0.010	0.001	0.001	0.004	0.004	0.002	0.000	0.001	0.002	0.005	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.010	0.000	0.001	0.002	0.002	0.001	0.000	0.000	0.002	0.008	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.010	0.001	0.002	0.004	0.003	0.002	0.000	0.001	0.003	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.004
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.010	0.001	0.003	0.005	0.003	0.002	0.001	0.001	0.003	0.006	0.003
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.010	0.000	0.002	0.008	0.003	0.002	0.000	0.001	0.003	0.004	0.005
42 Route 83, Chicago Sanitary & Ship Canal	0.045	0.001	0.002	0.002	0.004	0.002	0.000	0.003	0.004	0.005	0.002
48 Stephen Street, Chicago Sanitary & Ship Canal	0.022	0.001	0.003	0.002	0.004	0.002	0.002	0.002	0.004	0.004	0.005
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.010	0.001	0.003	0.003	0.002	0.002	0.001	0.002	0.003	0.007	0.004
Calumet River System											
49 Ewing Avenue, Calumet River	0.010	0.001	0.000	0.001	0.002	0.001	0.000	0.000	0.000	0.002	0.002
50 Burnham Avenue, Wolf Lake	0.010	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.004	0.002
55 130th Street, Calumet River	0.010	0.000	0.001	0.000	0.001	0.002	0.000	0.000	0.000	0.003	0.000
86 Burnham Avenue, Grand Calumet River	0.010	0.000	0.002	0.001	0.003	0.003	0.009	0.002	0.004	0.003	0.006
56 Indiana Avenue, Little Calumet River	0.010	0.000	0.004	0.002	0.003	0.002	0.000	0.000	0.001	0.006	0.002
76 Halsted Street, Little Calumet River	0.010	0.000	0.001	0.002	0.002	0.002	0.000	0.001	0.001	0.001	0.004
52 Wentworth Avenue, Little Calumet River	0.010	0.003	0.003	0.001	0.002	0.002	0.001	0.001	0.001	0.007	0.003
54 Joe Orr Road, Thorn Creek	0.010	0.001	0.001	0.000	0.001	0.001	0.004	0.000	0.003	0.005	0.002
97 170th Street, Thorn Creek	0.010	0.002	0.001	0.001	0.002	0.002	0.001	0.002	0.003	0.005	0.008
57 Ashland Avenue, Little Calumet River	0.010	0.002	0.003	0.001	0.004	0.002	0.002	0.002	0.002	0.007	0.003
58 Ashland Avenue, Calumet-Sag Channel	0.010	0.001	0.001	0.002	0.003	0.001	0.000	0.001	0.002	0.006	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.010	0.001	0.001	0.003	0.002	0.002	0.000	0.002	0.003	0.005	0.005
43 Route 83, Calumet-Sag Channel	0.010	0.000	0.001	0.001	0.002	0.002	0.000	0.000	0.004	0.005	0.004
Des Plaines River System											
90 Route 19, Poplar Creek	0.010	0.002	0.001	0.003	0.001	0.001	0.000	0.000	0.001	0.003	0.005
110 Springinsguth Road, West Branch DuPage River	0.010	0.000	0.001	0.002	0.001	0.001	0.000	0.001	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.012	0.002	0.002	0.003	0.001	0.001	0.000	0.000	0.001	0.002	0.004
64 Lake Street, West Branch DuPage River	ND	0.001	0.001	0.002	0.002	0.002	0.000	0.000	0.001	0.003	0.005
111 Arlington Drive, West Branch Du Page River	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.010	0.001	0.001	0.001	0.002	0.002	0.001	0.000	0.003	0.009	0.005
80 Arlington Heights Road, Salt Creek	0.010	0.000	0.002	0.000	0.001	0.001	0.000	0.000	0.000	0.003	0.005
18 Devon Avenue, Salt Creek	0.010	0.000	0.002	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.002
24 Wolf Road, Salt Creek	0.010	0.001	0.002	0.001	0.002	0.003	0.001	0.000	0.004	0.007	0.006
109 Brookfield Avenue, Salt Creek	0.010	0.001	0.001	0.002	0.002	0.007	0.003	0.003	0.003	0.007	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.006
77 Elmhurst Road, Higgins Creek	0.010	0.000	0.002	0.004	0.003	0.003	0.000	0.000	0.003	0.004	0.001
78 Wille Road, Higgins Creek	0.010	0.000	0.001	0.001	0.001	0.001	0.000	0.001	0.002	0.004	0.004
12 Lake-Cook Road, Buffalo Creek	0.010	0.002	0.004	0.001	0.002	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.010	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.003
17 Oakton Street, Des Plaines River	0.010	0.000	0.002	0.001	0.001	0.001	0.000	0.000	0.003	0.004	0.005
19 Belmont Avenue, Des Plaines River	0.013	0.001	0.006	0.002	0.002	0.002	0.013	0.000	0.031	0.002	0.005
20 Roosevelt Road, Des Plaines River	0.010	0.002	0.002	0.002	0.002	0.002	0.004	0.000	0.018	0.004	0.005
22 Ogden Avenue, Des Plaines River	0.010	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.003	0.004	0.005
23 Willow Springs Road, Des Plaines River	0.010	0.013	0.002	0.002	0.002	0.003	0.005	0.001	0.004	0.002	0.005
29 Stephen Street, Des Plaines River	0.010	0.001	0.002	0.001	0.002	0.004	0.003	0.001	0.003	0.001	0.005
91 Material Service Road, Des Plaines River	0.010	0.001	0.001	0.003	0.002	0.002	0.002	0.001	0.003	0.004	0.005

ND = No Data.

**TABLE AII-95: TOTAL HEXAVALENT CHROMIUM MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	10.000	0.000	0.000	0.000	0.500	1.800	3.500	0.000	2.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	10.000	0.000	0.000	0.000	0.727	0.500	1.400	0.500	0.375	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	10.000	0.000	0.000	0.000	0.000	0.182	1.300	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	10.000	0.000	0.000	0.000	0.364	0.667	1.500	0.167	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	10.000	0.000	0.000	0.000	0.600	0.333	0.909	0.000	0.556	0.000	0.000
105 Frontage Road, Skokie River	10.000	0.000	0.000	0.000	0.364	0.750	1.250	0.000	0.500	0.000	0.000
34 Dempster Street, North Branch Chicago River	10.000	0.000	0.000	0.000	0.545	1.000	1.909	0.167	0.455	0.000	0.000
96 Albany Avenue, North Branch Chicago River	10.000	0.000	0.000	0.000	0.636	0.333	1.273	0.364	0.400	0.000	0.000
35 Central Street, North Shore Channel	10.000	0.000	0.000	0.000	0.333	0.889	1.750	0.000	0.444	0.000	0.000
102 Oakton Street, North Shore Channel	10.000	0.000	0.000	0.000	0.583	0.333	1.750	0.167	0.300	0.000	0.000
36 Touhy Avenue, North Shore Channel	10.000	0.000	0.000	0.000	1.083	0.500	1.333	0.583	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	10.000	0.000	0.000	0.000	0.583	0.667	1.846	0.417	0.500	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	10.000	0.000	0.000	0.000	0.167	0.667	1.833	0.333	0.500	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	10.000	0.000	0.000	0.000	0.333	0.750	1.583	0.750	0.667	0.000	0.000
46 Grand Avenue, North Branch Chicago River	10.000	0.000	0.000	0.000	0.545	0.333	1.667	0.667	0.667	0.000	0.000
74 Lake Shore Drive, Chicago River	10.000	0.000	0.000	0.000	0.909	0.364	0.400	0.222	0.400	0.000	0.000
100 Wells Street, Chicago River	10.000	0.000	0.000	0.000	1.000	0.417	0.417	0.333	0.500	0.167	0.000
39 Madison Street, South Branch Chicago River	10.000	0.000	0.000	0.000	0.545	0.750	0.667	0.417	0.364	0.000	0.000
108 Loomis Street, South Branch Chicago River	10.000	0.000	0.000	0.000	0.167	0.667	0.500	0.333	0.500	0.167	0.000
99 Archer Avenue, South Fork South Branch Chicago River	10.000	0.000	0.000	0.000	0.364	0.286	0.909	0.417	0.500	0.000	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	10.000	0.000	0.000	0.000	0.583	0.500	0.833	0.333	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
75 Cicero Avenue, Chicago Sanitary & Ship Canal	10.000	0.000	0.000	1.417	1.083	0.583	0.750	0.333	0.250	0.000	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	10.000	0.000	0.000	2.909	0.333	0.500	0.667	0.333	0.667	0.000	0.000
42 Route 83, Chicago Sanitary & Ship Canal	10.000	0.000	0.000	0.000	0.182	0.667	0.818	0.333	0.167	0.000	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	10.000	0.000	0.000	0.000	0.636	0.667	0.909	0.333	0.167	0.000	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	10.000	0.000	0.000	0.000	0.540	0.627	1.442	0.404	0.442	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	10.000	0.000	0.000	0.000	0.400	0.364	0.818	0.400	0.583	0.000	0.000
50 Burnham Avenue, Wolf Lake	10.000	0.000	0.000	0.000	0.545	0.636	1.167	0.167	0.833	0.000	0.000
55 130th Street, Calumet River	10.000	0.000	0.000	0.000	0.400	0.818	1.091	0.182	1.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	10.000	0.000	0.000	0.000	0.200	0.818	1.700	0.444	0.700	0.000	0.000
56 Indiana Avenue, Little Calumet River	10.000	0.000	0.000	0.000	0.500	0.818	1.000	0.444	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	10.000	0.000	0.000	0.000	0.909	0.818	1.583	0.000	0.545	0.000	0.000
52 Wentworth Avenue, Little Calumet River	10.000	0.000	0.000	0.000	0.727	0.727	1.364	0.000	1.200	0.000	0.000
54 Joe Orr Road, Thorn Creek	10.000	0.000	0.000	0.000	0.200	0.667	2.500	0.000	0.667	0.000	0.000
97 170th Street, Thorn Creek	10.000	0.000	0.000	0.000	1.000	0.818	1.636	0.000	1.200	0.000	0.000
57 Ashland Avenue, Little Calumet River	10.000	0.000	0.000	0.000	0.364	1.091	1.545	0.200	0.300	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	10.000	0.000	0.000	0.000	0.727	0.909	1.500	0.167	0.583	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	10.000	0.000	0.000	0.000	0.273	0.727	1.583	0.167	1.273	0.000	0.000
43 Route 83, Calumet-Sag Channel	10.000	0.000	0.000	0.000	0.273	1.000	1.273	0.000	1.273	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	10.000	0.000	0.000	0.000	0.000	0.417	1.455	1.091	0.700	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	10.000	0.000	0.000	0.000	0.600	0.545	1.727	1.300	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	10.000	0.000	0.000	0.000	0.417	0.417	1.250	1.091	0.364	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.750	0.833	1.583	1.167	0.750	0.000	0.000
111 Arlington Drive, West Branch Du Page River	10.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	10.000	0.000	0.000	0.000	0.200	0.778	1.778	1.091	0.667	0.000	0.000
80 Arlington Heights Road, Salt Creek	10.000	0.000	0.000	0.000	0.167	0.167	2.250	1.000	0.500	0.000	0.000
18 Devon Avenue, Salt Creek	10.000	0.000	0.000	0.000	0.417	0.333	1.667	1.167	0.333	0.000	0.000
24 Wolf Road, Salt Creek	10.000	0.000	0.000	0.000	0.182	0.417	2.333	0.636	0.583	0.000	0.000
109 Brookfield Avenue, Salt Creek	10.000	0.000	0.000	0.000	0.182	3.500	1.917	2.364	0.900	0.000	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
77 Elmhurst Road, Higgins Creek	10.000	0.000	0.000	0.000	0.400	0.714	1.000	0.667	0.200	0.000	0.000
78 Wille Road, Higgins Creek	10.000	0.000	0.000	0.000	0.167	0.500	1.333	0.364	0.750	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	10.000	0.000	0.000	0.000	0.333	0.778	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	10.000	0.000	0.000	0.000	0.833	0.000	1.583	0.909	0.667	0.000	0.000
17 Oakton Street, Des Plaines River	10.000	0.000	0.000	0.000	0.182	0.167	1.417	1.000	0.500	0.000	0.000
19 Belmont Avenue, Des Plaines River	10.000	0.000	0.000	0.000	0.000	0.583	10.333	1.000	0.750	0.000	0.000
20 Roosevelt Road, Des Plaines River	10.000	0.000	0.000	0.000	0.364	0.417	3.833	0.636	1.143	0.000	0.000
22 Ogden Avenue, Des Plaines River	10.000	0.000	0.000	0.000	0.364	0.667	1.500	0.727	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	10.000	11.583	0.000	0.000	0.182	0.833	3.083	1.273	0.700	0.000	0.000
29 Stephen Street, Des Plaines River	10.000	0.000	0.000	0.000	0.000	0.750	1.500	0.727	0.909	0.000	0.000
91 Material Service Road, Des Plaines River	10.000	0.000	0.000	0.000	0.273	0.750	1.417	0.545	0.667	0.000	0.000

ND = No Data.

TABLE AII-96: TOTAL IRON MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	1.310	0.991	1.346	1.915	1.138	2.559	1.173	1.846	1.601	0.913	1.349
103 Golf Road, West Fork North Branch Chicago River	0.664	0.571	1.029	0.838	0.573	1.142	0.864	0.698	0.823	1.037	0.953
31 Lake-Cook Road, Middle Fork North Branch	0.589	0.698	0.894	1.080	0.853	1.924	0.817	0.917	0.922	0.934	1.443
104 Glenview Road, North Branch Chicago River	0.967	0.614	0.885	0.909	0.617	1.421	0.598	0.705	0.847	0.705	0.707
32 Lake-Cook Road, Skokie River	0.830	0.602	0.976	1.095	0.846	1.756	0.867	0.922	0.683	0.831	1.040
105 Frontage Road, Skokie River	0.575	0.459	0.631	0.711	0.584	0.591	0.476	0.856	0.534	0.580	0.528
34 Dempster Street, North Branch Chicago River	0.618	0.469	0.828	0.921	0.693	1.091	0.697	0.703	0.744	0.889	0.957
96 Albany Avenue, North Branch Chicago River	0.636	0.605	0.797	1.098	0.595	0.917	0.646	0.722	0.701	0.889	0.666
35 Central Street, North Shore Channel	0.225	0.174	0.278	0.300	0.209	0.322	0.329	0.297	0.256	0.355	0.357
102 Oakton Street, North Shore Channel	0.433	0.553	0.340	0.490	0.388	0.394	0.358	0.393	0.522	0.466	0.560
36 Touhy Avenue, North Shore Channel	0.200	0.134	0.173	0.198	0.158	0.180	0.209	0.241	0.171	0.310	0.284
101 Foster Avenue, North Shore Channel	0.250	0.171	0.182	0.259	0.185	0.214	0.306	0.320	0.236	0.347	0.295
37 Wilson Avenue, North Branch Chicago River	0.333	0.309	0.458	0.484	0.322	0.361	0.306	0.385	0.355	0.490	0.450
73 Diversey Parkway, North Branch Chicago River	0.500	0.274	0.478	0.459	0.373	0.401	0.319	0.384	0.509	0.560	0.538
46 Grand Avenue, North Branch Chicago River	0.375	0.320	0.546	0.479	0.552	0.506	0.386	0.637	0.466	0.594	0.531
74 Lake Shore Drive, Chicago River	0.200	0.090	0.103	0.148	0.161	0.099	0.127	0.136	0.158	0.199	0.219
100 Wells Street, Chicago River	0.275	0.126	0.182	0.292	0.172	0.178	0.171	0.180	0.222	0.248	0.347
39 Madison Street, South Branch Chicago River	0.417	0.336	0.410	0.477	0.527	0.294	0.326	0.394	0.389	0.439	0.550
108 Loomis Street, South Branch Chicago River	0.433	0.360	0.437	0.566	0.543	0.397	0.327	0.382	0.392	0.417	0.481
99 Archer Avenue, South Fork South Branch Chicago River	0.467	0.394	0.460	0.483	0.379	0.384	0.393	0.462	0.455	0.599	0.822
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.408	0.393	0.460	0.513	0.495	0.465	0.360	0.488	0.446	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.507	0.717
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.692	0.389	0.523	0.473	0.509	0.494	0.401	0.484	0.493	0.545	0.621
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.375	0.207	0.340	0.286	0.418	0.295	0.256	0.270	0.261	0.330	0.331
42 Route 83, Chicago Sanitary & Ship Canal	0.475	0.209	0.307	0.364	0.425	0.247	0.247	0.293	0.318	0.336	0.324
48 Stephen Street, Chicago Sanitary & Ship Canal	0.625	0.345	0.506	0.630	0.641	0.511	0.473	0.509	0.516	0.429	0.466
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.404	0.338	0.561	0.593	0.454	0.477	0.443	0.445	0.434	0.505	0.493
Calumet River System											
49 Ewing Avenue, Calumet River	0.383	0.067	0.173	0.210	0.355	0.308	0.202	0.293	0.249	0.268	0.429
50 Burnham Avenue, Wolf Lake	0.200	0.082	0.117	0.065	0.165	0.065	0.148	0.100	0.110	0.134	0.203
55 130th Street, Calumet River	0.270	0.103	0.183	0.234	0.339	0.479	0.257	0.244	0.330	0.345	0.437
86 Burnham Avenue, Grand Calumet River	1.210	1.404	1.010	1.108	1.567	1.217	2.100	1.194	1.315	1.335	1.111
56 Indiana Avenue, Little Calumet River	0.380	0.288	0.650	0.861	0.701	0.587	0.684	0.576	0.791	1.014	0.633
76 Halsted Street, Little Calumet River	0.282	0.222	0.381	0.698	0.390	0.380	0.321	0.382	0.330	0.449	0.511
52 Wentworth Avenue, Little Calumet River	3.360	3.213	1.980	1.189	1.842	1.676	1.388	1.469	1.350	1.973	1.504
54 Joe Orr Road, Thorn Creek	1.760	1.170	0.739	0.332	0.489	0.317	2.309	0.681	1.481	0.445	0.594
97 170th Street, Thorn Creek	3.330	2.409	1.223	0.825	1.459	1.217	1.516	1.468	1.088	0.867	1.623
57 Ashland Avenue, Little Calumet River	2.440	2.236	1.307	0.785	1.423	1.126	1.514	1.678	1.084	0.980	1.435
58 Ashland Avenue, Calumet-Sag Channel	1.282	0.906	0.606	0.549	0.757	0.461	0.548	0.543	0.787	0.616	0.639
59 Cicero Avenue, Calumet-Sag Channel	0.909	0.665	0.643	0.782	0.830	0.780	0.524	0.664	0.745	0.637	0.764
43 Route 83, Calumet-Sag Channel	0.855	0.430	0.784	0.578	0.706	0.722	0.514	0.505	0.973	0.751	0.947
Des Plaines River System											
90 Route 19, Poplar Creek	0.800	0.796	0.750	0.959	0.672	1.105	1.031	0.619	0.982	0.846	0.840
110 Springinsguth Road, West Branch DuPage River	0.800	1.005	1.387	1.469	1.348	1.222	1.425	1.342	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.358	0.446	0.334	0.607	0.363	0.333	0.383	0.423	0.608	0.432	0.477
64 Lake Street, West Branch DuPage River	ND	0.913	0.807	1.035	0.879	1.017	1.009	0.863	1.154	0.894	1.062
111 Arlington Drive, West Branch Du Page River	0.717	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.100	1.280	1.223	1.264	1.286	1.306	1.534	0.869	1.666	1.448	1.119
80 Arlington Heights Road, Salt Creek	0.391	0.298	0.538	0.333	0.447	0.397	0.344	0.420	0.345	0.343	0.511
18 Devon Avenue, Salt Creek	0.391	0.374	0.619	0.427	0.533	0.488	0.421	0.539	0.590	0.434	0.660
24 Wolf Road, Salt Creek	0.655	0.785	0.909	0.929	1.071	1.287	0.875	0.732	1.312	0.662	0.859
109 Brookfield Avenue, Salt Creek	0.645	0.716	0.934	0.908	0.941	1.371	0.903	0.701	1.580	0.605	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.583	1.204
77 Elmhurst Road, Higgins Creek	1.100	0.780	0.770	1.844	0.960	1.375	0.866	1.061	1.454	1.179	1.127
78 Wille Road, Higgins Creek	0.200	0.078	0.137	0.236	0.177	0.153	0.160	0.184	0.227	0.417	0.334
12 Lake-Cook Road, Buffalo Creek	0.800	1.391	1.227	1.054	1.261	1.086	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.582	0.682	0.976	0.788	0.863	0.920	0.892	0.757	0.964	0.829	0.992
17 Oakton Street, Des Plaines River	0.618	0.525	1.019	0.902	0.812	0.875	0.722	0.726	1.499	0.632	1.024
19 Belmont Avenue, Des Plaines River	0.609	0.681	0.971	0.975	0.883	0.892	0.682	0.673	1.145	0.680	0.887
20 Roosevelt Road, Des Plaines River	0.582	0.698	1.030	0.979	0.865	0.871	0.766	0.688	1.292	0.749	0.760
22 Ogden Avenue, Des Plaines River	0.591	0.773	1.055	0.916	1.081	1.161	0.850	0.710	1.300	0.679	0.869
23 Willow Springs Road, Des Plaines River	0.636	0.634	0.992	0.872	0.880	0.932	0.727	0.702	1.068	0.611	1.007
29 Stephen Street, Des Plaines River	0.609	0.715	1.074	0.796	0.849	0.907	0.756	0.805	1.176	0.679	1.195
91 Material Service Road, Des Plaines River	0.700	0.713	0.862	0.762	0.765	0.966	0.790	0.810	1.213	0.754	1.216

ND = No Data.

TABLE AII-97: TOTAL LEAD MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.030	0.000	0.022	0.010	0.005	0.007	0.006	0.006	0.006	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	0.030	0.000	0.012	0.004	0.005	0.006	0.005	0.007	0.004	0.002	0.010
31 Lake-Cook Road, Middle Fork North Branch	0.030	0.000	0.009	0.004	0.006	0.007	0.004	0.006	0.004	0.002	0.006
104 Glenview Road, North Branch Chicago River	0.030	0.000	0.019	0.007	0.005	0.008	0.003	0.006	0.007	0.002	0.002
32 Lake-Cook Road, Skokie River	0.030	0.000	0.011	0.006	0.007	0.007	0.003	0.008	0.004	0.002	0.001
105 Frontage Road, Skokie River	0.030	0.000	0.018	0.005	0.006	0.006	0.003	0.007	0.006	0.002	0.000
34 Dempster Street, North Branch Chicago River	0.030	0.000	0.016	0.007	0.005	0.007	0.005	0.006	0.076	0.002	0.003
96 Albany Avenue, North Branch Chicago River	0.030	0.000	0.018	0.009	0.006	0.007	0.005	0.008	0.006	0.002	0.004
35 Central Street, North Shore Channel	0.030	0.000	0.009	0.004	0.002	0.003	0.002	0.005	0.003	0.002	0.006
102 Oakton Street, North Shore Channel	0.030	0.000	0.010	0.007	0.005	0.004	0.004	0.004	0.006	0.002	0.005
36 Touhy Avenue, North Shore Channel	0.030	0.000	0.020	0.005	0.004	0.004	0.003	0.005	0.004	0.001	0.005
101 Foster Avenue, North Shore Channel	0.030	0.000	0.017	0.006	0.004	0.004	0.003	0.005	0.005	0.001	0.000
37 Wilson Avenue, North Branch Chicago River	0.030	0.000	0.016	0.007	0.005	0.005	0.003	0.006	0.031	0.001	0.000
73 Diversy Parkway, North Branch Chicago River	0.030	0.000	0.016	0.006	0.005	0.005	0.004	0.006	0.125	0.001	0.027
46 Grand Avenue, North Branch Chicago River	0.030	0.000	0.016	0.007	0.008	0.007	0.005	0.008	0.105	0.002	0.006
74 Lake Shore Drive, Chicago River	0.030	0.000	0.003	0.006	0.008	0.004	0.004	0.006	0.003	0.001	0.000
100 Wells Street, Chicago River	0.030	0.000	0.004	0.006	0.006	0.010	0.004	0.005	0.004	0.001	0.000
39 Madison Street, South Branch Chicago River	0.030	0.000	0.004	0.007	0.010	0.010	0.006	0.007	0.006	0.002	0.000
108 Loomis Street, South Branch Chicago River	0.030	0.001	0.013	0.009	0.010	0.011	0.006	0.007	0.007	0.002	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.030	0.002	0.006	0.006	0.008	0.007	0.007	0.008	0.008	0.003	0.007
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.030	0.001	0.007	0.008	0.009	0.011	0.007	0.009	0.008	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.004
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.030	0.001	0.011	0.008	0.010	0.011	0.007	0.009	0.009	0.003	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.010	0.007	0.008	0.008	0.004	0.006	0.006	0.002	0.003
42 Route 83, Chicago Sanitary & Ship Canal	0.030	0.001	0.013	0.009	0.008	0.007	0.005	0.007	0.007	0.002	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	0.030	0.000	0.013	0.007	0.009	0.008	0.007	0.009	0.008	0.002	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.030	0.000	0.013	0.008	0.006	0.007	0.006	0.007	0.007	0.003	0.002
Calumet River System											
49 Ewing Avenue, Calumet River	0.030	0.000	0.000	0.004	0.010	0.004	0.003	0.005	0.004	0.002	0.000
50 Burnham Avenue, Wolf Lake	0.030	0.000	0.002	0.004	0.007	0.003	0.004	0.003	0.004	0.002	0.000
55 130th Street, Calumet River	0.030	0.000	0.000	0.002	0.006	0.008	0.004	0.005	0.004	0.002	0.002
86 Burnham Avenue, Grand Calumet River	0.030	0.000	0.004	0.007	0.012	0.013	0.034	0.015	0.014	0.002	0.000
56 Indiana Avenue, Little Calumet River	0.030	0.002	0.000	0.005	0.027	0.006	0.006	0.006	0.007	0.003	0.003
76 Halsted Street, Little Calumet River	0.030	0.000	0.009	0.010	0.042	0.006	0.005	0.007	0.006	0.003	0.000
52 Wentworth Avenue, Little Calumet River	0.030	0.000	0.006	0.005	0.005	0.006	0.005	0.007	0.005	0.003	0.005
54 Joe Orr Road, Thorn Creek	0.031	0.000	0.004	0.002	0.004	0.004	0.016	0.005	0.005	0.000	0.003
97 170th Street, Thorn Creek	0.030	0.000	0.004	0.004	0.007	0.006	0.007	0.010	0.006	0.003	0.000
57 Ashland Avenue, Little Calumet River	0.030	0.002	0.002	0.005	0.007	0.006	0.008	0.011	0.007	0.002	0.000
58 Ashland Avenue, Calumet-Sag Channel	0.030	0.002	0.008	0.006	0.007	0.006	0.010	0.007	0.006	0.004	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.030	0.000	0.002	0.005	0.006	0.007	0.005	0.009	0.007	0.003	0.001
43 Route 83, Calumet-Sag Channel	0.030	0.001	0.003	0.004	0.006	0.008	0.008	0.007	0.009	0.004	0.068
Des Plaines River System											
90 Route 19, Poplar Creek	0.030	0.000	0.013	0.007	0.003	0.004	0.003	0.008	0.004	0.002	0.000
110 Springinguth Road, West Branch DuPage River	0.030	0.000	0.002	0.008	0.005	0.005	0.004	0.010	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.030	0.000	0.015	0.006	0.004	0.005	0.003	0.010	0.006	0.009	0.000
64 Lake Street, West Branch DuPage River	ND	0.000	0.014	0.007	0.004	0.005	0.012	0.008	0.005	0.002	0.000
111 Arlington Drive, West Branch Du Page River	0.030	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.030	0.000	0.002	0.005	0.005	0.006	0.005	0.009	0.006	0.003	0.052
80 Arlington Heights Road, Salt Creek	0.030	0.000	0.015	0.007	0.003	0.005	0.003	0.007	0.004	0.001	0.000
18 Devon Avenue, Salt Creek	0.030	0.000	0.011	0.013	0.003	0.004	0.004	0.006	0.004	0.002	0.000
24 Wolf Road, Salt Creek	0.030	0.000	0.014	0.006	0.006	0.007	0.004	0.008	0.007	0.003	0.005
109 Brookfield Avenue, Salt Creek	0.030	0.000	0.015	0.007	0.006	0.007	0.005	0.009	0.008	0.005	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.005
77 Elmhurst Road, Higgins Creek	0.030	0.000	0.000	0.006	0.009	0.008	0.004	0.011	0.008	0.002	0.000
78 Wille Road, Higgins Creek	0.030	0.000	0.016	0.007	0.004	0.004	0.004	0.007	0.004	0.003	0.002
12 Lake-Cook Road, Buffalo Creek	0.030	0.002	0.019	0.008	0.006	0.005	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.030	0.000	0.014	0.007	0.005	0.004	0.003	0.022	0.005	0.003	0.027
17 Oakton Street, Des Plaines River	0.030	0.000	0.012	0.007	0.005	0.005	0.004	0.007	0.006	0.003	0.002
19 Belmont Avenue, Des Plaines River	0.030	0.000	0.015	0.007	0.005	0.006	0.005	0.008	0.006	0.003	0.000
20 Roosevelt Road, Des Plaines River	0.030	0.000	0.014	0.007	0.005	0.007	0.005	0.008	0.005	0.002	0.002
22 Ogden Avenue, Des Plaines River	0.030	0.000	0.012	0.008	0.006	0.008	0.005	0.008	0.008	0.002	0.003
23 Willow Springs Road, Des Plaines River	0.030	0.000	0.012	0.008	0.006	0.007	0.005	0.012	0.007	0.003	0.000
29 Stephen Street, Des Plaines River	0.030	0.000	0.012	0.008	0.005	0.006	0.005	0.009	0.008	0.002	0.002
91 Material Service Road, Des Plaines River	0.030	0.000	0.014	0.007	0.007	0.007	0.005	0.009	0.008	0.002	0.007

ND = No Data.

TABLE AII-98: TOTAL NICKEL MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.008	0.002	0.000	0.000	0.003	0.003	0.003	0.003	0.004	0.005	0.006
103 Golf Road, West Fork North Branch Chicago River	0.008	0.001	0.001	0.000	0.001	0.002	0.003	0.001	0.003	0.006	0.004
31 Lake-Cook Road, Middle Fork North Branch	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.002	0.002	0.005	0.006
104 Glenview Road, North Branch Chicago River	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.003	0.001	0.004	0.003
32 Lake-Cook Road, Skokie River	0.008	0.002	0.000	0.000	0.001	0.002	0.001	0.001	0.002	0.005	0.006
105 Frontage Road, Skokie River	0.011	0.001	0.000	0.000	0.001	0.001	0.001	0.002	0.005	0.004	0.003
34 Dempster Street, North Branch Chicago River	0.008	0.000	0.000	0.000	0.002	0.002	0.002	0.001	0.003	0.004	0.004
96 Albany Avenue, North Branch Chicago River	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.004	0.003	0.005	0.003
35 Central Street, North Shore Channel	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.002	0.003
102 Oakton Street, North Shore Channel	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.001	0.003	0.005	0.004
36 Touhy Avenue, North Shore Channel	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.002	0.005	0.004	0.006
101 Foster Avenue, North Shore Channel	0.008	0.000	0.001	0.000	0.002	0.002	0.003	0.002	0.005	0.006	0.007
37 Wilson Avenue, North Branch Chicago River	0.008	0.000	0.000	0.000	0.002	0.002	0.003	0.003	0.005	0.005	0.007
73 Diversey Parkway, North Branch Chicago River	0.013	0.000	0.001	0.000	0.002	0.002	0.003	0.002	0.006	0.009	0.008
46 Grand Avenue, North Branch Chicago River	0.008	0.000	0.002	0.000	0.004	0.004	0.004	0.004	0.008	0.008	0.007
74 Lake Shore Drive, Chicago River	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.003	0.007
100 Wells Street, Chicago River	0.008	0.001	0.000	0.000	0.002	0.001	0.002	0.002	0.004	0.004	0.011
39 Madison Street, South Branch Chicago River	0.008	0.000	0.000	0.000	0.012	0.003	0.004	0.003	0.006	0.007	0.008
108 Loomis Street, South Branch Chicago River	0.008	0.000	0.000	0.000	0.004	0.003	0.004	0.003	0.006	0.007	0.004
99 Archer Avenue, South Fork South Branch Chicago River	0.008	0.000	0.000	0.000	0.003	0.003	0.004	0.003	0.005	0.006	0.005
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.008	0.000	0.000	0.000	0.003	0.003	0.004	0.003	0.007	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.006
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.008	0.000	0.000	0.000	0.003	0.003	0.004	0.003	0.007	0.006	0.005
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.008	0.001	0.000	0.000	0.004	0.005	0.006	0.005	0.005	0.008	0.005
42 Route 83, Chicago Sanitary & Ship Canal	0.027	0.001	0.000	0.000	0.006	0.005	0.006	0.007	0.008	0.009	0.006
48 Stephen Street, Chicago Sanitary & Ship Canal	0.016	0.000	0.000	0.000	0.005	0.004	0.006	0.006	0.007	0.009	0.006
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.009	0.000	0.000	0.000	0.004	0.005	0.006	0.005	0.006	0.008	0.005
Calumet River System											
49 Ewing Avenue, Calumet River	0.009	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.003
50 Burnham Avenue, Wolf Lake	0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001
55 130th Street, Calumet River	0.008	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.002	0.002	0.004
86 Burnham Avenue, Grand Calumet River	0.008	0.000	0.000	0.000	0.003	0.003	0.005	0.004	0.005	0.009	0.006
56 Indiana Avenue, Little Calumet River	0.008	0.000	0.000	0.000	0.004	0.002	0.002	0.002	0.003	0.006	0.002
76 Halsted Street, Little Calumet River	0.008	0.000	0.000	0.000	0.003	0.002	0.004	0.002	0.004	0.004	0.003
52 Wentworth Avenue, Little Calumet River	0.008	0.002	0.000	0.000	0.002	0.002	0.003	0.003	0.002	0.005	0.004
54 Joe Orr Road, Thorn Creek	0.008	0.000	0.000	0.000	0.001	0.001	0.004	0.001	0.003	0.005	0.002
97 170th Street, Thorn Creek	0.010	0.004	0.000	0.000	0.003	0.004	0.007	0.005	0.003	0.007	0.005
57 Ashland Avenue, Little Calumet River	0.008	0.000	0.000	0.000	0.004	0.003	0.005	0.004	0.004	0.010	0.005
58 Ashland Avenue, Calumet-Sag Channel	0.008	0.000	0.000	0.000	0.003	0.002	0.003	0.003	0.004	0.004	0.004
59 Cicero Avenue, Calumet-Sag Channel	0.008	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.005	0.005	0.004
43 Route 83, Calumet-Sag Channel	0.008	0.001	0.000	0.000	0.003	0.003	0.004	0.002	0.005	0.006	0.005
Des Plaines River System											
90 Route 19, Poplar Creek	0.008	0.000	0.000	0.002	0.000	0.001	0.002	0.000	0.001	0.003	0.002
110 Springinguth Road, West Branch DuPage River	0.008	0.000	0.000	0.000	0.002	0.002	0.003	0.003	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.009	0.001	0.003	0.001	0.002	0.003	0.003	0.001	0.001	0.005	0.002
64 Lake Street, West Branch DuPage River	ND	0.000	0.004	0.000	0.003	0.004	0.004	0.002	0.002	0.004	0.003
111 Arlington Drive, West Branch Du Page River	0.008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.008	0.000	0.000	0.000	0.002	0.002	0.004	0.002	0.002	0.006	0.004
80 Arlington Heights Road, Salt Creek	0.008	0.003	0.000	0.000	0.003	0.002	0.003	0.002	0.002	0.005	0.003
18 Devon Avenue, Salt Creek	0.008	0.004	0.000	0.000	0.003	0.002	0.003	0.002	0.003	0.004	0.002
24 Wolf Road, Salt Creek	0.008	0.003	0.000	0.000	0.004	0.004	0.005	0.005	0.004	0.009	0.004
109 Brookfield Avenue, Salt Creek	0.012	0.002	0.000	0.000	0.004	0.004	0.006	0.005	0.004	0.011	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.009
77 Elmhurst Road, Higgins Creek	0.008	0.000	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.005	0.004
78 Wille Road, Higgins Creek	0.008	0.004	0.000	0.002	0.007	0.007	0.014	0.006	0.005	0.009	0.008
12 Lake-Cook Road, Buffalo Creek	0.008	0.000	0.001	0.000	0.002	0.002	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.008	0.000	0.000	0.006	0.002	0.002	0.005	0.003	0.005	0.005	0.003
17 Oakton Street, Des Plaines River	0.008	0.000	0.002	0.000	0.001	0.002	0.004	0.002	0.004	0.005	0.003
19 Belmont Avenue, Des Plaines River	0.010	0.000	0.002	0.000	0.003	0.003	0.006	0.003	0.005	0.006	0.003
20 Roosevelt Road, Des Plaines River	0.008	0.000	0.000	0.000	0.002	0.003	0.006	0.003	0.004	0.007	0.003
22 Ogden Avenue, Des Plaines River	0.008	0.000	0.000	0.000	0.003	0.004	0.006	0.003	0.005	0.008	0.004
23 Willow Springs Road, Des Plaines River	0.008	0.000	0.000	0.000	0.003	0.003	0.006	0.003	0.004	0.007	0.004
29 Stephen Street, Des Plaines River	0.008	0.000	0.000	0.000	0.003	0.003	0.005	0.003	0.005	0.007	0.003
91 Material Service Road, Des Plaines River	0.008	0.000	0.500	0.000	0.003	0.003	0.005	0.004	0.005	0.007	0.004

ND = No Data.

TABLE AII-99: TOTAL MANGANESE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.082	0.094	0.080	0.089	0.075	0.087	0.083	0.097	0.097	0.067	0.110
103 Golf Road, West Fork North Branch Chicago River	0.069	0.066	0.076	0.069	0.074	0.068	0.087	0.067	0.070	0.091	0.098
31 Lake-Cook Road, Middle Fork North Branch	0.081	0.171	0.078	0.084	0.148	0.084	0.128	0.092	0.077	0.148	0.107
104 Glenview Road, North Branch Chicago River	0.081	0.072	0.087	0.073	0.062	0.072	0.080	0.060	0.062	0.060	0.078
32 Lake-Cook Road, Skokie River	0.096	0.120	0.085	0.095	0.120	0.086	0.124	0.137	0.081	0.096	0.131
105 Frontage Road, Skokie River	0.054	0.069	0.056	0.059	0.055	0.038	0.045	0.086	0.108	0.046	0.057
34 Dempster Street, North Branch Chicago River	0.081	0.069	0.067	0.072	0.068	0.064	0.072	0.065	0.112	0.083	0.098
96 Albany Avenue, North Branch Chicago River	0.069	0.058	0.060	0.085	0.068	0.060	0.059	0.062	0.072	0.057	0.068
35 Central Street, North Shore Channel	0.022	0.020	0.019	0.037	0.015	0.019	0.045	0.017	0.020	0.028	0.037
102 Oakton Street, North Shore Channel	0.035	0.041	0.024	0.032	0.021	0.024	0.021	0.025	0.031	0.026	0.036
36 Touhy Avenue, North Shore Channel	0.030	0.027	0.016	0.023	0.019	0.014	0.021	0.019	0.016	0.034	0.038
101 Foster Avenue, North Shore Channel	0.030	0.023	0.024	0.024	0.020	0.015	0.021	0.023	0.019	0.027	0.020
37 Wilson Avenue, North Branch Chicago River	0.030	0.033	0.028	0.033	0.026	0.022	0.026	0.027	0.030	0.035	0.047
73 Diversey Parkway, North Branch Chicago River	0.092	0.034	0.034	0.043	0.029	0.026	0.026	0.027	0.046	0.036	0.053
46 Grand Avenue, North Branch Chicago River	0.041	0.032	0.036	0.045	0.054	0.031	0.033	0.037	0.038	0.042	0.042
74 Lake Shore Drive, Chicago River	0.025	0.017	0.013	0.017	0.018	0.008	0.012	0.018	0.013	0.017	0.020
100 Wells Street, Chicago River	0.058	0.019	0.018	0.037	0.024	0.013	0.020	0.022	0.020	0.021	0.027
39 Madison Street, South Branch Chicago River	0.049	0.036	0.026	0.038	0.030	0.022	0.069	0.028	0.028	0.036	0.037
108 Loomis Street, South Branch Chicago River	0.118	0.036	0.032	0.048	0.042	0.027	0.036	0.028	0.027	0.035	0.050
99 Archer Avenue, South Fork South Branch Chicago River	0.044	0.034	0.046	0.049	0.033	0.026	0.038	0.034	0.032	0.048	0.062
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.039	0.034	0.030	0.045	0.032	0.029	0.031	0.029	0.035	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.041	0.070
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.040	0.033	0.029	0.037	0.034	0.029	0.029	0.029	0.032	0.040	0.045
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.037	0.039	0.034	0.029	0.031	0.031	0.019	0.019	0.017	0.036	0.030
42 Route 83, Chicago Sanitary & Ship Canal	0.038	0.024	0.022	0.027	0.023	0.020	0.021	0.022	0.029	0.039	0.029
48 Stephen Street, Chicago Sanitary & Ship Canal	0.045	0.065	0.041	0.036	0.032	0.039	0.039	0.042	0.039	0.043	0.050
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.090	0.042	0.041	0.066	0.039	0.036	0.037	0.047	0.037	0.053	0.045
Calumet River System											
49 Ewing Avenue, Calumet River	0.033	0.023	0.030	0.018	0.023	0.017	0.016	0.053	0.020	0.022	0.030
50 Burnham Avenue, Wolf Lake	0.045	0.058	0.047	0.052	0.081	0.029	0.054	0.040	0.035	0.028	0.043
55 130th Street, Calumet River	0.035	0.026	0.031	0.050	0.028	0.040	0.033	0.030	0.039	0.031	0.046
86 Burnham Avenue, Grand Calumet River	0.228	0.221	0.088	0.169	0.176	0.144	0.093	0.096	0.158	0.098	0.093
56 Indiana Avenue, Little Calumet River	0.037	0.085	0.052	0.059	0.046	0.029	0.037	0.028	0.039	0.086	0.041
76 Halsted Street, Little Calumet River	0.043	0.049	0.037	0.050	0.078	0.041	0.037	0.036	0.041	0.053	0.068
52 Wentworth Avenue, Little Calumet River	0.137	0.147	0.119	0.121	0.131	0.112	0.115	0.138	0.124	0.134	0.145
54 Joe Orr Road, Thorn Creek	0.089	0.073	0.062	0.064	0.066	0.050	0.131	0.073	0.058	0.073	0.070
97 170th Street, Thorn Creek	0.126	0.115	0.092	0.081	0.097	0.080	0.095	0.111	0.080	0.102	0.100
57 Ashland Avenue, Little Calumet River	0.109	0.108	0.116	0.085	0.114	0.087	0.123	0.128	0.109	0.104	0.126
58 Ashland Avenue, Calumet-Sag Channel	0.069	0.081	0.053	0.058	0.061	0.048	0.052	0.048	0.055	0.066	0.071
59 Cicero Avenue, Calumet-Sag Channel	0.063	0.064	0.049	0.100	0.056	0.056	0.050	0.071	0.078	0.073	0.078
43 Route 83, Calumet-Sag Channel	0.067	0.065	0.053	0.065	0.057	0.054	0.065	0.059	0.094	0.063	0.076
Des Plaines River System											
90 Route 19, Poplar Creek	0.076	0.105	0.076	0.126	0.080	0.080	0.147	0.097	0.083	0.103	0.107
110 Springinsguth Road, West Branch DuPage River	0.106	0.133	0.125	0.207	0.113	0.129	0.209	0.126	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.035	0.066	0.035	0.059	0.036	0.033	0.044	0.044	0.043	0.074	0.074
64 Lake Street, West Branch DuPage River	ND	0.101	0.099	0.075	0.073	0.065	0.087	0.071	0.076	0.069	0.092
111 Arlington Drive, West Branch Du Page River	0.061	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.120	0.112	0.104	0.119	0.110	0.089	0.138	0.124	0.096	0.134	0.124
80 Arlington Heights Road, Salt Creek	0.056	0.061	0.046	0.068	0.059	0.046	0.063	0.057	0.052	0.051	0.051
18 Devon Avenue, Salt Creek	0.052	0.079	0.056	0.071	0.057	0.048	0.053	0.052	0.054	0.052	0.055
24 Wolf Road, Salt Creek	0.055	0.061	0.061	0.065	0.065	0.061	0.059	0.055	0.069	0.066	0.077
109 Brookfield Avenue, Salt Creek	0.058	0.066	0.059	0.069	0.059	0.061	0.065	0.055	0.072	0.042	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.065	0.101
77 Elmhurst Road, Higgins Creek	0.098	0.090	0.092	0.149	0.112	0.107	0.106	0.125	0.115	0.120	0.163
78 Wille Road, Higgins Creek	0.021	0.070	0.032	0.060	0.040	0.030	0.023	0.025	0.033	0.048	0.038
12 Lake-Cook Road, Buffalo Creek	0.093	0.143	0.117	0.145	0.142	0.107	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.061	0.084	0.064	0.079	0.067	0.067	0.086	0.084	0.083	0.089	0.090
17 Oakton Street, Des Plaines River	0.065	0.064	0.068	0.084	0.065	0.062	0.080	0.067	0.093	0.089	0.102
19 Belmont Avenue, Des Plaines River	0.094	0.084	0.062	0.075	0.060	0.061	0.079	0.061	0.076	0.079	0.090
20 Roosevelt Road, Des Plaines River	0.064	0.066	0.062	0.082	0.061	0.061	0.073	0.062	0.074	0.145	0.077
22 Ogden Avenue, Des Plaines River	0.054	0.059	0.051	0.074	0.076	0.058	0.068	0.058	0.077	0.066	0.075
23 Willow Springs Road, Des Plaines River	0.063	0.058	0.055	0.068	0.050	0.054	0.064	0.075	0.062	0.062	0.083
29 Stephen Street, Des Plaines River	0.075	0.059	0.058	0.085	0.055	0.051	0.066	0.059	0.066	0.060	0.086
91 Material Service Road, Des Plaines River	0.080	0.060	0.054	0.068	0.058	0.054	0.068	0.065	0.068	0.065	0.097

ND = No Data.

TABLE AII-100: TOTAL MERCURY MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.200	0.000	0.000	0.000	0.015	0.000	0.000	0.179	0.000	0.028	0.000
103 Golf Road, West Fork North Branch Chicago River	0.200	0.000	0.000	0.000	0.000	0.015	0.039	0.080	0.016	0.045	0.013
31 Lake-Cook Road, Middle Fork North Branch	0.200	0.000	0.000	0.000	0.000	0.012	0.013	0.121	0.029	0.015	0.007
104 Glenview Road, North Branch Chicago River	0.200	0.000	0.000	0.000	0.007	0.024	0.034	0.111	0.013	0.034	0.006
32 Lake-Cook Road, Skokie River	0.200	0.000	0.000	0.000	0.005	0.022	0.029	0.113	0.019	0.040	0.005
105 Frontage Road, Skokie River	0.200	0.000	0.000	0.000	0.008	0.011	0.062	0.160	0.021	0.030	0.010
34 Dempster Street, North Branch Chicago River	0.200	0.000	0.000	0.000	0.011	0.010	0.034	0.125	0.012	0.031	0.000
96 Albany Avenue, North Branch Chicago River	0.200	0.000	0.000	0.000	0.006	0.027	0.064	0.028	0.016	0.023	0.013
35 Central Street, North Shore Channel	0.200	0.000	0.000	0.000	0.000	0.007	0.016	0.000	0.010	0.038	0.006
102 Oakton Street, North Shore Channel	0.200	0.000	0.000	0.000	0.008	0.009	0.068	0.076	0.000	0.025	0.017
36 Touhy Avenue, North Shore Channel	0.200	0.000	0.000	0.000	0.000	0.011	0.040	0.077	0.018	0.018	0.028
101 Foster Avenue, North Shore Channel	0.200	0.000	0.000	0.000	0.008	0.011	0.046	0.067	0.006	0.026	0.013
37 Wilson Avenue, North Branch Chicago River	0.200	0.000	0.000	0.000	0.000	0.024	0.041	0.095	0.017	0.024	0.018
73 Diversey Parkway, North Branch Chicago River	0.200	0.000	0.000	0.000	0.000	0.011	0.022	0.016	0.010	0.035	0.013
46 Grand Avenue, North Branch Chicago River	0.200	0.000	0.000	0.000	0.017	0.009	0.018	0.039	0.041	0.046	0.000
74 Lake Shore Drive, Chicago River	0.200	0.000	0.000	0.000	0.015	0.005	0.000	0.122	0.044	0.020	0.000
100 Wells Street, Chicago River	0.200	0.000	0.000	0.000	0.012	0.016	0.030	0.061	0.033	0.013	0.006
39 Madison Street, South Branch Chicago River	0.200	0.000	0.000	0.000	0.013	0.016	0.011	0.021	0.058	0.031	0.000
108 Loomis Street, South Branch Chicago River	0.200	0.000	0.000	0.000	0.013	0.024	0.017	0.034	0.040	0.018	0.019
99 Archer Avenue, South Fork South Branch Chicago River	0.200	0.000	0.000	0.000	0.006	0.029	0.020	0.053	0.018	0.018	0.039
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.200	0.000	0.000	0.000	0.004	0.023	0.007	0.021	0.033	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.018	0.014
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.200	0.000	0.000	0.000	0.005	0.022	0.029	0.049	0.038	0.011	0.003
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.200	0.000	0.000	0.000	0.000	0.017	0.000	0.022	0.021	0.015	0.016
42 Route 83, Chicago Sanitary & Ship Canal	0.200	0.000	0.000	0.000	0.018	0.016	0.010	0.087	0.023	0.007	0.005
48 Stephen Street, Chicago Sanitary & Ship Canal	0.200	0.000	0.000	0.000	0.005	0.018	0.016	0.093	0.031	0.008	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.200	0.000	0.000	0.000	0.010	0.015	0.017	0.079	0.045	0.026	0.013
Calumet River System											
49 Ewing Avenue, Calumet River	0.200	0.000	0.000	0.000	0.000	0.008	0.000	0.110	0.013	0.018	0.004
50 Burnham Avenue, Wolf Lake	0.200	0.000	0.000	0.000	0.010	0.015	0.005	0.020	0.038	0.021	0.009
55 130th Street, Calumet River	0.200	0.000	0.000	0.000	0.000	0.015	0.017	0.051	0.009	0.031	0.014
86 Burnham Avenue, Grand Calumet River	0.200	0.000	0.000	0.000	0.049	0.034	0.148	0.068	0.079	0.055	0.032
56 Indiana Avenue, Little Calumet River	0.200	0.000	0.000	0.000	0.000	0.018	0.019	0.000	0.027	0.034	0.021
76 Halsted Street, Little Calumet River	0.200	0.000	0.000	0.000	0.000	0.021	0.018	0.029	0.007	0.047	0.003
52 Wentworth Avenue, Little Calumet River	0.200	0.000	0.000	0.000	0.000	0.015	0.036	0.017	0.027	0.034	0.024
54 Joe Orr Road, Thorn Creek	0.200	0.000	0.000	0.000	0.000	0.018	0.033	0.000	0.053	0.044	0.004
97 170th Street, Thorn Creek	0.200	0.000	0.000	0.000	0.005	0.015	0.031	0.025	0.034	0.018	0.032
57 Ashland Avenue, Little Calumet River	0.200	0.000	0.000	0.000	0.012	0.015	0.044	0.052	0.025	0.041	0.020
58 Ashland Avenue, Calumet-Sag Channel	0.200	0.000	0.000	0.000	0.007	0.015	0.010	0.032	0.010	0.009	0.008
59 Cicero Avenue, Calumet-Sag Channel	0.200	0.000	0.000	0.000	0.000	0.018	0.019	0.050	0.007	0.021	0.013
43 Route 83, Calumet-Sag Channel	0.200	0.000	0.000	0.000	0.005	0.010	0.023	0.017	0.007	0.028	0.018
Des Plaines River System											
90 Route 19, Poplar Creek	0.200	0.000	0.000	0.000	0.019	0.008	0.045	0.051	0.016	0.028	0.027
110 Springinsguth Road, West Branch DuPage River	0.200	0.000	0.000	0.000	0.007	0.009	0.031	0.039	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.200	0.000	0.000	0.000	0.007	0.008	0.007	0.042	0.016	0.024	0.009
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.015	0.009	0.013	0.044	0.044	0.029	0.009
111 Arlington Drive, West Branch Du Page River	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.200	0.000	0.000	0.000	0.012	0.000	0.008	0.014	0.032	0.051	0.005
80 Arlington Heights Road, Salt Creek	0.200	0.000	0.000	0.000	0.000	0.013	0.023	0.025	0.041	0.030	0.009
18 Devon Avenue, Salt Creek	0.200	0.000	0.000	0.000	0.006	0.018	0.044	0.058	0.040	0.008	0.012
24 Wolf Road, Salt Creek	0.200	0.000	0.000	0.000	0.013	0.013	0.011	0.027	0.066	0.045	0.014
109 Brookfield Avenue, Salt Creek	0.200	0.000	0.000	0.000	0.005	0.013	0.000	0.075	0.035	0.023	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.009
77 Elmhurst Road, Higgins Creek	0.200	0.000	0.000	0.000	0.010	0.000	0.000	0.040	0.048	0.030	0.015
78 Wille Road, Higgins Creek	0.200	0.000	0.000	0.000	0.006	0.013	0.013	0.032	0.038	0.018	0.017
12 Lake-Cook Road, Buffalo Creek	0.200	0.000	0.000	0.000	0.007	0.010	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.200	0.000	0.000	0.000	0.006	0.020	0.014	0.035	0.021	0.023	0.016
17 Oakton Street, Des Plaines River	0.200	0.000	0.000	0.000	0.009	0.013	0.017	0.025	0.075	0.028	0.019
19 Belmont Avenue, Des Plaines River	0.200	0.000	0.000	0.000	0.000	0.014	0.000	0.037	0.053	0.041	0.000
20 Roosevelt Road, Des Plaines River	0.200	0.000	0.000	0.000	0.005	0.013	0.013	0.032	0.114	0.038	0.011
22 Ogden Avenue, Des Plaines River	0.200	0.000	0.000	0.000	0.006	0.018	0.013	0.050	0.054	0.055	0.017
23 Willow Springs Road, Des Plaines River	0.200	0.000	0.000	0.000	0.007	0.013	0.013	0.016	0.037	0.090	0.033
29 Stephen Street, Des Plaines River	0.200	0.000	0.000	0.000	0.013	0.047	0.011	0.037	0.016	0.044	0.029
91 Material Service Road, Des Plaines River	0.200	0.000	0.000	0.000	0.007	0.012	0.021	0.017	0.015	0.033	0.016

ND = No Data.

**TABLE AII-101: LOW LEVEL MERCURY MEAN HISTORY
2001 THROUGH 2011**

Sampling Station (No. Name)	Annual Means (ng/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	3.6	7.0	6.9	3.7	2.4	5.6	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	3.3	9.7	11.0	6.9	3.6	9.5	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	2.1	1.9	3.2	2.9	2.0	3.6	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	3.3	3.0	3.8	3.9	1.8	6.8	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	2.8	5.2	6.5	6.3	2.8	6.2	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	2.1	2.4	3.7	3.6	1.4	3.1	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	2.6	3.3	5.3	5.5	2.9	5.8	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	2.6	4.3	6.3	8.0	3.4	5.7	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	2.2	1.8	2.3	2.3	0.7	1.6	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	3.0	7.2	4.9	5.4	2.7	4.7	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	4.4	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	ND	ND	5.9	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	12.0	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	2.1	1.0	1.7	1.9	1.4	1.3	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	8.5	2.2	2.9	2.7	1.6	2.1	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	3.1	ND	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	ND	ND	6.1	0.0	ND	ND	ND	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	2.5	0.6	2.1	1.4	0.7	3.1	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	1.9	0.9	1.9	1.6	0.2	1.8	ND	ND	ND	ND	ND
55 130th Street, Calumet River	2.5	2.2	2.1	1.7	1.6	4.2	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	ND	ND	1.4	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
52 Wentworth Avenue, Little Calumet River	7.1	6.4	8.3	2.7	3.0	6.1	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	4.6	3.1	4.9	1.6	2.8	2.5	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	13.0	15.1	8.3	5.4	5.7	10.5	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	7.3	9.2	8.1	3.6	4.2	7.6	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	ND	ND	4.6	ND	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	2.7	1.5	2.0	1.5	2.6	2.9	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	2.7	1.4	3.3	9.8	1.4	4.2	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	3.1	5.1	3.4	3.7	1.6	4.4	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	3.0	3.3	2.6	2.3	4.0	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch Du Page River	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	4.6	3.3	3.4	2.5	1.5	4.1	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	2.5	2.5	2.5	1.6	0.5	2.3	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.2	2.1	2.7	1.4	0.9	2.2	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	4.4	4.8	4.9	3.1	2.7	6.2	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	2.5	3.9	7.3	3.9	2.5	8.6	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	4.7	5.2	5.8	4.6	2.2	7.8	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.5	0.8	2.3	1.7	0.7	2.0	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	3.9	2.3	4.0	2.1	2.1	3.3	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	3.3	1.9	2.8	1.5	1.4	3.1	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	3.3	2.4	3.5	2.2	1.7	3.6	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.0	2.8	3.4	2.7	1.8	3.9	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	3.4	3.7	4.4	2.9	2.0	4.2	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	2.8	3.7	5.5	3.3	2.5	6.9	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	2.4	3.6	5.2	3.4	2.4	5.3	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	3.0	4.2	5.1	3.3	2.1	6.4	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.4	3.9	4.9	3.0	2.6	6.2	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-102: TOTAL ZINC MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.060	0.013	0.027	0.040	0.030	0.045	0.039	0.052	0.045	0.031	0.091
103 Golf Road, West Fork North Branch Chicago River	0.060	0.006	0.012	0.014	0.022	0.026	0.028	0.032	0.028	0.046	0.047
31 Lake-Cook Road, Middle Fork North Branch	0.060	0.002	0.005	0.017	0.019	0.029	0.019	0.021	0.022	0.022	0.056
104 Glenview Road, North Branch Chicago River	0.062	0.021	0.053	0.028	0.039	0.049	0.038	0.033	0.038	0.035	0.039
32 Lake-Cook Road, Skokie River	0.065	0.007	0.009	0.021	0.021	0.036	0.027	0.021	0.024	0.029	0.049
105 Frontage Road, Skokie River	0.060	0.015	0.023	0.021	0.026	0.029	0.035	0.042	0.047	0.043	0.038
34 Dempster Street, North Branch Chicago River	0.060	0.012	0.015	0.028	0.021	0.025	0.031	0.034	0.046	0.042	0.040
96 Albany Avenue, North Branch Chicago River	0.060	0.007	0.018	0.020	0.023	0.024	0.030	0.032	0.036	0.038	0.041
35 Central Street, North Shore Channel	0.060	0.002	0.009	0.004	0.010	0.011	0.019	0.020	0.025	0.028	0.023
102 Oakton Street, North Shore Channel	0.060	0.012	0.013	0.018	0.030	0.027	0.030	0.026	0.042	0.037	0.030
36 Touhy Avenue, North Shore Channel	0.060	0.020	0.027	0.034	0.038	0.035	0.042	0.040	0.045	0.058	0.055
101 Foster Avenue, North Shore Channel	0.060	0.019	0.026	0.033	0.039	0.035	0.039	0.047	0.046	0.044	0.047
37 Wilson Avenue, North Branch Chicago River	0.060	0.018	0.025	0.028	0.036	0.032	0.039	0.042	0.043	0.042	0.055
73 Diversey Parkway, North Branch Chicago River	0.063	0.020	0.025	0.030	0.036	0.032	0.037	0.036	0.058	0.045	0.056
46 Grand Avenue, North Branch Chicago River	0.060	0.019	0.029	0.033	0.040	0.041	0.049	0.051	0.064	0.049	0.049
74 Lake Shore Drive, Chicago River	0.060	0.001	0.007	0.010	0.030	0.018	0.029	0.023	0.024	0.023	0.039
100 Wells Street, Chicago River	0.060	0.013	0.012	0.018	0.026	0.021	0.030	0.028	0.030	0.028	0.044
39 Madison Street, South Branch Chicago River	0.060	0.013	0.028	0.031	0.046	0.029	0.043	0.046	0.042	0.077	0.061
108 Loomis Street, South Branch Chicago River	0.060	0.011	0.030	0.037	0.043	0.033	0.038	0.042	0.041	0.040	0.045
99 Archer Avenue, South Fork South Branch Chicago River	0.060	0.010	0.023	0.033	0.032	0.028	0.039	0.040	0.038	0.044	0.055
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.060	0.015	0.030	0.036	0.043	0.042	0.045	0.047	0.065	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.045
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.062	0.014	0.026	0.034	0.046	0.035	0.040	0.042	0.041	0.046	0.057
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.060	0.020	0.029	0.035	0.046	0.035	0.041	0.037	0.038	0.038	0.046
42 Route 83, Chicago Sanitary & Ship Canal	0.060	0.015	0.028	0.031	0.045	0.032	0.038	0.045	0.047	0.045	0.048
48 Stephen Street, Chicago Sanitary & Ship Canal	0.060	0.015	0.028	0.033	0.045	0.033	0.044	0.056	0.047	0.046	0.052
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.060	0.016	0.029	0.035	0.038	0.038	0.049	0.047	0.049	0.050	0.049
Calumet River System											
49 Ewing Avenue, Calumet River	0.060	0.000	0.008	0.016	0.021	0.016	0.014	0.019	0.018	0.021	0.030
50 Burnham Avenue, Wolf Lake	0.060	0.003	0.009	0.007	0.047	0.008	0.015	0.016	0.019	0.013	0.026
55 130th Street, Calumet River	0.060	0.004	0.005	0.008	0.019	0.053	0.022	0.026	0.022	0.025	0.044
86 Burnham Avenue, Grand Calumet River	0.060	0.021	0.049	0.039	0.053	0.055	0.154	0.062	0.081	0.087	0.075
56 Indiana Avenue, Little Calumet River	0.060	0.007	0.015	0.025	0.033	0.021	0.030	0.032	0.034	0.051	0.034
76 Halsted Street, Little Calumet River	0.073	0.016	0.032	0.059	0.053	0.041	0.051	0.052	0.050	0.065	0.066
52 Wentworth Avenue, Little Calumet River	0.060	0.014	0.027	0.022	0.026	0.027	0.035	0.047	0.036	0.064	0.046
54 Joe Orr Road, Thorn Creek	0.063	0.027	0.042	0.046	0.050	0.050	0.103	0.059	0.040	0.054	0.065
97 170th Street, Thorn Creek	0.066	0.025	0.029	0.031	0.038	0.031	0.046	0.060	0.048	0.054	0.050
57 Ashland Avenue, Little Calumet River	0.060	0.018	0.033	0.027	0.035	0.027	0.059	0.052	0.050	0.041	0.052
58 Ashland Avenue, Calumet-Sag Channel	0.062	0.015	0.033	0.059	0.048	0.040	0.069	0.060	0.055	0.055	0.066
59 Cicero Avenue, Calumet-Sag Channel	0.064	0.012	0.024	0.038	0.032	0.037	0.044	0.055	0.049	0.053	0.060
43 Route 83, Calumet-Sag Channel	0.060	0.010	0.026	0.030	0.035	0.034	0.055	0.046	0.055	0.051	0.064
Des Plaines River System											
90 Route 19, Poplar Creek	0.060	0.002	0.003	0.014	0.013	0.014	0.035	0.017	0.033	0.027	0.024
110 Springinsguth Road, West Branch DuPage River	0.060	0.000	0.018	0.029	0.036	0.023	0.035	0.031	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.060	0.030	0.038	0.045	0.042	0.039	0.051	0.062	0.053	0.069	0.061
64 Lake Street, West Branch DuPage River	ND	0.032	0.035	0.038	0.034	0.044	0.051	0.048	0.051	0.045	0.066
111 Arlington Drive, West Branch Du Page River	0.060	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.060	0.004	0.008	0.010	0.020	0.015	0.028	0.022	0.029	0.023	0.027
80 Arlington Heights Road, Salt Creek	0.060	0.011	0.023	0.019	0.036	0.025	0.039	0.078	0.036	0.031	0.039
18 Devon Avenue, Salt Creek	0.060	0.011	0.023	0.020	0.024	0.024	0.042	0.034	0.036	0.035	0.035
24 Wolf Road, Salt Creek	0.060	0.016	0.030	0.035	0.034	0.040	0.049	0.050	0.051	0.061	0.054
109 Brookfield Avenue, Salt Creek	0.060	0.016	0.028	0.032	0.032	0.040	0.050	0.040	0.049	0.045	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.059
77 Elmhurst Road, Higgins Creek	0.060	0.020	0.021	0.051	0.035	0.042	0.041	0.053	0.050	0.040	0.041
78 Wille Road, Higgins Creek	0.060	0.026	0.036	0.050	0.047	0.049	0.076	0.066	0.066	0.075	0.062
12 Lake-Cook Road, Buffalo Creek	0.060	0.014	0.017	0.016	0.019	0.017	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.060	0.007	0.019	0.032	0.025	0.024	0.036	0.034	0.043	0.039	0.036
17 Oakton Street, Des Plaines River	0.060	0.003	0.016	0.019	0.023	0.024	0.037	0.032	0.048	0.038	0.037
19 Belmont Avenue, Des Plaines River	0.061	0.012	0.020	0.028	0.029	0.033	0.054	0.040	0.060	0.044	0.041
20 Roosevelt Road, Des Plaines River	0.060	0.015	0.023	0.033	0.031	0.034	0.046	0.037	0.059	0.047	0.038
22 Ogden Avenue, Des Plaines River	0.060	0.017	0.021	0.036	0.037	0.037	0.046	0.036	0.055	0.043	0.050
23 Willow Springs Road, Des Plaines River	0.060	0.010	0.020	0.028	0.028	0.034	0.043	0.037	0.045	0.037	0.048
29 Stephen Street, Des Plaines River	0.060	0.015	0.021	0.027	0.033	0.033	0.042	0.035	0.048	0.041	0.047
91 Material Service Road, Des Plaines River	0.060	0.014	0.020	0.027	0.027	0.033	0.040	0.039	0.052	0.037	0.049

ND = No Data.

TABLE AII-103: TOTAL SELENIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.006	0.000	0.011	0.000	0.000	0.003	0.007	0.010	0.003	0.010	0.000
103 Golf Road, West Fork North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.001	0.006	0.015	0.003	0.007	0.006
31 Lake-Cook Road, Middle Fork North Branch	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.014	0.005	0.005
104 Glenview Road, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.001	0.004	0.011	0.002	0.003	0.000
32 Lake-Cook Road, Skokie River	0.005	0.000	0.000	0.000	0.000	0.001	0.005	0.012	0.005	0.009	0.002
105 Frontage Road, Skokie River	0.005	0.000	0.000	0.000	0.000	0.001	0.006	0.012	0.006	0.002	0.002
34 Dempster Street, North Branch Chicago River	0.006	0.000	0.000	0.000	0.000	0.001	0.006	0.012	0.008	0.010	0.000
96 Albany Avenue, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.001	0.004	0.009	0.006	0.006	0.004
35 Central Street, North Shore Channel	0.006	0.000	0.013	0.000	0.000	0.000	0.007	0.008	0.003	0.008	0.007
102 Oakton Street, North Shore Channel	0.005	0.000	0.012	0.000	0.000	0.002	0.004	0.011	0.004	0.002	0.000
36 Touhy Avenue, North Shore Channel	0.005	0.000	0.000	0.000	0.000	0.001	0.008	0.010	0.008	0.008	0.002
101 Foster Avenue, North Shore Channel	0.005	0.000	0.000	0.000	0.000	0.001	0.006	0.010	0.006	0.013	0.004
37 Wilson Avenue, North Branch Chicago River	0.006	0.000	0.000	0.000	0.000	0.001	0.007	0.011	0.006	0.017	0.007
73 Diversey Parkway, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.001	0.005	0.010	0.006	0.012	0.000
46 Grand Avenue, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.001	0.009	0.010	0.007	0.006	0.006
74 Lake Shore Drive, Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.006	0.009	0.005	0.009	0.003
100 Wells Street, Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.008	0.004	0.010	0.000
39 Madison Street, South Branch Chicago River	0.006	0.000	0.000	0.000	0.000	0.000	0.007	0.009	0.004	0.010	0.003
108 Loomis Street, South Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.007	0.004	0.010	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.006	0.009	0.005	0.010	0.002
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.008	0.005	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.008
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.010	0.008	0.004	0.010	0.007
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.010	0.004	0.006	0.004
42 Route 83, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.008	0.004	0.008	0.005
48 Stephen Street, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.008	0.005	0.009	0.007
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.005	0.000	0.004	0.000	0.000	0.000	0.007	0.011	0.005	0.007	0.009
Calumet River System											
49 Ewing Avenue, Calumet River	0.005	0.000	0.014	0.000	0.000	0.000	0.004	0.008	0.005	0.005	0.003
50 Burnham Avenue, Wolf Lake	0.005	0.000	0.000	0.000	0.000	0.000	0.004	0.007	0.003	0.004	0.003
55 130th Street, Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.011	0.003	0.008	0.004
86 Burnham Avenue, Grand Calumet River	0.005	0.001	0.000	0.000	0.000	0.000	0.005	0.015	0.004	0.009	0.006
56 Indiana Avenue, Little Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.008	0.003	0.009	0.000
76 Halsted Street, Little Calumet River	0.006	0.000	0.010	0.000	0.000	0.000	0.006	0.011	0.007	0.006	0.008
52 Wentworth Avenue, Little Calumet River	0.005	0.000	0.013	0.000	0.000	0.000	0.004	0.012	0.003	0.012	0.008
54 Joe Orr Road, Thorn Creek	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.006	0.009	0.009	0.003
97 170th Street, Thorn Creek	0.005	0.000	0.011	0.000	0.000	0.000	0.005	0.008	0.005	0.008	0.004
57 Ashland Avenue, Little Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.012	0.004	0.007	0.007
58 Ashland Avenue, Calumet-Sag Channel	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.010	0.006	0.012	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.013	0.003	0.005	0.008
43 Route 83, Calumet-Sag Channel	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.010	0.004	0.011	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.013	0.016	0.010	0.004
110 Springinsguth Road, West Branch DuPage River	0.005	0.000	0.000	0.000	0.000	0.000	0.009	0.014	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.005	0.000	0.000	0.000	0.000	0.001	0.008	0.012	0.005	0.010	0.007
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.008	0.013	0.005	0.007	0.005
111 Arlington Drive, West Branch Du Page River	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.000	0.000	0.000	0.000	0.002	0.007	0.013	0.001	0.003	0.011
80 Arlington Heights Road, Salt Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.009	0.010	0.003	0.016	0.010
18 Devon Avenue, Salt Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.011	0.005	0.005	0.008
24 Wolf Road, Salt Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.009	0.012	0.003	0.003	0.012
109 Brookfield Avenue, Salt Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.011	0.003	0.004	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.020	0.007
77 Elmhurst Road, Higgins Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.010	0.014	0.005	0.008	0.008
78 Wille Road, Higgins Creek	0.005	0.000	0.000	0.000	0.000	0.001	0.008	0.011	0.006	0.010	0.007
12 Lake-Cook Road, Buffalo Creek	0.005	0.000	0.000	0.000	0.000	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.014	0.006	0.007	0.009
17 Oakton Street, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.006	0.011	0.004	0.010	0.003
19 Belmont Avenue, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.010	0.004	0.008	0.008
20 Roosevelt Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.013	0.002	0.006	0.007
22 Ogden Avenue, Des Plaines River	0.005	0.000	0.009	0.000	0.000	0.000	0.010	0.011	0.007	0.017	0.008
23 Willow Springs Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.010	0.004	0.006	0.005
29 Stephen Street, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.011	0.003	0.003	0.006
91 Material Service Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.002	0.010	0.013	0.005	0.003	0.005

ND = No Data.

TABLE AII-104: SOLUBLE CALCIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	76.7	75.3	65.8	68.8	70.9	57.9	65.7	81.4	53.7	73.3	70.3
103 Golf Road, West Fork North Branch Chicago River	74.9	72.4	65.2	65.8	72.2	70.4	74.0	69.0	66.0	66.2	66.1
31 Lake-Cook Road, Middle Fork North Branch	60.2	63.8	55.7	59.0	63.4	58.4	59.4	62.4	62.0	65.9	65.6
104 Glenview Road, North Branch Chicago River	59.8	65.0	59.7	63.2	61.4	58.1	55.5	62.9	65.7	63.7	63.0
32 Lake-Cook Road, Skokie River	66.8	72.2	61.4	62.6	72.8	63.1	64.0	70.5	66.4	69.8	73.8
105 Frontage Road, Skokie River	60.2	63.7	60.5	63.6	60.2	59.9	55.7	61.7	56.8	62.0	61.8
34 Dempster Street, North Branch Chicago River	63.7	71.7	59.5	61.7	62.6	62.8	61.6	65.7	61.4	63.1	61.1
96 Albany Avenue, North Branch Chicago River	67.0	65.8	62.6	65.2	64.7	64.7	63.7	64.1	62.4	64.7	63.3
35 Central Street, North Shore Channel	38.9	38.1	35.3	38.1	38.6	35.3	32.8	36.4	39.0	39.5	34.7
102 Oakton Street, North Shore Channel	48.6	48.4	46.1	45.8	47.0	45.2	42.7	44.4	46.2	47.4	39.7
36 Touhy Avenue, North Shore Channel	55.6	51.7	58.3	57.9	53.7	49.8	46.8	54.6	51.1	54.8	52.7
101 Foster Avenue, North Shore Channel	54.8	55.2	56.0	59.0	56.6	51.5	47.4	54.7	52.2	54.4	53.5
37 Wilson Avenue, North Branch Chicago River	56.8	60.0	56.4	60.1	56.8	53.4	49.6	57.6	53.8	55.8	55.6
73 Diversey Parkway, North Branch Chicago River	57.3	57.9	56.7	60.8	56.4	53.7	49.1	58.1	52.7	55.1	56.4
46 Grand Avenue, North Branch Chicago River	58.1	55.5	54.8	58.8	56.4	54.0	52.7	57.5	54.4	55.1	56.5
74 Lake Shore Drive, Chicago River	44.5	37.3	36.0	37.5	40.6	36.7	37.9	40.1	39.1	40.2	41.4
100 Wells Street, Chicago River	50.5	43.0	42.6	47.0	44.5	42.3	41.8	43.5	46.2	43.9	46.4
39 Madison Street, South Branch Chicago River	59.3	49.7	51.7	52.8	49.1	49.0	49.0	50.2	53.0	53.3	48.9
108 Loomis Street, South Branch Chicago River	54.2	51.2	52.3	53.1	49.8	50.7	51.2	50.4	51.5	52.9	48.6
99 Archer Avenue, South Fork South Branch Chicago River	54.4	54.6	50.6	56.2	49.4	49.3	48.5	50.7	49.8	50.9	48.6
40 Damen Avenue, Chicago Sanitary & Ship Canal	54.3	51.9	52.8	52.7	50.4	49.6	49.8	50.5	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	53.0	47.9
75 Cicero Avenue, Chicago Sanitary & Ship Canal	54.5	52.8	50.9	57.0	50.9	48.2	51.1	51.6	49.9	52.5	48.9
41 Harlem Avenue, Chicago Sanitary & Ship Canal	56.9	58.1	56.2	57.7	53.0	47.5	51.4	53.5	52.0	52.4	50.7
42 Route 83, Chicago Sanitary & Ship Canal	59.2	57.4	54.4	57.3	54.1	52.8	53.6	54.7	55.2	54.1	51.6
48 Stephen Street, Chicago Sanitary & Ship Canal	60.2	58.5	54.4	58.8	55.7	55.9	56.1	59.0	57.7	55.8	56.7
92 Lockport Forebay, Chicago Sanitary & Ship Canal	58.7	59.0	56.3	59.2	56.9	55.0	54.9	56.8	55.7	56.4	57.0
Calumet River System											
49 Ewing Avenue, Calumet River	35.3	34.4	34.2	34.3	35.1	32.2	34.4	35.1	35.8	36.4	35.4
50 Burnham Avenue, Wolf Lake	34.5	36.0	34.8	35.0	34.7	28.7	34.8	35.1	31.8	30.4	28.4
55 130th Street, Calumet River	41.2	41.5	41.2	41.5	45.6	38.4	40.9	40.5	41.1	42.4	43.0
86 Burnham Avenue, Grand Calumet River	75.3	78.8	80.8	91.4	86.4	92.8	64.3	77.0	83.9	75.5	69.2
56 Indiana Avenue, Little Calumet River	48.6	47.5	47.4	49.4	51.5	45.1	44.7	45.7	47.4	51.7	48.5
76 Halsted Street, Little Calumet River	62.7	61.6	61.1	65.8	63.3	58.2	60.7	60.4	59.3	60.1	63.1
52 Wentworth Avenue, Little Calumet River	61.3	65.1	71.7	88.8	74.3	80.9	70.9	82.2	90.7	87.2	70.1
54 Joe Orr Road, Thorn Creek	65.7	77.0	74.1	84.4	74.9	79.6	66.9	77.3	60.7	79.1	74.1
97 170th Street, Thorn Creek	67.8	68.6	75.3	85.3	68.0	80.8	78.0	81.3	77.4	85.8	74.7
57 Ashland Avenue, Little Calumet River	65.0	68.2	69.2	80.5	66.1	77.8	68.9	74.3	82.1	80.2	67.7
58 Ashland Avenue, Calumet-Sag Channel	62.2	59.7	59.3	65.7	59.6	61.7	63.2	61.9	62.8	63.4	62.9
59 Cicero Avenue, Calumet-Sag Channel	63.5	62.5	60.8	66.3	58.3	65.2	61.6	62.8	61.7	62.3	62.6
43 Route 83, Calumet-Sag Channel	59.0	64.9	59.3	65.4	59.4	63.0	60.7	59.9	61.1	60.8	64.0
Des Plaines River System											
90 Route 19, Poplar Creek	68.1	69.9	65.5	70.4	66.6	67.0	60.5	70.9	60.5	72.1	66.9
110 Springinguth Road, West Branch DuPage River	84.9	68.9	73.7	79.6	77.6	83.4	72.6	79.9	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	68.7	62.0	64.9	60.4	60.5	63.2	54.8	58.7	53.0	58.2	58.8
64 Lake Street, West Branch DuPage River	ND	75.0	64.0	64.7	56.5	61.2	56.7	63.0	52.7	60.3	62.1
111 Arlington Drive, West Branch Du Page River	66.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	67.8	47.1	60.4	68.4	61.9	60.6	60.1	69.8	53.0	59.0	72.1
80 Arlington Heights Road, Salt Creek	59.8	63.4	59.0	68.9	61.6	61.9	62.7	61.9	56.7	63.8	60.0
18 Devon Avenue, Salt Creek	62.4	67.5	58.2	67.4	61.5	62.0	61.9	61.9	57.2	63.5	61.8
24 Wolf Road, Salt Creek	66.2	70.4	66.4	69.0	61.9	60.7	59.7	66.4	56.9	69.6	66.2
109 Brookfield Avenue, Salt Creek	66.8	66.1	63.6	65.3	60.7	59.6	58.2	66.2	55.1	55.4	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	84.9	66.1
77 Elmhurst Road, Higgins Creek	52.3	46.1	50.2	58.8	40.9	52.5	52.2	70.0	46.3	57.1	64.0
78 Wille Road, Higgins Creek	81.8	71.9	76.9	75.0	68.0	66.7	64.0	67.1	61.2	70.5	76.1
12 Lake-Cook Road, Buffalo Creek	69.7	72.7	66.9	76.2	68.6	70.9	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	64.2	64.8	59.7	70.8	64.4	69.4	63.4	66.9	62.0	70.2	68.8
17 Oakton Street, Des Plaines River	64.7	62.9	58.9	68.2	62.6	67.1	62.6	68.1	59.4	68.7	69.1
19 Belmont Avenue, Des Plaines River	65.4	62.1	61.1	69.4	61.6	66.5	62.5	67.8	59.3	68.5	67.8
20 Roosevelt Road, Des Plaines River	64.9	61.6	59.2	69.5	60.4	65.2	60.7	67.6	54.0	69.8	68.1
22 Ogden Avenue, Des Plaines River	64.8	63.3	59.3	65.7	59.5	62.8	58.0	65.6	64.9	69.2	66.2
23 Willow Springs Road, Des Plaines River	64.7	61.9	59.5	67.3	59.4	62.1	59.2	66.9	56.2	66.9	66.6
29 Stephen Street, Des Plaines River	64.2	64.2	59.1	68.5	63.2	66.1	62.3	67.1	60.3	70.4	67.3
91 Material Service Road, Des Plaines River	63.5	66.7	60.5	67.9	62.4	67.2	61.8	67.1	62.2	70.4	64.6

ND = No Data.

TABLE AII-105: SOLUBLE MAGNESIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	31.9	30.8	27.8	29.2	28.1	23.9	27.3	33.3	21.6	31.8	34.0
103 Golf Road, West Fork North Branch Chicago River	30.0	29.2	26.3	26.0	29.2	28.7	29.9	26.5	26.0	27.8	30.8
31 Lake-Cook Road, Middle Fork North Branch	25.9	28.2	24.3	25.0	28.9	27.0	30.8	28.1	27.6	30.6	30.8
104 Glenview Road, North Branch Chicago River	25.0	28.5	25.6	26.7	26.8	25.5	25.4	26.5	28.0	27.8	29.4
32 Lake-Cook Road, Skokie River	27.8	31.5	25.5	26.0	30.9	28.3	30.2	30.0	27.9	31.0	31.5
105 Frontage Road, Skokie River	25.5	27.9	26.0	26.8	26.0	26.0	25.0	26.1	23.9	27.2	28.8
34 Dempster Street, North Branch Chicago River	26.9	29.9	24.8	25.5	27.0	26.8	27.2	26.9	24.8	27.0	27.2
96 Albany Avenue, North Branch Chicago River	28.0	27.4	26.1	26.4	27.8	27.3	27.7	26.4	25.7	27.3	28.8
35 Central Street, North Shore Channel	13.5	13.1	12.3	13.0	13.3	11.9	11.3	12.1	13.4	13.8	11.3
102 Oakton Street, North Shore Channel	17.0	17.2	16.3	15.8	16.5	15.9	15.2	15.0	15.6	16.4	14.6
36 Touhy Avenue, North Shore Channel	19.7	18.5	20.8	21.0	19.2	18.0	16.8	19.1	18.2	19.9	19.8
101 Foster Avenue, North Shore Channel	19.5	19.8	19.8	21.4	20.1	18.7	16.9	19.4	18.5	19.7	20.1
37 Wilson Avenue, North Branch Chicago River	20.9	22.7	20.7	22.4	20.9	20.1	18.2	20.9	19.4	20.9	21.7
73 Diversey Parkway, North Branch Chicago River	21.1	21.3	20.6	22.6	20.9	20.0	17.8	21.0	18.8	20.4	22.0
46 Grand Avenue, North Branch Chicago River	21.5	20.4	19.9	21.5	20.8	20.1	19.5	20.5	19.4	20.3	21.9
74 Lake Shore Drive, Chicago River	15.4	12.9	12.3	12.8	14.3	12.6	13.4	14.1	13.1	13.7	14.3
100 Wells Street, Chicago River	18.1	15.2	15.0	16.7	15.7	15.0	14.7	15.3	16.0	15.5	17.1
39 Madison Street, South Branch Chicago River	21.6	18.0	18.9	19.1	17.8	18.2	17.8	17.9	19.1	19.8	18.4
108 Loomis Street, South Branch Chicago River	19.7	18.6	19.0	19.0	18.0	18.8	18.9	18.0	18.1	19.7	17.9
99 Archer Avenue, South Fork South Branch Chicago River	19.5	19.7	17.8	20.2	17.6	18.1	17.4	18.0	17.5	18.5	17.9
40 Damen Avenue, Chicago Sanitary & Ship Canal	19.8	18.8	19.1	19.2	18.1	18.4	18.3	18.0	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.1
75 Cicero Avenue, Chicago Sanitary & Ship Canal	19.7	19.3	18.4	20.8	18.4	17.6	18.8	18.5	17.3	19.6	18.3
41 Harlem Avenue, Chicago Sanitary & Ship Canal	20.2	21.0	20.2	21.2	19.0	17.6	18.9	19.1	18.1	19.3	19.2
42 Route 83, Chicago Sanitary & Ship Canal	20.7	20.3	19.6	20.7	19.7	19.5	19.8	19.7	19.5	20.0	19.8
48 Stephen Street, Chicago Sanitary & Ship Canal	21.4	20.9	19.5	21.2	20.6	20.7	21.0	21.4	20.4	20.8	21.7
92 Lockport Forebay, Chicago Sanitary & Ship Canal	20.8	21.2	20.4	21.2	21.0	20.3	20.4	20.6	20.1	20.9	22.3
Calumet River System											
49 Ewing Avenue, Calumet River	11.8	11.7	11.3	11.4	11.7	10.5	11.5	11.6	11.9	11.8	11.4
50 Burnham Avenue, Wolf Lake	12.1	12.6	11.5	12.0	11.7	11.3	13.1	13.0	12.2	12.6	11.2
55 130th Street, Calumet River	14.2	14.5	14.0	14.0	15.7	13.0	14.2	13.9	13.7	14.5	15.0
86 Burnham Avenue, Grand Calumet River	27.3	27.1	37.1	36.8	38.6	47.6	43.0	50.1	62.4	64.5	49.4
56 Indiana Avenue, Little Calumet River	17.2	16.6	16.5	17.2	19.1	16.3	16.7	17.2	17.4	21.2	19.1
76 Halsted Street, Little Calumet River	21.8	21.3	21.2	23.0	22.3	20.7	21.7	21.1	20.1	21.5	23.4
52 Wentworth Avenue, Little Calumet River	23.8	26.3	27.4	34.6	29.7	32.0	28.6	32.1	35.3	35.5	29.5
54 Joe Orr Road, Thorn Creek	24.9	28.3	28.0	31.7	29.6	34.8	30.2	32.5	24.8	35.9	35.2
97 170th Street, Thorn Creek	28.9	28.2	29.9	34.4	27.3	35.7	35.0	35.2	33.5	42.6	36.5
57 Ashland Avenue, Little Calumet River	25.7	26.5	26.9	31.4	25.9	32.8	29.1	30.1	33.3	34.7	30.7
58 Ashland Avenue, Calumet-Sag Channel	22.6	21.6	21.4	23.4	21.5	22.4	23.2	22.3	22.8	24.2	23.9
59 Cicero Avenue, Calumet-Sag Channel	22.8	22.7	22.0	23.8	20.9	24.1	22.7	23.1	22.2	23.3	24.0
43 Route 83, Calumet-Sag Channel	21.5	23.8	21.9	23.8	21.9	23.6	22.7	22.1	22.2	23.3	24.9
Des Plaines River System											
90 Route 19, Poplar Creek	29.6	31.9	28.6	31.6	30.1	29.5	28.2	32.3	26.4	32.5	32.3
110 Springinsguth Road, West Branch DuPage River	31.2	25.2	27.2	29.3	28.5	29.9	26.7	29.4	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	26.4	23.7	25.1	23.1	23.0	23.9	20.9	21.8	18.9	22.2	23.7
64 Lake Street, West Branch DuPage River	ND	28.0	24.4	24.3	21.8	22.9	21.8	23.3	18.9	23.0	24.5
111 Arlington Drive, West Branch Du Page River	25.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	27.3	19.5	25.7	28.4	26.0	25.4	27.6	29.4	21.2	27.4	34.0
80 Arlington Heights Road, Salt Creek	22.5	24.4	22.5	26.4	24.3	24.3	25.0	23.6	21.8	25.5	24.5
18 Devon Avenue, Salt Creek	23.1	25.8	22.6	25.8	24.3	24.4	24.6	23.6	21.4	25.1	25.3
24 Wolf Road, Salt Creek	26.0	27.2	26.3	27.4	25.3	24.6	25.3	26.9	21.9	28.6	29.1
109 Brookfield Avenue, Salt Creek	26.0	26.0	25.2	26.2	24.8	24.1	24.6	26.8	21.4	22.9	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	33.6	28.7
77 Elmhurst Road, Higgins Creek	18.4	15.7	18.1	19.1	13.9	17.7	17.8	25.4	14.3	20.1	26.3
78 Wille Road, Higgins Creek	30.5	26.7	29.0	28.0	25.3	24.9	24.3	24.7	21.7	26.1	30.4
12 Lake-Cook Road, Buffalo Creek	29.8	31.6	28.7	33.3	30.2	31.8	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	28.7	29.0	26.7	31.4	29.4	31.7	28.9	30.1	27.1	32.3	32.5
17 Oakton Street, Des Plaines River	28.4	27.3	25.9	29.7	28.5	30.3	28.6	30.7	25.6	31.4	33.0
19 Belmont Avenue, Des Plaines River	28.0	26.1	26.4	29.5	27.3	29.0	27.7	30.0	23.8	30.2	31.4
20 Roosevelt Road, Des Plaines River	27.7	25.8	25.6	29.7	27.0	28.4	27.2	30.0	22.3	30.9	31.8
22 Ogden Avenue, Des Plaines River	26.9	26.3	25.1	27.6	25.8	26.7	25.6	28.5	25.3	29.9	30.2
23 Willow Springs Road, Des Plaines River	27.1	25.7	25.5	28.5	26.1	26.8	26.4	29.3	22.9	29.5	30.7
29 Stephen Street, Des Plaines River	26.6	26.7	25.1	28.8	27.8	28.4	27.6	29.2	24.6	30.2	30.5
91 Material Service Road, Des Plaines River	26.4	28.0	25.6	28.7	27.5	29.1	27.7	29.3	25.5	30.8	29.3

ND = No Data.

TABLE AII-106: SOLUBLE SILVER MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
103 Golf Road, West Fork North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
31 Lake-Cook Road, Middle Fork North Branch	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
32 Lake-Cook Road, Skokie River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
105 Frontage Road, Skokie River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000
34 Dempster Street, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
96 Albany Avenue, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
35 Central Street, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
102 Oakton Street, North Shore Channel	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
36 Touhy Avenue, North Shore Channel	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
101 Foster Avenue, North Shore Channel	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
37 Wilson Avenue, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
46 Grand Avenue, North Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
74 Lake Shore Drive, Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
100 Wells Street, Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
39 Madison Street, South Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
108 Loomis Street, South Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
42 Route 83, Chicago Sanitary & Ship Canal	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
50 Burnham Avenue, Wolf Lake	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
55 130th Street, Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
86 Burnham Avenue, Grand Calumet River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
56 Indiana Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
76 Halsted Street, Little Calumet River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
52 Wentworth Avenue, Little Calumet River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
54 Joe Orr Road, Thorn Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
97 170th Street, Thorn Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
57 Ashland Avenue, Little Calumet River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
58 Ashland Avenue, Calumet-Sag Channel	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
43 Route 83, Calumet-Sag Channel	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
110 Springinsguth Road, West Branch DuPage River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
111 Arlington Drive, West Branch Du Page River	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
80 Arlington Heights Road, Salt Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
18 Devon Avenue, Salt Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
24 Wolf Road, Salt Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
77 Elmhurst Road, Higgins Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
78 Wille Road, Higgins Creek	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
12 Lake-Cook Road, Buffalo Creek	0.002	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
19 Belmont Avenue, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
20 Roosevelt Road, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
22 Ogden Avenue, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
23 Willow Springs Road, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
29 Stephen Street, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
91 Material Service Road, Des Plaines River	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001

ND = No Data.

TABLE AII-107: SOLUBLE ARSENIC MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.004
103 Golf Road, West Fork North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.004
31 Lake-Cook Road, Middle Fork North Branch	0.020	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.002	0.002
104 Glenview Road, North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
32 Lake-Cook Road, Skokie River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002
105 Frontage Road, Skokie River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
34 Dempster Street, North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
96 Albany Avenue, North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003
35 Central Street, North Shore Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
102 Oakton Street, North Shore Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
36 Touhy Avenue, North Shore Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
101 Foster Avenue, North Shore Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004
37 Wilson Avenue, North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.002
73 Diversey Parkway, North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003
46 Grand Avenue, North Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003
74 Lake Shore Drive, Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006
100 Wells Street, Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004
39 Madison Street, South Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
108 Loomis Street, South Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.005
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002	0.000
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
42 Route 83, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003
48 Stephen Street, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
Calumet River System											
49 Ewing Avenue, Calumet River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001
50 Burnham Avenue, Wolf Lake	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002
55 130th Street, Calumet River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
86 Burnham Avenue, Grand Calumet River	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
56 Indiana Avenue, Little Calumet River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
76 Halsted Street, Little Calumet River	0.020	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.004	0.002
52 Wentworth Avenue, Little Calumet River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
54 Joe Orr Road, Thorn Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
97 170th Street, Thorn Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002
57 Ashland Avenue, Little Calumet River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.004
58 Ashland Avenue, Calumet-Sag Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.001
43 Route 83, Calumet-Sag Channel	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
110 Springinsguth Road, West Branch DuPage River	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
111 Arlington Drive, West Branch Du Page River	0.020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
80 Arlington Heights Road, Salt Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002
18 Devon Avenue, Salt Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002
24 Wolf Road, Salt Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
109 Brookfield Avenue, Salt Creek	0.020	0.000	0.000	0.000	0.000	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	0.003	0.005
77 Elmhurst Road, Higgins Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
78 Wille Road, Higgins Creek	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
12 Lake-Cook Road, Buffalo Creek	0.020	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.006
17 Oakton Street, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
19 Belmont Avenue, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003
20 Roosevelt Road, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
22 Ogden Avenue, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
23 Willow Springs Road, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
29 Stephen Street, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
91 Material Service Road, Des Plaines River	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003

ND = No Data.

TABLE AII-108: SOLUBLE BARIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.067	0.060	0.051	0.052	0.054	0.042	0.043	0.054	0.034	0.044	0.053
103 Golf Road, West Fork North Branch Chicago River	0.049	0.046	0.042	0.043	0.046	0.044	0.046	0.042	0.043	0.040	0.040
31 Lake-Cook Road, Middle Fork North Branch	0.034	0.037	0.032	0.035	0.037	0.035	0.034	0.034	0.037	0.036	0.040
104 Glenview Road, North Branch Chicago River	0.030	0.029	0.028	0.032	0.030	0.028	0.026	0.028	0.033	0.027	0.030
32 Lake-Cook Road, Skokie River	0.037	0.041	0.034	0.036	0.042	0.035	0.035	0.040	0.039	0.039	0.040
105 Frontage Road, Skokie River	0.027	0.027	0.026	0.030	0.027	0.026	0.025	0.025	0.024	0.025	0.029
34 Dempster Street, North Branch Chicago River	0.035	0.037	0.030	0.034	0.033	0.033	0.032	0.033	0.032	0.030	0.033
96 Albany Avenue, North Branch Chicago River	0.036	0.035	0.033	0.037	0.035	0.034	0.033	0.032	0.032	0.032	0.033
35 Central Street, North Shore Channel	0.022	0.022	0.019	0.022	0.022	0.020	0.019	0.020	0.021	0.022	0.021
102 Oakton Street, North Shore Channel	0.023	0.022	0.021	0.022	0.022	0.020	0.021	0.020	0.021	0.019	0.021
36 Touhy Avenue, North Shore Channel	0.024	0.020	0.024	0.024	0.022	0.019	0.018	0.019	0.017	0.019	0.019
101 Foster Avenue, North Shore Channel	0.023	0.022	0.023	0.025	0.023	0.020	0.018	0.019	0.018	0.018	0.018
37 Wilson Avenue, North Branch Chicago River	0.026	0.026	0.025	0.027	0.024	0.022	0.020	0.021	0.020	0.021	0.021
73 Diversy Parkway, North Branch Chicago River	0.025	0.024	0.024	0.027	0.023	0.021	0.019	0.021	0.019	0.020	0.022
46 Grand Avenue, North Branch Chicago River	0.025	0.022	0.023	0.026	0.023	0.021	0.020	0.020	0.019	0.019	0.021
74 Lake Shore Drive, Chicago River	0.025	0.022	0.021	0.022	0.022	0.021	0.021	0.020	0.021	0.021	0.021
100 Wells Street, Chicago River	0.024	0.022	0.023	0.024	0.022	0.021	0.020	0.020	0.020	0.021	0.022
39 Madison Street, South Branch Chicago River	0.026	0.022	0.023	0.024	0.022	0.021	0.020	0.019	0.017	0.020	0.021
108 Loomis Street, South Branch Chicago River	0.024	0.023	0.023	0.024	0.022	0.022	0.021	0.019	0.019	0.020	0.021
99 Archer Avenue, South Fork South Branch Chicago River	0.025	0.023	0.023	0.026	0.022	0.021	0.020	0.018	0.017	0.020	0.023
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.024	0.022	0.024	0.024	0.022	0.021	0.020	0.019	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.020
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.023	0.021	0.022	0.025	0.022	0.020	0.020	0.019	0.017	0.020	0.020
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.021	0.020	0.020	0.022	0.019	0.016	0.016	0.016	0.015	0.017	0.017
42 Route 83, Chicago Sanitary & Ship Canal	0.019	0.018	0.019	0.020	0.017	0.017	0.016	0.016	0.015	0.016	0.017
48 Stephen Street, Chicago Sanitary & Ship Canal	0.020	0.019	0.019	0.021	0.018	0.018	0.017	0.017	0.017	0.017	0.019
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.021	0.020	0.020	0.021	0.019	0.018	0.017	0.018	0.017	0.018	0.019
Calumet River System											
49 Ewing Avenue, Calumet River	0.022	0.021	0.020	0.021	0.020	0.019	0.020	0.020	0.019	0.021	0.022
50 Burnham Avenue, Wolf Lake	0.033	0.034	0.032	0.033	0.034	0.025	0.030	0.029	0.025	0.024	0.025
55 130th Street, Calumet River	0.029	0.027	0.028	0.029	0.030	0.026	0.027	0.027	0.024	0.029	0.031
86 Burnham Avenue, Grand Calumet River	0.025	0.025	0.023	0.025	0.022	0.019	0.016	0.016	0.018	0.017	0.017
56 Indiana Avenue, Little Calumet River	0.028	0.026	0.029	0.030	0.029	0.026	0.025	0.026	0.023	0.028	0.028
76 Halsted Street, Little Calumet River	0.022	0.018	0.021	0.021	0.021	0.017	0.018	0.018	0.016	0.018	0.022
52 Wentworth Avenue, Little Calumet River	0.028	0.030	0.030	0.034	0.029	0.033	0.028	0.033	0.034	0.032	0.031
54 Joe Orr Road, Thorn Creek	0.026	0.031	0.026	0.030	0.025	0.029	0.026	0.030	0.024	0.026	0.024
97 170th Street, Thorn Creek	0.029	0.029	0.031	0.034	0.028	0.033	0.032	0.034	0.027	0.029	0.028
57 Ashland Avenue, Little Calumet River	0.031	0.031	0.030	0.034	0.029	0.033	0.029	0.032	0.032	0.030	0.028
58 Ashland Avenue, Calumet-Sag Channel	0.023	0.022	0.022	0.022	0.022	0.019	0.020	0.020	0.018	0.020	0.021
59 Cicero Avenue, Calumet-Sag Channel	0.023	0.022	0.023	0.023	0.021	0.021	0.019	0.021	0.019	0.019	0.021
43 Route 83, Calumet-Sag Channel	0.022	0.023	0.022	0.024	0.023	0.021	0.019	0.021	0.017	0.020	0.022
Des Plaines River System											
90 Route 19, Poplar Creek	0.059	0.062	0.059	0.065	0.071	0.085	0.095	0.091	0.071	0.061	0.055
110 Springinsguth Road, West Branch DuPage River	0.045	0.042	0.040	0.046	0.043	0.049	0.044	0.046	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.033	0.027	0.028	0.028	0.027	0.027	0.022	0.022	0.024	0.024	0.024
64 Lake Street, West Branch DuPage River	ND	0.038	0.030	0.031	0.026	0.029	0.026	0.026	0.025	0.028	0.029
111 Arlington Drive, West Branch Du Page River	0.033	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.038	0.030	0.034	0.042	0.039	0.037	0.041	0.045	0.036	0.035	0.048
80 Arlington Heights Road, Salt Creek	0.028	0.027	0.024	0.028	0.024	0.028	0.028	0.024	0.027	0.024	0.025
18 Devon Avenue, Salt Creek	0.028	0.028	0.024	0.028	0.024	0.028	0.027	0.024	0.026	0.024	0.027
24 Wolf Road, Salt Creek	0.031	0.031	0.029	0.032	0.029	0.027	0.025	0.028	0.024	0.028	0.031
109 Brookfield Avenue, Salt Creek	0.032	0.031	0.029	0.032	0.029	0.027	0.026	0.029	0.025	0.022	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.037	0.032
77 Elmhurst Road, Higgins Creek	0.041	0.040	0.038	0.051	0.036	0.048	0.049	0.059	0.040	0.048	0.056
78 Wille Road, Higgins Creek	0.028	0.022	0.027	0.023	0.022	0.021	0.018	0.019	0.018	0.022	0.024
12 Lake-Cook Road, Buffalo Creek	0.038	0.042	0.037	0.043	0.039	0.041	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.035	0.035	0.028	0.034	0.034	0.038	0.031	0.031	0.031	0.034	0.033
17 Oakton Street, Des Plaines River	0.037	0.038	0.029	0.035	0.035	0.041	0.033	0.033	0.032	0.035	0.035
19 Belmont Avenue, Des Plaines River	0.034	0.034	0.029	0.035	0.033	0.037	0.031	0.032	0.027	0.033	0.033
20 Roosevelt Road, Des Plaines River	0.035	0.034	0.028	0.035	0.033	0.037	0.031	0.033	0.027	0.034	0.034
22 Ogden Avenue, Des Plaines River	0.033	0.033	0.028	0.033	0.031	0.033	0.028	0.031	0.027	0.032	0.033
23 Willow Springs Road, Des Plaines River	0.033	0.032	0.028	0.034	0.031	0.033	0.029	0.031	0.027	0.031	0.033
29 Stephen Street, Des Plaines River	0.032	0.031	0.028	0.033	0.032	0.034	0.028	0.031	0.028	0.032	0.032
91 Material Service Road, Des Plaines River	0.032	0.032	0.028	0.034	0.032	0.033	0.027	0.030	0.028	0.031	0.031

ND = No Data.

TABLE AII-109: SOLUBLE BORON MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.147	0.156	0.147	0.146	0.143	0.126	0.176	0.195	0.132	0.118	0.158
103 Golf Road, West Fork North Branch Chicago River	0.127	0.125	0.122	0.103	0.149	0.138	0.178	0.130	0.122	0.139	0.139
31 Lake-Cook Road, Middle Fork North Branch	0.076	0.088	0.074	0.079	0.110	0.111	0.163	0.162	0.098	0.101	0.093
104 Glenview Road, North Branch Chicago River	0.108	0.131	0.115	0.111	0.141	0.133	0.170	0.146	0.130	0.148	0.143
32 Lake-Cook Road, Skokie River	0.091	0.109	0.105	0.093	0.115	0.128	0.151	0.123	0.115	0.103	0.098
105 Frontage Road, Skokie River	0.124	0.136	0.129	0.118	0.150	0.151	0.175	0.161	0.174	0.167	0.148
34 Dempster Street, North Branch Chicago River	0.115	0.113	0.111	0.113	0.139	0.135	0.174	0.143	0.159	0.151	0.111
96 Albany Avenue, North Branch Chicago River	0.115	0.123	0.120	0.105	0.139	0.141	0.177	0.141	0.150	0.148	0.129
35 Central Street, North Shore Channel	0.070	0.013	0.036	0.033	0.035	0.035	0.030	0.032	0.044	0.030	0.023
102 Oakton Street, North Shore Channel	0.108	0.077	0.083	0.074	0.088	0.109	0.085	0.071	0.081	0.104	0.060
36 Touhy Avenue, North Shore Channel	0.153	0.161	0.156	0.164	0.186	0.180	0.168	0.158	0.173	0.169	0.196
101 Foster Avenue, North Shore Channel	0.137	0.156	0.148	0.162	0.183	0.184	0.164	0.159	0.157	0.158	0.186
37 Wilson Avenue, North Branch Chicago River	0.124	0.142	0.136	0.144	0.160	0.162	0.155	0.147	0.148	0.144	0.169
73 Diversey Parkway, North Branch Chicago River	0.128	0.145	0.131	0.138	0.166	0.155	0.150	0.148	0.155	0.141	0.160
46 Grand Avenue, North Branch Chicago River	0.123	0.134	0.123	0.129	0.155	0.152	0.161	0.142	0.150	0.146	0.168
74 Lake Shore Drive, Chicago River	0.087	0.040	0.041	0.054	0.057	0.055	0.053	0.060	0.050	0.044	0.064
100 Wells Street, Chicago River	0.101	0.064	0.061	0.077	0.070	0.074	0.073	0.082	0.096	0.068	0.081
39 Madison Street, South Branch Chicago River	0.122	0.109	0.106	0.107	0.107	0.118	0.126	0.130	0.130	0.125	0.117
108 Loomis Street, South Branch Chicago River	0.109	0.114	0.106	0.111	0.110	0.121	0.126	0.125	0.118	0.123	0.119
99 Archer Avenue, South Fork South Branch Chicago River	0.110	0.129	0.104	0.122	0.114	0.114	0.128	0.125	0.130	0.121	0.121
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.108	0.115	0.106	0.108	0.108	0.119	0.126	0.129	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.123
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.110	0.121	0.099	0.128	0.119	0.117	0.126	0.126	0.132	0.130	0.119
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.154	0.160	0.154	0.155	0.168	0.161	0.165	0.187	0.176	0.169	0.163
42 Route 83, Chicago Sanitary & Ship Canal	0.211	0.232	0.171	0.166	0.212	0.205	0.207	0.236	0.206	0.218	0.189
48 Stephen Street, Chicago Sanitary & Ship Canal	0.193	0.212	0.161	0.168	0.196	0.198	0.201	0.199	0.202	0.211	0.205
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.191	0.203	0.167	0.179	0.198	0.209	0.209	0.185	0.186	0.185	0.187
Calumet River System											
49 Ewing Avenue, Calumet River	0.070	0.032	0.038	0.036	0.042	0.044	0.036	0.030	0.028	0.029	0.037
50 Burnham Avenue, Wolf Lake	0.238	0.236	0.239	0.172	0.169	0.108	0.142	0.131	0.082	0.088	0.097
55 130th Street, Calumet River	0.116	0.096	0.123	0.117	0.152	0.103	0.109	0.094	0.065	0.108	0.124
86 Burnham Avenue, Grand Calumet River	0.767	0.686	0.357	0.642	0.528	0.578	0.271	0.403	0.375	0.358	0.327
56 Indiana Avenue, Little Calumet River	0.131	0.115	0.134	0.146	0.167	0.131	0.111	0.109	0.113	0.145	0.143
76 Halsted Street, Little Calumet River	0.185	0.172	0.176	0.197	0.195	0.218	0.193	0.170	0.177	0.186	0.194
52 Wentworth Avenue, Little Calumet River	0.132	0.175	0.175	0.250	0.228	0.231	0.216	0.220	0.256	0.296	0.185
54 Joe Orr Road, Thorn Creek	0.196	0.220	0.263	0.316	0.314	0.391	0.252	0.288	0.243	0.327	0.324
97 170th Street, Thorn Creek	0.178	0.185	0.214	0.237	0.222	0.290	0.235	0.242	0.230	0.290	0.228
57 Ashland Avenue, Little Calumet River	0.168	0.188	0.199	0.227	0.200	0.247	0.222	0.196	0.254	0.247	0.198
58 Ashland Avenue, Calumet-Sag Channel	0.166	0.159	0.167	0.191	0.174	0.219	0.199	0.173	0.181	0.208	0.203
59 Cicero Avenue, Calumet-Sag Channel	0.168	0.174	0.163	0.192	0.167	0.214	0.189	0.177	0.184	0.188	0.194
43 Route 83, Calumet-Sag Channel	0.153	0.183	0.158	0.176	0.168	0.198	0.195	0.165	0.156	0.172	0.195
Des Plaines River System											
90 Route 19, Poplar Creek	0.070	0.037	0.050	0.051	0.055	0.057	0.061	0.049	0.046	0.041	0.047
110 Springinsguth Road, West Branch DuPage River	0.095	0.077	0.084	0.094	0.076	0.077	0.074	0.110	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.172	0.215	0.211	0.214	0.248	0.242	0.267	0.245	0.231	0.262	0.296
64 Lake Street, West Branch DuPage River	ND	0.119	0.157	0.183	0.188	0.186	0.222	0.209	0.204	0.203	0.222
111 Arlington Drive, West Branch Du Page River	0.144	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.099	0.075	0.085	0.083	0.084	0.088	0.092	0.081	0.068	0.077	0.090
80 Arlington Heights Road, Salt Creek	0.132	0.190	0.147	0.168	0.196	0.186	0.192	0.179	0.171	0.185	0.217
18 Devon Avenue, Salt Creek	0.146	0.197	0.143	0.165	0.199	0.190	0.198	0.172	0.164	0.174	0.208
24 Wolf Road, Salt Creek	0.161	0.164	0.150	0.176	0.183	0.184	0.227	0.175	0.160	0.198	0.182
109 Brookfield Avenue, Salt Creek	0.155	0.184	0.156	0.180	0.181	0.199	0.254	0.178	0.158	0.227	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.159	0.182
77 Elmhurst Road, Higgins Creek	0.082	0.055	0.067	0.113	0.089	0.078	0.074	0.077	0.055	0.057	0.103
78 Wille Road, Higgins Creek	0.224	0.202	0.201	0.235	0.254	0.285	0.341	0.284	0.256	0.306	0.384
12 Lake-Cook Road, Buffalo Creek	0.081	0.091	0.083	0.088	0.093	0.099	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.115	0.141	0.121	0.150	0.153	0.170	0.211	0.168	0.179	0.162	0.159
17 Oakton Street, Des Plaines River	0.115	0.144	0.111	0.141	0.138	0.151	0.204	0.158	0.165	0.152	0.151
19 Belmont Avenue, Des Plaines River	0.124	0.152	0.121	0.151	0.152	0.166	0.225	0.168	0.169	0.178	0.169
20 Roosevelt Road, Des Plaines River	0.124	0.157	0.116	0.163	0.152	0.166	0.230	0.165	0.184	0.189	0.164
22 Ogden Avenue, Des Plaines River	0.128	0.152	0.128	0.162	0.156	0.184	0.229	0.162	0.182	0.191	0.161
23 Willow Springs Road, Des Plaines River	0.129	0.158	0.125	0.166	0.158	0.182	0.234	0.165	0.165	0.203	0.161
29 Stephen Street, Des Plaines River	0.121	0.146	0.119	0.157	0.167	0.189	0.235	0.161	0.184	0.182	0.154
91 Material Service Road, Des Plaines River	0.124	0.151	0.122	0.158	0.170	0.196	0.241	0.161	0.195	0.193	0.155

ND = No Data.

TABLE AII-110: SOLUBLE CADMIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
103 Golf Road, West Fork North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001
31 Lake-Cook Road, Middle Fork North Branch	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001
32 Lake-Cook Road, Skokie River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001
105 Frontage Road, Skokie River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001
34 Dempster Street, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102 Oakton Street, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000
54 Joe Orr Road, Thorn Creek	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001
97 170th Street, Thorn Creek	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001
57 Ashland Avenue, Little Calumet River	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
111 Arlington Drive, West Branch Du Page River	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.001	0.000	0.000	0.000	0.000	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	0.001
77 Elmhurst Road, Higgins Creek	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000
78 Wille Road, Higgins Creek	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000
12 Lake-Cook Road, Buffalo Creek	0.001	0.002	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000
17 Oakton Street, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
19 Belmont Avenue, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
22 Ogden Avenue, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
29 Stephen Street, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-111: SOLUBLE COPPER MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.008	0.005	0.001	0.000	0.004	0.003	0.003	0.009	0.005	0.010	0.010
103 Golf Road, West Fork North Branch Chicago River	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.002	0.002	0.007	0.007
31 Lake-Cook Road, Middle Fork North Branch	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.007	0.004
104 Glenview Road, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.006	0.004
32 Lake-Cook Road, Skokie River	0.006	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.007	0.005
105 Frontage Road, Skokie River	0.005	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.001	0.008	0.003
34 Dempster Street, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.006	0.004
96 Albany Avenue, North Branch Chicago River	0.005	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.001	0.006	0.004
35 Central Street, North Shore Channel	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006	0.003
102 Oakton Street, North Shore Channel	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.004	0.002
36 Touhy Avenue, North Shore Channel	0.005	0.000	0.002	0.000	0.001	0.000	0.000	0.001	0.001	0.006	0.004
101 Foster Avenue, North Shore Channel	0.005	0.000	0.000	0.000	0.001	0.002	0.000	0.001	0.001	0.003	0.003
37 Wilson Avenue, North Branch Chicago River	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.006	0.002
73 Diversy Parkway, North Branch Chicago River	0.005	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.005	0.003
46 Grand Avenue, North Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.006	0.002
74 Lake Shore Drive, Chicago River	0.006	0.001	0.000	0.000	0.001	0.001	0.001	0.003	0.002	0.004	0.003
100 Wells Street, Chicago River	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.002	0.001	0.004	0.003
39 Madison Street, South Branch Chicago River	0.005	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.004	0.004
108 Loomis Street, South Branch Chicago River	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.005	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.006	0.004
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.001	0.001	0.002	0.002	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.005
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.002	0.005	0.005
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.003	0.004
42 Route 83, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.004	0.003
48 Stephen Street, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.005	0.004
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.005	0.003
Calumet River System											
49 Ewing Avenue, Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002
50 Burnham Avenue, Wolf Lake	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001
55 130th Street, Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.001	0.003	0.003
86 Burnham Avenue, Grand Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.002
56 Indiana Avenue, Little Calumet River	0.005	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.003	0.002
76 Halsted Street, Little Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.003
52 Wentworth Avenue, Little Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.006	0.003
54 Joe Orr Road, Thorn Creek	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.005	0.003
97 170th Street, Thorn Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004
57 Ashland Avenue, Little Calumet River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.004	0.003
58 Ashland Avenue, Calumet-Sag Channel	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.004	0.002
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.004	0.003
43 Route 83, Calumet-Sag Channel	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.003
110 Springinsguth Road, West Branch DuPage River	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.006	0.002	0.001	0.001	0.004	0.003	0.004	0.005	0.004	0.010	0.008
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.008	0.006
111 Arlington Drive, West Branch Du Page River	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.003	0.004
80 Arlington Heights Road, Salt Creek	0.005	0.001	0.000	0.000	0.002	0.002	0.002	0.003	0.002	0.009	0.008
18 Devon Avenue, Salt Creek	0.005	0.001	0.000	0.000	0.001	0.002	0.003	0.003	0.002	0.007	0.005
24 Wolf Road, Salt Creek	0.005	0.002	0.000	0.000	0.002	0.002	0.003	0.003	0.003	0.008	0.005
109 Brookfield Avenue, Salt Creek	0.005	0.000	0.000	0.000	0.002	0.001	0.002	0.003	0.003	0.008	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.006
77 Elmhurst Road, Higgins Creek	0.005	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.003	0.007	0.003
78 Wille Road, Higgins Creek	0.005	0.004	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.006	0.005
12 Lake-Cook Road, Buffalo Creek	0.005	0.000	0.000	0.000	0.000	0.000	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.006	0.005
17 Oakton Street, Des Plaines River	0.005	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.005	0.004
19 Belmont Avenue, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.007	0.004
20 Roosevelt Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.007	0.004
22 Ogden Avenue, Des Plaines River	0.005	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.002	0.006	0.006
23 Willow Springs Road, Des Plaines River	0.005	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.007	0.004
29 Stephen Street, Des Plaines River	0.007	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002	0.007	0.005
91 Material Service Road, Des Plaines River	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.002	0.002	0.008	0.004

ND = No Data.

TABLE AII-112: SOLUBLE CHROMIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.000	0.003
103 Golf Road, West Fork North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.002
31 Lake-Cook Road, Middle Fork North Branch	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001
104 Glenview Road, North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.000
32 Lake-Cook Road, Skokie River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.002
105 Frontage Road, Skokie River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001
34 Dempster Street, North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.004	0.002
96 Albany Avenue, North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.000
35 Central Street, North Shore Channel	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
102 Oakton Street, North Shore Channel	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.000
101 Foster Avenue, North Shore Channel	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.003	0.001
37 Wilson Avenue, North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.004	0.000
73 Diverser Parkway, North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.003	0.000
46 Grand Avenue, North Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.002	0.000
74 Lake Shore Drive, Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.000
100 Wells Street, Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.002
39 Madison Street, South Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.002	0.003	0.001
108 Loomis Street, South Branch Chicago River	0.004	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.002	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.003	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.003	0.000	0.000	0.004	0.001	0.001	0.001	0.002	0.003	0.001	0.002
42 Route 83, Chicago Sanitary & Ship Canal	0.004	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.002	0.001	0.001
48 Stephen Street, Chicago Sanitary & Ship Canal	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.002	0.003	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.002	0.002	0.002
Calumet River System											
49 Ewing Avenue, Calumet River	0.003	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001
50 Burnham Avenue, Wolf Lake	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001
55 130th Street, Calumet River	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006	0.001
86 Burnham Avenue, Grand Calumet River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.002	0.004	0.005
56 Indiana Avenue, Little Calumet River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.007	0.001
76 Halsted Street, Little Calumet River	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.003	0.002
52 Wentworth Avenue, Little Calumet River	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.003	0.001
54 Joe Orr Road, Thorn Creek	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.001
97 170th Street, Thorn Creek	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.002	0.003	0.003
57 Ashland Avenue, Little Calumet River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.007	0.003
58 Ashland Avenue, Calumet-Sag Channel	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.007	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.003	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.005	0.003
43 Route 83, Calumet-Sag Channel	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.005	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.003	0.002
110 Springinsguth Road, West Branch DuPage River	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.004	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.001	0.001
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.002	0.002
111 Arlington Drive, West Branch Du Page River	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.004	0.001
80 Arlington Heights Road, Salt Creek	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001
18 Devon Avenue, Salt Creek	0.003	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.002	0.001
24 Wolf Road, Salt Creek	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.003	0.002
109 Brookfield Avenue, Salt Creek	0.003	0.000	0.000	0.000	0.001	0.004	0.002	0.004	0.001	0.005	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
77 Elmhurst Road, Higgins Creek	0.003	0.000	0.001	0.000	0.001	0.002	0.000	0.001	0.001	0.002	0.000
78 Wille Road, Higgins Creek	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.001	0.003	0.001
12 Lake-Cook Road, Buffalo Creek	0.003	0.000	0.001	0.000	0.001	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.002
17 Oakton Street, Des Plaines River	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.002	0.003
19 Belmont Avenue, Des Plaines River	0.003	0.000	0.000	0.000	0.001	0.001	0.014	0.001	0.025	0.002	0.003
20 Roosevelt Road, Des Plaines River	0.003	0.001	0.000	0.000	0.001	0.001	0.004	0.001	0.013	0.002	0.001
22 Ogden Avenue, Des Plaines River	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.001	0.001	0.002
23 Willow Springs Road, Des Plaines River	0.003	0.012	0.000	0.000	0.001	0.002	0.004	0.001	0.001	0.000	0.001
29 Stephen Street, Des Plaines River	0.003	0.000	0.000	0.000	0.001	0.002	0.002	0.001	0.001	0.001	0.002
91 Material Service Road, Des Plaines River	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.003	0.002

ND = No Data.

TABLE AII-113: SOLUBLE IRON MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.200	0.025	0.057	0.054	0.055	0.046	0.041	0.042	0.042	0.173	0.099
103 Golf Road, West Fork North Branch Chicago River	0.200	0.023	0.041	0.049	0.024	0.037	0.029	0.031	0.025	0.123	0.090
31 Lake-Cook Road, Middle Fork North Branch	0.200	0.073	0.074	0.086	0.081	0.063	0.072	0.052	0.070	0.192	0.120
104 Glenview Road, North Branch Chicago River	0.208	0.021	0.051	0.054	0.037	0.033	0.029	0.035	0.045	0.124	0.097
32 Lake-Cook Road, Skokie River	0.200	0.032	0.077	0.073	0.060	0.062	0.040	0.052	0.071	0.168	0.115
105 Frontage Road, Skokie River	0.200	0.079	0.042	0.042	0.047	0.026	0.023	0.027	0.036	0.119	0.098
34 Dempster Street, North Branch Chicago River	0.200	0.041	0.048	0.058	0.042	0.033	0.025	0.035	0.035	0.120	0.083
96 Albany Avenue, North Branch Chicago River	0.200	0.023	0.042	0.061	0.032	0.050	0.027	0.028	0.038	0.120	0.086
35 Central Street, North Shore Channel	0.200	0.014	0.048	0.015	0.015	0.024	0.022	0.040	0.021	0.076	0.042
102 Oakton Street, North Shore Channel	0.200	0.025	0.027	0.024	0.026	0.023	0.025	0.036	0.047	0.075	0.053
36 Touhy Avenue, North Shore Channel	0.200	0.021	0.031	0.030	0.028	0.031	0.025	0.029	0.026	0.093	0.070
101 Foster Avenue, North Shore Channel	0.200	0.024	0.032	0.032	0.035	0.029	0.030	0.033	0.037	0.107	0.076
37 Wilson Avenue, North Branch Chicago River	0.200	0.025	0.047	0.042	0.034	0.032	0.035	0.041	0.038	0.104	0.084
73 Diversey Parkway, North Branch Chicago River	0.200	0.028	0.044	0.045	0.039	0.035	0.036	0.043	0.049	0.108	0.080
46 Grand Avenue, North Branch Chicago River	0.200	0.026	0.041	0.048	0.038	0.033	0.033	0.042	0.048	0.106	0.081
74 Lake Shore Drive, Chicago River	0.200	0.000	0.005	0.014	0.014	0.009	0.008	0.015	0.012	0.055	0.047
100 Wells Street, Chicago River	0.200	0.011	0.017	0.029	0.017	0.014	0.014	0.020	0.021	0.068	0.053
39 Madison Street, South Branch Chicago River	0.200	0.026	0.033	0.043	0.024	0.023	0.025	0.031	0.035	0.098	0.076
108 Loomis Street, South Branch Chicago River	0.200	0.027	0.031	0.045	0.024	0.021	0.033	0.032	0.027	0.096	0.079
99 Archer Avenue, South Fork South Branch Chicago River	0.200	0.045	0.043	0.056	0.025	0.019	0.019	0.034	0.028	0.105	0.112
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.200	0.032	0.039	0.043	0.024	0.021	0.023	0.034	0.030	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.094	0.065
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.200	0.026	0.032	0.038	0.020	0.020	0.026	0.022	0.020	0.091	0.073
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.200	0.033	0.037	0.034	0.027	0.027	0.027	0.033	0.029	0.096	0.106
42 Route 83, Chicago Sanitary & Ship Canal	0.317	0.049	0.037	0.037	0.028	0.033	0.028	0.046	0.033	0.100	0.074
48 Stephen Street, Chicago Sanitary & Ship Canal	0.233	0.025	0.043	0.038	0.030	0.033	0.025	0.041	0.031	0.103	0.078
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.204	0.026	0.044	0.035	0.028	0.031	0.025	0.033	0.030	0.100	0.079
Calumet River System											
49 Ewing Avenue, Calumet River	0.200	0.000	0.000	0.000	0.006	0.004	0.004	0.005	0.006	0.044	0.032
50 Burnham Avenue, Wolf Lake	0.200	0.014	0.014	0.006	0.024	0.007	0.008	0.014	0.010	0.050	0.035
55 130th Street, Calumet River	0.200	0.002	0.014	0.007	0.016	0.008	0.007	0.004	0.011	0.054	0.044
86 Burnham Avenue, Grand Calumet River	0.210	0.110	0.107	0.101	0.128	0.034	0.070	0.057	0.052	0.220	0.142
56 Indiana Avenue, Little Calumet River	0.200	0.003	0.007	0.005	0.009	0.007	0.006	0.006	0.013	0.078	0.057
76 Halsted Street, Little Calumet River	0.200	0.022	0.030	0.034	0.030	0.032	0.038	0.038	0.037	0.107	0.082
52 Wentworth Avenue, Little Calumet River	0.200	0.071	0.069	0.067	0.072	0.061	0.082	0.084	0.054	0.155	0.120
54 Joe Orr Road, Thorn Creek	0.200	0.089	0.084	0.090	0.063	0.056	0.078	0.069	0.082	0.191	0.116
97 170th Street, Thorn Creek	0.200	0.076	0.051	0.051	0.051	0.036	0.040	0.049	0.053	0.156	0.121
57 Ashland Avenue, Little Calumet River	0.200	0.052	0.055	0.051	0.062	0.031	0.046	0.081	0.057	0.136	0.104
58 Ashland Avenue, Calumet-Sag Channel	0.200	0.047	0.043	0.043	0.040	0.032	0.032	0.053	0.040	0.112	0.087
59 Cicero Avenue, Calumet-Sag Channel	0.200	0.045	0.043	0.036	0.051	0.038	0.029	0.033	0.034	0.102	0.087
43 Route 83, Calumet-Sag Channel	0.200	0.035	0.039	0.029	0.073	0.020	0.017	0.020	0.025	0.099	0.087
Des Plaines River System											
90 Route 19, Poplar Creek	0.200	0.058	0.080	0.084	0.054	0.050	0.055	0.042	0.057	0.151	0.109
110 Springinsguth Road, West Branch DuPage River	0.250	0.294	0.154	0.242	0.217	0.250	0.160	0.155	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.200	0.033	0.051	0.065	0.061	0.050	0.054	0.054	0.069	0.119	0.096
64 Lake Street, West Branch DuPage River	ND	0.045	0.048	0.051	0.037	0.037	0.042	0.038	0.049	0.108	0.085
111 Arlington Drive, West Branch Du Page River	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.200	0.039	0.052	0.051	0.041	0.027	0.043	0.054	0.095	0.125	0.095
80 Arlington Heights Road, Salt Creek	0.200	0.056	0.073	0.056	0.048	0.039	0.044	0.050	0.055	0.152	0.107
18 Devon Avenue, Salt Creek	0.200	0.045	0.070	0.056	0.044	0.038	0.037	0.050	0.049	0.136	0.111
24 Wolf Road, Salt Creek	0.200	0.030	0.051	0.049	0.036	0.032	0.051	0.032	0.056	0.127	0.094
109 Brookfield Avenue, Salt Creek	0.200	0.032	0.049	0.053	0.037	0.034	0.039	0.035	0.040	0.084	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.184	0.096
77 Elmhurst Road, Higgins Creek	0.200	0.035	0.063	0.070	0.059	0.048	0.052	0.060	0.086	0.123	0.098
78 Wille Road, Higgins Creek	0.200	0.032	0.051	0.051	0.044	0.045	0.046	0.051	0.044	0.134	0.108
12 Lake-Cook Road, Buffalo Creek	0.200	0.037	0.059	0.048	0.036	0.027	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.200	0.036	0.056	0.048	0.055	0.026	0.027	0.031	0.037	0.127	0.100
17 Oakton Street, Des Plaines River	0.200	0.046	0.052	0.045	0.047	0.035	0.028	0.030	0.032	0.124	0.112
19 Belmont Avenue, Des Plaines River	0.200	0.031	0.056	0.045	0.064	0.031	0.033	0.033	0.034	0.123	0.098
20 Roosevelt Road, Des Plaines River	0.200	0.025	0.052	0.042	0.052	0.027	0.035	0.032	0.040	0.127	0.096
22 Ogden Avenue, Des Plaines River	0.200	0.036	0.053	0.046	0.046	0.035	0.037	0.042	0.046	0.121	0.105
23 Willow Springs Road, Des Plaines River	0.200	0.035	0.048	0.032	0.051	0.046	0.029	0.047	0.033	0.112	0.098
29 Stephen Street, Des Plaines River	0.200	0.031	0.058	0.036	0.035	0.021	0.019	0.039	0.026	0.118	0.110
91 Material Service Road, Des Plaines River	0.200	0.027	0.043	0.035	0.032	0.023	0.020	0.040	0.032	0.120	0.094

ND = No Data.

TABLE AII-114: SOLUBLE LEAD MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.030	0.000	0.007	0.006	0.004	0.002	0.002	0.004	0.002	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	0.030	0.000	0.000	0.002	0.002	0.003	0.001	0.004	0.002	0.001	0.000
31 Lake-Cook Road, Middle Fork North Branch	0.030	0.000	0.000	0.002	0.002	0.003	0.002	0.004	0.001	0.001	0.001
104 Glenview Road, North Branch Chicago River	0.030	0.000	0.007	0.006	0.002	0.003	0.002	0.003	0.002	0.001	0.000
32 Lake-Cook Road, Skokie River	0.030	0.000	0.000	0.005	0.001	0.004	0.001	0.005	0.001	0.001	0.000
105 Frontage Road, Skokie River	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.000
34 Dempster Street, North Branch Chicago River	0.030	0.000	0.007	0.006	0.002	0.004	0.001	0.004	0.002	0.001	0.000
96 Albany Avenue, North Branch Chicago River	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.004	0.002	0.001	0.001
35 Central Street, North Shore Channel	0.030	0.000	0.000	0.000	0.001	0.003	0.001	0.003	0.001	0.001	0.000
102 Oakton Street, North Shore Channel	0.030	0.000	0.000	0.005	0.001	0.003	0.001	0.003	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.030	0.000	0.007	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.000
101 Foster Avenue, North Shore Channel	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.002
37 Wilson Avenue, North Branch Chicago River	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.001
73 Diversey Parkway, North Branch Chicago River	0.030	0.000	0.007	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.000
46 Grand Avenue, North Branch Chicago River	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.000
74 Lake Shore Drive, Chicago River	0.030	0.000	0.000	0.003	0.001	0.003	0.001	0.003	0.001	0.001	0.002
100 Wells Street, Chicago River	0.030	0.000	0.000	0.005	0.002	0.003	0.001	0.002	0.002	0.001	0.000
39 Madison Street, South Branch Chicago River	0.030	0.000	0.000	0.005	0.002	0.004	0.001	0.003	0.002	0.001	0.000
108 Loomis Street, South Branch Chicago River	0.030	0.000	0.005	0.006	0.002	0.003	0.001	0.003	0.002	0.001	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.030	0.000	0.000	0.004	0.001	0.003	0.001	0.003	0.002	0.001	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.005	0.001	0.003	0.001	0.003	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.005	0.005	0.002	0.003	0.001	0.003	0.002	0.001	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.006	0.004	0.001	0.003	0.001	0.003	0.002	0.001	0.001
42 Route 83, Chicago Sanitary & Ship Canal	0.030	0.000	0.007	0.007	0.001	0.003	0.002	0.003	0.002	0.002	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	0.030	0.002	0.007	0.005	0.001	0.003	0.002	0.003	0.002	0.001	0.000
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.030	0.000	0.005	0.005	0.002	0.003	0.002	0.003	0.002	0.001	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	0.030	0.004	0.000	0.000	0.001	0.002	0.001	0.002	0.001	0.001	0.000
50 Burnham Avenue, Wolf Lake	0.030	0.002	0.000	0.003	0.001	0.002	0.001	0.002	0.001	0.001	0.000
55 130th Street, Calumet River	0.030	0.002	0.000	0.002	0.001	0.003	0.001	0.002	0.001	0.001	0.002
86 Burnham Avenue, Grand Calumet River	0.030	0.000	0.000	0.003	0.002	0.003	0.002	0.003	0.001	0.001	0.000
56 Indiana Avenue, Little Calumet River	0.030	0.000	0.000	0.002	0.001	0.002	0.002	0.003	0.001	0.001	0.000
76 Halsted Street, Little Calumet River	0.030	0.000	0.006	0.006	0.001	0.003	0.002	0.003	0.002	0.001	0.000
52 Wentworth Avenue, Little Calumet River	0.030	0.000	0.000	0.003	0.001	0.003	0.001	0.004	0.001	0.001	0.001
54 Joe Orr Road, Thorn Creek	0.030	0.000	0.000	0.000	0.002	0.003	0.002	0.004	0.001	0.000	0.000
97 170th Street, Thorn Creek	0.030	0.000	0.000	0.003	0.002	0.003	0.002	0.004	0.002	0.001	0.000
57 Ashland Avenue, Little Calumet River	0.030	0.000	0.000	0.003	0.001	0.003	0.002	0.004	0.001	0.001	0.001
58 Ashland Avenue, Calumet-Sag Channel	0.030	0.000	0.007	0.005	0.001	0.003	0.002	0.003	0.002	0.001	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.030	0.000	0.000	0.002	0.001	0.003	0.002	0.003	0.002	0.001	0.000
43 Route 83, Calumet-Sag Channel	0.030	0.000	0.000	0.002	0.001	0.003	0.002	0.003	0.002	0.001	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	0.030	0.000	0.008	0.004	0.001	0.003	0.002	0.004	0.002	0.001	0.000
110 Springinsguth Road, West Branch DuPage River	0.030	0.000	0.000	0.004	0.002	0.004	0.002	0.005	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.030	0.000	0.007	0.003	0.002	0.003	0.001	0.004	0.002	0.001	0.000
64 Lake Street, West Branch DuPage River	ND	0.000	0.009	0.003	0.002	0.004	0.001	0.003	0.002	0.001	0.000
111 Arlington Drive, West Branch Du Page River	0.030	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.030	0.000	0.000	0.000	0.002	0.003	0.002	0.005	0.001	0.001	0.000
80 Arlington Heights Road, Salt Creek	0.030	0.002	0.006	0.003	0.003	0.003	0.001	0.004	0.002	0.000	0.000
18 Devon Avenue, Salt Creek	0.030	0.002	0.007	0.003	0.002	0.003	0.001	0.004	0.002	0.001	0.000
24 Wolf Road, Salt Creek	0.030	0.000	0.007	0.004	0.001	0.003	0.002	0.004	0.002	0.001	0.000
109 Brookfield Avenue, Salt Creek	0.030	0.002	0.006	0.003	0.002	0.003	0.001	0.005	0.002	0.003	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
77 Elmhurst Road, Higgins Creek	0.030	0.000	0.000	0.006	0.002	0.004	0.002	0.005	0.003	0.000	0.000
78 Wille Road, Higgins Creek	0.030	0.005	0.006	0.003	0.001	0.003	0.002	0.004	0.002	0.001	0.000
12 Lake-Cook Road, Buffalo Creek	0.030	0.003	0.009	0.004	0.003	0.003	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.030	0.002	0.006	0.003	0.002	0.004	0.002	0.005	0.002	0.001	0.000
17 Oakton Street, Des Plaines River	0.030	0.000	0.006	0.003	0.001	0.004	0.002	0.004	0.001	0.001	0.000
19 Belmont Avenue, Des Plaines River	0.030	0.000	0.006	0.003	0.002	0.003	0.002	0.004	0.002	0.001	0.000
20 Roosevelt Road, Des Plaines River	0.030	0.000	0.006	0.003	0.001	0.003	0.002	0.004	0.001	0.001	0.000
22 Ogden Avenue, Des Plaines River	0.030	0.002	0.006	0.003	0.002	0.004	0.001	0.004	0.003	0.001	0.000
23 Willow Springs Road, Des Plaines River	0.030	0.002	0.006	0.004	0.003	0.003	0.002	0.004	0.001	0.002	0.000
29 Stephen Street, Des Plaines River	0.030	0.000	0.006	0.003	0.002	0.003	0.002	0.004	0.002	0.001	0.000
91 Material Service Road, Des Plaines River	0.030	0.002	0.006	0.004	0.002	0.003	0.001	0.004	0.002	0.001	0.000

ND = No Data.

TABLE AII-115: SOLUBLE NICKEL MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.008	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.003	0.002
103 Golf Road, West Fork North Branch Chicago River	0.008	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.002
31 Lake-Cook Road, Middle Fork North Branch	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
104 Glenview Road, North Branch Chicago River	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.003	0.001
32 Lake-Cook Road, Skokie River	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.001
105 Frontage Road, Skokie River	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.002
34 Dempster Street, North Branch Chicago River	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.001
96 Albany Avenue, North Branch Chicago River	0.008	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.002	0.001
35 Central Street, North Shore Channel	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
102 Oakton Street, North Shore Channel	0.008	0.000	0.001	0.000	0.001	0.001	0.001	0.001	0.002	0.003	0.003
36 Touhy Avenue, North Shore Channel	0.008	0.000	0.001	0.000	0.001	0.001	0.001	0.002	0.003	0.003	0.004
101 Foster Avenue, North Shore Channel	0.008	0.000	0.001	0.000	0.001	0.001	0.002	0.002	0.003	0.004	0.005
37 Wilson Avenue, North Branch Chicago River	0.008	0.000	0.001	0.000	0.001	0.001	0.002	0.001	0.003	0.004	0.004
73 Diversy Parkway, North Branch Chicago River	0.010	0.000	0.001	0.000	0.001	0.001	0.002	0.002	0.003	0.004	0.004
46 Grand Avenue, North Branch Chicago River	0.008	0.000	0.002	0.000	0.002	0.002	0.003	0.003	0.005	0.006	0.004
74 Lake Shore Drive, Chicago River	0.008	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.001	0.001	0.004
100 Wells Street, Chicago River	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.003	0.002	0.008
39 Madison Street, South Branch Chicago River	0.008	0.001	0.000	0.000	0.001	0.001	0.002	0.003	0.004	0.005	0.006
108 Loomis Street, South Branch Chicago River	0.008	0.000	0.000	0.000	0.002	0.001	0.002	0.002	0.004	0.004	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.008	0.000	0.001	0.001	0.002	0.001	0.002	0.002	0.004	0.004	0.003
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.008	0.001	0.001	0.000	0.001	0.001	0.003	0.002	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.003	0.003
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.008	0.000	0.001	0.000	0.002	0.002	0.002	0.003	0.003	0.005	0.003
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.008	0.001	0.001	0.001	0.003	0.004	0.004	0.004	0.004	0.005	0.003
42 Route 83, Chicago Sanitary & Ship Canal	0.009	0.002	0.002	0.002	0.005	0.004	0.005	0.007	0.005	0.007	0.004
48 Stephen Street, Chicago Sanitary & Ship Canal	0.015	0.001	0.002	0.001	0.004	0.003	0.004	0.005	0.005	0.006	0.003
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.009	0.001	0.002	0.002	0.004	0.004	0.004	0.004	0.005	0.005	0.003
Calumet River System											
49 Ewing Avenue, Calumet River	0.008	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001
50 Burnham Avenue, Wolf Lake	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
55 130th Street, Calumet River	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.002
86 Burnham Avenue, Grand Calumet River	0.009	0.000	0.001	0.001	0.001	0.002	0.002	0.003	0.002	0.006	0.003
56 Indiana Avenue, Little Calumet River	0.008	0.000	0.000	0.000	0.002	0.000	0.001	0.001	0.001	0.004	0.001
76 Halsted Street, Little Calumet River	0.008	0.000	0.000	0.001	0.001	0.000	0.002	0.001	0.002	0.003	0.001
52 Wentworth Avenue, Little Calumet River	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.002
54 Joe Orr Road, Thorn Creek	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.001
97 170th Street, Thorn Creek	0.008	0.001	0.001	0.001	0.001	0.002	0.004	0.002	0.001	0.006	0.002
57 Ashland Avenue, Little Calumet River	0.008	0.000	0.001	0.001	0.001	0.002	0.002	0.001	0.002	0.004	0.001
58 Ashland Avenue, Calumet-Sag Channel	0.008	0.000	0.000	0.001	0.001	0.000	0.002	0.001	0.001	0.003	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.008	0.000	0.000	0.001	0.001	0.001	0.003	0.002	0.002	0.003	0.002
43 Route 83, Calumet-Sag Channel	0.008	0.001	0.000	0.001	0.002	0.001	0.002	0.002	0.002	0.004	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003	0.001
110 Springinsguth Road, West Branch DuPage River	0.009	0.000	0.000	0.000	0.000	0.000	0.001	0.001	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.009	0.001	0.003	0.002	0.002	0.001	0.002	0.000	0.000	0.003	0.001
64 Lake Street, West Branch DuPage River	ND	0.000	0.004	0.001	0.002	0.002	0.002	0.000	0.000	0.002	0.002
111 Arlington Drive, West Branch Du Page River	0.008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.008	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.003	0.002
80 Arlington Heights Road, Salt Creek	0.008	0.005	0.001	0.002	0.002	0.001	0.002	0.001	0.001	0.003	0.003
18 Devon Avenue, Salt Creek	0.008	0.006	0.001	0.002	0.002	0.001	0.002	0.002	0.000	0.003	0.002
24 Wolf Road, Salt Creek	0.008	0.003	0.002	0.002	0.002	0.002	0.003	0.004	0.002	0.008	0.003
109 Brookfield Avenue, Salt Creek	0.008	0.003	0.002	0.002	0.002	0.002	0.003	0.004	0.002	0.010	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002	0.004
77 Elmhurst Road, Higgins Creek	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.003	0.002
78 Wille Road, Higgins Creek	0.008	0.006	0.002	0.005	0.006	0.007	0.012	0.006	0.004	0.007	0.008
12 Lake-Cook Road, Buffalo Creek	0.008	0.000	0.001	0.000	0.000	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.008	0.000	0.000	0.000	0.001	0.001	0.003	0.002	0.003	0.004	0.001
17 Oakton Street, Des Plaines River	0.008	0.000	0.002	0.000	0.001	0.000	0.002	0.001	0.002	0.003	0.002
19 Belmont Avenue, Des Plaines River	0.010	0.000	0.001	0.001	0.001	0.002	0.005	0.002	0.003	0.005	0.002
20 Roosevelt Road, Des Plaines River	0.008	0.000	0.001	0.001	0.001	0.001	0.004	0.002	0.002	0.005	0.002
22 Ogden Avenue, Des Plaines River	0.008	0.000	0.000	0.001	0.001	0.002	0.003	0.002	0.003	0.006	0.003
23 Willow Springs Road, Des Plaines River	0.008	0.000	0.000	0.002	0.001	0.002	0.003	0.002	0.003	0.005	0.002
29 Stephen Street, Des Plaines River	0.008	0.000	0.000	0.001	0.002	0.001	0.003	0.002	0.002	0.005	0.002
91 Material Service Road, Des Plaines River	0.009	0.000	0.000	0.001	0.001	0.001	0.003	0.002	0.003	0.006	0.002

ND = No Data.

TABLE AII-116: SOLUBLE MANGANESE MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.057	0.076	0.054	0.043	0.056	0.039	0.059	0.054	0.032	0.034	0.057
103 Golf Road, West Fork North Branch Chicago River	0.041	0.048	0.057	0.046	0.044	0.041	0.054	0.043	0.037	0.047	0.040
31 Lake-Cook Road, Middle Fork North Branch	0.062	0.154	0.058	0.056	0.124	0.045	0.100	0.071	0.057	0.111	0.050
104 Glenview Road, North Branch Chicago River	0.048	0.055	0.063	0.044	0.038	0.033	0.054	0.035	0.025	0.023	0.028
32 Lake-Cook Road, Skokie River	0.071	0.089	0.059	0.067	0.097	0.051	0.094	0.109	0.065	0.066	0.073
105 Frontage Road, Skokie River	0.031	0.025	0.032	0.026	0.021	0.012	0.021	0.020	0.012	0.013	0.027
34 Dempster Street, North Branch Chicago River	0.041	0.056	0.043	0.047	0.047	0.033	0.044	0.036	0.034	0.032	0.037
96 Albany Avenue, North Branch Chicago River	0.040	0.040	0.036	0.056	0.033	0.031	0.033	0.022	0.025	0.023	0.030
35 Central Street, North Shore Channel	0.017	0.012	0.011	0.025	0.009	0.009	0.005	0.010	0.010	0.012	0.013
102 Oakton Street, North Shore Channel	0.026	0.025	0.014	0.016	0.013	0.016	0.011	0.018	0.019	0.013	0.022
36 Touhy Avenue, North Shore Channel	0.020	0.018	0.010	0.017	0.013	0.009	0.013	0.013	0.010	0.017	0.023
101 Foster Avenue, North Shore Channel	0.025	0.013	0.019	0.015	0.015	0.011	0.013	0.016	0.012	0.015	0.010
37 Wilson Avenue, North Branch Chicago River	0.021	0.025	0.018	0.019	0.019	0.013	0.018	0.017	0.015	0.018	0.019
73 Diversy Parkway, North Branch Chicago River	0.072	0.029	0.025	0.021	0.024	0.018	0.019	0.020	0.021	0.019	0.029
46 Grand Avenue, North Branch Chicago River	0.032	0.025	0.027	0.038	0.039	0.022	0.025	0.028	0.024	0.023	0.026
74 Lake Shore Drive, Chicago River	0.021	0.012	0.011	0.012	0.010	0.004	0.011	0.007	0.007	0.009	0.010
100 Wells Street, Chicago River	0.048	0.017	0.013	0.029	0.019	0.010	0.015	0.014	0.016	0.012	0.015
39 Madison Street, South Branch Chicago River	0.042	0.031	0.021	0.028	0.024	0.014	0.040	0.020	0.022	0.023	0.019
108 Loomis Street, South Branch Chicago River	0.106	0.028	0.024	0.040	0.032	0.019	0.028	0.021	0.020	0.023	0.022
99 Archer Avenue, South Fork South Branch Chicago River	0.038	0.029	0.037	0.043	0.025	0.019	0.028	0.026	0.024	0.033	0.042
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.031	0.026	0.023	0.034	0.024	0.021	0.022	0.021	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.025
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.026	0.023	0.025	0.032	0.020	0.019	0.018	0.018	0.020	0.022	0.018
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.023	0.041	0.022	0.018	0.018	0.014	0.013	0.013	0.013	0.013	0.015
42 Route 83, Chicago Sanitary & Ship Canal	0.024	0.020	0.017	0.020	0.016	0.015	0.017	0.018	0.020	0.016	0.022
48 Stephen Street, Chicago Sanitary & Ship Canal	0.037	0.026	0.022	0.025	0.021	0.023	0.028	0.027	0.026	0.024	0.028
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.074	0.031	0.028	0.057	0.030	0.026	0.025	0.029	0.026	0.030	0.027
Calumet River System											
49 Ewing Avenue, Calumet River	0.014	0.006	0.021	0.009	0.010	0.007	0.008	0.008	0.006	0.006	0.007
50 Burnham Avenue, Wolf Lake	0.016	0.022	0.010	0.013	0.008	0.005	0.008	0.014	0.004	0.006	0.004
55 130th Street, Calumet River	0.019	0.017	0.014	0.036	0.013	0.011	0.012	0.014	0.005	0.004	0.007
86 Burnham Avenue, Grand Calumet River	0.197	0.198	0.081	0.157	0.131	0.132	0.067	0.083	0.108	0.078	0.057
56 Indiana Avenue, Little Calumet River	0.025	0.029	0.019	0.021	0.019	0.009	0.012	0.009	0.008	0.011	0.009
76 Halsted Street, Little Calumet River	0.032	0.038	0.025	0.033	0.035	0.025	0.029	0.027	0.026	0.031	0.040
52 Wentworth Avenue, Little Calumet River	0.073	0.093	0.084	0.105	0.096	0.084	0.089	0.114	0.090	0.094	0.089
54 Joe Orr Road, Thorn Creek	0.057	0.051	0.047	0.058	0.057	0.042	0.060	0.059	0.026	0.054	0.038
97 170th Street, Thorn Creek	0.051	0.062	0.060	0.061	0.058	0.051	0.061	0.064	0.046	0.046	0.043
57 Ashland Avenue, Little Calumet River	0.057	0.058	0.065	0.065	0.081	0.065	0.081	0.083	0.083	0.063	0.058
58 Ashland Avenue, Calumet-Sag Channel	0.045	0.050	0.035	0.042	0.038	0.037	0.039	0.036	0.033	0.043	0.039
59 Cicero Avenue, Calumet-Sag Channel	0.047	0.047	0.035	0.056	0.041	0.040	0.036	0.046	0.033	0.044	0.044
43 Route 83, Calumet-Sag Channel	0.049	0.047	0.034	0.048	0.042	0.038	0.039	0.057	0.024	0.034	0.043
Des Plaines River System											
90 Route 19, Poplar Creek	0.047	0.067	0.054	0.090	0.050	0.047	0.077	0.048	0.040	0.057	0.063
110 Springinsguth Road, West Branch DuPage River	0.096	0.117	0.109	0.182	0.093	0.116	0.186	0.092	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.025	0.047	0.023	0.039	0.026	0.024	0.034	0.031	0.029	0.048	0.046
64 Lake Street, West Branch DuPage River	ND	0.063	0.044	0.049	0.035	0.037	0.053	0.042	0.037	0.036	0.040
111 Arlington Drive, West Branch Du Page River	0.040	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.054	0.025	0.022	0.035	0.033	0.021	0.036	0.044	0.023	0.034	0.041
80 Arlington Heights Road, Salt Creek	0.026	0.032	0.023	0.039	0.031	0.014	0.024	0.030	0.020	0.018	0.021
18 Devon Avenue, Salt Creek	0.030	0.042	0.030	0.051	0.030	0.017	0.026	0.031	0.021	0.020	0.027
24 Wolf Road, Salt Creek	0.035	0.034	0.034	0.040	0.032	0.027	0.031	0.035	0.029	0.035	0.034
109 Brookfield Avenue, Salt Creek	0.038	0.041	0.038	0.040	0.036	0.031	0.035	0.034	0.026	0.023	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.037
77 Elmhurst Road, Higgins Creek	0.061	0.027	0.069	0.077	0.067	0.057	0.072	0.091	0.074	0.073	0.099
78 Wille Road, Higgins Creek	0.015	0.022	0.026	0.051	0.028	0.023	0.016	0.018	0.019	0.022	0.018
12 Lake-Cook Road, Buffalo Creek	0.040	0.056	0.056	0.066	0.047	0.043	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.031	0.036	0.032	0.035	0.030	0.025	0.036	0.033	0.030	0.029	0.024
17 Oakton Street, Des Plaines River	0.029	0.028	0.026	0.030	0.030	0.032	0.039	0.028	0.025	0.034	0.021
19 Belmont Avenue, Des Plaines River	0.060	0.038	0.029	0.034	0.032	0.032	0.045	0.035	0.029	0.052	0.032
20 Roosevelt Road, Des Plaines River	0.034	0.030	0.025	0.034	0.028	0.034	0.039	0.034	0.021	0.050	0.025
22 Ogden Avenue, Des Plaines River	0.024	0.026	0.020	0.033	0.028	0.026	0.029	0.028	0.033	0.027	0.021
23 Willow Springs Road, Des Plaines River	0.028	0.027	0.018	0.039	0.028	0.030	0.033	0.052	0.019	0.028	0.021
29 Stephen Street, Des Plaines River	0.043	0.023	0.016	0.032	0.027	0.024	0.022	0.027	0.018	0.021	0.018
91 Material Service Road, Des Plaines River	0.037	0.023	0.014	0.030	0.019	0.020	0.021	0.027	0.019	0.016	0.015

ND = No Data.

TABLE AII-117: SOLUBLE MERCURY MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0.093	ND	0.000	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	0.000	0.080	0.020	0.008	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	0.030	0.075	0.010	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0.000	ND	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	0.025	0.000	0.065	0.013	0.000
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	0.045	0.014	0.000	0.032	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	0.000	0.018	0.075	0.012	ND
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	0.000	0.000	0.075	0.058	0.000
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	0.000	ND	0.000	0.008	0.000
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	0.000	0.012	ND	0.038	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	0.000	0.015	0.000	0.030	0.000
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	0.000	0.023	0.000	0.008	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	0.080	0.015	0.000	0.000	0.000
73 Diverser Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.027	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	0.000	0.103	0.000	0.025	ND
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	0.167	0.015	0.090	ND
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	0.000	0.083	0.000	0.030	0.000
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0.050	0.075	0.030	ND
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.020	0.060
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.023	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	0.000	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010	0.000
75 Cicero Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	ND
41 Harlem Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	0.000	0.007	0.033	0.017
42 Route 83, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	0.000	0.030	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	0.016	0.087	0.000	ND
92 Lockport Forebay, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	0.000	0.025	0.002	0.013	0.016
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	0.090	0.000	0.028	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	ND	ND	ND	0.000	ND	0.000	ND	0.020	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	0.040	0.085	0.020	0.022	0.026	0.000
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	0.000	ND	ND	0.000	0.020	0.000
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	0.000	ND	0.000	0.000	0.019	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	0.000	0.000	ND	0.000	0.020	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	0.070	0.020	0.000
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.018	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	0.050	ND	0.000	0.070	0.023	0.000
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	0.000	ND	0.043	0.000	0.022	0.000
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	0.000	0.000	ND	0.000	0.028	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	ND	0.000	ND	0.060	0.055	0.000	0.013	0.080
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	0.000	0.080	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.007	0.025
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	0.043	0.000	0.003	0.020
111 Arlington Drive, West Branch Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	0.080	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.020	ND
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	0.000	0.027	0.070	0.000	0.020
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	0.030	0.020	0.004	0.000
109 Brookfield Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	0.050	0.000	0.005	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.020
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.033	0.040
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	0.000	0.000	0.050	0.000	0.005	0.033
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0.000	0.063	0.045	0.048	0.030
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	0.080	0.080	0.070	0.033	0.020	0.017
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	0.030	0.000	0.003	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.015	0.000
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	0.025	0.090	0.004	0.025
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000	0.018	0.015
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	0.000	ND	0.000	0.005	0.003	0.010
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0.000	0.100	0.000	0.018	0.010

ND = No Data.

TABLE AII-118: SOLUBLE ZINC MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.023	0.009	0.014	0.015	0.028	0.020	0.019	0.029	0.012	0.010	0.035
103 Golf Road, West Fork North Branch Chicago River	0.021	0.005	0.004	0.003	0.016	0.014	0.011	0.012	0.008	0.012	0.011
31 Lake-Cook Road, Middle Fork North Branch	0.020	0.000	0.003	0.000	0.011	0.012	0.005	0.007	0.004	0.007	0.005
104 Glenview Road, North Branch Chicago River	0.022	0.007	0.011	0.010	0.017	0.019	0.018	0.019	0.013	0.017	0.014
32 Lake-Cook Road, Skokie River	0.020	0.000	0.004	0.001	0.011	0.015	0.011	0.010	0.006	0.009	0.007
105 Frontage Road, Skokie River	0.023	0.013	0.014	0.010	0.019	0.022	0.023	0.019	0.022	0.021	0.012
34 Dempster Street, North Branch Chicago River	0.020	0.007	0.003	0.004	0.017	0.016	0.014	0.017	0.014	0.017	0.011
96 Albany Avenue, North Branch Chicago River	0.020	0.003	0.006	0.007	0.016	0.021	0.015	0.012	0.012	0.017	0.012
35 Central Street, North Shore Channel	0.020	0.000	0.002	0.003	0.010	0.010	0.004	0.006	0.006	0.007	0.004
102 Oakton Street, North Shore Channel	0.023	0.012	0.010	0.009	0.022	0.025	0.018	0.015	0.015	0.020	0.009
36 Touhy Avenue, North Shore Channel	0.028	0.027	0.023	0.026	0.037	0.034	0.029	0.029	0.029	0.032	0.029
101 Foster Avenue, North Shore Channel	0.023	0.024	0.022	0.026	0.037	0.034	0.028	0.032	0.027	0.027	0.027
37 Wilson Avenue, North Branch Chicago River	0.022	0.018	0.017	0.020	0.032	0.028	0.031	0.025	0.024	0.025	0.024
73 Diversey Parkway, North Branch Chicago River	0.023	0.018	0.017	0.019	0.031	0.027	0.024	0.025	0.024	0.025	0.024
46 Grand Avenue, North Branch Chicago River	0.022	0.019	0.018	0.019	0.029	0.029	0.028	0.023	0.026	0.028	0.021
74 Lake Shore Drive, Chicago River	0.024	0.003	0.002	0.003	0.016	0.013	0.012	0.013	0.009	0.013	0.015
100 Wells Street, Chicago River	0.022	0.009	0.006	0.011	0.018	0.017	0.014	0.014	0.018	0.014	0.016
39 Madison Street, South Branch Chicago River	0.023	0.012	0.015	0.016	0.021	0.021	0.023	0.027	0.023	0.023	0.018
108 Loomis Street, South Branch Chicago River	0.023	0.018	0.016	0.017	0.025	0.023	0.022	0.022	0.023	0.023	0.017
99 Archer Avenue, South Fork South Branch Chicago River	0.021	0.011	0.013	0.017	0.021	0.020	0.017	0.020	0.020	0.019	0.013
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.021	0.012	0.015	0.016	0.026	0.024	0.023	0.022	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.023
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.022	0.011	0.011	0.020	0.029	0.022	0.021	0.020	0.019	0.021	0.018
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.022	0.022	0.017	0.022	0.030	0.024	0.023	0.022	0.023	0.022	0.022
42 Route 83, Chicago Sanitary & Ship Canal	0.024	0.021	0.018	0.019	0.029	0.026	0.024	0.028	0.026	0.028	0.022
48 Stephen Street, Chicago Sanitary & Ship Canal	0.022	0.014	0.016	0.019	0.027	0.024	0.022	0.025	0.024	0.025	0.020
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.021	0.015	0.017	0.021	0.026	0.027	0.024	0.025	0.024	0.025	0.018
Calumet River System											
49 Ewing Avenue, Calumet River	0.020	0.000	0.002	0.001	0.009	0.008	0.005	0.011	0.005	0.004	0.004
50 Burnham Avenue, Wolf Lake	0.020	0.000	0.001	0.001	0.010	0.007	0.004	0.004	0.001	0.004	0.003
55 130th Street, Calumet River	0.020	0.003	0.000	0.002	0.012	0.017	0.008	0.008	0.003	0.007	0.005
86 Burnham Avenue, Grand Calumet River	0.020	0.000	0.026	0.008	0.019	0.031	0.020	0.021	0.021	0.031	0.024
56 Indiana Avenue, Little Calumet River	0.021	0.004	0.001	0.003	0.017	0.013	0.009	0.010	0.009	0.015	0.008
76 Halsted Street, Little Calumet River	0.022	0.017	0.016	0.022	0.029	0.026	0.026	0.024	0.031	0.032	0.023
52 Wentworth Avenue, Little Calumet River	0.020	0.005	0.007	0.010	0.013	0.014	0.013	0.014	0.012	0.018	0.010
54 Joe Orr Road, Thorn Creek	0.025	0.024	0.034	0.041	0.041	0.044	0.032	0.039	0.021	0.036	0.028
97 170th Street, Thorn Creek	0.020	0.005	0.013	0.019	0.019	0.021	0.020	0.024	0.023	0.030	0.013
57 Ashland Avenue, Little Calumet River	0.020	0.005	0.011	0.014	0.016	0.016	0.019	0.016	0.024	0.014	0.010
58 Ashland Avenue, Calumet-Sag Channel	0.022	0.009	0.016	0.028	0.028	0.030	0.036	0.029	0.031	0.024	0.024
59 Cicero Avenue, Calumet-Sag Channel	0.023	0.008	0.011	0.020	0.021	0.025	0.023	0.021	0.019	0.025	0.020
43 Route 83, Calumet-Sag Channel	0.022	0.006	0.012	0.015	0.024	0.024	0.026	0.022	0.019	0.023	0.017
Des Plaines River System											
90 Route 19, Poplar Creek	0.020	0.000	0.001	0.005	0.010	0.007	0.005	0.004	0.010	0.007	0.005
110 Springinsguth Road, West Branch DuPage River	0.019	0.002	0.008	0.015	0.019	0.015	0.011	0.011	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.029	0.030	0.032	0.034	0.040	0.034	0.036	0.043	0.032	0.036	0.032
64 Lake Street, West Branch DuPage River	ND	0.014	0.022	0.025	0.030	0.029	0.027	0.032	0.027	0.026	0.027
111 Arlington Drive, West Branch Du Page River	0.023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.020	0.000	0.005	0.002	0.009	0.007	0.004	0.007	0.003	0.003	0.002
80 Arlington Heights Road, Salt Creek	0.020	0.014	0.018	0.015	0.023	0.022	0.021	0.035	0.018	0.019	0.020
18 Devon Avenue, Salt Creek	0.020	0.017	0.017	0.014	0.020	0.018	0.028	0.024	0.018	0.019	0.016
24 Wolf Road, Salt Creek	0.022	0.015	0.016	0.019	0.021	0.024	0.029	0.025	0.025	0.029	0.019
109 Brookfield Avenue, Salt Creek	0.023	0.013	0.013	0.017	0.022	0.023	0.026	0.027	0.017	0.025	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.028
77 Elmhurst Road, Higgins Creek	0.022	0.000	0.007	0.017	0.011	0.020	0.017	0.021	0.016	0.013	0.012
78 Wille Road, Higgins Creek	0.025	0.023	0.032	0.041	0.040	0.047	0.062	0.057	0.049	0.048	0.043
12 Lake-Cook Road, Buffalo Creek	0.020	0.002	0.001	0.002	0.008	0.008	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.020	0.009	0.007	0.011	0.015	0.016	0.021	0.019	0.018	0.017	0.013
17 Oakton Street, Des Plaines River	0.020	0.006	0.007	0.009	0.013	0.017	0.019	0.018	0.014	0.016	0.009
19 Belmont Avenue, Des Plaines River	0.023	0.009	0.011	0.014	0.018	0.022	0.027	0.022	0.025	0.024	0.014
20 Roosevelt Road, Des Plaines River	0.020	0.011	0.008	0.015	0.017	0.022	0.026	0.021	0.020	0.023	0.011
22 Ogden Avenue, Des Plaines River	0.020	0.013	0.008	0.016	0.021	0.023	0.024	0.021	0.028	0.022	0.015
23 Willow Springs Road, Des Plaines River	0.020	0.010	0.006	0.014	0.019	0.021	0.022	0.021	0.017	0.019	0.012
29 Stephen Street, Des Plaines River	0.020	0.010	0.007	0.013	0.021	0.022	0.021	0.022	0.019	0.020	0.012
91 Material Service Road, Des Plaines River	0.022	0.007	0.007	0.012	0.018	0.020	0.018	0.020	0.021	0.018	0.010

ND = No Data.

TABLE AII-119: SOLUBLE SELENIUM MEAN HISTORY
2001 THROUGH 2011

Sampling Station (No. Name)	Annual Means (mg/L)										
	11	10	09	08	07	06	05	04	03	02	01
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.002	0.011	0.006	0.000	0.007	0.000
103 Golf Road, West Fork North Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.002	0.007	0.008	0.005	0.006	0.002
31 Lake-Cook Road, Middle Fork North Branch	0.030	0.000	0.000	0.000	0.000	0.002	0.005	0.005	0.002	0.006	0.002
104 Glenview Road, North Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.004	0.006	0.006	0.002	0.004	0.002
32 Lake-Cook Road, Skokie River	0.030	0.000	0.000	0.000	0.000	0.003	0.006	0.007	0.004	0.005	0.000
105 Frontage Road, Skokie River	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.005	0.006	0.001	0.000
34 Dempster Street, North Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.001	0.008	0.006	0.005	0.005	0.000
96 Albany Avenue, North Branch Chicago River	0.030	0.000	0.000	0.000	0.002	0.002	0.007	0.007	0.003	0.006	0.000
35 Central Street, North Shore Channel	0.030	0.000	0.000	0.000	0.000	0.001	0.007	0.005	0.003	0.005	0.000
102 Oakton Street, North Shore Channel	0.030	0.000	0.000	0.000	0.002	0.001	0.005	0.005	0.001	0.003	0.000
36 Touhy Avenue, North Shore Channel	0.030	0.000	0.000	0.000	0.002	0.002	0.006	0.005	0.006	0.005	0.000
101 Foster Avenue, North Shore Channel	0.030	0.000	0.000	0.000	0.000	0.001	0.007	0.007	0.004	0.004	0.000
37 Wilson Avenue, North Branch Chicago River	0.030	0.000	0.000	0.000	0.002	0.002	0.008	0.006	0.004	0.006	0.002
73 Diversey Parkway, North Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.002	0.006	0.005	0.005	0.004	0.000
46 Grand Avenue, North Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.001	0.007	0.006	0.005	0.007	0.000
74 Lake Shore Drive, Chicago River	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.005	0.003	0.001	0.000
100 Wells Street, Chicago River	0.030	0.000	0.000	0.000	0.000	0.002	0.003	0.007	0.004	0.002	0.000
39 Madison Street, South Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.007	0.002	0.002	0.000
108 Loomis Street, South Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.000	0.007	0.009	0.005	0.002	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.007	0.004	0.002	0.000
40 Damen Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.005	ND	ND	ND
107 Western Avenue, Chicago Sanitary & Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.004
75 Cicero Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.005	0.004	0.004	0.000
41 Harlem Avenue, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.009	0.003	0.001	0.000
42 Route 83, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.006	0.002	0.001	0.002
48 Stephen Street, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.006	0.004	0.002	0.005
92 Lockport Forebay, Chicago Sanitary & Ship Canal	0.030	0.000	0.000	0.000	0.000	0.002	0.005	0.006	0.004	0.005	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	0.030	0.000	0.000	0.000	0.000	0.003	0.005	0.007	0.004	0.002	0.002
50 Burnham Avenue, Wolf Lake	0.030	0.000	0.000	0.000	0.000	0.004	0.004	0.005	0.003	0.002	0.000
55 130th Street, Calumet River	0.030	0.000	0.000	0.000	0.000	0.003	0.002	0.004	0.003	0.002	0.000
86 Burnham Avenue, Grand Calumet River	0.030	0.005	0.000	0.000	0.000	0.002	0.006	0.008	0.002	0.005	0.002
56 Indiana Avenue, Little Calumet River	0.030	0.000	0.000	0.000	0.000	0.002	0.003	0.004	0.003	0.005	0.000
76 Halsted Street, Little Calumet River	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.005	0.005	0.003	0.000
52 Wentworth Avenue, Little Calumet River	0.030	0.000	0.000	0.000	0.000	0.002	0.004	0.008	0.003	0.003	0.005
54 Joe Orr Road, Thorn Creek	0.030	0.000	0.000	0.000	0.000	0.003	0.005	0.005	0.008	0.000	0.005
97 170th Street, Thorn Creek	0.030	0.000	0.000	0.000	0.000	0.002	0.004	0.005	0.004	0.006	0.004
57 Ashland Avenue, Little Calumet River	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.005	0.003	0.005	0.002
58 Ashland Avenue, Calumet-Sag Channel	0.030	0.000	0.000	0.000	0.000	0.002	0.005	0.005	0.005	0.001	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.007	0.004	0.005	0.004
43 Route 83, Calumet-Sag Channel	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.005	0.004	0.005	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.008	0.003	0.006	0.004
110 Springinsguth Road, West Branch DuPage River	0.030	0.000	0.000	0.000	0.000	0.001	0.008	0.005	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.004	0.003	0.002
64 Lake Street, West Branch DuPage River	ND	0.000	0.000	0.000	0.002	0.000	0.007	0.004	0.005	0.005	0.000
111 Arlington Drive, West Branch Du Page River	0.030	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.007	0.001	0.006	0.000
80 Arlington Heights Road, Salt Creek	0.030	0.008	0.000	0.000	0.000	0.001	0.007	0.005	0.002	0.004	0.000
18 Devon Avenue, Salt Creek	0.030	0.000	0.000	0.000	0.000	0.001	0.008	0.005	0.003	0.002	0.000
24 Wolf Road, Salt Creek	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.006	0.003	0.008	0.000
109 Brookfield Avenue, Salt Creek	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.006	0.003	0.011	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002
77 Elmhurst Road, Higgins Creek	0.030	0.000	0.000	0.000	0.000	0.000	0.009	0.006	0.003	0.002	0.002
78 Wille Road, Higgins Creek	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.006	0.004	0.006	0.000
12 Lake-Cook Road, Buffalo Creek	0.030	0.000	0.000	0.000	0.000	0.001	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.005	0.005	0.010	0.002
17 Oakton Street, Des Plaines River	0.030	0.000	0.000	0.000	0.002	0.000	0.005	0.008	0.003	0.006	0.004
19 Belmont Avenue, Des Plaines River	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.006	0.004	0.005	0.000
20 Roosevelt Road, Des Plaines River	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.006	0.003	0.006	0.000
22 Ogden Avenue, Des Plaines River	0.030	0.000	0.000	0.000	0.002	0.001	0.008	0.007	0.005	0.010	0.002
23 Willow Springs Road, Des Plaines River	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.005	0.003	0.005	0.000
29 Stephen Street, Des Plaines River	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.006	0.002	0.006	0.000
91 Material Service Road, Des Plaines River	0.030	0.008	0.000	0.000	0.000	0.000	0.006	0.006	0.003	0.003	0.001

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 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE NORTH SIDE WATER RECLAMATION PLANT IN 2011

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)	0.784	0.806	0.031	...	0.549	...
Temp (°C)	1.000	1.000	0.423	0.444	...	...
pH	0.923	1.000	0.007	...	0.029	...
Alk (mg/L)	0.604	1.000	0.508	0.019	...	...
Cl (mg/L)	0.419	0.225	0.003	...	0.105	...
Turb (NTU)	1.000	0.964	0.170	0.067	...	...
TKN (mg/L)	0.517	0.973	0.001	...	...	0.001
NH ₄ -N (mg/L)	0.415	0.840	0.000	...	0.001	...
NH ₃ -N (mg/L)	0.918	0.966	0.124	0.094	...	...
ORG-N (mg/L)	0.585	0.775	0.064	0.032	...	...
NO ₂ + NO ₃ (mg/L)	0.998	0.827	0.000	0.000	...	...
TS (mg/L)	0.612	0.300	0.014	...	0.050	...
TSS (mg/L)	1.000	0.239	0.397	0.809	...	...
VSS (mg/L)	0.918	0.290	0.097	0.138	...	...
TDS (mg/L)	0.660	0.297	0.013	...	0.049	...
Phenol (μ g/L)	-	-	-	-	-	-
NPS (μ g/L)	-	-	-	-	-	-
BPA (μ g/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.334	0.994	0.114	0.011	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.322	0.998	0.000	0.000	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.853	0.881	0.000	0.000	...	...
TOC (mg/L)	0.998	0.784	0.117	0.034	...	...
FC (#/100ml)*	1.000	1.000	0.000	...	0.001	...
EColi (#/100ml)*	1.000	1.000	0.011	...	0.182	...
Ca (mg/L)	0.731	0.998	0.513	0.005	...	...

TABLE AIII-1 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE NORTH SIDE WATER RECLAMATION PLANT IN 2011

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
Mg (mg/L)	0.244	0.944	0.513	0.006	...	...
Hard (mg/L)	0.511	1.000	0.451	0.005	...	...
G. Alpha (pCi/L)	0.667	0.057	0.001	...	0.072	...
G. Beta (pCi/L)	0.773	0.684	0.000	...	0.001	...
Chlrphl (μ g/L)	0.334	0.497	0.000	...	0.283	...
Bzn (μ g/L)	-	-	-	-	-	-
Ebnzn (μ g/L)	-	-	-	-	-	-
Toln (μ g/L)	-	-	-	-	-	-
Xyln (μ g/L)	-	-	-	-	-	-
xylmp (μ g/L)	-	-	-	-	-	-
xylno (μ g/L)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
As (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.606	0.414	0.288	0.411	...	...
B (mg/L)	-	-	-	-	-	-
Cd (mg/L)	-	-	-	-	-	-
Cu (mg/L)	-	-	-	-	-	-
Cr (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ (μ g/L)	-	-	-	-	-	-
Fe (mg/L)	-	-	-	-	-	-
Pb (mg/L)	-	-	-	-	-	-
Ni (mg/L)	-	-	-	-	-	-
Mn (mg/L)	0.952	0.266	0.354	0.323	...	...
Hg (μ g/L)	-	-	-	-	-	-
Hg- (ng/L)	-	-	-	-	-	-
Zn (mg/L)	-	-	-	-	-	-
Se (mg/L)	0.254	0.014	0.147	...	...	0.699
Sol. Ca (mg/L)	0.740	0.999	0.490	0.007	...	...

TABLE AIII-1 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE NORTH SIDE WATER RECLAMATION PLANT IN 2011

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
Sol. Mg (mg/L)	0.454	1.000	0.493	0.008	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Ba (mg/L)	0.963	0.927	0.323	0.601	...	...
Sol. B (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)	0.979	0.969	0.062	0.711	...	...
Sol. Zn (mg/L)	-	-	-	-	-	-
Sol. Se (mg/L)	-	-	-	-	-	-

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

²Upstream (U).

³Downstream (D).

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

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

...=Not appropriate Test.

TABLE AIII-2: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2011

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	0.326	0.454	...	...
Temp (°C)	1.000	1.000	0.356	0.531	...	...
pH	0.973	0.981	0.078	0.861	...	...
Alk (mg/L)	0.991	0.717	0.128	0.826	...	...
Cl (mg/L)	0.903	0.517	0.305	0.890	...	...
Turb (NTU)	0.805	0.848	0.296	0.037	...	...
TKN (mg/L)	0.994	0.738	0.378	0.737	...	...
NH ₄ -N (mg/L)	0.743	0.666	0.150	0.985	...	...
NH ₃ -N (mg/L)	0.704	0.791	0.254	0.642	...	...
ORG-N (mg/L)	0.868	0.896	0.070	0.505	...	...
NO ₂ + NO ₃ (mg/L)	0.994	0.823	0.306	0.045	...	...
TS (mg/L)	0.870	0.993	0.216	0.588	...	...
TSS (mg/L)	0.112	0.856	0.000	...	0.154	...
VSS (mg/L)	0.042	0.074	0.000	...	...	0.135
TDS (mg/L)	0.911	0.992	0.176	0.520	...	...
Phenol (µg/L)	-	-	-	-	-	-
NPS (µg/L)	-	-	-	-	-	-
BPA (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.816	0.962	0.319	0.014	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	1.000	0.978	0.077	0.184	...	...
CN (mg/L)	0.006	0.006	0.500	1.000	...	...
WAD-CN (mg/L)	0.305	0.212	0.077	0.611	...	...
F (mg/L)	1.000	0.990	0.405	0.046	...	...
TOC (mg/L)	0.998	0.495	0.113	0.061	...	...
FC (#/100ml)*	0.781	0.634	0.064	0.024	...	...
EColi (#/100ml)*	1.000	1.000	0.071	0.175	...	...
Ca (mg/L)	0.823	0.966	0.145	0.785	...	...

TABLE AIII-2 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2011

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
Mg (mg/L)	0.906	0.955	0.172	0.969	...	...
Hard (mg/L)	0.813	0.988	0.154	0.880	...	...
G. Alpha (pCi/L)	0.859	0.886	0.293	0.638	...	...
G. Beta (pCi/L)	0.992	0.983	0.448	0.826	...	...
Chlrphl (μ g/L)	0.494	0.836	0.035	...	0.157	...
Bzn (μ g/L)	-	-	-	-	-	-
Ebnzn (μ g/L)	-	-	-	-	-	-
Toln (μ g/L)	-	-	-	-	-	-
Xyln (μ g/L)	-	-	-	-	-	-
xylmp (μ g/L)	-	-	-	-	-	-
xylno (μ g/L)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
As (mg/L)	-	-	-	-	-	-
Ba (mg/L)	1.000	0.639	0.150	0.051	...	...
B (mg/L)	0.751	0.997	0.334	0.005	...	...
Cd (mg/L)	-	-	-	-	-	-
Cu (mg/L)	-	-	-	-	-	-
Cr (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ (μ g/L)	-	-	-	-	-	-
Fe (mg/L)	0.075	0.842	0.001	...	0.118	...
Pb (mg/L)	-	-	-	-	-	-
Ni (mg/L)	0.006	0.006	0.000	...	...	1.000
Mn (mg/L)	1.000	0.998	0.184	0.565	...	...
Hg (μ g/L)	-	-	-	-	-	-
Hg- (ng/L)	-	-	-	-	-	-
Zn (mg/L)	-	-	-	-	-	-
Se (mg/L)	-	-	-	-	-	-
Sol. Ca (mg/L)	0.897	0.945	0.116	0.687	...	...

TABLE AIII-2 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2011

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
Sol. Mg (mg/L)	0.897	0.977	0.135	0.862	...	...
Sol. Ag (mg/L)	0.277	0.118	0.481	0.860	...	...
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Ba (mg/L)	0.925	0.315	0.462	0.372	...	...
Sol. B (mg/L)	0.742	0.961	0.294	0.005	...	...
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)	0.781	0.936	0.480	0.542	...	...
Sol. Zn (mg/L)	0.013	0.013	0.500	1.000	...	...
Sol. Se (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-3: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2011

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	0.999	0.176	0.293	...	...
Temp (°C)	1.000	1.000	0.385	0.822	...	...
pH	1.000	0.535	0.257	0.421	...	...
Alk (mg/L)	0.974	0.972	0.487	0.038	...	...
Cl (mg/L)	0.955	0.970	0.205	0.135	...	...
Turb (NTU)	0.970	0.174	0.121	0.727	...	...
TKN (mg/L)	0.975	1.000	0.446	0.002	...	...
NH ₄ -N (mg/L)	0.517	0.971	0.308	0.112	...	...
NH ₃ -N (mg/L)	0.360	0.717	0.004	...	0.226	...
ORG-N (mg/L)	0.980	0.954	0.358	0.003	...	...
NO ₂ + NO ₃ (mg/L)	0.858	0.990	0.097	0.001	...	...
TS (mg/L)	0.999	1.000	0.363	0.058	...	...
TSS (mg/L)	0.997	0.106	0.000	...	0.671	...
VSS (mg/L)	0.800	0.242	0.000	...	0.176	...
TDS (mg/L)	0.996	1.000	0.311	0.070	...	...
Phenol (µg/L)	-	-	-	-	-	-
NPS (µg/L)	-	-	-	-	-	-
BPA (µg/L)	1.000	1.000	0.486	0.979	...	...
SO ₄ (mg/L)	0.998	0.970	0.246	0.098	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.984	0.998	0.001	...	0.002	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	0.048	0.859	0.433	...	...	0.086
F (mg/L)	1.000	0.992	0.464	0.000	...	...
TOC (mg/L)	0.998	1.000	0.455	0.008	...	...
FC (#/100ml)*	0.989	0.864	0.158	0.007	...	...
EColi (#/100ml)*	1.000	1.000	0.012	...	0.695	...
Ca (mg/L)	0.995	0.912	0.484	0.032	...	...

TABLE AIII-3 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2011

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
Mg (mg/L)	0.998	0.984	0.430	0.052	...	...
Hard (mg/L)	0.997	0.931	0.466	0.038	...	...
G. Alpha (pCi/L)	1.000	0.412	0.059	0.016	...	...
G. Beta (pCi/L)	0.991	0.823	0.009	...	0.188	...
Chlrphl (μ g/L)	0.906	0.838	0.387	0.523	...	...
Bzn (μ g/L)	-	-	-	-	-	-
Ebnzn (μ g/L)	-	-	-	-	-	-
Toln (μ g/L)	-	-	-	-	-	-
Xyln (μ g/L)	-	-	-	-	-	-
xylmp (μ g/L)	-	-	-	-	-	-
xylno (μ g/L)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
As (mg/L)	-	-	-	-	-	-
Ba (mg/L)	1.000	1.000	0.415	0.021	...	...
B (mg/L)	1.000	1.000	0.211	0.031	...	...
Cd (mg/L)	-	-	-	-	-	-
Cu (mg/L)	-	-	-	-	-	-
Cr (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ (μ g/L)	-	-	-	-	-	-
Fe (mg/L)	0.995	0.735	0.053	0.115	...	...
Pb (mg/L)	-	-	-	-	-	-
Ni (mg/L)	-	-	-	-	-	-
Mn (mg/L)	1.000	0.999	0.223	0.388	...	...
Hg (μ g/L)	-	-	-	-	-	-
Hg- (ng/L)	-	-	-	-	-	-
Zn (mg/L)	-	-	-	-	-	-
Se (mg/L)	-	-	-	-	-	-
Sol. Ca (mg/L)	0.991	0.986	0.400	0.033	...	...

TABLE AIII-3 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2011

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
Sol. Mg (mg/L)	0.994	1.000	0.474	0.066	...	...
Sol. Ag (mg/L)	0.069	0.209	0.271	0.500	...	...
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Ba (mg/L)	0.993	0.998	0.247	0.049	...	...
Sol. B (mg/L)	0.999	0.958	0.320	0.028	...	...
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)	0.903	0.985	0.132	0.271	...	...
Sol. Zn (mg/L)	0.022	0.026	0.333	...	...	0.685
Sol. Se (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-4: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2011

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)	0.976	0.817	0.281	0.281	...	...
Temp (°C)	1.000	1.000	0.432	0.838	...	...
pH	0.925	0.758	0.193	0.466	...	...
Alk (mg/L)	0.980	0.895	0.082	0.001	...	...
Cl (mg/L)	0.731	0.368	0.361	0.822	...	...
Turb (NTU)	0.939	1.000	0.003	...	0.015	...
TKN (mg/L)	0.962	1.000	0.039	...	0.883	...
NH ₄ -N (mg/L)	0.260	0.206	0.008	...	0.754	...
NH ₃ -N (mg/L)	0.390	0.218	0.066	0.707	...	...
ORG-N (mg/L)	0.928	1.000	0.076	0.925	...	...
NO ₂ + NO ₃ (mg/L)	0.098	0.997	0.320	0.036	...	...
TS (mg/L)	0.918	0.782	0.425	0.627	...	...
TSS (mg/L)	0.993	1.000	0.001	...	0.024	...
VSS (mg/L)	0.868	0.988	0.038	...	0.054	...
TDS (mg/L)	0.933	0.814	0.410	0.682	...	...
Phenol (µg/L)	-	-	-	-	-	-
NPS (µg/L)	-	-	-	-	-	-
BPA (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.846	1.000	0.142	0.605	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.038	0.692	0.422	...	...	0.003
CN (mg/L)	0.084	0.030	0.005	...	...	0.918
WAD-CN (mg/L)	0.103	0.911	0.209	0.529	...	...
F (mg/L)	0.088	0.975	0.230	0.161	...	...
TOC (mg/L)	0.998	0.918	0.464	0.373	...	...
FC (#/100ml)*	0.998	0.875	0.050	...	0.193	...
EColi (#/100ml)*	1.000	1.000	0.277	0.755	...	...
Ca (mg/L)	0.764	1.000	0.360	0.186	...	...

TABLE AIII-4 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2011

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
Mg (mg/L)	0.956	0.994	0.103	0.044	...	...
Hard (mg/L)	0.920	1.000	0.241	0.105	...	...
G. Alpha (pCi/L)	0.559	0.820	0.003	...	0.188	...
G. Beta (pCi/L)	0.563	1.000	0.131	0.938	...	...
Chlrphl (μ g/L)	0.990	0.998	0.055	0.224	...	...
Bzn (μ g/L)	-	-	-	-	-	-
Ebnzn (μ g/L)	-	-	-	-	-	-
Toln (μ g/L)	-	-	-	-	-	-
Xyln (μ g/L)	-	-	-	-	-	-
xylnmp (μ g/L)	-	-	-	-	-	-
xyln (μ g/L)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
As (mg/L)	-	-	-	-	-	-
Ba (mg/L)	1.000	0.891	0.212	0.055	...	...
B (mg/L)	0.188	0.835	0.318	0.206	...	...
Cd (mg/L)	-	-	-	-	-	-
Cu (mg/L)	-	-	-	-	-	-
Cr (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ (μ g/L)	-	-	-	-	-	-
Fe (mg/L)	0.906	0.716	0.000	...	0.005	...
Pb (mg/L)	-	-	-	-	-	-
Ni (mg/L)	-	-	-	-	-	-
Mn (mg/L)	0.961	0.867	0.000	...	0.034	...
Hg (μ g/L)	-	-	-	-	-	-
Hg- (ng/L)	0.768	0.824	0.003	...	0.157	...
Zn (mg/L)	-	-	-	-	-	-
Se (mg/L)	-	-	-	-	-	-
Sol. Ca (mg/L)	0.997	1.000	0.365	0.188	...	...

TABLE AIII-4 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2011

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
Sol. Mg (mg/L)	0.999	0.999	0.092	0.046	...	...
Sol. Ag (mg/L)	0.224	0.237	0.044	...	0.661	...
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Ba (mg/L)	0.932	0.862	0.214	0.066	...	...
Sol. B (mg/L)	0.190	0.876	0.406	0.193	...	...
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)	0.951	0.142	0.019	...	0.173	...
Sol. Zn (mg/L)	-	-	-	-	-	-
Sol. Se (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 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2011

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	0.999	0.252	0.691	...	...
Temp (°C)	0.959	1.000	0.127	0.619	...	...
pH	1.000	0.987	0.064	0.490	...	...
Alk (mg/L)	0.994	0.952	0.254	0.005	...	...
Cl (mg/L)	0.977	0.734	0.257	0.443	...	...
Turb (NTU)	1.000	0.751	0.000	...	0.039	...
TKN (mg/L)	1.000	0.998	0.191	0.271	...	...
NH ₄ -N (mg/L)	1.000	0.924	0.392	0.662	...	...
NH ₃ -N (mg/L)	1.000	0.904	0.132	0.264	...	...
ORG-N (mg/L)	0.999	0.997	0.540	0.287	...	...
NO ₂ + NO ₃ (mg/L)	1.000	0.996	0.000	0.000	...	...
TS (mg/L)	1.000	1.000	0.149	0.562	...	...
TSS (mg/L)	1.000	0.619	0.000	...	0.023	...
VSS (mg/L)	0.999	0.567	0.024	...	0.042	...
TDS (mg/L)	1.000	1.000	0.146	0.442	...	...
Phenol (µg/L)	-	-	-	-	-	-
NPS (µg/L)	-	-	-	-	-	-
BPA (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.782	0.935	0.415	0.000	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	1.000	0.802	0.000	...	...	0.002
CN (mg/L)	0.491	0.049	0.298	...	...	1.000
WAD-CN (mg/L)	0.491	0.069	0.000	...	0.259	...
F (mg/L)	1.000	0.998	0.001	0.000	...	...
TOC (mg/L)	1.000	1.000	0.149	0.788	...	...
FC (#/100ml)*	1.000	0.998	0.391	0.381	...	...
EColi (#/100ml)*	-	-	-	-	-	-
Ca (mg/L)	0.991	1.000	0.388	0.000	...	...

TABLE AIII-5 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2011

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
Mg (mg/L)	0.997	0.936	0.271	0.001	...	...
Hard (mg/L)	0.994	1.000	0.331	0.000	...	...
G. Alpha (pCi/L)	1.000	1.000	0.013	...	0.394	...
G. Beta (pCi/L)	0.999	1.000	0.397	0.041	...	...
Chlrphl (μ g/L)	0.999	0.521	0.036	...	0.025	...
Bzn (μ g/L)	-	-	-	-	-	-
Ebnzn (μ g/L)	-	-	-	-	-	-
Toln (μ g/L)	-	-	-	-	-	-
Xyln (μ g/L)	-	-	-	-	-	-
xylmp (μ g/L)	-	-	-	-	-	-
xylno (μ g/L)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
As (mg/L)	-	-	-	-	-	-
Ba (mg/L)	1.000	0.460	0.418	0.005	...	...
B (mg/L)	0.986	0.966	0.021	0.000	...	...
Cd (mg/L)	-	-	-	-	-	-
Cu (mg/L)	-	-	-	-	-	-
Cr (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ (μ g/L)	-	-	-	-	-	-
Fe (mg/L)	-	-	-	-	-	-
Pb (mg/L)	-	-	-	-	-	-
Ni (mg/L)	-	-	-	-	-	-
Mn (mg/L)	1.000	0.905	0.004	...	0.003	...
Hg (μ g/L)	-	-	-	-	-	-
Hg- (ng/L)	0.606	0.145	0.006	...	0.685	...
Zn (mg/L)	-	-	-	-	-	-
Se (mg/L)	-	-	-	-	-	-
Sol. Ca (mg/L)	0.972	1.000	0.303	0.000	...	...

TABLE AIII-5 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2011

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
Sol. Mg (mg/L)	0.997	0.995	0.184	0.000	...	...
Sol. Ag (mg/L)	0.491	0.030	0.249	...	...	0.003
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Ba (mg/L)	0.996	0.517	0.441	0.019	...	...
Sol. B (mg/L)	0.867	0.986	0.012	0.000	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	1.000	0.995	0.006	...	0.008	...
Sol. Zn (mg/L)	0.491	0.162	0.127	0.397	...	...
Sol. Se (mg/L)	-	-	-	-	-	-

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

²Upstream (U).

³Downstream (D).

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

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

...=Not appropriate Test.

TABLE AIII-6: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2011

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	0.006	...	0.075	...
Temp (°C)	0.956	0.984	0.242	0.924	...	...
pH	0.986	0.992	0.297	0.516	...	...
Alk (mg/L)	0.831	1.000	0.219	0.007	...	...
Cl (mg/L)	0.949	0.883	0.110	0.245	...	...
Turb (NTU)	0.341	0.965	0.000	...	0.155	...
TKN (mg/L)	1.000	1.000	0.281	0.814	...	...
NH ₄ -N (mg/L)	0.971	0.675	0.120	0.300	...	...
NH ₃ -N (mg/L)	0.944	0.432	0.002	...	0.172	...
ORG-N (mg/L)	1.000	0.984	0.375	0.790	...	...
NO ₂ + NO ₃ (mg/L)	0.116	0.972	0.439	0.001	...	...
TS (mg/L)	1.000	0.999	0.045	...	0.048	...
TSS (mg/L)	0.368	1.000	0.000	...	0.413	...
VSS (mg/L)	0.613	0.724	0.002	...	0.770	...
TDS (mg/L)	1.000	0.999	0.041	...	0.057	...
Phenol (µg/L)	-	-	-	-	-	-
NPS (µg/L)	-	-	-	-	-	-
BPA (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	1.000	1.000	0.001	...	0.100	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.038	0.999	0.344	0.002	...	...
CN (mg/L)	0.077	0.197	0.072	0.853	...	...
WAD-CN (mg/L)	0.146	0.517	0.367	0.389	...	...
F (mg/L)	0.242	0.985	0.285	0.005	...	...
TOC (mg/L)	0.956	0.776	0.020	...	0.014	...
FC (#/100ml)*	1.000	0.998	0.169	0.677	...	...
EColi (#/100ml)*	1.000	1.000	0.393	0.923	...	...
Ca (mg/L)	0.961	0.998	0.153	0.016	...	...

TABLE AIII-6 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2011

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
Mg (mg/L)	0.990	1.000	0.138	0.055	...	...
Hard (mg/L)	0.982	0.999	0.146	0.026	...	...
G. Alpha (pCi/L)	1.000	0.995	0.453	0.141	...	...
G. Beta (pCi/L)	0.642	0.929	0.018	...	0.016	...
Chlrphl (μ g/L)	0.980	0.325	0.206	0.149	...	...
Bzn (μ g/L)	-	-	-	-	-	-
Ebnzn (μ g/L)	-	-	-	-	-	-
Toln (μ g/L)	-	-	-	-	-	-
Xyln (μ g/L)	-	-	-	-	-	-
xylnmp (μ g/L)	-	-	-	-	-	-
xyln (μ g/L)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
As (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.963	0.952	0.110	0.003	...	...
B (mg/L)	0.675	0.985	0.406	0.003	...	...
Cd (mg/L)	-	-	-	-	-	-
Cu (mg/L)	-	-	-	-	-	-
Cr (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ (μ g/L)	-	-	-	-	-	-
Fe (mg/L)	0.999	0.488	0.107	0.001	...	...
Pb (mg/L)	-	-	-	-	-	-
Ni (mg/L)	-	-	-	-	-	-
Mn (mg/L)	0.985	0.943	0.000	...	0.018	...
Hg (μ g/L)	-	-	-	-	-	-
Hg- (ng/L)	0.817	0.054	0.021	...	0.670	...
Zn (mg/L)	-	-	-	-	-	-
Se (mg/L)	0.022	0.006	0.000	...	...	0.895
Sol. Ca (mg/L)	0.759	0.983	0.196	0.011	...	...

TABLE AIII-6 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 70 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2011

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
Sol. Mg (mg/L)	0.985	1.000	0.174	0.046	...	...
Sol. Ag (mg/L)	0.258	0.158	0.051	0.963	...	...
Sol. As (mg/L)	-	-	-	-	-	-
Sol. Ba (mg/L)	0.941	1.000	0.211	0.004	...	...
Sol. B (mg/L)	0.356	0.998	0.333	0.002	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	0.022	0.006	0.016	...	...	1.000
Sol. Mn (mg/L)	0.933	0.980	0.000	...	0.021	...
Sol. Zn (mg/L)	0.077	0.744	0.188	...	...	0.015
Sol. Se (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.