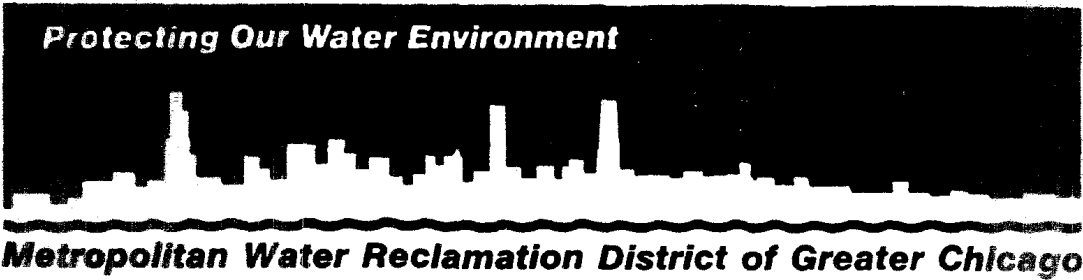


BRADY I



**RESEARCH AND DEVELOPMENT
DEPARTMENT**

REPORT NO. 2000-3

1998 ANNUAL SUMMARY REPORT

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

February 2000

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

**1998 ANNUAL SUMMARY REPORT
WATER QUALITY WITHIN THE WATERWAYS SYSTEM OF
THE METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO**

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METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE LOCATOR - BY PARAMETER

Code	Parameter	Waterways Sample through 1998	Violation History through 1998	Mean History through 1998
		Page	Page	Page
1	Biochemical Oxygen Demand	AII-1		AII-41
14	Chemical Oxygen Demand	AII-1		AII-42
5	Dissolved Oxygen	AII-1	AII-11	AII-43
6	Temperature	AII-1	AII-12	AII-44
15	Total Kjeldahl Nitrogen	AII-1		AII-45
20	Organic Nitrogen	AII-2		AII-46
16	Ammonium Nitrogen	AII-2	AII-15	AII-47
46	Un-ionized Ammonia	AII-2	AII-40	AII-48
27	Nitrite Plus Nitrate	AII-2		AII-49
17	Total Solids	AII-2		AII-50
21	Total Dissolved Solids	AII-3	AII-17	AII-51
18	Total Volatile Solids	AII-3		AII-52
22	Total Dissolved Volatile Solids	AII-3		AII-53
2	Total Suspended Solids	AII-3		AII-54
38	Boron	AII-3	AII-39	AII-90
3	Volatile Suspended Solids			AII-55
4	Inorganic Suspended Solids	AII-4		
50	Total Organic Carbon	AII-4		AII-56
44	Fecal Coliform	AII-4	AII-34	AII-57
8	pH	AII-4	AII-13	AII-58
7	Conductivity	AII-4		AII-59
10	Chloride	AII-5	AII-14	AII-60
25	Phosphorus	AII-5		AII-61
60	Soluble Phosphorus	AII-5		AII-62
62	Gross Alpha Radioactivity	AII-5		AII-63
63	Gross Beta Radioactivity	AII-5	AII-38	AII-64
19	Fats, Oils, and Greases	AII-6	AII-16	AII-65
13	Alkalinity (Total)	AII-6		AII-66
11	Turbidity	AII-6		AII-67
24	Sulfate	AII-6	AII-19	AII-68
23	Phenols	AII-6	AII-18	AII-69

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE LOCATOR - BY PARAMETER

Code	Parameter	Waterways Sample through 1998	Violation History through 1998	Mean History through 1998
		Page	Page	Page
26	Cyanide	AII-7	AII-21	AII-70
64	WAD Cyanide	AII-7	AII-20	AII-71
54	Fluoride	AII-7	AII-37	AII-72
29	Zinc	AII-7	AII-22	AII-73
30	Cadmium	AII-7	AII-23	AII-74
31	Copper	AII-8	AII-24	AII-75
32	Chromium	AII-8	AII-25	AII-76
34	Iron (Total)	AII-8	AII-26	AII-77
52	Soluble Iron	AII-8	AII-35	AII-78
35	Nickel	AII-8	AII-27	AII-79
36	Lead	AII-9	AII-28	AII-80
37	Mercury	AII-9	AII-29	AII-81
39	Arsenic	AII-9	AII-30	AII-82
40	Selenium	AII-9	AII-31	AII-83
41	Barium	AII-9	AII-32	AII-84
42	Silver	AII-10	AII-33	AII-85
53	Manganese	AII-10	AII-36	AII-86
56	Calcium	AII-10		AII-87
58	Magnesium	AII-10		AII-88
47	Hardness	AII-10		AII-89

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4	Compliance Rates of Water Quality Standards for General Use Waters Section of Des Plaines River in 1997 and 1998	41
5	Compliance Rates of Water Quality Standards for Secondary Contact Waters Section of Chicago River in 1997 and 1998	48
6	Compliance Rates of Water Quality Standards for Secondary Contact Waters Section of Calumet River in 1997 and 1998	50

ACKNOWLEDGMENTS

We recognize and appreciate the efforts of the staff of the Analytical Laboratories, Industrial Waste, and Environmental Monitoring and Research Divisions for the collection and analysis of waterways samples.

Thanks are due to Ms. Adela Martinez-Johnson for typing the manuscript.

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 Illinois Pollution Control Board (IPCB) water quality standards for the year 1998. In addition, a comparison of data for the year 1998 with data for 1997 was made.

Compliance with Water Quality Standards During 1998

GENERAL USE WATERS

Twenty-seven water quality parameters assayed had applicable IPCB standards. Water sample points were located throughout the five river systems including the General Use sectors of the Chicago and Calumet River Systems, the Des Plaines River System, the West Branch of the Du Page River, and the Fox River System (Poplar Creek). Fourteen water quality parameters were in total compliance with the standards in all river Systems. They were un-ionized ammonia, weak acid dissociable (WAD) cyanide, phenols, and eleven metals (total zinc, boron, total cadmium, total chromium [hexavalent and trivalent], total nickel, total lead, manganese, total arsenic, total selenium, total barium, and total copper).

Of the remaining 13 parameters, the compliance rates of 11 parameters, viz., temperature, pH, chloride, ammonia nitro-

gen, total dissolved solids, sulfate, total iron, total mercury, total silver, soluble iron, and fluoride were greater than 92.9 percent in all river systems. Dissolved oxygen had a compliance rate greater than 83.3 percent in the various river systems. Fecal coliform, which had the lowest compliance rate of all the parameters, measured 37.5 to 59.7 percent in the Chicago, Calumet, and Des Plaines River Systems.

A comparison of 1997 data with 1998 data indicated that there was no significant difference between the 1997 and 1998 compliance rates except for temperature, silver and fecal coliform. The fecal coliform compliance rate decreased from 60 percent in 1997 to 37.5 percent in 1998 in the Chicago River, and the fecal coliform compliance rate increased from 28 percent in 1997 to 49.1 percent in 1998 in the Des Plaines River. The temperature compliance rate decreased from 100 percent in 1997 to 91.7 percent in 1998, but the compliance rate of silver increased from 78.9 percent in 1997 to 98.5 percent in 1998 in the Des Plaines River.

SECONDARY CONTACT AND INDIGENOUS AQUATIC LIFE WATERS

This water use classification is principally composed of the manmade navigable canal system in the Chicago and Calumet River Systems. Twenty-four water quality parameters assayed in the secondary contact waters during 1998 had applicable IPCB standards.

Seventeen parameters were in complete compliance with the IPCB standards for the Chicago and Calumet River Systems during 1998. They were total silver, total arsenic, total barium, total cadmium, total cyanide, total chromium, fluoride, total nickel, phenols, total selenium, temperature, total zinc, lead, mercury, FOG, total dissolved solids and manganese. Compliance rates for six parameters, viz., dissolved oxygen, total iron, copper, ammonia nitrogen, soluble iron, and un-ionized ammonia varied from 87.5 percent to 99.4 percent in the Chicago River System; and 87.9 percent to 100 percent in the Calumet River System. The compliance rate of pH was 91.7 percent in the Chicago River System and 87.9 percent in the Calumet River System.

INTRODUCTION

It is the responsibility of the District to conduct surveillance regarding the water quality of the streams and canals within its jurisdiction. Consequently, annual reports of the District's Research and Development Department have included sections dealing with summary results of these surveillances for certain selected water quality parameters. Detailed annual water quality summaries (similar to this report) for all water quality data collected have been published by the District for the years 1972 through 1997. Complete tabulations of waterway surveillance data collected by the District are available for the years 1970 through 1998.

It should be noted that the Illinois Environmental Protection Agency (IEPA) 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.

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 were designed to be independent of other tables to facilitate reproduction and transmittal of specific data requests. In addition to the data formats included in Appendices AI, AII, and AIII, other data

presentation formats are available in hardcopy and floppy disk media.

WATER QUALITY NETWORK

Description of Waterways

The District is responsible for monitoring the quality of the waterways within the confines of Cook County. A map depicting the waterways is shown in Figure 1. 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 Cal-Sag Channel, connecting the Little Calumet River with the Main Channel.

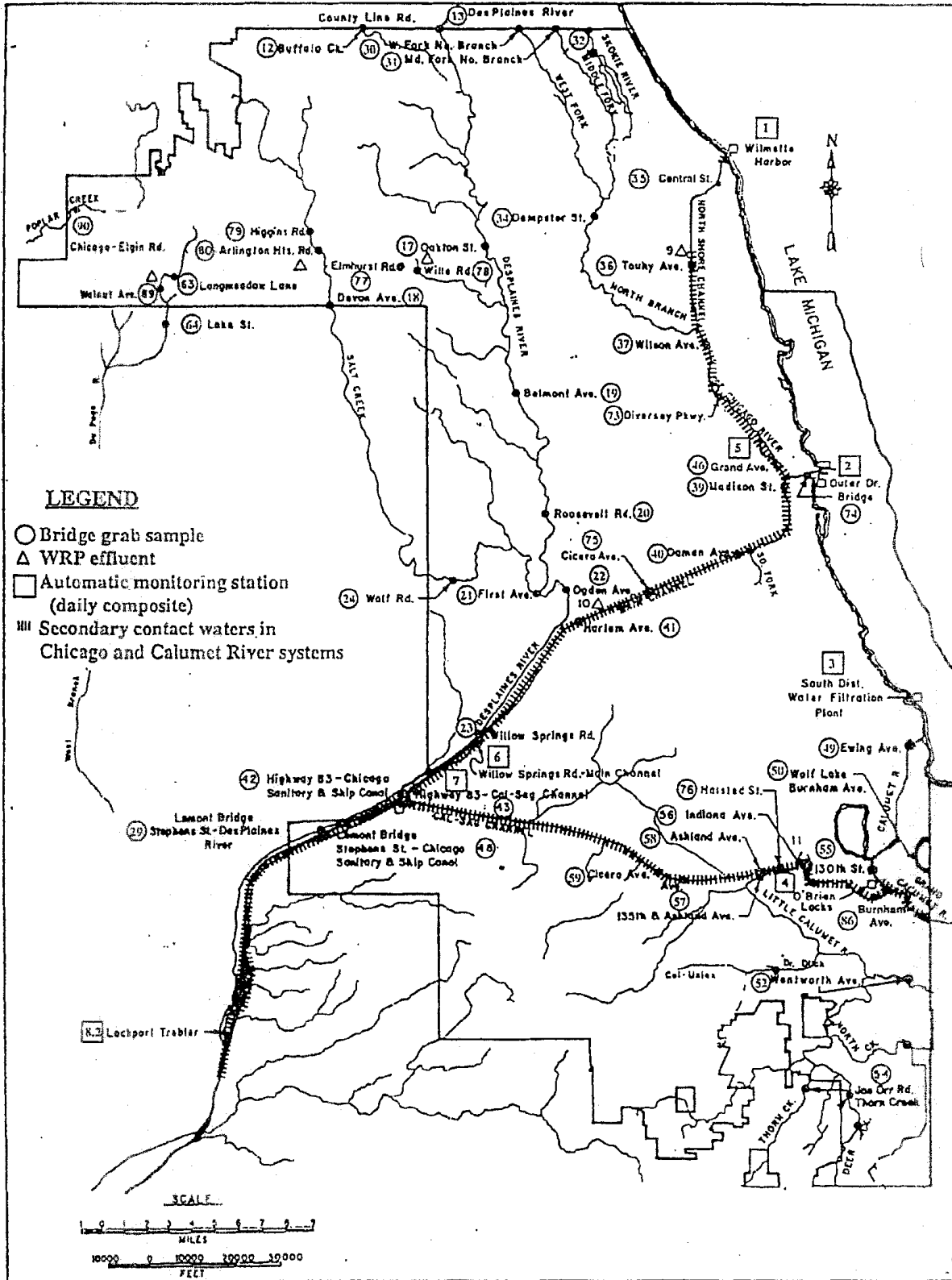
The functions of the canal system are to provide navigational facilities for boats and barges, as well as to serve as receiving waters for conveying the flows from the tributary streams and water reclamation plant effluents, combined sewer overflows, and storm water runoffs from the Lake Michigan watershed to the Des Plaines watershed through the terminus at the Lockport Powerhouse.

The principal 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 Cal-Sag Channel.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 1

WATERWAY SAMPLING LOCATION POINTS



Included in this report are a description of the District's water quality network, a comparison of water quality for the year 1998 with results for the preceding year for all water quality parameters assayed, and District compliance with IPCB water quality stream standards for 1998.

Water Sampling

Surface water grab samples were taken at 47 locations during 1998. Sampling at location 51 was replaced by location 86 in 1989. Sampling at locations 8.4 and 49 were discontinued in 1988 and 1991, respectively. These samples were taken on a nominal monthly frequency, with one of the three principal river systems being sampled on a given day. The sampling dates for the Chicago, Calumet, and Des Plaines River Systems during 1998 are shown in Table 1. Note that samples taken in the West Branch of the Du Page River (upstream and downstream of the Hanover Park Water Reclamation Plant (WRP) outfall), and in the Fox River System (Poplar Creek), were included with the Des Plaines River sample runs.

In addition to the surface water grab samples, weekly samples were taken from an automatic sampler located at the Lockport Powerhouse.

Locations sampled in the respective river systems during 1998 are shown in Table AI-3, Appendix I. The number of sampling sites are 16, 12, and 19, in the Chicago, Calumet, and Des Plaines River Systems, respectively, (including four loca-

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 1

1998 WATERWAYS (BRIDGE RUNS) SAMPLING DATES

Month	Chicago River System	Calumet River System	Des Plaines River System
January	14	16	17
February	14	17	19
March	14	17	19
April	15	17	19
May	15	19	18
June	15	19	18
July	15	19	18
August	15	19	17
September	15	19	18
October	15	19	17
November	15	19	18
December	15	19	16

tions in Du Page and Fox River systems). The waterways system station codes correspond to the map numbers shown in Figure 1. The complete waterways sampling station directory, of which the 1998 sampling locations are a subset, is shown in Table AI-2, Appendix AI.

Water Assays and Water Quality Criteria

The District's laboratories reported 52 types of assays of water samples taken in District waterways during 1998. A list of these assays appears in Table 2.

Also included in Table 2 are the relevant water quality standards, water use classification as defined by the IPCB in the State of Illinois Rules and Regulations, Title 35 (2), and the related IPCB rule numbers with the effective date of each rule.

WATER USE DESIGNATIONS

IPCB Regulations, Section 303.201 specifies that "Except as otherwise specifically provided, all waters of the State must meet the General Use standards for Subpart B of Part 302." 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 Subpart D, Part 302." The waters within District boundaries classified for use as Secondary Contact Waters are shown in Figure 1.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
<u>Dissolved Oxygen</u>			
General Use Waters ³	6.0 mg/L ⁴	302.206	04/16/72
	5.0 mg/L ^{4,5}	302.206	04/16/72
Secondary Contact Waters ⁶	5.0 mg/L ^{4,5}	303.441(j)	04/16/72
	4.0 mg/L ^{4,5}	302.405	01/01/78
	3.0 mg/L ^{5,7}	302.405	05/19/88
<u>Five-day Biochemical Oxygen Demand</u>	No standard		
<u>Chemical Oxygen Demand</u>	No standard		
<u>Total Organic Carbon</u>	No standard		
<u>Total Kjeldahl Nitrogen</u>	No standard		
<u>Ammonia Nitrogen</u>			
General Use Waters ³	15 mg/L with un-ionized ammonia ≤0.33 mg/L Apr.-Oct. and ≤0.14 mg/L Nov.-Mar.	302.212	12/19/96
Secondary Contact Waters ⁶	2.5 mg/L Apr.-Oct. 4.0 mg/L Nov.-Mar. 0.10 mg/L un-ionized ammonia	302.407	06/21/79 05/19/88

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
<u>Organic Nitrogen</u>	No standard		
<u>Nitrite plus Nitrate Nitrogen</u>	No standard		
<u>Total Phosphorus</u>	No standard		
<u>Soluble Phosphorus</u>	No standard		
<u>Fecal Coliform Indicator</u> ⁸			
General Use Waters ³	200 counts/100 ml ⁹	302.209	04/16/72
	400 counts/100 ml ⁹ (400 counts/100 ml) ⁵	302.209	04/16/72
Secondary Contact Waters ⁶	No standard		
<u>Gross Alpha Radioactivity</u>	No standard		
<u>Gross Beta Radioactivity</u>			
General Use Waters ³	100 picocuries/L	302.207	04/16/72
Secondary Contact Waters ⁶	No standard		

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
<u>pH</u>			
General Use Waters ³	6.5-9.0	302.204	04/16/72
Secondary Contact Waters ⁶	6.0-9.0	302.404	04/16/72
<u>Alkalinity</u>	No standard		
<u>Temperature</u>			
General Use Waters ³	90°F, Apr.- Nov. ¹⁰	302.211	04/16/72
	60°F, Dec.- Mar. ¹⁰	302.211	04/16/72
Secondary Contact Waters ⁶	93°F ¹¹	302.408	04/16/72
	100°F ¹¹ (100°F) ⁵	302.408	04/16/72
<u>Conductivity</u>	No standard		
<u>Total Dissolved Solids</u>			
General Use Waters ³	1,000 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	1,500 mg/L	302.407	06/21/79
<u>Total Dissolved Volatile Solids</u>	No standard		
<u>Total Solids</u>	No standard		

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
<u>Total Volatile Solids</u>	No standard		
<u>Total Suspended Solids</u>	No standard		
<u>Volatile Suspended Solids</u>	No standard		
<u>Inorganic Suspended Solids</u>	No standard		
<u>Turbidity</u>	No standard		
<u>Chloride</u>			
General Use Waters ³	500 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	No standard		
<u>Sulfate</u>			
General Use Waters ³	500 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	No standard		
<u>Total Cyanide</u>			
General Use Waters ^{3,5}	0.025 mg/L	302.208	04/16/72
	No Standard		02/01/96

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
Secondary Contact Waters ⁶	0.1 mg/L	302.407	09/07/78
<u>WAD Cyanide</u>			
General Use Waters ^{3,5}	0.022 mg/L (weak acid dissociable)	302.208	02/01/96
Secondary Contact Waters ⁶	No standard		
<u>Fluoride</u>			
General Use Waters ³	1.4 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	15.0 mg/L	302.407	05/24/79
<u>Methylene Blue Active Substances</u>			
	No standard		
<u>Phenols</u>			
General Use Waters ³	0.1 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	0.3 mg/L	302.407	05/24/79
<u>Fats, Oils, and Greases</u>			
General Use Waters ³	No standard		

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
Secondary Contact Waters ⁶	15.0 mg/L ¹²	302.407	05/24/79
<u>Total Arsenic</u>			
General Use Waters ³	1.0 mg/L 0.36 mg/L	302.208	05/24/79 02/04/90
Secondary Contact Waters ⁶	1.0 mg/L	302.407	05/24/79
<u>Total Barium</u>			
General Use Waters ³	5.0 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	5.0 mg/L	302.407	05/24/79
<u>Total Cadmium</u>			
General Use Waters ³	0.05 mg/L note ¹⁴	302.208	04/16/72 02/04/90
Secondary Contact Waters ⁶	0.15 mg/L	302.407	05/24/79
<u>Total Calcium</u>	No standard		
<u>Chromium (Total Hexavalent)¹³</u>			
General Use Waters ³	0.05 mg/L 0.016 mg/L	302.208	04/16/72 02/04/90

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
Secondary Contact Waters ⁶	0.3 mg/L	302.407	05/24/79
<u>Chromium (Total Trivalent)¹³</u>			
General Use Waters ³	1.0 mg/L note ¹⁶	302.208	04/16/72 02/04/90
Secondary Contact Waters ⁶	1.0 mg/L	302.407	05/24/79
<u>Total Chromium (Hexavalent and Trivalent)</u>			
General Use Waters ³	1.0 mg/L ⁵ note ¹⁶	302.208	04/16/72 02/04/90
Secondary Contact Waters ⁶	1.0 mg/L ⁵	302.407	05/24/79
<u>Total Copper</u>			
General Use Waters ³	0.02 mg/L note ¹⁵	302.208	04/16/72 02/04/90
Secondary Contact Waters ⁶	1.0 mg/L	302.407	05/24/79
<u>Total Iron</u>			
General Use Waters ³	1.0 mg/L No standard	302.208	04/16/72 08/01/93
Secondary Contact Waters ⁶	2.0 mg/L	302.407	05/24/79

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
<u>Iron (Dissolved)</u>			
General Use Waters ³	1.0 mg/L	302.208	08/01/93
Secondary Contact Waters ⁶	0.5 mg/L	302.407	05/24/79
<u>Total Lead</u>			
General Use Waters ³	0.1 mg/L note ¹⁷ note ¹⁸	302.208	04/16/72 02/04/90 05/16/96
Secondary Contact Waters ⁶	0.1 mg/L	302.407	05/24/79
<u>Total Magnesium</u>	No standard		
<u>Total Manganese</u>			
General Use Waters ³	1.0 mg/L	302.208	04/16/72
Secondary Contact Waters ⁶	1.0 mg/L	302.407	05/24/79
<u>Total Mercury</u>			
General Use Waters ³	0.0005 mg/L 0.0026 mg/L	302.208	04/25/71 05/16/96
Secondary Contact Waters ⁶	0.0005 mg/L	302.407	05/24/79

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
<u>Total Boron</u>			
General Use Waters	1.0 mg/L		
Secondary Contact Waters	No standards		
<u>Total Nickel</u>			
General Use Waters ³	1.0 mg/L	302.208	4/16/72
Secondary Contact Waters ⁶	1.0 mg/L	302.407	5/24/79
<u>Total Selenium</u>			
General Use Waters ³	1.0 mg/L	302.208	4/16/72
Secondary Contact Waters ⁶	1.0 mg/L	302.407	5/24/79
<u>Total Silver</u>			
General Use Waters ³	0.005 mg/L	302.208	4/16/72
Secondary Contact Waters ⁶	0.1 mg/L	302.407	5/24/79
<u>Total Zinc</u>			
General Use Waters ²	1.0 mg/L	302.208	4/16/72

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
Secondary Contact Waters ³	1.0 mg/L	302.407	5/24/79

¹Water Quality Standards from "State of Illinois Rules and Regulations," Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board, January 14, 1999.

²Section number from 1 above.

³General Use Waters Designations, defined in Section 303.201 from 1 above. See Figure 1, for delineation.

⁴The upper value is the standard which must be equaled or exceeded for 16 hours/day and the lower value must be equaled or exceeded at all times.

⁵Water quality standard as interpreted by the District. Due to such factors as infrequent sampling, type of assay, etc., strict adherence to IPCB requirements was not possible (see text).

⁶Secondary Contact and Indigenous Aquatic Life Waters Use Designation, defined in Section 303.441 from 1 above. See Figure 1, for delineation.

⁷Cal-Sag Channel only.

⁸Repealed, October 26, 1982, for both General Use and Secondary Contact. However, because of legal difficulties, the indicated standards were in effect for General Use Waters in 1992.

⁹The geometric mean of at least five samples taken over a period not exceeding 30 days shall not exceed the upper values. Not more than 10 percent of the samples taken during any 30-day period shall exceed the lower value.

¹⁰The upper value cannot be exceeded during more than 1 percent of the hours in the preceding 12-month period. The lower value cannot be exceeded at any time.

¹¹The upper value cannot be exceeded more than 5 percent of the time, and the lower value cannot be exceeded at any time.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2 (Continued)

WATER SAMPLE ASSAYS AND WATER QUALITY STANDARDS¹

Assay	State Standard	Section ²	Effective Date
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¹²Oil may be analytically separated into polar and nonpolar components. If such separation is done, neither of the components may exceed 15 mg/L (i.e., 15 mg/L polar materials and 15 mg/L nonpolar materials). Compliance with this numerical standard shall be determined on the basis of 24-hour composite samples, averaged over any monthly period, provided that no single 24-hour composite shall be greater than twice the numerical standard and no grab sample shall be greater than five times the numerical standard.

¹³This water quality parameter was not assayed by the District, but is included in order to show the basis for interpreting a standard for: total chromium (hexavalent and trivalent).

¹⁴Cadmium = $\min(0.05, \exp(-2.918 + 1.128\ln[H]))$.

¹⁵Copper = $\exp(-1.464 + 0.9422\ln[H])$.

¹⁶Total Chromium = $\exp(3.688 + 0.8190\ln[H])$.

¹⁷Lead = $\min(0.1, \exp(-1.464 + 1.273\ln[H]))$.

¹⁸Lead = $\exp(-1.301 + 1.273\ln[H])$: Where, Hardness, mg equivalent CaCO_3/L $[H] = 2.497(\text{Ca, mg/L}) + 4.118(\text{Mg, mg/L})$.

In general, the Secondary Contact Waters coincide with the man-made canals or dredged 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.

SPECIAL 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 five water quality parameters (dissolved oxygen, fecal coliform, temperature, total chromium, and dissolved iron) with standards which require interpretation in light of the practicality and/or economics of sample collection and assay techniques performed by the District. The interpretations of IPCB standards are given below with a discussion following the listing:

<u>Water Use Designation</u>	<u>IPCB Standard</u>	<u>District Interpreted Standard</u>
1. Dissolved Oxygen		
General Use Waters	≥6.0 mg/L at least 16 hours/day	≥5.0 mg/L anytime
	≥5.0 mg/L anytime	
Secondary Contact Waters	≥4.0 mg/L anytime	≥4.0 mg/L anytime
Secondary Contact Waters	≥5.0 mg/L at least 16 hours/day	

(North Shore Channel)	≥4.0 mg/L anytime	≥4.0 mg/L anytime
(Cal-Sag Channel effective 5/19/88)	≥3.0 mg/L anytime	≥3.0 mg/L anytime
2. Fecal Coliform		
General Use Waters	Based on a minimum of five samples in a 30-day period: geometric mean <200 counts/100ml; <400 counts/100 ml in 90% of the samples	≤400 counts/100 ml anytime
3. Temperature		
Secondary Contact Waters	≤93°F, 95% of the time; <100°F, 100% of the time	≤100°F anytime
4. Total Chromium (Hexavalent and Trivalent)		
General Use Waters	Chromium (total hexavalent) ≤0.016 mg/L	≤1.0 mg/L anytime
	Chromium (total trivalent), see footnote 16, <u>Table 2</u>	≤1.0 mg/L anytime
Secondary Contact Waters	Chromium (total hexavalent) ≤0.3 mg/L	≤1.0 mg/L anytime
	Chromium (total trivalent) ≤1.0 mg/L	≤1.0 mg/L anytime
5. Dissolved Iron		
General Use Waters	≤1.0 mg/L	≤1.0 mg/L of total iron
Secondary Contact Waters	≤0.5 mg/L	≤2.0 mg/L of total iron

In the case of dissolved oxygen, there are two standards, one based on 16 hours/day and the other based on all times.

The District samples once per month and, therefore, the requirement (based on 16 hours/day) has little applicability. In view of this, the District interprets the IPCB standard for dissolved oxygen 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. The District samples once per month and, therefore, a geometric mean is not applicable. In view of this, the District interprets the IPCB standard using the limitation of 400 count/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, because temperatures are recorded by the District only once per month, the District interprets the IPCB standard as the maximum limit, or 100°F at any time.

IPCB water quality standards for chromium are specified separately for the hexavalent and trivalent oxidation states of this metal. The District does not differentiate between oxidation states when assaying for chromium, but reports the results as total chromium (hexavalent and trivalent) and interprets the IPCB standards such that the numerical limits for

trivalent chromium are applied as total chromium numerical limits. For General Use Waters, the limit for total chromium was revised in 1991. For the purpose of this report, the new limit is calculated as the quantity $\exp(3.688 + 0.8190 \ln[\text{hardness}])$ expressed in mg/L. Before 1990, the limit was 1.0 mg/L, which is also the current applicable limit for Secondary Contact Waters.

The IPCB dropped the water quality standard of 1.0 mg/L for total iron in General Use Waters in 1993, and introduced a standard of 1.0 mg/L for dissolved iron. As for Secondary Contact Waters, both total iron and dissolved iron have pertinent water quality standards of 2.0 mg/L and 0.5 mg/L, respectively. The District does not assay water samples from bridge runs for dissolved iron, but measures total iron in these samples. Therefore, the District does not assess the compliance with the dissolved iron standards. Instead, the District assesses the compliance of total iron with 1.0 mg/L in General Use Waters and 2.0 mg/L in Secondary Contact Waters.

In addition, it should be noted that in 1996 the General Use standard for cyanide was changed from total cyanide to WAD cyanide. Thus, beginning with the 1996 report, compliance determinations are made in terms of WAD cyanide.

Scope of Waterways Data Management System

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 update capabilities, the system includes programs for the generation of reports and graphics which present annual summary statistics of the water quality parameters assayed from the water samples taken within the District's water quality network, comparisons of water quality with state of Illinois stream standards, and comparisons of water quality with the results of previous years. The results of these computations are presented in Appendices AI through AI, and in tables appearing in the main body of this report.

The water quality parameter directory network is shown in Appendix AI. Water quality parameters and sampling stations are listed in Tables AI-1 and AI-2. The locations actually sampled during 1998 are listed in Table AI-3.

Summary water quality results for 1998 are listed in Appendix II. 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-31. Note that Tables AII-2 through

AIL-31 list the sampling locations where violations occurred during 1998 and their eight year history.

Because it is often desirable to view summary data from past years together with data from the current year, Tables AII-32 through AII-81 (Appendix II) were designed to present the mean values of various parameters for 1988 through 1997, with the 1998 mean values for each parameter and all locations sampled.

Finally, Tables AIII-1 through AIII-6 were prepared to show whether the upstream and downstream means of each WRP are significantly different.

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 1998 is shown in Table 3. Of the five river systems sampled during 1998, three (Des Plaines, Du Page, and Fox) lie entirely within the General Use classification, while the General Use Waters in the Chicago and Calumet River Systems comprise the streams which are tributary to the principal man-made channels and dredged river sections.

In the subsequent evaluation, when the Fox River system is referred to, only one station (Station 90) is considered. Similarly, in the Du Page River System, data from three sampling locations are considered; 100 feet upstream (Station 63), 1,000 feet downstream (Station 89), and 7,900 feet downstream of the Hanover Park WRP's treated effluent discharge into the West Branch of the Du Page River (Station 64).

The frequency of sampling during 1998 was once per month at most locations.

River System Compliance Data

Twenty-seven parameters, for samples taken in General Use Waters during 1998, were covered by the State of Illinois Wa-

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 3

GENERAL USE WATERS, 1998 LOCATIONS SAMPLED AND ANNUAL SAMPLING FREQUENCIES

Map No ¹	Station Name	Annual No. Samples
<u>Chicago River System</u>		
30	County Line Road, West Fork North Branch	0
31	County Line Road, Middle Fork North Branch	12
32	Dundee Road, Skokie River	12
34	Dempster Street, North Branch	12
74	Outer Drive Bridge, Chicago River	12
35	Central Avenue, North Shore Channel	<u>9</u>
		57
<u>Calumet River System</u>		
49	92nd and Ewing Avenue, Calumet River	24
50	Wolf Lake, Burnham Avenue	12
52	Wentworth Avenue, Little Calumet River	12
54	Joe Orr Road, Thorn Creek	12
55	130th Street, Calumet River	24
57	135th and Ashland, Little Calumet River	<u>12</u>
		96
<u>Des Plaines River System</u>		
12	County Line Road, Buffalo Creek	11
18	Devon Avenue, Salt Creek	12
24	Wolf Road, Salt Creek	6
21	First Avenue, Salt Creek	12
13	County Line Road, Des Plaines River	12
17	Oakton Street, Des Plaines River	12
19	Belmont Avenue, Des Plaines River	12
20	Roosevelt Road, Des Plaines River	12
22	Ogden Avenue, Des Plaines River	12
23	Willow Springs Road, Des Plaines River	12
29	Lemont, Stephens Street, Des Plaines River	12
77	Elmhurst Road, Higgins Creek	12
78	Wille Road, Higgins Creek	12
79	Higgins Road, Salt Creek	10
80	Arlington Heights Road, Salt Creek	<u>12</u>
		171

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 3 (Continued)

GENERAL USE WATERS, 1998 LOCATIONS SAMPLED AND ANNUAL SAMPLING FREQUENCIES

Map No. ¹	Station Name	Annual No. Samples
<u>Du Page River System</u>		
63	Longmeadow Lane, West Branch, Du Page River	8
89	Walnut Lane, West Branch, Du Page River	12
64	Lake Street, West Branch, Du Page River	<u>12</u>
		32
<u>Fox River System</u>		
90	Chicago-Elgin Road, Poplar Creek	11

Refer to Figure 1.

ter Quality Standards. Summary results, including means, number of observations, and number of violations of standards are shown in Appendix AII at each sampling station, of each of the three river systems.

The 14 parameters which were in 100 percent compliance in all river systems were: phenols, WAD cyanide, total zinc, total copper, total cadmium, total chromium, total nickel, total lead, manganese, total arsenic, total selenium, total barium, boron, and un-ionized ammonia.

There were 13 water quality parameters which were in less than complete compliance with General Use Water Quality standards during 1998 as shown in Table 4. The percent compliance of these parameters in each river system is also presented.

CHICAGO RIVER SYSTEM

There are five locations (31, 32, 34, 35, and 74) that are in General Use section of the river system. Twenty-one parameters were in 100 percent compliance at each of the locations. In addition to the 14 parameters listed above, temperature, chloride, sulfate, total iron, mercury, fluoride and soluble iron are the other 7 parameters also in total compliance. Many violations of the pertinent standards of the remaining 6 parameters (silver, ammonium nitrogen, dissolved oxygen, fecal coliform, pH, and total dissolved solids) occurred at sampling locations 31, 32, 34, 35, and 74.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 4

GENERAL USE WATERS
 1998 WATER QUALITY PARAMETERS NOT IN TOTAL COMPLIANCE
 IN ALL RIVER SYSTEMS

Parameter	<u>Estimated Percent Compliance</u>		
	Chicago	Calumet	Des Plaines
Dissolved Oxygen	83.3	92.7	92.9
Temperature	100.0	100.0	91.7
pH	95.0	93.8	93.1
Chloride	100.0	100.0	95.7
Ammonium Nitrogen	98.3	100.0	100.0
Total Dissolved Solids	95.8	81.9	86.9
Sulfate	100.0	94.4	100.0
Iron	100.0	84.7	95.9
Mercury	100.0	100.0	99.1
Silver	92.9	87.5	98.5
Fecal Coliform	37.5	59.7	49.1
Soluble Iron	100.0	95.8	100.0
Fluoride	100.0	94.4	98.9

The compliance rate for the fecal coliform standard was 37.5 percent. The compliance rate of dissolved oxygen for the river system was 83.3 percent. The compliance rates of other parameters (silver, pH, total dissolved solids and ammonium nitrogen) ranged from 92.9 percent to 98.3 percent.

The violations of dissolved oxygen occurred in April, June, July, August, September, October, November, and December at locations 31, 32, and 35. The violations of pH occurred in May, June, and October at locations 35 and 74. Only one violation of ammonium nitrogen occurred in December at location 35. Fecal coliform had 36 violations at all locations of General Use Waters of the Chicago River System in all months except March. Total dissolved solids had two violations in February and March at locations 32 and 34. Silver had four violations in February and August at locations 31, 32, and 34.

The compliance rates of all parameters in 1998 were not significantly different from those in 1997 except fecal coliform. The fecal coliform compliance rate had decreased from 60 percent in 1997 to 37.5 percent in 1998.

CALUMET RIVER SYSTEM

Six sampling locations - 49, 50, 52, 54, 55, and 57 - are in General Use section of the river system. In addition to the 14 parameters listed above which are in complete compliance in all the river systems, 4 more parameters - temperature, chloride, ammonium nitrogen and mercury were in total

compliance. The compliance rates were 92.7, 93.7, 81.9, 94.4, 84.7, 87.5, 95.8, 94.4, and 59.7 percent for dissolved oxygen, pH, total dissolved solids, sulfate, total iron, total silver, soluble iron, fluoride, and fecal coliform, respectively.

Dissolved oxygen had 7 violations in June, July, August, September and November at locations 52 and 57. In January, June, and September 6 violations of pH occurred at all locations. Total dissolved solids had 13 violations. Location 54 had 8 violations in February, March, April, June, July, August, October, and November. Location 57 had 4 violations in February, May, June, and August. Location 49 had only 1 violation in May. Sulfate had 4 violations, all at location 54 in March, June, August, and October. Total iron had 11 violations, 8 at location 52 in January, February, March, April, May, August, October and December, 2 at location 57 in January and December, and 1 at location 54 in January. Silver had 9 violations, 2 each at locations 49, 50, 52, and 54, and 1 violation at location 55. Soluble iron had 3 violations in January at locations 52, 54, and 57.

The compliance rates of all parameters in 1998 were not significantly different from those in 1997 in General Use Waters of Calumet River System.

DES PLAINES RIVER SYSTEM

For the Des Plaines River Systems, 15 sampling locations on the Des Plaines River, 3 sampling locations on the DuPage

River and 1 sampling location on Poplar Creek are considered as sampling locations.

In addition to 14 parameters listed above which were in total compliance in all river systems, 3 other parameters - ammonium nitrogen, soluble iron and sulfate were in total compliance. Compliance rates of 9 parameters (chloride, dissolved oxygen, mercury, total iron, silver, fluoride, pH, temperature, and total dissolved solids) ranged from 86.9 percent to 99.1 percent. The compliance rate of fecal coliform was 49.1 percent.

The violations of dissolved oxygen occurred in May, June, July, August, September, and October at locations 19, 20, 21, 77, 78, 79, and 80. Temperature had 19 violations at location 12, 13, 17, 18, 19, 20, 21, 22, 23, 24, 29, 63, 64, 77, 78, 79, 80, 89, and 90 in March. There were 15 violations for pH, 4 at location 12, 3 at location 13, 2 each at locations 63, 64, and 79, and 1 each at locations 80 and 90. Chloride had 9 violations at locations 21, 22, 23, 24, 29, and 77 mostly in January. Total dissolved solids had 28 violations. Location 77 had 4 violations in January, February, March, and December. Locations 21 and 24 had 3 violations each in January, February and March. Locations 12, 63, 78, and 79 had 2 violations each in January, February, and March. Locations 17, 18, 19, 20, 22, 23, 29, 64, 80, and 90 had 1 violation each. There were 9 violations of iron that occurred at locations 13, 21, 29, 63, 78, and 79. Mercury had 2 viola-

tions in November at locations 89 and 90. Silver had 3 violations, 1 each at locations 64, 79, and 80. Fecal coliform had 2 violations 1 each at locations 64 and 80.

The compliance rates of all parameters in 1998 were not significantly different from those in 1997 except fecal coliform, temperature, and silver. The fecal coliform compliance had significantly increased from 28.0 percent in 1997 to 49.1 percent in 1998. The compliance rate of silver had also significantly increased from 78.9 percent in 1997 to 98.5 percent in 1998. But the compliance rate of temperature had significantly decreased from 100 percent in 1997 to 91.7 percent in 1998.

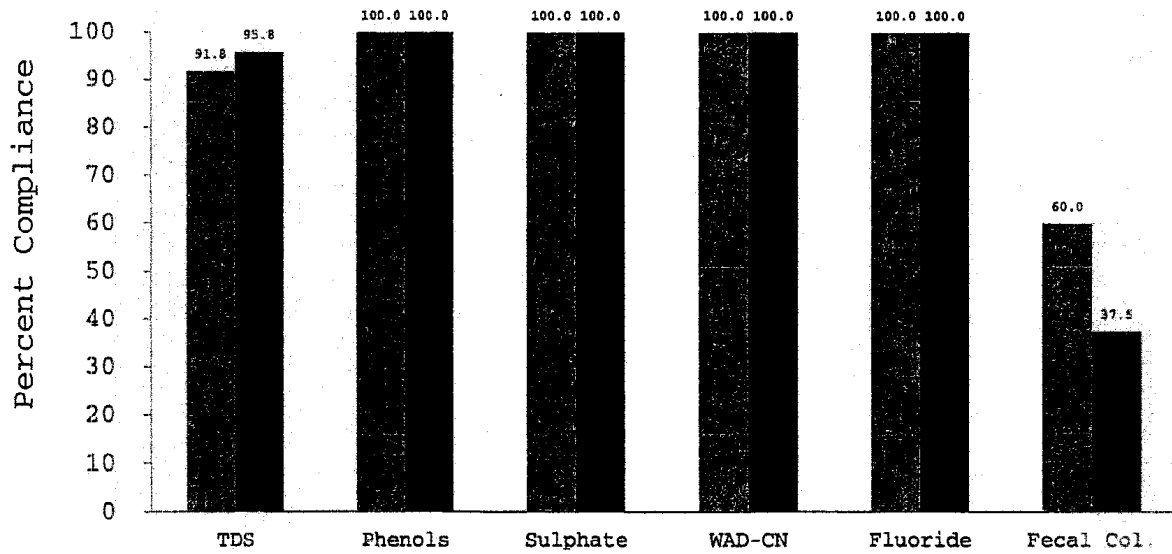
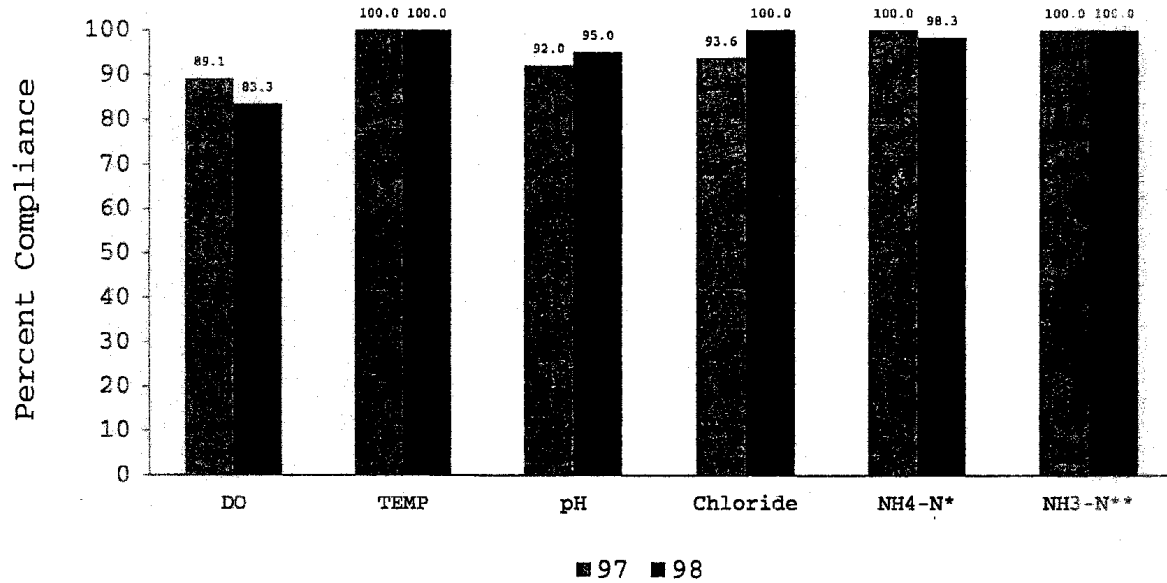
The compliance rates of 26 water quality parameters for each of three river systems, during 1997 and 1998 are presented in Figures 2, 3, and 4.

The ratio of violations (number of violations/total number of observations which occurred at each sampling location on the three river systems for last eight years (1991 through 1998) are presented in Appendix II, Tables AII-2 through AII-31.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 2

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR GENERAL USE WATERS SECTION OF CHICAGO RIVER IN 1997 AND 1998

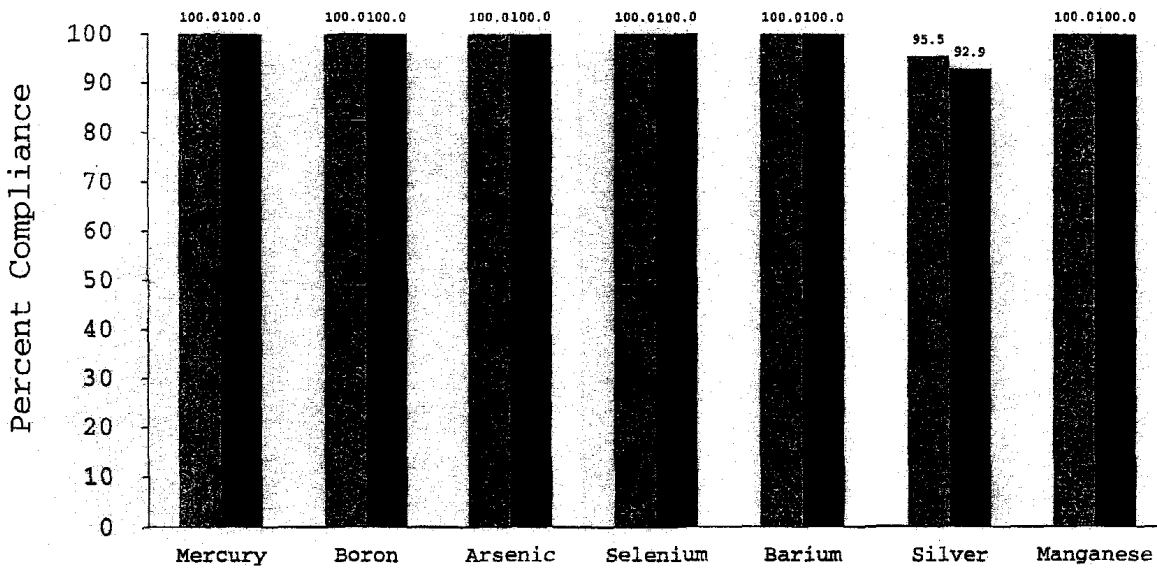
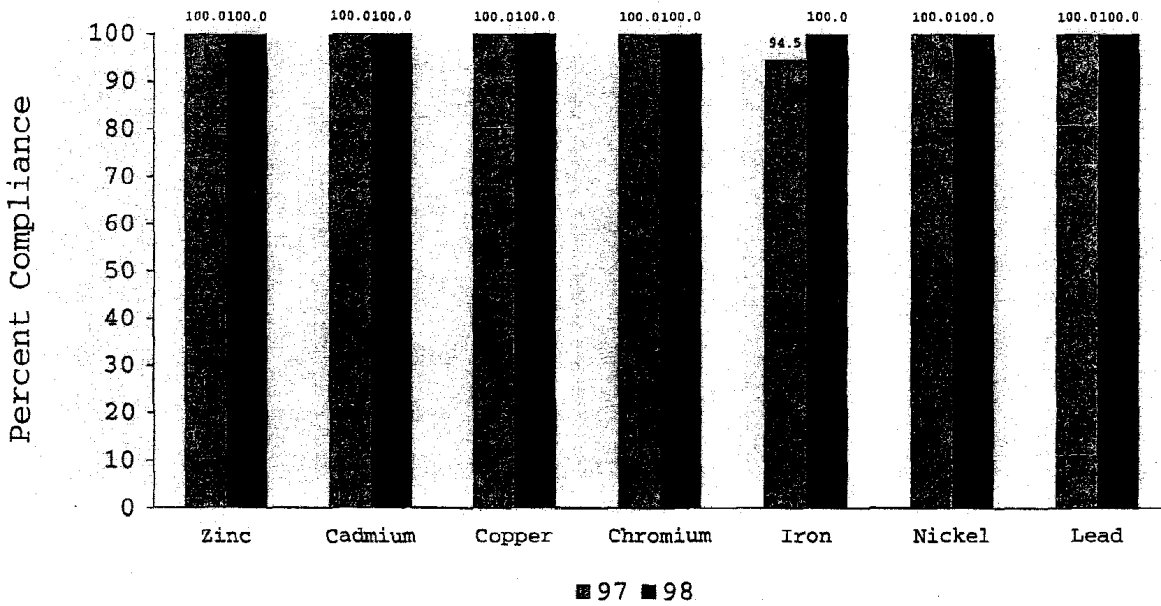


* Ammonium Nitrogen
 ** Un-ionized Ammonium

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 2 (Continued)

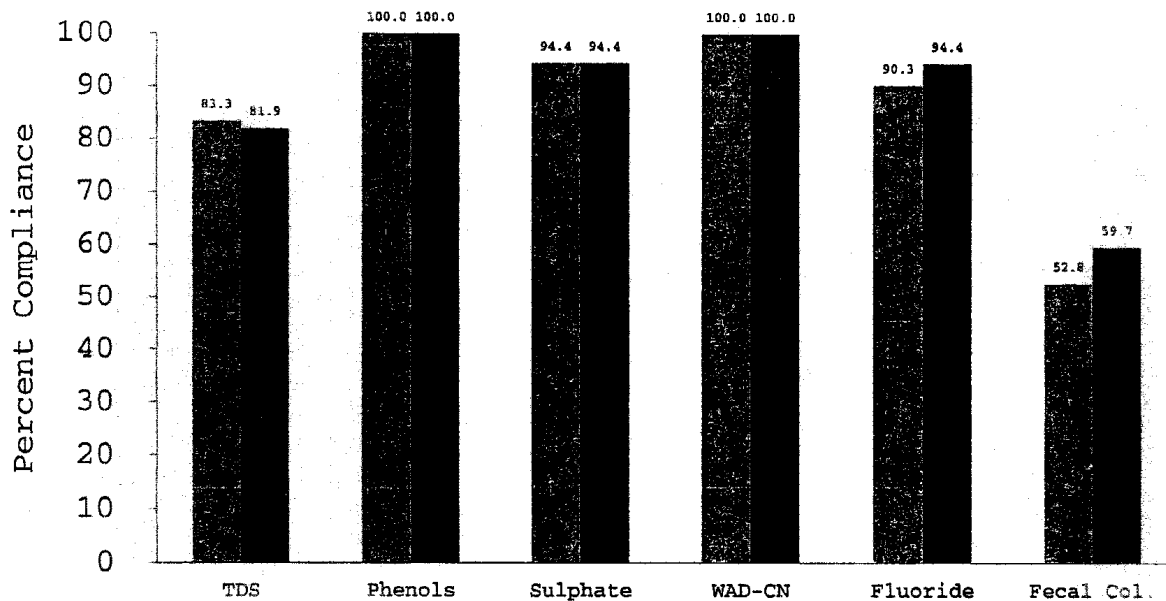
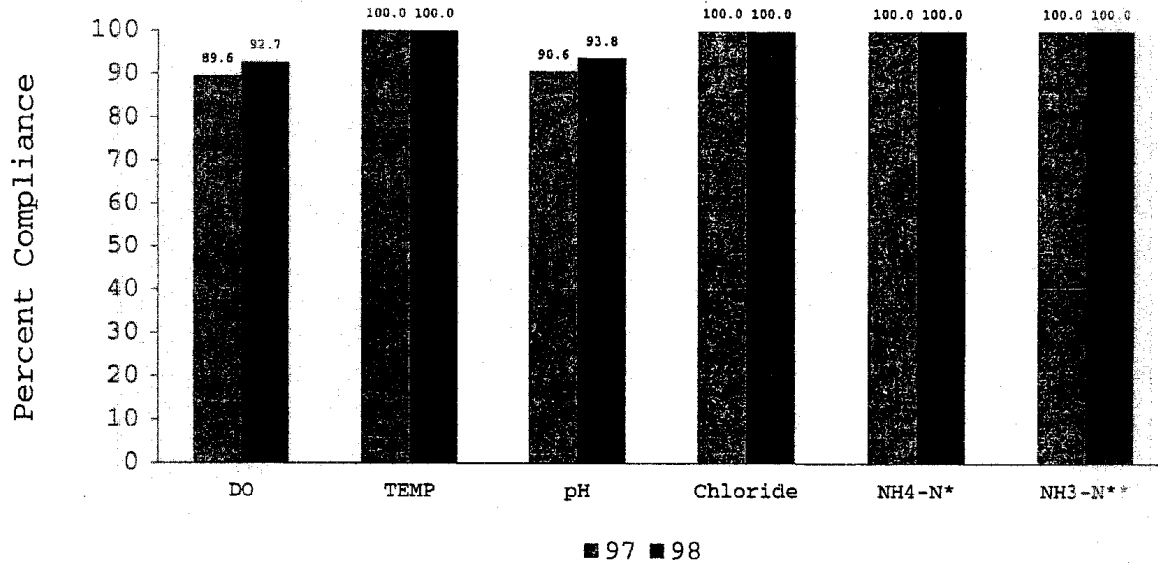
COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR GENERAL USE WATERS SECTION OF CHICAGO RIVER IN 1997 AND 1998



METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 3

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR GENERAL USE WATERS SECTION OF CALUMET RIVER IN 1997 AND 1998

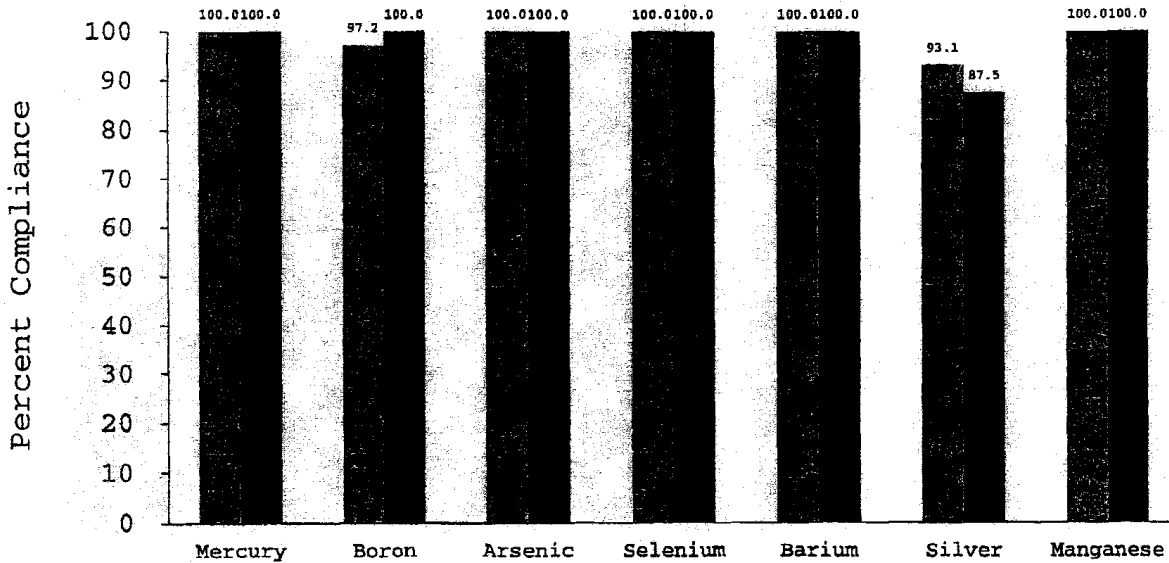
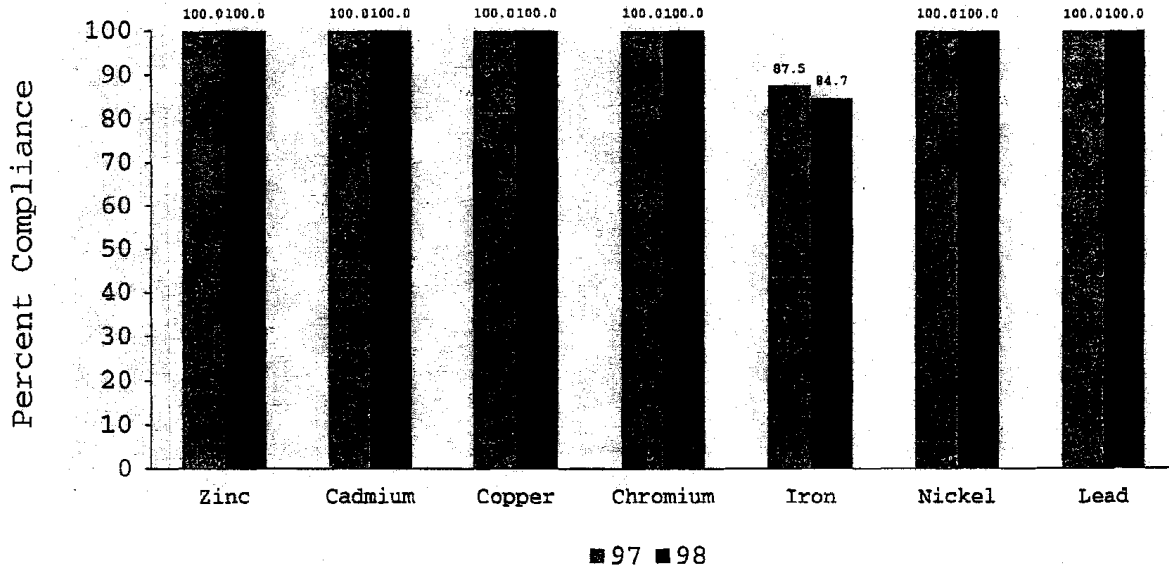


* Ammonium Nitrogen
 ** Un-ionized Ammonium

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 3 (Continued)

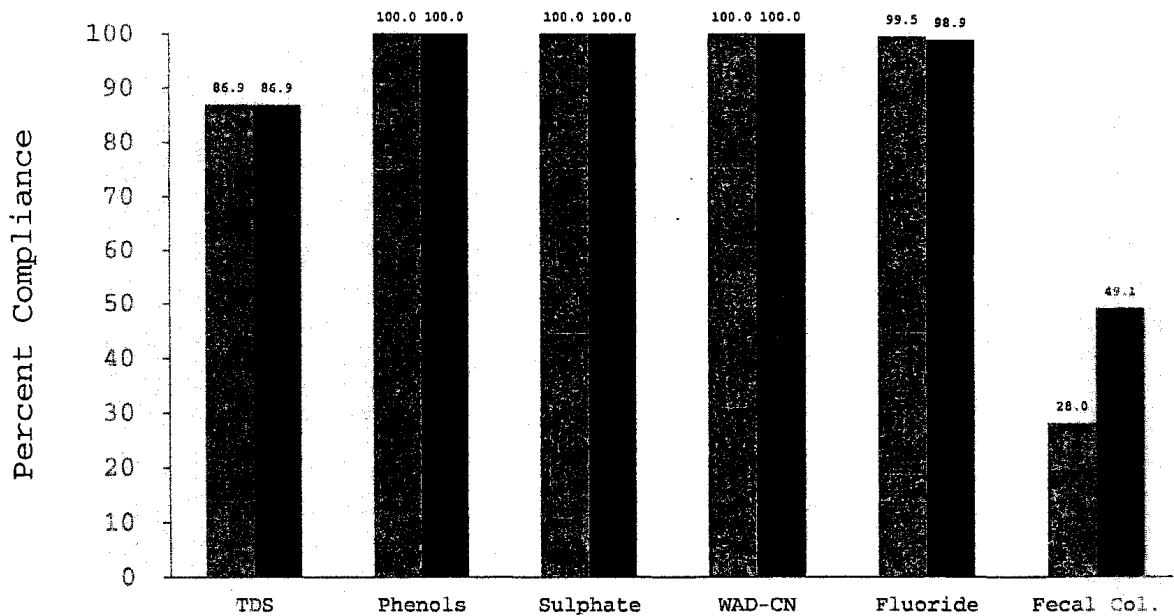
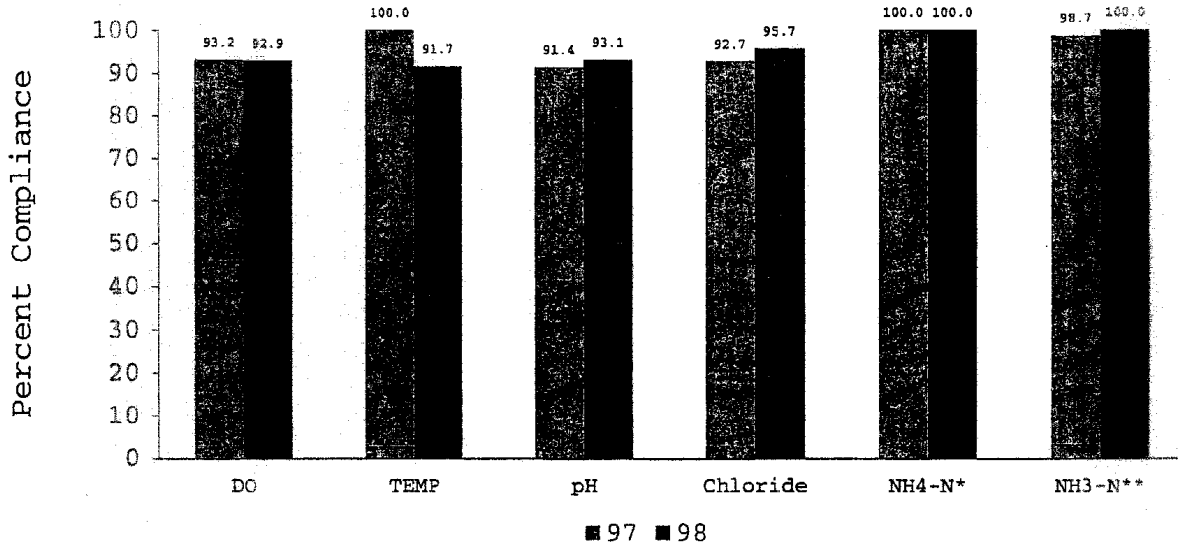
COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR GENERAL USE WATERS SECTION OF CALUMET RIVER IN 1997 AND 1998



METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 4

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR GENERAL USE WATERS SECTION OF DES PLAINES RIVER IN 1997 AND 1998

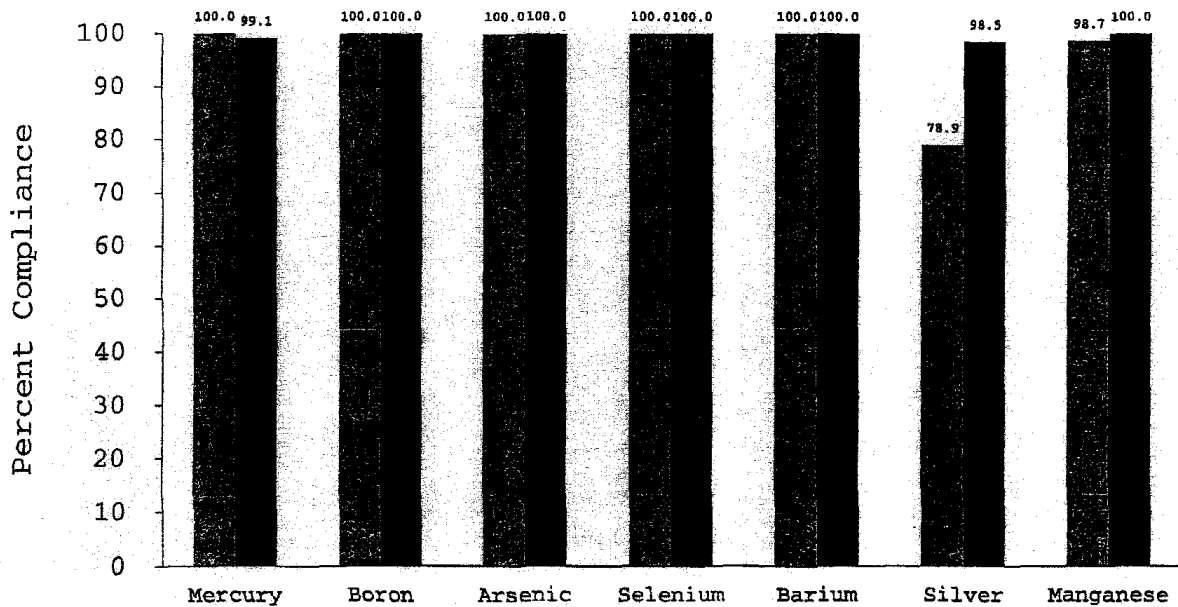
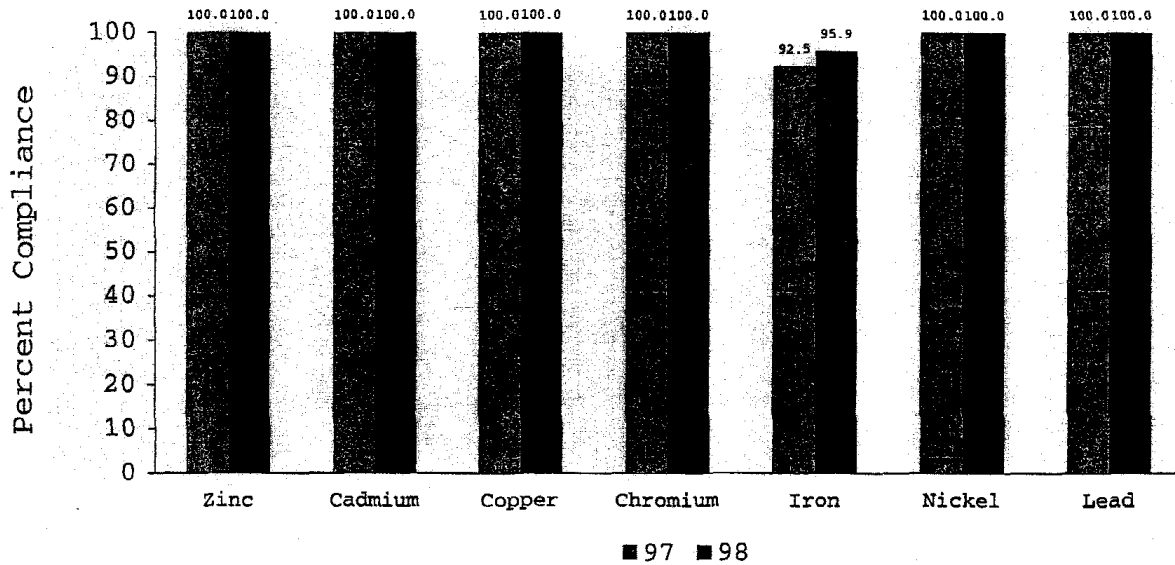


* Ammonium Nitrogen
 ** Un-ionized Ammonium

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 4 (Continued)

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR GENERAL USE WATERS SECTION OF DES PLAINES RIVER IN 1997 AND 1998



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 manmade canals in the Chicago and Calumet River Systems. The sampling locations used during 1998, and the annual frequencies of sampling are shown in Table 5. Also, Tables AII-2 through AII-31 show the number of violations and the annual frequencies of sampling. Ten stations were sampled routinely once a month in the Chicago River System, while six stations were sampled monthly in the Calumet River System. Twenty-four hour composite samples were collected from an automatic sampler located in the Lockport Powerhouse (Chicago River System) once per week.

River System Compliance Data

Twenty-four parameters were covered by IPCB Water Quality Standards for samples taken in Secondary Contact Waters during 1998. Summary results, including means and compliance with standards, are shown in Appendix II for the Chicago and Calumet River Systems.

Generally, compliance with IPCB standards was high in 1998, in both the Chicago and Calumet River Systems. Seventeen water quality parameters were in complete compliance in both river systems: silver, arsenic, barium, cadmium, cyanide,

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 5

SECONDARY CONTACT WATERS, 1998 LOCATIONS SAMPLED AND ANNUAL SAMPLING FREQUENCIES

Map No. ¹	Station Name	Annual No. Samples
<u>Chicago River System</u>		
36	Touhy 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, North Branch Chicago River	12
40	Damen Avenue, South Branch Chicago River	12
75	Cicero Avenue, Chicago Sanitary and Ship Canal	12
41	Harlem Avenue, Chicago Sanitary and Ship Canal	12
42	Highway 83, Chicago Sanitary and Ship Canal	12
48	Lemont, Stephens Street, Chicago Sanitary and Ship Canal	12
		<u>120</u>
8.2	Lockport Powerhouse (daily composite, automatic sampler)	52
<u>Calumet River System</u>		
86	Burnham Avenue, Grand Calumet River	12
56	Indiana Avenue, Calumet River	23
76	Halsted Street, Calumet River	24
58	Ashland Avenue, Cal-Sag Channel	16
59	Cicero Avenue, Cal-Sag Channel	24
43	Highway 83, Cal-Sag Channel	<u>24</u>
		123

¹Refer to Figure 1.

chromium, lead, fluoride, nickel, phenols, selenium, temperature, zinc, mercury, manganese, FOG, and total dissolved solids.

Seven water quality parameters, which were not in total compliance in both of the river systems, are listed below with the observed compliance rates.

<u>Parameters</u>	<u>Percent Compliance Rate</u>	
	<u>Chicago</u>	<u>Calumet</u>
Dissolved Oxygen	96.7	98.3
pH	91.7	87.9
Ammonium Nitrogen	91.1	96.0
Copper	99.4	100.0
Iron	95.0	98.6
Un-ionized Ammonia	87.5	96.0
Soluble Iron	99.4	98.6

CHICAGO RIVER SYSTEM

The 17 parameters listed above were in complete compliance in the Chicago River Systems. The 7 parameters (dissolved oxygen, pH, ammonium nitrogen, copper, total iron, un-ionized ammonia, soluble iron) which were not in total compliance had a compliance rate of 87.5 percent to 99.4 percent.

In June and August, 4 violations of dissolved oxygen occurred at locations 42, 48, 73, and 75. Mostly in October, 14 violations of pH occurred, 3 at location 40, 2 each at locations 37, 73, and 75, and 1 each at locations 36, 39, 41, 42, and 48. Ammonium nitrogen had 15 violations in February, May,

June, July, and October. There were 3 violations at locations 37, 46, and 73, and 1 each at locations 36, 39, 41, 42, 48, and 75. Copper had only 1 violation at location 82. In January, February, March, April, and August, 9 violations of iron occurred at location 82. Un-ionized ammonia had 15 violations in February, March, April, and October, 3 at location 40, 2 each at locations 37, 46, and 73, and 1 each at locations 36, 39, 41, 42, 48, and 75. Soluble iron had only 1 violation at location 82.

The compliance rates of all parameters in 1998 are not significantly different from those in 1997 except dissolved oxygen and FOG. The dissolved oxygen compliance rate had decreased from 100 percent in 1997 to 96.7 percent in 1998, but the compliance rate of FOG had increased from 90 percent in 1997 to 100 percent in 1998.

CALUMET RIVER SYSTEM

In addition to 17 parameters listed above which were in complete compliance in all the river systems, copper had complete compliance. Six parameters (dissolved oxygen, pH, ammonium nitrogen, total iron, unionized ammonia, soluble iron) had compliance rates that ranged from 87.9 percent to 98.6 percent.

In April and December, 2 violations of dissolved oxygen occurred at location 86. In January, April, May, June, July, September, October, and November, 15 violations of pH oc-

curred. Location 59 had 4 violations, locations 43 and 56 had 3 each, locations 58 and 76 had 2 each, and location 86 had only 1 violation. Ammonium nitrogen had 5 violations. Location 43 had 3 violations and locations 56 and 58 had 1 violation each. Un-ionized ammonia also had 5 violations; location 43 had 3 violations and locations 56 and 58 had 1 violation each. Iron and soluble iron had 1 violation each at location 86 in November and December, respectively.

The compliance rates of all parameters in 1998 are not significantly different from those in 1997 except FOG. The compliance rate of FOG had increased from 90.8 percent in 1997 to 100 percent in 1998.

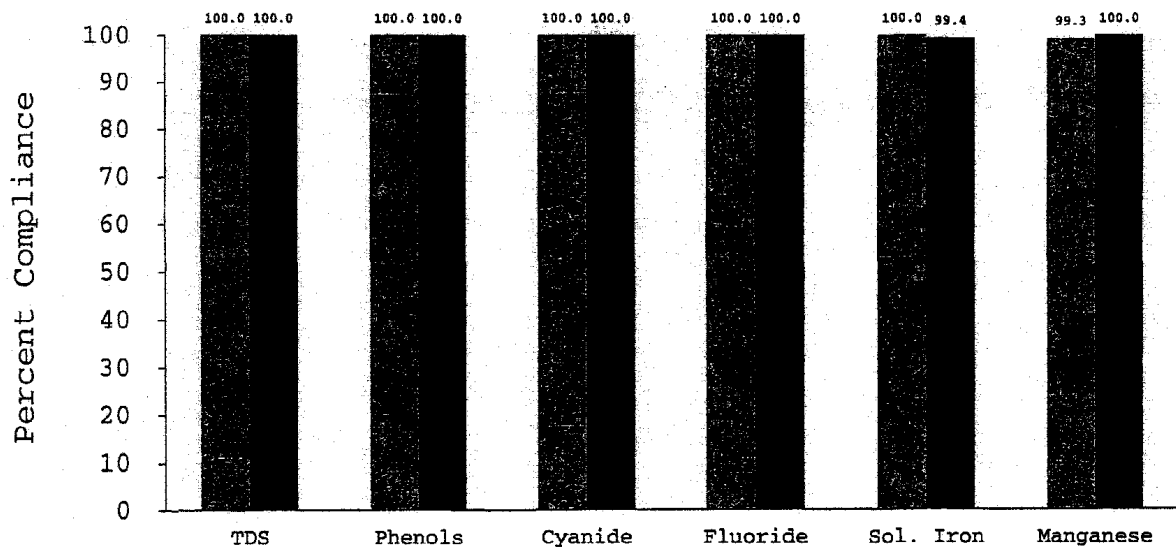
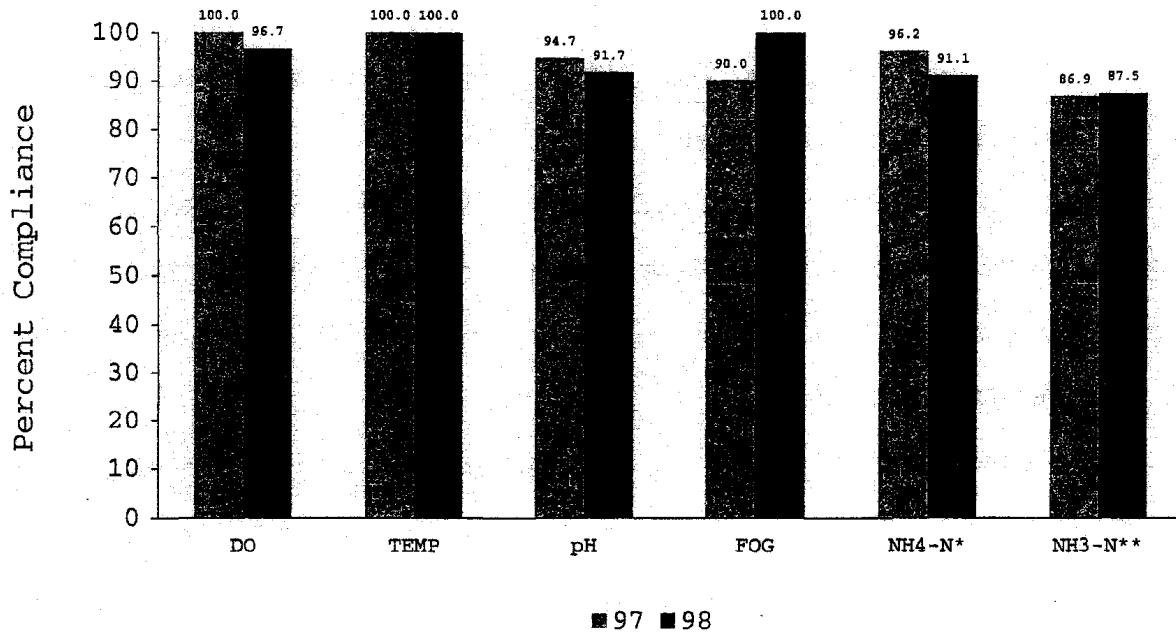
The compliance rates of 24 water quality parameters for secondary contact waters of the two river systems, during 1997 and 1998, are presented in Figure 5 and 6.

The number of violations which occurred in each sampling location in three river systems for the last eight years are presented in Appendix II, Tables AII-2 through AII-31.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 5

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR SECONDARY CONTACT WATERS SECTION OF CHICAGO RIVER IN 1997 AND 1998

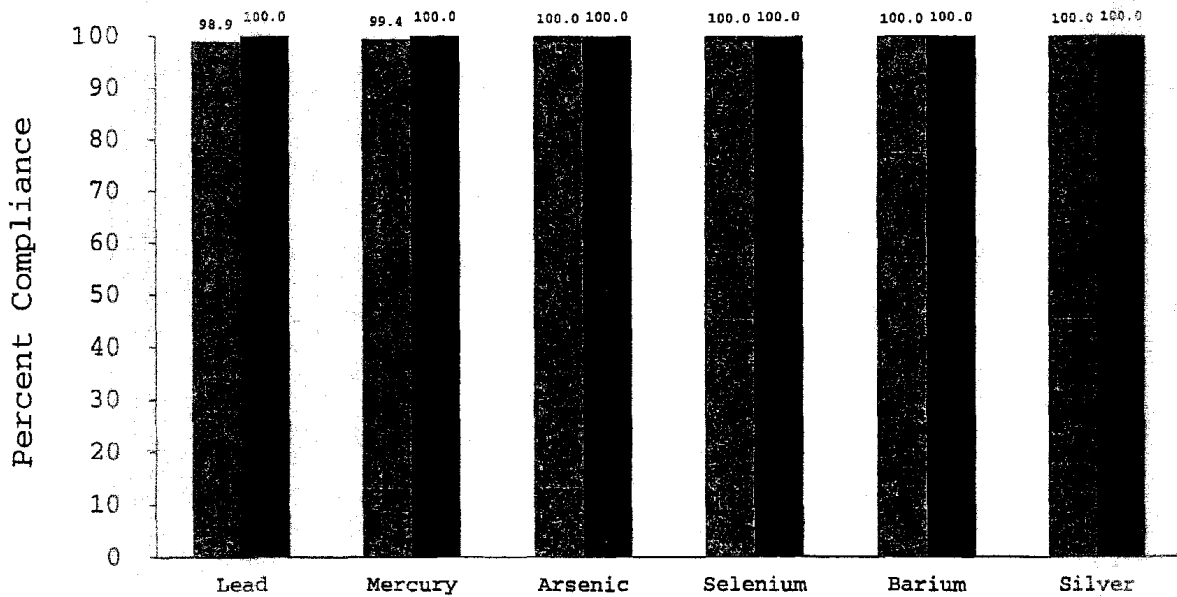
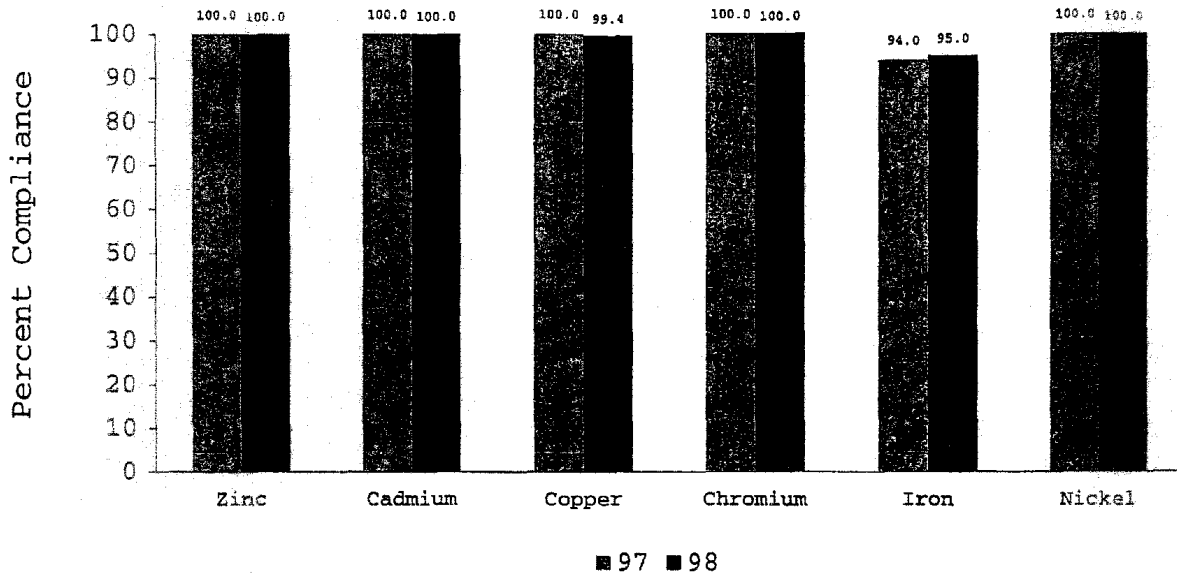


* Ammonium Nitrogen
 ** Un-ionized Ammonium

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 5 (Continued)

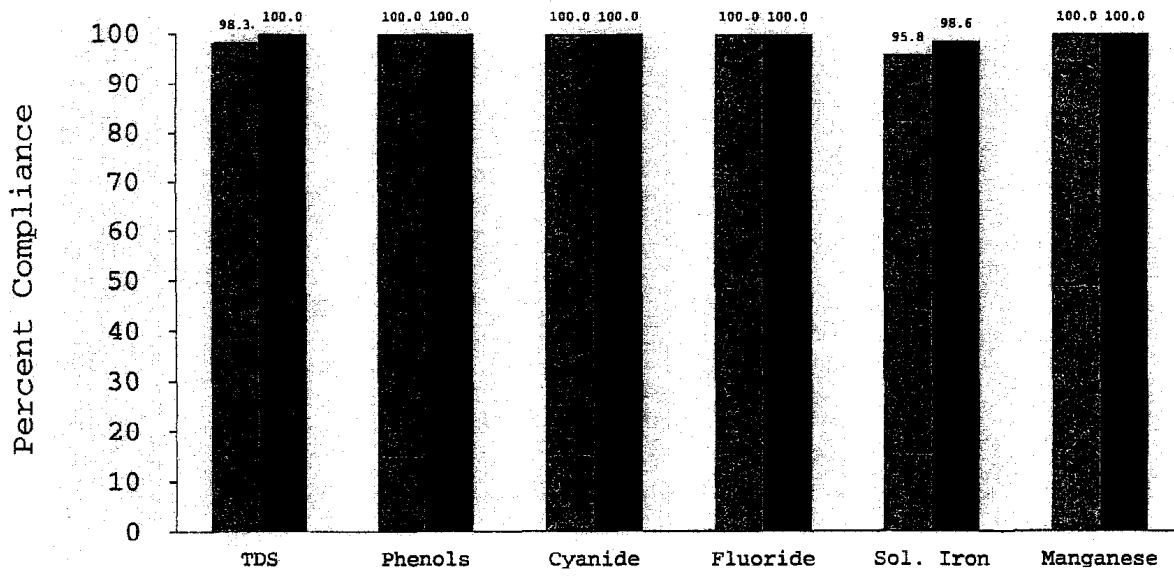
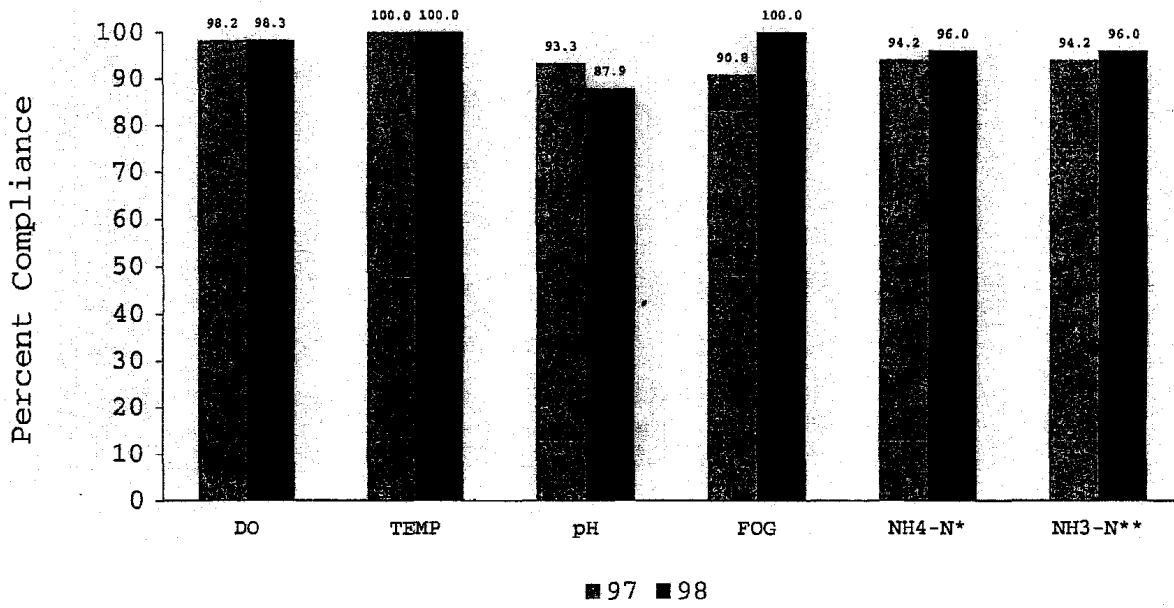
COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR SECONDARY CONTACT WATERS SECTION OF CHICAGO RIVER IN 1997 AND 1998



METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 6

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR SECONDARY CONTACT WATERS SECTION OF CALUMET RIVER IN 1997 AND 1998

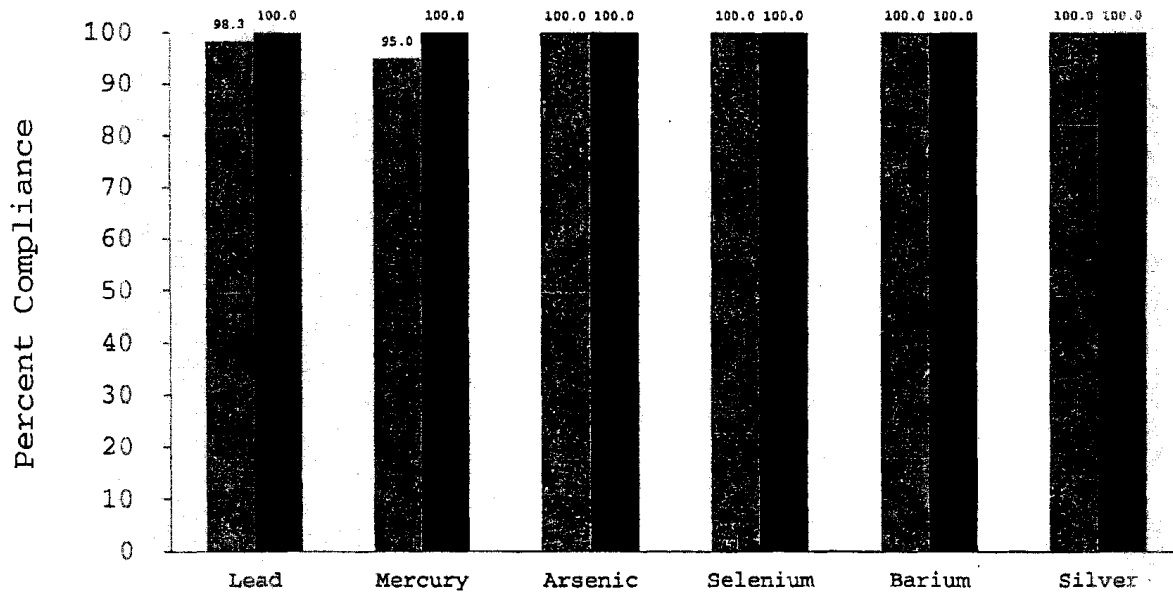
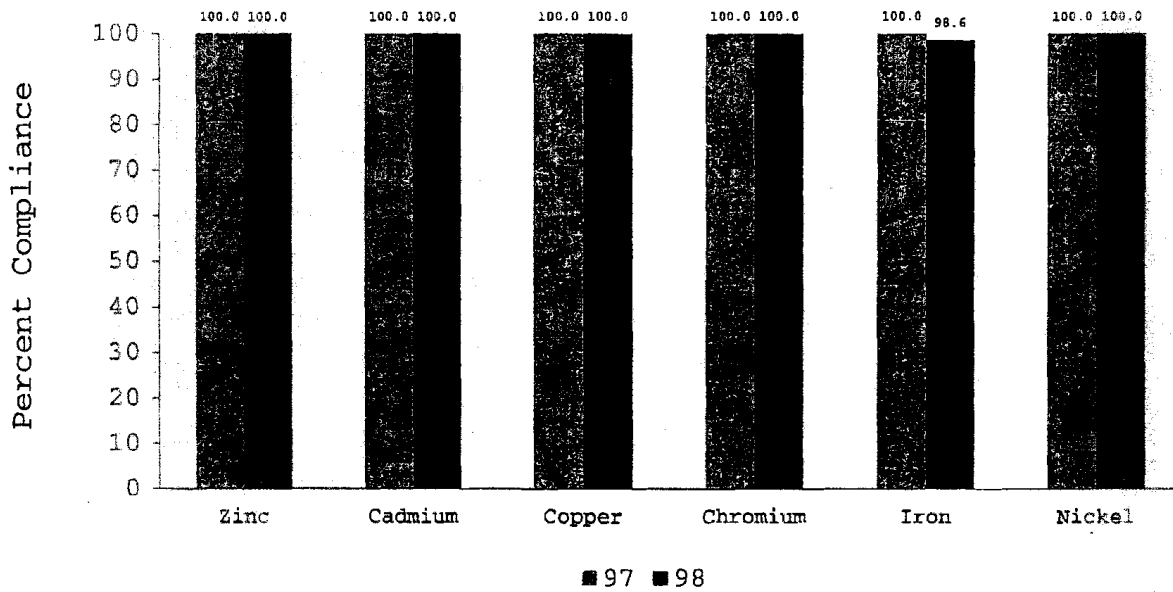


* Ammonium Nitrogen
 ** Un-ionized Ammonium

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

FIGURE 6 (Continued)

COMPLIANCE RATES OF WATER QUALITY STANDARDS FOR SECONDARY CONTACT WATERS SECTION OF CALUMET RIVER IN 1997 AND 1998



RECEIVING WATER QUALITY STANDARDS COMPLIANCE UPSTREAM AND
DOWNSTREAM OF DISTRICT OUTFALLS

Surface Water Sample Locations and Sample Frequencies

The District currently operates seven WRPs. The receiving waters upstream and downstream of the outfalls of six of these WRPs were sampled during 1998. Three of these WRPs (Hanover Park, John E. Egan, and James C. Kirie) discharge their treated effluents into General Use Waters, while the outfalls of the remaining WRPs are located in waters classified as Secondary Contact Water. Upstream and downstream sampling locations, as well as annual sampling frequencies for the respective WRPs, are shown in Table 6.

The outfalls for Hanover Park, John E. Egan, and James C. Kirie WRPs are located in the West Branch of the Du Page River, Salt Creek, and Higgins Creek, respectively. These streams fall within the General Use Waters classification with the respective sampling locations upstream and downstream as shown in Table 6. For the Hanover Park WRP, the upstream station is located at Long Meadow Lane, 100 feet above the outfall, and the downstream station is located at Walnut Lane, at 1,000 feet below the outfall. For the John E. Egan WRP, the upstream station 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. The upstream sampling point for the James C. Kirie WRP is located at the

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 6

SAMPLING LOCATIONS AND SAMPLING FREQUENCIES
UPSTREAM AND DOWNSTREAM OF DISTRICT
OUTFALLS - 1998

WRP	Upstream Sample		Downstream Sample	
	Location ¹	Annual Frequency	Location ¹	Annual Frequency
North Side	Central Road North Shore Channel (Sta. 35)	9	Touhy Ave. North Shore Channel (Sta. 36)	12
Stickney	Cicero Avenue Sanitary and Ship Canal (Sta. 75)	12	Harlem Avenue Sanitary and Ship Canal (Sta. 41)	12
Calumet	Indiana Avenue Calumet River (Sta. 56)	23	Halsted Street Calumet River (Sta. 76)	24
Egan	Higgins Road Salt Creek (Sta. 79)	10	Arlington Hts. Rd. Salt Creek (Sta. 80)	12
Kirie	Visitor's Road "A" Bridge Higgins Creek (Sta. 77)	12	Wille Road Higgins Creek (Sta. 78)	12
Hanover Park	Long Meadow Lane - West Branch Du Page River (Sta. 63)	8	Walnut Lane West Branch Du Page River (Sta. 89)	12

¹ Locations of stations are shown on Figure 1.

Visitor's Road "A" Bridge, about 1,000 feet upstream of the outfall while the downstream station is at the Wille Road Bridge, about 300 feet downstream of the outfall.

The following four WRPs have outfalls located within the Secondary Contact Waters of the District's canal system:

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 the outfall and Harlem Avenue is 9,200 feet below.
3. Indiana Avenue on the Little Calumet River upstream of the Calumet WRP outfall was sampled, while samples were taken downstream of the outfall at Halsted Street on the Little Calumet River. Indiana Avenue is 5,500 feet above the outfall, and Halsted Street is 6,600 feet below.
4. During 1998, the lack of an upstream sampling location for the Lemont WRP, which was down-

stream of the Cal-Sag junction, precluded an evaluation.

Annual Summary Results for Water Quality Upstream and Downstream of District Outfalls

The annual means and the number of violations of the State of Illinois Water Quality Standards are tabulated in Appendix AII for the receiving waters upstream and downstream of the effluent outfalls of the six WRPs: North Side, Stickney, Calumet, Hanover Park, John E. Egan, and James C. Kirie.

For the North Side WRP, the upstream location (35) is in the General Use Waters classification, and the downstream location (36) is in Secondary Contact Waters classification. The upstream and downstream sampling locations of the Stickney (75 and 41) and Calumet (56 and 76) WRPs are in the Secondary Contact Waters classification. The upstream and downstream sampling locations for the outfalls of the John E. Egan (79 and 80), James C. Kirie (77 and 78), and Hanover Park (63 and 89) WRPs are in General Use Waters classification.

In this section, the effect of the outfalls of each of the WRPs on the corresponding receiving streams is assessed using statistical analyses. The sample values of each parameter at the upstream and downstream locations are first tested to see if they came from a normal population and then tested for equality of variances. If the sample data of upstream and downstream locations came from a normal population with equal variances, an exact t-test is used for testing the equality of

upstream and downstream means. Otherwise, an approximate t-test (Walpole, and Myers, 1989) is used if the data came from two different normal populations. If the upstream and downstream data did not come from normal populations, a Wilcoxon rank-sum test is used to test for the equality of upstream and downstream means.

The mean levels of each parameter measured at the upstream and downstream locations of each WRP, and the corresponding significance probability associated with the exact t-test/approximate t-test or Wilcoxon rank-sum test are tabulated in Tables 7 through 12. Tables AIII-1 through AIII-6 in Appendix AIII show in detail, the significance probability due to a normality test and an equal variance test on the upstream and downstream data, and the significance probability for the equality of upstream and downstream means due to Wilcoxon rank-sum test and exact t-test/approximate t-test. The parameters, which are significantly different in the downstream location than in the upstream location, and which have a water quality limit to comply with, are identified for each WRP.

A study of the entries of Tables 7 through 12, and the Appendix II tables reveal that the quality of effluents from the District's WRPs is high and, therefore, the quality of water in the receiving streams to which they discharge is not adversely affected. This conclusion is based on the interpretation of the statistical inferences. Comparison of the up-

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 7

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR NORTH SIDE WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Total Kjeldahl Nitrogen	TKN (mg/L)	0.76		2.08	0.007
Dissolved Oxygen	DO (mg/L)	7.20		7.31	0.240
Temperature	TEMP (degrees C)	16.17		15.76	0.889
Ammonium Nitrogen	NH4-N (mg/L)	0.41		0.91	0.030
Total Dissolved Solids	TDS (mg/L)	266.7		518.5	0.000
Total Solids	TS (mg/L)	275.6		528.8	0.000
Hardness	HARD (mg/L)	174.0		236.1	0.005
Zinc	ZN (mg/L)	0.00		0.02	0.046
Total Volatile Solids	TVS (mg/L)	-		-	-
Phenols	PHENOL (mg/L)	10.33		13.42	0.469
Total Suspended Solids	TSS (mg/L)	8.89		10.33	0.332
Fats, Oils, and Greases	FOG (mg/L)	-		3.97	-
Manganese	MN (mg/L)	0.02		0.01	0.854
Un-ionized Ammonia	NH3-N (mg/L)	0.03		0.04	0.301
pH	PH	8.24		7.50	0.065
Chloride	CL (mg/L)	34.3		109.8	0.002
Cyanide	CN (mg/L)	0.001		0.006	0.000
Gross Alpha Radioactivity	G.ALPHA (pCi/L)	-		-	-
Gross Beta Radioactivity	G.BETA (pCi/L)	-		-	-
WAD Cyanide	WAD-CN (mg/L)	0.000		0.001	0.012
Organic Nitrogen	ORG-N (mg/L)	0.42		1.17	0.001
Alkalinity	ALK (mg/L)	126.1		151.7	0.019
Turbidity	TURB (JTU)	8.67		6.75	0.033
Phosphorus	T.P (mg/L)	0.13		1.18	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 7 (Continued)

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR NORTH SIDE WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Sulfate	SO4 (mg/L)	34.13		54.21	0.006
Nitrite Plus Nitrate	NO2+NO3 (mg/L)	0.22		5.74	0.000
Calcium	CA (mg/L)	45.11		58.67	0.014
Cadmium	CD (mg/L)	0.00		0.00	0.889
Copper	CU (mg/L)	0.00		0.00	0.771
Chromium	CR (mg/L)	0.00		0.00	1.000
Iron	FE (mg/L)	0.18		0.11	0.101
Nickel	NI (mg/L)	0.00		0.00	0.849
Lead	PB (mg/L)	0.00		0.00	1.000
Mercury	HG (mg/L)	0.03		0.03	0.776
Arsenic	AS (mg/L)	0.00		0.00	1.000
Selenium	SE (mg/L)	0.00		0.00	1.000
Barium	BA (mg/L)	0.02		0.02	0.669
Silver	AG (mg/L)	0.00		0.00	0.128
Fecal Coliform	FC (Counts/100ml)	241		6963	0.000
Fluoride	F (mg/L)	0.16		0.78	0.000
Magnesium	MG (mg/L)	14.89		21.75	0.001
Soluble Phosphorus	SOL-P (mg/L)	0.10		1.06	0.000
Total Organic Carbon	TOC (mg/L)	7.00		9.08	0.009
Boron	B (mg/L)	0.04		0.22	0.000

Sign. Prob. = Significance Probability. A value ≤ 0.05 indicates means are different.
- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 8

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
 FOR STICKNEY WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Total Kjeldahl Nitrogen	TKN (mg/L)	1.48		1.50	0.773
Dissolved Oxygen	DO (mg/L)	6.21		7.13	0.149
Temperature	TEMP (degrees C)	17.97		16.68	0.669
Ammonium Nitrogen	NH4-N (mg/L)	0.40		0.50	0.166
Total Dissolved Solids	TDS (mg/L)	532.8		597.5	0.126
Total Solids	TS (mg/L)	546.5		607.5	0.141
Hardness	HARD (mg/L)	214.1		229.6	0.418
Zinc	ZN (mg/L)	0.01		0.01	1.000
Total Volatile Solids	TVS (mg/L)	-		-	-
Phenols	PHENOL (mg/L)	13.58		12.50	0.644
Total Suspended Solids	TSS (mg/L)	13.67		10.00	0.025
Fats, Oils, and Greases	FOG (mg/L)	2.55		2.65	1.000
Manganese	MN (mg/L)	0.02		0.02	0.389
Un-ionized Ammonia	NH3-N (mg/L)	0.05		0.02	0.583
pH	PH	8.02		7.97	0.889
Chloride	CL (mg/L)	149.0		143.3	0.403
Cyanide	CN (mg/L)	0.004		0.007	0.001
Gross Alpha Radioactivity	G.ALPHA (pCi/L)	-		-	-
Gross Beta Radioactivity	G.BETA (pCi/L)	-		-	-
WAD Cyanide	WAD-CN (mg/L)	0.001		0.001	0.862
Organic Nitrogen	ORG-N (mg/L)	1.07		1.01	0.885
Alkalinity	ALK (mg/L)	143.6		136.9	0.490
Turbidity	TURB (JTU)	10.83		7.17	0.007
Phosphorus	T.P (mg/L)	0.55		0.85	0.341

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 8 (Continued)

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR STICKNEY WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Sulfate	SO4 (mg/L)	45.50		75.71	0.000
Nitrite Plus Nitrate	NO2+NO3 (mg/L)	3.04		6.97	0.000
Calcium	CA (mg/L)	52.75		56.08	0.446
Cadmium	CD (mg/L)	0.00		0.00	1.000
Copper	CU (mg/L)	0.00		0.00	1.000
Chromium	CR (mg/L)	0.00		0.00	0.359
Iron	FE (mg/L)	0.22		0.14	0.022
Nickel	NI (mg/L)	0.00		0.00	1.000
Lead	PB (mg/L)	0.00		0.00	0.359
Mercury	HG (mg/L)	0.04		0.03	0.651
Arsenic	AS (mg/L)	0.00		0.00	1.000
Selenium	SE (mg/L)	0.00		0.00	1.000
Barium	BA (mg/L)	0.02		0.02	0.175
Silver	AG (mg/L)	0.00		0.00	0.580
Fecal Coliform	FC (Counts/100ml)	352		5427	0.003
Fluoride	F (mg/L)	0.43		0.70	0.000
Magnesium	MG (mg/L)	20.00		21.75	0.389
Soluble Phosphorus	SOL-P (mg/L)	0.38		0.74	0.174
Total Organic Carbon	TOC (mg/L)	10.33		13.67	0.641
Boron	B (mg/L)	0.11		0.17	0.005

Sign. Prob. = Significance Probability. A value ≤ 0.05 indicates means are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 9

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR CALUMET WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Total Kjeldahl Nitrogen	TKN (mg/L)	1.00		1.27	0.042
Dissolved Oxygen	DO (mg/L)	7.84		6.60	0.040
Temperature	TEMP (degrees C)	16.70		16.37	0.941
Ammonium Nitrogen	NH4-N (mg/L)	0.31		0.35	0.166
Total Dissolved Solids	TDS (mg/L)	495.8		564.1	0.361
Total Solids	TS (mg/L)	514.3		588.7	0.312
Hardness	HARD (mg/L)	249.9		264.7	0.610
Zinc	ZN (mg/L)	0.03		0.03	0.415
Total Volatile Solids	TVS (mg/L)	-		-	-
Phenols	PHENOL (mg/L)	7.42		13.75	0.030
Total Suspended Solids	TSS (mg/L)	18.04		20.71	0.487
Fats, Oils, and Greases	FOG (mg/L)	3.97		3.80	0.957
Manganese	MN (mg/L)	0.04		0.05	0.365
Un-ionized Ammonia	NH3-N (mg/L)	0.014		0.01	0.655
pH	PH	8.03		7.56	0.048
Chloride	CL (mg/L)	99.2		122.3	0.298
Cyanide	CN (mg/L)	0.003		0.008	0.000
Gross Alpha Radioactivity	G.ALPHA (pCi/L)	-		-	-
Gross Beta Radioactivity	G.BETA (pCi/L)	-		-	-
WAD Cyanide	WAD-CN (mg/L)	0.000		0.001	0.001
Organic Nitrogen	ORG-N (mg/L)	0.69		0.92	0.101
Alkalinity	ALK (mg/L)	128.6		153.4	0.050
Turbidity	TURB (JTU)	13.00		11.17	0.288
Phosphorus	T.P (mg/L)	0.21		1.88	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 9 (Continued)

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR CALUMET WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Sulfate	SO4 (mg/L)	88.2		119.0	0.026
Nitrite Plus Nitrate	NO2+NO3 (mg/L)	3.18		4.14	0.075
Calcium	CA (mg/L)	54.17		63.67	0.094
Cadmium	CD (mg/L)	0.00		0.00	1.000
Copper	CU (mg/L)	0.01		0.00	0.332
Chromium	CR (mg/L)	0.00		0.00	1.000
Iron	FE (mg/L)	0.33		0.29	0.383
Nickel	NI (mg/L)	0.00		0.00	0.705
Lead	PB (mg/L)	0.00		0.00	1.000
Mercury	HG (mg/L)	0.04		0.03	0.618
Arsenic	AS (mg/L)	0.00		0.00	1.000
Selenium	SE (mg/L)	0.00		0.00	1.000
Barium	BA (mg/L)	0.03		0.02	0.000
Silver	AG (mg/L)	0.00		0.00	0.359
Fecal Coliform	FC (Counts/100ml)	130		3747	0.000
Fluoride	F (mg/L)	0.42		0.76	0.000
Magnesium	MG (mg/L)	27.83		25.67	0.584
Soluble Phosphorus	SOL-P (mg/L)	0.16		1.53	0.000
Total Organic Carbon	TOC (mg/L)	6.73		9.13	0.002
Boron	B (mg/L)	0.17		0.25	0.033

Sign. Prob. = Significance Probability. A value ≤ 0.05 indicates means are different.
- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 10

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
 FOR JOHN E. EGAN WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Total Kjeldahl Nitrogen	TKN (mg/L)	1.31		1.45	0.546
Dissolved Oxygen	DO (mg/L)	7.77		7.31	0.607
Temperature	TEMP (degrees C)	19.12		17.56	0.608
Ammonium Nitrogen	NH4-N (mg/L)	0.12		0.18	0.447
Total Dissolved Solids	TDS (mg/L)	746.8		700.5	0.644
Total Solids	TS (mg/L)	775.8		709.0	0.429
Hardness	HARD (mg/L)	299.8		260.8	0.241
Zinc	ZN (mg/L)	0.01		0.02	0.038
Total Volatile Solids	TVS (mg/L)	-		-	-
Phenols	PHENOL (mg/L)	15.25		13.20	0.619
Total Suspended Solids	TSS (mg/L)	29.00		8.50	0.000
Fats, Oils, and Greases	FOG (mg/L)	2.50		14.20	-
Manganese	MN (mg/L)	0.09		0.06	0.055
Un-ionized Ammonia	NH3-N (mg/L)	0.01		0.01	0.817
pH	PH	8.29		7.97	0.318
Chloride	CL (mg/L)	200.7		177.6	0.373
Cyanide	CN (mg/L)	0.002		0.009	0.000
Gross Alpha Radioactivity	G.ALPHA (pCi/L)	-		-	-
Gross Beta Radioactivity	G.BETA (pCi/L)	-		-	-
WAD Cyanide	WAD-CN (mg/L)	0.000		0.002	0.000
Organic Nitrogen	ORG-N (mg/L)	1.19		1.27	0.709
Alkalinity	ALK (mg/L)	171.4		145.0	0.094
Turbidity	TURB (JTU)	21.10		7.00	0.000
Phosphorus	T.P (mg/L)	0.18		1.97	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 10 (Continued)

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
 FOR JOHN E. EGAN WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Sulfate	SO4 (mg/L)	78.44		81.30	0.755
Nitrite Plus Nitrate	NO2+NO3 (mg/L)	0.51		7.46	0.000
Calcium	CA (mg/L)	69.60		63.08	0.403
Cadmium	CD (mg/L)	0.00		0.00	0.411
Copper	CU (mg/L)	0.00		0.00	0.374
Chromium	CR (mg/L)	0.00		0.00	0.209
Iron	FE (mg/L)	0.74		0.22	0.000
Nickel	NI (mg/L)	0.00		0.01	0.473
Lead	PB (mg/L)	0.00		0.00	1.000
Mercury	HG (mg/L)	0.06		0.07	0.842
Arsenic	AS (mg/L)	0.00		0.00	1.000
Selenium	SE (mg/L)	0.00		0.00	1.000
Barium	BA (mg/L)	0.04		0.02	0.000
Silver	AG (mg/L)	0.00		0.00	0.315
Fecal Coliform	FC (Counts/100ml)	52		260	0.121
Fluoride	F (mg/L)	0.33		0.85	0.002
Magnesium	MG (mg/L)	30.60		25.08	0.107
Soluble Phosphorus	SOL-P (mg/L)	0.11		1.75	0.000
Total Organic Carbon	TOC (mg/L)	11.22		11.00	1.000
Boron	B (mg/L)	0.09		0.23	0.000

Sign. Prob. = Significance Probability. A value ≤ 0.05 indicates means are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 11

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR JAMES C. KIRIE WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Total Kjeldahl Nitrogen	TKN (mg/L)	0.82		1.37	0.008
Dissolved Oxygen	DO (mg/L)	7.97		7.80	0.869
Temperature	TEMP (degrees C)	15.32		17.27	0.540
Ammonium Nitrogen	NH4-N (mg/L)	0.16		0.30	0.083
Total Dissolved Solids	TDS (mg/L)	992.1		774.1	0.470
Total Solids	TS (mg/L)	1015		786	0.386
Hardness	HARD (mg/L)	336.9		321.4	0.741
Zinc	ZN (mg/L)	0.03		0.06	0.055
Total Volatile Solids	TVS (mg/L)	-		-	-
Phenols	PHENOL (mg/L)	14.40		14.80	0.621
Total Suspended Solids	TSS (mg/L)	22.75		11.92	0.003
Fats, Oils, and Greases	FOG (mg/L)	3.35		4.05	0.245
Manganese	MN (mg/L)	0.14		0.09	0.003
Un-ionized Ammonia	NH3-N (mg/L)	0.00		0.01	0.260
pH	PH	7.75		7.75	0.990
Chloride	CL (mg/L)	363.8		193.4	0.033
Cyanide	CN (mg/L)	0.003		0.008	0.001
Gross Alpha Radioactivity	G.ALPHA (pCi/L)	-		-	-
Gross Beta Radioactivity	G.BETA (pCi/L)	-		-	-
WAD Cyanide	WAD-CN (mg/L)	0.001		0.001	0.295
Organic Nitrogen	ORG-N (mg/L)	0.66		1.07	0.013
Alkalinity	ALK (mg/L)	196.3		173.1	0.885
Turbidity	TURB (JTU)	17.33		7.92	0.002
Phosphorus	T.P (mg/L)	0.11		1.06	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 11 (Continued)

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
 FOR JAMES C. KIRIE WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Sulfate	SO4 (mg/L)	66.37		96.49	0.003
Nitrite Plus Nitrate	NO2+NO3 (mg/L)	0.34		6.96	0.000
Calcium	CA (mg/L)	79.42		80.08	0.952
Cadmium	CD (mg/L)	0.00		0.00	0.964
Copper	CU (mg/L)	0.01		0.01	0.731
Chromium	CR (mg/L)	0.00		0.00	0.611
Iron	FE (mg/L)	0.75		0.41	0.002
Nickel	NI (mg/L)	0.01		0.01	0.591
Lead	PB (mg/L)	0.00		0.00	1.000
Mercury	HG (mg/L)	0.05		0.02	0.324
Arsenic	AS (mg/L)	0.00		0.00	1.000
Selenium	SE (mg/L)	0.00		0.00	1.000
Barium	BA (mg/L)	0.06		0.03	0.000
Silver	AG (mg/L)	0.00		0.00	1.000
Fecal Coliform	FC (Counts/100ml)	266.5		180.8	0.000
Fluoride	F (mg/L)	0.26		0.77	0.009
Magnesium	MG (mg/L)	33.67		29.50	0.582
Soluble Phosphorus	SOL-P (mg/L)	0.07		0.82	0.000
Total Organic Carbon	TOC (mg/L)	11.00		12.00	0.358
Boron	B (mg/L)	0.15		0.37	0.000

Sign. Prob. = Significance Probability. A value ≤ 0.05 indicates means are different.
 - = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 12

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
 FOR HANOVER PARK WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Total Kjeldahl Nitrogen	TKN (mg/L)	1.66		2.34	0.048
Dissolved Oxygen	DO (mg/L)	8.36		7.33	0.187
Temperature	TEMP (degrees C)	17.76		18.30	0.817
Ammonium Nitrogen	NH4-N (mg/L)	0.14		0.19	0.344
Total Dissolved Solids	TDS (mg/L)	804.1		601.7	0.049
Total Solids	TS (mg/L)	826.8		615.2	0.034
Hardness	HARD (mg/L)	320.1		248.1	0.091
Zinc	ZN (mg/L)	0.02		0.06	0.144
Total Volatile Solids	TVS (mg/L)	-		-	-
Phenols	PHENOL (mg/L)	14.29		16.90	0.586
Total Suspended Solids	TSS (mg/L)	22.63		13.50	0.188
Fats, Oils, and Greases	FOG (mg/L)	3.50		5.35	-
Manganese	MN (mg/L)	0.17		0.08	0.022
Un-ionized Ammonia	NH3-N (mg/L)	0.01		0.01	1.000
pH	PH	8.13		7.90	0.516
Chloride	CL (mg/L)	219.6		130.5	0.012
Cyanide	CN (mg/L)	0.005		0.011	0.001
Gross Alpha Radioactivity	G.ALPHA (pCi/L)	-		-	-
Gross Beta Radioactivity	G.BETA (pCi/L)	-		-	-
WAD Cyanide	WAD-CN (mg/L)	0.001		0.001	0.175
Organic Nitrogen	ORG-N (mg/L)	1.52		2.14	0.097
Alkalinity	ALK (mg/L)	183.5		153.8	0.068
Turbidity	TURB (JTU)	14.63		7.00	0.001
Phosphorus	T.P (mg/L)	0.77		2.90	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 12 (Continued)

COMPARISON LEVELS OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) DOWNSTREAM (D) LOCATIONS
FOR HANOVER PARK WRP

Parameters	Abbreviation (Units)	U	vs	D	Sign. Prob.
Sulfate	SO4 (mg/L)	79.90		67.94	0.536
Nitrite Plus Nitrate	NO2+NO3 (mg/L)	2.57		8.34	0.002
Calcium	CA (mg/L)	76.88		61.17	0.132
Cadmium	CD (mg/L)	0.00		0.00	0.262
Copper	CU (mg/L)	0.00		0.01	0.523
Chromium	CR (mg/L)	0.00		0.00	0.088
Iron	FE (mg/L)	0.75		0.23	0.003
Nickel	NI (mg/L)	0.01		0.01	0.214
Lead	PB (mg/L)	0.00		0.36	0.475
Mercury	HG (mg/L)	0.04		0.33	0.879
Arsenic	AS (mg/L)	0.00		0.02	0.475
Selenium	SE (mg/L)	0.00		0.00	1.000
Barium	BA (mg/L)	0.05		0.02	0.002
Silver	AG (mg/L)	0.00		0.00	1.000
Fecal Coliform	FC (Counts/100ml)	603		666	0.000
Fluoride	F (mg/L)	0.45		0.84	0.002
Magnesium	MG (mg/L)	31.13		23.17	0.032
Soluble Phosphorus	SOL-P (mg/L)	0.68		2.20	0.008
Total Organic Carbon	TOC (mg/L)	14.43		14.09	0.807
Boron	B (mg/L)	0.18		0.33	0.001

Sign. Prob. = Significance Probability. A value ≤ 0.05 indicates means are different.

- = No Statistics.

stream and downstream mean concentrations of the 44 parameters show that the downstream mean concentrations are statistically different from the upstream concentrations for some parameters, and about the same for the other parameters. This is indicated by the value of significance probability given in Tables 7 through 12. A value of 0.05 or smaller indicates that the two means are significantly different, and a value greater than 0.05 indicates no difference between means.

Steps involved in the evaluation of the results of this type of comparison are: (1) to identify the type of parameters which exhibit a difference in the mean concentration levels observed at the upstream and downstream locations; (2) to 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, and as a final step in the evaluation process; (3) to 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 pertinent to that parameter.

In general, statistically significant differences exist between upstream and downstream locations for those parameters that are affected by the wastewater treatment technology. For some of the parameters there exists a pertinent water quality standard, and for some there is no such standard.

Tables 7 through 12 show the average concentrations of each of the parameters at the upstream and downstream locations; and also these two averages are statistically compared, and the significance probability associated with the comparison is also presented in the table. If this probability is less than or equal to 0.05, then the averages are significantly different from each other. The parameters which are significantly different in the downstream location than in the upstream location, and which also have a water quality limit to comply with, are identified for each WRP.

NORTH SIDE WRP

Location 35 is classified as General Use Waters, and location 36 is classified as Secondary Contact Waters sections of the Chicago River Systems. Twenty-two water quality parameters (total Kjeldahl nitrogen, ammonium nitrogen, total dissolved solids, total solids, hardness, zinc, chloride, cyanide, WAD cyanide, organic nitrogen, alkalinity, turbidity, phosphorus, sulfate, nitrate+nitrite nitrogen, calcium, fecal coliform, fluoride, magnesium, soluble phosphorus, total organic carbon, and boron) had significantly different means between the upstream and the downstream locations. The downstream averages of all of the parameters are significantly higher than the upstream averages except turbidity, which had significantly lower averages downstream than upstream.

At location 35, ten parameters (ammonium nitrogen, total dissolved solids, zinc, chloride, cyanide, WAD cyanide, sulfate, fecal coliform, fluoride, and boron) have either General Use or Secondary Contact Waters quality limits. Seven parameters (total dissolved solids, zinc, chloride, WAD cyanide, sulfate, fluoride, and boron) were in complete compliance, ammonium nitrogen had 88.9 percent and fecal coliform had 66.7 percent compliance. Cyanide does not have a General Use Waters quality limit. At location 36, five parameters (ammonium nitrogen, total dissolved solids, zinc, cyanide, and fluoride) have Secondary Contact Waters quality limits. Ammonium nitrogen had 91.7 percent compliance and all remaining four parameters were in compliance.

STICKNEY WRP

Both locations of Stickney (75 and 41) are classified as Secondary Contact Waters sections of the Chicago River Systems. Nine water quality parameters (total dissolved solids, cyanide, turbidity, sulfate, nitrate+nitrite nitrogen, iron, fecal coliform, fluoride, and boron) had significantly different means between the upstream and the downstream locations. The downstream averages of six parameters (cyanide, sulfate, nitrate+nitrite nitrogen, fecal coliform, fluoride and boron) were significantly higher than the upstream averages and three parameters (total suspended solids, turbidity and iron) had a significantly lower average downstream than upstream.

Three water quality parameters (cyanide, iron and fluoride) have Secondary Contact Waters quality limits. All of these parameters were in complete compliance at both upstream and downstream locations.

CALUMET WRP

Locations 56 and 76 are classified as Secondary Contact Waters of Calumet River System. Fifteen water quality parameters (total Kjeldahl nitrogen, dissolved oxygen, phenols, pH, cyanide, WAD cyanide, alkalinity, phosphorus, sulfate, barium, fecal coliform, fluoride, soluble phosphorus, total organic carbon, and boron) had significantly different means between the upstream and the downstream locations. Twelve parameters (total Kjeldahl nitrogen, phenols, cyanide, WAD cyanide, alkalinity, phosphorus, sulfate, fecal coliform, fluoride, soluble phosphorus, total organic carbon, and boron) had significantly higher means downstream than upstream. Three parameters (dissolved oxygen, pH and barium) had significantly higher means upstream than downstream.

Six parameters (dissolved oxygen, pH, phenols, cyanide, barium, and fluoride) have Secondary Contact Waters quality limits. All the parameters were in complete compliance at both locations except pH. The pH had 87 percent compliance at the upstream location and 91.7 percent at the downstream location.

JOHN E. EGAN WRP

Both locations (79 and 80) of John E. Egan WRP are classified as General Use Waters of the Des Plaines River System. Twelve water quality parameters (zinc, total suspended solids, cyanide, WAD cyanide, turbidity, phosphorus, nitrate+nitrite nitrogen, iron, barium, fluoride, soluble phosphorus, and boron) had significantly different means between the upstream and the downstream locations. Eight parameters (zinc, cyanide, WAD cyanide, phosphorus, nitrate+nitrite nitrogen, fluoride, soluble phosphorus, and boron) had significantly higher means at the downstream location than the upstream location. Four parameters (total suspended solids, turbidity, iron and barium) had significantly lower means downstream than upstream. Six parameters (zinc, WAD cyanide, iron, barium, fluoride and boron) had General Use Waters quality limits. Total iron had 90 percent compliance at the upstream location and 100 percent compliance at the downstream location. Fluoride had total compliance at the upstream location and 90 percent at the downstream location. The remaining four parameters had complete compliance at both the upstream and downstream locations.

JAMES C. KIRIE WRP

Both locations 77 and 78 of the James C. Kirie WRP are classified as General Use Waters of the Des Plaines River System. Sixteen water quality parameters (total Kjeldahl nitro-

gen, total suspended solids, manganese, chloride, cyanide, organic nitrogen, turbidity, phosphorus, sulfate, nitrate+nitrite nitrogen, iron, barium, fecal coliform, fluoride, soluble phosphorus, and boron) had significantly different means between the upstream and the downstream locations. Nine parameters (total Kjeldahl nitrogen, cyanide, organic nitrogen, phosphorus, sulfate, nitrate+nitrite nitrogen, fluoride, soluble phosphorus, and boron) had significantly higher means downstream than upstream. Seven parameters (total suspended solids, manganese, chloride, turbidity, iron, barium and fecal coliform) had significantly lower means downstream than upstream.

Eight water quality parameters (manganese, chloride, sulfate, iron, barium, fecal coliform, fluoride, and boron) have General Use Water limits. Total iron had 83.3 percent compliance at the upstream location and 91.7 percent at the downstream location. Chloride had 75 percent compliance at the upstream location and 100 percent at the downstream location. Fecal coliform had 75 percent compliance at the upstream location and 50 percent compliance at the downstream location. The remaining five parameters had complete compliance at both locations.

HANOVER PARK WRP

Both locations (63 and 78) of the Hanover Park WRP are classified as General Use Waters of the Des Plaines River Sys-

tem. Sixteen parameters (total Kjeldahl nitrogen, total dissolved solids, total solids, manganese, chloride, cyanide, turbidity, phosphorus, nitrate+nitrite nitrogen, iron, barium, fecal coliform, fluoride, magnesium, soluble phosphorus, and boron) had significantly different means between the upstream and the downstream locations. Eight parameters (total Kjeldahl nitrogen, cyanide, phosphorus, nitrate+nitrite nitrogen, fecal coliform, fluoride, soluble phosphorus, and boron) had significantly higher means downstream than upstream, and eight parameters (total dissolved solids, total solids, manganese, chloride, turbidity, iron, barium, and magnesium) had lower means at the downstream location than the upstream location.

Eight parameters (total dissolved solids, manganese, chloride, iron, barium, fecal coliform, fluoride, and boron) have General Use Waters quality limits. Five parameters (manganese, chloride, barium, fluoride, and boron) had total compliance. Total dissolved solids and chloride had a 75 percent compliance each, and fecal coliform had a 37.5 percent compliance rate at the upstream location. Fecal coliform had a 50 percent compliance, and total dissolved solids and chloride had total compliance at the downstream location.

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APPENDIX I

WATERWAYS DATA MANAGEMENT SYSTEM DESCRIPTION

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AI-1

PARAMETER DIRECTORY FOR WATER QUALITY NETWORK

Code	Parameter	Symbol	Units	Water Quality Standard*	
				General Use	Secondary Contact
1	Biochemical Oxygen Demand	BOD	mg/L	none	none
2	Total Suspended Solids	TSS	mg/L	none	none
3	Volatile Suspended Solids	VSS	mg/L	none	none
4	Inorganic Suspended Solids	ISS	mg/L	none	none
5	Dissolved Oxygen	DO	mg/L	5	4
6	Temperature	TEMP	degrees C	16.0 (32.0 Apr-Nov)	37.8
7	Conductivity	COND	umhos	none	none
8	pH	PH	mg	6.5-9.0	6.0-9.0
9	Oxidation-Reduction Potential	ORP	mv	none	none
10	Chloride	CL	mg/L	500	none
11	Turbidity	TURB.	JTU	none	none
12	Solar Radiation Intensity	SRI	cal/cm2/min	none	none
13	Alkalinity	ALK.	mg/L as CaCO3	none	none
14	Chemical Oxygen Demand	COD	mg/L	none	none
15	Total Kjeldahl Nitrogen	TKN	mg/L	none	none
16	Ammonium Nitrogen	NH4_N	mg/L	1.5,15	2.5,4.0
17	Total Solids	TS	mg/L	none	none
18	Total Volatile Solids	TVS	mg/L	none	none
19	Fats Oils and Greases	FOG	mg/L	none	15
20	Organic Nitrogen	ORG_N	mg/L	none	none
21	Total Dissolved Solids	TDS	mg/L	1000	1500
22	Total Dissolved Volatile Solids	TDVS	mg/L	none	none
23	Phenols	PHENOLS	ug/L	100	300
24	Sulfate	SO4	mg/L	500	none
25	Phosphorus	T.P	mg/L	none	none
26	Cyanide	CN	mg/L	none	0.1
27	Nitrite + Nitrate	NO2+NO3	mg/L	none	none
28	Methylene Blue Active Substances	MBAS	mg/L	none	none
29	Zinc	ZN	mg/L	1	1
30	Cadmium	CD	mg/L	0.05	0.15
31	Copper	CU	mg/L	$\exp(0.9422 \ln(\text{Hard.}) - 1.464)$	1
32	Chromium	CR	mg/L	$\exp(0.819 \ln(\text{Hard.}) + 3.688)$	1
33	Hexavalent Chromium	HEX_CR	mg/L	0.05	0.3
34	Iron	FE	mg/L	1	2
35	Nickel	NI	mg/L	1	1
36	Lead	PB	mg/L	$\exp(1.273 \ln(\text{Hard.}) - 1.301)$	0.1
37	Mercury	HG	mg/L	2.6	0.5
38	Boron	B	mg/L	1	none
39	Arsenic	AS	mg/L	0.36	1
40	Selenium	SE	mg/L	1	1
41	Barium	BA	mg/L	5	5
42	Silver	AG	mg/L	0.005	0.1
43	Total Coliform	TC	counts/100ml	none	none
44	Fecal Coliform	FC	counts/100ml	400	none
45	Fecal Streptococcus	FS	counts/100ml	none	none

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AI-1 (Continued)

PARAMETER DIRECTORY FOR WATER QUALITY NETWORK

Code	Parameter	Symbol	Units	Water Quality Standard*	
				General Use	Secondary Contact
46	Un-ionized Ammonia	NH3_N	mg/L	0.33 (Apr-Oct), 0.14 (Nov-Mar)	0.1
47	Hardness	HARD.	mg/L as CaCO3	none	none
48	Nitrite	NO2	mg/L	none	none
49	Nitrate	NO3	mg/L	none	none
50	Total Organic Carbon	TOC	mg/L	none	none
51	Precipitation	RAIN	inches	none	none
52	Soluble Iron	SOL_FE	mg/L	1	0.5
53	Manganese	MN	mg/L	1	1
54	Fluoride	F	mg/L	1.4	15
55	Aluminum	AL	mg/L	none	none
56	Calcium	CA	mg/L	none	none
57	Potassium	K	mg/L	none	none
58	Magnesium	MG	mg/L	none	none
59	Sodium	NA	mg/L	none	none
60	Soluble Phosphorus	SOL_P	mg/L	none	none
61	Total Fixed Solids	TFS	mg/L	none	none
62	Gross Alpha Radioactivity	G.ALPHA	pCi/L	none	none
63	Gross Beta Radioactivity	G.BETA	pCi/L	100	none
64	WAD Cyanide	WADCN	mg/L	0.02	none
65	Total Antimony	SB	mg/L	none	none
66	Total Beryllium	BE	mg/L	none	none
67	Total Thallium	TL	mg/L	none	none

*As per Illinois Pollution Control Board, except as modified (see Text)

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AI-2.

DIRECTORY OF SAMPLING STATIONS IN WATER QUALITY NETWORK

Code	Station	Type Sample	Water Use	River System
1	Wilmette Harbor	Auto	GEN	Chicago
2	Outer Drive Bridge	Auto	GEN	Chicago
3	So. Dist. 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	Hwy. 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	County Line Rd., Buffalo Creek	Grab	GEN	Des Plaines
13	County Line Road, Des Plaines River	Grab	GEN	Des Plaines
14	Hintz Rd., Wheeling Drain Ditch	Grab	GEN	Des Plaines
15	Palatine Rd., Des Plaines River	Grab	GEN	Des Plaines
16	Central Road, Des Plaines River	Grab	GEN	Des Plaines
17	Oakton St., Des Plaines River	Grab	GEN	Des Plaines
18	Davon Ave., Salt Creek	Grab	GEN	Des Plaines
19	Belmont Ave., Des Plaines River	Grab	GEN	Des Plaines
20	Roosevelt Road, Des Plaines River	Grab	GEN	Des Plaines
21	First Ave., Salt Creek	Grab	GEN	Des Plaines
22	Ogden Ave., Des Plaines River	Grab	GEN	Des Plaines
23	Willow Springs Rd., Des Plaines River	Grab	GEN	Des Plaines
24	Wolf Road, Salt Creek	Grab	GEN	Des Plaines
25	Grand Ave., Des Plaines River	Grab	GEN	Des Plaines
26	Lawrence Ave., Des Plaines River	Grab	GEN	Des Plaines
27	York Road, Salt Creek	Grab	GEN	Des Plaines
28	Hwy. 83 and Des Plaines River	Grab	GEN	Des Plaines
29	Lemont Stephen St., Des Plaines River	Grab	GEN	Des Plaines
30	County Line Rd., W. Fork N. Branch	Grab	GEN	Chicago
31	County Line Rd., Md. Fork N. Branch	Grab	GEN	Chicago
32	County Line Rd., Skokie River	Grab	GEN	Chicago
33	East Lake Ave., Md. Fork North Branch	Grab	GEN	Chicago
34	Dempster St., N.B. Chicago River	Grab	GEN	Chicago
35	Central Ave., N. Shore Channel	Grab	GEN	Chicago
36	Touhy Ave., N. Shore Channel	Grab	SEC	Chicago
37	Wilson Ave., N.B. Chicago River	Grab	SEC	Chicago
38	Ohio Street, N.B. Chicago River	Grab	SEC	Chicago
39	Madison St., S.B. Chicago River	Grab	SEC	Chicago
40	Damen Ave., S.B. Chicago River	Grab	SEC	Chicago
41	Harlem Ave., Chgo. San. and Ship Canal	Grab	SEC	Chicago
42	Hwy. 83 and Chgo. San. and Ship Canal	Grab	SEC	Chicago
43	Hwy. 83 and Cal-Sag Channel	Grab	SEC	Calumet
44	Howard Street, N. Shore Channel	Grab	SEC	Chicago
45	Lawrence Ave., N.B. Chicago River	Grab	SEC	Chicago
46	Grand Ave., N.B. Chicago River	Grab	SEC	Chicago
47	Randolph St., S.B. Chicago River	Grab	SEC	Chicago
48	Lemont Bridge Stephen Street (Comp)	Grab	SEC	Chicago
49	92nd and Ewing Ave., Calumet River	Grab	GEN	Calumet
50	Wolf Lake Burnham Ave.	Grab	GEN	Calumet

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AI-2 (Continued)

DIRECTORY OF SAMPLING STATIONS IN WATER QUALITY NETWORK

Code	Station	Type Sample	Water Use	River System
51	IHB R.R. Bridge, Grand Calumet River	Grab	SEC	Calumet
52	Wentworth Ave., Little Calumet River	Grab	GEN	Calumet
53	Wentworth Ave., North Creek	Grab	GEN	Calumet
54	Joe Orr Road, Thorn Creek	Grab	GEN	Calumet
55	130th Street, Calumet River	Grab	GEN	Calumet
56	Indiana Ave., Calumet River	Grab	SEC	Calumet
57	135th and Ashland, Little Calumet River	Grab	GEN	Calumet
58	Ashland Ave., Cal-Sag Channel	Grab	SEC	Calumet
59	Cicero Ave., Cal-Sag Channel	Grab	SEC	Calumet
60	Crawford Ave., Cal-Sag Channel	Grab	SEC	Calumet
61	Ashland Ave., S.B. Chicago River	Grab	SEC	Chicago
62	Stephen St., Chgo., San. and Ship Canal	Grab	SEC	Chicago
63	Longmeadow Lane, Du Page River	Grab	GEN	Des Plaines
64	Lake St., Du Page River	Grab	GEN	Des Plaines
65	Oltendorf Rd., Poplar Creek	Grab	GEN	Des Plaines
66	Bartlett Rd., 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 Chgo., San., and Ship Canal	Grab	SEC	Chicago
72	Stephen St., San., and Ship Canal	Grab	SEC	Chicago
73	Diversey Ave., N.B. Chicago River	Grab	SEC	Chicago
74	Outer Dr. Bridge, Chicago River	Grab	GEN	Chicago
75	Cicero Ave., Chgo. San. and Ship Canal	Grab	SEC	Chicago
76	Halsted Street, Little Cal. River	Grab	SEC	Calumet
77	Elmhurst Rd., Higgins Creek	Grab	GEN	Des Plaines
78	Wille Rd., Higgins Creek	Grab	GEN	Des Plaines
79	Higgins Rd., Salt Creek	Grab	GEN	Des Plaines
80	Arlington Hts. Rd., Salt Creek	Grab	GEN	Des Plaines
81	Lockport Forebay	Auto	SEC	Chicago
82	Lockport Trebler	Auto	SEC	Chicago
83	Lockport Solenoid	Auto	SEC	Chicago
84	Lockport 16th St. Bridge	Grab	SEC	Chicago
85	Demptser St., N. Shore Channel	Grab	SEC	Chicago
86	Burnham Avenue, Grand Calumet River	Grab	SEC	Calumet
89	Walnut Lane, West Branch Du Page River	Grab	GEN	Des Plaines
90	Chicago-Elgin Rd., Poplar Creek	Grab	GEN	Des Plaines

GEN: General Use; SEC: Secondary Contact; EPFL: Effluent

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AI-3

DIRECTORY OF SAMPLING STATIONS IN WATER QUALITY NETWORK

Code	Station	Type Sample	Water Use	River System
<u>Chicago River System</u>				
30.0	County Line Rd., W. Fork N. Branch	Grab	GEN	Chicago
31.0	County Line Rd., Md. Fork N. Branch	Grab	GEN	Chicago
32.0	County Line Rd., Skokie River	Grab	GEN	Chicago
34.0	Dempster St., N.B. Chicago River	Grab	GEN	Chicago
74.0	Outer Dr. Bridge, Chicago River	Grab	GEN	Chicago
35.0	Central Ave., N. Shore Channel	Grab	GEN	Chicago
36.0	Touhy Ave., N. Shore Channel	Grab	SEC	Chicago
37.0	Wilson Ave., N.B. Chicago River	Grab	SEC	Chicago
73.0	Diversey Ave., N.B. Chicago River	Grab	SEC	Chicago
46.0	Grand Ave., N.B. Chicago River	Grab	SEC	Chicago
39.0	Madison St., S.B. Chicago River	Grab	SEC	Chicago
40.0	Damen Ave., S.B. Chicago River	Grab	SEC	Chicago
75.0	Cicero Ave., Chgo. San. and Ship Canal	Grab	SEC	Chicago
41.0	Harlem Ave., Chgo. San. and Ship Canal	Grab	SEC	Chicago
42.0	Hwy. 83 and Chgo. San. and Ship Canal	Grab	SEC	Chicago
48.0	Lemont Bridge Stephen Steet (Comp)	Grab	SEC	Chicago
82.0	Lockport Trebler	Auto	SEC	Chicago
<u>Calumet River System</u>				
50.0	Wolf Lake Burnham Ave.	Grab	GEN	Calumet
54.0	Joe Orr Road, Thorn Creek	Grab	GEN	Calumet
52.0	Wentworth Ave., Little Calumet River	Grab	GEN	Calumet
57.0	135th and Ashland, Little Calumet River	Grab	GEN	Calumet
86.0	Burnham Avenue, Grand Calumet River	Grab	SEC	Calumet
51.0	IHE R.R. Bridge, Grand Calumet River	Grab	SEC	Calumet
49.0	92nd and Ewing Ave., Calumet River	Grab	GEN	Calumet
55.0	130th Street, Calumet River	Grab	GEN	Calumet
56.0	Indiana Ave., Calumet River	Grab	SEC	Calumet
76.0	Halsted Street, Little Cal. River	Grab	SEC	Calumet
58.0	Ashland Ave., Cal-Sag Channel	Grab	SEC	Calumet
59.0	Cicero Ave., Cal-Sag Channel	Grab	SEC	Calumet
43.0	Hwy. 83 and Cal-Sag Channel	Grab	SEC	Calumet
<u>Des Plaines River System</u>				
63.0	Longmeadow Lane, Du Page River	Grab	GEN	Des Plaines
64.0	Lake St., Du Page River	Grab	GEN	Des Plaines
89.0	Walnut Lane, West Branch Du Page River	Grab	GEN	Des Plaines
90.0	Chicago-Elgin Rd., Poplar Creek	Grab	GEN	Des Plaines
12.0	County Line Rd., Buffalo Creek	Grab	GEN	Des Plaines
79.0	Higgins Rd., Salt Creek	Grab	GEN	Des Plaines
80.0	Arlington Hts. Rd., Salt Creek	Grab	GEN	Des Plaines
18.0	Davon Ave., Salt Creek	Grab	GEN	Des Plaines
24.0	Wolf Road, Salt Creek	Grab	GEN	Des Plaines
21.0	First Ave., Salt Creek	Grab	GEN	Des Plaines
77.0	Elmhurst Rd., Higgins Creek	Grab	GEN	Des Plaines
78.0	Wille Rd., Higgins Creek	Grab	GEN	Des Plaines
13.0	County Line Road, Des Plaines River	Grab	GEN	Des Plaines
17.0	Oakton St., Des Plaines River	Grab	GEN	Des Plaines
19.0	Belmont Ave., Des Plaines River	Grab	GEN	Des Plaines
20.0	Roosevelt Road, Des Plaines River	Grab	GEN	Des Plaines
22.0	Ogden Ave., Des Plaines River	Grab	GEN	Des Plaines
23.0	Willow Springs Rd., Des Plaines River	Grab	GEN	Des Plaines
29.0	Lemont Stephen St., Des Plaines River	Grab	GEN	Des Plaines

GEN: General Use; SEC: Secondary Contact

APPENDIX II
WATER QUALITY RESULTS
ANNUAL MEANS AND STANDARD COMPLIANCE VIOLATIONS

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1

WATERWAYS SAMPLE MEANS 1998

Sampling Location	BOD mg/L	COD mg/L	DO mg/L	Temp. deg. C	TKN mg/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	6.6	12.2	0.98
32.0 County line Rd., Skokie River	ND	ND	7.6	11.9	0.80
34.0 Dempster St., N.B. Chicago River	ND	ND	8.0	13.2	1.03
74.0 Outer Dr. Bridge, Chicago River	ND	ND	9.4	13.3	0.43
35.0 Central Ave., N. Shore Channel	ND	ND	7.2	16.2	0.76
36.0 Touhy Ave., N. Shore Channel	ND	ND	7.3	15.8	2.08
37.0 Wilson Ave., N.B. Chicago River	ND	ND	7.0	15.2	2.20
73.0 Diversey Ave., N.B. Chicago River	ND	ND	6.1	15.4	1.58
46.0 Grand Ave., N.B. Chicago River	ND	ND	6.3	15.0	1.94
39.0 Madison St., S.B. Chicago River	ND	ND	7.4	13.8	1.67
40.0 Damen Ave., S.B. Chicago River	ND	ND	7.0	15.4	1.31
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	6.2	18.0	1.48
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	7.1	16.7	1.50
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	5.9	17.2	1.86
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	6.0	16.6	1.49
82.0 Lockport Trebler	5.3	ND	ND	ND	1.71
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	ND	ND	9.3	15.0	0.55
54.0 Joe Orr Road, Thorn Creek	ND	ND	8.6	15.8	1.23
52.0 Wentworth Ave., Little Calumet River	ND	ND	6.9	14.3	2.65
57.0 135th and Ashland, Little Calumet River	ND	ND	6.3	14.6	1.42
86.0 Burnham Avenue, Grand Calumet River	ND	ND	5.6	15.6	2.10
49.0 92nd and Ewing Ave., Calumet River	ND	ND	9.4	14.8	0.48
55.0 130th Street, Calumet River	ND	ND	8.6	15.5	0.49
56.0 Indiana Ave., Calumet River	ND	ND	7.8	16.7	1.00
76.0 Halsted Street, Little Cal. River	ND	ND	6.6	16.4	1.27
58.0 Ashland Ave., Cal-Saq Channel	ND	ND	5.6	19.1	1.11
59.0 Cicero Ave., Cal-Saq Channel	ND	ND	6.0	16.0	1.37
43.0 Hwy. 83 and Cal-Saq Channel	ND	ND	5.6	15.5	1.25
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	ND	ND	8.4	17.8	1.66
64.0 Lake St., Du Page River	ND	ND	7.8	17.9	2.52
89.0 Walnut Lane, West Branch Du Page River	ND	ND	7.3	18.3	2.34
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	8.4	17.1	0.74
12.0 County Line Rd., Buffalo Creek	ND	ND	8.5	16.9	0.98
79.0 Higgins Rd., Salt Creek	ND	ND	7.8	19.1	1.31
80.0 Arlington Hts. Rd., Salt Creek	ND	ND	7.3	17.6	1.45
18.0 Devon Ave., Salt Creek	ND	ND	7.7	17.5	1.33
24.0 Wolf Road, Salt Creek	ND	ND	9.7	9.9	1.12
21.0 First Ave., Salt Creek	ND	ND	6.5	14.8	1.05
77.0 Elmhurst Rd., Higgins Creek	ND	ND	8.0	15.3	0.82
78.0 Wille Rd., Higgins Creek	ND	ND	7.8	17.3	1.37
13.0 County Line Rd., Des Plaines River	ND	ND	8.0	15.7	1.26
17.0 Oakton St., Des Plaines River	ND	ND	8.1	15.1	1.24
19.0 Belmont Ave., Des Plaines River	ND	ND	6.6	15.3	1.26
20.0 Roosevelt Road, Des Plaines River	ND	ND	6.4	15.2	1.28
22.0 Ogden Ave., Des Plaines River	ND	ND	8.4	14.8	1.48
23.0 Willow Springs Rd., Des Plaines River	ND	ND	8.4	16.2	1.39
29.0 Lemont Stephen St., Des Plaines River	ND	ND	9.1	16.7	1.51

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	Un-ionized				TS mg/L
	ORG-N mg/L	NH4-N mg/L	NH3-N mg/L	NO2+NO3 mg/L	
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	0.93	0.05	0.00	0.51	749
32.0 County line Rd., Skokie River	0.72	0.08	0.00	0.58	772
34.0 Dempster St., N.B. Chicago River	0.97	0.06	0.00	3.85	729
74.0 Outer Dr. Bridge, Chicago River	0.31	0.14	0.01	0.96	320
35.0 Central Ave., N. Shore Channel	0.42	0.41	0.03	0.22	276
36.0 Touhy Ave., N. Shore Channel	1.17	0.91	0.04	5.74	529
37.0 Wilson Ave., N.B. Chicago River	1.04	1.16	0.05	6.38	596
73.0 Diversey Ave., N.B. Chicago River	1.00	0.58	0.08	5.45	592
46.0 Grand Ave., N.B. Chicago River	0.95	0.99	0.05	5.27	620
39.0 Madison St., S.B. Chicago River	1.13	0.54	0.02	3.41	492
40.0 Damen Ave., S.B. Chicago River	0.79	0.52	0.08	3.21	536
75.0 Cicero Ave., Chgo. San. and Ship Canal	1.07	0.40	0.05	3.04	547
41.0 Harlem Ave., Chgo. San. and Ship Canal	1.01	0.50	0.02	6.97	608
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1.22	0.64	0.03	5.64	595
48.0 Lemont Bridge, Stephen Street (Comp)	1.00	0.49	0.02	5.10	623
82.0 Lockport Trebler	1.37	0.34	ND	4.48	632
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	0.53	0.02	0.00	0.12	286
54.0 Joe Orr Road, Thorn Creek	1.19	0.03	0.00	6.80	1182
52.0 Wentworth Ave., Little Calumet River	2.49	0.16	0.01	3.82	740
57.0 135th and Ashland, Little Calumet River	1.24	0.18	0.01	2.82	782
86.0 Burnham Avenue, Grand Calumet River	1.69	0.42	0.01	12.32	990
49.0 92nd and Ewing Ave., Calumet River	0.44	0.04	0.00	0.34	327
55.0 130th Street, Calumet River	0.38	0.11	0.00	0.48	341
56.0 Indiana Ave., Calumet River	0.69	0.31	0.01	3.18	514
76.0 Halsted Street, Little Cal. River	0.92	0.35	0.01	4.14	589
58.0 Ashland Ave., Cal-Saq Channel	0.82	0.29	0.02	3.59	605
59.0 Cicero Ave., Cal-Saq Channel	1.04	0.34	0.01	3.78	639
43.0 Hwy. 83 and Cal-Saq Channel	0.94	0.31	0.02	3.50	673
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	1.52	0.14	0.01	2.57	827
64.0 Lake St., Du Page River	1.91	0.60	0.03	8.52	684
89.0 Walnut Lane, West Branch Du Page River	2.14	0.19	0.01	8.34	615
90.0 Chicago-Elgin Rd., Poplar Creek	0.66	0.07	0.00	0.44	810
12.0 County Line Rd., Buffalo Creek	0.90	0.09	0.01	0.44	753
79.0 Higgins Rd., Salt Creek	1.19	0.12	0.01	0.51	776
80.0 Arlington Hts. Rd., Salt Creek	1.27	0.18	0.01	7.46	709
18.0 Devon Ave., Salt Creek	1.09	0.24	0.01	7.24	734
24.0 Wolf Road, Salt Creek	0.96	0.16	0.00	6.97	955
21.0 First Ave., Salt Creek	0.92	0.13	0.00	6.94	854
77.0 Elmhurst Rd., Higgins Creek	0.66	0.16	0.00	0.34	1015
78.0 Wille Rd., Higgins Creek	1.07	0.30	0.01	6.96	786
13.0 County Line Rd., Des Plaines River	1.08	0.18	0.01	4.92	714
17.0 Oakton St., Des Plaines River	1.14	0.10	0.00	4.23	738
19.0 Belmont Ave., Des Plaines River	1.03	0.22	0.01	4.00	720
20.0 Roosevelt Road, Des Plaines River	1.10	0.18	0.00	3.83	724
22.0 Ogden Ave., Des Plaines River	1.35	0.13	0.00	4.75	745
23.0 Willow Springs Rd., Des Plaines River	1.22	0.17	0.00	4.58	761
29.0 Lemont Stephen St., Des Plaines River	1.36	0.15	0.01	4.64	768

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	TDS mg/L	TVS mg/L	TDVS mg/L	TSS mg/L	B mg/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	713	ND	ND	36.2	0.1
32.0 County line Rd., Skokie River	757	ND	ND	15.2	0.2
34.0 Dempster St., N.B. Chicago River	697	ND	ND	31.8	0.2
74.0 Outer Dr. Bridge, Chicago River	315	ND	ND	5.3	0.0
35.0 Central Ave., N. Shore Channel	267	ND	ND	8.9	0.0
36.0 Touhy Ave., N. Shore Channel	519	ND	ND	10.3	0.2
37.0 Wilson Ave., N.B. Chicago River	585	ND	ND	10.6	0.2
73.0 Diversey Ave., N.B. Chicago River	577	ND	ND	14.9	0.2
46.0 Grand Ave., N.B. Chicago River	608	ND	ND	12.0	0.2
39.0 Madison St., S.B. Chicago River	480	ND	ND	12.3	0.1
40.0 Damen Ave., S.B. Chicago River	522	ND	ND	13.4	0.1
75.0 Cicero Ave., Chgo. San. and Ship Canal	533	ND	ND	13.7	0.1
41.0 Harlem Ave., Chgo. San. and Ship Canal	598	ND	ND	10.0	0.2
42.0 Hwy. 83 and Chgo. San. and Ship Canal	585	ND	ND	10.5	0.2
48.0 Lemont Bridge, Stephen Street (Comp)	607	ND	ND	15.3	0.2
82.0 Lockport Trebler	574	135.8	ND	57.4	ND
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	275	ND	ND	10.7	0.1
54.0 Joe Orr Road, Thorn Creek	1167	ND	ND	15.2	0.4
52.0 Wentworth Ave., Little Calumet River	645	ND	ND	94.4	0.2
57.0 135th and Ashland, Little Calumet River	725	ND	ND	57.3	0.3
86.0 Burnham Avenue, Grand Calumet River	972	ND	ND	18.2	0.3
49.0 92nd and Ewing Ave., Calumet River	313	ND	ND	15.3	0.1
55.0 130th Street, Calumet River	329	ND	ND	10.4	0.1
56.0 Indiana Ave., Calumet River	496	ND	ND	18.0	0.2
76.0 Halsted Street, Little Cal. River	564	ND	ND	20.7	0.3
58.0 Ashland Ave., Cal-Saq Channel	588	ND	ND	18.9	0.3
59.0 Cicero Ave., Cal-Saq Channel	614	ND	ND	27.6	0.3
43.0 Hwy. 83 and Cal-Saq Channel	649	ND	ND	24.3	0.2
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	804	ND	ND	22.6	0.2
64.0 Lake St., Du Page River	651	ND	ND	32.8	0.3
89.0 Walnut Lane, West Branch Du Page River	602	ND	ND	13.5	0.3
90.0 Chicago-Elgin Rd., Poplar Creek	792	ND	ND	17.7	0.1
12.0 County Line Rd., Buffalo Creek	726	ND	ND	27.4	0.1
79.0 Higgins Rd., Salt Creek	747	ND	ND	29.0	0.1
80.0 Arlington Hts. Rd., Salt Creek	701	ND	ND	8.5	0.2
18.0 Devon Ave., Salt Creek	721	ND	ND	13.8	0.2
24.0 Wolf Road, Salt Creek	931	ND	ND	24.7	0.2
21.0 First Ave., Salt Creek	828	ND	ND	26.3	0.2
77.0 Elmhurst Rd., Higgins Creek	992	ND	ND	22.8	0.1
78.0 Wille Rd., Higgins Creek	774	ND	ND	11.9	0.4
13.0 County Line Rd., Des Plaines River	682	ND	ND	32.3	0.2
17.0 Oakton St., Des Plaines River	697	ND	ND	40.5	0.2
19.0 Belmont Ave., Des Plaines River	696	ND	ND	24.0	0.2
20.0 Roosevelt Road, Des Plaines River	699	ND	ND	25.0	0.2
22.0 Ogden Ave., Des Plaines River	718	ND	ND	27.6	0.2
23.0 Willow Springs Rd., Des Plaines River	723	ND	ND	37.9	0.2
29.0 Lemont Stephen St., Des Plaines River	729	ND	ND	38.6	0.2

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	Ing.SS mg/L	TOC mg/L	FC #/100ml	pH	Cond. umhos
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	ND	11.67	1210	7.77	ND
32.0 County line Rd., Skokie River	ND	13.83	1718	7.82	ND
34.0 Dempster St., N.B. Chicago River	ND	11.58	878	7.72	ND
74.0 Outer Dr. Bridge, Chicago River	ND	5.17	62	8.15	ND
35.0 Central Ave., N. Shore Channel	ND	7.00	241	8.24	ND
36.0 Touhy Ave., N. Shore Channel	ND	9.08	6963	7.50	ND
37.0 Wilson Ave., N.B. Chicago River	ND	9.25	7000	7.68	ND
73.0 Diversey Ave., N.B. Chicago River	ND	9.17	3796	7.84	ND
46.0 Grand Ave., N.B. Chicago River	ND	9.00	1636	7.82	ND
39.0 Madison St., S.B. Chicago River	ND	7.33	800	7.89	ND
40.0 Damen Ave., S.B. Chicago River	ND	7.83	510	8.06	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	10.33	352	8.02	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	13.67	5427	7.97	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	11.83	1300	7.98	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	12.08	849	7.97	ND
82.0 Lockport Trebler	ND	ND	ND	7.65	930
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	ND	6.67	13	8.34	ND
54.0 Joe Orr Road, Thorn Creek	ND	11.17	1132	7.53	ND
52.0 Wentworth Ave., Little Calumet River	ND	11.75	2033	8.09	ND
57.0 135th and Ashland, Little Calumet River	ND	10.08	1724	7.65	ND
86.0 Burnham Avenue, Grand Calumet River	ND	11.17	4325	7.94	ND
49.0 92nd and Ewing Ave., Calumet River	ND	4.39	27	8.25	ND
55.0 130th Street, Calumet River	ND	5.61	26	8.12	ND
56.0 Indiana Ave., Calumet River	ND	6.73	130	8.03	ND
76.0 Halsted Street, Little Cal. River	ND	9.13	3747	7.56	ND
58.0 Ashland Ave., Cal-Saq Channel	ND	8.67	2220	7.92	ND
59.0 Cicero Ave., Cal-Saq Channel	ND	10.00	749	7.74	ND
43.0 Hwy. 83 and Cal-Saq Channel	ND	9.65	201	7.74	ND
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	ND	14.43	603	8.13	ND
64.0 Lake St., Du Page River	ND	12.00	1083	8.06	ND
89.0 Walnut Lane, West Branch Du Page River	ND	14.09	666	7.90	ND
90.0 Chicago-Elgin Rd., Poplar Creek	ND	9.90	136	8.17	ND
12.0 County Line Rd., Buffalo Creek	ND	12.30	186	7.87	ND
79.0 Hiqqins Rd., Salt Creek	ND	11.22	52	8.29	ND
80.0 Arlington Hts. Rd., Salt Creek	ND	11.00	260	7.97	ND
18.0 Devon Ave., Salt Creek	ND	10.82	1154	7.87	ND
24.0 Wolf Road, Salt Creek	ND	10.50	1038	7.91	ND
21.0 First Ave., Salt Creek	ND	10.00	653	7.65	ND
77.0 Elmhurst Rd., Hiqqins Creek	ND	11.00	267	7.75	ND
78.0 Wille Rd., Hiqqins Creek	ND	12.00	181	7.75	ND
13.0 County Line Rd., Des Plaines River	ND	11.00	392	7.93	ND
17.0 Oakton St., Des Plaines River	ND	10.82	360	7.78	ND
19.0 Belmont Ave., Des Plaines River	ND	11.18	574	7.74	ND
20.0 Roosevelt Road, Des Plaines River	ND	11.36	725	7.70	ND
22.0 Ogden Ave., Des Plaines River	ND	10.82	538	7.65	ND
23.0 Willow Springs Rd., Des Plaines River	ND	10.55	423	7.87	ND
29.0 Lemont Stephen St., Des Plaines River	ND	11.36	241	7.96	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	CL mg/L	T.P mg/L	Sol.P mg/L	G.Alpha pCi/L	G.Beta pCi/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	180	0.18	0.12	ND	ND
32.0 County line Rd., Skokie River	183	0.15	0.09	ND	ND
34.0 Dempster St., N.B. Chicago River	182	0.78	0.70	ND	ND
74.0 Outer Dr. Bridge, Chicago River	64	0.20	0.15	ND	ND
35.0 Central Ave., N. Shore Channel	34	0.13	0.10	ND	ND
36.0 Touhy Ave., N. Shore Channel	110	1.18	1.06	ND	ND
37.0 Wilson Ave., N.B. Chicago River	133	1.09	0.98	ND	ND
73.0 Diversey Ave., N.B. Chicago River	129	0.84	0.74	ND	ND
46.0 Grand Ave., N.B. Chicago River	150	0.86	0.87	ND	ND
39.0 Madison St., S.B. Chicago River	108	0.61	0.50	ND	ND
40.0 Damen Ave., S.B. Chicago River	136	0.53	0.42	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	149	0.55	0.38	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	143	0.85	0.74	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	147	0.66	0.50	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	149	0.86	0.72	ND	ND
82.0 Lockport Trebler	134	1.21	ND	ND	ND
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	30	0.06	0.04	ND	ND
54.0 Joe Orr Road, Thorn Creek	152	8.04	7.36	ND	ND
52.0 Wentworth Ave., Little Calumet River	109	0.81	0.30	ND	ND
57.0 135th and Ashland, Little Calumet River	139	1.62	1.27	ND	ND
86.0 Burnham Avenue, Grand Calumet River	192	0.70	0.33	ND	ND
49.0 92nd and Ewing Ave., Calumet River	31	0.08	0.04	ND	ND
55.0 130th Street, Calumet River	53	0.15	0.06	ND	ND
56.0 Indiana Ave., Calumet River	99	0.21	0.16	ND	ND
76.0 Halsted Street, Little Cal. River	122	1.88	1.53	ND	ND
58.0 Ashland Ave., Cal-Saq Channel	101	1.95	1.74	ND	ND
59.0 Cicero Ave., Cal-Saq Channel	136	2.12	1.89	ND	ND
43.0 Hwy. 83 and Cal-Saq Channel	135	1.83	1.83	ND	ND
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	220	0.77	0.68	ND	ND
64.0 Lake St., Du Page River	152	2.38	2.05	ND	ND
89.0 Walnut Lane, West Branch Du Page River	131	2.90	2.20	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	199	0.10	0.07	ND	ND
12.0 County Line Rd., Buffalo Creek	174	0.15	0.06	ND	ND
79.0 Higgins Rd., Salt Creek	201	0.18	0.11	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	178	1.97	1.75	ND	ND
18.0 Devon Ave., Salt Creek	188	1.86	1.69	ND	ND
24.0 Wolf Road, Salt Creek	267	1.50	1.24	ND	ND
21.0 First Ave., Salt Creek	216	1.52	1.30	ND	ND
77.0 Elmhurst Rd., Higgins Creek	364	0.11	0.07	ND	ND
78.0 Wille Rd., Higgins Creek	193	1.06	0.82	ND	ND
13.0 County Line Rd., Des Plaines River	151	0.92	0.74	ND	ND
17.0 Oakton St., Des Plaines River	151	0.76	0.56	ND	ND
19.0 Belmont Ave., Des Plaines River	160	0.68	0.50	ND	ND
20.0 Roosevelt Road, Des Plaines River	160	0.66	0.52	ND	ND
22.0 Ogden Ave., Des Plaines River	172	0.85	0.69	ND	ND
23.0 Willow Springs Rd., Des Plaines River	178	0.80	0.63	ND	ND
29.0 Lemont Stephen St., Des Plaines River	183	0.79	0.59	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	FOG mg/L	Alk. mg/L	Turb. JTU	SO4 mg/L	Phenols ug/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	11.6	208.7	14.6	77.9	14.8
32.0 County line Rd., Skokie River	4.4	230.6	13.4	87.6	13.4
34.0 Dempster St., N.B. Chicago River	3.6	193.7	21.2	77.9	9.6
74.0 Outer Dr. Bridge, Chicago River	2.0	120.0	6.8	29.9	9.3
35.0 Central Ave., N. Shore Channel	ND	126.1	8.7	34.1	10.3
36.0 Touhy Ave., N. Shore Channel	4.0	151.7	6.8	54.2	13.4
37.0 Wilson Ave., N.B. Chicago River	4.3	160.7	8.7	56.9	11.4
73.0 Diversey Ave., N.B. Chicago River	2.5	161.3	11.3	56.5	12.1
46.0 Grand Ave., N.B. Chicago River	2.8	166.9	10.8	60.1	14.1
39.0 Madison St., S.B. Chicago River	4.8	147.6	10.3	47.2	12.7
40.0 Damen Ave., S.B. Chicago River	5.3	151.9	10.6	50.5	11.3
75.0 Cicero Ave., Chgo. San. and Ship Canal	2.5	143.6	10.8	45.5	13.6
41.0 Harlem Ave., Chgo. San. and Ship Canal	2.7	136.9	7.2	75.7	12.5
42.0 Hwy. 83 and Chgo. San. and Ship Canal	3.0	140.4	9.5	69.6	13.4
48.0 Lemont Bridge, Stephen Street (Comp)	1.9	142.0	11.7	80.7	14.9
82.0 Lockport Trebler	ND	149.3	ND	ND	12.6
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	4.6	101.9	7.4	32.2	10.8
54.0 Joe Orr Road, Thorn Creek	12.8	203.1	14.8	355.8	11.2
52.0 Wentworth Ave., Little Calumet River	3.6	199.7	30.6	122.0	13.4
57.0 135th and Ashland, Little Calumet River	3.0	178.5	37.8	158.0	15.8
86.0 Burnham Avenue, Grand Calumet River	3.2	140.7	8.4	195.7	14.4
49.0 92nd and Ewing Ave., Calumet River	3.0	111.1	9.8	25.1	5.7
55.0 130th Street, Calumet River	2.3	114.1	9.4	43.4	6.9
56.0 Indiana Ave., Calumet River	4.0	128.6	13.0	88.2	7.4
76.0 Halsted Street, Little Cal. River	3.8	153.4	11.2	119.0	13.8
58.0 Ashland Ave., Cal-Saq Channel	ND	141.9	12.9	133.6	17.5
59.0 Cicero Ave., Cal-Saq Channel	5.1	156.3	16.4	139.3	15.4
43.0 Hwy. 83 and Cal-Saq Channel	5.5	155.6	17.1	135.7	16.1
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	3.5	183.5	14.6	79.9	14.3
64.0 Lake St., Du Page River	5.3	151.8	19.7	71.3	15.3
89.0 Walnut Lane, West Branch Du Page River	5.3	153.8	7.0	67.9	16.9
90.0 Chicago-Elgin Rd., Poplar Creek	2.5	230.5	11.8	71.2	14.2
12.0 County Line Rd., Buffalo Creek	3.0	206.2	18.9	92.9	15.0
79.0 Hiqqins Rd., Salt Creek	2.5	171.4	21.1	78.4	15.3
80.0 Arlington Hts. Rd., Salt Creek	14.2	145.0	7.0	81.3	13.2
18.0 Devon Ave., Salt Creek	9.2	144.3	9.7	76.3	13.7
24.0 Wolf Road, Salt Creek	5.6	177.7	13.7	108.9	9.5
21.0 First Ave., Salt Creek	5.4	160.8	14.9	104.4	11.9
77.0 Elmhurst Rd., Hiqqins Creek	3.3	196.3	17.3	66.4	14.4
78.0 Wille Rd., Hiqqins Creek	4.1	173.1	7.9	96.5	14.8
13.0 County Line Rd., Des Plaines River	4.2	206.6	18.6	87.9	12.4
17.0 Oakton St., Des Plaines River	3.7	205.4	23.6	83.3	12.6
19.0 Belmont Ave., Des Plaines River	5.4	198.9	16.7	86.3	13.5
20.0 Roosevelt Road, Des Plaines River	6.4	194.8	17.3	84.3	13.2
22.0 Oqden Ave., Des Plaines River	5.4	185.1	17.6	87.7	11.5
23.0 Willow Springs Rd., Des Plaines River	4.8	185.1	23.7	90.6	12.2
29.0 Lemont Stephen St., Des Plaines River	3.0	184.4	24.3	90.0	13.6

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	CN mg/L	WAD-CN mg/L	F mg/L	Zn mg/L	Cd mg/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	0.002	0.000	0.306	0.005	0.004
32.0 County line Rd., Skokie River	0.001	0.000	0.286	0.009	0.002
34.0 Dempster St., N.B. Chicago River	0.004	0.000	0.488	0.007	0.001
74.0 Outer Dr. Bridge, Chicago River	0.002	0.000	0.195	0.007	0.001
35.0 Central Ave., N. Shore Channel	0.001	0.000	0.158	0.001	0.001
36.0 Touhy Ave., N. Shore Channel	0.006	0.001	0.778	0.017	0.001
37.0 Wilson Ave., N.B. Chicago River	0.006	0.000	0.748	0.013	0.001
73.0 Diversey Ave., N.B. Chicago River	0.005	0.000	0.740	0.020	0.001
46.0 Grand Ave., N.B. Chicago River	0.007	0.001	0.697	0.015	0.001
39.0 Madison St., S.B. Chicago River	0.004	0.001	0.475	0.011	0.001
40.0 Damen Ave., S.B. Chicago River	0.004	0.001	0.468	0.012	0.002
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.004	0.001	0.434	0.012	0.000
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.007	0.001	0.705	0.013	0.000
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.007	0.001	0.742	0.018	0.000
48.0 Lemont Bridge, Stephen Street (Comp)	0.009	0.001	0.697	0.015	0.000
82.0 Lockport Trebler	ND	ND	0.791	0.162	0.000
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	0.001	0.000	0.198	0.007	0.000
54.0 Joe Orr Road, Thorn Creek	0.008	0.001	0.594	0.032	0.000
52.0 Wentworth Ave., Little Calumet River	0.027	0.004	1.061	0.023	0.000
57.0 135th and Ashland, Little Calumet River	0.008	0.001	0.730	0.063	0.000
86.0 Burnham Avenue, Grand Calumet River	0.011	0.001	0.845	0.103	0.000
49.0 92nd and Ewing Ave., Calumet River	0.001	0.000	0.216	0.013	0.002
55.0 130th Street, Calumet River	0.001	0.000	0.243	0.019	0.000
56.0 Indiana Ave., Calumet River	0.003	0.000	0.422	0.027	0.000
76.0 Halsted Street, Little Cal. River	0.008	0.001	0.760	0.034	0.000
58.0 Ashland Ave., Cal-Saq Channel	0.008	0.001	0.750	0.027	0.001
59.0 Cicero Ave., Cal-Saq Channel	0.009	0.001	0.737	0.034	0.000
43.0 Hwy. 83 and Cal-Saq Channel	0.009	0.001	0.652	0.042	0.000
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	0.005	0.001	0.453	0.023	0.001
64.0 Lake St., Du Page River	0.009	0.001	1.061	0.039	0.001
89.0 Walnut Lane, West Branch Du Page River	0.011	0.001	0.844	0.059	0.000
90.0 Chicago-Elgin Rd., Poplar Creek	0.002	0.000	0.191	0.015	0.001
12.0 County Line Rd., Buffalo Creek	0.002	0.000	0.346	0.011	0.000
79.0 Higgins Rd., Salt Creek	0.002	0.000	0.327	0.006	0.000
80.0 Arlington Hts. Rd., Salt Creek	0.009	0.002	0.851	0.016	0.001
18.0 Devon Ave., Salt Creek	0.008	0.001	0.744	0.014	0.000
24.0 Wolf Road, Salt Creek	0.006	0.001	0.586	0.045	0.000
21.0 First Ave., Salt Creek	0.006	0.001	0.753	0.029	0.000
77.0 Elmhurst Rd., Higgins Creek	0.003	0.001	0.257	0.029	0.002
78.0 Wille Rd., Higgins Creek	0.008	0.001	0.773	0.062	0.002
13.0 County Line Rd., Des Plaines River	0.005	0.000	0.560	0.021	0.000
17.0 Oakton St., Des Plaines River	0.005	0.000	0.497	0.024	0.001
19.0 Belmont Ave., Des Plaines River	0.004	0.000	0.563	0.031	0.000
20.0 Roosevelt Road, Des Plaines River	0.004	0.000	0.546	0.023	0.000
22.0 Ogden Ave., Des Plaines River	0.005	0.000	0.524	0.025	0.001
23.0 Willow Springs Rd., Des Plaines River	0.005	0.000	0.485	0.032	0.000
29.0 Lemont Stephen St., Des Plaines River	0.006	0.001	0.543	0.026	0.000

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	Cu mg/L	T.Cr mg/L	T.Fe mg/L	Sol.Fe mg/L	Ni mg/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	0.007	0.005	0.526	0.177	0.005
32.0 County line Rd., Skokie River	0.007	0.000	0.575	0.178	0.002
34.0 Dempster St., N.B. Chicago River	0.007	0.000	0.488	0.108	0.003
74.0 Outer Dr. Bridge, Chicago River	0.005	0.000	0.098	0.025	0.007
35.0 Central Ave., N. Shore Channel	0.004	0.000	0.180	0.070	0.003
36.0 Touhy Ave., N. Shore Channel	0.004	0.000	0.107	0.031	0.005
37.0 Wilson Ave., N.B. Chicago River	0.005	0.000	0.178	0.054	0.005
73.0 Diversey Ave., N.B. Chicago River	0.007	0.000	0.248	0.057	0.006
46.0 Grand Ave., N.B. Chicago River	0.006	0.000	0.222	0.054	0.007
39.0 Madison St., S.B. Chicago River	0.005	0.002	0.199	0.067	0.004
40.0 Damen Ave., S.B. Chicago River	0.005	0.002	0.212	0.072	0.005
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.004	0.000	0.225	0.064	0.003
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.004	0.001	0.141	0.047	0.003
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.004	0.000	0.132	0.043	0.004
48.0 Lemont Bridge, Stephen Street (Comp)	0.003	0.000	0.261	0.075	0.005
82.0 Lockport Trebler	0.110	0.003	1.165	0.123	0.001
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	0.005	0.000	0.134	0.032	0.003
54.0 Joe Orr Road, Thorn Creek	0.006	0.000	0.447	0.268	0.002
52.0 Wentworth Ave., Little Calumet River	0.009	0.000	1.442	0.459	0.002
57.0 135th and Ashland, Little Calumet River	0.007	0.000	0.853	0.355	0.003
86.0 Burnham Avenue, Grand Calumet River	0.018	0.005	0.962	0.273	0.003
49.0 92nd and Ewing Ave., Calumet River	0.007	0.002	0.213	0.067	0.004
55.0 130th Street, Calumet River	0.006	0.000	0.203	0.044	0.002
56.0 Indiana Ave., Calumet River	0.007	0.000	0.334	0.059	0.004
76.0 Halsted Street, Little Cal. River	0.004	0.000	0.294	0.059	0.003
58.0 Ashland Ave., Cal-Saq Channel	0.006	0.004	0.352	0.124	0.005
59.0 Cicero Ave., Cal-Saq Channel	0.008	0.000	0.416	0.165	0.003
43.0 Hwy. 83 and Cal-Saq Channel	0.007	0.000	0.420	0.123	0.004
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	0.005	0.002	0.749	0.306	0.011
64.0 Lake St., Du Page River	0.010	0.001	0.536	0.123	0.006
89.0 Walnut Lane, West Branch Du Page River	0.007	0.000	0.228	0.059	0.006
90.0 Chicago-Elgin Rd., Poplar Creek	0.005	0.000	0.508	0.191	0.004
12.0 County Line Rd., Buffalo Creek	0.005	0.000	0.629	0.179	0.005
79.0 Higgins Rd., Salt Creek	0.003	0.000	0.737	0.192	0.005
80.0 Arlington Hts. Rd., Salt Creek	0.005	0.002	0.220	0.091	0.006
18.0 Devon Ave., Salt Creek	0.004	0.000	0.248	0.093	0.004
24.0 Wolf Road, Salt Creek	0.005	0.000	0.478	0.075	0.008
21.0 First Ave., Salt Creek	0.007	0.000	0.457	0.084	0.007
77.0 Elmhurst Rd., Higgins Creek	0.007	0.002	0.748	0.226	0.008
78.0 Wille Rd., Higgins Creek	0.013	0.004	0.415	0.081	0.006
13.0 County Line Rd., Des Plaines River	0.006	0.000	0.537	0.108	0.006
17.0 Oakton St., Des Plaines River	0.007	0.001	0.586	0.110	0.004
19.0 Belmont Ave., Des Plaines River	0.007	0.001	0.493	0.114	0.005
20.0 Roosevelt Road, Des Plaines River	0.007	0.000	0.463	0.110	0.003
22.0 Ogden Ave., Des Plaines River	0.006	0.001	0.447	0.098	0.002
23.0 Willow Springs Rd., Des Plaines River	0.005	0.000	0.577	0.100	0.002
29.0 Lemont Stephen St., Des Plaines River	0.005	0.000	0.868	0.097	0.004

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	Pb mg/L	Hg mg/L	As mg/L	Se mg/L	Ba mg/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	0.000	0.044	0.000	0.000	0.040
32.0 County line Rd., Skokie River	0.000	0.038	0.000	0.000	0.044
34.0 Dempster St., N.B. Chicago River	0.000	0.040	0.000	0.000	0.034
74.0 Outer Dr. Bridge, Chicago River	0.000	0.044	0.000	0.000	0.021
35.0 Central Ave., N. Shore Channel	0.000	0.028	0.000	0.000	0.022
36.0 Touhy Ave., N. Shore Channel	0.000	0.033	0.000	0.000	0.021
37.0 Wilson Ave., N.B. Chicago River	0.000	0.043	0.000	0.000	0.040
73.0 Diversey Ave., N.B. Chicago River	0.000	0.043	0.000	0.000	0.023
46.0 Grand Ave., N.B. Chicago River	0.000	0.043	0.000	0.000	0.023
39.0 Madison St., S.B. Chicago River	0.000	0.032	0.000	0.000	0.024
40.0 Damen Ave., S.B. Chicago River	0.000	0.031	0.000	0.000	0.025
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.000	0.043	0.000	0.000	0.023
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.003	0.034	0.000	0.000	0.020
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.000	0.033	0.000	0.000	0.019
48.0 Lemont Bridge, Stephen Street (Comp)	0.000	0.026	0.000	0.000	0.020
82.0 Lockport Trebler	0.005	0.000	0.000	0.000	0.036
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	0.000	0.027	0.000	0.000	0.027
54.0 Joe Orr Road, Thorn Creek	0.000	0.036	0.000	0.000	0.025
52.0 Wentworth Ave., Little Calumet River	0.000	0.033	0.000	0.000	0.045
57.0 135th and Ashland, Little Calumet River	0.000	0.042	0.000	0.000	0.036
86.0 Burnham Avenue, Grand Calumet River	0.000	0.127	0.000	0.000	0.027
49.0 92nd and Ewing Ave., Calumet River	0.000	0.030	0.000	0.000	0.019
55.0 130th Street, Calumet River	0.000	0.033	0.000	0.000	0.027
56.0 Indiana Ave., Calumet River	0.000	0.041	0.000	0.000	0.028
76.0 Halsted Street, Little Cal. River	0.000	0.032	0.000	0.000	0.018
58.0 Ashland Ave., Cal-Saq Channel	0.000	0.014	0.000	0.000	0.021
59.0 Cicero Ave., Cal-Saq Channel	0.000	0.035	0.000	0.000	0.024
43.0 Hwy. 83 and Cal-Saq Channel	0.000	0.040	0.000	0.000	0.026
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	0.000	0.041	0.000	0.000	0.049
64.0 Lake St., Du Page River	0.000	0.021	0.000	0.000	0.032
89.0 Walnut Lane, West Branch Du Page River	0.357	0.328	0.017	0.000	0.023
90.0 Chicago-Elgin Rd., Poplar Creek	0.553	0.505	0.000	0.000	0.063
12.0 County Line Rd., Buffalo Creek	0.000	0.045	0.000	0.000	0.046
79.0 Higgins Rd., Salt Creek	0.000	0.062	0.000	0.000	0.044
80.0 Arlington Hts. Rd., Salt Creek	0.000	0.067	0.000	0.000	0.023
18.0 Devon Ave., Salt Creek	0.000	0.035	0.022	0.000	0.023
24.0 Wolf Road, Salt Creek	0.000	0.077	0.000	0.000	0.035
21.0 First Ave., Salt Creek	0.000	0.019	0.000	0.000	0.033
77.0 Elmhurst Rd., Higgins Creek	0.000	0.053	0.000	0.000	0.060
78.0 Wille Rd., Higgins Creek	0.000	0.019	0.000	0.000	0.027
13.0 County Line Rd., Des Plaines River	0.000	0.058	0.018	0.000	0.037
17.0 Oakton St., Des Plaines River	0.000	0.036	0.000	0.000	0.040
19.0 Belmont Ave., Des Plaines River	0.000	0.052	0.020	0.000	0.037
20.0 Roosevelt Road, Des Plaines River	0.000	0.051	0.000	0.000	0.038
22.0 Ogden Ave., Des Plaines River	0.000	0.012	0.000	0.000	0.035
23.0 Willow Springs Rd., Des Plaines River	0.000	0.025	0.000	0.000	0.036
29.0 Lemont Stephen St., Des Plaines River	0.000	0.032	0.025	0.000	0.038

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-1 (Continued)

WATERWAYS SAMPLE MEANS 1998

Sampling Location	Ag mg/L	Mn mg/L	Ca mg/L	Mg mg/L	Hard. mg/L
<u>Chicago River System</u>					
31.0 County Line Rd., Md. Fork N. Branch	0.001	0.079	71.3	33.3	315
32.0 County line Rd., Skokie River	0.001	0.115	82.2	37.8	361
34.0 Dempster St., N.B. Chicago River	0.002	0.067	69.0	31.9	304
74.0 Outer Dr. Bridge, Chicago River	0.000	0.009	41.1	14.3	162
35.0 Central Ave., N. Shore Channel	0.000	0.017	45.1	14.9	174
36.0 Touhy Ave., N. Shore Channel	0.002	0.015	58.7	21.8	236
37.0 Wilson Ave., N.B. Chicago River	0.001	0.029	62.8	24.9	260
73.0 Diversey Ave., N.B. Chicago River	0.000	0.045	62.5	24.4	257
46.0 Grand Ave., N.B. Chicago River	0.002	0.052	61.9	24.2	254
39.0 Madison St., S.B. Chicago River	0.002	0.021	54.3	20.7	221
40.0 Damen Ave., S.B. Chicago River	0.001	0.024	55.0	21.4	226
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.002	0.022	52.8	20.0	214
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.001	0.019	56.1	21.8	230
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.001	0.013	56.1	21.5	229
48.0 Lemont Bridge, Stephen Street (Comp)	0.001	0.026	57.8	22.4	237
82.0 Lockport Trebler	0.001	0.066	ND	ND	ND
<u>Calumet River System</u>					
50.0 Wolf Lake, Burnham Ave.	0.004	0.062	35.8	13.3	144
54.0 Joe Orr Road, Thorn Creek	0.002	0.043	76.9	36.0	340
52.0 Wentworth Ave., Little Calumet River	0.002	0.149	80.5	34.0	341
57.0 135th and Ashland, Little Calumet River	0.000	0.098	72.8	32.2	314
86.0 Burnham Avenue, Grand Calumet River	0.001	0.044	73.4	59.8	430
49.0 92nd and Ewing Ave., Calumet River	0.002	0.028	39.0	13.4	153
55.0 130th Street, Calumet River	0.001	0.038	43.9	14.9	171
56.0 Indiana Ave., Calumet River	0.000	0.038	54.2	27.8	250
76.0 Halsted Street, Little Cal. River	0.001	0.045	63.7	25.7	265
58.0 Ashland Ave., Cal-Saq Channel	0.002	0.052	61.0	24.3	252
59.0 Cicero Ave., Cal-Saq Channel	0.002	0.058	66.6	26.8	276
43.0 Hwy. 83 and Cal-Saq Channel	0.002	0.053	65.7	26.9	275
<u>Des Plaines River System</u>					
63.0 Longmeadow Lane, Du Page River	0.000	0.174	76.9	31.1	320
64.0 Lake St., Du Page River	0.001	0.068	65.3	25.2	267
89.0 Walnut Lane, West Branch Du Page River	0.000	0.080	61.2	23.2	248
90.0 Chicago-Elgin Rd., Poplar Creek	0.001	0.164	80.4	37.9	357
12.0 County Line Rd., Buffalo Creek	0.000	0.165	75.2	34.4	329
79.0 Higgins Rd., Salt Creek	0.001	0.092	69.6	30.6	300
80.0 Arlington Hts. Rd., Salt Creek	0.000	0.064	63.1	25.1	261
18.0 Devon Ave., Salt Creek	0.000	0.050	63.7	25.8	265
24.0 Wolf Road, Salt Creek	0.000	0.083	85.3	34.2	354
21.0 First Ave., Salt Creek	0.000	0.068	75.8	32.0	321
77.0 Elmhurst Rd., Higgins Creek	0.000	0.136	79.4	33.7	337
78.0 Wille Rd., Higgins Creek	0.000	0.093	80.1	29.5	321
13.0 County Line Rd., Des Plaines River	0.000	0.111	73.9	33.4	322
17.0 Oakton St., Des Plaines River	0.000	0.097	76.4	34.8	334
19.0 Belmont Ave., Des Plaines River	0.000	0.096	73.4	33.1	320
20.0 Roosevelt Road, Des Plaines River	0.000	0.080	73.6	34.2	324
22.0 Ogden Ave., Des Plaines River	0.000	0.068	74.1	32.7	320
23.0 Willow Springs Rd., Des Plaines River	0.000	0.083	74.2	33.4	323
29.0 Lemont Stephen St., Des Plaines River	0.000	0.078	75.1	33.8	326

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-2

DISSOLVED OXYGEN VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	1/ 9	0/ 2	2/ 9	1/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	6/ 12	2/ 10	4/ 8	5/ 10	3/ 10	2/ 12	4/ 11	4/ 10
32.0 County Line Rd., Skokie River	2/ 12	2/ 10	1/ 8	4/ 9	3/ 9	1/ 12	2/ 11	3/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	2/ 11	0/ 12	3/ 10	1/ 11	2/ 12	2/ 12	2/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 10
35.0 Central Ave., N. Shore Channel	2/ 9	0/ 10	2/ 9	1/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	1/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	1/ 12	1/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	1/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	1/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	1/ 12	2/ 12	0/ 12	2/ 11
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 11
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	1/ 12	0/ 12	0/ 11
75.0 Cicero Ave., Chgo. San. and Ship Canal	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1/ 12	0/ 10	0/ 12	0/ 12	0/ 11	3/ 12	0/ 12	0/ 11
48.0 Lemont Bridge, Stephen Street (Comp)	1/ 12	0/ 12	0/ 12	0/ 12	0/ 11	2/ 12	0/ 12	3/ 11
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	3/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	2/ 12	5/ 12	3/ 9	4/ 10	6/ 11	4/ 12	3/ 12	4/ 12
57.0 135th and Ashland, Little Calumet River	5/ 12	4/ 12	4/ 9	4/ 11	1/ 10	5/ 11	5/ 12	4/ 11
86.0 Burnham Avenue, Grand Calumet River	2/ 12	2/ 12	9/ 11	10/ 13	10/ 12	8/ 12	7/ 12	6/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 24	0/ 23	0/ 15	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 24	1/ 23	0/ 15	0/ 11	0/ 11	0/ 12	1/ 12	1/ 11
56.0 Indiana Ave., Calumet River	0/ 23	0/ 22	0/ 15	0/ 11	1/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 24	0/ 24	0/ 4	0/ 12	0/ 12	1/ 12	0/ 12	1/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 16	0/ 15	0/ 17	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 24	0/ 24	0/ 16	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 24	0/ 24	0/ 16	0/ 12	0/ 11	2/ 12	0/ 12	2/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	1/ 11	0/ 12	1/ 10	1/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	1/ 12	0/ 11	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	1/ 11	1/ 10	0/ 11	1/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	2/ 12	0/ 12	0/ 10	0/ 12	0/ 12	1/ 12
79.0 Higgins Rd., Salt Creek	1/ 10	1/ 11	1/ 10	0/ 10	1/ 10	2/ 11	1/ 11	1/ 10
80.0 Arlington Hts. Rd., Salt Creek	1/ 12	0/ 12	0/ 12	0/ 12	0/ 10	1/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	2/ 11	0/ 12	1/ 12	1/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	2/ 12	3/ 11	3/ 12	2/ 12	1/ 11	3/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	2/ 12	2/ 11	1/ 12	1/ 12	0/ 11	0/ 12	0/ 11	1/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	1/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	1/ 12	0/ 12	1/ 9	0/ 11	0/ 12	1/ 12
17.0 Oakton St., Des Plaines River	0/ 12	2/ 11	1/ 12	0/ 11	0/ 3	3/ 12	1/ 11	1/ 12
19.0 Belmont Ave., Des Plaines River	4/ 12	2/ 12	1/ 12	2/ 12	3/ 12	3/ 12	0/ 12	2/ 12
20.0 Roosevelt Road, Des Plaines River	5/ 12	2/ 12	2/ 12	2/ 12	2/ 12	2/ 12	1/ 12	4/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	1/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	1/ 11	1/ 11	0/ 11	0/ 11	3/ 12	0/ 12	1/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	1/ 12	0/ 12	0/ 12	0/ 11	2/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-3

TEMPERATURE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 11
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 8	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 9
32.0 County line Rd., Skokie River	0/ 12	0/ 8	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 9
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 10	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 11
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 7	0/ 11	0/ 10	0/ 10	0/ 11	0/ 11	0/ 11
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 8	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 10
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 11
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 11
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 9	0/ 12	0/ 7	0/ 12	0/ 11	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 7	0/ 12	0/ 11	0/ 5	0/ 11	0/ 12	0/ 11
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 10	0/ 12	0/ 9	0/ 12	0/ 11	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 9	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 7	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 9	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 11
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12	0/ 11
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 11
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 8	0/ 9	0/ 10	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 8	0/ 11	0/ 10	0/ 9	0/ 12	0/ 9
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 10	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 24	0/ 23	0/ 14	0/ 10	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 24	0/ 23	0/ 14	0/ 10	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 23	0/ 22	0/ 14	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 24	0/ 24	0/ 4	0/ 12	0/ 12	0/ 10	0/ 12	0/ 11
58.0 Ashland Ave., Cal-Sag Channel	0/ 16	0/ 15	0/ 15	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11
59.0 Cicero Ave., Cal-Sag Channel	0/ 24	0/ 24	0/ 14	0/ 12	0/ 12	0/ 10	0/ 12	0/ 11
43.0 Hwy. 83 and Cal-Sag Channel	0/ 24	0/ 24	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	1/ 8	0/ 8	0/ 11	0/ 12	0/ 9	0/ 12	0/ 11	0/ 9
64.0 Lake St., Du Page River	1/ 12	0/ 10	0/ 11	0/ 12	0/ 9	0/ 11	0/ 12	0/ 11
89.0 Wanut Lane, West Branch Du Page River	1/ 12	0/ 10	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 10
90.0 Chicago-Elgin Rd., Poplar Creek	1/ 11	0/ 8	0/ 11	0/ 10	0/ 9	0/ 11	0/ 11	0/ 9
12.0 County Line Rd., Buffalo Creek	1/ 11	0/ 10	0/ 11	0/ 11	0/ 10	0/ 12	0/ 12	0/ 10
79.0 Higgins Rd., Salt Creek	1/ 10	0/ 9	0/ 10	1/ 10	0/ 10	0/ 11	0/ 11	0/ 9
80.0 Arlington Hts. Rd., Salt Creek	1/ 12	0/ 10	0/ 11	0/ 12	0/ 9	0/ 12	0/ 12	0/ 10
18.0 Devon Ave., Salt Creek	1/ 12	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	1/ 12	0/ 10
24.0 Wolf Road, Salt Creek	1/ 6	0/ 8	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	1/ 12	0/ 9	0/ 11	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	1/ 12	0/ 7	0/ 11	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	1/ 12	0/ 8	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	1/ 12	0/ 10	0/ 11	0/ 12	0/ 9	0/ 12	0/ 12	0/ 10
17.0 Oakton St., Des Plaines River	1/ 12	0/ 8	0/ 11	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	1/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	1/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11
22.0 Ogden Ave., Des Plaines River	1/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	1/ 12	0/ 7	0/ 11	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	1/ 12	0/ 8	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-4

pH VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 11
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	1/ 8	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 9
32.0 County line Rd., Skokie River	0/ 12	1/ 8	0/ 8	0/ 9	0/ 9	2/ 12	0/ 11	0/ 9
34.0 Dempster St., N.B. Chicago River	0/ 12	1/ 10	1/ 12	0/ 10	0/ 11	0/ 12	1/ 12	1/ 11
74.0 Outer Dr. Bridge, Chicago River	1/ 12	0/ 7	1/ 11	1/ 10	1/ 10	0/ 11	0/ 11	3/ 11
35.0 Central Ave., N. Shore Channel	2/ 9	1/ 8	1/ 9	1/ 8	1/ 8	0/ 12	2/ 11	2/ 10
36.0 Touhy Ave., N. Shore Channel	1/ 12	1/ 10	0/ 12	0/ 11	0/ 11	0/ 11	1/ 12	0/ 11
37.0 Wilson Ave., N.B. Chicago River	2/ 12	1/ 11	1/ 12	0/ 12	1/ 12	0/ 8	2/ 12	0/ 11
73.0 Diversey Ave., N.B. Chicago River	2/ 12	3/ 11	1/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 11
46.0 Grand Ave., N.B. Chicago River	0/ 12	1/ 9	0/ 12	0/ 7	0/ 12	0/ 11	1/ 12	0/ 11
39.0 Madison St., S.B. Chicago River	1/ 12	0/ 7	0/ 12	0/ 11	0/ 5	0/ 11	0/ 12	1/ 10
40.0 Damen Ave., S.B. Chicago River	3/ 12	0/ 10	0/ 12	0/ 9	1/ 12	0/ 11	0/ 12	0/ 11
75.0 Cicero Ave., Chgo. San. and Ship Canal	2/ 12	1/ 10	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 10
41.0 Harlem Ave., Chgo. San. and Ship Canal	1/ 12	0/ 9	1/ 12	1/ 12	0/ 11	0/ 12	0/ 12	0/ 10
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1/ 12	0/ 7	1/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 10
48.0 Lemont Bridge, Stephen Street (Comp)	1/ 12	0/ 9	1/ 12	0/ 12	1/ 11	0/ 11	0/ 12	0/ 10
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/150	1/252	0/ 33	2/ 36	0/ 36
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	1/ 12	2/ 12	4/ 11	0/ 11	0/ 12	1/ 12	0/ 12	0/ 11
54.0 Joe Orr Road, Thorn Creek	1/ 12	1/ 12	0/ 11	0/ 12	1/ 12	0/ 10	0/ 12	0/ 11
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	3/ 8	0/ 9	0/ 10	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	1/ 12	2/ 12	1/ 8	0/ 11	0/ 10	0/ 9	0/ 12	0/ 10
86.0 Burnham Avenue, Grand Calumet River	1/ 12	0/ 12	0/ 10	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	1/ 24	2/ 23	3/ 13	0/ 10	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	2/ 24	2/ 23	5/ 13	1/ 10	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	3/ 23	0/ 22	3/ 13	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	2/ 24	2/ 23	0/ 4	0/ 12	0/ 12	0/ 10	0/ 12	0/ 11
58.0 Ashland Ave., Cal-Sag Channel	2/ 16	1/ 14	1/ 15	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11
59.0 Cicero Ave., Cal-Sag Channel	4/ 24	2/ 23	1/ 14	0/ 12	0/ 12	0/ 10	0/ 12	0/ 11
43.0 Hwy. 83 and Cal-Sag Channel	3/ 24	3/ 23	1/ 14	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	2/ 8	0/ 8	0/ 11	0/ 12	0/ 9	2/ 12	0/ 11	0/ 10
64.0 Lake St., Du Page River	2/ 12	0/ 10	0/ 11	0/ 12	0/ 9	1/ 12	0/ 12	0/ 11
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 10	0/ 12	0/ 12	0/ 10	1/ 12	0/ 12	1/ 11
90.0 Chicago-Elgin Rd., Poplar Creek	1/ 11	0/ 8	0/ 11	0/ 10	0/ 9	1/ 11	0/ 11	2/ 10
12.0 County Line Rd., Buffalo Creek	4/ 11	2/ 10	1/ 12	1/ 12	2/ 10	1/ 12	1/ 12	0/ 11
79.0 Higgins Rd., Salt Creek	2/ 10	0/ 9	0/ 10	0/ 10	0/ 10	1/ 11	0/ 11	0/ 9
80.0 Arlington Hts. Rd., Salt Creek	1/ 12	0/ 10	0/ 12	0/ 12	0/ 9	1/ 12	0/ 12	1/ 11
18.0 Devon Ave., Salt Creek	0/ 12	0/ 10	0/ 12	0/ 12	2/ 11	1/ 12	0/ 12	1/ 11
24.0 Wolf Road, Salt Creek	0/ 6	2/ 8	3/ 11	0/ 12	1/ 11	4/ 12	1/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 9	0/ 11	1/ 12	0/ 11	2/ 12	0/ 11	1/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	1/ 7	1/ 11	0/ 12	0/ 11	2/ 12	0/ 11	1/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	4/ 8	1/ 11	0/ 12	0/ 11	2/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	3/ 12	0/ 10	1/ 12	1/ 12	2/ 9	1/ 12	2/ 12	1/ 11
17.0 Oakton St., Des Plaines River	0/ 12	0/ 8	1/ 11	1/ 11	1/ 3	2/ 12	0/ 11	2/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	1/ 10	0/ 11	0/ 12	0/ 12	2/ 12	0/ 12	2/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 10	0/ 11	1/ 12	0/ 12	1/ 12	0/ 12	1/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	1/ 10	0/ 12	1/ 12	1/ 11	3/ 12	2/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	2/ 7	2/ 11	0/ 10	1/ 11	5/ 12	1/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	2/ 8	3/ 11	0/ 11	1/ 11	4/ 12	1/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-5

CHLORIDE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	1/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	1/ 10	1/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	1/ 11	1/ 12	0/ 10	0/ 11	0/ 12	0/ 12	1/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	1/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	1/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	ND	ND	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	2/ 10	3/ 11	0/ 12	0/ 10	2/ 12	1/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	2/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	1/ 11	1/ 9	1/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	1/ 12	0/ 12	0/ 10	2/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	1/ 11	2/ 10	0/ 10	0/ 10	1/ 11	1/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	1/ 12	0/ 12	0/ 10	1/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	2/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	1/ 6	1/ 12	0/ 12	0/ 12	0/ 11	2/ 12	1/ 12	0/ 12
21.0 First Ave., Salt Creek	1/ 12	0/ 11	0/ 12	0/ 12	0/ 11	2/ 12	1/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	3/ 12	3/ 11	3/ 12	0/ 12	0/ 11	1/ 11	2/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	1/ 12	1/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12	1/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	1/ 12	1/ 12	0/ 13	0/ 12	0/ 11	0/ 12	1/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	1/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	1/ 12	1/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-6

AMMONIUM NITROGEN VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	1/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	1/ 12	1/ 12	2/ 12	0/ 12	1/ 11	1/ 11	1/ 12	1/ 11
37.0 Wilson Ave., N.B. Chicago River	2/ 12	2/ 12	3/ 12	0/ 12	2/ 12	0/ 8	2/ 12	1/ 11
73.0 Diversey Ave., N.B. Chicago River	2/ 12	2/ 12	2/ 12	0/ 12	0/ 12	1/ 12	1/ 12	1/ 11
46.0 Grand Ave., N.B. Chicago River	2/ 12	0/ 11	0/ 12	0/ 7	1/ 12	0/ 11	0/ 12	0/ 11
39.0 Madison St., S.B. Chicago River	1/ 12	0/ 11	0/ 12	0/ 11	0/ 4	0/ 11	0/ 12	1/ 10
40.0 Damen Ave., S.B. Chicago River	3/ 12	0/ 12	0/ 12	0/ 9	1/ 12	0/ 11	0/ 12	0/ 11
75.0 Cicero Ave., Chgo. San. and Ship Canal	1/ 12	1/ 12	0/ 12	0/ 12	1/ 12	0/ 12	1/ 12	0/ 10
41.0 Harlem Ave., Chgo. San. and Ship Canal	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	1/ 12	0/ 10
48.0 Lemont Bridge, Stephen Street (Comp)	1/ 12	0/ 12	0/ 12	1/ 12	1/ 12	1/ 11	1/ 12	1/ 10
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/146	0/251	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	2/ 12	1/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 10	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	4/ 11	1/ 13	1/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 24	0/ 23	0/ 15	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 24	0/ 23	0/ 15	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	1/ 23	0/ 22	4/ 15	1/ 11	0/ 11	0/ 12	0/ 12	1/ 12
76.0 Halsted Street, Little Cal. River	0/ 24	1/ 24	0/ 4	1/ 12	0/ 12	0/ 10	2/ 12	1/ 11
58.0 Ashland Ave., Cal-Sag Channel	1/ 16	1/ 15	0/ 17	0/ 11	1/ 12	0/ 10	3/ 12	0/ 11
59.0 Cicero Ave., Cal-Sag Channel	0/ 24	2/ 24	1/ 16	1/ 12	0/ 12	1/ 10	1/ 12	1/ 11
43.0 Hwy. 83 and Cal-Sag Channel	3/ 24	3/ 24	0/ 16	0/ 12	0/ 11	0/ 12	0/ 12	2/ 11
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	1/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	2/ 11
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	2/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	1/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	1/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-7

FATS, OILS, & GREASES VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	0/ 3	1/ 12	0/ 12	1/ 12	1/ 11	2/ 11	1/ 12	2/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 3	2/ 12	1/ 12	0/ 12	1/ 12	2/ 8	1/ 12	1/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 2	2/ 12	0/ 12	0/ 12	0/ 12	3/ 12	1/ 12	1/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 2	2/ 11	1/ 12	1/ 7	0/ 12	3/ 12	5/ 12	3/ 12
39.0 Madison St., S.B. Chicago River	0/ 2	0/ 11	0/ 12	1/ 11	0/ 5	1/ 12	0/ 12	1/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 2	0/ 12	0/ 12	2/ 9	1/ 12	3/ 12	0/ 12	3/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 2	1/ 12	0/ 12	3/ 12	0/ 12	2/ 12	1/ 12	3/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 2	1/ 12	0/ 12	2/ 12	0/ 12	0/ 12	0/ 12	4/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 2	1/ 10	0/ 12	1/ 12	0/ 11	1/ 12	0/ 12	4/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 2	2/ 12	0/ 12	3/ 12	1/ 12	0/ 12	1/ 12	2/ 12
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	0/ 3	2/ 12	1/ 11	1/ 12	0/ 12	1/ 12	1/ 12	3/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	ND	2/ 12	0/ 7	ND
55.0 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	0/ 3	1/ 11	0/ 9	0/ 10	0/ 11	1/ 12	1/ 12	3/ 12
76.0 Halsted Street, Little Cal. River	0/ 3	2/ 12	0/ 4	0/ 11	0/ 12	2/ 12	0/ 12	3/ 12
58.0 Ashland Ave., Cal-Sag Channel	ND	1/ 6	0/ 11	0/ 10	0/ 12	0/ 12	0/ 12	3/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 3	0/ 12	1/ 11	1/ 11	0/ 12	3/ 12	0/ 12	2/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 3	0/ 12	0/ 11	1/ 10	0/ 11	2/ 12	0/ 12	3/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-8

TOTAL DISSOLVED SOLIDS VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	1/ 3	1/ 9	0/ 2	2/ 9	0/ 12	1/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	1/ 10	2/ 7	1/ 10	0/ 10	1/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	1/ 12	1/ 10	2/ 7	0/ 9	1/ 9	0/ 12	1/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	1/ 12	1/ 11	3/ 11	1/ 10	1/ 11	1/ 12	0/ 12	1/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 10	0/ 10	0/ 10	1/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 8	0/ 8	0/ 8	1/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 11	1/ 12	0/ 11	0/ 11	1/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 11	1/ 12	0/ 12	1/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	1/ 8	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 11	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 11	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/147	1/252	ND	0/ 35	0/ 36
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	9/ 12	5/ 12	3/ 12	1/ 12	1/ 12	2/ 12	2/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	1/ 11	2/ 12	2/ 12	1/ 12
57.0 135th and Ashland, Little Calumet River	4/ 12	3/ 12	2/ 9	0/ 11	1/ 10	0/ 11	0/ 12	2/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	1/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	1/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	1/ 12	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 11	0/ 11	1/ 12	1/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	2/ 8	5/ 10	2/ 11	4/ 12	2/ 10	4/ 12	3/ 11	3/ 11
64.0 Lake St., Du Page River	1/ 12	0/ 12	2/ 11	1/ 12	1/ 11	2/ 12	1/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	2/ 12	1/ 12	1/ 12	2/ 12	1/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	1/ 11	1/ 9	1/ 11	1/ 10	0/ 11	1/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	2/ 11	1/ 11	3/ 12	1/ 12	1/ 10	2/ 12	2/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	2/ 10	2/ 11	2/ 10	2/ 10	4/ 10	3/ 11	3/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	1/ 12	1/ 12	3/ 12	2/ 12	1/ 10	2/ 12	2/ 12	1/ 12
18.0 Devon Ave., Salt Creek	1/ 12	2/ 12	3/ 12	1/ 12	0/ 12	3/ 12	1/ 12	0/ 12
24.0 Wolf Road, Salt Creek	3/ 6	1/ 12	4/ 12	4/ 12	0/ 11	3/ 12	3/ 12	2/ 12
21.0 First Ave., Salt Creek	3/ 12	0/ 11	3/ 12	2/ 12	1/ 11	3/ 12	3/ 11	2/ 12
77.0 Elmhurst Rd., Higgins Creek	4/ 12	4/ 11	4/ 12	3/ 12	4/ 11	3/ 12	4/ 11	1/ 11
78.0 Wille Rd., Higgins Creek	2/ 12	1/ 12	1/ 12	0/ 12	0/ 11	1/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	1/ 12	0/ 11	1/ 12	0/ 11	0/ 3	1/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	1/ 12	1/ 12	0/ 12	0/ 12	1/ 12	1/ 12	1/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	1/ 12	1/ 12	0/ 12	1/ 12	1/ 12	1/ 12	2/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	1/ 12	2/ 12	1/ 13	1/ 12	0/ 11	1/ 12	2/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	1/ 12	0/ 11	0/ 11	0/ 11	0/ 11	1/ 12	2/ 12	1/ 12
29.0 Lemont Stephen St., Des Plaines River	1/ 12	1/ 12	1/ 12	1/ 12	0/ 11	0/ 12	1/ 12	1/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-9

PHENOLS VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 8	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 9	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 9	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 10	0/ 11	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 10	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 9	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 10	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 10	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 9	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 51	0/151	0/252	0/ 33	0/ 35	0/ 36
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 7	0/ 9	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 11	0/ 11	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 9	0/ 8	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 8	0/ 10	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 10	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 11	0/ 11	1/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 10	0/ 10	0/ 11	0/ 11	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 10	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 10	0/ 11	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 11	0/ 10	0/ 12	0/ 11	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 11	0/ 10	0/ 11	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 11	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 10	0/ 9	0/ 10	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-10

SULFATE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 9	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 8	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 9	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 7	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 10	0/ 12
54.0 Joe Orr Road, Thorn Creek	4/ 12	4/ 12	3/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 11	0/ 10	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 10	0/ 11	0/ 11
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	ND	ND	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11	0/ 11
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 10	0/ 9	0/ 11	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 11	0/ 12	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 11
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 8	0/ 10	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 10	0/ 9	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 8	0/ 9	0/ 11	0/ 11	0/ 9
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 10	0/ 9	0/ 12	0/ 12	0/ 11
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 10	0/ 10	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 10	0/ 10	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 11	0/ 12	0/ 12	0/ 10	0/ 10	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 8	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 9	0/ 2	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 10	0/ 9	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 9	0/ 10	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-11

WEAK ACID DISSOCIABLE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 9	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 9	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 9	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 9	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 9	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 10	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-12

TOTAL CYANIDE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	ND	ND	ND	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	ND	ND	0/ 3	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	ND	ND	0/ 2	0/ 9	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	ND	ND	ND	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	ND	ND	0/ 3	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	ND	ND	0/ 3	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	2/ 10	2/ 10	0/ 12	2/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	1/ 11	1/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	ND	ND	0/ 1	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	ND	ND	0/ 1	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 10	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	ND	ND	0/ 2	1/ 12	0/ 10	1/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	ND	ND	0/ 2	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	ND	ND	0/ 3	1/ 12	0/ 12	0/ 12	0/ 12	1/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	0/ 2	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	ND	ND	0/ 3	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	ND	ND	0/ 1	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Mts. Rd., Salt Creek	ND	ND	0/ 3	0/ 12	0/ 10	0/ 12	0/ 12	1/ 12
18.0 Devon Ave., Salt Creek	ND	ND	0/ 2	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	ND	ND	0/ 3	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	ND	ND	0/ 3	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	ND	ND	0/ 3	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	ND	ND	0/ 3	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	ND	ND	0/ 3	0/ 12	0/ 9	1/ 12	0/ 12	1/ 12
17.0 Oakton St., Des Plaines River	ND	ND	0/ 3	0/ 11	0/ 3	0/ 12	1/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	ND	ND	0/ 3	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	ND	ND	0/ 3	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	ND	ND	0/ 3	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	ND	ND	0/ 2	0/ 11	1/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	ND	ND	0/ 3	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-13

TOTAL ZINC VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	1/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joè Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	1/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-14

TOTAL CADMIUM VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	1/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	1/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-15

TOTAL COPPER VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	3/ 9	1/ 2	0/ 9	0/ 12	1/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	2/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	2/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	2/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	1/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	2/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	1/ 52	0/ 51	0/ 52	0/ 48	0/ 51	ND	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	1/ 10	1/ 11	0/ 12	1/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	2/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	1/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	5/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	2/ 12	0/ 11	0/ 12	1/ 12	1/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	2/ 12	0/ 12	0/ 12	2/ 12	1/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	1/ 10	0/ 11	0/ 11	1/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	1/ 12	1/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	2/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	2/ 12	1/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	2/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	1/ 12	2/ 11	0/ 12	0/ 12	1/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	1/ 12	1/ 11	1/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	1/ 12	1/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	1/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	2/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	1/ 11	1/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	1/ 12	1/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	2/ 12	0/ 11	1/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	2/ 11	1/ 11	0/ 12	1/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	2/ 12	1/ 11	1/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-16

TOTAL CHROMIUM VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 10	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-17

TOTAL IRON VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	1/ 4	1/ 9	1/ 2	3/ 9	3/ 12	2/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	3/ 10	2/ 8	3/ 10	1/ 10	2/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	1/ 8	2/ 9	0/ 9	2/ 12	3/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	1/ 12	1/ 10	0/ 11	0/ 12	2/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	9/ 52	10/ 51	3/ 52	0/ 48	0/ 51	0/ 50	0/ 49	4/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	1/ 12	2/ 12	0/ 12	0/ 12	0/ 12	1/ 12	1/ 12	1/ 12
52.0 Wentworth Ave., Little Calumet River	8/ 12	5/ 12	5/ 9	1/ 10	6/ 11	9/ 12	3/ 12	8/ 12
57.0 135th and Ashland, Little Calumet River	2/ 12	2/ 12	1/ 9	0/ 11	2/ 10	3/ 11	0/ 12	4/ 11
86.0 Burnham Avenue, Grand Calumet River	1/ 12	0/ 12	4/ 11	4/ 13	2/ 12	2/ 12	3/ 12	1/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	1/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	1/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	1/ 12	0/ 12	1/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	2/ 8	0/ 10	4/ 11	2/ 12	1/ 10	2/ 12	0/ 11	1/ 11
64.0 Lake St., Du Page River	0/ 12	2/ 12	3/ 11	2/ 12	0/ 11	0/ 12	1/ 12	2/ 12
89.0 Walnut Lane, West Branch Du Page River	0/ 12	0/ 12	1/ 12	1/ 12	0/ 12	0/ 12	0/ 12	1/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	2/ 9	4/ 11	0/ 10	0/ 11	3/ 11	1/ 11	1/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	3/ 12	0/ 12	2/ 10	1/ 12	0/ 12	1/ 12
79.0 Higgins Rd., Salt Creek	1/ 10	2/ 11	3/ 10	0/ 10	1/ 10	5/ 11	0/ 11	1/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	1/ 12	0/ 12	2/ 12	2/ 11	3/ 12	1/ 12	2/ 12
21.0 First Ave., Salt Creek	1/ 12	0/ 11	1/ 12	1/ 12	0/ 11	3/ 12	0/ 11	2/ 12
77.0 Elmhurst Rd., Higgins Creek	2/ 12	2/ 11	5/ 12	4/ 12	2/ 11	0/ 12	1/ 11	2/ 11
78.0 Wille Rd., Higgins Creek	1/ 12	0/ 12	1/ 12	2/ 12	1/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	1/ 12	0/ 11	1/ 12	0/ 12	0/ 9	0/ 12	0/ 12	1/ 12
17.0 Oakton St., Des Plaines River	0/ 12	1/ 11	0/ 12	0/ 11	0/ 3	1/ 12	0/ 11	1/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	1/ 12	1/ 12	0/ 12	2/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	2/ 12	0/ 12	0/ 12	1/ 12	1/ 12	0/ 12	1/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	2/ 12	0/ 13	0/ 12	1/ 11	3/ 12	0/ 12	2/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	1/ 11	0/ 11	0/ 11	0/ 11	1/ 12	0/ 12	1/ 12
29.0 Lemont Stephen St., Des Plaines River	1/ 12	0/ 12	1/ 12	0/ 12	1/ 11	2/ 12	0/ 12	1/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-18

TOTAL NICKEL VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	1/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-19

TOTAL LEAD VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	1/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	2/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	1/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	1/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	1/ 51	2/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	3/ 11	0/ 13	0/ 12	0/ 12	1/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	1/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	1/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	1/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	1/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	1/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	1/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	1/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	1/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-20

TOTAL MERCURY VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	1/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	1/ 48	0/ 51	0/ 50	0/ 49	1/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 9	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	3/ 11	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 10	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 10	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	1/ 12	0/ 4	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	1/ 6	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	1/ 12	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	1/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-21

TOATL ARSENIC VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Walnut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-22

TOTAL SELENIUM VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-23

TOTAL BARIUM VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year								
	98	97	96	95	94	93	92	91	
<u>Chicago River System</u>									
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12	
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10	
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10	
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12	
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12	
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11	
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12	
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12	
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12	
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12	
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12	
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53	
<u>Calumet River System</u>									
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12	
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11	
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12	
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND	
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11	
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12	
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	
<u>Des Plaines River System</u>									
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11	
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11	
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12	
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10	
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12	
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11	
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12	
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12	
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-24

TOTAL SILVER VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	1/ 12	0/ 10	1/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County Line Rd., Skokie River	1/ 12	0/ 10	1/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	2/ 12	0/ 11	1/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	1/ 11	1/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	2/ 12	1/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	2/ 12	0/ 12	2/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	2/ 12	0/ 12	2/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	1/ 12	2/ 9	0/ 11	0/ 10	0/ 11	0/ 12	1/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	2/ 12	3/ 12	1/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	1/ 12	0/ 12	1/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	3/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	1/ 12	4/ 12	1/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	3/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	1/ 11	3/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	4/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	1/ 10	4/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	3/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	4/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	1/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	1/ 11	1/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	4/ 11	1/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	2/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	3/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	1/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	3/ 12	1/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	2/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	1/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-25

FECAL COLIFORM VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	4/ 4	9/ 9	2/ 2	9/ 9	6/ 12	4/ 12
31.0 County Line Rd., Md. Fork N. Branch	10/ 12	7/ 10	7/ 8	8/ 10	9/ 10	11/ 12	10/ 11	10/ 10
32.0 County line Rd., Skokie River	10/ 12	9/ 10	8/ 8	9/ 9	9/ 9	12/ 12	11/ 11	10/ 10
34.0 Dempster St., N.B. Chicago River	11/ 12	5/ 11	9/ 12	8/ 10	10/ 11	9/ 12	11/ 12	9/ 12
74.0 Outer Dr. Bridge, Chicago River	2/ 12	0/ 11	1/ 11	1/ 10	1/ 10	1/ 12	1/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	3/ 9	1/ 10	4/ 9	4/ 8	1/ 8	4/ 12	0/ 11	1/ 11
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12
54.0 Joe Orr Road, Thorn Creek	8/ 12	12/ 12	12/ 12	10/ 12	10/ 12	11/ 12	12/ 12	12/ 12
52.0 Wentworth Ave., Little Calumet River	11/ 12	12/ 12	8/ 9	9/ 10	10/ 11	12/ 12	10/ 12	12/ 12
57.0 135th and Ashland, Little Calumet River	9/ 12	10/ 12	7/ 9	9/ 11	8/ 10	10/ 11	8/ 11	11/ 11
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	1/ 12	0/ 12	0/ 10	1/ 10	2/ 11	ND	ND	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	1/ 10	1/ 11	3/ 11	2/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	5/ 8	8/ 10	10/ 11	9/ 12	8/ 10	10/ 12	6/ 11	7/ 11
64.0 Lake St., Du Page River	7/ 12	11/ 12	10/ 11	10/ 12	10/ 11	10/ 12	8/ 12	8/ 12
89.0 Wanut Lane, West Branch Du Page River	6/ 12	10/ 12	11/ 12	9/ 12	10/ 12	10/ 12	6/ 12	7/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	3/ 11	6/ 9	4/ 11	6/ 10	6/ 11	5/ 11	2/ 11	3/ 11
12.0 County Line Rd., Buffalo Creek	4/ 11	5/ 11	7/ 12	4/ 12	7/ 10	6/ 12	2/ 12	4/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	3/ 11	3/ 10	2/ 10	2/ 10	7/ 11	4/ 11	6/ 10
80.0 Arlington Hts. Rd., Salt Creek	5/ 12	8/ 12	7/ 12	8/ 12	6/ 10	7/ 12	8/ 12	9/ 12
18.0 Devon Ave., Salt Creek	10/ 12	8/ 12	12/ 12	10/ 12	9/ 12	11/ 12	11/ 12	11/ 12
24.0 Wolf Road, Salt Creek	5/ 6	11/ 12	11/ 12	12/ 12	8/ 11	11/ 12	8/ 12	10/ 12
21.0 First Ave., Salt Creek	8/ 12	8/ 11	10/ 12	10/ 12	9/ 11	12/ 12	9/ 11	12/ 12
77.0 Elmhurst Rd., Higgins Creek	3/ 12	7/ 11	11/ 12	9/ 12	7/ 11	7/ 12	1/ 10	6/ 11
78.0 Wille Rd., Higgins Creek	6/ 12	7/ 12	9/ 12	7/ 12	6/ 11	8/ 12	4/ 11	6/ 11
13.0 County Line Rd., Des Plaines River	5/ 12	7/ 11	8/ 12	7/ 12	5/ 9	8/ 12	0/ 12	5/ 12
17.0 Oakton St., Des Plaines River	5/ 12	7/ 11	11/ 12	5/ 11	2/ 3	9/ 12	3/ 11	7/ 12
19.0 Belmont Ave., Des Plaines River	9/ 12	12/ 12	11/ 12	11/ 12	8/ 12	10/ 12	10/ 12	11/ 12
20.0 Roosevelt Road, Des Plaines River	11/ 12	11/ 12	10/ 12	11/ 12	8/ 12	11/ 12	10/ 12	11/ 12
22.0 Ogden Ave., Des Plaines River	7/ 12	10/ 12	12/ 13	11/ 12	7/ 11	11/ 12	10/ 12	12/ 12
23.0 Willow Springs Rd., Des Plaines River	5/ 12	7/ 11	6/ 11	5/ 11	6/ 11	9/ 12	9/ 12	9/ 12
29.0 Lemont Stephen St., Des Plaines River	4/ 12	9/ 12	6/ 12	7/ 12	4/ 11	10/ 12	6/ 12	7/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-26

SOLUBLE IRON VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	ND	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	0/ 12	0/ 10	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	1/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	0/ 49	1/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	1/ 12	0/ 12	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	1/ 12	0/ 12	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	1/ 12	0/ 12	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	1/ 12	0/ 12	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	1/ 6	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	1/ 12	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	1/ 12	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	1/ 9	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-27

TOTAL MANGANESE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	1/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 52	0/ 51	0/ 52	0/ 48	0/ 51	0/ 50	0/ 49	0/ 53
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	0/ 12	0/ 12	0/ 9	0/ 11	0/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	1/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 11	0/ 10	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 10	1/ 11	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 12	1/ 11	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 12	0/ 11	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 13	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	1/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-28

FLUORIDE VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	0/ 9	0/ 2	0/ 9	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	0/ 10	0/ 10	0/ 12	0/ 11	0/ 10
32.0 County Line Rd., Skokie River	0/ 12	0/ 10	0/ 8	0/ 9	0/ 9	0/ 12	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 11	0/ 10	0/ 10	0/ 12	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	0/ 8	0/ 8	0/ 12	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	0/ 12	0/ 12	0/ 12	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12
37.0 Wilson Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 8	0/ 12	0/ 12
73.0 Diversey Ave., N.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
46.0 Grand Ave., N.B. Chicago River	0/ 12	0/ 11	0/ 12	0/ 7	0/ 12	0/ 12	0/ 12	0/ 12
39.0 Madison St., S.B. Chicago River	0/ 12	0/ 11	0/ 11	0/ 11	0/ 5	0/ 12	0/ 12	0/ 12
40.0 Damen Ave., S.B. Chicago River	0/ 12	0/ 12	0/ 12	0/ 9	0/ 12	0/ 12	0/ 11	0/ 12
75.0 Cicero Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
41.0 Harlem Ave., Chgo. San. and Ship Canal	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0/ 12	0/ 10	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
48.0 Lemont Bridge, Stephen Street (Comp)	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
82.0 Lockport Trebler	0/ 48	0/ 51	0/ 30	0/ 95	0/252	0/ 32	0/ 35	0/ 36
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 12	0/ 12	1/ 12	0/ 12	0/ 12	0/ 12
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	2/ 12	6/ 12	2/ 9	3/ 10	4/ 11	3/ 12	0/ 12	1/ 12
57.0 135th and Ashland, Little Calumet River	2/ 12	1/ 12	0/ 9	1/ 11	1/ 10	0/ 11	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	0/ 11	0/ 13	0/ 12	0/ 12	0/ 12	0/ 12
51.0 IHE R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 7	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	0/ 12	0/ 11	0/ 10	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
76.0 Halsted Street, Little Cal. River	0/ 12	0/ 12	0/ 4	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
58.0 Ashland Ave., Cal-Sag Channel	0/ 8	0/ 6	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
59.0 Cicero Ave., Cal-Sag Channel	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12	0/ 12
43.0 Hwy. 83 and Cal-Sag Channel	0/ 11	0/ 12	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 6	0/ 10	0/ 11	0/ 11	0/ 10	0/ 12	0/ 11	0/ 11
64.0 Lake St., Du Page River	1/ 10	0/ 11	0/ 11	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 9	0/ 8	0/ 11	0/ 9	0/ 11	0/ 11	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	0/ 9	0/ 10	0/ 12	0/ 11	0/ 10	0/ 12	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	0/ 8	0/ 10	0/ 10	0/ 9	0/ 10	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	1/ 10	0/ 11	0/ 12	0/ 11	0/ 10	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	0/ 5	0/ 11	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12
21.0 First Ave., Salt Creek	0/ 10	0/ 10	0/ 12	0/ 11	0/ 11	0/ 12	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	0/ 10	0/ 10	0/ 12	0/ 11	0/ 11	0/ 12	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	0/ 10	0/ 11	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	0/ 10	1/ 10	0/ 12	0/ 11	0/ 9	0/ 12	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	0/ 10	0/ 10	0/ 12	0/ 9	0/ 3	0/ 12	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	0/ 10	0/ 11	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	0/ 10	0/ 11	0/ 13	0/ 11	0/ 10	0/ 12	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	0/ 10	0/ 10	0/ 11	0/ 10	0/ 11	0/ 12	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	0/ 10	0/ 11	0/ 12	0/ 11	0/ 11	0/ 12	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-29

GROSS BETA RADIOACTIVITY VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	0/ 2	ND	0/ 12	0/ 12
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	0/ 10	ND	0/ 11	0/ 10
32.0 County line Rd., Skokie River	ND	ND	ND	ND	0/ 9	ND	0/ 11	0/ 10
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	0/ 11	ND	0/ 12	0/ 12
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	0/ 10	ND	0/ 12	0/ 12
35.0 Central Ave., N. Shore Channel	ND	0/ 10	0/ 9	0/ 8	0/ 8	0/ 11	0/ 11	0/ 11
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	0/ 10	ND	0/ 11	0/ 12
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	0/ 10	ND	0/ 12	0/ 12
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	0/ 9	ND	0/ 12	0/ 12
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	0/ 8	ND	0/ 12	0/ 11
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	0/ 9	ND	ND	ND
55.0 130th Street, Calumet River	ND	ND	ND	ND	0/ 9	ND	0/ 12	0/ 11
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	ND	0/ 10	0/ 11	0/ 11	0/ 12	0/ 11	0/ 11	0/ 11
64.0 Lake St., Du Page River	ND	ND	ND	ND	0/ 11	ND	0/ 12	0/ 12
89.0 Wanut Lane, West Branch Du Page River	ND	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	0/ 11	ND	0/ 11	0/ 11
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	0/ 10	ND	0/ 12	0/ 12
79.0 Higgins Rd., Salt Creek	ND	0/ 10	0/ 10	0/ 10	0/ 11	0/ 11	0/ 11	0/ 10
80.0 Arlington Hts. Rd., Salt Creek	ND	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 12
18.0 Devon Ave., Salt Creek	ND	0/ 1	ND	ND	0/ 12	ND	0/ 12	0/ 12
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	0/ 11	ND	0/ 12	0/ 12
21.0 First Ave., Salt Creek	ND	ND	ND	ND	0/ 11	ND	0/ 11	0/ 12
77.0 Elmhurst Rd., Higgins Creek	ND	0/ 11	0/ 12	0/ 10	0/ 12	0/ 11	0/ 11	0/ 11
78.0 Wille Rd., Higgins Creek	ND	0/ 12	0/ 12	0/ 11	0/ 12	0/ 12	0/ 12	0/ 11
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	0/ 9	ND	0/ 12	0/ 12
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	0/ 3	ND	0/ 11	0/ 12
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	0/ 12	ND	0/ 12	0/ 12
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	0/ 12	ND	0/ 12	0/ 12
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	0/ 11	ND	0/ 12	0/ 12
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	0/ 11	ND	0/ 12	0/ 12
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	0/ 11	ND	0/ 12	0/ 12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-30

BORON VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 10	0/ 8	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	0/ 12	0/ 10	0/ 8	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 10	0/ 9	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 7	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	0/ 12	0/ 12	0/ 7	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	0/ 12	1/ 12	0/ 7	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	0/ 12	1/ 12	0/ 7	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 12	0/ 12	0/ 7	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0/ 12	0/ 12	0/ 7	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 10	0/ 9	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
89.0 Walnut Lane, West Branch Du Page River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 9	0/ 9	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 11	0/ 9	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 11	0/ 9	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0/ 6	0/ 12	0/ 9	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0/ 12	0/ 12	0/ 10	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 11	0/ 9	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 12	0/ 9	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-31

UN-IONIZED AMMONIA VIOLATION HISTORY THROUGH 1998

Sampling Location	Ratio of Violations/Sampling Frequency Per Year							
	98	97	96	95	94	93	92	91
<u>Chicago River System</u>								
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0/ 4	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0/ 12	0/ 8	0/ 8	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	0/ 12	0/ 8	1/ 8	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0/ 12	0/ 10	0/ 12	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0/ 12	0/ 7	0/ 11	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0/ 9	0/ 8	2/ 9	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	1/ 12	1/ 10	2/ 12	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	2/ 12	2/ 11	3/ 12	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	2/ 12	2/ 11	2/ 12	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	2/ 12	0/ 9	0/ 12	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	1/ 12	0/ 7	0/ 12	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	3/ 12	0/ 10	0/ 12	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	1/ 12	1/ 10	0/ 12	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	1/ 12	0/ 9	0/ 12	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1/ 12	0/ 7	0/ 12	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	1/ 12	0/ 9	0/ 12	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>								
50.0 Wolf Lake, Burnham Ave.	0/ 12	0/ 12	0/ 11	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	0/ 12	1/ 12	0/ 11	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	0/ 12	0/ 12	3/ 8	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	0/ 12	1/ 12	0/ 8	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	0/ 12	0/ 12	4/ 10	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0/ 24	0/ 23	1/ 13	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0/ 24	0/ 23	4/ 13	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	1/ 23	0/ 22	4/ 13	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	0/ 24	1/ 23	0/ 4	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	1/ 16	1/ 14	0/ 15	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	0/ 24	2/ 23	1/ 14	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	3/ 24	3/ 23	0/ 14	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>								
63.0 Longmeadow Lane, Du Page River	0/ 8	0/ 8	1/ 11	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0/ 12	0/ 10	1/ 11	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	0/ 12	0/ 10	1/ 12	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0/ 11	0/ 8	0/ 11	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0/ 11	0/ 10	0/ 12	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0/ 10	0/ 9	0/ 10	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0/ 12	1/ 10	0/ 12	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0/ 12	0/ 10	0/ 12	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0/ 6	0/ 8	0/ 11	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0/ 12	0/ 9	1/ 11	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0/ 12	0/ 7	0/ 11	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0/ 12	1/ 8	0/ 11	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0/ 12	0/ 10	1/ 12	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0/ 12	0/ 8	0/ 11	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0/ 12	0/ 10	0/ 11	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0/ 12	0/ 10	0/ 11	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0/ 12	1/ 10	0/ 12	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0/ 12	0/ 7	0/ 11	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0/ 12	0/ 8	1/ 11	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-32

BIOCHEMICAL OXYGEN DEMAND MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	5.0	3.8	4.7	2.5	3.8
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	ND	ND	3.0	3.2	2.9	4.9	3.8
32.0 County line Rd., Skokie River	ND	ND	ND	ND	ND	ND	2.0	3.9	4.0	4.9	4.6
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	ND	ND	4.0	3.3	3.5	4.1	4.1
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	ND	ND	4.0	2.1	2.1	1.8	2.2
35.0 Central Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	4.0	1.9	3.0	1.8	2.7
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	14.0	5.2	6.0	5.8	6.8
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	8.0	4.8	6.5	5.7	5.3
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	4.0	3.5	5.4	3.4	3.4
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	6.0	3.0	3.5	3.1	4.3
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	5.0	3.2	2.8	2.7	3.4
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	8.0	2.8	2.8	2.3	2.7
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	4.0	2.5	3.0	2.2	2.5
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	7.0	3.3	4.2	3.3	3.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	4.0	2.8	3.0	3.1	2.6
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	7.0	3.6	3.5	3.5	3.4
82.0 Lockport Trebler	5.3	7.1	6.2	4.4	4.8	4.8	5.0	4.7	5.0	6.0	6.1
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	ND	ND	7.0	3.9	2.5	2.3	1.6
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	12.0	3.8	4.8	2.0	2.6
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	ND	ND	6.0	5.6	4.5	3.0	4.5
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	ND	ND	4.0	4.5	4.5	3.0	4.4
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	7.0	7.8	6.0	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.8	24.4
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	2.0	3.4	1.7
55.0 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	5.0	3.4	2.8	2.1	2.7
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	6.0	4.0	3.9	3.0	5.5
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	7.0	5.5	5.6	3.3	4.8
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	6.0	4.8	5.9	3.5	4.8
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	6.0	5.2	6.2	3.7	5.2
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	7.0	4.5	5.3	3.7	5.0
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	ND	ND	ND	ND	ND	6.0	4.1	4.5	4.0	5.9
64.0 Lake St., Du Page River	ND	ND	ND	ND	ND	ND	7.0	6.8	4.3	3.6	4.2
89.0 Wanut Lane, West Branch Du Page River	ND	ND	ND	ND	ND	ND	2.0	3.3	3.4	2.4	2.9
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	ND	ND	ND	2.6	3.4	4.1	4.6
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	ND	ND	3.0	3.5	5.3	4.7	3.9
79.0 Higgins Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	3.2	4.0	3.9	4.3
80.0 Arlington Hts. Rd., Salt Creek	ND	ND	ND	ND	ND	ND	3.0	2.6	4.1	2.6	2.7
18.0 Devon Ave., Salt Creek	ND	ND	ND	ND	ND	ND	2.0	2.3	4.0	3.1	2.9
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	3.0	4.8	3.9	3.9	4.2
21.0 First Ave., Salt Creek	ND	ND	ND	ND	ND	ND	4.0	4.8	4.0	4.2	3.6
77.0 Elmhurst Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	7.0	5.4	4.5	4.7	4.8
78.0 Wille Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	3.0	3.5	3.6	2.3	2.3
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	5.0	3.4	4.0	3.1	3.1
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	5.4	3.7	2.7	3.5
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	5.0	6.4	4.3	9.5	4.7
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	4.0	6.5	4.0	4.5	4.0
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	4.0	5.8	4.0	4.0	3.2
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	5.0	5.8	4.2	4.9	4.3
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	ND	ND	5.0	5.0	4.8	5.3	4.9

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-33

CHEMICAL OXYGEN DEMAND MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	26.3	31.5	38.2	32.8	44.0	45.5	34.2	43.1
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	21.0	33.3	33.8	28.5	33.8	33.1	49.1	37.0
32.0 County line Rd., Skokie River	ND	ND	ND	23.7	33.3	29.9	27.7	33.2	32.8	37.2	40.9
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	17.5	48.8	25.6	26.3	26.9	30.8	32.9	41.3
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	5.8	10.4	13.4	9.8	12.1	13.8	9.5	26.1
35.0 Central Ave., N. Shore Channel	ND	ND	ND	8.7	12.5	12.4	11.7	13.0	15.0	10.5	14.5
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	22.8	27.8	22.4	22.8	27.5	30.0	26.4	35.8
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	26.6	26.0	21.4	22.3	24.8	28.7	27.3	34.7
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	16.4	24.7	22.3	20.0	28.0	30.3	24.2	32.2
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	24.0	25.0	21.3	22.0	25.7	22.8	28.5	26.7
39.0 Madison St., S.B. Chicago River	ND	ND	ND	19.8	15.8	15.8	17.9	22.9	20.9	19.0	20.7
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	31.7	20.7	16.1	18.0	19.5	20.4	21.0	21.0
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	17.2	22.0	18.8	16.8	20.1	22.1	19.5	19.3
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	18.4	26.3	21.6	25.4	23.4	26.0	26.3	22.2
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	16.8	26.6	20.4	20.8	22.7	23.4	28.6	23.2
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	29.8	26.7	25.3	27.6	29.6	27.1	31.4	38.0
82.0 Lockport Trebler	ND	ND	ND	22.3	28.4	26.7	23.9	23.8	29.1	25.9	26.3
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	14.3	23.9	19.2	19.7	23.6	22.4	22.6	22.1
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	27.0	33.9	34.5	27.0	33.8	36.3	29.7	33.1
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	27.5	37.2	37.9	35.1	45.0	38.5	38.6	40.4
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	27.4	33.8	32.1	31.1	64.8	31.6	37.1	36.5
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	49.3	59.9	60.7	90.4	51.5	64.3	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	67.6	236.6
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	9.6	10.2	9.7	14.9	ND	17.0	20.6	13.5
55.0 130th Street, Calumet River	ND	ND	ND	12.8	13.6	13.8	13.0	21.5	20.1	19.1	17.1
56.0 Indiana Ave., Calumet River	ND	ND	ND	26.0	25.8	28.2	20.0	31.6	29.2	33.4	35.3
76.0 Halsted Street, Little Cal. River	ND	ND	ND	29.2	29.3	27.6	30.0	37.8	34.0	33.7	43.0
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	31.6	30.6	29.2	30.9	42.3	37.7	34.8	40.3
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	32.0	31.1	31.4	27.6	38.3	36.6	37.4	39.7
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	31.3	31.5	33.4	26.2	42.4	35.4	37.1	38.2
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	ND	ND	62.5	40.7	40.3	36.1	38.1	36.8	43.6	50.9
64.0 Lake St., Du Page River	ND	ND	ND	51.0	44.4	41.8	35.1	42.9	37.8	35.1	36.8
89.0 Walnut Lane, west Branch Du Page River	ND	ND	ND	54.0	40.9	34.8	35.6	36.0	29.9	32.0	32.0
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	35.8	33.3	33.8	27.7	35.5	26.9	37.3	33.0
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	34.3	37.5	37.4	30.7	35.4	47.3	42.6	48.9
79.0 Higgins Rd., Salt Creek	ND	ND	ND	38.6	40.8	34.1	30.6	31.3	34.4	32.1	38.6
80.0 Arlington Hts. Rd., Salt Creek	ND	ND	ND	28.5	29.9	25.0	27.8	27.9	27.3	28.9	312.6
18.0 Devon Ave., Salt Creek	ND	ND	ND	30.8	35.4	29.1	27.9	25.4	30.6	29.6	25.5
24.0 Wolf Road, Salt Creek	ND	ND	ND	33.8	39.2	32.0	31.6	37.0	33.7	39.8	42.1
21.0 First Ave., Salt Creek	ND	ND	ND	31.0	37.7	36.8	30.3	35.5	34.9	41.2	38.3
77.0 Elmhurst Rd., Higgins Creek	ND	ND	ND	39.8	57.4	33.8	35.2	37.3	33.9	33.7	45.0
78.0 Wille Rd., Higgins Creek	ND	ND	ND	37.2	35.1	29.1	29.3	28.1	30.2	28.8	27.5
13.0 County Line Rd., Des Plaines River	ND	ND	ND	28.0	36.3	32.2	29.4	34.8	37.1	35.3	33.3
17.0 Oakton St., Des Plaines River	ND	ND	ND	36.5	34.0	30.0	34.3	37.2	33.3	38.8	39.3
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	45.0	45.4	32.3	34.2	40.8	33.7	49.9	43.7
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	31.7	40.0	30.9	37.0	35.3	34.3	41.5	36.7
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	31.2	42.2	34.3	32.5	35.8	33.2	39.8	37.5
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	30.7	40.4	30.0	32.6	36.5	36.8	44.8	39.8
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	35.2	44.4	36.0	36.6	38.6	38.3	40.6	40.9

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-34

DISSOLVED OXYGEN MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	8.7	7.5	9.4	6.2	7.5	8.2	8.0	8.2	7.7
31.0 County Line Rd., Md. Fork N. Branch	6.6	7.4	6.5	5.7	6.0	6.9	6.9	6.5	7.3	7.1	6.6
32.0 County line Rd., Skokie River	7.6	7.5	7.9	6.6	6.1	7.4	7.4	7.1	7.4	7.9	7.0
34.0 Dempster St., N.B. Chicago River	8.0	8.2	8.4	6.9	7.7	7.1	7.8	7.8	6.7	8.4	8.4
74.0 Outer Dr. Bridge, Chicago River	9.4	9.8	10.1	9.9	9.7	9.8	9.2	10.0	8.9	10.2	9.8
35.0 Central Ave., N. Shore Channel	7.2	9.7	6.4	8.2	9.2	9.2	9.5	10.1	7.8	8.9	9.9
36.0 Touhy Ave., N. Shore Channel	7.3	7.8	7.3	6.4	7.6	7.7	7.4	8.2	7.2	7.3	8.1
37.0 Wilson Ave., N.B. Chicago River	7.0	7.4	6.8	6.4	6.7	7.3	7.4	7.8	7.2	7.1	7.9
73.0 Diversey Ave., N.B. Chicago River	6.1	6.4	6.3	6.1	6.7	6.6	7.0	6.9	7.2	7.0	6.6
46.0 Grand Ave., N.B. Chicago River	6.3	5.9	6.9	6.9	5.7	5.7	5.8	5.9	5.8	6.0	5.3
39.0 Madison St., S.B. Chicago River	7.4	7.8	8.8	8.0	8.3	7.0	7.8	7.6	6.2	7.7	7.1
40.0 Damen Ave., S.B. Chicago River	7.0	7.5	8.2	7.1	7.7	6.0	7.4	7.0	6.3	6.7	6.3
75.0 Cicero Ave., Chgo. San. and Ship Canal	6.2	7.2	6.8	7.0	6.8	5.9	6.6	6.4	5.4	6.5	6.4
41.0 Harlem Ave., Chgo. San. and Ship Canal	7.1	7.0	7.2	7.0	7.2	6.2	6.8	6.8	6.5	7.3	6.2
42.0 Hwy. 83 and Chgo. San. and Ship Canal	5.9	6.2	6.3	6.1	6.1	5.5	6.4	6.1	5.6	5.6	5.1
48.0 Lemont Bridge, Stephen Street (Comp)	6.0	6.1	6.4	5.8	5.8	5.3	5.4	5.1	5.0	5.6	5.3
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	9.3	9.7	10.3	9.6	8.6	9.9	9.7	9.6	9.8	9.4	10.4
54.0 Joe Orr Road, Thorn Creek	8.6	8.0	8.4	8.6	8.3	7.7	8.2	8.6	7.9	7.4	9.5
52.0 Wentworth Ave., Little Calumet River	6.9	6.5	6.1	6.4	6.0	7.4	6.4	7.1	5.7	5.7	5.8
57.0 135th and Ashland, Little Calumet River	6.3	6.1	5.6	6.8	6.3	6.0	6.7	7.1	6.5	6.3	7.5
86.0 Burnham Avenue, Grand Calumet River	5.6	5.3	3.2	3.5	2.5	3.3	3.2	4.3	5.7	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1	1.9
49.0 92nd and Ewing Ave., Calumet River	9.4	10.2	9.5	10.0	8.4	10.6	9.6	ND	10.7	11.3	9.8
55.0 130th Street, Calumet River	8.6	8.9	9.0	9.9	9.0	9.6	8.2	8.4	9.2	8.8	9.5
56.0 Indiana Ave., Calumet River	7.8	8.2	8.7	8.0	6.6	7.3	8.4	7.6	7.3	6.1	4.9
76.0 Halsted Street, Little Cal. River	6.6	6.5	7.3	6.3	6.1	5.6	6.3	6.0	5.6	5.0	5.3
58.0 Ashland Ave., Cal-Sag Channel	5.6	6.7	6.3	5.9	6.3	6.2	6.3	6.5	5.6	4.8	5.4
59.0 Cicero Ave., Cal-Sag Channel	6.0	6.4	6.3	6.3	5.8	6.7	5.9	5.4	5.4	4.1	5.0
43.0 Hwy. 83 and Cal-Sag Channel	5.6	6.0	5.8	5.2	6.0	5.6	5.6	4.9	5.1	4.4	4.6
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	8.4	9.4	7.8	9.3	8.6	8.8	8.3	8.6	9.1	8.3	8.2
64.0 Lake St., Du Page River	7.8	7.7	7.4	8.5	9.1	8.5	9.2	8.7	8.1	8.3	8.6
89.0 Wanut Lane, West Branch Du Page River	7.3	8.2	7.6	8.4	8.5	7.6	8.6	9.1	7.3	8.7	8.4
90.0 Chicago-Elgin Rd., Poplar Creek	8.4	9.3	9.1	9.7	10.0	8.7	9.9	9.7	9.1	9.6	9.2
12.0 County Line Rd., Buffalo Creek	8.5	8.6	8.5	10.2	8.9	9.4	10.3	8.8	10.0	9.1	10.1
79.0 Higgins Rd., Salt Creek	7.8	8.9	7.3	9.3	8.3	7.7	9.3	8.5	8.4	11.0	8.9
80.0 Arlington Hts. Rd., Salt Creek	7.3	8.4	7.7	8.4	8.3	8.6	8.8	8.8	8.8	8.0	8.8
18.0 Devon Ave., Salt Creek	7.7	9.0	7.3	8.9	8.3	8.6	9.6	9.4	8.4	7.7	8.6
24.0 Wolf Road, Salt Creek	9.7	9.7	8.9	8.9	9.3	9.6	9.7	8.8	8.3	7.7	9.0
21.0 First Ave., Salt Creek	6.5	7.1	7.1	7.5	7.6	7.4	8.1	8.1	7.9	6.7	7.3
77.0 Elmhurst Rd., Higgins Creek	8.0	9.2	7.9	8.3	8.7	9.9	9.1	8.5	8.5	7.3	7.6
78.0 Wille Rd., Higgins Creek	7.8	9.0	8.3	8.4	8.9	8.9	8.6	8.6	8.6	8.1	8.7
13.0 County Line Rd., Des Plaines River	8.0	8.6	7.1	8.9	9.0	8.2	8.6	9.0	7.8	7.4	7.7
17.0 Oakton St., Des Plaines River	8.1	8.5	7.9	8.1	8.5	8.3	8.3	8.3	8.5	8.2	8.3
19.0 Belmont Ave., Des Plaines River	6.6	8.3	7.2	7.4	6.4	7.1	7.7	7.6	7.8	7.5	7.0
20.0 Roosevelt Road, Des Plaines River	6.4	8.1	7.3	7.6	7.3	7.5	8.3	6.6	7.3	7.4	6.4
22.0 Ogden Ave., Des Plaines River	8.4	9.2	8.2	8.6	8.2	8.6	9.3	8.3	8.3	8.2	8.3
23.0 Willow Springs Rd., Des Plaines River	8.4	9.1	8.4	8.8	9.1	7.9	8.9	7.7	8.1	9.0	8.4
29.0 Lemont Stephen St., Des Plaines River	9.1	9.7	8.8	8.4	9.8	8.1	9.5	9.3	8.2	9.9	10.9

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-35

TEMPERATURE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (deg. C)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	15.0	16.3	21.1	14.3	14.3	14.3	14.3	12.4	13.5
31.0 County Line Rd., Md. Fork N. Branch	12.2	11.6	13.4	12.8	13.3	11.7	12.9	13.6	13.4	12.5	12.8
32.0 County line Rd., Skokie River	11.9	12.1	13.1	14.9	15.6	12.1	13.5	14.8	12.7	12.1	13.4
34.0 Dempster St., N.B. Chicago River	13.2	12.4	10.9	14.0	13.6	12.7	12.7	13.4	13.1	11.6	11.9
74.0 Outer Dr. Bridge, Chicago River	13.3	11.5	10.6	12.4	13.6	9.7	11.4	10.7	12.8	12.2	13.1
35.0 Central Ave., N. Shore Channel	16.2	12.0	13.9	15.0	16.1	11.8	12.4	12.2	13.2	14.4	12.2
36.0 Touhy Ave., N. Shore Channel	15.8	12.8	14.7	14.2	15.2	15.1	14.9	15.4	15.5	13.6	12.7
37.0 Wilson Ave., N.B. Chicago River	15.2	12.4	13.7	13.0	14.6	10.6	14.9	14.4	15.3	12.8	14.1
73.0 Diversey Ave., N.B. Chicago River	15.4	12.4	13.7	13.5	15.1	14.8	15.1	14.0	15.2	12.6	13.5
46.0 Grand Ave., N.B. Chicago River	15.0	14.6	12.1	8.8	14.5	12.2	14.0	15.1	14.2	13.4	12.1
39.0 Madison St., S.B. Chicago River	13.8	12.1	10.8	12.2	10.9	11.1	12.7	12.3	14.1	12.5	13.4
40.0 Damen Ave., S.B. Chicago River	15.4	13.3	11.6	14.9	13.8	12.8	13.1	13.8	15.3	12.1	12.7
75.0 Cicero Ave., Chgo. San. and Ship Canal	18.0	12.5	13.5	14.1	14.3	14.5	13.7	14.9	15.2	12.3	13.4
41.0 Harlem Ave., Chgo. San. and Ship Canal	16.7	13.9	13.5	13.7	15.1	13.6	14.1	15.3	15.4	13.7	13.1
42.0 Hwy. 83 and Chgo. San. and Ship Canal	17.2	15.0	14.7	14.8	14.5	14.5	14.7	15.8	15.8	12.7	14.2
48.0 Lemont Bridge, Stephen Street (Comp)	16.6	14.6	14.2	14.4	14.9	13.3	14.5	15.8	16.1	12.5	14.0
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	15.0	12.4	12.5	13.1	14.0	12.7	12.8	12.6	14.5	12.3	13.1
54.0 Joe Orr Road, Thorn Creek	15.8	13.2	14.0	15.4	14.7	15.2	16.4	13.7	14.0	12.0	14.3
52.0 Wentworth Ave., Little Calumet River	14.3	11.9	14.7	14.7	14.3	12.5	12.6	11.9	12.2	14.2	16.5
57.0 135th and Ashland, Little Calumet River	14.6	11.2	15.2	13.6	15.5	13.5	13.9	13.1	14.1	12.3	14.5
86.0 Burnham Avenue, Grand Calumet River	15.6	13.7	13.9	14.3	15.4	14.3	14.5	13.6	15.2	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.9	17.5
49.0 92nd and Ewing Ave., Calumet River	14.8	12.6	13.3	13.1	13.3	11.7	13.1	ND	13.0	12.7	11.6
55.0 130th Street, Calumet River	15.5	13.3	14.8	15.3	14.6	12.8	12.8	14.7	13.2	14.2	15.6
56.0 Indiana Ave., Calumet River	16.7	14.1	14.7	14.4	15.2	13.3	14.1	14.8	14.9	13.8	14.4
76.0 Halsted Street, Little Cal. River	16.4	13.6	4.3	14.9	14.5	14.8	15.5	13.9	14.9	12.7	14.6
58.0 Ashland Ave., Cal-Sag Channel	19.1	14.1	13.6	15.5	13.7	13.8	14.4	12.9	13.7	11.9	13.9
59.0 Cicero Ave., Cal-Sag Channel	16.0	13.1	14.4	13.9	14.1	13.8	14.6	12.6	14.0	12.6	14.8
43.0 Hwy. 83 and Cal-Sag Channel	15.5	14.0	14.9	13.5	13.3	14.1	14.2	13.5	13.5	12.0	15.8
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	17.8	10.6	13.4	13.2	15.4	12.5	12.6	17.5	14.1	15.1	16.9
64.0 Lake St., Du Page River	17.9	13.9	14.7	14.1	14.8	15.0	14.3	16.5	15.7	14.4	14.5
89.0 Wanut Lane, West Branch Du Page River	18.3	15.1	14.3	15.5	14.0	14.3	14.9	17.2	16.1	16.7	14.8
90.0 Chicago-Elgin Rd., Poplar Creek	17.1	14.6	13.7	15.3	13.2	13.1	13.3	18.4	12.6	17.0	17.7
12.0 County Line Rd., Buffalo Creek	16.9	12.1	13.2	14.6	15.7	13.1	11.4	14.4	13.3	14.8	16.6
79.0 Higgins Rd., Salt Creek	19.1	14.2	14.4	16.1	16.0	14.1	12.8	17.9	14.9	14.9	17.2
80.0 Arlington Hts. Rd., Salt Creek	17.6	14.2	15.2	14.4	12.7	14.1	14.0	16.7	15.5	14.8	14.3
18.0 Devon Ave., Salt Creek	17.5	13.5	14.8	14.7	15.0	14.0	19.8	16.8	16.2	15.3	9.1
24.0 Wolf Road, Salt Creek	9.9	9.6	14.2	13.9	14.3	13.6	12.7	14.3	13.0	11.7	15.2
21.0 First Ave., Salt Creek	14.8	11.6	13.5	12.5	13.0	12.1	10.7	12.4	13.1	10.5	14.3
77.0 Elmhurst Rd., Higgins Creek	15.3	9.2	12.3	12.7	13.1	12.2	12.2	13.5	13.5	11.7	16.1
78.0 Wille Rd., Higgins Creek	17.3	11.5	15.3	15.4	15.4	14.7	14.6	15.7	15.4	12.8	15.6
13.0 County Line Rd., Des Plaines River	15.7	11.6	13.8	13.1	12.7	12.3	12.4	15.3	12.6	13.3	14.1
17.0 Oakton St., Des Plaines River	15.1	10.0	13.3	13.6	2.1	12.8	12.4	13.0	12.3	11.4	15.1
19.0 Belmont Ave., Des Plaines River	15.3	10.7	13.4	13.0	12.8	12.7	11.8	13.4	12.2	10.3	14.6
20.0 Roosevelt Road, Des Plaines River	15.2	10.6	13.5	12.4	12.5	12.2	11.5	13.6	12.0	10.6	14.5
22.0 Ogden Ave., Des Plaines River	14.8	11.2	14.6	13.1	14.3	13.0	13.2	13.0	13.7	11.1	15.0
23.0 Willow Springs Rd., Des Plaines River	16.2	10.0	14.2	13.8	14.1	13.3	12.7	14.4	12.8	11.4	17.3
29.0 Lemont Stephen St., Des Plaines River	16.7	9.0	14.5	13.5	14.7	13.6	12.9	15.0	13.0	11.4	15.2

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-36

TOTAL KJELDAHL NITROGEN MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	1.9	1.6	1.3	2.6	1.9	2.1	1.8	2.3	2.2
31.0 County Line Rd., Md. Fork N. Branch	1.0	1.2	1.1	1.1	1.3	1.0	1.3	1.3	1.2	1.9	1.0
32.0 County line Rd., Skokie River	0.8	1.2	1.1	1.1	1.1	1.0	1.2	1.6	1.3	1.8	1.4
34.0 Dempster St., N.B. Chicago River	1.0	1.5	1.4	1.2	1.5	1.3	1.5	1.6	1.5	1.4	1.5
74.0 Outer Dr. Bridge, Chicago River	0.4	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.6	0.5	0.6
35.0 Central Ave., N. Shore Channel	0.8	0.4	2.3	0.5	0.4	0.8	0.4	0.4	1.1	0.6	0.4
36.0 Touhy Ave., N. Shore Channel	2.1	2.8	4.2	2.9	3.3	2.3	2.8	2.3	2.6	2.2	3.9
37.0 Wilson Ave., N.B. Chicago River	2.2	2.9	4.2	3.0	3.4	3.1	3.2	2.5	2.6	3.0	4.3
73.0 Diversey Ave., N.B. Chicago River	1.6	2.4	3.4	2.0	2.3	2.3	2.9	2.9	2.5	2.6	5.5
46.0 Grand Ave., N.B. Chicago River	1.9	2.3	3.1	2.9	2.8	2.4	2.6	2.1	2.2	2.6	3.6
39.0 Madison St., S.B. Chicago River	1.7	1.4	1.7	1.3	1.4	1.6	1.3	1.4	1.9	1.7	2.0
40.0 Damen Ave., S.B. Chicago River	1.3	1.9	2.0	1.4	2.0	1.6	1.7	1.5	1.7	2.0	2.5
75.0 Cicero Ave., Chgo. San. and Ship Canal	1.5	1.5	2.3	2.1	2.0	1.7	1.8	1.6	2.0	1.8	2.8
41.0 Harlem Ave., Chgo. San. and Ship Canal	1.5	2.0	2.9	2.4	2.1	1.9	1.8	1.8	2.6	2.6	3.3
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1.9	2.5	2.8	2.4	2.8	2.0	2.3	1.9	2.1	2.7	4.0
48.0 Lemont Bridge, Stephen Street (Comp)	1.5	2.0	2.5	2.7	3.1	2.1	2.6	2.9	2.5	3.2	2.6
82.0 Lockport Trebler	1.7	1.9	2.3	2.3	2.3	2.6	2.4	2.1	2.8	2.7	3.1
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.6	0.7	0.7	0.6	0.9	0.6	0.8	0.8	0.8	0.6	0.7
54.0 Joe Orr Road, Thorn Creek	1.2	1.4	2.0	1.6	2.8	2.3	1.5	1.5	2.1	1.8	2.2
52.0 Wentworth Ave., Little Calumet River	2.7	1.5	1.8	1.3	1.8	1.5	1.7	1.9	1.7	1.8	1.9
57.0 135th and Ashland, Little Calumet River	1.4	1.4	1.4	1.7	2.2	1.8	1.4	1.5	1.9	1.7	1.5
86.0 Burnham Avenue, Grand Calumet River	2.1	2.0	6.4	6.2	8.1	3.8	5.7	5.2	6.6	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.7	11.5
49.0 92nd and Ewing Ave., Calumet River	0.5	0.4	0.8	0.4	0.5	0.4	0.4	ND	0.6	0.5	0.4
55.0 130th Street, Calumet River	0.5	0.5	0.7	0.6	0.7	0.8	0.8	1.0	1.2	1.4	1.0
56.0 Indiana Ave., Calumet River	1.0	1.2	1.7	1.8	3.0	2.6	2.9	2.8	2.4	3.4	3.1
76.0 Halsted Street, Little Cal. River	1.3	1.7	2.7	3.1	4.1	3.6	4.8	5.0	6.0	4.8	3.4
58.0 Ashland Ave., Cal-Sag Channel	1.1	1.6	1.8	2.8	3.1	2.4	4.6	4.0	5.1	4.4	2.9
59.0 Cicero Ave., Cal-Sag Channel	1.4	1.8	2.3	3.7	3.9	3.5	4.8	4.2	5.0	5.1	3.2
43.0 Hwy. 83 and Cal-Sag Channel	1.3	1.9	2.5	3.2	3.9	3.3	3.7	4.4	4.4	5.5	3.6
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	1.7	1.8	2.2	1.9	1.8	1.4	1.7	1.5	1.5	2.1	1.7
64.0 Lake St., Du Page River	2.5	2.4	2.2	2.1	2.1	2.2	2.7	3.5	2.5	3.3	3.0
89.0 Wanut Lane, West Branch Du Page River	2.3	2.1	2.1	2.0	2.0	2.3	2.1	2.3	1.9	2.2	2.0
90.0 Chicago-Elgin Rd., Poplar Creek	0.7	1.2	1.1	1.1	1.1	1.2	0.9	1.0	0.8	1.5	0.8
12.0 County Line Rd., Buffalo Creek	1.0	1.2	1.3	1.1	1.4	1.6	1.2	1.5	1.8	1.8	1.4
79.0 Higgins Rd., Salt Creek	1.3	1.4	1.3	1.5	1.4	1.3	1.0	1.2	1.3	1.3	1.8
80.0 Arlington Hts. Rd., Salt Creek	1.4	1.6	1.5	1.7	1.5	1.1	1.4	1.6	1.5	1.7	2.8
18.0 Devon Ave., Salt Creek	1.3	1.5	1.9	1.9	1.6	1.2	1.4	1.5	1.5	1.8	1.6
24.0 Wolf Road, Salt Creek	1.1	1.6	1.8	1.7	1.7	1.4	1.4	1.5	1.5	2.7	2.0
21.0 First Ave., Salt Creek	1.1	1.5	1.5	1.4	1.6	1.5	1.3	1.6	1.4	2.2	1.8
77.0 Elmhurst Rd., Higgins Creek	0.8	0.9	1.2	1.2	1.5	1.0	1.0	1.2	1.2	1.2	1.3
78.0 Wille Rd., Higgins Creek	1.4	2.1	1.4	1.7	1.8	1.6	1.5	1.4	1.3	2.7	1.4
13.0 County Line Rd., Des Plaines River	1.3	1.3	1.1	1.2	1.7	1.5	1.3	1.7	1.7	1.7	1.6
17.0 Oakton St., Des Plaines River	1.2	1.4	1.5	1.7	1.3	1.3	1.4	1.7	1.5	1.7	1.5
19.0 Belmont Ave., Des Plaines River	1.3	1.5	1.6	1.7	2.0	1.4	1.5	1.8	1.5	2.1	2.1
20.0 Roosevelt Road, Des Plaines River	1.3	1.6	1.6	1.5	1.7	1.3	1.5	1.7	1.5	1.8	1.7
22.0 Ogden Ave., Des Plaines River	1.5	1.8	1.5	1.5	1.7	1.5	1.3	1.6	1.5	1.8	1.8
23.0 Willow Springs Rd., Des Plaines River	1.4	1.4	1.6	1.5	1.8	1.4	1.4	1.6	1.4	2.1	2.0
29.0 Lemont Stephen St., Des Plaines River	1.5	1.7	1.6	1.8	1.9	1.4	1.5	1.7	2.3	2.0	1.6

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-37

ORGANIC NITROGEN MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	1.7	1.4	1.2	1.2	1.5	1.9	1.5	1.4	1.4
31.0 County Line Rd., Md. Fork N. Branch	0.9	1.1	1.0	1.0	1.1	0.9	1.1	1.1	1.0	1.6	0.8
32.0 County line Rd., Skokie River	0.7	1.1	0.9	0.9	1.0	0.8	1.0	1.4	1.1	1.5	1.0
34.0 Dempster St., N.B. Chicago River	1.0	1.4	1.2	1.0	1.3	1.0	1.2	1.4	1.2	1.1	1.1
74.0 Outer Dr. Bridge, Chicago River	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.5	0.5	0.4	0.3
35.0 Central Ave., N. Shore Channel	0.4	0.4	1.1	0.4	0.3	0.4	0.3	0.4	0.8	0.5	0.2
36.0 Touhy Ave., N. Shore Channel	1.2	1.4	1.7	1.3	1.6	1.1	1.2	1.6	1.4	1.3	1.3
37.0 Wilson Ave., N.B. Chicago River	1.0	1.2	1.6	1.4	1.3	0.9	1.2	1.3	1.2	1.3	1.2
73.0 Diversey Ave., N.B. Chicago River	1.0	1.1	1.5	1.0	1.3	1.0	1.4	1.7	1.4	1.0	1.9
46.0 Grand Ave., N.B. Chicago River	1.0	1.0	1.3	1.2	1.2	0.8	1.1	1.0	1.0	1.1	1.1
39.0 Madison St., S.B. Chicago River	1.1	0.8	0.9	0.6	0.6	0.6	0.6	0.8	1.0	0.8	0.7
40.0 Damen Ave., S.B. Chicago River	0.8	0.9	0.9	0.9	0.8	0.6	0.7	0.9	0.9	0.9	0.7
75.0 Cicero Ave., Chgo. San. and Ship Canal	1.1	0.9	1.1	1.0	0.9	0.7	0.7	0.9	1.0	0.8	0.9
41.0 Harlem Ave., Chgo. San. and Ship Canal	1.0	1.3	1.5	1.2	1.2	1.0	1.1	1.3	1.2	1.3	1.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1.2	1.3	1.4	1.2	1.3	0.8	1.1	1.2	1.2	1.4	1.3
48.0 Lemont Bridge, Stephen Street (Comp)	1.0	1.2	1.2	1.4	1.4	1.0	1.1	1.5	1.1	1.5	1.1
82.0 Lockport Trebler	1.4	1.5	1.6	0.6	1.6	ND	1.3	1.0	1.4	1.0	1.1
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.5	0.7	0.6	0.6	0.8	0.6	0.7	0.7	0.7	0.5	0.6
54.0 Joe Orr Road, Thorn Creek	1.2	1.3	1.4	1.3	1.7	1.3	1.3	1.2	1.4	1.3	1.2
52.0 Wentworth Ave., Little Calumet River	2.5	1.3	1.6	1.1	1.5	1.1	1.3	1.4	1.2	1.3	1.3
57.0 135th and Ashland, Little Calumet River	1.2	1.2	1.2	1.1	1.4	1.0	1.0	1.2	1.1	1.3	1.0
86.0 Burnham Avenue, Grand Calumet River	1.7	1.3	2.9	2.2	3.3	2.0	2.9	2.9	3.8	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.7	7.5
49.0 92nd and Ewing Ave., Calumet River	0.4	0.4	0.7	0.3	0.5	0.3	0.3	ND	0.5	0.3	0.3
55.0 130th Street, Calumet River	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.8	0.5
56.0 Indiana Ave., Calumet River	0.7	0.8	1.0	0.9	1.1	1.1	1.2	1.3	1.3	1.6	1.4
76.0 Halsted Street, Little Cal. River	0.9	1.2	1.4	1.2	1.6	1.2	1.4	1.6	1.6	1.6	1.6
58.0 Ashland Ave., Cal-Sag Channel	0.8	1.1	1.2	1.3	1.4	1.1	1.6	1.6	1.5	1.4	1.6
59.0 Cicero Ave., Cal-Sag Channel	1.0	1.3	1.3	1.3	1.5	1.1	1.5	1.6	1.5	1.6	1.6
43.0 Hwy. 83 and Cal-Sag Channel	0.9	1.3	1.6	1.1	1.6	1.2	1.3	1.5	1.3	2.1	1.7
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	1.5	1.6	1.8	1.7	1.6	1.2	1.3	1.3	1.2	1.6	1.5
64.0 Lake St., Du Page River	1.9	2.0	1.9	1.9	1.9	1.6	1.7	2.1	1.8	1.8	1.9
89.0 Wanut Lane, West Branch Du Page River	2.1	1.9	1.9	1.8	1.9	1.6	1.7	1.6	1.5	1.6	1.5
90.0 Chicago-Elgin Rd., Poplar Creek	0.7	1.1	1.1	1.0	1.0	1.1	0.9	0.9	0.8	1.3	0.7
12.0 County Line Rd., Buffalo Creek	0.9	1.2	1.2	1.0	1.3	1.6	1.1	1.3	1.6	1.6	1.3
79.0 Higgins Rd., Salt Creek	1.2	1.3	1.1	1.4	1.3	1.2	0.9	1.0	1.2	1.2	1.6
80.0 Arlington Hts. Rd., Salt Creek	1.3	1.4	1.4	1.4	1.3	1.0	1.1	1.2	1.2	1.5	2.2
18.0 Devon Ave., Salt Creek	1.1	1.4	1.7	1.7	1.4	1.1	1.2	1.2	1.2	1.5	1.4
24.0 Wolf Road, Salt Creek	1.0	1.4	1.8	1.5	1.5	1.3	1.2	1.4	1.2	2.2	1.6
21.0 First Ave., Salt Creek	0.9	1.4	1.4	1.3	1.4	1.3	1.1	1.5	1.2	1.8	1.5
77.0 Elmhurst Rd., Higgins Creek	0.7	0.8	1.0	1.1	1.2	0.9	0.8	1.0	1.2	1.0	1.2
78.0 Wille Rd., Higgins Creek	1.1	1.6	1.3	1.4	1.4	1.2	1.2	1.2	1.1	2.5	1.1
13.0 County Line Rd., Des Plaines River	1.1	1.2	1.0	1.2	1.5	1.2	1.2	1.4	1.4	1.4	1.3
17.0 Oakton St., Des Plaines River	1.1	1.3	1.4	1.6	1.0	1.1	1.3	1.4	1.3	1.6	1.3
19.0 Belmont Ave., Des Plaines River	1.0	1.4	1.4	1.4	1.7	1.2	1.3	1.5	1.3	1.8	1.7
20.0 Roosevelt Road, Des Plaines River	1.1	1.4	1.4	1.4	1.5	1.1	1.3	1.3	1.3	1.6	1.4
22.0 Ogden Ave., Des Plaines River	1.4	1.6	1.4	1.4	1.5	1.3	1.2	1.3	1.2	1.6	1.5
23.0 Willow Springs Rd., Des Plaines River	1.2	1.3	1.5	1.4	1.6	1.2	1.3	1.4	1.2	1.9	1.8
29.0 Lemont Stephen St., Des Plaines River	1.4	1.5	1.5	1.5	1.8	1.3	1.4	1.5	1.9	1.8	1.4

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-38

AMMONIUM NITROGEN MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.2	0.2	0.2	1.4	0.4	0.2	0.3	0.9	1.0
31.0 County Line Rd., Md. Fork N. Branch	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2
32.0 County Line Rd., Skokie River	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.4
34.0 Dempster St., N.B. Chicago River	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.4
74.0 Outer Dr. Bridge, Chicago River	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.2
35.0 Central Ave., N. Shore Channel	0.4	0.0	1.2	0.1	0.1	0.4	0.1	0.0	0.3	0.1	0.2
36.0 Touhy Ave., N. Shore Channel	0.9	1.5	2.5	1.6	1.7	1.2	1.6	0.8	1.1	0.9	2.3
37.0 Wilson Ave., N.B. Chicago River	1.2	1.7	2.6	1.7	2.0	2.2	2.0	1.2	1.3	1.7	2.8
73.0 Diversey Ave., N.B. Chicago River	0.6	1.4	1.9	1.0	1.1	1.3	1.6	1.2	1.2	1.7	3.3
46.0 Grand Ave., N.B. Chicago River	1.0	1.3	1.8	1.7	1.6	1.6	1.5	1.1	1.2	1.5	2.5
39.0 Madison St., S.B. Chicago River	0.5	0.6	0.8	0.6	0.8	1.0	0.7	0.6	0.9	0.8	1.2
40.0 Damen Ave., S.B. Chicago River	0.5	0.9	1.1	0.6	1.2	1.0	1.0	0.6	0.8	1.1	1.6
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.4	0.7	1.3	1.0	1.1	1.0	1.1	0.7	1.1	1.1	1.5
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.5	0.7	1.3	1.2	0.9	0.9	0.7	0.6	1.4	1.3	1.9
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.6	1.2	1.4	1.2	1.5	1.2	1.2	0.6	0.9	1.3	2.4
48.0 Lemont Bridge, Stephen Street (Comp)	0.5	0.9	1.3	1.4	1.6	1.2	1.5	1.4	1.4	1.8	1.3
82.0 Lockport Trebler	0.3	0.4	0.6	0.8	0.7	1.0	1.1	1.1	1.4	1.7	2.0
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
54.0 Joe Orr Road, Thorn Creek	0.0	0.1	0.7	0.3	1.1	1.0	0.2	0.3	0.7	0.5	1.0
52.0 Wentworth Ave., Little Calumet River	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.6
57.0 135th and Ashland, Little Calumet River	0.2	0.2	0.2	0.6	0.8	0.8	0.3	0.3	0.7	0.4	0.5
86.0 Burnham Avenue, Grand Calumet River	0.4	0.6	3.5	3.9	4.8	1.7	2.7	2.3	2.8	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.0	4.0
49.0 92nd and Ewing Ave., Calumet River	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	ND	0.1	0.2
55.0 130th Street, Calumet River	0.1	0.1	0.2	0.1	0.2	0.3	0.3	0.4	0.4	0.6	0.5
56.0 Indiana Ave., Calumet River	0.3	0.4	0.8	0.9	1.9	1.5	1.7	1.5	1.1	1.7	1.7
76.0 Halsted Street, Little Cal. River	0.3	0.5	2.4	1.9	2.5	2.3	3.4	3.4	4.4	3.2	1.7
58.0 Ashland Ave., Cal-Sag Channel	0.3	0.5	1.0	1.6	1.7	1.4	3.0	2.5	3.5	3.0	1.4
59.0 Cicero Ave., Cal-Sag Channel	0.3	0.5	1.0	2.5	2.4	2.4	3.2	2.6	3.6	3.5	1.6
43.0 Hwy. 83 and Cal-Sag Channel	0.3	0.7	0.9	2.0	2.3	2.0	2.5	2.9	3.1	3.4	1.9
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.1	0.2	0.4	0.2	0.2	0.2	0.4	0.1	0.2	0.5	0.2
64.0 Lake St., Du Page River	0.6	0.4	0.4	0.2	0.2	0.6	1.0	1.4	0.7	1.5	1.1
89.0 Wanut Lane, West Branch Du Page River	0.2	0.2	0.3	0.1	0.1	0.7	0.4	0.7	0.4	0.6	0.5
90.0 Chicago-Elgin Rd., Poplar Creek	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1
12.0 County Line Rd., Buffalo Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1
79.0 Higgins Rd., Salt Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
80.0 Arlington Hts. Rd., Salt Creek	0.2	0.1	0.3	0.2	0.2	0.1	0.3	0.4	0.3	0.3	0.6
18.0 Devon Ave., Salt Creek	0.2	0.1	0.4	0.2	0.2	0.1	0.2	0.4	0.3	0.3	0.2
24.0 Wolf Road, Salt Creek	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.5	0.5
21.0 First Ave., Salt Creek	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0.4	0.3
77.0 Elmhurst Rd., Higgins Creek	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1
78.0 Wille Rd., Higgins Creek	0.3	0.5	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.3
13.0 County Line Rd., Des Plaines River	0.2	0.1	0.1	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.3
17.0 Oakton St., Des Plaines River	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2
19.0 Belmont Ave., Des Plaines River	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.4
20.0 Roosevelt Road, Des Plaines River	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.2	0.2	0.3
22.0 Ogden Ave., Des Plaines River	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
23.0 Willow Springs Rd., Des Plaines River	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.2
29.0 Lemont Stephen St., Des Plaines River	0.2	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.2	0.2

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-39

UN-IONIZED AMMONIA MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31.0 County Line Rd., Md. Fork N. Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.0 County line Rd., Skokie River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34.0 Dempster St., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.0 Outer Dr. Bridge, Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.0 Central Ave., N. Shore Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0 Touhy Ave., N. Shore Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.0 Wilson Ave., N.B. Chicago River	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.0 Diversey Ave., N.B. Chicago River	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.0 Grand Ave., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.0 Madison St., S.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0 Damen Ave., S.B. Chicago River	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48.0 Lemont Bridge, Stephen Street (Comp)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54.0 Joe Orr Road, Thorn Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.0 Wentworth Ave., Little Calumet River	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.0 135th and Ashland, Little Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.0 Burnham Avenue, Grand Calumet River	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0	0.1
49.0 92nd and Ewing Ave., Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ND	0.0	0.0	0.0
55.0 130th Street, Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.0 Indiana Ave., Calumet River	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.0 Halsted Street, Little Cal. River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
58.0 Ashland Ave., Cal-Sag Channel	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
59.0 Cicero Ave., Cal-Sag Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43.0 Hwy. 83 and Cal-Sag Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64.0 Lake St., Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.0 Walnut Lane, West Branch Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 Chicago-Elgin Rd., Poplar Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.0 County Line Rd., Buffalo Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.0 Higgins Rd., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.0 Arlington Hts. Rd., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0 Devon Ave., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0 Wolf Road, Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21.0 First Ave., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.0 Elmhurst Rd., Higgins Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.0 Wille Rd., Higgins Creek	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.0 County Line Rd., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0 Oakton St., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0 Belmont Ave., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0 Roosevelt Road, Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0 Ogden Ave., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0 Willow Springs Rd., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29.0 Lemont Stephen St., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-40

NITRITE PLUS NITRATE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	9.1	7.8	13.9	4.3	9.2	9.6	7.9	12.2	8.8
31.0 County Line Rd., Md. Fork N. Branch	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.6	2.4	0.7	0.9
32.0 County line Rd., Skokie River	0.6	0.8	0.5	0.7	1.0	0.9	1.5	0.7	1.8	0.8	0.6
34.0 Dempster St., N.B. Chicago River	3.8	5.1	5.0	3.4	4.4	3.4	4.7	4.3	3.6	5.0	3.9
74.0 Outer Dr. Bridge, Chicago River	1.0	0.4	0.4	0.3	0.3	0.4	0.4	0.4	1.4	0.4	0.6
35.0 Central Ave., N. Shore Channel	0.2	0.3	0.2	0.2	0.3	0.5	0.3	0.2	0.6	0.3	0.3
36.0 Touhy Ave., N. Shore Channel	5.7	5.6	4.8	4.2	4.4	5.0	4.0	4.7	4.0	4.9	2.7
37.0 Wilson Ave., N.B. Chicago River	6.4	5.9	5.6	5.0	4.5	4.9	3.9	3.7	3.2	4.3	2.2
73.0 Diversey Ave., N.B. Chicago River	5.5	5.2	5.4	4.5	5.2	4.4	5.0	5.3	4.3	5.7	2.8
46.0 Grand Ave., N.B. Chicago River	5.3	4.7	4.9	4.7	4.0	3.6	4.0	4.4	3.7	4.4	2.8
39.0 Madison St., S.B. Chicago River	3.4	2.4	2.6	2.2	2.0	2.4	2.2	2.3	2.9	2.9	1.6
40.0 Damen Ave., S.B. Chicago River	3.2	2.8	2.8	2.5	2.6	2.5	2.0	2.2	2.4	2.9	1.7
75.0 Cicero Ave., Chgo. San. and Ship Canal	3.0	2.9	2.5	2.5	2.3	2.4	2.0	2.6	2.2	2.8	1.7
41.0 Harlem Ave., Chgo. San. and Ship Canal	7.0	6.2	6.8	5.5	5.5	5.0	5.1	5.0	4.5	5.2	3.2
42.0 Hwy. 83 and Chgo. San. and Ship Canal	5.6	5.6	6.4	4.9	4.1	4.2	4.3	4.7	4.2	4.0	3.1
48.0 Lemont Bridge, Stephen Street (Comp)	5.1	5.1	5.2	4.4	3.8	3.9	3.6	3.9	3.5	4.0	3.2
82.0 Lockport Trebler	4.5	4.6	5.1	4.7	4.0	4.0	4.2	4.4	3.2	4.1	2.9
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.1	0.2	0.2	0.1	0.1	0.2	0.8	0.1	0.1	0.2	0.2
54.0 Joe Orr Road, Thorn Creek	6.8	6.8	7.6	8.6	8.8	6.9	8.5	5.9	5.8	5.5	5.7
52.0 Wentworth Ave., Little Calumet River	3.8	3.8	4.2	3.9	3.8	2.6	3.0	2.1	2.6	3.4	2.6
57.0 135th and Ashland, Little Calumet River	2.8	3.6	3.6	3.7	3.6	2.6	3.1	2.8	3.0	2.9	2.6
86.0 Burnham Avenue, Grand Calumet River	12.3	11.9	8.2	6.7	3.7	6.2	12.7	4.5	4.6	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.2	1.4
49.0 92nd and Ewing Ave., Calumet River	0.3	0.3	0.3	0.3	0.3	0.3	0.5	ND	0.6	0.4	0.3
55.0 130th Street, Calumet River	0.5	0.5	0.5	0.4	0.5	0.6	0.6	0.7	1.4	0.7	0.5
56.0 Indiana Ave., Calumet River	3.2	4.0	1.6	1.0	1.0	2.2	1.5	1.2	1.0	1.0	0.4
76.0 Halsted Street, Little Cal. River	4.1	4.6	3.5	2.6	2.5	3.1	2.5	2.7	2.7	4.4	4.1
58.0 Ashland Ave., Cal-Sag Channel	3.6	3.8	3.3	2.5	2.4	2.6	2.7	2.4	2.6	3.9	3.4
59.0 Cicero Ave., Cal-Sag Channel	3.8	3.9	3.3	2.4	2.3	2.6	2.4	2.4	2.5	3.7	3.3
43.0 Hwy. 83 and Cal-Sag Channel	3.5	4.0	3.3	2.8	2.5	2.6	2.5	2.0	2.5	3.2	3.7
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	2.6	2.1	1.8	1.7	3.6	1.0	3.7	2.9	1.9	4.2	2.6
64.0 Lake St., Du Page River	8.5	7.9	8.2	8.7	9.8	5.3	8.2	7.5	8.2	9.7	10.2
89.0 Wanut Lane, West Branch Du Page River	8.3	8.9	7.9	8.6	10.7	5.7	8.8	8.0	8.4	9.9	10.2
90.0 Chicago-Elgin Rd., Poplar Creek	0.4	1.8	0.5	0.3	0.5	0.4	0.4	0.5	0.6	3.1	0.4
12.0 County Line Rd., Buffalo Creek	0.4	0.3	0.5	0.4	0.3	1.2	1.0	0.9	1.1	0.8	1.1
79.0 Higgins Rd., Salt Creek	0.5	0.3	0.3	0.3	0.3	0.3	1.3	0.7	0.6	0.5	1.5
80.0 Arlington Hts. Rd., Salt Creek	7.5	5.2	5.1	5.8	6.1	3.6	6.0	4.6	4.9	7.9	7.3
18.0 Devon Ave., Salt Creek	7.2	4.7	5.3	5.5	6.2	3.8	6.1	5.0	5.3	8.6	8.1
24.0 Wolf Road, Salt Creek	7.0	5.8	6.5	6.5	6.7	5.2	7.0	5.8	5.8	8.4	8.0
21.0 First Ave., Salt Creek	6.9	6.6	5.8	6.1	6.3	5.1	6.4	5.7	5.6	7.5	7.5
77.0 Elmhurst Rd., Higgins Creek	0.3	0.4	0.7	0.3	0.6	0.7	0.5	0.5	0.9	0.4	0.2
78.0 Wille Rd., Higgins Creek	7.0	5.9	4.4	5.0	5.4	4.0	5.2	3.9	3.8	4.9	4.1
13.0 County Line Rd., Des Plaines River	4.9	4.3	5.1	4.3	6.8	3.6	5.8	5.4	4.3	5.8	5.4
17.0 Oakton St., Des Plaines River	4.2	3.7	4.6	4.2	3.4	3.0	5.0	4.4	3.8	5.2	4.4
19.0 Belmont Ave., Des Plaines River	4.0	3.9	4.2	4.0	4.5	3.1	4.4	3.7	3.8	4.8	3.7
20.0 Roosevelt Road, Des Plaines River	3.8	3.7	4.0	3.9	4.4	2.8	4.1	3.6	3.8	4.4	3.5
22.0 Ogden Ave., Des Plaines River	4.7	4.5	4.2	4.4	4.6	3.4	4.7	3.8	4.2	5.2	4.9
23.0 Willow Springs Rd., Des Plaines River	4.6	4.4	4.3	4.2	4.3	3.5	4.2	3.8	4.1	4.8	4.0
29.0 Lemont Stephen St., Des Plaines River	4.6	4.5	4.3	4.5	4.3	3.6	4.2	3.8	4.0	4.7	4.0

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-41

TOTAL SOLIDS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	811	696	567	800	714	737	780	707	616
31.0 County Line Rd., Md. Fork N. Branch	749	727	763	689	670	718	648	638	650	762	533
32.0 County line Rd., Skokie River	772	840	819	693	758	699	718	667	765	805	630
34.0 Dempster St., N.B. Chicago River	729	859	860	692	760	673	707	706	660	661	645
74.0 Outer Dr. Bridge, Chicago River	320	235	237	230	216	320	226	252	251	203	219
35.0 Central Ave., N. Shore Channel	276	246	320	240	207	355	225	205	325	211	204
36.0 Touhy Ave., N. Shore Channel	529	512	511	552	488	435	567	441	462	533	405
37.0 Wilson Ave., N.B. Chicago River	596	585	557	611	522	665	428	469	470	573	431
73.0 Diversey Ave., N.B. Chicago River	592	622	590	565	514	577	446	514	490	558	451
46.0 Grand Ave., N.B. Chicago River	620	547	618	617	506	496	453	492	473	461	423
39.0 Madison St., S.B. Chicago River	492	370	418	391	355	405	346	388	441	469	344
40.0 Damen Ave., S.B. Chicago River	536	435	500	391	429	439	388	378	436	405	399
75.0 Cicero Ave., Chgo. San. and Ship Canal	547	435	525	499	424	432	338	421	466	418	397
41.0 Harlem Ave., Chgo. San. and Ship Canal	608	555	569	544	503	522	439	493	510	534	457
42.0 Hwy. 83 and Chgo. San. and Ship Canal	595	580	585	554	566	486	437	555	498	522	464
48.0 Lemont Bridge, Stephen Street (Comp)	623	617	628	580	596	608	507	630	546	531	523
82.0 Lockport Trebler	632	658	638	623	584	603	522	551	572	569	550
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	286	265	272	245	270	261	258	253	242	228	244
54.0 Joe Orr Road, Thorn Creek	1182	1273	1090	943	844	834	875	860	813	743	822
52.0 Wentworth Ave., Little Calumet River	740	814	818	662	887	780	825	738	773	892	902
57.0 135th and Ashland, Little Calumet River	782	918	923	817	774	724	814	771	765	835	793
86.0 Burnham Avenue, Grand Calumet River	990	940	1364	1183	1113	968	1063	1037	904	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	844	914
49.0 92nd and Ewing Ave., Calumet River	327	222	262	240	257	247	299	ND	353	266	233
55.0 130th Street, Calumet River	341	328	344	349	306	369	384	390	410	364	350
56.0 Indiana Ave., Calumet River	514	523	516	459	571	607	494	554	499	524	470
76.0 Halsted Street, Little Cal. River	589	647	734	649	673	714	625	667	694	700	663
58.0 Ashland Ave., Cal-Sag Channel	605	739	748	646	643	710	674	667	700	711	631
59.0 Cicero Ave., Cal-Sag Channel	639	734	721	686	641	697	658	618	700	716	662
43.0 Hwy. 83 and Cal-Sag Channel	673	717	733	643	691	781	760	569	682	704	662
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	827	1020	963	1027	770	1372	871	677	848	1216	720
64.0 Lake St., Du Page River	684	709	772	742	681	771	690	686	731	783	689
89.0 Wanut Lane, West Branch Du Page River	615	628	755	692	660	700	659	632	673	690	621
90.0 Chicago-Elgin Rd., Poplar Creek	810	776	845	709	648	625	694	653	653	727	605
12.0 County Line Rd., Buffalo Creek	753	802	842	777	778	819	817	779	772	874	755
79.0 Higgins Rd., Salt Creek	776	852	959	906	909	803	821	670	650	861	712
80.0 Arlington Hts. Rd., Salt Creek	709	781	828	721	746	675	726	715	683	718	852
18.0 Devon Ave., Salt Creek	734	861	846	719	639	724	745	736	690	780	705
24.0 Wolf Road, Salt Creek	955	833	943	846	790	826	883	934	886	1045	946
21.0 First Ave., Salt Creek	854	816	872	827	783	744	886	918	881	1042	914
77.0 Elmhurst Rd., Higgins Creek	1015	930	1081	992	1297	922	1024	653	726	787	680
78.0 Wille Rd., Higgins Creek	786	833	828	758	675	752	719	657	729	751	682
13.0 County Line Rd., Des Plaines River	714	713	731	695	740	606	684	739	691	824	722
17.0 Oakton St., Des Plaines River	738	717	808	698	607	614	684	721	659	806	649
19.0 Belmont Ave., Des Plaines River	720	765	802	747	762	657	727	715	675	844	657
20.0 Roosevelt Road, Des Plaines River	724	775	793	750	750	638	743	715	683	858	666
22.0 Ogden Ave., Des Plaines River	745	804	805	779	705	637	769	762	717	906	722
23.0 Willow Springs Rd., Des Plaines River	761	772	815	742	703	629	764	794	730	846	640
29.0 Lemont Stephen St., Des Plaines River	768	846	850	789	718	678	745	791	746	907	745

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-42

TOTAL DISSOLVED SOLIDS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	729	655	526	757	651	644	718	658	556
31.0 County Line Rd., Md. Fork N. Branch	713	705	715	658	650	671	617	575	610	677	495
32.0 County line Rd., Skokie River	757	827	795	661	744	651	685	623	733	717	582
34.0 Dempster St., N.B. Chicago River	697	832	858	661	739	635	667	681	630	603	606
74.0 Outer Dr. Bridge, Chicago River	315	227	221	219	209	300	216	243	241	191	210
35.0 Central Ave., N. Shore Channel	267	235	316	225	198	339	210	185	294	186	186
36.0 Touhy Ave., N. Shore Channel	519	502	503	539	475	423	549	427	451	502	389
37.0 Wilson Ave., N.B. Chicago River	585	572	551	597	512	651	414	451	454	557	410
73.0 Diversey Ave., N.B. Chicago River	577	610	578	549	504	555	429	502	454	544	423
46.0 Grand Ave., N.B. Chicago River	608	533	610	601	495	480	434	479	459	445	410
39.0 Madison St., S.B. Chicago River	480	359	410	370	344	387	329	374	428	459	332
40.0 Damen Ave., S.B. Chicago River	522	421	501	362	417	424	370	361	422	385	386
75.0 Cicero Ave., Chgo. San. and Ship Canal	533	421	510	480	408	413	320	405	447	397	385
41.0 Harlem Ave., Chgo. San. and Ship Canal	598	543	557	532	488	512	417	481	497	516	448
42.0 Hwy. 83 and Chgo. San. and Ship Canal	585	569	578	538	550	468	419	544	487	505	453
48.0 Lemont Bridge, Stephen Street (Comp)	607	601	624	551	577	579	478	611	524	511	502
82.0 Lockport Trebler	574	594	599	611	568	ND	505	533	552	556	535
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	275	257	258	231	248	253	245	245	232	222	240
54.0 Joe Orr Road, Thorn Creek	1167	1258	1080	923	818	795	863	843	780	729	807
52.0 Wentworth Ave., Little Calumet River	645	747	754	628	812	725	781	626	732	829	865
57.0 135th and Ashland, Little Calumet River	725	876	891	785	720	679	783	677	738	787	756
86.0 Burnham Avenue, Grand Calumet River	972	925	1181	1152	1075	930	999	1019	877	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	816	811
49.0 92nd and Ewing Ave., Calumet River	313	211	249	213	239	236	282	ND	339	255	223
55.0 130th Street, Calumet River	329	318	333	338	291	357	376	376	395	348	340
56.0 Indiana Ave., Calumet River	496	503	479	405	527	567	460	520	474	493	442
76.0 Halsted Street, Little Cal. River	564	626	717	622	643	690	603	648	676	685	647
58.0 Ashland Ave., Cal-Sag Channel	588	708	719	617	607	671	655	591	677	686	611
59.0 Cicero Ave., Cal-Sag Channel	614	706	682	636	596	658	630	543	669	683	640
43.0 Hwy. 83 and Cal-Sag Channel	649	675	688	604	646	715	727	508	649	677	640
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	804	994	880	942	740	1336	847	654	818	1193	678
64.0 Lake St., Du Page River	651	671	685	693	639	727	658	646	694	757	668
89.0 Walnut Lane, West Branch Du Page River	602	611	681	637	632	672	640	612	661	682	610
90.0 Chicago-Elgin Rd., Poplar Creek	792	726	723	683	626	588	667	626	638	696	592
12.0 County Line Rd., Buffalo Creek	726	765	769	747	731	771	788	724	696	822	662
79.0 Higgins Rd., Salt Creek	747	811	882	869	874	760	793	627	619	840	681
80.0 Arlington Hts. Rd., Salt Creek	701	766	811	704	734	660	715	704	669	712	607
18.0 Devon Ave., Salt Creek	721	825	799	701	620	703	733	721	676	764	682
24.0 Wolf Road, Salt Creek	931	785	877	794	742	767	828	858	844	967	910
21.0 First Ave., Salt Creek	828	763	789	798	733	666	847	848	837	998	879
77.0 Elmhurst Rd., Higgins Creek	992	900	975	909	1184	874	983	601	701	755	646
78.0 Wille Rd., Higgins Creek	774	821	786	723	649	734	708	644	724	744	678
13.0 County Line Rd., Des Plaines River	682	670	685	666	704	565	654	697	654	788	694
17.0 Oakton St., Des Plaines River	697	667	747	653	567	571	644	668	625	768	619
19.0 Belmont Ave., Des Plaines River	696	712	742	703	711	612	692	658	639	807	627
20.0 Roosevelt Road, Des Plaines River	699	725	742	713	709	589	708	671	648	822	640
22.0 Ogden Ave., Des Plaines River	718	747	753	743	659	576	734	711	680	833	695
23.0 Willow Springs Rd., Des Plaines River	723	728	755	703	657	588	726	750	686	798	604
29.0 Lemont Stephen St., Des Plaines River	729	800	780	747	662	621	695	736	699	856	710

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-43

TOTAL VOLATILE SOLIDS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	11.7	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	ND	4.3	6.6	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	ND	3.9	6.7	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	ND	5.8	5.0	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	ND	2.2	3.9	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	ND	2.8	4.5	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	ND	4.6	5.0	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	3.6	4.4	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	3.3	4.5	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	3.3	4.7	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	2.3	3.5	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	3.1	3.5	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	3.2	5.8	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	3.7	4.8	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	3.0	3.5	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	3.6	3.8	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	135.8	15.2	14.0	ND	ND	135.0	129.9	126.0	133.1	132.8	127.1
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	4.3	4.7	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	ND	3.1	3.3	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	ND	9.3	9.0	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	ND	7.8	5.0	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	ND	6.1	63.1	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	ND	2.0	2.6	ND	ND	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	ND	2.8	2.7	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	ND	4.4	5.8	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	6.3	3.0	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	6.2	4.9	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	5.0	6.3	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	9.2	6.9	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	7.0	14.9	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	ND	8.7	17.3	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	ND	5.9	15.8	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	ND	9.1	15.9	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	ND	7.1	13.4	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	ND	9.4	14.0	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	ND	4.4	7.2	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	ND	6.6	15.8	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	ND	8.6	13.8	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	ND	9.5	16.3	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	ND	5.9	16.4	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	ND	4.5	10.0	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	ND	7.3	9.4	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	ND	8.6	12.8	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	ND	9.2	11.8	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	ND	9.3	10.4	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	ND	9.6	10.8	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	ND	7.5	13.8	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	ND	8.4	13.8	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-44

TOTAL DISSOLVED VOLATILE SOLIDS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County Line Rd., Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	123.8	120.5	127.4	128.3	121.6
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-45

TOTAL SUSPENDED SOLIDS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	97.0	40.6	41.0	42.7	63.8	93.1	61.2	48.8	59.5
31.0 County Line Rd., Md. Fork N. Branch	36.2	22.7	32.0	30.9	20.3	47.7	31.0	63.2	39.7	85.5	38.3
32.0 County line Rd., Skokie River	15.2	13.2	23.9	32.6	13.9	47.9	33.5	44.2	32.4	88.3	47.5
34.0 Dempster St., N.B. Chicago River	31.8	27.4	22.5	31.0	20.8	38.5	40.3	25.0	30.3	58.3	39.1
74.0 Outer Dr. Bridge, Chicago River	5.3	8.6	14.9	11.2	6.3	19.1	10.2	8.8	10.4	11.2	8.5
35.0 Central Ave., N. Shore Channel	8.9	10.8	11.6	15.3	8.1	15.8	15.2	20.3	30.4	24.6	18.6
36.0 Touhy Ave., N. Shore Channel	10.3	9.4	11.5	13.7	12.2	12.0	17.7	13.3	11.5	30.8	15.2
37.0 Wilson Ave., N.B. Chicago River	10.6	12.3	13.1	14.8	9.6	13.8	13.9	17.9	15.3	16.7	20.9
73.0 Diversey Ave., N.B. Chicago River	14.9	11.8	18.7	16.3	10.0	21.8	16.2	11.5	35.7	13.6	27.3
46.0 Grand Ave., N.B. Chicago River	12.0	13.4	18.6	15.7	11.3	16.1	18.6	12.9	13.8	15.8	12.5
39.0 Madison St., S.B. Chicago River	12.3	11.1	14.8	21.1	11.4	18.2	17.0	14.0	12.5	10.0	11.8
40.0 Damen Ave., S.B. Chicago River	13.4	13.8	13.6	28.8	12.0	14.8	17.1	16.7	13.4	20.1	13.8
75.0 Cicero Ave., Chgo. San. and Ship Canal	13.7	14.2	16.8	18.5	16.1	19.7	17.9	15.8	19.4	20.3	12.4
41.0 Harlem Ave., Chgo. San. and Ship Canal	10.0	12.2	14.3	11.8	15.7	10.2	21.5	11.2	13.4	17.8	8.8
42.0 Hwy. 83 and Chgo. San. and Ship Canal	10.5	11.2	9.0	15.3	15.5	17.1	18.3	11.7	10.7	17.7	10.8
48.0 Lemont Bridge, Stephen Street (Comp)	15.3	15.9	17.5	29.3	18.5	29.3	29.8	19.2	22.4	19.6	21.0
82.0 Lockport Trebler	57.4	64.3	38.3	12.1	15.3	15.5	16.2	18.6	20.5	13.5	15.4
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	10.7	8.2	14.3	14.2	22.3	8.1	12.9	8.1	9.8	6.5	4.3
54.0 Joe Orr Road, Thorn Creek	15.2	14.6	9.8	19.5	26.5	38.4	12.0	17.2	33.3	13.8	14.8
52.0 Wentworth Ave., Little Calumet River	94.4	67.2	64.1	33.6	74.3	55.3	43.5	111.8	40.9	63.4	36.5
57.0 135th and Ashland, Little Calumet River	57.3	42.0	31.9	32.0	54.2	44.7	30.1	93.7	27.0	47.9	36.8
86.0 Burnham Avenue, Grand Calumet River	18.2	14.6	182.6	30.9	38.1	38.8	64.2	17.5	26.6	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	28.4	103.1
49.0 92nd and Ewing Ave., Calumet River	15.3	10.8	14.5	27.7	17.8	10.5	17.6	ND	14.0	11.2	10.3
55.0 130th Street, Calumet River	10.4	12.3	12.8	10.7	15.8	11.3	7.3	13.9	14.4	15.9	9.7
56.0 Indiana Ave., Calumet River	18.0	24.5	37.3	53.4	43.2	40.1	33.7	34.0	25.3	30.9	28.2
76.0 Halsted Street, Little Cal. River	20.7	26.3	17.3	26.6	29.7	24.0	22.1	18.4	18.2	15.0	16.0
58.0 Ashland Ave., Cal-Sag Channel	18.9	35.4	29.7	29.2	35.5	38.2	19.3	76.2	23.5	25.3	20.4
59.0 Cicero Ave., Cal-Sag Channel	27.6	28.5	39.7	48.2	44.7	39.4	27.4	75.3	31.0	32.8	22.0
43.0 Hwy. 83 and Cal-Sag Channel	24.3	40.0	46.6	39.9	45.4	66.2	32.6	61.0	32.7	26.4	22.7
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	22.6	25.6	83.0	85.0	29.9	35.8	23.7	23.4	30.0	22.8	41.8
64.0 Lake St., Du Page River	32.8	37.7	86.5	48.7	42.3	44.1	32.4	40.6	36.7	25.3	20.4
89.0 Walnut Lane, West Branch Du Page River	13.5	16.8	74.1	55.0	27.3	28.3	18.9	19.3	11.8	8.7	11.0
90.0 Chicago-Elgin Rd., Poplar Creek	17.7	49.6	122.1	25.8	21.7	36.2	26.9	27.3	14.7	30.9	13.2
12.0 County Line Rd., Buffalo Creek	27.4	36.7	72.3	30.5	46.6	48.2	29.3	54.1	76.0	52.9	92.6
79.0 Higgins Rd., Salt Creek	29.0	41.0	77.5	37.4	34.9	43.1	27.5	42.6	31.7	21.6	31.2
80.0 Arlington Hts. Rd., Salt Creek	8.5	14.8	17.5	16.4	12.1	14.5	11.3	10.3	13.4	5.9	244.5
18.0 Devon Ave., Salt Creek	13.8	35.8	47.1	18.2	18.9	20.8	12.5	14.5	14.1	16.1	22.9
24.0 Wolf Road, Salt Creek	24.7	48.4	66.6	51.5	47.8	58.6	54.9	76.2	42.5	78.1	36.6
21.0 First Ave., Salt Creek	26.3	52.9	83.0	28.6	50.5	78.3	39.3	69.9	43.7	44.0	35.6
77.0 Elmhurst Rd., Higgins Creek	22.8	30.1	105.9	83.5	113.1	48.1	40.9	52.0	24.6	32.7	34.0
78.0 Wille Rd., Higgins Creek	11.9	12.8	42.3	34.7	26.0	18.1	11.6	13.4	5.3	6.8	4.1
13.0 County Line Rd., Des Plaines River	32.3	42.4	45.2	28.3	36.2	41.1	29.7	41.8	36.7	36.2	27.6
17.0 Oakton St., Des Plaines River	40.5	50.3	60.9	44.8	40.3	43.3	40.2	52.8	33.8	37.2	29.8
19.0 Belmont Ave., Des Plaines River	24.0	53.3	60.3	44.8	50.6	45.4	35.8	56.4	35.3	36.6	30.0
20.0 Roosevelt Road, Des Plaines River	25.0	50.1	51.1	37.1	41.1	49.3	35.0	44.2	34.4	35.8	26.6
22.0 Ogden Ave., Des Plaines River	27.6	56.9	52.2	36.0	45.9	61.1	35.3	51.2	36.3	72.8	27.3
23.0 Willow Springs Rd., Des Plaines River	37.9	44.1	59.9	39.3	46.3	41.3	38.4	44.3	44.3	47.8	36.0
29.0 Lemont Stephen St., Des Plaines River	38.6	46.1	70.0	42.6	56.4	57.4	49.8	55.8	47.5	51.0	34.6

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-46

VOLATILE SUSPENDED SOLIDS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	7.2	9.5	15.8	11.1	13.6	9.9
31.0 County Line Rd., Md. Fork N. Branch	6.3	ND	ND	ND	ND	8.8	6.4	14.9	6.1	17.6	6.5
32.0 County line Rd., Skokie River	3.5	ND	ND	ND	ND	8.8	8.1	9.9	5.8	19.6	8.6
34.0 Dempster St., N.B. Chicago River	6.4	ND	ND	ND	ND	7.5	8.3	6.6	5.4	13.0	7.3
74.0 Outer Dr. Bridge, Chicago River	1.5	ND	ND	ND	ND	4.3	2.7	2.3	2.0	3.7	2.4
35.0 Central Ave., N. Shore Channel	2.3	ND	ND	ND	ND	2.8	2.7	3.5	4.9	3.6	2.7
36.0 Touhy Ave., N. Shore Channel	4.1	ND	ND	ND	ND	5.4	5.7	4.7	4.3	16.8	6.7
37.0 Wilson Ave., N.B. Chicago River	3.0	ND	ND	ND	ND	4.5	5.3	5.4	4.4	6.9	6.2
73.0 Diversey Ave., N.B. Chicago River	3.3	ND	ND	ND	ND	5.6	4.1	4.3	10.2	5.0	7.0
46.0 Grand Ave., N.B. Chicago River	2.8	ND	ND	ND	ND	4.6	4.7	4.1	3.7	5.4	4.7
39.0 Madison St., S.B. Chicago River	3.3	ND	ND	ND	ND	4.1	4.4	3.9	3.0	3.0	3.7
40.0 Damen Ave., S.B. Chicago River	3.2	ND	ND	ND	ND	3.7	4.1	3.5	3.4	5.7	5.0
75.0 Cicero Ave., Chgo. San. and Ship Canal	3.2	ND	ND	ND	ND	4.3	3.6	4.3	4.1	6.3	3.4
41.0 Harlem Ave., Chgo. San. and Ship Canal	3.2	ND	ND	ND	ND	3.4	5.3	3.6	4.0	7.0	3.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	3.1	ND	ND	ND	ND	4.7	5.7	3.4	3.1	6.3	3.8
48.0 Lemont Bridge, Stephen Street (Comp)	3.4	ND	ND	ND	ND	5.9	6.0	5.4	4.8	8.0	6.0
82.0 Lockport Trebler	12.1	ND	ND	5.3	6.3	6.4	6.1	5.5	5.6	4.5	5.5
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	4.3	ND	ND	ND	ND	4.5	5.4	4.9	5.4	3.5	2.6
54.0 Joe Orr Road, Thorn Creek	4.2	ND	ND	ND	ND	5.4	3.3	4.3	6.7	3.1	3.4
52.0 Wentworth Ave., Little Calumet River	17.0	ND	ND	ND	ND	8.0	6.6	13.8	6.4	7.6	8.5
57.0 135th and Ashland, Little Calumet River	9.3	ND	ND	ND	ND	6.3	6.1	12.5	4.7	7.8	6.3
86.0 Burnham Avenue, Grand Calumet River	7.8	ND	ND	ND	ND	13.8	9.4	8.6	12.3	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.7	75.8
49.0 92nd and Ewing Ave., Calumet River	2.2	ND	ND	ND	ND	2.3	3.0	ND	2.0	3.2	2.4
55.0 130th Street, Calumet River	2.0	ND	ND	ND	ND	3.7	2.0	2.6	2.8	4.2	3.2
56.0 Indiana Ave., Calumet River	3.4	ND	ND	ND	ND	7.7	5.1	6.1	4.4	6.9	7.9
76.0 Halsted Street, Little Cal. River	7.5	ND	ND	ND	ND	5.8	4.8	5.3	6.4	4.9	6.5
58.0 Ashland Ave., Cal-Sag Channel	3.4	ND	ND	ND	ND	7.3	4.0	10.9	5.3	6.3	6.6
59.0 Cicero Ave., Cal-Sag Channel	5.0	ND	ND	ND	ND	6.4	5.8	10.8	6.3	7.0	6.8
43.0 Hwy. 83 and Cal-Sag Channel	4.3	ND	ND	ND	ND	8.4	5.8	9.3	5.8	6.7	7.1
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	6.3	ND	ND	ND	ND	8.9	7.3	6.0	5.5	5.4	10.7
64.0 Lake St., Du Page River	8.2	ND	ND	ND	ND	9.6	7.5	10.6	6.0	5.1	5.8
89.0 Wanut Lane, West Branch Du Page River	5.5	ND	ND	ND	ND	6.8	4.6	6.3	2.9	3.2	3.9
90.0 Chicago-Elgin Rd., Poplar Creek	4.0	ND	ND	ND	ND	7.0	5.9	6.4	3.3	6.7	4.5
12.0 County Line Rd., Buffalo Creek	5.6	ND	ND	ND	ND	10.7	6.4	9.4	10.2	11.6	20.3
79.0 Higgins Rd., Salt Creek	8.7	ND	ND	ND	ND	9.4	6.5	8.4	7.3	6.5	9.0
80.0 Arlington Hts. Rd., Salt Creek	3.7	ND	ND	ND	ND	4.4	3.8	3.8	3.6	2.4	180.5
18.0 Devon Ave., Salt Creek	3.4	ND	ND	ND	ND	6.4	4.2	4.4	3.4	3.6	5.4
24.0 Wolf Road, Salt Creek	5.2	ND	ND	ND	ND	10.1	8.6	11.2	6.3	10.6	8.3
21.0 First Ave., Salt Creek	4.5	ND	ND	ND	ND	12.3	7.3	10.7	6.9	8.7	8.7
77.0 Elmhurst Rd., Higgins Creek	4.9	ND	ND	ND	ND	8.4	7.6	9.0	5.5	9.8	9.6
78.0 Wille Rd., Higgins Creek	3.8	ND	ND	ND	ND	4.7	3.9	3.5	2.1	3.4	2.5
13.0 County Line Rd., Des Plaines River	6.5	ND	ND	ND	ND	7.4	5.7	8.0	6.7	6.8	5.9
17.0 Oakton St., Des Plaines River	8.3	ND	ND	ND	ND	8.8	7.7	9.4	5.7	7.7	8.1
19.0 Belmont Ave., Des Plaines River	5.1	ND	ND	ND	ND	8.3	6.8	9.5	6.3	8.4	7.8
20.0 Roosevelt Road, Des Plaines River	4.5	ND	ND	ND	ND	8.7	6.7	7.8	5.8	8.6	6.4
22.0 Ogden Ave., Des Plaines River	5.4	ND	ND	ND	ND	11.0	6.5	8.8	6.3	9.0	9.3
23.0 Willow Springs Rd., Des Plaines River	7.3	ND	ND	ND	ND	8.3	8.8	9.3	8.1	13.1	11.6
29.0 Lemont Stephen St., Des Plaines River	8.4	ND	ND	ND	ND	11.1	10.5	10.9	8.3	11.5	10.0

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-47

TOTAL ORGANIC CARBON MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	10.8	8.6	8.0	16.6	11.3	13.2	19.8	17.6	14.0
31.0 County Line Rd., Md. Fork N. Branch	11.7	11.4	15.3	10.7	10.9	10.8	11.7	16.0	22.4	16.1	14.8
32.0 County line Rd., Skokie River	13.8	12.8	13.8	10.9	11.0	9.8	10.8	16.3	22.3	16.7	16.9
34.0 Dempster St., N.B. Chicago River	11.6	12.8	12.8	8.9	9.3	9.2	9.8	13.2	19.0	15.9	12.3
74.0 Outer Dr. Bridge, Chicago River	5.2	7.9	6.3	4.7	4.2	4.3	5.3	6.7	9.3	10.8	6.6
35.0 Central Ave., N. Shore Channel	7.0	7.7	9.1	5.0	4.3	4.3	4.9	6.5	15.5	5.1	7.0
36.0 Touhy Ave., N. Shore Channel	9.1	14.0	11.9	8.2	8.7	8.2	9.3	10.5	13.3	14.8	11.9
37.0 Wilson Ave., N.B. Chicago River	9.3	11.9	13.0	8.3	8.1	9.3	10.2	11.5	13.5	15.7	12.3
73.0 Diversey Ave., N.B. Chicago River	9.2	13.3	12.1	8.4	8.3	8.6	9.2	11.8	11.7	15.4	12.1
46.0 Grand Ave., N.B. Chicago River	9.0	10.4	12.2	9.0	8.9	11.2	9.3	9.4	14.3	15.8	11.4
39.0 Madison St., S.B. Chicago River	7.3	7.8	9.9	6.0	8.4	7.4	7.0	10.2	14.4	13.7	8.8
40.0 Damen Ave., S.B. Chicago River	7.8	10.7	10.5	7.0	6.8	7.3	7.8	9.6	13.6	14.3	10.4
75.0 Cicero Ave., Chgo. San. and Ship Canal	10.3	9.5	10.7	7.0	6.9	7.2	7.4	10.0	13.8	14.6	14.8
41.0 Harlem Ave., Chgo. San. and Ship Canal	13.7	11.2	12.2	7.7	8.3	8.6	8.8	10.8	14.8	15.7	12.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	11.8	15.0	12.3	7.8	8.8	8.7	8.8	11.6	14.2	16.5	12.6
48.0 Lemont Bridge, Stephen Street (Comp)	12.1	11.8	12.3	9.0	9.0	9.6	9.6	12.8	12.4	17.8	12.9
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	6.7	8.3	8.7	7.3	8.3	7.4	8.5	8.4	8.8	10.5	9.0
54.0 Joe Orr Road, Thorn Creek	11.2	13.5	16.2	12.0	11.9	12.1	12.2	11.0	14.6	17.5	15.5
52.0 Wentworth Ave., Little Calumet River	11.8	18.3	15.4	11.1	11.1	11.4	12.8	12.5	14.6	15.7	20.4
57.0 135th and Ashland, Little Calumet River	10.1	13.4	14.4	10.5	11.0	10.9	12.3	12.2	15.0	16.1	15.3
86.0 Burnham Avenue, Grand Calumet River	11.2	18.3	19.5	14.3	15.3	13.3	15.4	14.2	19.3	ND	ND
51.0 IHR R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.9	45.1
49.0 92nd and Ewing Ave., Calumet River	4.4	7.3	6.7	4.9	4.4	4.3	5.0	ND	6.0	7.8	7.1
55.0 130th Street, Calumet River	5.6	7.4	6.9	5.5	5.0	5.6	6.3	6.2	8.5	8.1	9.0
56.0 Indiana Ave., Calumet River	6.7	11.2	9.3	6.9	7.7	8.3	7.8	8.3	10.0	10.8	12.5
76.0 Halsted Street, Little Cal. River	9.1	13.5	13.8	9.4	9.9	10.0	10.9	13.8	13.3	15.9	15.8
58.0 Ashland Ave., Cal-Sag Channel	8.7	14.5	11.9	9.6	9.3	9.8	11.3	11.5	12.8	16.4	16.6
59.0 Cicero Ave., Cal-Sag Channel	10.0	13.4	12.8	11.1	10.4	10.3	11.3	11.8	12.8	17.6	16.3
43.0 Hwy. 83 and Cal-Sag Channel	9.7	12.3	11.9	11.1	10.0	10.0	10.8	11.0	12.7	15.8	15.8
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	14.4	14.4	15.2	12.0	13.3	12.8	14.0	12.8	14.8	16.9	16.4
64.0 Lake St., Du Page River	12.0	12.7	13.4	10.8	11.8	11.6	12.0	15.1	14.0	16.8	14.9
89.0 Wanut Lane, West Branch Du Page River	14.1	12.4	14.2	11.0	11.8	11.8	11.8	15.1	13.4	15.7	16.4
90.0 Chicago-Elgin Rd., Poplar Creek	9.9	10.9	13.7	11.4	10.3	10.8	10.9	15.3	11.8	14.9	16.2
12.0 County Line Rd., Buffalo Creek	12.3	12.2	15.2	11.9	11.1	11.7	11.5	15.3	13.3	16.4	15.9
79.0 Higgins Rd., Salt Creek	11.2	12.1	15.6	10.8	10.9	9.7	10.4	12.4	11.6	13.9	14.1
80.0 Arlington Hts. Rd., Salt Creek	11.0	12.3	13.6	10.5	9.9	9.9	10.6	12.8	11.6	14.3	13.9
18.0 Devon Ave., Salt Creek	10.8	12.5	14.1	10.1	9.9	10.0	10.7	9.9	11.8	13.9	13.3
24.0 Wolf Road, Salt Creek	10.5	10.1	13.3	9.8	9.5	9.3	10.2	9.9	11.3	15.0	14.5
21.0 First Ave., Salt Creek	10.0	9.9	12.7	9.4	9.5	8.8	10.2	11.4	11.5	15.1	15.3
77.0 Elmhurst Rd., Higgins Creek	11.0	11.0	14.5	10.5	11.1	8.5	10.5	11.2	15.0	14.8	15.3
78.0 Wille Rd., Higgins Creek	12.0	12.8	13.0	11.3	10.7	10.2	10.6	12.0	11.5	15.3	13.5
13.0 County Line Rd., Des Plaines River	11.0	12.8	13.3	11.7	10.4	10.5	12.0	13.3	13.2	15.9	17.2
17.0 Oakton St., Des Plaines River	10.8	12.8	13.5	11.0	9.7	10.0	11.6	12.6	12.8	15.2	14.6
19.0 Belmont Ave., Des Plaines River	11.2	11.7	14.0	10.8	10.8	10.0	11.9	12.4	13.7	18.0	16.9
20.0 Roosevelt Road, Des Plaines River	11.4	11.9	14.2	11.1	10.9	9.8	13.1	13.4	12.9	16.0	14.5
22.0 Ogden Ave., Des Plaines River	10.8	12.4	14.2	10.5	10.2	9.8	11.1	13.0	12.9	15.2	15.9
23.0 Willow Springs Rd., Des Plaines River	10.5	12.1	11.9	9.9	10.6	9.3	10.7	13.4	12.4	17.4	17.0
29.0 Lemont Stephen St., Des Plaines River	11.4	13.5	13.6	10.5	10.5	9.6	10.4	13.0	11.8	15.5	14.9

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-48

FECAL COLIFORM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Geometric Means (counts/100 ml)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	2228	2476	3098	3103	670	221	590	61	236
31.0 County Line Rd., Md. Fork N. Branch	1210	2139	1556	1815	2089	1799	1433	2756	1312	1769	1042
32.0 County line Rd., Skokie River	1718	2903	2578	6993	8480	25862	5746	11391	7493	8826	4878
34.0 Dempster St., N.B. Chicago River	878	769	1851	1507	1083	1459	1329	807	948	999	999
74.0 Outer Dr. Bridge, Chicago River	62	37	38	59	54	47	34	19	48	22	57
35.0 Central Ave., N. Shore Channel	241	88	366	642	107	200	32	116	1374	144	184
36.0 Touhy Ave., N. Shore Channel	6963	10671	12203	11261	12771	7266	10352	10058	15866	9809	9525
37.0 Wilson Ave., N.B. Chicago River	7000	7034	7007	10755	10780	7966	12231	11722	17764	13480	15812
73.0 Diversey Ave., N.B. Chicago River	3796	4454	4773	5378	8197	8528	8180	10083	15323	7766	14666
46.0 Grand Ave., N.B. Chicago River	1636	3288	1711	2413	2986	5927	3029	2039	4257	3874	6652
39.0 Madison St., S.B. Chicago River	800	838	380	1491	1110	2188	1279	712	2837	1436	3662
40.0 Damen Ave., S.B. Chicago River	510	543	441	1444	369	1169	1307	538	1694	631	1037
75.0 Cicero Ave., Chgo. San. and Ship Canal	352	245	481	1037	352	1053	1317	302	901	565	413
41.0 Harlem Ave., Chgo. San. and Ship Canal	5427	5730	5361	3750	3231	8150	5962	4330	5955	5781	3872
42.0 Hwy. 83 and Chgo. San. and Ship Canal	1300	1941	951	1815	1407	1520	1716	732	888	1167	1373
48.0 Lemont Bridge, Stephen Street (Comp)	849	867	948	1160	1154	1197	2379	1022	1021	856	1283
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	13	18	9	13	18	15	16	35	19	13	13
54.0 Joe Orr Road, Thorn Creek	1132	6513	3287	3992	2555	3651	7213	24375	2530	628	143
52.0 Wentworth Ave., Little Calumet River	2033	1402	1242	1264	1416	4149	2452	9966	3777	3168	2353
57.0 135th and Ashland, Little Calumet River	1724	2531	1683	1328	2040	3258	759	3678	2406	1369	845
86.0 Burnham Avenue, Grand Calumet River	4325	1849	3383	3551	2874	3904	2431	11975	6460	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	15094	18938
49.0 92nd and Ewing Ave., Calumet River	27	13	21	49	66	36	12	ND	10	38	20
55.0 130th Street, Calumet River	26	30	47	54	118	40	17	37	58	29	37
56.0 Indiana Ave., Calumet River	130	78	167	120	192	265	75	293	193	531	233
76.0 Halsted Street, Little Cal. River	3747	2927	7302	4806	6861	7964	6254	10473	10326	9949	4774
58.0 Ashland Ave., Cal-Sag Channel	2220	4858	4189	6904	4932	5363	4224	7368	8342	5597	4143
59.0 Cicero Ave., Cal-Sag Channel	749	2165	2823	1964	3140	2911	2848	4999	5249	3434	2493
43.0 Hwy. 83 and Cal-Sag Channel	201	227	654	466	629	1054	437	1852	1059	707	376
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	603	1624	6965	1113	1478	1575	445	604	902	236	497
64.0 Lake St., Du Page River	1083	1564	6738	1750	3409	3522	973	1696	465	108	102
89.0 Wanut Lane, West Branch Du Page River	666	1816	7295	1903	2319	2612	518	881	373	24	39
90.0 Chicago-Elgin Rd., Poplar Creek	136	355	388	776	410	417	125	198	126	76	388
12.0 County Line Rd., Buffalo Creek	186	504	722	402	718	301	97	360	147	178	583
79.0 Higgins Rd., Salt Creek	52	97	307	69	112	1041	138	298	136	57	55
80.0 Arlington Hts. Rd., Salt Creek	260	725	632	1050	552	490	640	465	354	35	50
18.0 Devon Ave., Salt Creek	1154	845	2137	1431	2030	1248	894	1235	489	306	352
24.0 Wolf Road, Salt Creek	1038	2552	2257	2166	1198	2655	705	1924	574	257	356
21.0 First Ave., Salt Creek	653	1211	2706	1070	1282	7453	1341	6146	2575	4434	2133
77.0 Elmhurst Rd., Higgins Creek	267	498	2404	1333	1016	795	120	1142	265	155	267
78.0 Wille Rd., Higgins Creek	181	489	1019	399	804	858	100	437	244	24	24
13.0 County Line Rd., Des Plaines River	392	735	945	698	637	780	82	384	260	148	156
17.0 Oakton St., Des Plaines River	360	876	1652	613	894	1377	208	1054	307	2664	1413
19.0 Belmont Ave., Des Plaines River	574	1780	4059	3442	2511	3047	963	8629	896	1950	2379
20.0 Roosevelt Road, Des Plaines River	725	1979	3175	3101	1762	5012	1178	4915	3309	2879	2451
22.0 Ogden Ave., Des Plaines River	538	1722	4029	1666	848	5337	1162	3199	2355	1820	1951
23.0 Willow Springs Rd., Des Plaines River	423	533	1020	458	696	2856	678	1786	1430	1111	787
29.0 Lemont Stephen St., Des Plaines River	241	921	405	305	325	2006	335	633	845	180	121

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-49

pH MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	7.9	8.0	7.9	7.4	7.4	7.7	7.5	7.4	7.2
31.0 County Line Rd., Md. Fork N. Branch	7.8	6.8	7.9	8.0	7.6	7.6	7.4	7.9	7.6	7.5	7.3
32.0 County line Rd., Skokie River	7.8	6.7	7.9	8.1	7.5	7.4	7.5	7.8	7.5	7.7	7.5
34.0 Dempster St., N.B. Chicago River	7.7	6.8	7.7	7.9	7.4	7.4	7.4	8.1	7.4	7.7	7.4
74.0 Outer Dr. Bridge, Chicago River	8.1	8.0	7.9	7.5	8.1	8.0	7.6	7.6	7.7	7.9	7.1
35.0 Central Ave., N. Shore Channel	8.2	7.0	8.1	8.4	8.1	7.9	7.9	8.3	7.7	7.9	7.7
36.0 Touhy Ave., N. Shore Channel	7.5	6.9	7.6	7.6	7.5	7.5	7.6	7.9	7.4	7.4	7.3
37.0 Wilson Ave., N.B. Chicago River	7.7	7.0	7.7	7.4	7.0	7.2	7.5	7.9	7.4	7.4	7.3
73.0 Diversey Ave., N.B. Chicago River	7.8	7.2	7.9	7.2	7.3	7.5	7.2	7.8	7.5	7.3	7.2
46.0 Grand Ave., N.B. Chicago River	7.8	6.5	7.6	7.6	7.5	7.6	7.2	7.5	7.4	7.3	7.2
39.0 Madison St., S.B. Chicago River	7.9	7.8	7.5	7.4	7.6	7.7	7.3	7.8	7.3	7.6	7.3
40.0 Damen Ave., S.B. Chicago River	8.1	7.5	7.7	7.3	7.9	7.6	7.5	7.6	7.5	7.3	7.1
75.0 Cicero Ave., Chgo. San. and Ship Canal	8.0	7.9	7.8	7.2	7.6	7.2	7.2	7.2	7.5	7.4	7.3
41.0 Harlem Ave., Chgo. San. and Ship Canal	8.0	7.4	7.4	7.1	7.5	7.4	7.3	7.3	7.2	7.3	7.2
42.0 Hwy. 83 and Chgo. San. and Ship Canal	8.0	7.5	7.5	7.3	7.5	7.4	7.3	7.4	7.4	7.3	7.2
48.0 Lemont Bridge, Stephen Street (Comp)	8.0	7.6	7.5	7.5	7.5	7.5	7.3	7.4	7.4	7.2	7.1
82.0 Lockport Trebler	7.6	7.8	7.6	7.4	7.7	7.4	7.5	7.8	7.7	7.7	7.7
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	8.3	7.9	8.3	8.1	7.7	7.7	7.8	7.8	7.8	7.9	7.4
54.0 Joe Orr Road, Thorn Creek	7.5	7.1	7.5	7.7	7.3	7.4	7.7	7.6	7.1	7.5	7.2
52.0 Wentworth Ave., Little Calumet River	8.1	7.7	8.7	8.0	7.6	7.5	7.6	7.9	7.3	7.6	7.4
57.0 135th and Ashland, Little Calumet River	7.7	7.0	7.3	7.6	7.4	7.5	7.4	7.7	7.4	7.6	7.4
86.0 Burnham Avenue, Grand Calumet River	7.9	7.5	8.0	7.5	7.2	7.5	7.4	7.4	7.2	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.4	7.4
49.0 92nd and Ewing Ave., Calumet River	8.3	7.9	8.0	7.7	7.9	7.7	7.4	ND	7.5	7.7	7.4
55.0 130th Street, Calumet River	8.1	7.9	8.3	8.3	7.9	7.4	7.5	7.7	7.7	7.9	7.7
56.0 Indiana Ave., Calumet River	8.0	7.7	8.3	8.2	7.3	7.2	7.2	7.6	7.6	7.8	7.4
76.0 Halsted Street, Little Cal. River	7.6	7.5	7.3	7.7	7.5	7.4	7.5	7.6	7.3	7.5	7.3
58.0 Ashland Ave., Cal-Sag Channel	7.9	7.8	7.3	7.7	7.6	7.4	7.5	7.6	7.2	7.5	7.4
59.0 Cicero Ave., Cal-Sag Channel	7.7	7.4	7.4	7.5	7.4	7.5	7.3	7.5	7.2	7.5	7.4
43.0 Hwy. 83 and Cal-Sag Channel	7.7	7.6	7.4	7.3	7.4	7.3	6.9	7.4	7.1	7.5	7.3
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	8.1	7.7	7.9	8.0	7.8	7.5	7.6	7.9	7.7	7.4	7.3
64.0 Lake St., Du Page River	8.1	7.9	8.1	7.9	7.8	7.6	7.6	7.8	7.3	7.5	7.3
89.0 Wanut Lane, West Branch Du Page River	7.9	7.7	7.9	7.8	7.8	7.5	7.5	7.7	7.3	7.4	7.3
90.0 Chicago-Elgin Rd., Poplar Creek	8.2	7.9	7.9	8.0	7.9	7.7	7.7	8.2	7.8	7.7	7.8
12.0 County Line Rd., Buffalo Creek	7.9	7.8	7.6	7.9	7.0	7.7	7.2	7.8	7.9	7.9	7.7
79.0 Higgins Rd., Salt Creek	8.3	8.1	7.7	8.1	7.7	7.9	7.6	8.2	7.7	7.7	7.5
80.0 Arlington Hts. Rd., Salt Creek	8.0	7.9	7.7	8.0	7.8	7.9	7.5	7.8	7.7	7.5	7.4
18.0 Devon Ave., Salt Creek	7.9	7.8	7.7	7.9	7.3	7.6	7.5	7.8	7.6	7.6	7.4
24.0 Wolf Road, Salt Creek	7.9	6.8	7.7	8.2	7.9	6.6	7.9	7.6	7.7	7.6	7.4
21.0 First Ave., Salt Creek	7.7	7.7	7.9	7.6	7.6	6.9	7.3	7.3	7.6	7.6	7.4
77.0 Elmhurst Rd., Higgins Creek	7.8	6.9	7.8	8.1	7.6	7.1	7.8	7.6	7.9	7.4	7.6
78.0 Wille Rd., Higgins Creek	7.7	6.7	7.8	8.1	7.8	7.0	7.7	7.6	7.7	7.5	7.3
13.0 County Line Rd., Des Plaines River	7.9	7.9	8.0	7.7	7.4	7.7	7.2	7.5	7.8	7.6	7.5
17.0 Oakton St., Des Plaines River	7.8	7.9	8.0	8.2	8.1	7.0	7.7	7.4	8.0	7.6	7.6
19.0 Belmont Ave., Des Plaines River	7.7	8.0	8.1	7.9	7.8	6.9	7.6	7.5	7.9	7.6	7.6
20.0 Roosevelt Road, Des Plaines River	7.7	7.8	7.9	7.9	7.6	7.0	7.5	7.5	7.7	7.7	7.4
22.0 Ogden Ave., Des Plaines River	7.6	7.9	7.9	7.4	7.5	7.2	7.0	7.2	7.6	7.7	7.6
23.0 Willow Springs Rd., Des Plaines River	7.9	6.5	7.9	8.3	8.1	6.6	7.8	7.6	8.0	7.9	7.6
29.0 Lemont Stephen St., Des Plaines River	8.0	6.7	8.0	8.4	8.2	6.7	7.5	7.8	7.7	7.8	7.6

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-50

CONDUCTIVITY MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (umhos/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	930	1109	1172	1034	982	993	821	871	917	877	746
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-51

CHLORIDE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	197.5	181.7	116.0	246.8	152.4	155.7	170.3	174.5	106.5
31.0 County Line Rd., Md. Fork N. Branch	180.0	210.5	198.0	199.4	163.6	133.0	136.1	113.4	132.1	161.6	93.3
32.0 County line Rd., Skokie River	182.5	249.8	214.6	172.4	167.0	164.9	163.4	137.5	178.8	194.7	141.7
34.0 Dempster St., N.B. Chicago River	181.8	262.8	259.6	184.4	228.3	162.9	168.2	185.5	163.7	177.0	132.8
74.0 Outer Dr. Bridge, Chicago River	64.1	28.3	27.4	30.9	23.0	81.8	23.8	21.3	25.9	16.4	20.5
35.0 Central Ave., N. Shore Channel	34.3	23.3	48.6	22.0	14.0	76.2	12.9	11.4	33.0	9.9	12.3
36.0 Touhy Ave., N. Shore Channel	109.8	116.2	115.2	149.3	125.1	84.1	66.3	86.8	84.1	121.0	68.5
37.0 Wilson Ave., N.B. Chicago River	132.5	177.7	139.0	177.6	130.4	203.3	81.0	100.4	88.6	141.4	78.3
73.0 Diversey Ave., N.B. Chicago River	129.3	183.8	143.0	148.7	125.6	150.0	83.8	116.1	90.9	142.8	83.0
46.0 Grand Ave., N.B. Chicago River	150.4	133.4	161.0	167.0	121.1	109.8	91.8	106.5	89.3	113.0	90.9
39.0 Madison St., S.B. Chicago River	107.8	77.9	85.8	88.0	68.8	87.5	59.8	77.6	81.8	70.5	66.7
40.0 Damen Ave., S.B. Chicago River	136.1	98.1	122.3	84.4	99.3	93.8	82.5	78.8	83.3	92.0	87.3
75.0 Cicero Ave., Chgo. San. and Ship Canal	149.0	104.9	113.8	113.6	97.8	119.8	57.6	81.6	88.6	79.7	82.3
41.0 Harlem Ave., Chgo. San. and Ship Canal	143.3	137.3	129.9	136.3	115.9	106.8	75.2	108.2	97.4	127.0	93.4
42.0 Hwy. 83 and Chgo. San. and Ship Canal	147.3	156.7	144.9	137.5	136.7	107.3	83.7	146.2	95.1	108.9	97.4
48.0 Lemont Bridge, Stephen Street (Comp)	149.0	155.1	158.4	132.2	136.8	129.5	97.7	152.1	99.8	126.2	107.5
82.0 Lockport Trebler	134.0	152.7	124.1	154.7	151.8	153.0	122.5	149.3	126.6	170.1	108.4
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	29.5	34.8	31.1	34.0	40.2	38.2	33.5	44.3	33.5	31.2	33.2
54.0 Joe Orr Road, Thorn Creek	151.8	171.0	187.4	167.9	175.3	154.2	155.6	148.8	146.5	138.4	164.5
52.0 Wentworth Ave., Little Calumet River	108.8	136.1	119.3	127.9	151.1	136.2	162.7	113.7	120.3	140.4	166.5
57.0 135th and Ashland, Little Calumet River	138.7	184.7	151.1	163.9	131.9	130.5	149.5	127.9	128.5	148.5	153.8
86.0 Burnham Avenue, Grand Calumet River	192.0	189.5	267.5	259.5	222.4	178.4	202.7	181.2	176.0	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	174.4	153.8
49.0 92nd and Ewing Ave., Calumet River	30.6	22.8	23.6	26.9	26.8	34.8	61.7	ND	109.0	34.6	21.0
55.0 130th Street, Calumet River	52.5	56.6	57.4	57.7	55.2	74.0	65.5	88.5	80.2	77.5	66.9
56.0 Indiana Ave., Calumet River	99.2	99.7	85.6	92.1	96.1	116.9	105.1	113.8	99.7	98.9	90.6
76.0 Halsted Street, Little Cal. River	122.3	136.4	163.3	132.3	127.2	138.0	104.9	137.0	139.0	146.1	130.4
58.0 Ashland Ave., Cal-Sag Channel	100.8	190.5	134.5	130.9	129.4	154.7	109.0	114.3	135.4	143.1	123.4
59.0 Cicero Ave., Cal-Sag Channel	136.3	165.6	138.8	132.3	129.4	144.8	113.8	101.4	137.8	139.4	219.7
43.0 Hwy. 83 and Cal-Sag Channel	134.8	142.9	145.4	126.3	152.5	166.1	116.8	103.2	135.8	152.8	130.3
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	219.6	320.8	388.1	315.2	217.0	585.8	249.1	185.0	244.9	382.9	175.8
64.0 Lake St., Du Page River	151.6	165.8	197.9	191.3	159.8	230.9	161.9	156.9	166.0	201.2	138.5
89.0 Wanut Lane, West Branch Du Page River	130.5	141.5	199.2	166.7	156.8	188.1	153.9	150.7	154.1	171.9	129.8
90.0 Chicago-Elgin Rd., Poplar Creek	198.8	197.4	209.2	174.6	156.4	139.2	146.8	132.2	141.2	150.1	126.4
12.0 County Line Rd., Buffalo Creek	174.1	206.5	239.5	197.4	205.6	222.7	204.6	184.9	159.5	212.7	154.1
79.0 Higgins Rd., Salt Creek	200.7	290.5	323.4	288.4	288.6	244.5	235.9	181.9	158.4	264.0	179.7
80.0 Arlington Hts. Rd., Salt Creek	177.6	234.6	256.3	194.8	212.1	197.9	197.3	197.8	174.1	191.6	154.6
18.0 Devon Ave., Salt Creek	188.0	271.4	249.9	199.8	191.7	215.8	200.7	197.4	173.6	198.3	160.1
24.0 Wolf Road, Salt Creek	267.0	230.7	262.8	238.9	209.8	221.3	228.3	242.9	232.0	290.5	235.8
21.0 First Ave., Salt Creek	215.6	214.3	252.6	240.6	203.7	221.3	244.3	240.5	231.5	287.5	222.7
77.0 Elmhurst Rd., Higgins Creek	363.8	347.8	377.6	354.3	515.5	254.5	363.0	182.4	222.4	215.9	194.0
78.0 Wille Rd., Higgins Creek	193.4	234.2	215.4	190.2	161.3	153.3	171.8	158.7	192.2	181.1	164.9
13.0 County Line Rd., Des Plaines River	151.0	153.9	171.0	144.5	147.6	105.2	124.0	131.3	124.7	158.8	132.0
17.0 Oakton St., Des Plaines River	150.5	167.1	194.3	155.2	147.0	128.1	134.2	147.4	127.2	155.0	122.6
19.0 Belmont Ave., Des Plaines River	160.1	187.2	203.1	182.3	206.9	161.3	166.3	150.3	132.7	190.8	129.7
20.0 Roosevelt Road, Des Plaines River	159.7	193.3	200.3	179.6	184.3	159.1	242.4	157.1	139.4	202.8	132.8
22.0 Ogden Ave., Des Plaines River	172.2	214.0	205.9	197.2	162.1	156.9	202.1	178.0	161.6	228.0	156.6
23.0 Willow Springs Rd., Des Plaines River	178.3	191.3	201.3	178.4	165.5	149.2	182.3	185.8	166.5	191.5	148.2
29.0 Lemont Stephen St., Des Plaines River	182.7	232.3	221.6	192.9	166.0	154.5	166.4	185.9	172.3	225.4	166.8

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-52

TOTAL PHOSPHORUS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	2.37	2.02	3.16	1.07	2.25	2.59	2.08	3.40	2.61
31.0 County Line Rd., Md. Fork N. Branch	0.18	0.20	0.19	0.17	0.20	0.17	0.12	0.20	0.58	0.35	0.15
32.0 County Line Rd., Skokie River	0.15	0.22	0.19	0.21	0.35	0.23	0.40	0.18	0.46	0.25	0.16
34.0 Dempster St., N.B. Chicago River	0.78	1.24	1.09	0.89	1.24	0.82	1.07	0.87	0.85	0.94	0.87
74.0 Outer Dr. Bridge, Chicago River	0.20	0.10	0.12	0.10	0.05	0.12	0.09	0.12	0.09	0.03	0.11
35.0 Central Ave., N. Shore Channel	0.13	0.07	0.39	0.14	0.04	0.11	0.08	0.06	0.21	0.19	0.09
36.0 Touhy Ave., N. Shore Channel	1.18	1.19	1.13	0.84	0.96	0.81	0.76	0.94	0.94	0.88	0.57
37.0 Wilson Ave., N.B. Chicago River	1.09	1.03	1.04	0.84	1.00	0.83	0.86	0.90	0.93	0.90	0.64
73.0 Diversey Ave., N.B. Chicago River	0.84	0.94	0.81	0.62	0.75	0.65	0.80	0.89	0.99	0.97	0.73
46.0 Grand Ave., N.B. Chicago River	0.86	0.87	0.94	0.76	0.80	0.72	0.78	0.86	0.67	1.10	0.61
39.0 Madison St., S.B. Chicago River	0.61	0.47	0.39	0.38	0.35	0.46	0.38	0.49	0.56	0.59	0.36
40.0 Damen Ave., S.B. Chicago River	0.53	0.57	0.41	0.37	0.54	0.40	0.48	0.50	0.44	0.60	0.42
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.55	0.57	0.46	0.44	0.55	0.39	0.56	0.54	0.52	0.58	0.69
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.85	0.89	0.76	0.73	0.80	0.53	0.58	0.73	0.56	0.65	0.48
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.66	0.68	0.55	0.55	0.77	0.49	0.51	0.65	0.44	0.52	0.51
48.0 Lemont Bridge, Stephen Street (Comp)	0.86	1.06	0.87	0.83	0.99	0.69	0.95	0.96	0.60	0.73	0.55
82.0 Lockport Trebler	1.21	1.24	1.17	1.09	1.10	0.90	0.98	0.96	0.94	0.90	0.74
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.06	0.09	0.09	0.07	0.06	0.05	0.07	0.03	0.03	0.03	0.01
54.0 Joe Orr Road, Thorn Creek	8.04	8.06	6.09	5.16	4.17	4.54	5.30	5.33	3.94	4.87	5.98
52.0 Wentworth Ave., Little Calumet River	0.81	0.55	0.53	0.48	0.56	0.38	0.56	0.54	0.25	0.56	0.50
57.0 135th and Ashland, Little Calumet River	1.62	1.99	1.74	1.41	1.63	0.95	1.43	1.48	1.22	1.20	1.43
86.0 Burnham Avenue, Grand Calumet River	0.70	0.47	1.04	0.51	0.66	0.77	1.65	0.59	0.53	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.76	1.77
49.0 92nd and Ewing Ave., Calumet River	0.08	0.09	0.15	0.14	0.05	0.03	0.02	ND	0.00	0.11	0.03
55.0 130th Street, Calumet River	0.15	0.09	0.09	0.07	0.07	0.07	0.04	0.60	0.40	0.24	0.01
56.0 Indiana Ave., Calumet River	0.21	0.15	0.14	0.16	0.23	0.26	0.22	0.20	0.12	0.20	0.22
76.0 Halsted Street, Little Cal. River	1.88	1.76	1.24	1.62	1.46	1.25	1.64	1.33	1.15	1.28	0.94
58.0 Ashland Ave., Cal-Sag Channel	1.95	1.44	1.47	1.59	1.39	0.95	1.88	1.20	1.10	1.27	0.95
59.0 Cicero Ave., Cal-Sag Channel	2.12	1.93	1.62	1.77	1.60	1.28	2.02	1.28	1.26	1.35	1.20
43.0 Hwy. 83 and Cal-Sag Channel	1.83	2.01	1.63	1.52	1.60	1.30	1.62	1.50	1.05	1.25	1.10
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.77	0.55	0.53	0.56	0.81	0.25	0.91	0.76	0.54	0.94	0.65
64.0 Lake St., Du Page River	2.38	2.01	1.81	1.98	2.02	1.32	2.14	2.11	2.14	2.67	2.52
89.0 Walnut Lane, West Branch Du Page River	2.90	2.45	2.16	2.27	2.32	1.40	2.42	2.18	2.22	2.72	2.55
90.0 Chicago-Elgin Rd., Poplar Creek	0.10	0.42	0.16	0.14	0.10	0.11	0.09	0.11	0.09	0.77	0.07
12.0 County Line Rd., Buffalo Creek	0.15	0.16	0.16	0.13	0.15	0.26	0.20	0.23	0.18	0.20	0.20
79.0 Higgins Rd., Salt Creek	0.18	0.17	0.15	0.14	0.11	0.11	0.32	0.19	0.19	0.13	0.47
80.0 Arlington Hts. Rd., Salt Creek	1.97	1.58	1.58	1.99	1.80	0.88	1.63	1.48	1.31	2.23	2.88
18.0 Devon Ave., Salt Creek	1.86	1.41	1.75	2.05	1.79	0.91	1.55	1.58	1.38	2.28	2.28
24.0 Wolf Road, Salt Creek	1.50	1.44	1.51	1.50	1.63	1.05	1.41	1.36	1.20	2.17	1.96
21.0 First Ave., Salt Creek	1.52	1.47	1.20	1.26	1.44	1.03	1.23	1.26	1.04	1.80	1.80
77.0 Elmhurst Rd., Higgins Creek	0.11	0.12	0.15	0.18	0.21	0.15	0.11	0.26	0.12	0.09	0.10
78.0 Wille Rd., Higgins Creek	1.06	0.99	0.52	0.59	0.55	0.39	0.73	0.54	0.38	0.94	0.46
13.0 County Line Rd., Des Plaines River	0.92	0.74	0.70	0.70	1.18	0.78	0.81	0.85	0.50	1.06	0.98
17.0 Oakton St., Des Plaines River	0.76	0.61	0.64	0.67	0.53	0.51	0.74	0.71	0.38	0.92	0.70
19.0 Belmont Ave., Des Plaines River	0.68	0.63	0.52	0.58	0.80	0.47	0.58	0.57	0.37	0.81	0.69
20.0 Roosevelt Road, Des Plaines River	0.66	0.67	0.60	0.55	0.75	0.45	0.57	0.55	0.38	0.75	0.52
22.0 Ogden Ave., Des Plaines River	0.85	0.88	0.70	0.74	0.94	0.65	0.79	0.71	0.55	0.98	0.90
23.0 Willow Springs Rd., Des Plaines River	0.80	0.82	0.72	0.69	0.86	0.58	0.70	0.69	0.52	0.90	0.83
29.0 Lemont Stephen St., Des Plaines River	0.79	0.86	0.76	0.83	0.89	0.63	0.74	0.70	0.61	0.98	0.82

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-53

SOLUBLE PHOSPHORUS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	2.01	1.85	3.07	0.94	2.01	2.30	1.86	3.20	2.39
31.0 County Line Rd., Md. Fork N. Branch	0.12	0.13	0.16	0.10	0.11	0.06	0.05	0.10	0.46	0.15	0.10
32.0 County line Rd., Skokie River	0.09	0.16	0.12	0.10	0.25	0.11	0.31	0.09	0.32	0.10	0.08
34.0 Dempster St., N.B. Chicago River	0.70	0.99	0.86	0.79	1.13	0.68	0.90	0.74	0.60	0.79	0.72
74.0 Outer Dr. Bridge, Chicago River	0.15	0.06	0.09	0.07	0.02	0.03	0.05	0.10	0.06	0.02	0.09
35.0 Central Ave., N. Shore Channel	0.10	0.04	0.27	0.06	0.01	0.07	0.02	0.02	0.11	0.02	0.07
36.0 Touhy Ave., N. Shore Channel	1.06	0.95	0.87	0.69	0.83	0.74	0.65	0.75	0.73	0.76	0.44
37.0 Wilson Ave., N.B. Chicago River	0.98	0.89	0.80	0.74	0.91	0.71	0.76	0.77	0.76	0.82	0.55
73.0 Diversey Ave., N.B. Chicago River	0.74	0.76	0.61	0.56	0.68	0.53	0.70	0.75	0.82	0.85	0.58
46.0 Grand Ave., N.B. Chicago River	0.87	0.71	0.66	0.69	0.69	0.61	0.65	0.73	0.54	0.93	0.49
39.0 Madison St., S.E. Chicago River	0.50	0.35	0.27	0.27	0.30	0.39	0.30	0.40	0.39	0.50	0.27
40.0 Damen Ave., S.B. Chicago River	0.42	0.43	0.29	0.28	0.47	0.33	0.39	0.37	0.33	0.51	0.34
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.38	0.40	0.32	0.35	0.42	0.28	0.45	0.44	0.37	0.49	0.33
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.74	0.64	0.53	0.63	0.71	0.43	0.48	0.56	0.43	0.52	0.40
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.50	0.51	0.42	0.45	0.66	0.40	0.41	0.50	0.33	0.44	0.39
48.0 Lemont Bridge, Stephen Street (Comp)	0.72	0.89	0.65	0.69	0.88	0.59	0.79	0.77	0.49	0.58	0.42
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.04	0.06	0.08	0.05	0.03	0.04	0.03	0.01	0.01	0.02	0.00
54.0 Joe Orr Road, Thorn Creek	7.36	6.85	5.02	4.93	4.03	4.36	5.12	4.89	3.73	4.77	5.72
52.0 Wentworth Ave., Little Calumet River	0.30	0.31	0.31	0.27	0.35	0.17	0.33	0.25	0.10	0.31	0.31
57.0 135th and Ashland, Little Calumet River	1.27	1.70	1.47	1.23	1.42	0.79	1.27	1.19	1.10	1.02	1.31
86.0 Burnham Avenue, Grand Calumet River	0.33	0.22	0.26	0.13	0.20	0.22	0.45	0.21	0.14	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25	0.35
49.0 92nd and Ewing Ave., Calumet River	0.04	0.06	0.16	0.09	0.03	0.01	0.01	ND	0.00	0.08	0.02
55.0 130th Street, Calumet River	0.06	0.06	0.09	0.06	0.03	0.02	0.01	0.54	0.35	0.17	0.01
56.0 Indiana Ave., Calumet River	0.16	0.08	0.11	0.06	0.12	0.14	0.12	0.08	0.04	0.08	0.03
76.0 Halsted Street, Little Cal. River	1.53	1.28	1.03	1.46	1.34	1.10	1.50	1.04	0.97	1.04	0.69
58.0 Ashland Ave., Cal-Sag Channel	1.74	1.04	0.91	1.39	1.22	0.80	1.70	0.86	0.92	1.06	0.75
59.0 Cicero Ave., Cal-Sag Channel	1.89	1.59	1.12	1.51	1.39	1.09	1.82	0.93	1.00	1.16	0.99
43.0 Hwy. 83 and Cal-Sag Channel	1.83	1.74	1.19	1.32	1.39	1.09	1.45	1.20	0.86	1.04	0.90
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.68	0.61	0.40	0.36	0.73	0.17	0.84	0.67	0.44	0.74	0.56
64.0 Lake St., Du Page River	2.05	1.77	1.46	1.71	1.85	1.14	1.89	1.81	1.97	2.52	2.34
89.0 Wanut Lane, West Branch Du Page River	2.20	2.12	1.73	2.03	2.16	1.27	2.21	2.05	2.09	2.64	2.30
90.0 Chicago-Elgin Rd., Poplar Creek	0.07	0.33	0.12	0.07	0.05	0.03	0.03	0.04	0.01	0.67	0.06
12.0 County Line Rd., Buffalo Creek	0.06	0.07	0.08	0.07	0.05	0.11	0.05	0.07	0.09	0.08	0.12
79.0 Higgins Rd., Salt Creek	0.11	0.07	0.09	0.06	0.04	0.02	0.27	0.10	0.12	0.04	0.38
80.0 Arlington Hts. Rd., Salt Creek	1.75	1.23	1.29	1.74	1.74	0.80	1.25	1.36	1.22	2.13	2.37
18.0 Devon Ave., Salt Creek	1.69	1.10	1.44	1.78	1.71	0.83	1.43	1.48	1.30	2.15	2.12
24.0 Wolf Road, Salt Creek	1.24	1.15	1.06	1.24	1.44	0.86	1.23	1.09	1.05	1.62	1.69
21.0 First Ave., Salt Creek	1.30	1.19	0.85	1.07	1.26	0.80	1.05	0.99	0.94	1.54	1.62
77.0 Elmhurst Rd., Higgins Creek	0.07	0.10	0.08	0.07	0.05	0.07	0.01	0.14	0.04	0.03	0.07
78.0 Wille Rd., Higgins Creek	0.82	0.71	0.36	0.48	0.50	0.33	0.64	0.44	0.34	0.61	0.41
13.0 County Line Rd., Des Plaines River	0.74	0.57	0.55	0.60	1.07	0.49	0.69	0.72	0.39	0.94	0.96
17.0 Oakton St., Des Plaines River	0.56	0.44	0.46	0.51	0.44	0.39	0.58	0.48	0.26	0.76	0.55
19.0 Belmont Ave., Des Plaines River	0.50	0.45	0.39	0.42	0.62	0.33	0.44	0.39	0.27	0.62	0.48
20.0 Roosevelt Road, Des Plaines River	0.52	0.46	0.39	0.41	0.62	0.31	0.42	0.41	0.28	0.61	0.38
22.0 Ogden Ave., Des Plaines River	0.69	0.63	0.46	0.60	0.76	0.47	0.60	0.54	0.43	0.82	0.75
23.0 Willow Springs Rd., Des Plaines River	0.63	0.62	0.46	0.51	0.67	0.43	0.51	0.49	0.39	0.67	0.62
29.0 Lemont Stephen St., Des Plaines River	0.59	0.64	0.48	0.64	0.70	0.44	0.51	0.49	0.45	0.74	0.66

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-54

GROSS ALPHA RADIOACTIVITY MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (pCi/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	0.93	1.30	1.38	0.53	0.50
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	ND	ND	1.27	1.27	1.16	1.38	0.41
32.0 County line Rd., Skokie River	ND	ND	ND	ND	ND	ND	0.98	1.11	1.04	1.50	0.47
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	ND	ND	0.86	0.75	0.94	1.01	0.31
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	ND	ND	0.17	0.29	0.38	0.03	0.14
35.0 Central Ave., N. Shore Channel	ND	2.44	3.55	0.19	0.05	0.24	0.17	0.26	0.65	0.18	0.16
36.0 Touhy Ave., N. Shore Channel	ND	3.09	3.13	0.28	0.29	0.26	0.14	0.33	0.37	0.32	0.17
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	0.43	0.25	0.59	0.44	0.18
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	0.34	0.42	0.58	0.31	0.20
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	0.37	0.35	0.50	0.30	0.12
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	0.32	0.36	0.39	0.26	0.12
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	0.40	0.28	0.51	0.18	0.15
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	2.90	2.94	0.31	0.26	0.36	0.37	0.29	0.58	0.21	0.13
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	3.07	3.12	0.31	0.32	0.34	0.34	0.27	0.42	0.27	0.12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	3.31	3.47	0.22	0.23	0.63	0.38	0.26	0.52	0.16	0.10
48.0 Lemont Bridge, Stephen Street (Comp)	ND	3.06	3.35	0.49	0.34	0.49	0.45	0.41	0.74	0.30	0.25
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	ND	ND	0.33	0.27	0.76	0.21	0.10
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	0.21	0.68	0.65	0.38	0.28
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	ND	ND	2.08	1.84	1.07	1.27	0.39
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	ND	ND	0.87	1.86	1.03	0.85	0.45
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	0.86	0.53	0.33	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32	0.65
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	ND	ND	0.31	ND	0.43	0.12	0.10
55.0 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	0.32	0.43	0.30	0.35	0.10
56.0 Indiana Ave., Calumet River	ND	2.95	3.09	0.36	0.72	0.56	0.32	0.62	0.57	0.47	0.20
76.0 Halsted Street, Little Cal. River	ND	3.17	2.43	0.36	0.42	0.44	0.37	0.63	0.58	0.53	0.24
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	0.49	1.39	0.66	0.52	0.20
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	0.41	1.45	0.73	0.61	0.41
43.0 Hwy. 83 and Cal-Sag Channel	ND	3.59	3.32	0.38	0.79	1.07	0.53	1.27	1.71	0.71	0.21
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	4.15	5.07	2.07	0.81	1.96	1.41	1.17	1.55	0.81	0.42
64.0 Lake St., Du Page River	ND	ND	ND	ND	ND	ND	0.94	0.81	0.38	0.45	0.28
89.0 Wanut Lane, West Branch Du Page River	ND	3.87	3.53	0.51	0.50	0.72	0.55	0.71	0.53	0.26	0.10
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	ND	ND	0.65	0.86	0.79	0.96	0.34
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	ND	ND	1.14	1.46	1.64	1.10	0.52
79.0 Higgins Rd., Salt Creek	ND	4.00	4.71	1.16	0.91	1.25	1.11	1.43	1.38	1.12	0.57
80.0 Arlington Hts. Rd., Salt Creek	ND	4.04	3.55	0.39	0.64	0.64	0.63	0.69	0.87	0.31	0.24
18.0 Devon Ave., Salt Creek	ND	2.79	ND	ND	ND	ND	0.88	0.69	0.81	0.63	0.22
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	1.25	1.73	1.33	1.46	0.59
21.0 First Ave., Salt Creek	ND	ND	ND	ND	ND	ND	1.24	1.76	1.30	1.18	0.37
77.0 Elmhurst Rd., Higgins Creek	ND	4.37	4.85	1.68	3.93	1.18	1.04	0.86	0.73	1.11	0.28
78.0 Wille Rd., Higgins Creek	ND	3.42	3.69	0.72	0.71	0.62	0.35	0.50	0.59	0.34	0.18
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	0.88	1.02	1.01	0.77	0.35
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	ND	ND	0.78	1.14	1.01	0.97	0.33
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	1.03	0.91	1.02	0.72	0.41
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	0.96	0.89	1.01	0.96	0.31
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	1.07	1.20	1.08	0.82	0.32
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	1.01	1.11	1.18	1.10	0.19
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	ND	ND	1.42	1.26	1.15	1.18	0.45

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-55

GROSS BETA RADIOACTIVITY MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (pCi/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	10.87	13.01	13.09	12.37	11.24
31.0 County Line Rd., Md. Fork N. Branch	ND	ND	ND	ND	ND	ND	7.64	8.44	8.41	8.55	7.32
32.0 County line Rd., Skokie River	ND	ND	ND	ND	ND	ND	7.95	8.09	8.53	8.06	8.45
34.0 Dempster St., N.B. Chicago River	ND	ND	ND	ND	ND	ND	9.70	8.09	8.31	9.43	9.09
74.0 Outer Dr. Bridge, Chicago River	ND	ND	ND	ND	ND	ND	2.63	3.13	3.07	2.78	3.13
35.0 Central Ave., N. Shore Channel	ND	5.03	7.76	3.08	1.61	2.55	2.17	3.15	4.16	2.44	2.97
36.0 Touhy Ave., N. Shore Channel	ND	8.21	7.23	6.45	7.15	6.53	5.58	5.77	5.88	6.59	5.16
37.0 Wilson Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	6.35	5.94	6.20	5.55	5.12
73.0 Diversey Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	6.81	6.29	5.82	6.84	5.75
46.0 Grand Ave., N.B. Chicago River	ND	ND	ND	ND	ND	ND	6.53	5.79	5.40	5.91	4.87
39.0 Madison St., S.B. Chicago River	ND	ND	ND	ND	ND	ND	4.48	5.09	5.14	4.69	4.40
40.0 Damen Ave., S.B. Chicago River	ND	ND	ND	ND	ND	ND	5.11	5.11	5.58	4.74	4.11
75.0 Cicero Ave., Chgo. San. and Ship Canal	ND	6.07	6.34	5.90	6.25	4.98	4.31	5.52	5.96	4.49	4.71
41.0 Harlem Ave., Chgo. San. and Ship Canal	ND	6.93	6.57	7.16	7.71	6.33	5.52	6.01	5.64	6.37	5.02
42.0 Hwy. 83 and Chgo. San. and Ship Canal	ND	7.70	6.64	6.97	7.85	6.31	5.34	6.81	6.17	7.00	6.02
48.0 Lemont Bridge, Stephen Street (Comp)	ND	7.06	7.22	7.34	8.32	7.83	7.14	7.19	7.73	6.47	6.83
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	ND	ND	ND	ND	ND	ND	3.67	4.75	5.04	4.58	3.72
54.0 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	12.03	11.40	10.53	10.29	10.47
52.0 Wentworth Ave., Little Calumet River	ND	ND	ND	ND	ND	ND	14.01	14.36	10.62	13.19	9.69
57.0 135th and Ashland, Little Calumet River	ND	ND	ND	ND	ND	ND	10.62	14.84	9.62	11.95	9.64
86.0 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	15.87	13.11	11.90	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.36	12.44
49.0 92nd and Ewing Ave., Calumet River	ND	ND	ND	ND	ND	ND	3.49	ND	5.44	2.48	3.00
55.0 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	5.12	6.35	7.77	8.34	5.25
56.0 Indiana Ave., Calumet River	ND	6.48	6.50	6.78	7.96	9.61	7.16	8.46	9.00	8.06	8.15
76.0 Halsted Street, Little Cal. River	ND	8.50	9.10	9.21	9.99	10.17	7.98	8.58	8.61	9.49	8.69
58.0 Ashland Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	8.62	12.25	9.43	9.96	8.27
59.0 Cicero Ave., Cal-Sag Channel	ND	ND	ND	ND	ND	ND	9.66	12.01	10.25	10.54	8.67
43.0 Hwy. 83 and Cal-Sag Channel	ND	8.74	7.89	9.39	10.21	10.67	8.85	11.57	10.02	9.16	9.61
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	ND	8.53	8.86	11.98	9.12	7.43	10.83	7.99	9.58	11.24	8.48
64.0 Lake St., Du Page River	ND	ND	ND	ND	ND	ND	10.25	11.34	9.37	11.18	10.28
89.0 Wanut Lane, West Branch Du Page River	ND	10.63	9.23	11.10	9.80	9.10	10.79	8.91	8.56	10.09	8.80
90.0 Chicago-Elgin Rd., Poplar Creek	ND	ND	ND	ND	ND	ND	6.66	6.45	6.63	9.06	5.70
12.0 County Line Rd., Buffalo Creek	ND	ND	ND	ND	ND	ND	10.26	10.68	11.43	12.07	12.59
79.0 Higgins Rd., Salt Creek	ND	7.21	8.02	8.41	9.52	7.92	8.67	8.21	7.50	9.09	7.18
80.0 Arlington Hts. Rd., Salt Creek	ND	8.84	7.79	9.91	10.02	7.34	9.01	8.36	7.76	10.35	7.98
18.0 Devon Ave., Salt Creek	ND	11.00	ND	ND	ND	ND	10.05	8.60	8.67	10.56	7.84
24.0 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	13.25	15.68	12.19	16.79	13.12
21.0 First Ave., Salt Creek	ND	ND	ND	ND	ND	ND	11.05	14.27	11.65	15.41	12.85
77.0 Elmhurst Rd., Higgins Creek	ND	6.88	8.69	12.58	14.53	7.83	8.83	8.07	6.94	7.46	6.66
78.0 Wille Rd., Higgins Creek	ND	13.15	9.28	15.08	14.52	9.82	11.51	10.56	9.41	11.47	9.50
13.0 County Line Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	8.74	10.55	8.02	10.87	10.51
17.0 Oakton St., Des Plaines River	ND	ND	ND	ND	ND	ND	10.59	10.53	8.70	11.36	10.13
19.0 Belmont Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	9.63	9.93	8.98	11.49	10.69
20.0 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	9.74	9.93	9.28	12.06	9.17
22.0 Ogden Ave., Des Plaines River	ND	ND	ND	ND	ND	ND	10.54	11.77	9.33	14.04	10.26
23.0 Willow Springs Rd., Des Plaines River	ND	ND	ND	ND	ND	ND	10.72	11.33	9.78	13.51	9.85
29.0 Lemont Stephen St., Des Plaines River	ND	ND	ND	ND	ND	ND	10.27	11.79	10.09	12.57	9.99

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-56

FATS, OILS, AND GREASES MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	5	7	4	10	7	7	11	12	7
31.0 County Line Rd., Md. Fork N. Branch	12	5	3	6	10	13	10	5	7	14	15
32.0 County line Rd., Skokie River	4	6	2	8	7	12	8	8	9	11	11
34.0 Dempster St., N.B. Chicago River	4	6	2	8	6	13	7	6	7	7	12
74.0 Outer Dr. Bridge, Chicago River	2	3	3	8	7	12	7	8	6	8	9
35.0 Central Ave., N. Shore Channel	ND	6	2	5	5	14	8	9	6	8	12
36.0 Touhy Ave., N. Shore Channel	4	7	2	9	9	12	7	9	7	6	14
37.0 Wilson Ave., N.B. Chicago River	4	8	5	7	8	14	7	6	6	11	10
73.0 Diversey Ave., N.B. Chicago River	2	7	3	6	7	12	11	10	6	9	9
46.0 Grand Ave., N.B. Chicago River	3	10	4	13	8	13	16	11	10	7	13
39.0 Madison St., S.E. Chicago River	5	4	2	7	4	11	7	8	8	10	8
40.0 Damen Ave., S.B. Chicago River	5	4	3	9	8	14	7	12	6	7	9
75.0 Cicero Ave., Chgo. San. and Ship Canal	3	7	3	10	6	12	7	12	7	5	10
41.0 Harlem Ave., Chgo. San. and Ship Canal	3	6	2	8	7	10	6	10	7	11	9
42.0 Hwy. 83 and Chgo. San. and Ship Canal	3	7	4	7	8	11	6	13	13	10	8
48.0 Lemont Bridge, Stephen Street (Comp)	2	8	2	11	8	10	8	7	7	6	10
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	5	7	2	6	7	11	6	9	8	3	7
54.0 Joe Orr Road, Thorn Creek	13	8	3	8	6	11	9	7	10	7	6
52.0 Wentworth Ave., Little Calumet River	4	7	2	5	5	13	6	11	9	10	11
57.0 135th and Ashland, Little Calumet River	3	5	4	7	5	12	6	12	7	3	8
86.0 Burnham Avenue, Grand Calumet River	3	11	9	7	7	11	7	10	11	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	12
49.0 92nd and Ewing Ave., Calumet River	3	5	4	5	9	13	6	ND	8	5	8
55.0 130th Street, Calumet River	2	5	4	5	7	11	5	8	15	6	6
56.0 Indiana Ave., Calumet River	4	5	4	7	6	11	6	13	8	8	5
76.0 Halsted Street, Little Cal. River	4	7	2	6	6	12	5	9	8	6	7
58.0 Ashland Ave., Cal-Sag Channel	ND	8	3	6	5	10	5	11	7	4	6
59.0 Cicero Ave., Cal-Sag Channel	5	5	6	5	6	13	4	11	8	3	9
43.0 Hwy. 83 and Cal-Sag Channel	6	5	5	7	5	12	4	13	6	4	8
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	4	9	5	7	7	13	8	8	9	9	6
64.0 Lake St., Du Page River	5	7	8	6	7	11	6	10	14	5	8
89.0 Wanut Lane, West Branch Du Page River	5	5	7	6	8	10	8	10	10	4	6
90.0 Chicago-Elgin Rd., Poplar Creek	3	7	8	5	10	11	10	9	6	5	3
12.0 County Line Rd., Buffalo Creek	3	9	8	7	6	11	8	12	21	3	6
79.0 Higgins Rd., Salt Creek	3	7	6	6	8	10	7	10	6	5	4
80.0 Arlington Hts. Rd., Salt Creek	14	6	8	5	7	10	8	10	4	2	10
18.0 Devon Ave., Salt Creek	9	7	9	7	7	10	9	9	7	3	5
24.0 Wolf Road, Salt Creek	6	5	6	6	6	11	9	10	6	6	6
21.0 First Ave., Salt Creek	5	7	6	7	6	12	7	10	4	7	6
77.0 Elmhurst Rd., Higgins Creek	3	4	11	11	7	11	7	14	3	12	7
78.0 Wille Rd., Higgins Creek	4	5	10	7	7	13	9	9	3	11	6
13.0 County Line Rd., Des Plaines River	4	6	7	8	7	10	8	10	7	5	6
17.0 Oakton St., Des Plaines River	4	6	7	5	6	12	8	9	5	10	7
19.0 Belmont Ave., Des Plaines River	5	5	7	6	6	10	7	9	4	10	9
20.0 Roosevelt Road, Des Plaines River	6	5	6	7	7	10	8	9	3	8	6
22.0 Ogden Ave., Des Plaines River	5	5	7	7	6	13	7	11	4	9	5
23.0 Willow Springs Rd., Des Plaines River	5	6	5	6	6	12	6	13	7	7	6
29.0 Lemont Stephen St., Des Plaines River	3	5	7	6	6	13	5	12	5	7	6

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-57

ALKALINITY (TOTAL) MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	152	148	106	278	174	145	171	148	150
31.0 County Line Rd., Md. Fork N. Branch	209	183	206	197	202	209	210	204	187	184	171
32.0 County line Rd., Skokie River	231	200	237	199	200	222	220	200	205	203	180
34.0 Dempster St., N.B. Chicago River	194	180	177	184	184	183	194	189	177	159	167
74.0 Outer Dr. Bridge, Chicago River	120	115	114	122	122	114	114	113	114	109	116
35.0 Central Ave., N. Shore Channel	126	119	140	121	119	118	114	113	140	106	112
36.0 Touhy Ave., N. Shore Channel	152	144	151	171	159	154	150	147	152	139	150
37.0 Wilson Ave., N.B. Chicago River	161	162	157	174	151	168	160	154	157	144	157
73.0 Diversey Ave., N.B. Chicago River	161	149	156	165	157	158	155	149	153	143	159
46.0 Grand Ave., N.B. Chicago River	167	149	160	178	158	155	155	156	149	148	152
39.0 Madison St., S.B. Chicago River	148	131	136	140	133	140	136	139	149	130	132
40.0 Damen Ave., S.B. Chicago River	152	132	139	133	143	143	135	136	145	133	146
75.0 Cicero Ave., Chgo. San. and Ship Canal	144	133	134	148	144	142	135	143	146	135	146
41.0 Harlem Ave., Chgo. San. and Ship Canal	137	131	122	142	138	142	136	138	149	135	150
42.0 Hwy. 83 and Chgo. San. and Ship Canal	140	137	133	145	148	147	140	146	144	141	151
48.0 Lemont Bridge, Stephen Street (Comp)	142	143	137	152	156	157	147	157	150	147	151
82.0 Lockport Trebler	149	244	480	212	179	182	154	162	175	175	169
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	102	106	102	109	156	104	111	99	91	90	98
54.0 Joe Orr Road, Thorn Creek	203	216	223	238	202	215	204	231	185	189	195
52.0 Wentworth Ave., Little Calumet River	200	215	215	214	203	220	241	189	200	228	218
57.0 135th and Ashland, Little Calumet River	179	199	201	215	187	196	216	187	186	198	197
86.0 Burnham Avenue, Grand Calumet River	141	158	212	221	219	185	153	201	198	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	215	247
49.0 92nd and Ewing Ave., Calumet River	111	116	111	120	119	114	114	ND	112	112	115
55.0 130th Street, Calumet River	114	118	129	119	127	119	115	112	123	115	118
56.0 Indiana Ave., Calumet River	129	130	133	146	149	151	138	143	126	147	152
76.0 Halsted Street, Little Cal. River	153	153	154	170	165	170	166	194	156	159	155
58.0 Ashland Ave., Cal-Sag Channel	142	164	162	180	168	191	170	171	161	160	155
59.0 Cicero Ave., Cal-Sag Channel	156	159	160	187	165	179	177	164	157	159	157
43.0 Hwy. 83 and Cal-Sag Channel	156	161	161	173	176	183	175	162	150	162	158
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	184	160	137	192	163	177	189	149	184	163	125
64.0 Lake St., Du Page River	152	141	133	156	145	163	179	166	184	165	153
89.0 Wanut Lane, West Branch Du Page River	154	140	138	157	153	178	172	155	174	151	152
90.0 Chicago-Elgin Rd., Poplar Creek	230	182	213	230	211	191	233	199	213	207	197
12.0 County Line Rd., Buffalo Creek	206	189	191	219	195	214	217	202	210	190	201
79.0 Higgins Rd., Salt Creek	171	142	159	180	161	166	184	149	165	160	148
80.0 Arlington Hts. Rd., Salt Creek	145	140	150	160	254	160	162	158	153	138	144
18.0 Devon Ave., Salt Creek	144	145	144	160	144	154	161	161	154	156	144
24.0 Wolf Road, Salt Creek	178	139	155	173	155	156	175	178	184	188	188
21.0 First Ave., Salt Creek	161	140	148	178	162	150	181	182	185	187	187
77.0 Elmhurst Rd., Higgins Creek	196	144	140	175	139	145	190	146	172	160	164
78.0 Wille Rd., Higgins Creek	173	168	168	191	173	178	209	186	195	163	189
13.0 County Line Rd., Des Plaines River	207	184	196	221	197	198	209	196	208	204	202
17.0 Oakton St., Des Plaines River	205	169	192	212	165	189	204	186	194	176	197
19.0 Belmont Ave., Des Plaines River	199	176	188	211	192	195	208	178	201	177	191
20.0 Roosevelt Road, Des Plaines River	195	178	191	211	182	176	207	181	193	179	192
22.0 Ogden Ave., Des Plaines River	185	167	179	200	168	165	198	177	192	195	188
23.0 Willow Springs Rd., Des Plaines River	185	169	180	205	170	166	195	184	189	192	185
29.0 Lemont Stephen St., Des Plaines River	184	176	180	192	175	187	191	192	192	197	200

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-58

TURBIDITY MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (JTU)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	47	28	25	31	33	74	52	30	62
31.0 County Line Rd., Md. Fork N. Branch	15	18	25	25	19	36	22	50	35	27	37
32.0 County line Rd., Skokie River	13	12	19	23	14	27	22	33	27	23	52
34.0 Dempster St., N.B. Chicago River	21	20	18	23	17	26	28	21	30	28	36
74.0 Outer Dr. Bridge, Chicago River	7	8	9	9	9	12	7	9	9	7	8
35.0 Central Ave., N. Shore Channel	9	10	11	13	10	13	13	17	25	11	14
36.0 Touhy Ave., N. Shore Channel	7	7	8	9	9	6	9	9	10	7	8
37.0 Wilson Ave., N.B. Chicago River	9	10	10	10	10	8	9	12	15	7	14
73.0 Diversey Ave., N.B. Chicago River	11	9	14	12	9	11	9	9	14	7	20
46.0 Grand Ave., N.B. Chicago River	11	10	13	12	10	11	10	10	13	8	11
39.0 Madison St., S.B. Chicago River	10	11	10	13	11	10	8	10	10	9	10
40.0 Damen Ave., S.B. Chicago River	11	11	11	18	10	10	12	14	11	9	9
75.0 Cicero Ave., Chgo. San. and Ship Canal	11	12	11	12	11	10	11	13	14	9	9
41.0 Harlem Ave., Chgo. San. and Ship Canal	7	9	9	10	12	7	7	8	8	6	7
42.0 Hwy. 83 and Chgo. San. and Ship Canal	10	8	8	10	10	6	7	7	8	9	6
48.0 Lemont Bridge, Stephen Street (Comp)	12	12	13	17	12	10	16	12	20	11	14
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	7	7	7	7	12	7	6	7	9	4	6
54.0 Joe Orr Road, Thorn Creek	15	15	13	10	16	37	6	25	24	15	18
52.0 Wentworth Ave., Little Calumet River	31	44	42	18	50	47	29	120	42	56	52
57.0 135th and Ashland, Little Calumet River	38	34	24	19	28	38	20	109	30	42	37
86.0 Burnham Avenue, Grand Calumet River	8	11	36	19	15	16	9424	11	14	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	33
49.0 92nd and Ewing Ave., Calumet River	10	10	11	10	9	7	8	ND	12	7	8
55.0 130th Street, Calumet River	9	11	10	10	12	7	6	14	15	11	10
56.0 Indiana Ave., Calumet River	13	18	27	25	28	25	20	29	24	25	21
76.0 Halsted Street, Little Cal. River	11	15	16	15	19	14	11	15	14	11	12
58.0 Ashland Ave., Cal-Sag Channel	13	26	21	18	19	24	14	72	26	22	17
59.0 Cicero Ave., Cal-Sag Channel	16	21	26	23	22	23	17	76	27	29	21
43.0 Hwy. 83 and Cal-Sag Channel	17	26	30	21	24	32	20	62	30	25	20
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	15	21	39	44	18	25	16	22	23	19	31
64.0 Lake St., Du Page River	20	26	38	30	24	27	20	29	20	16	15
89.0 Wanut Lane, West Branch Du Page River	7	11	27	30	13	17	14	16	10	6	7
90.0 Chicago-Elgin Rd., Poplar Creek	12	40	105	20	17	16	16	25	16	15	13
12.0 County Line Rd., Buffalo Creek	19	28	37	22	32	27	20	45	52	33	72
79.0 Higgins Rd., Salt Creek	21	33	62	25	22	33	17	40	27	19	26
80.0 Arlington Hts. Rd., Salt Creek	7	12	9	10	11	10	8	9	14	6	20
18.0 Devon Ave., Salt Creek	10	18	15	11	14	12	9	10	14	9	11
24.0 Wolf Road, Salt Creek	14	32	26	27	29	24	38	52	34	38	35
21.0 First Ave., Salt Creek	15	30	25	19	28	29	22	45	34	28	27
77.0 Elmhurst Rd., Higgins Creek	17	24	77	81	70	38	32	49	22	22	36
78.0 Wille Rd., Higgins Creek	8	8	18	22	19	8	4	10	5	5	3
13.0 County Line Rd., Des Plaines River	19	30	22	19	20	26	20	30	28	25	21
17.0 Oakton St., Des Plaines River	24	40	24	26	33	27	22	36	27	25	27
19.0 Belmont Ave., Des Plaines River	17	35	26	26	30	27	22	35	30	20	25
20.0 Roosevelt Road, Des Plaines River	17	32	23	23	25	33	22	35	27	21	23
22.0 Ogden Ave., Des Plaines River	18	34	24	21	33	35	23	38	30	25	24
23.0 Willow Springs Rd., Des Plaines River	24	31	29	26	34	30	27	35	34	33	31
29.0 Lemont Stephen St., Des Plaines River	24	30	32	25	36	33	30	40	37	34	35

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-59

SULFATE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	64	70	57	91	82	80	88	84	66
31.0 County Line Rd., Md. Fork N. Branch	78	63	73	81	82	83	99	97	89	95	73
32.0 County line Rd., Skokie River	88	79	89	78	90	91	107	106	101	107	77
34.0 Dempster St., N.B. Chicago River	78	79	82	88	96	80	98	96	93	94	79
74.0 Outer Dr. Bridge, Chicago River	30	25	28	40	35	41	37	41	37	36	23
35.0 Central Ave., N. Shore Channel	34	32	34	39	37	43	39	41	44	35	23
36.0 Touhy Ave., N. Shore Channel	54	45	51	55	57	57	55	66	64	62	47
37.0 Wilson Ave., N.B. Chicago River	57	52	57	62	58	69	63	67	65	65	50
73.0 Diversey Ave., N.B. Chicago River	57	49	61	65	57	65	68	68	64	65	50
46.0 Grand Ave., N.B. Chicago River	60	53	60	77	59	65	63	69	60	68	52
39.0 Madison St., S.B. Chicago River	47	37	40	50	47	57	48	61	60	55	41
40.0 Damen Ave., S.B. Chicago River	50	45	48	46	48	56	55	62	60	57	48
75.0 Cicero Ave., Chgo. San. and Ship Canal	46	39	47	61	51	55	55	68	61	59	51
41.0 Harlem Ave., Chgo. San. and Ship Canal	76	65	74	72	67	72	70	74	78	75	65
42.0 Hwy. 83 and Chgo. San. and Ship Canal	70	69	71	74	75	79	69	81	78	90	67
48.0 Lemont Bridge, Stephen Street (Comp)	81	85	89	96	95	104	99	110	103	104	83
82.0 Lockport Trebler	ND	ND	ND	101	89	97	85	101	103	94	87
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	32	33	32	63	45	48	42	55	43	49	50
54.0 Joe Orr Road, Thorn Creek	356	391	313	206	174	163	178	218	182	153	156
52.0 Wentworth Ave., Little Calumet River	122	129	144	145	162	150	179	161	172	192	160
57.0 135th and Ashland, Little Calumet River	158	180	217	174	161	139	177	181	180	179	150
86.0 Burnham Avenue, Grand Calumet River	196	174	230	247	299	225	278	277	221	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	234	160
49.0 92nd and Ewing Ave., Calumet River	25	24	28	51	43	44	36	ND	56	37	26
55.0 130th Street, Calumet River	43	52	46	72	53	71	85	86	82	70	53
56.0 Indiana Ave., Calumet River	88	84	76	104	99	109	96	122	104	101	76
76.0 Halsted Street, Little Cal. River	119	113	155	163	142	153	165	160	169	162	142
58.0 Ashland Ave., Cal-Sag Channel	134	94	140	147	139	145	145	155	166	164	136
59.0 Cicero Ave., Cal-Sag Channel	139	131	143	157	138	146	149	151	161	167	159
43.0 Hwy. 83 and Cal-Sag Channel	136	127	134	127	142	146	152	153	153	157	137
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	80	77	60	91	89	90	137	99	126	113	87
64.0 Lake St., Du Page River	71	65	66	122	79	78	101	101	103	96	87
89.0 Wanut Lane, West Branch Du Page River	68	61	61	79	75	76	88	87	97	87	81
90.0 Chicago-Elgin Rd., Poplar Creek	71	55	59	86	82	81	115	107	113	104	92
12.0 County Line Rd., Buffalo Creek	93	84	87	117	101	98	135	120	133	151	105
79.0 Higgins Rd., Salt Creek	78	67	74	92	98	90	128	105	109	120	93
80.0 Arlington Hts. Rd., Salt Creek	81	73	79	89	91	86	119	99	114	101	96
18.0 Devon Ave., Salt Creek	76	77	69	97	93	87	115	106	114	102	95
24.0 Wolf Road, Salt Creek	109	87	101	107	104	100	127	121	135	144	138
21.0 First Ave., Salt Creek	104	87	81	113	103	93	124	122	132	143	138
77.0 Elmhurst Rd., Higgins Creek	66	49	82	85	68	72	92	88	90	89	70
78.0 Wille Rd., Higgins Creek	96	89	96	103	102	97	116	101	103	113	113
13.0 County Line Rd., Des Plaines River	88	81	89	119	118	93	131	136	132	151	126
17.0 Oakton St., Des Plaines River	83	75	88	114	81	84	122	125	122	144	110
19.0 Belmont Ave., Des Plaines River	86	76	88	120	107	85	125	114	125	138	110
20.0 Roosevelt Road, Des Plaines River	84	75	91	105	105	86	120	116	112	137	106
22.0 Ogden Ave., Des Plaines River	88	78	84	112	94	86	123	121	126	138	119
23.0 Willow Springs Rd., Des Plaines River	91	82	97	105	106	87	126	123	125	138	112
29.0 Lemont Stephen St., Des Plaines River	90	87	95	107	104	95	129	122	122	139	115

ND - No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-60

PHENOLS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (ug/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	11	12	7	15	7	16	16	7	17
31.0 County Line Rd., Md. Fork N. Branch	15	17	19	12	19	17	7	24	22	13	22
32.0 County Line Rd., Skokie River	13	16	15	13	14	20	7	25	16	14	19
34.0 Dempster St., N.B. Chicago River	10	11	12	10	12	14	7	16	18	11	12
74.0 Outer Dr. Bridge, Chicago River	9	7	7	6	10	7	6	5	7	3	5
35.0 Central Ave., N. Shore Channel	10	9	15	10	9	7	4	5	9	5	7
36.0 Touhy Ave., N. Shore Channel	13	14	12	9	13	14	8	11	9	9	11
37.0 Wilson Ave., N.B. Chicago River	11	13	13	10	14	13	8	12	13	12	12
73.0 Diversey Ave., N.B. Chicago River	12	13	11	9	11	14	8	12	13	10	11
46.0 Grand Ave., N.B. Chicago River	14	13	12	10	12	14	11	11	10	10	9
39.0 Madison St., S.B. Chicago River	13	9	8	7	7	12	7	9	12	7	7
40.0 Damen Ave., S.B. Chicago River	11	12	9	10	12	11	8	12	13	9	8
75.0 Cicero Ave., Chgo. San. and Ship Canal	14	11	10	12	10	10	8	12	12	8	8
41.0 Harlem Ave., Chgo. San. and Ship Canal	13	14	12	8	17	15	8	14	22	11	10
42.0 Hwy. 83 and Chgo. San. and Ship Canal	13	10	11	11	13	15	7	13	15	12	12
48.0 Lemont Bridge, Stephen Street (Comp)	15	13	12	14	15	18	9	17	20	14	14
82.0 Lockport Trebler	13	11	10	8	10	13	10	19	25	17	16
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	11	9	9	8	10	11	5	12	9	7	6
54.0 Joe Orr Road, Thorn Creek	11	15	14	10	14	19	8	16	16	12	9
52.0 Wentworth Ave., Little Calumet River	13	13	13	15	13	18	9	24	24	16	13
57.0 135th and Ashland, Little Calumet River	16	14	14	11	15	22	8	22	23	17	12
86.0 Burnham Avenue, Grand Calumet River	14	10	35	12	21	19	12	19	24	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	18	24
49.0 92nd and Ewing Ave., Calumet River	6	8	7	6	9	8	4	ND	5	5	3
55.0 130th Street, Calumet River	7	8	8	8	13	10	5	10	9	6	5
56.0 Indiana Ave., Calumet River	7	8	6	8	9	13	19	14	12	8	16
76.0 Halsted Street, Little Cal. River	14	13	13	12	17	53	13	26	31	17	14
58.0 Ashland Ave., Cal-Sag Channel	18	15	14	13	15	20	13	29	28	17	12
59.0 Cicero Ave., Cal-Sag Channel	15	14	20	13	16	24	15	28	30	19	14
43.0 Hwy. 83 and Cal-Sag Channel	16	13	14	12	15	23	12	28	27	17	13
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	14	14	18	10	20	14	9	20	24	13	22
64.0 Lake St., Du Page River	15	14	15	11	16	15	9	18	18	9	10
89.0 Wanut Lane, West Branch Du Page River	17	13	15	9	11	16	7	18	16	9	10
90.0 Chicago-Elgin Rd., Poplar Creek	14	16	11	9	10	14	7	21	25	12	16
12.0 County Line Rd., Buffalo Creek	15	13	13	8	12	13	8	20	23	15	12
79.0 Higgins Rd., Salt Creek	15	13	12	8	10	13	6	21	21	10	12
80.0 Arlington Hts. Rd., Salt Creek	13	13	12	9	11	15	7	17	17	9	10
18.0 Devon Ave., Salt Creek	14	13	22	10	10	14	7	16	19	7	10
24.0 Wolf Road, Salt Creek	10	13	10	10	12	15	7	17	16	9	9
21.0 First Ave., Salt Creek	12	12	11	10	11	14	7	17	18	10	11
77.0 Elmhurst Rd., Higgins Creek	14	17	13	9	9	14	6	19	22	12	14
78.0 Wille Rd., Higgins Creek	15	17	12	9	11	17	8	13	16	12	12
13.0 County Line Rd., Des Plaines River	12	13	10	7	9	16	8	16	23	12	11
17.0 Oakton St., Des Plaines River	13	13	10	9	4	17	8	14	20	11	12
19.0 Belmont Ave., Des Plaines River	13	13	10	9	12	17	9	18	19	11	12
20.0 Roosevelt Road, Des Plaines River	13	14	10	10	11	16	8	19	22	12	13
22.0 Ogden Ave., Des Plaines River	12	14	11	8	14	15	8	18	21	11	12
23.0 Willow Springs Rd., Des Plaines River	12	14	11	9	12	16	9	16	21	11	12
29.0 Lemont Stephen St., Des Plaines River	14	13	10	10	14	15	9	16	21	10	12

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-61

TOTAL CYANIDE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.007	0.008	0.010	0.006	0.012	0.014	0.018	0.015	0.014
31.0 County Line Rd., Md. Fork N. Branch	0.002	0.002	0.006	0.002	0.004	0.003	0.002	0.002	0.008	0.003	0.004
32.0 County line Rd., Skokie River	0.001	0.002	0.001	0.002	0.003	0.003	0.004	0.003	0.007	0.003	0.005
34.0 Dempster St., N.B. Chicago River	0.004	0.005	0.004	0.003	0.005	0.005	0.005	0.005	0.005	0.006	0.006
74.0 Outer Dr. Bridge, Chicago River	0.002	0.000	0.001	0.000	0.002	0.002	0.001	0.001	0.002	0.003	0.003
35.0 Central Ave., N. Shore Channel	0.001	0.001	0.002	0.001	0.001	0.002	0.001	0.001	0.002	0.001	0.002
36.0 Touhy Ave., N. Shore Channel	0.006	0.007	0.005	0.004	0.006	0.006	0.006	0.006	0.010	0.007	0.008
37.0 Wilson Ave., N.B. Chicago River	0.006	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.007	0.008	0.008
73.0 Diversey Ave., N.B. Chicago River	0.005	0.008	0.005	0.004	0.006	0.007	0.006	0.006	0.007	0.008	0.007
46.0 Grand Ave., N.B. Chicago River	0.007	0.005	0.005	0.004	0.008	0.009	0.007	0.007	0.008	0.014	0.011
39.0 Madison St., S.B. Chicago River	0.004	0.003	0.002	0.002	0.004	0.006	0.006	0.004	0.006	0.008	0.008
40.0 Damen Ave., S.B. Chicago River	0.004	0.004	0.004	0.003	0.004	0.005	0.005	0.005	0.005	0.007	0.007
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.004	0.003	0.004	0.003	0.004	0.006	0.004	0.005	0.006	0.006	0.008
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.007	0.006	0.007	0.005	0.007	0.008	0.007	0.007	0.009	0.008	0.009
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.007	0.007	0.006	0.007	0.007	0.007	0.007	0.008	0.008	0.008	0.009
48.0 Lemont Bridge, Stephen Street (Comp)	0.009	0.007	0.008	0.008	0.008	0.007	0.008	0.009	0.011	0.010	0.012
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.001	0.001	0.001	0.003	0.003	0.002	0.002	0.002	0.004	0.002	0.002
54.0 Joe Orr Road, Thorn Creek	0.008	0.007	0.007	0.007	0.008	0.008	0.010	0.011	0.016	0.017	0.017
52.0 Wentworth Ave., Little Calumet River	0.027	0.005	0.015	0.014	0.014	0.009	0.011	0.007	0.009	0.015	0.010
57.0 135th and Ashland, Little Calumet River	0.008	0.005	0.007	0.009	0.009	0.007	0.006	0.007	0.012	0.009	0.008
86.0 Burnham Avenue, Grand Calumet River	0.011	0.010	0.009	0.013	0.010	0.009	0.013	0.020	0.023	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.018	0.022
49.0 92nd and Ewing Ave., Calumet River	0.001	0.003	0.001	0.002	0.003	0.002	0.002	ND	0.003	0.004	0.004
55.0 130th Street, Calumet River	0.001	0.002	0.001	0.001	0.003	0.003	0.002	0.002	0.004	0.004	0.005
56.0 Indiana Ave., Calumet River	0.003	0.003	0.003	0.002	0.005	0.005	0.004	0.007	0.005	0.007	0.007
76.0 Halsted Street, Little Cal. River	0.008	0.006	0.013	0.013	0.014	0.019	0.016	0.019	0.020	0.022	0.030
58.0 Ashland Ave., Cal-Sag Channel	0.008	0.005	0.010	0.012	0.011	0.010	0.014	0.015	0.016	0.020	0.021
59.0 Cicero Ave., Cal-Sag Channel	0.009	0.006	0.009	0.013	0.012	0.011	0.015	0.015	0.014	0.020	0.068
43.0 Hwy. 83 and Cal-Sag Channel	0.009	0.006	0.008	0.010	0.010	0.010	0.012	0.021	0.012	0.019	0.019
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.005	0.004	0.005	0.006	0.007	0.008	0.007	0.007	0.006	0.013	0.006
64.0 Lake St., Du Page River	0.009	0.008	0.008	0.009	0.011	0.009	0.010	0.010	0.012	0.013	0.017
89.0 Walnut Lane, West Branch Du Page River	0.011	0.010	0.008	0.011	0.011	0.008	0.011	0.013	0.015	0.019	0.017
90.0 Chicago-Elgin Rd., Poplar Creek	0.002	0.003	0.002	0.003	0.002	0.003	0.002	0.002	0.003	0.006	0.003
12.0 County Line Rd., Buffalo Creek	0.002	0.001	0.002	0.002	0.002	0.004	0.003	0.003	0.003	0.003	0.004
79.0 Higgins Rd., Salt Creek	0.002	0.002	0.003	0.004	0.002	0.005	0.003	0.003	0.003	0.003	0.005
80.0 Arlington Hts. Rd., Salt Creek	0.009	0.006	0.007	0.007	0.007	0.006	0.007	0.008	0.008	0.013	0.014
18.0 Devon Ave., Salt Creek	0.008	0.006	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.008	0.011
24.0 Wolf Road, Salt Creek	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.007	0.007	0.009	0.009
21.0 First Ave., Salt Creek	0.006	0.006	0.005	0.006	0.006	0.006	0.007	0.006	0.007	0.008	0.009
77.0 Elmhurst Rd., Higgins Creek	0.003	0.003	0.004	0.002	0.004	0.005	0.003	0.003	0.004	0.003	0.005
78.0 Wille Rd., Higgins Creek	0.008	0.008	0.005	0.008	0.010	0.007	0.010	0.010	0.009	0.016	0.015
13.0 County Line Rd., Des Plaines River	0.005	0.005	0.005	0.006	0.007	0.011	0.007	0.008	0.006	0.007	0.007
17.0 Oakton St., Des Plaines River	0.005	0.004	0.004	0.006	0.003	0.006	0.009	0.006	0.005	0.007	0.006
19.0 Belmont Ave., Des Plaines River	0.004	0.005	0.005	0.006	0.006	0.005	0.007	0.006	0.006	0.007	0.006
20.0 Roosevelt Road, Des Plaines River	0.004	0.004	0.004	0.005	0.006	0.005	0.008	0.006	0.006	0.008	0.006
22.0 Ogden Ave., Des Plaines River	0.005	0.005	0.004	0.005	0.006	0.005	0.006	0.006	0.006	0.008	0.007
23.0 Willow Springs Rd., Des Plaines River	0.005	0.005	0.005	0.005	0.008	0.005	0.006	0.006	0.006	0.007	0.007
29.0 Lemont Stephen St., Des Plaines River	0.006	0.005	0.005	0.006	0.005	0.006	0.006	0.005	0.005	0.007	0.006

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-62

WEAK ACID DISSOCIABLE CYANIDE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County Line Rd., Skokie River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0.000	0.000	0.000	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0.000	0.000	0.000	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	0.000	0.002	0.001	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.000	0.000	0.001	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	0.004	0.001	0.004	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	0.001	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0.000	0.000	0.001	ND	ND	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0.000	0.000	0.001	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	0.001	0.001	0.003	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	0.001	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	0.001	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	0.001	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	0.001	0.002	0.001	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0.000	0.000	0.001	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0.002	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0.001	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0.001	0.002	0.001	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0.000	0.000	0.001	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0.000	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-63

FLUORIDE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.57	0.61	0.82	0.47	0.63	0.68	0.63	0.81	0.61
31.0 County Line Rd., Md. Fork N. Branch	0.31	0.43	0.34	0.28	0.37	0.33	0.35	0.34	0.36	0.42	0.37
32.0 County line Rd., Skokie River	0.29	0.39	0.34	0.33	0.36	0.35	0.34	0.34	0.35	0.42	0.41
34.0 Dempster St., N.B. Chicago River	0.49	0.63	0.53	0.47	0.59	0.44	0.51	0.49	0.46	0.59	0.61
74.0 Outer Dr. Bridge, Chicago River	0.19	0.26	0.14	0.12	0.12	0.25	0.20	0.17	0.25	0.27	0.25
35.0 Central Ave., N. Shore Channel	0.16	0.20	0.19	0.13	0.11	0.22	0.17	0.15	0.21	0.29	0.19
36.0 Touhy Ave., N. Shore Channel	0.78	0.71	0.76	0.56	0.77	0.57	0.63	0.62	0.59	0.65	0.61
37.0 Wilson Ave., N.B. Chicago River	0.75	0.73	0.72	0.60	0.68	0.71	0.62	0.61	0.60	0.70	0.62
73.0 Diversey Ave., N.B. Chicago River	0.74	0.63	0.73	0.60	0.70	0.61	0.60	0.63	0.59	0.69	0.64
46.0 Grand Ave., N.B. Chicago River	0.70	0.75	0.71	0.62	0.74	0.67	0.66	0.65	0.61	0.77	0.63
39.0 Madison St., S.B. Chicago River	0.47	0.37	0.38	0.38	0.43	0.39	0.40	0.40	0.51	0.48	0.43
40.0 Damen Ave., S.B. Chicago River	0.47	0.46	0.43	0.41	0.53	0.42	0.41	0.41	0.46	0.55	0.51
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.43	0.44	0.45	0.40	0.48	0.45	0.42	0.46	0.48	0.57	0.52
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.70	0.70	0.67	0.59	0.69	0.59	0.62	0.61	0.68	0.78	0.73
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.74	0.73	0.72	0.64	0.73	0.65	0.66	0.67	0.67	0.79	0.76
48.0 Lemont Bridge, Stephen Street (Comp)	0.70	0.74	0.68	0.63	0.75	0.65	0.65	0.67	0.64	0.81	0.71
82.0 Lockport Trebler	0.79	0.73	0.74	0.79	0.76	0.70	0.63	0.62	0.75	0.69	0.76
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.20	0.27	0.18	0.21	0.40	0.27	0.29	0.33	0.31	0.29	0.28
54.0 Joe Orr Road, Thorn Creek	0.59	0.75	0.69	0.64	0.66	0.59	0.68	0.53	0.62	0.71	0.77
52.0 Wentworth Ave., Little Calumet River	1.06	1.53	1.15	1.51	1.91	1.01	0.68	0.64	0.93	1.37	1.37
57.0 135th and Ashland, Little Calumet River	0.73	0.78	0.63	0.75	0.77	0.56	0.55	0.54	0.77	0.83	0.78
86.0 Burnham Avenue, Grand Calumet River	0.85	0.94	0.93	0.94	0.85	0.70	0.76	0.71	0.74	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.40	0.85
49.0 92nd and Ewing Ave., Calumet River	0.22	0.19	0.14	0.12	0.15	0.24	0.17	ND	0.30	0.22	0.31
55.0 130th Street, Calumet River	0.24	0.24	0.20	0.21	0.22	0.34	0.27	0.27	0.32	0.29	0.31
56.0 Indiana Ave., Calumet River	0.42	0.44	0.31	0.28	0.45	0.44	0.38	0.35	0.35	0.44	0.42
76.0 Halsted Street, Little Cal. River	0.76	0.79	0.75	0.76	0.80	0.71	0.81	0.60	0.75	0.87	0.85
58.0 Ashland Ave., Cal-Sag Channel	0.75	0.81	0.80	0.69	0.70	0.60	0.75	0.56	0.70	0.87	0.78
59.0 Cicero Ave., Cal-Sag Channel	0.74	0.68	0.72	0.72	0.73	0.67	0.72	0.53	0.71	0.78	0.81
43.0 Hwy. 83 and Cal-Sag Channel	0.65	0.73	0.68	0.60	0.68	0.61	0.64	0.51	0.65	0.74	0.76
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.45	0.24	0.30	0.37	0.33	0.30	0.47	0.37	0.33	0.65	0.57
64.0 Lake St., Du Page River	1.06	0.54	0.56	0.66	0.68	0.50	0.72	0.66	0.61	0.95	0.99
89.0 Wanut Lane, West Branch Du Page River	0.84	0.65	0.57	0.72	0.70	0.53	0.71	0.74	0.63	0.95	1.23
90.0 Chicago-Elgin Rd., Poplar Creek	0.19	0.24	0.19	0.19	0.16	0.20	0.22	0.21	0.20	0.38	0.28
12.0 County Line Rd., Buffalo Creek	0.35	0.18	0.20	0.19	0.18	0.28	0.29	0.26	0.23	0.37	0.37
79.0 Higgins Rd., Salt Creek	0.33	0.20	0.22	0.22	0.22	0.25	0.37	0.25	0.25	0.32	0.44
80.0 Arlington Hts. Rd., Salt Creek	0.85	0.62	0.58	0.60	0.54	0.35	0.49	0.41	0.39	0.63	0.63
18.0 Devon Ave., Salt Creek	0.74	0.47	0.58	0.57	0.53	0.36	0.48	0.44	0.42	0.66	0.62
24.0 Wolf Road, Salt Creek	0.59	0.50	0.58	0.59	0.53	0.41	0.57	0.49	0.43	0.68	0.71
21.0 First Ave., Salt Creek	0.75	0.53	0.55	0.60	0.52	0.42	0.52	0.51	0.45	0.70	0.72
77.0 Elmhurst Rd., Higgins Creek	0.26	0.18	0.19	0.21	0.19	0.22	0.32	0.25	0.31	0.38	0.34
78.0 Wille Rd., Higgins Creek	0.77	0.75	0.64	0.81	0.83	0.66	0.77	0.65	0.60	0.91	1.11
13.0 County Line Rd., Des Plaines River	0.56	0.45	0.47	0.43	0.53	0.35	0.43	0.40	0.33	0.61	0.65
17.0 Oakton St., Des Plaines River	0.50	0.33	0.40	0.38	0.26	0.35	0.43	0.38	0.33	0.57	0.58
19.0 Belmont Ave., Des Plaines River	0.56	0.38	0.44	0.46	0.51	0.37	0.45	0.38	0.35	0.64	0.67
20.0 Roosevelt Road, Des Plaines River	0.55	0.38	0.45	0.45	0.51	0.34	0.46	0.38	0.34	0.66	0.64
22.0 Ogden Ave., Des Plaines River	0.52	0.42	0.45	0.48	0.50	0.36	0.49	0.39	0.39	0.64	0.66
23.0 Willow Springs Rd., Des Plaines River	0.49	0.42	0.48	0.48	0.48	0.38	0.46	0.44	0.36	0.60	0.62
29.0 Lemont Stephen St., Des Plaines River	0.54	0.43	0.46	0.52	0.50	0.39	0.45	0.42	0.40	0.58	0.63

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-64

TOTAL ZINC MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0
31.0 County Line Rd., Md. Fork N. Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.0 County line Rd., Skokie River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34.0 Dempster St., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.0 Outer Dr. Bridge, Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.0 Central Ave., N. Shore Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0 Touhy Ave., N. Shore Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.0 Wilson Ave., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.0 Diversey Ave., N.B. Chicago River	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.0 Grand Ave., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.0 Madison St., S.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0 Damen Ave., S.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48.0 Lemont Bridge, Stephen Street (Comp)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.0 Lockport Trebler	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54.0 Joe Orr Road, Thorn Creek	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.0 Wentworth Ave., Little Calumet River	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.0 135th and Ashland, Little Calumet River	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.0 Burnham Avenue, Grand Calumet River	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.0	0.0	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0	0.1
49.0 92nd and Ewing Ave., Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ND	0.0	0.0	0.0
55.0 130th Street, Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.0 Indiana Ave., Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.0 Halsted Street, Little Cal. River	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
58.0 Ashland Ave., Cal-Sag Channel	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
59.0 Cicero Ave., Cal-Sag Channel	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43.0 Hwy. 83 and Cal-Sag Channel	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64.0 Lake St., Du Page River	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.0 Walnut Lane, West Branch Du Page River	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 Chicago-Elgin Rd., Poplar Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.0 County Line Rd., Buffalo Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.0 Higgins Rd., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.0 Arlington Hts. Rd., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0 Devon Ave., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0 Wolf Road, Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
21.0 First Ave., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.0 Elmhurst Rd., Higgins Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.0 Wille Rd., Higgins Creek	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13.0 County Line Rd., Des Plaines River	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0 Oakton St., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0 Belmont Ave., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0 Roosevelt Road, Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0 Ogden Ave., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0 Willow Springs Rd., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29.0 Lemont Stephen St., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-65

TOTAL CADMIUM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
31.0 County Line Rd., Md. Fork N. Branch	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.0 County line Rd., Skokie River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.0 Dempster St., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.0 Outer Dr. Bridge, Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.0 Diversey Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.0 Grand Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.0 Madison St., S.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.0 Damen Ave., S.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.0 Lockport Trebler	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.0 Wentworth Ave., Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.0 135th and Ashland, Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.0 Burnham Avenue, Grand Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.00
49.0 92nd and Ewing Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ND	0.00	0.00	0.00
55.0 130th Street, Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.0 Indiana Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.0 Halsted Street, Little Cal. River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.0 Ashland Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.0 Cicero Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.0 Hwy. 83 and Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.0 Lake St., Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.0 Wanut Lane, West Branch Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0 Chicago-Elgin Rd., Poplar Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.0 County Line Rd., Buffalo Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
18.0 Devon Ave., Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.0 First Ave., Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.0 Elmhurst Rd., Higgins Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.0 Wille Rd., Higgins Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0 County Line Rd., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.0 Oakton St., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.0 Belmont Ave., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.0 Roosevelt Road, Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.0 Ogden Ave., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23.0 Willow Springs Rd., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.0 Lemont Stephen St., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-66

TOTAL COPPER MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.02	0.02	0.25	0.00	0.00	0.00	0.00	0.00	0.01
31.0 County Line Rd., Md. Fork N. Branch	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.0 County line Rd., Skokie River	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
34.0 Dempster St., N.B. Chicago River	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.0 Outer Dr. Bridge, Chicago River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
73.0 Diversey Ave., N.B. Chicago River	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46.0 Grand Ave., N.B. Chicago River	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.0 Madison St., S.B. Chicago River	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.0 Damen Ave., S.B. Chicago River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
82.0 Lockport Treblar	0.11	0.05	0.03	0.02	0.01	ND	0.01	0.01	0.02	0.01	0.02
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.0 Wentworth Ave., Little Calumet River	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.0 135th and Ashland, Little Calumet River	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.0 Burnham Avenue, Grand Calumet River	0.02	0.01	0.02	0.03	0.01	0.00	0.02	0.00	0.01	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.02
49.0 92nd and Ewing Ave., Calumet River	0.01	0.00	0.00	0.01	0.00	0.00	0.00	ND	0.00	0.00	0.00
55.0 130th Street, Calumet River	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.0 Indiana Ave., Calumet River	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.0 Halsted Street, Little Cal. River	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.0 Ashland Ave., Cal-Sag Channel	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.0 Cicero Ave., Cal-Sag Channel	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.0 Hwy. 83 and Cal-Sag Channel	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.01	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00
64.0 Lake St., Du Page River	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01
89.0 Wanut Lane, West Branch Du Page River	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01
90.0 Chicago-Elgin Rd., Poplar Creek	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
12.0 County Line Rd., Buffalo Creek	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
18.0 Devon Ave., Salt Creek	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01
21.0 First Ave., Salt Creek	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.01
77.0 Elmhurst Rd., Higgins Creek	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
78.0 Wille Rd., Higgins Creek	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
13.0 County Line Rd., Des Plaines River	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.0 Oakton St., Des Plaines River	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
19.0 Belmont Ave., Des Plaines River	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
20.0 Roosevelt Road, Des Plaines River	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01
22.0 Ogden Ave., Des Plaines River	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
23.0 Willow Springs Rd., Des Plaines River	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
29.0 Lemont Stephen St., Des Plaines River	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-67

TOTAL CHROMIUM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.02	0.16	0.00	0.00	0.00	0.00	0.00	0.00
31.0 County Line Rd., Md. Fork N. Branch	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.0 County line Rd., Skokie River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.0 Dempster St., N.B. Chicago River	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
74.0 Outer Dr. Bridge, Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
73.0 Diversey Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46.0 Grand Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
39.0 Madison St., S.B. Chicago River	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
40.0 Damen Ave., S.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
82.0 Lockport Trebler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
52.0 Wentworth Ave., Little Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
57.0 135th and Ashland, Little Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.0 Burnham Avenue, Grand Calumet River	0.00	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.01
49.0 92nd and Ewing Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ND	ND	0.01	0.01
55.0 130th Street, Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
56.0 Indiana Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.0 Halsted Street, Little Cal. River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
58.0 Ashland Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
59.0 Cicero Ave., Cal-Sag Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43.0 Hwy. 83 and Cal-Sag Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
64.0 Lake St., Du Page River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.0 Wanut Lane, West Branch Du Page River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0 Chicago-Elgin Rd., Poplar Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
12.0 County Line Rd., Buffalo Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
18.0 Devon Ave., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
21.0 First Ave., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
77.0 Elmhurst Rd., Higgins Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.0 Wille Rd., Higgins Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
13.0 County Line Rd., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.0 Oakton St., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01
19.0 Belmont Ave., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.0 Roosevelt Road, Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22.0 Ogden Ave., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
23.0 Willow Springs Rd., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29.0 Lemont Stephen St., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-68

TOTAL IRON MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.69	0.63	94.35	1.10	0.68	0.75	0.43	0.24	0.85
31.0 County Line Rd., Md. Fork N. Branch	0.53	0.71	0.79	0.78	0.61	0.73	0.65	0.56	0.52	0.85	0.71
32.0 County line Rd., Skokie River	0.57	0.49	0.62	0.64	0.50	0.71	0.71	0.68	0.67	0.88	0.83
34.0 Dempster St., N.B. Chicago River	0.49	0.43	0.44	0.55	0.38	0.47	0.55	0.30	0.46	0.52	0.55
74.0 Outer Dr. Bridge, Chicago River	0.10	0.13	0.14	0.15	0.08	0.11	0.07	0.03	0.05	0.00	0.10
35.0 Central Ave., N. Shore Channel	0.18	0.18	0.20	0.25	0.13	0.18	0.17	0.05	0.25	0.04	0.18
36.0 Touhy Ave., N. Shore Channel	0.11	0.10	0.14	0.14	0.12	0.12	0.08	0.00	0.00	0.08	0.16
37.0 Wilson Ave., N.B. Chicago River	0.18	0.15	0.20	0.23	0.16	0.15	0.15	0.06	0.12	0.08	0.25
73.0 Diversey Ave., N.B. Chicago River	0.25	0.21	0.27	0.26	0.18	0.28	0.16	0.08	0.26	0.09	0.40
46.0 Grand Ave., N.B. Chicago River	0.22	0.23	0.24	0.29	0.25	0.28	0.30	0.10	0.22	0.18	0.28
39.0 Madison St., S.B. Chicago River	0.20	0.17	0.22	0.25	0.14	0.26	0.14	0.03	0.16	0.09	0.28
40.0 Damen Ave., S.B. Chicago River	0.21	0.22	0.25	0.45	0.18	0.26	0.25	0.17	0.20	0.16	0.24
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.22	0.24	0.27	0.28	0.22	0.28	0.22	0.12	0.16	0.12	0.27
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.14	0.15	0.16	0.24	0.19	0.17	0.18	0.07	0.10	0.08	0.20
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.13	0.22	0.17	0.27	0.36	0.17	0.16	0.08	0.17	0.21	0.18
48.0 Lemont Bridge, Stephen Street (Comp)	0.26	0.28	0.33	0.37	0.28	0.35	0.49	0.20	0.30	0.28	0.53
82.0 Lockport Trebler	1.16	1.39	0.78	0.37	0.35	0.62	0.48	0.91	0.77	0.45	0.48
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.13	0.08	0.11	0.12	0.18	0.09	0.13	0.08	0.06	0.03	0.11
54.0 Joe Orr Road, Thorn Creek	0.45	0.37	0.22	0.27	0.24	0.47	0.32	0.57	0.29	0.30	0.22
52.0 Wentworth Ave., Little Calumet River	1.44	0.98	1.15	0.78	1.17	1.40	1.43	1.21	0.93	1.19	1.13
57.0 135th and Ashland, Little Calumet River	0.85	0.67	0.61	0.51	0.63	0.83	0.63	0.88	0.63	0.80	0.73
86.0 Burnham Avenue, Grand Calumet River	0.96	0.71	4.66	1.58	1.19	1.08	2.51	1.02	1.09	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.75	0.98
49.0 92nd and Ewing Ave., Calumet River	0.21	0.16	0.21	0.21	0.18	0.17	0.19	ND	0.30	0.12	0.18
55.0 130th Street, Calumet River	0.20	0.19	0.22	0.20	0.18	0.16	0.32	0.20	0.25	0.16	0.21
56.0 Indiana Ave., Calumet River	0.33	0.41	0.55	0.56	0.55	0.63	0.43	0.51	0.35	0.50	0.64
76.0 Halsted Street, Little Cal. River	0.29	0.35	0.41	0.38	0.38	0.92	0.45	0.30	0.32	0.34	0.41
58.0 Ashland Ave., Cal-Sag Channel	0.35	0.72	0.55	0.49	0.47	0.72	0.37	0.82	0.50	0.47	0.57
59.0 Cicero Ave., Cal-Sag Channel	0.42	0.51	0.61	0.66	0.57	0.68	0.46	0.79	0.63	0.60	0.69
43.0 Hwy. 83 and Cal-Sag Channel	0.42	0.66	0.69	0.58	0.65	0.77	0.54	0.84	0.60	0.43	0.66
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.75	0.61	0.95	0.94	0.59	0.79	0.63	0.62	0.73	0.47	0.94
64.0 Lake St., Du Page River	0.54	0.63	0.73	0.67	0.47	0.58	0.43	0.36	0.25	0.25	0.37
89.0 Wanut Lane, West Branch Du Page River	0.23	0.22	0.41	0.55	0.30	0.34	0.32	0.26	0.13	0.04	0.18
90.0 Chicago-Elgin Rd., Poplar Creek	0.51	0.89	0.93	0.64	0.55	0.84	0.60	0.57	0.58	0.49	0.51
12.0 County Line Rd., Buffalo Creek	0.63	0.60	0.79	0.52	0.78	0.68	0.58	0.70	0.79	0.60	1.09
79.0 Higgins Rd., Salt Creek	0.74	0.82	0.97	0.67	0.59	0.86	0.56	0.64	0.65	0.47	0.84
80.0 Arlington Hts. Rd., Salt Creek	0.22	0.25	0.23	0.21	0.25	0.27	0.21	0.08	0.28	0.14	0.47
18.0 Devon Ave., Salt Creek	0.25	0.43	0.30	0.28	0.32	0.30	0.25	0.11	0.30	0.23	0.44
24.0 Wolf Road, Salt Creek	0.48	0.60	0.60	0.54	0.65	0.66	0.52	0.73	0.63	0.72	0.68
21.0 First Ave., Salt Creek	0.46	0.47	0.50	0.44	0.59	0.78	0.49	0.69	0.65	0.65	0.57
77.0 Elmhurst Rd., Higgins Creek	0.75	0.70	1.03	0.96	1.05	0.70	0.65	0.76	0.54	0.70	0.93
78.0 Wille Rd., Higgins Creek	0.41	0.18	0.33	0.34	0.27	0.22	0.05	0.09	0.13	0.03	0.07
13.0 County Line Rd., Des Plaines River	0.54	0.59	0.58	0.43	0.50	0.63	0.48	0.55	0.66	0.51	0.53
17.0 Oakton St., Des Plaines River	0.59	0.69	0.50	0.54	0.70	0.67	0.55	0.58	0.57	0.53	0.57
19.0 Belmont Ave., Des Plaines River	0.49	0.67	0.51	0.51	0.89	0.60	0.46	0.47	0.58	0.44	0.56
20.0 Roosevelt Road, Des Plaines River	0.46	0.65	0.48	0.46	0.53	0.67	0.45	0.55	0.57	0.42	0.51
22.0 Ogden Ave., Des Plaines River	0.45	0.64	0.48	0.47	0.58	0.80	0.53	0.61	0.52	0.53	0.52
23.0 Willow Springs Rd., Des Plaines River	0.58	0.60	0.55	0.51	0.47	0.62	0.52	0.58	0.52	0.55	0.61
29.0 Lemont Stephen St., Des Plaines River	0.87	0.57	0.57	0.48	0.62	0.70	0.52	0.67	0.57	0.55	0.52

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-69

SOLUBLE IRON MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0.0	0.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	0.0	0.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.0	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.0	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.0	0.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	0.3	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	0.5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	0.4	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	0.3	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0.1	0.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0.0	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	0.1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.3	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0.2	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0.2	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0.2	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0.1	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0.1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-70

TOTAL NICKEL MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
31.0 County Line Rd., Md. Fork N. Branch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.0 County line Rd., Skokie River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34.0 Dempster St., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.0 Outer Dr. Bridge, Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.0 Central Ave., N. Shore Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36.0 Touhy Ave., N. Shore Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.0 Wilson Ave., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.0 Diversey Ave., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.0 Grand Ave., N.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39.0 Madison St., S.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.0 Damen Ave., S.B. Chicago River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48.0 Lemont Bridge, Stephen Street (Comp)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.0 Lockport Trebler	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54.0 Joe Orr Road, Thorn Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.0 Wentworth Ave., Little Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.0 135th and Ashland, Little Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.0 Burnham Avenue, Grand Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0	0.0
49.0 92nd and Ewing Ave., Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ND	0.0	0.0	0.0
55.0 130th Street, Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.0 Indiana Ave., Calumet River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.0 Halsted Street, Little Cal. River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58.0 Ashland Ave., Cal-Sag Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59.0 Cicero Ave., Cal-Sag Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43.0 Hwy. 83 and Cal-Sag Channel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64.0 Lake St., Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.0 Wanut Lane, West Branch Du Page River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.0 Chicago-Elgin Rd., Poplar Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.0 County Line Rd., Buffalo Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.0 Higgins Rd., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.0 Arlington Hts. Rd., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0 Devon Ave., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0 Wolf Road, Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21.0 First Ave., Salt Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.0 Elmhurst Rd., Higgins Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.0 Wille Rd., Higgins Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.0 County Line Rd., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0 Oakton St., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0 Belmont Ave., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0 Roosevelt Road, Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0 Ogden Ave., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0 Willow Springs Rd., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29.0 Lemont Stephen St., Des Plaines River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-71

TOTAL LEAD MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.01	0.83	0.00	0.00	0.00	0.00	0.00	0.01
31.0 County Line Rd., Md. Fork N. Branch	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
32.0 County Line Rd., Skokie River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
34.0 Dempster St., N.B. Chicago River	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01
74.0 Outer Dr. Bridge, Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
73.0 Diversey Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46.0 Grand Ave., N.B. Chicago River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
39.0 Madison St., S.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
40.0 Damen Ave., S.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
82.0 Lockport Trebler	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
52.0 Wentworth Ave., Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
57.0 135th and Ashland, Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
86.0 Burnham Avenue, Grand Calumet River	0.00	0.00	0.09	0.02	0.00	0.00	0.01	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.01
49.0 92nd and Ewing Ave., Calumet River	0.00	0.02	0.00	0.00	0.00	0.00	0.00	ND	0.00	0.00	0.01
55.0 130th Street, Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.0 Indiana Ave., Calumet River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
76.0 Halsted Street, Little Cal. River	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
58.0 Ashland Ave., Cal-Sag Channel	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
59.0 Cicero Ave., Cal-Sag Channel	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43.0 Hwy. 83 and Cal-Sag Channel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
64.0 Lake St., Du Page River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.0 Wanut Lane, West Branch Du Page River	0.36	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
90.0 Chicago-Elgin Rd., Poplar Creek	0.55	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
12.0 County Line Rd., Buffalo Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
18.0 Devon Ave., Salt Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
21.0 First Ave., Salt Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
77.0 Elmhurst Rd., Higgins Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02
78.0 Wille Rd., Higgins Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
13.0 County Line Rd., Des Plaines River	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
17.0 Oakton St., Des Plaines River	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.01
19.0 Belmont Ave., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
20.0 Roosevelt Road, Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22.0 Ogden Ave., Des Plaines River	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
23.0 Willow Springs Rd., Des Plaines River	0.00	0.01	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01
29.0 Lemont Stephen St., Des Plaines River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-72

TOTAL MERCURY MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.03	0.10	0.04	0.00	0.00	0.05	0.05	0.13
31.0 County Line Rd., Md. Fork N. Branch	0.04	0.03	0.13	0.03	0.04	0.02	0.00	0.00	0.03	0.00	0.12
32.0 County Line Rd., Skokie River	0.04	0.05	0.00	0.02	0.04	0.03	0.00	0.00	0.08	0.03	0.08
34.0 Dempster St., N.B. Chicago River	0.04	0.04	0.00	0.03	0.04	0.03	0.00	0.00	0.08	0.00	0.05
74.0 Outer Dr. Bridge, Chicago River	0.04	0.01	0.04	0.00	0.01	0.02	0.00	0.00	0.03	0.04	0.04
35.0 Central Ave., N. Shore Channel	0.03	0.04	0.00	0.00	0.03	0.02	0.00	0.00	0.03	0.04	0.12
36.0 Touhy Ave., N. Shore Channel	0.03	0.06	0.00	0.04	0.05	0.00	0.00	0.00	0.03	0.00	0.15
37.0 Wilson Ave., N.B. Chicago River	0.04	0.08	0.00	0.03	0.03	0.03	0.00	0.00	0.03	0.00	0.18
73.0 Diversey Ave., N.B. Chicago River	0.04	0.09	0.00	0.03	0.03	0.02	0.00	0.00	0.00	0.03	0.12
46.0 Grand Ave., N.B. Chicago River	0.04	0.90	0.01	0.09	0.00	0.03	0.00	0.00	0.03	0.08	0.04
39.0 Madison St., S.B. Chicago River	0.03	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.08	0.04	0.06
40.0 Damen Ave., S.B. Chicago River	0.03	0.01	0.00	0.02	0.03	0.00	0.00	0.00	0.03	0.06	0.08
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.04	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.05	0.11
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.03	0.02	0.03	0.00	0.00	0.03	0.00	0.00	0.03	0.09	0.12
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.03	0.05	0.00	0.03	0.05	0.02	0.00	0.00	0.00	0.00	0.08
48.0 Lemont Bridge, Stephen Street (Comp)	0.03	0.02	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.13
82.0 Lockport Trebler	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.04	0.07	0.04	0.05
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.03	0.03	0.02	0.06	0.06	0.00	0.00	0.00	0.00	0.05	0.09
54.0 Joe Orr Road, Thorn Creek	0.04	0.04	0.00	0.01	0.07	0.00	0.00	0.00	0.03	0.00	0.06
52.0 Wentworth Ave., Little Calumet River	0.03	0.05	0.04	0.02	0.05	0.02	0.03	0.00	0.05	0.00	0.06
57.0 135th and Ashland, Little Calumet River	0.04	0.05	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.13
86.0 Burnham Avenue, Grand Calumet River	0.13	0.08	1.52	0.13	0.10	0.04	0.10	0.04	0.07	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03	0.09
49.0 92nd and Ewing Ave., Calumet River	0.03	0.03	0.02	0.05	0.03	0.00	0.00	ND	0.00	0.00	0.08
55.0 130th Street, Calumet River	0.03	0.07	0.03	0.03	0.05	0.03	0.00	0.00	0.00	0.00	0.09
56.0 Indiana Ave., Calumet River	0.04	0.06	0.02	0.00	0.02	0.02	0.00	0.00	0.03	0.00	0.09
76.0 Halsted Street, Little Cal. River	0.03	0.38	0.00	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.08
58.0 Ashland Ave., Cal-Sag Channel	0.01	0.93	0.01	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.06
59.0 Cicero Ave., Cal-Sag Channel	0.04	0.09	0.00	0.06	0.04	0.03	0.00	0.00	0.00	0.03	0.08
43.0 Hwy. 83 and Cal-Sag Channel	0.04	0.08	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.03	0.05
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.04	0.03	0.02	0.02	0.04	0.03	0.00	0.00	0.04	0.00	0.06
64.0 Lake St., Du Page River	0.02	0.06	0.01	0.03	0.05	0.03	0.00	0.00	0.03	0.00	0.09
89.0 Wanut Lane, West Branch Du Page River	0.33	0.04	0.01	0.02	0.02	0.00	0.00	0.00	0.03	0.03	0.05
90.0 Chicago-Elgin Rd., Poplar Creek	0.50	0.12	0.02	0.03	0.04	0.02	0.00	0.00	0.00	0.00	0.13
12.0 County Line Rd., Buffalo Creek	0.05	0.05	0.01	0.03	0.03	0.02	0.00	0.00	0.00	0.03	0.14
79.0 Higgins Rd., Salt Creek	0.06	0.05	0.01	0.00	0.01	0.05	0.00	0.00	0.03	0.08	0.10
80.0 Arlington Hts. Rd., Salt Creek	0.07	0.05	0.01	0.03	0.03	0.00	0.00	0.00	0.00	0.05	0.12
18.0 Devon Ave., Salt Creek	0.04	0.07	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.03	0.00
24.0 Wolf Road, Salt Creek	0.08	0.03	0.03	0.04	0.00	0.02	0.00	0.03	0.05	0.05	0.06
21.0 First Ave., Salt Creek	0.02	0.03	0.02	0.02	0.06	0.05	0.00	0.00	0.05	0.03	0.05
77.0 Elmhurst Rd., Higgins Creek	0.05	0.04	0.05	0.01	0.02	0.00	0.00	0.00	0.05	0.03	0.04
78.0 Wille Rd., Higgins Creek	0.02	0.03	0.02	0.01	0.02	0.03	0.00	0.00	0.03	0.07	0.04
13.0 County Line Rd., Des Plaines River	0.06	0.05	0.00	0.05	0.07	0.02	0.00	0.00	0.05	0.03	0.05
17.0 Oakton St., Des Plaines River	0.04	0.02	0.03	0.01	0.00	0.05	0.00	0.00	0.05	0.03	0.05
19.0 Belmont Ave., Des Plaines River	0.05	0.03	0.03	0.00	0.03	0.02	0.00	0.00	0.03	0.00	0.11
20.0 Roosevelt Road, Des Plaines River	0.05	0.03	0.03	0.00	0.04	0.02	0.00	0.03	0.03	0.05	0.01
22.0 Ogden Ave., Des Plaines River	0.01	0.02	0.00	0.03	0.05	0.03	0.00	0.03	0.00	0.03	0.06
23.0 Willow Springs Rd., Des Plaines River	0.03	0.05	0.05	0.00	0.05	0.03	0.00	0.00	0.00	0.03	0.07
29.0 Lemont Stephen St., Des Plaines River	0.03	0.02	0.00	0.02	0.05	0.03	0.00	0.00	0.00	0.08	0.08

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-73

TOTAL ARSENIC MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.0 County Line Rd., Md. Fork N. Branch	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.0 County line Rd., Skokie River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.0 Dempster St., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.0 Outer Dr. Bridge, Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.0 Diversey Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.0 Grand Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.0 Madison St., S.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.0 Damen Ave., S.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.0 Lockport Trebler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.0 Wentworth Ave., Little Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.0 135th and Ashland, Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.0 Burnham Avenue, Grand Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.00
49.0 92nd and Ewing Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ND	0.00	0.00	0.00
55.0 130th Street, Calumet River	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.0 Indiana Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.0 Halsted Street, Little Cal. River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.0 Ashland Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.0 Cicero Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.0 Hwy. 83 and Cal-Sag Channel	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.0 Lake St., Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.0 Wanut Lane, West Branch Du Page River	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0 Chicago-Elgin Rd., Poplar Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.0 County Line Rd., Buffalo Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.0 Devon Ave., Salt Creek	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.0 First Ave., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.0 Elmhurst Rd., Higgins Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.0 Wille Rd., Higgins Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0 County Line Rd., Des Plaines River	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.0 Oakton St., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.0 Belmont Ave., Des Plaines River	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.0 Roosevelt Road, Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.0 Ogden Ave., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23.0 Willow Springs Rd., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.0 Lemont Stephen St., Des Plaines River	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-74

TOTAL SELENIUM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.0 County Line Rd., Md. Fork N. Branch	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
32.0 County line Rd., Skokie River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02
34.0 Dempster St., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.0 Outer Dr. Bridge, Chicago River	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.0 Diversey Ave., N.B. Chicago River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.0 Grand Ave., N.B. Chicago River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.0 Madison St., S.B. Chicago River	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.0 Damen Ave., S.B. Chicago River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.0 Lockport Trebler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.0 Wentworth Ave., Little Calumet River	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.0 135th and Ashland, Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.0 Burnham Avenue, Grand Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.00
49.0 92nd and Ewing Ave., Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	ND	0.00	0.00	0.00
55.0 130th Street, Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.0 Indiana Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.0 Halsted Street, Little Cal. River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.0 Ashland Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.0 Cicero Ave., Cal-Sag Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.0 Hwy. 83 and Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.0 Lake St., Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.0 Wanut Lane, West Branch Du Page River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0 Chicago-Elgin Rd., Poplar Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.0 County Line Rd., Buffalo Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.0 Devon Ave., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.0 First Ave., Salt Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.0 Elmhurst Rd., Higgins Creek	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.0 Wille Rd., Higgins Creek	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0 County Line Rd., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.0 Oakton St., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.0 Belmont Ave., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.0 Roosevelt Road, Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.0 Ogden Ave., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23.0 Willow Springs Rd., Des Plaines River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.0 Lemont Stephen St., Des Plaines River	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-75

TOTAL BARIUM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.04	0.03	0.05	0.07	0.00	0.00	0.00	0.00	0.07
31.0 County Line Rd., Md. Fork N. Branch	0.04	0.04	0.04	0.04	0.01	0.00	0.00	0.00	0.00	0.06	0.04
32.0 County line Rd., Skokie River	0.04	0.04	0.05	0.05	0.02	0.00	0.00	0.00	0.03	0.07	0.12
34.0 Dempster St., N.B. Chicago River	0.03	0.04	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.04	0.03
74.0 Outer Dr. Bridge, Chicago River	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.03	0.00	0.05
35.0 Central Ave., N. Shore Channel	0.02	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.03
36.0 Touhy Ave., N. Shore Channel	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.03	0.08	0.03
37.0 Wilson Ave., N.B. Chicago River	0.04	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.04
73.0 Diversey Ave., N.B. Chicago River	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.03	0.05
46.0 Grand Ave., N.B. Chicago River	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.03	0.03	0.08
39.0 Madison St., S.B. Chicago River	0.02	0.02	0.02	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.03
40.0 Damen Ave., S.B. Chicago River	0.03	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.03	0.00	0.03
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.03
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.05	0.00	0.02
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.02
48.0 Lemont Bridge, Stephen Street (Comp)	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.07
82.0 Lockport Trebler	0.04	0.04	0.03	0.03	0.02	0.03	0.01	0.00	0.00	0.00	0.00
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.03	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.03	0.00	0.01
54.0 Joe Orr Road, Thorn Creek	0.03	0.03	0.02	0.02	0.00	0.00	0.00	0.00	0.06	0.03	0.05
52.0 Wentworth Ave., Little Calumet River	0.05	0.05	0.05	0.04	0.01	0.00	0.00	0.00	0.00	0.08	0.14
57.0 135th and Ashland, Little Calumet River	0.04	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.05	0.08
86.0 Burnham Avenue, Grand Calumet River	0.03	0.03	0.12	0.05	0.00	0.00	0.00	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.13
49.0 92nd and Ewing Ave., Calumet River	0.02	0.02	0.02	0.02	0.00	0.00	0.00	ND	0.00	0.00	0.02
55.0 130th Street, Calumet River	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.03	0.00	0.02
56.0 Indiana Ave., Calumet River	0.03	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.04
76.0 Halsted Street, Little Cal. River	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.08
58.0 Ashland Ave., Cal-Sag Channel	0.02	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.06
59.0 Cicero Ave., Cal-Sag Channel	0.02	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.08
43.0 Hwy. 83 and Cal-Sag Channel	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.03	0.03	0.06
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.05	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.05	0.06	0.13
64.0 Lake St., Du Page River	0.03	0.04	0.04	0.05	0.00	0.00	0.00	0.00	0.08	0.06	0.13
89.0 Wanut Lane, West Branch Du Page River	0.02	0.02	0.03	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.06
90.0 Chicago-Elgin Rd., Poplar Creek	0.06	0.07	0.08	0.07	0.02	0.00	0.00	0.00	0.03	0.00	0.14
12.0 County Line Rd., Buffalo Creek	0.05	0.05	0.05	0.05	0.03	0.02	0.00	0.00	0.00	0.05	0.13
79.0 Higgins Rd., Salt Creek	0.04	0.05	0.05	0.05	0.02	0.00	0.00	0.00	0.00	0.09	0.04
80.0 Arlington Hts. Rd., Salt Creek	0.02	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.04	0.00	0.08
18.0 Devon Ave., Salt Creek	0.02	0.04	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.03	0.01
24.0 Wolf Road, Salt Creek	0.04	0.03	0.04	0.03	0.01	0.00	0.00	0.00	0.09	0.05	0.18
21.0 First Ave., Salt Creek	0.03	0.03	0.04	0.03	0.00	0.00	0.00	0.00	0.06	0.03	0.12
77.0 Elmhurst Rd., Higgins Creek	0.06	0.05	0.06	0.05	0.04	0.00	0.00	0.00	0.00	0.06	0.04
78.0 Wille Rd., Higgins Creek	0.03	0.03	0.04	0.02	0.00	0.00	0.00	0.00	0.04	0.00	0.15
13.0 County Line Rd., Des Plaines River	0.04	0.04	0.04	0.03	0.01	0.00	0.00	0.00	0.03	0.00	0.07
17.0 Oakton St., Des Plaines River	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.16
19.0 Belmont Ave., Des Plaines River	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.08
20.0 Roosevelt Road, Des Plaines River	0.04	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.03	0.03	0.11
22.0 Ogden Ave., Des Plaines River	0.04	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.17
23.0 Willow Springs Rd., Des Plaines River	0.04	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.09
29.0 Lemont Stephen St., Des Plaines River	0.04	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.18

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-76

TOTAL SILVER MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.0 County Line Rd., Md. Fork N. Branch	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.0 County line Rd., Skokie River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.0 Dempster St., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.0 Outer Dr. Bridge, Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.0 Central Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.0 Touhy Ave., N. Shore Channel	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.0 Wilson Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.0 Diversey Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.0 Grand Ave., N.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.0 Madison St., S.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.0 Damen Ave., S.B. Chicago River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.0 Lemont Bridge, Stephen Street (Comp)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.0 Lockport Trebler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.0 Joe Orr Road, Thorn Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.0 Wentworth Ave., Little Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.0 135th and Ashland, Little Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.0 Burnham Avenue, Grand Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.00
49.0 92nd and Ewing Ave., Calumet River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	ND	0.00	0.00	0.00
55.0 130th Street, Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.0 Indiana Ave., Calumet River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.0 Halsted Street, Little Cal. River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.0 Ashland Ave., Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.0 Cicero Ave., Cal-Sag Channel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.0 Hwy. 83 and Cal-Sag Channel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.0 Lake St., Du Page River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.0 Wanut Lane, West Branch Du Page River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0 Chicago-Elgin Rd., Poplar Creek	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.0 County Line Rd., Buffalo Creek	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.0 Higgins Rd., Salt Creek	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.0 Arlington Hts. Rd., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.0 Devon Ave., Salt Creek	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.0 Wolf Road, Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.0 First Ave., Salt Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.0 Elmhurst Rd., Higgins Creek	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.0 Wille Rd., Higgins Creek	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0 County Line Rd., Des Plaines River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17.0 Oakton St., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.0 Belmont Ave., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.0 Roosevelt Road, Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.0 Ogden Ave., Des Plaines River	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23.0 Willow Springs Rd., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.0 Lemont Stephen St., Des Plaines River	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-77

TOTAL MANGANESE MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.09	0.08	1.95	0.09	0.08	0.10	0.14	0.04	0.09
31.0 County Line Rd., Md. Fork N. Branch	0.08	0.18	0.18	0.09	0.13	0.09	0.12	0.11	0.11	0.16	0.11
32.0 County line Rd., Skokie River	0.12	0.12	0.16	0.08	0.10	0.10	0.10	0.11	0.12	0.11	0.12
34.0 Dempster St., N.B. Chicago River	0.07	0.07	0.13	0.06	0.07	0.07	0.08	0.07	0.16	0.07	0.07
74.0 Outer Dr. Bridge, Chicago River	0.01	0.01	0.01	0.02	0.01	0.03	0.01	0.03	0.20	0.00	0.01
35.0 Central Ave., N. Shore Channel	0.02	0.03	0.03	0.02	0.01	0.01	0.01	0.00	0.34	0.00	0.01
36.0 Touhy Ave., N. Shore Channel	0.01	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.05
37.0 Wilson Ave., N.B. Chicago River	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.01	0.19	0.01	0.04
73.0 Diversey Ave., N.B. Chicago River	0.05	0.16	0.04	0.02	0.03	0.04	0.02	0.02	0.13	0.01	0.07
46.0 Grand Ave., N.B. Chicago River	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.12	0.03	0.04
39.0 Madison St., S.B. Chicago River	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.00	0.17	0.03	0.03
40.0 Damen Ave., S.B. Chicago River	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.06	0.05	0.05	0.05
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.02	0.03	0.03	0.03	0.02	0.03	0.01	0.10	0.23	0.17	0.03
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.02	0.02	0.06	0.02	0.03	0.03	0.01	0.02	0.34	0.07	0.03
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.01	0.02	0.03	0.05	0.05	0.03	0.02	0.01	0.14	0.10	0.04
48.0 Lemont Bridge, Stephen Street (Comp)	0.03	0.04	0.05	0.04	0.05	0.05	0.04	0.04	0.07	0.08	0.28
82.0 Lockport Trebler	0.07	0.09	0.08	0.03	0.04	0.05	0.03	0.05	0.05	0.03	0.05
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.06	0.06	0.07	0.05	0.09	0.08	0.06	0.06	0.06	0.03	0.06
54.0 Joe Orr Road, Thorn Creek	0.04	0.15	0.06	0.04	0.06	0.08	0.11	0.04	0.05	0.06	0.09
52.0 Wentworth Ave., Little Calumet River	0.15	0.11	0.20	0.10	0.17	0.16	0.17	0.15	0.14	0.13	0.17
57.0 135th and Ashland, Little Calumet River	0.10	0.09	0.09	0.08	0.10	0.13	0.12	0.11	0.08	0.10	0.11
86.0 Burnham Avenue, Grand Calumet River	0.04	0.05	0.16	0.12	0.20	0.11	0.17	0.12	0.13	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14	0.15
49.0 92nd and Ewing Ave., Calumet River	0.03	0.01	0.04	0.08	0.02	0.02	0.02	ND	0.03	0.01	0.01
55.0 130th Street, Calumet River	0.04	0.04	0.08	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.04
56.0 Indiana Ave., Calumet River	0.04	0.04	0.07	0.05	0.08	0.11	0.06	0.07	0.06	0.07	0.08
76.0 Halsted Street, Little Cal. River	0.05	0.05	0.07	0.08	0.07	0.09	0.09	0.09	0.07	0.08	0.12
58.0 Ashland Ave., Cal-Sag Channel	0.05	0.05	0.12	0.10	0.07	0.10	0.08	0.24	0.10	0.10	0.14
59.0 Cicero Ave., Cal-Sag Channel	0.06	0.06	0.10	0.08	0.08	0.09	0.08	0.09	0.09	0.10	0.10
43.0 Hwy. 83 and Cal-Sag Channel	0.05	0.06	0.08	0.07	0.08	0.09	0.07	0.10	0.12	0.08	0.10
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.17	0.11	0.13	0.13	0.09	0.09	0.12	0.08	0.10	0.10	0.13
64.0 Lake St., Du Page River	0.07	0.11	0.09	0.07	0.07	0.07	0.06	0.03	0.05	0.03	0.04
89.0 Wanut Lane, West Branch Du Page River	0.08	0.13	0.05	0.06	0.04	0.05	0.05	0.02	0.02	0.02	0.03
90.0 Chicago-Elgin Rd., Poplar Creek	0.16	0.21	0.14	0.11	0.10	0.12	0.12	0.11	0.09	0.07	0.12
12.0 County Line Rd., Buffalo Creek	0.16	0.19	0.20	0.14	0.18	0.13	0.12	0.13	0.15	0.13	0.20
79.0 Higgins Rd., Salt Creek	0.09	0.25	0.12	0.09	0.11	0.10	0.12	0.08	0.08	0.09	0.09
80.0 Arlington Hts. Rd., Salt Creek	0.06	0.12	0.06	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.06
18.0 Devon Ave., Salt Creek	0.05	0.15	0.06	0.05	0.06	0.06	0.05	0.05	0.08	0.03	0.08
24.0 Wolf Road, Salt Creek	0.08	0.06	0.09	0.06	0.08	0.07	0.05	0.06	0.06	0.08	0.07
21.0 First Ave., Salt Creek	0.07	0.06	0.08	0.06	0.08	0.08	0.06	0.06	0.10	0.12	0.07
77.0 Elmhurst Rd., Higgins Creek	0.14	0.11	0.14	0.14	0.16	0.11	0.17	0.14	0.10	0.20	0.19
78.0 Wille Rd., Higgins Creek	0.09	0.04	0.06	0.04	0.03	0.03	0.02	0.01	0.04	0.04	0.01
13.0 County Line Rd., Des Plaines River	0.11	0.22	0.09	0.07	0.09	0.09	0.07	0.11	0.10	0.08	0.10
17.0 Oakton St., Des Plaines River	0.10	0.08	0.09	0.08	0.07	0.09	0.09	0.08	0.07	0.23	0.10
19.0 Belmont Ave., Des Plaines River	0.10	0.07	0.09	0.08	0.09	0.08	0.08	0.07	0.07	0.16	0.09
20.0 Roosevelt Road, Des Plaines River	0.08	0.07	0.08	0.07	0.09	0.09	0.08	0.09	0.07	0.10	0.08
22.0 Ogden Ave., Des Plaines River	0.07	0.07	0.07	0.09	0.11	0.09	0.07	0.07	0.06	0.10	0.08
23.0 Willow Springs Rd., Des Plaines River	0.08	0.07	0.25	0.08	0.08	0.06	0.07	0.13	0.17	0.10	0.09
29.0 Lemont Stephen St., Des Plaines River	0.08	0.07	0.08	0.07	0.09	0.08	0.08	0.08	0.07	0.11	0.08

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-78

TOTAL CALCIUM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	71.0	61.3	127.0	82.1	74.8	65.7	71.5	63.5	56.3
31.0 County Line Rd., Md. Fork N. Branch	71.3	65.5	73.1	62.6	76.6	70.6	75.6	69.8	70.8	70.5	58.4
32.0 County line Rd., Skokie River	82.2	76.6	83.8	64.9	79.8	79.2	79.5	74.6	78.5	80.8	62.6
34.0 Dempster St., N.B. Chicago River	69.0	70.2	71.5	62.2	72.8	65.5	74.8	68.3	66.5	62.0	61.8
74.0 Outer Dr. Bridge, Chicago River	41.1	39.3	40.7	37.2	39.8	37.1	37.5	37.4	40.5	35.4	37.2
35.0 Central Ave., N. Shore Channel	45.1	42.6	48.2	39.6	39.0	39.3	37.5	37.2	49.9	35.5	37.1
36.0 Touhy Ave., N. Shore Channel	58.7	55.3	56.0	55.7	59.0	55.2	53.1	52.1	56.2	50.7	49.3
37.0 Wilson Ave., N.B. Chicago River	62.8	58.6	59.8	58.4	60.6	58.9	55.8	53.1	56.0	51.4	50.6
73.0 Diversey Ave., N.B. Chicago River	62.5	58.2	61.1	58.0	61.5	57.6	57.4	56.4	57.2	53.3	52.3
46.0 Grand Ave., N.B. Chicago River	61.9	57.4	58.2	62.2	61.3	55.9	57.8	55.8	55.7	51.5	49.3
39.0 Madison St., S.B. Chicago River	54.3	48.5	52.1	45.2	50.2	48.8	47.6	48.0	54.1	45.8	43.8
40.0 Damen Ave., S.B. Chicago River	55.0	51.7	52.4	44.8	53.8	50.5	48.4	48.3	53.4	46.6	47.8
75.0 Cicero Ave., Chgo. San. and Ship Canal	52.8	52.6	50.7	48.5	54.6	49.8	47.2	50.4	53.3	47.6	48.3
41.0 Harlem Ave., Chgo. San. and Ship Canal	56.1	56.0	54.0	53.3	59.3	50.2	55.7	52.0	57.9	49.8	51.0
42.0 Hwy. 83 and Chgo. San. and Ship Canal	56.1	56.9	56.6	54.3	63.0	55.2	53.4	54.3	56.8	53.8	50.3
48.0 Lemont Bridge, Stephen Street (Comp)	57.8	61.5	60.2	57.0	63.7	59.0	58.6	60.4	60.4	58.4	56.4
82.0 Lockport Trebler	ND	ND	ND	65.2	66.5	84.8	68.6	66.1	55.7	49.0	45.7
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	35.8	38.2	37.3	33.9	42.8	35.5	38.0	35.3	33.9	30.2	30.3
54.0 Joe Orr Road, Thorn Creek	76.9	80.0	84.1	81.3	87.8	84.0	82.8	79.4	77.8	70.2	69.4
52.0 Wentworth Ave., Little Calumet River	80.5	88.5	97.3	82.0	101.1	90.8	103.8	80.3	89.6	96.0	88.1
57.0 135th and Ashland, Little Calumet River	72.8	81.9	91.1	86.5	89.2	81.4	95.5	77.3	85.0	85.7	76.8
86.0 Burnham Avenue, Grand Calumet River	73.4	75.0	96.7	84.1	88.0	82.8	86.4	82.9	78.4	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	78.8	72.5
49.0 92nd and Ewing Ave., Calumet River	39.0	38.6	40.7	38.9	41.1	37.8	35.1	ND	43.0	37.6	34.9
55.0 130th Street, Calumet River	43.9	44.8	45.7	43.9	45.8	46.1	44.4	47.5	50.2	44.9	40.9
56.0 Indiana Ave., Calumet River	54.2	55.3	53.9	52.2	57.2	62.1	52.4	59.2	54.7	53.4	49.6
76.0 Halsted Street, Little Cal. River	63.7	66.8	70.3	68.8	71.7	73.7	69.2	71.3	70.9	67.3	61.3
58.0 Ashland Ave., Cal-Sag Channel	61.0	68.7	71.3	70.9	70.9	74.0	70.7	71.3	72.7	69.1	61.9
59.0 Cicero Ave., Cal-Sag Channel	66.6	68.8	73.1	73.8	69.2	75.1	74.0	67.6	71.8	68.7	63.8
43.0 Hwy. 83 and Cal-Sag Channel	65.7	70.5	72.1	70.6	73.2	75.8	71.8	67.2	70.8	67.3	64.3
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	76.9	79.3	65.6	84.4	76.8	74.6	83.2	61.0	78.6	77.4	60.9
64.0 Lake St., Du Page River	65.3	63.8	63.1	68.1	69.3	63.7	69.3	63.6	72.0	66.1	61.4
89.0 Wanut Lane, West Branch Du Page River	61.2	60.0	59.9	67.3	69.4	67.0	67.3	58.2	68.1	59.3	56.3
90.0 Chicago-Elgin Rd., Poplar Creek	80.4	70.6	78.2	79.4	80.5	69.8	80.9	72.5	77.7	76.1	65.7
12.0 County Line Rd., Buffalo Creek	75.2	73.5	75.5	82.1	86.8	76.2	82.7	72.5	81.4	77.4	70.1
79.0 Higgins Rd., Salt Creek	69.6	65.1	70.8	74.5	77.7	68.6	76.8	60.0	65.1	73.6	60.7
80.0 Arlington Hts. Rd., Salt Creek	63.1	63.7	67.6	68.8	69.5	63.8	69.1	65.8	65.3	63.4	60.1
18.0 Devon Ave., Salt Creek	63.7	67.2	66.1	68.3	66.8	62.8	69.0	66.2	65.8	64.2	60.6
24.0 Wolf Road, Salt Creek	85.3	69.0	77.9	76.8	76.5	71.0	80.8	78.5	80.7	84.2	79.5
21.0 First Ave., Salt Creek	75.8	68.0	75.3	76.8	74.5	66.5	82.3	77.6	80.9	83.5	79.2
77.0 Elmhurst Rd., Higgins Creek	79.4	66.5	68.8	75.4	74.4	61.6	80.2	57.1	67.6	73.8	57.4
78.0 Wille Rd., Higgins Creek	80.1	73.6	74.3	74.2	70.9	70.7	79.6	67.7	74.1	69.0	67.8
13.0 County Line Rd., Des Plaines River	73.9	70.7	75.5	78.3	83.3	69.5	77.8	77.5	79.3	82.0	74.9
17.0 Oakton St., Des Plaines River	76.4	70.0	77.1	75.3	70.3	67.2	76.8	71.7	73.3	81.0	72.3
19.0 Belmont Ave., Des Plaines River	73.4	71.4	75.3	79.5	140.5	65.4	79.1	71.0	74.8	79.8	70.5
20.0 Roosevelt Road, Des Plaines River	73.6	72.0	76.3	76.7	75.0	64.5	79.0	69.8	75.8	79.7	69.7
22.0 Ogden Ave., Des Plaines River	74.1	70.8	76.0	79.3	73.2	65.1	75.9	73.3	75.2	80.6	71.5
23.0 Willow Springs Rd., Des Plaines River	74.2	70.9	76.0	76.5	70.6	65.2	78.8	75.3	76.3	79.4	69.0
29.0 Lemont Stephen St., Des Plaines River	75.1	75.3	77.3	75.4	73.9	70.7	79.5	76.1	75.9	81.9	74.3

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-79

TOTAL MAGNESIUM MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	29.0	24.9	46.0	44.1	32.4	27.2	28.1	25.9	25.0
31.0 County Line Rd., Md. Fork N. Branch	33.3	30.8	33.5	28.0	29.3	30.8	34.5	28.2	29.5	33.1	27.7
32.0 County line Rd., Skokie River	37.8	35.2	39.3	26.6	32.4	36.8	36.5	31.8	30.5	37.4	30.5
34.0 Dempster St., N.B. Chicago River	31.9	31.7	30.7	26.7	27.9	27.4	33.7	28.5	27.7	27.0	28.3
74.0 Outer Dr. Bridge, Chicago River	14.3	12.9	13.6	11.8	11.7	12.2	12.2	11.6	12.4	11.4	12.1
35.0 Central Ave., N. Shore Channel	14.9	14.4	15.9	13.6	11.3	12.0	12.2	11.7	16.6	11.6	12.3
36.0 Touhy Ave., N. Shore Channel	21.8	20.3	19.8	19.2	18.3	19.3	17.8	17.8	18.8	17.5	17.8
37.0 Wilson Ave., N.B. Chicago River	24.9	22.3	22.0	20.9	19.6	21.4	20.3	18.7	19.2	18.3	18.9
73.0 Diversey Ave., N.B. Chicago River	24.4	21.7	22.5	20.8	19.5	20.5	21.2	19.5	19.8	19.3	19.8
46.0 Grand Ave., N.B. Chicago River	24.2	21.5	21.2	22.1	19.4	20.5	19.6	19.4	19.0	18.7	18.3
39.0 Madison St., S.B. Chicago River	20.7	17.4	18.3	15.8	14.0	17.8	15.8	16.5	19.1	15.9	15.2
40.0 Damen Ave., S.B. Chicago River	21.4	18.5	18.7	16.0	16.5	18.5	16.8	16.4	18.0	16.5	17.3
75.0 Cicero Ave., Chgo. San. and Ship Canal	20.0	18.7	17.8	16.8	16.5	18.3	16.5	17.1	18.1	17.0	17.5
41.0 Harlem Ave., Chgo. San. and Ship Canal	21.8	20.1	19.3	18.7	17.5	18.6	18.8	18.0	19.8	17.8	18.8
42.0 Hwy. 83 and Chgo. San. and Ship Canal	21.5	20.4	20.1	19.0	19.8	19.9	18.4	19.2	19.4	18.8	18.3
48.0 Lemont Bridge, Stephen Street (Comp)	22.4	22.6	21.6	19.7	20.8	23.3	20.4	21.5	20.3	20.6	20.7
82.0 Lockport Trebler	ND	ND	ND	24.8	25.1	27.1	21.5	20.1	19.9	16.5	16.1
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	13.3	12.9	13.0	11.6	13.0	11.9	12.3	11.8	11.3	11.7	12.3
54.0 Joe Orr Road, Thorn Creek	36.0	36.8	38.2	36.5	35.8	36.3	37.0	32.8	31.7	31.7	34.8
52.0 Wentworth Ave., Little Calumet River	34.0	36.8	38.2	32.0	38.5	36.2	42.2	30.8	35.3	41.0	39.6
57.0 135th and Ashland, Little Calumet River	32.2	36.5	40.1	36.0	36.0	33.1	41.6	31.9	34.5	38.2	36.9
86.0 Burnham Avenue, Grand Calumet River	59.8	51.2	69.4	77.3	80.8	52.6	55.3	60.6	48.4	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	31.8	22.5
49.0 92nd and Ewing Ave., Calumet River	13.4	12.9	13.2	12.1	12.1	11.9	11.4	ND	12.0	12.0	11.6
55.0 130th Street, Calumet River	14.9	15.4	14.6	13.5	13.5	15.8	14.6	15.5	17.2	14.5	13.7
56.0 Indiana Ave., Calumet River	27.8	26.5	24.0	23.1	28.0	29.4	22.4	25.9	20.5	18.7	16.6
76.0 Halsted Street, Little Cal. River	25.7	25.6	24.0	23.5	25.0	26.8	23.8	25.5	23.3	22.1	20.8
58.0 Ashland Ave., Cal-Sag Channel	24.3	26.5	25.9	25.0	26.6	29.1	25.3	26.2	24.8	24.3	21.9
59.0 Cicero Ave., Cal-Sag Channel	26.8	26.8	26.5	25.8	25.3	28.9	27.0	25.0	24.8	24.2	22.8
43.0 Hwy. 83 and Cal-Sag Channel	26.9	28.0	26.4	24.6	26.8	28.8	27.4	24.7	24.3	24.5	23.7
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	31.1	30.9	23.3	31.8	25.7	25.8	33.0	22.2	28.8	28.1	23.9
64.0 Lake St., Du Page River	25.2	25.6	23.5	25.5	22.1	23.2	26.5	23.7	27.2	25.0	24.8
89.0 Wanut Lane, West Branch Du Page River	23.2	23.3	22.2	24.9	22.1	24.8	26.3	21.7	25.3	22.1	22.3
90.0 Chicago-Elgin Rd., Poplar Creek	37.9	31.8	35.0	35.3	32.0	30.1	37.4	32.2	32.5	34.0	33.0
12.0 County Line Rd., Buffalo Creek	34.4	34.9	34.0	37.9	33.9	34.2	38.3	33.3	34.8	38.0	33.8
79.0 Higgins Rd., Salt Creek	30.6	28.9	30.1	31.7	29.5	27.8	33.2	24.4	26.5	32.9	27.8
80.0 Arlington Hts. Rd., Salt Creek	25.1	26.1	26.6	26.1	24.2	24.3	27.3	25.1	25.0	24.5	24.8
18.0 Devon Ave., Salt Creek	25.8	27.7	25.8	25.8	22.9	24.7	28.1	26.1	25.1	24.7	24.5
24.0 Wolf Road, Salt Creek	34.2	28.8	30.9	29.9	26.2	28.8	31.9	30.6	31.4	34.8	33.9
21.0 First Ave., Salt Creek	32.0	29.2	29.9	30.8	24.5	26.5	33.1	30.1	31.4	34.4	33.7
77.0 Elmhurst Rd., Higgins Creek	33.7	26.8	26.8	30.9	22.5	23.6	31.3	21.9	25.6	32.6	26.8
78.0 Wille Rd., Higgins Creek	29.5	28.6	28.7	27.8	21.8	26.8	28.8	24.4	26.8	25.2	25.0
13.0 County Line Rd., Des Plaines River	33.4	32.8	34.0	35.2	31.6	30.7	36.7	33.5	34.2	36.3	32.4
17.0 Oakton St., Des Plaines River	34.8	32.4	33.9	34.1	27.0	30.3	34.9	31.0	31.6	35.9	30.9
19.0 Belmont Ave., Des Plaines River	33.1	32.1	32.7	33.8	53.3	28.3	34.1	28.3	31.8	34.1	29.3
20.0 Roosevelt Road, Des Plaines River	34.2	32.3	33.3	33.1	27.3	27.4	34.5	29.8	32.2	33.7	29.4
22.0 Ogden Ave., Des Plaines River	32.7	31.0	32.8	33.3	25.8	27.8	33.4	29.4	31.3	34.0	30.1
23.0 Willow Springs Rd., Des Plaines River	33.4	32.0	33.0	33.5	25.8	27.5	33.8	30.7	31.7	34.0	29.6
29.0 Lemont Stephen St., Des Plaines River	33.8	33.3	32.9	31.4	27.0	29.7	34.5	31.0	31.3	35.0	32.3

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-80

HARDNESS MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	297	256	507	387	320	276	294	265	243
31.0 County Line Rd., Md. Fork N. Branch	315	290	321	272	312	303	331	290	298	312	260
32.0 County line Rd., Skokie River	361	336	371	272	333	349	349	317	322	356	282
34.0 Dempster St., N.B. Chicago River	304	306	305	265	297	276	325	288	280	266	271
74.0 Outer Dr. Bridge, Chicago River	162	151	158	142	148	143	144	141	152	135	143
35.0 Central Ave., N. Shore Channel	174	166	186	155	144	147	144	141	193	137	143
36.0 Touhy Ave., N. Shore Channel	236	221	222	218	223	217	206	203	218	199	196
37.0 Wilson Ave., N.B. Chicago River	260	238	240	232	232	235	223	209	219	204	204
73.0 Diversey Ave., N.B. Chicago River	257	234	245	230	234	228	231	221	224	212	212
46.0 Grand Ave., N.B. Chicago River	254	232	232	247	233	224	225	219	217	205	198
39.0 Madison St., S.B. Chicago River	221	192	205	178	183	195	184	188	214	180	172
40.0 Damen Ave., S.B. Chicago River	226	205	208	178	202	202	190	188	208	184	191
75.0 Cicero Ave., Chgo. San. and Ship Canal	214	208	200	190	204	200	186	196	208	189	193
41.0 Harlem Ave., Chgo. San. and Ship Canal	230	223	214	210	220	202	217	204	226	198	205
42.0 Hwy. 83 and Chgo. San. and Ship Canal	229	226	224	214	239	220	209	214	222	212	201
48.0 Lemont Bridge, Stephen Street (Comp)	237	247	239	223	245	243	230	239	235	231	226
82.0 Lockport Trebler	ND	ND	ND	265	269	323	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	144	148	147	132	160	138	145	137	131	124	127
54.0 Joe Orr Road, Thorn Creek	340	351	367	353	366	359	359	334	325	306	316
52.0 Wentworth Ave., Little Calumet River	341	372	400	337	411	376	433	327	369	409	383
57.0 135th and Ashland, Little Calumet River	314	355	393	364	371	339	410	324	354	371	344
86.0 Burnham Avenue, Grand Calumet River	430	398	527	528	553	423	443	457	395	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	328	274
49.0 92nd and Ewing Ave., Calumet River	153	150	156	147	152	143	135	ND	157	143	135
55.0 130th Street, Calumet River	171	175	174	165	170	180	171	183	196	172	159
56.0 Indiana Ave., Calumet River	250	247	233	225	258	276	223	254	221	210	192
76.0 Halsted Street, Little Cal. River	265	272	274	269	282	294	271	283	273	259	238
58.0 Ashland Ave., Cal-Sag Channel	252	281	285	280	287	305	281	286	284	273	245
59.0 Cicero Ave., Cal-Sag Channel	276	282	292	291	277	307	296	272	281	271	253
43.0 Hwy. 83 and Cal-Sag Channel	275	291	289	277	293	308	292	269	277	269	258
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	320	325	260	342	298	293	344	244	315	309	250
64.0 Lake St., Du Page River	267	265	254	275	264	254	282	256	292	268	255
89.0 Wanut Lane, West Branch Du Page River	248	246	241	271	264	269	277	234	274	239	232
90.0 Chicago-Elgin Rd., Poplar Creek	357	307	339	344	333	298	356	314	328	330	300
12.0 County Line Rd., Buffalo Creek	329	327	329	361	356	331	364	318	346	350	314
79.0 Higgins Rd., Salt Creek	300	282	301	317	315	286	328	250	271	319	266
80.0 Arlington Hts. Rd., Salt Creek	261	266	278	279	273	259	285	268	266	259	252
18.0 Devon Ave., Salt Creek	265	282	271	277	261	258	288	273	268	262	252
24.0 Wolf Road, Salt Creek	354	291	322	315	299	296	333	322	331	354	338
21.0 First Ave., Salt Creek	321	290	311	318	287	275	342	318	331	350	337
77.0 Elmhurst Rd., Higgins Creek	337	276	282	316	278	251	329	233	274	319	254
78.0 Wille Rd., Higgins Creek	321	301	303	300	267	287	317	269	295	276	272
13.0 County Line Rd., Des Plaines River	322	312	329	340	338	300	345	331	339	354	320
17.0 Oakton St., Des Plaines River	334	308	332	328	287	293	336	307	313	350	308
19.0 Belmont Ave., Des Plaines River	320	310	323	338	570	280	338	294	318	340	297
20.0 Roosevelt Road, Des Plaines River	324	313	328	328	299	274	339	297	322	338	295
22.0 Ogden Ave., Des Plaines River	320	304	325	335	289	277	327	304	316	341	302
23.0 Willow Springs Rd., Des Plaines River	323	309	326	329	283	276	336	314	321	338	294
29.0 Lemont Stephen St., Des Plaines River	326	325	329	318	296	299	341	318	319	349	319

ND = No data

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AII-81

BORON MEAN HISTORY THROUGH 1998

Sampling Location	Annual Means (mg/L)										
	98	97	96	95	94	93	92	91	90	89	88
<u>Chicago River System</u>											
30.0 County Line Rd., W. Fork N. Branch	ND	ND	0.33	ND	ND	ND	ND	ND	ND	ND	ND
31.0 County Line Rd., Md. Fork N. Branch	0.11	0.13	0.16	ND	ND	ND	ND	ND	ND	ND	ND
32.0 County line Rd., Skokie River	0.16	0.19	0.20	ND	ND	ND	ND	ND	ND	ND	ND
34.0 Dempster St., N.B. Chicago River	0.17	0.23	0.23	ND	ND	ND	ND	ND	ND	ND	ND
74.0 Outer Dr. Bridge, Chicago River	0.05	0.06	0.09	ND	ND	ND	ND	ND	ND	ND	ND
35.0 Central Ave., N. Shore Channel	0.04	0.06	0.12	ND	ND	ND	ND	ND	ND	ND	ND
36.0 Touhy Ave., N. Shore Channel	0.22	0.27	0.23	ND	ND	ND	ND	ND	ND	ND	ND
37.0 Wilson Ave., N.B. Chicago River	0.18	0.24	0.23	ND	ND	ND	ND	ND	ND	ND	ND
73.0 Diversey Ave., N.B. Chicago River	0.17	0.23	0.23	ND	ND	ND	ND	ND	ND	ND	ND
46.0 Grand Ave., N.B. Chicago River	0.18	0.22	0.23	ND	ND	ND	ND	ND	ND	ND	ND
39.0 Madison St., S.B. Chicago River	0.12	0.15	0.17	ND	ND	ND	ND	ND	ND	ND	ND
40.0 Damen Ave., S.B. Chicago River	0.12	0.19	0.17	ND	ND	ND	ND	ND	ND	ND	ND
75.0 Cicero Ave., Chgo. San. and Ship Canal	0.11	0.19	0.17	ND	ND	ND	ND	ND	ND	ND	ND
41.0 Harlem Ave., Chgo. San. and Ship Canal	0.17	0.24	0.21	ND	ND	ND	ND	ND	ND	ND	ND
42.0 Hwy. 83 and Chgo. San. and Ship Canal	0.19	0.26	0.23	ND	ND	ND	ND	ND	ND	ND	ND
48.0 Lemont Bridge, Stephen Street (Comp)	0.19	0.28	0.23	ND	ND	ND	ND	ND	ND	ND	ND
82.0 Lockport Trebler	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Calumet River System</u>											
50.0 Wolf Lake, Burnham Ave.	0.10	0.15	0.17	ND	ND	ND	ND	ND	ND	ND	ND
54.0 Joe Orr Road, Thorn Creek	0.36	0.43	0.41	ND	ND	ND	ND	ND	ND	ND	ND
52.0 Wentworth Ave., Little Calumet River	0.24	0.34	0.30	ND	ND	ND	ND	ND	ND	ND	ND
57.0 135th and Ashland, Little Calumet River	0.26	0.42	0.33	ND	ND	ND	ND	ND	ND	ND	ND
86.0 Burnham Avenue, Grand Calumet River	0.34	0.39	0.51	ND	ND	ND	ND	ND	ND	ND	ND
51.0 IHB R.R. Bridge, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49.0 92nd and Ewing Ave., Calumet River	0.05	0.09	0.10	ND	ND	ND	ND	ND	ND	ND	ND
55.0 130th Street, Calumet River	0.09	0.15	0.14	ND	ND	ND	ND	ND	ND	ND	ND
56.0 Indiana Ave., Calumet River	0.17	0.21	0.19	ND	ND	ND	ND	ND	ND	ND	ND
76.0 Halsted Street, Little Cal. River	0.25	0.29	0.34	ND	ND	ND	ND	ND	ND	ND	ND
58.0 Ashland Ave., Cal-Sag Channel	0.26	0.33	0.26	ND	ND	ND	ND	ND	ND	ND	ND
59.0 Cicero Ave., Cal-Sag Channel	0.26	0.30	0.28	ND	ND	ND	ND	ND	ND	ND	ND
43.0 Hwy. 83 and Cal-Sag Channel	0.24	0.30	0.28	ND	ND	ND	ND	ND	ND	ND	ND
<u>Des Plaines River System</u>											
63.0 Longmeadow Lane, Du Page River	0.18	0.22	0.20	ND	ND	ND	ND	ND	ND	ND	ND
64.0 Lake St., Du Page River	0.27	0.31	0.30	ND	ND	ND	ND	ND	ND	ND	ND
89.0 Wanut Lane, West Branch Du Page River	0.33	0.39	0.34	ND	ND	ND	ND	ND	ND	ND	ND
90.0 Chicago-Elgin Rd., Poplar Creek	0.06	0.14	0.16	ND	ND	ND	ND	ND	ND	ND	ND
12.0 County Line Rd., Buffalo Creek	0.10	0.17	0.18	ND	ND	ND	ND	ND	ND	ND	ND
79.0 Higgins Rd., Salt Creek	0.09	0.17	0.19	ND	ND	ND	ND	ND	ND	ND	ND
80.0 Arlington Hts. Rd., Salt Creek	0.23	0.28	0.28	ND	ND	ND	ND	ND	ND	ND	ND
18.0 Devon Ave., Salt Creek	0.22	0.26	0.27	ND	ND	ND	ND	ND	ND	ND	ND
24.0 Wolf Road, Salt Creek	0.19	0.27	0.28	ND	ND	ND	ND	ND	ND	ND	ND
21.0 First Ave., Salt Creek	0.23	0.31	0.27	ND	ND	ND	ND	ND	ND	ND	ND
77.0 Elmhurst Rd., Higgins Creek	0.15	0.20	0.24	ND	ND	ND	ND	ND	ND	ND	ND
78.0 Wille Rd., Higgins Creek	0.37	0.44	0.40	ND	ND	ND	ND	ND	ND	ND	ND
13.0 County Line Rd., Des Plaines River	0.18	0.25	0.30	ND	ND	ND	ND	ND	ND	ND	ND
17.0 Oakton St., Des Plaines River	0.17	0.24	0.30	ND	ND	ND	ND	ND	ND	ND	ND
19.0 Belmont Ave., Des Plaines River	0.21	0.27	0.24	ND	ND	ND	ND	ND	ND	ND	ND
20.0 Roosevelt Road, Des Plaines River	0.21	0.28	0.31	ND	ND	ND	ND	ND	ND	ND	ND
22.0 Ogden Ave., Des Plaines River	0.21	0.32	0.31	ND	ND	ND	ND	ND	ND	ND	ND
23.0 Willow Springs Rd., Des Plaines River	0.21	0.32	0.28	ND	ND	ND	ND	ND	ND	ND	ND
29.0 Lemont Stephen St., Des Plaines River	0.20	0.32	0.27	ND	ND	ND	ND	ND	ND	ND	ND

ND = No data

APPENDIX III

SIGNIFICANCE TESTS ON UPSTREAM AND DOWNSTREAM SAMPLE VALUES -
SIGNIFICANCE PROBABILITIES ASSOCIATED WITH APPROPRIATE TEST

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-1

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR NORTH SIDE WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
TKN (mg/L)	0.76	2.08	0.115	0.694	0.007	0.009	0.007
DO (mg/L)	7.20	7.31	0.003	-	-	0.240	0.240
TEMP (degrees C)	16.17	15.76	0.665	0.617	0.889	0.972	0.889
NH4-N (mg/L)	0.413	0.911	0.000	-	-	0.030	0.030
TDS (mg/L)	267	519	0.242	0.612	0.000	0.001	0.000
TS (mg/L)	276	529	0.189	0.592	0.000	0.001	0.000
HARD (mg/L)	174	236	0.065	0.822	0.005	0.007	0.005
ZN (mg/L)	0.001	0.017	0.000	-	-	0.046	0.046
TVS (mg/L)	-	-	-	-	-	-	-
PHENOL (mg/L)	10.33	13.42	0.199	0.787	0.469	0.498	0.469
TSS (mg/L)	8.89	10.33	0.004	-	-	0.332	0.332
FOG (mg/L)	-	3.97	0.647	-	-	-	-
MN (mg/L)	0.017	0.015	0.002	-	-	0.854	0.854
NH3-N (mg/L)	0.030	0.035	0.000	-	-	0.301	0.301
PH	8.2	7.5	0.826	0.787	0.065	0.070	0.065
CL (mg/L)	34.3	109.8	0.014	-	-	0.002	0.002
CN (mg/L)	0.001	0.006	0.038	-	-	0.000	0.000
G.ALPHA (pCi/L)	-	-	-	-	-	-	-
G.BETA (pCi/L)	-	-	-	-	-	-	-
WAD-CN (mg/L)	0.000	0.001	0.000	-	-	0.012	0.012
ORG-N (mg/L)	0.42	1.17	0.789	0.464	0.001	0.001	0.001
ALK (mg/L)	126.1	151.7	0.557	0.732	0.019	0.021	0.019
TURB (JTU)	8.67	6.75	0.225	0.783	0.033	0.026	0.033
T.P (mg/L)	0.13	1.18	0.029	-	-	0.000	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-1 (Continued)

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR NORTH SIDE WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
SO4 (mg/L)	34.13	54.21	0.223	0.196	0.006	0.006	0.006
NO2+NO3 (mg/L)	0.22	5.74	0.001	-	-	0.000	0.000
CA (mg/L)	45.11	58.67	0.092	0.674	0.014	0.012	0.014
CD (mg/L)	0.001	0.001	0.000	-	-	0.889	0.889
CU (mg/L)	0.004	0.004	0.000	-	-	0.771	0.771
CR (mg/L)	0.000	0.000	-	-	-	1.000	1.000
FE (mg/L)	0.180	0.107	0.015	-	-	0.101	0.101
NI (mg/L)	0.003	0.005	0.000	-	-	0.849	0.849
PB (mg/L)	0.000	0.000	-	-	-	1.000	1.000
HG (mg/L)	0.028	0.033	0.000	-	-	0.776	0.776
AS (mg/L)	0.000	0.000	-	-	-	1.000	1.000
SE (mg/L)	0.000	0.000	-	-	-	1.000	1.000
BA (mg/L)	0.022	0.021	0.000	-	-	0.669	0.669
AG (mg/L)	0.000	0.002	0.000	-	-	0.128	0.128
FC (Counts/100ml)	241	6963	0.003	-	-	0.000	0.000
F (mg/L)	0.158	0.778	0.006	-	-	0.000	0.000
MG (mg/L)	14.89	21.75	0.016	-	-	0.001	0.001
SOL-P (mg/L)	0.10	1.06	0.032	-	-	0.000	0.000
TOC (mg/L)	7.00	9.08	0.002	-	-	0.009	0.009
B (mg/L)	0.039	0.215	0.035	-	-	0.000	0.000

Sig. Prob. = Significance Probability. A value ≤ 0.05 indicates parameters are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-2

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR STICKNEY WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
TKN (mg/L)	1.48	1.50	0.006	-	-	0.773	0.773
DO (mg/L)	6.21	7.13	0.902	0.061	0.149	0.119	0.149
TEMP (degrees C)	17.97	16.68	0.248	0.347	0.669	0.525	0.669
NH4-N (mg/L)	0.403	0.495	0.000	-	-	0.166	0.166
TDS (mg/L)	533	598	0.003	-	-	0.126	0.126
TS (mg/L)	547	608	0.002	-	-	0.141	0.141
HARD (mg/L)	214	230	0.230	0.319	0.418	0.419	0.418
ZN (mg/L)	0.012	0.013	0.000	-	-	1.000	1.000
TVS (mg/L)	-	-	-	-	-	-	-
PHENOL (mg/L)	13.58	12.50	0.026	-	-	0.644	0.644
TSS (mg/L)	13.67	10.00	0.241	0.638	0.025	0.034	0.025
FOG (mg/L)	2.55	2.65	0.037	-	-	1.000	1.000
MN (mg/L)	0.022	0.019	0.002	-	-	0.389	0.389
NH3-N (mg/L)	0.051	0.021	0.000	-	-	0.583	0.583
PH	8.0	8.0	0.838	0.035	0.889	0.885	0.889
CL (mg/L)	149.0	143.3	0.000	-	-	0.403	0.403
CN (mg/L)	0.004	0.007	0.740	0.609	0.001	0.002	0.001
G.ALPHA (pCi/L)	-	-	-	-	-	-	-
G.BETA (pCi/L)	-	-	-	-	-	-	-
WAD-CN (mg/L)	0.001	0.001	0.009	-	-	0.862	0.862
ORG-N (mg/L)	1.07	1.01	0.017	-	-	0.885	0.885
ALK (mg/L)	143.6	136.9	0.143	0.534	0.490	0.488	0.490
TURB (JTU)	10.83	7.17	0.013	-	-	0.007	0.007
T.P (mg/L)	0.55	0.85	0.011	-	-	0.341	0.341

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-2 (Continued)

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR STICKNEY WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
SO4 (mg/L)	45.50	75.71	0.318	0.922	0.000	0.000	0.000
NO2+NO3 (mg/L)	3.04	6.97	0.023	-	-	0.000	0.000
CA (mg/L)	52.75	56.08	0.219	0.324	0.446	0.506	0.446
CD (mg/L)	0.000	0.000	-	-	-	1.000	1.000
CU (mg/L)	0.004	0.004	0.000	-	-	1.000	1.000
CR (mg/L)	0.000	0.001	0.000	-	-	0.359	0.359
FE (mg/L)	0.225	0.141	0.418	0.309	0.022	0.010	0.022
NI (mg/L)	0.003	0.003	0.000	-	-	1.000	1.000
PB (mg/L)	0.000	0.003	0.000	-	-	0.359	0.359
HG (mg/L)	0.043	0.034	0.000	-	-	0.651	0.651
AS (mg/L)	0.000	0.000	-	-	-	1.000	1.000
SE (mg/L)	0.000	0.000	-	-	-	1.000	1.000
BA (mg/L)	0.023	0.020	0.000	-	-	0.175	0.175
AG (mg/L)	0.002	0.001	0.000	-	-	0.580	0.580
FC (Counts/100ml)	352	5427	0.006	-	-	0.003	0.003
F (mg/L)	0.434	0.705	0.297	0.752	0.000	0.001	0.000
MG (mg/L)	20.00	21.75	0.421	0.319	0.389	0.385	0.389
SOL-P (mg/L)	0.38	0.74	0.001	-	-	0.174	0.174
TOC (mg/L)	10.33	13.67	0.000	-	-	0.641	0.641
B (mg/L)	0.113	0.172	0.360	0.389	0.005	0.003	0.005

Sig. Prob. = Significance Probability. A value ≤ 0.05 indicates parameters are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-3

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR CALUMET WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
TKN (mg/L)	1.00	1.27	0.031	-	-	0.042	0.042
DO (mg/L)	7.84	6.60	0.000	-	-	0.040	0.040
TEMP (degrees C)	16.70	16.37	0.004	-	-	0.941	0.941
NH4-N (mg/L)	0.307	0.348	0.000	-	-	0.166	0.166
TDS (mg/L)	496	564	0.206	0.417	0.361	0.299	0.361
TS (mg/L)	514	589	0.233	0.314	0.312	0.285	0.312
HARD (mg/L)	250	265	0.142	0.229	0.610	0.436	0.610
ZN (mg/L)	0.027	0.034	0.086	0.390	0.415	0.447	0.415
TVS (mg/L)	-	-	-	-	-	-	-
PHENOL (mg/L)	7.42	13.75	0.238	0.752	0.030	0.040	0.030
TSS (mg/L)	18.04	20.71	0.000	-	-	0.487	0.487
FOG (mg/L)	3.97	3.80	0.619	0.321	0.957	1.000	0.957
MN (mg/L)	0.038	0.045	0.102	0.095	0.365	0.461	0.365
NH3-N (mg/L)	0.014	0.007	0.000	-	-	0.655	0.655
PH	8.0	7.6	0.129	0.458	0.048	0.051	0.048
CL (mg/L)	99.2	122.3	0.143	0.318	0.298	0.204	0.298
CN (mg/L)	0.003	0.008	0.470	0.686	0.000	0.000	0.000
G.ALPHA (pCi/L)	-	-	-	-	-	-	-
G.BETA (pCi/L)	-	-	-	-	-	-	-
WAD-CN (mg/L)	0.000	0.001	0.000	-	-	0.001	0.001
ORG-N (mg/L)	0.69	0.92	0.181	0.325	0.101	0.093	0.101
ALK (mg/L)	128.6	153.4	0.028	-	-	0.050	0.050
TURB (JTU)	13.00	11.17	0.061	0.396	0.288	0.282	0.288
T.P (mg/L)	0.21	1.88	0.000	-	-	0.000	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-3 (Continued)

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR CALUMET WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
SO4 (mg/L)	88.22	119.04	0.028	-	-	0.026	0.026
NO2+NO3 (mg/L)	3.18	4.14	0.487	0.002	0.075	0.032	0.075
CA (mg/L)	54.17	63.67	0.560	0.581	0.094	0.133	0.094
CD (mg/L)	0.000	0.000	-	-	-	1.000	1.000
CU (mg/L)	0.007	0.004	0.000	-	-	0.332	0.332
CR (mg/L)	0.000	0.000	-	-	-	1.000	1.000
FE (mg/L)	0.334	0.294	0.139	0.680	0.383	0.133	0.383
NI (mg/L)	0.004	0.003	0.000	-	-	0.705	0.705
PB (mg/L)	0.000	0.000	-	-	-	1.000	1.000
HG (mg/L)	0.041	0.032	0.000	-	-	0.618	0.618
AS (mg/L)	0.000	0.000	-	-	-	1.000	1.000
SE (mg/L)	0.000	0.000	-	-	-	1.000	1.000
BA (mg/L)	0.028	0.018	0.000	-	-	0.000	0.000
AG (mg/L)	0.000	0.001	0.000	-	-	0.359	0.359
FC (Counts/100ml)	130	3747	0.275	0.239	0.000	0.000	0.000
F (mg/L)	0.422	0.760	0.047	-	-	0.000	0.000
MG (mg/L)	27.83	25.67	0.055	0.066	0.584	0.795	0.584
SOL-P (mg/L)	0.16	1.53	0.001	-	-	0.000	0.000
TOC (mg/L)	6.73	9.13	0.025	-	-	0.002	0.002
B (mg/L)	0.168	0.252	0.299	0.287	0.033	0.069	0.033

Sig. Prob. = Significance Probability. A value ≤ 0.05 indicates parameters are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-4

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
 FOR JOHN E. EGAN WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
TKN (mg/L)	1.31	1.45	0.621	0.038	0.546	0.692	0.546
DO (mg/L)	7.77	7.31	0.780	0.069	0.607	0.716	0.607
TEMP (degrees C)	19.12	17.56	0.059	0.314	0.608	0.531	0.608
NH4-N (mg/L)	0.118	0.178	0.002	-	-	0.447	0.447
TDS (mg/L)	747	701	0.001	-	-	0.644	0.644
TS (mg/L)	776	709	0.001	-	-	0.429	0.429
HARD (mg/L)	300	261	0.083	0.020	0.241	0.339	0.241
ZN (mg/L)	0.006	0.016	0.001	-	-	0.038	0.038
TVS (mg/L)	-	-	-	-	-	-	-
PHENOL (mg/L)	15.25	13.20	0.573	0.609	0.619	0.593	0.619
TSS (mg/L)	29.00	8.50	0.004	-	-	0.000	0.000
FOG (mg/L)	2.50	14.20	0.162	-	-	0.540	-
MN (mg/L)	0.092	0.064	0.010	-	-	0.055	0.055
NH3-N (mg/L)	0.011	0.008	0.000	-	-	0.817	0.817
PH	8.3	8.0	0.905	0.305	0.318	0.339	0.318
CL (mg/L)	200.7	177.6	0.000	-	-	0.373	0.373
CN (mg/L)	0.002	0.009	0.007	-	-	0.000	0.000
G.ALPHA (pCi/L)	-	-	-	-	-	-	-
G.BETA (pCi/L)	-	-	-	-	-	-	-
WAD-CN (mg/L)	0.000	0.002	0.000	-	-	0.000	0.000
ORG-N (mg/L)	1.19	1.27	0.826	0.012	0.709	0.895	0.709
ALK (mg/L)	171.4	145.0	0.172	0.034	0.094	0.129	0.094
TURB (JTU)	21.10	7.00	0.019	-	-	0.000	0.000
T.P (mg/L)	0.18	1.97	0.005	-	-	0.000	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-4 (Continued)

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR JOHN E. EGAN WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
SO4 (mg/L)	78.44	81.30	0.670	0.005	0.755	0.717	0.755
NO2+NO3 (mg/L)	0.51	7.46	0.009	-	-	0.000	0.000
CA (mg/L)	69.60	63.08	0.114	0.019	0.403	0.575	0.403
CD (mg/L)	0.000	0.001	0.000	-	-	0.411	0.411
CU (mg/L)	0.003	0.005	0.000	-	-	0.374	0.374
CR (mg/L)	0.000	0.002	0.000	-	-	0.209	0.209
FE (mg/L)	0.737	0.220	0.019	-	-	0.000	0.000
NI (mg/L)	0.005	0.006	0.000	-	-	0.473	0.473
PB (mg/L)	0.000	0.000	-	-	-	1.000	1.000
HG (mg/L)	0.062	0.067	0.000	-	-	0.842	0.842
AS (mg/L)	0.000	0.000	-	-	-	1.000	1.000
SE (mg/L)	0.000	0.000	-	-	-	1.000	1.000
BA (mg/L)	0.044	0.023	0.175	0.524	0.000	0.000	0.000
AG (mg/L)	0.001	0.000	0.000	-	-	0.315	0.315
FC (Counts/100ml)	52	260	0.026	-	-	0.121	0.121
F (mg/L)	0.327	0.851	0.008	-	-	0.002	0.002
MG (mg/L)	30.60	25.08	0.062	0.027	0.107	0.128	0.107
SOL-P (mg/L)	0.11	1.75	0.003	-	-	0.000	0.000
TOC (mg/L)	11.22	11.00	0.007	-	-	1.000	1.000
B (mg/L)	0.092	0.233	0.015	-	-	0.000	0.000

Sig. Prob. = Significance Probability. A value ≤ 0.05 indicates parameters are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-5

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
 AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
 FOR JAMES C. KIRIE WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
TKN (mg/L)	0.82	1.37	0.365	0.824	0.008	0.014	0.008
DO (mg/L)	7.97	7.80	0.533	0.013	0.869	0.931	0.869
TEMP (degrees C)	15.32	17.27	0.195	0.070	0.540	0.707	0.540
NH4-N (mg/L)	0.158	0.297	0.000	-	-	0.083	0.083
TDS (mg/L)	992	774	0.000	-	-	0.470	0.470
TS (mg/L)	1015	786	0.000	-	-	0.386	0.386
HARD (mg/L)	337	321	0.084	0.200	0.741	0.931	0.741
ZN (mg/L)	0.029	0.062	0.005	-	-	0.055	0.055
TVS (mg/L)	-	-	-	-	-	-	-
PHENOL (mg/L)	14.40	14.80	0.050	-	-	0.621	0.621
TSS (mg/L)	22.75	11.92	0.000	-	-	0.003	0.003
FOG (mg/L)	3.35	4.05	0.766	0.395	0.245	0.245	0.245
MN (mg/L)	0.136	0.093	0.000	-	-	0.003	0.003
NH3-N (mg/L)	0.005	0.007	0.000	-	-	0.260	0.260
PH	7.8	7.7	0.101	0.378	0.990	0.795	0.990
CL (mg/L)	363.8	193.4	0.000	-	-	0.033	0.033
CN (mg/L)	0.003	0.008	0.012	-	-	0.001	0.001
G.ALPHA (pCi/L)	-	-	-	-	-	-	-
G.BETA (pCi/L)	-	-	-	-	-	-	-
WAD-CN (mg/L)	0.001	0.001	0.001	-	-	0.295	0.295
ORG-N (mg/L)	0.66	1.07	0.858	0.828	0.013	0.026	0.013
ALK (mg/L)	196.3	173.1	0.001	-	-	0.885	0.885
TURB (JTU)	17.33	7.92	0.013	-	-	0.002	0.002
T.P (mg/L)	0.11	1.06	0.000	-	-	0.000	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-5 (Continued)

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR JAMES C. KIRIE WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
SO4 (mg/L)	66.37	96.49	0.649	0.005	0.003	0.002	0.003
NO2+NO3 (mg/L)	0.34	6.96	0.000	-	-	0.000	0.000
CA (mg/L)	79.42	80.08	0.059	0.328	0.952	0.795	0.952
CD (mg/L)	0.002	0.002	0.000	-	-	0.964	0.964
CU (mg/L)	0.007	0.013	0.000	-	-	0.731	0.731
CR (mg/L)	0.002	0.004	0.000	-	-	0.611	0.611
FE (mg/L)	0.748	0.415	0.000	-	-	0.002	0.002
NI (mg/L)	0.008	0.006	0.000	-	-	0.591	0.591
PB (mg/L)	0.000	0.000	-	-	-	1.000	1.000
HG (mg/L)	0.053	0.019	0.000	-	-	0.324	0.324
AS (mg/L)	0.000	0.000	-	-	-	1.000	1.000
SE (mg/L)	0.000	0.000	-	-	-	1.000	1.000
BA (mg/L)	0.060	0.027	0.018	-	-	0.000	0.000
AG (mg/L)	0.000	0.000	-	-	-	1.000	1.000
FC (Counts/100ml)	267	181	0.652	0.547	0.000	0.954	0.000
F (mg/L)	0.257	0.773	0.012	-	-	0.009	0.009
MG (mg/L)	33.67	29.50	0.040	-	-	0.582	0.582
SOL-P (mg/L)	0.07	0.82	0.000	-	-	0.000	0.000
TOC (mg/L)	11.00	12.00	0.151	0.055	0.358	0.174	0.358
B (mg/L)	0.148	0.373	0.093	0.976	0.000	0.000	0.000

Sig. Prob. = Significance Probability. A value ≤ 0.05 indicates parameters are different.

- = No Statistics.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-6

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR HANOVER PARK WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
TKN (mg/L)	1.66	2.34	0.178	0.910	0.048	0.034	0.048
DO (mg/L)	8.36	7.33	0.071	0.013	0.187	0.280	0.187
TEMP (degrees C)	17.76	18.30	0.040	-	-	0.817	0.817
NH4-N (mg/L)	0.135	0.192	0.261	0.845	0.344	0.354	0.344
TDS (mg/L)	804	602	0.001	-	-	0.049	0.049
TS (mg/L)	827	615	0.001	-	-	0.034	0.034
HARD (mg/L)	320	248	0.061	0.030	0.091	0.097	0.091
ZN (mg/L)	0.023	0.059	0.000	-	-	0.144	0.144
TVS (mg/L)	-	-	-	-	-	-	-
PHENOL (mg/L)	14.29	16.90	0.623	0.503	0.586	0.463	0.586
TSS (mg/L)	22.63	13.50	0.000	-	-	0.188	0.188
FOG (mg/L)	3.50	5.35	0.336	-	-	1.000	-
MN (mg/L)	0.174	0.080	0.000	-	-	0.022	0.022
NH3-N (mg/L)	0.014	0.006	0.000	-	-	1.000	1.000
PH	8.1	7.9	0.771	0.214	0.516	0.464	0.516
CL (mg/L)	219.6	130.5	0.001	-	-	0.012	0.012
CN (mg/L)	0.005	0.011	0.546	0.671	0.001	0.004	0.001
G.ALPHA (pCi/L)	-	-	-	-	-	-	-
G.BETA (pCi/L)	-	-	-	-	-	-	-
WAD-CN (mg/L)	0.001	0.001	0.010	-	-	0.175	0.175
ORG-N (mg/L)	1.52	2.14	0.042	-	-	0.097	0.097
ALK (mg/L)	183.5	153.8	0.799	0.167	0.068	0.083	0.068
TURB (JTU)	14.63	7.00	0.000	-	-	0.001	0.001
T.P (mg/L)	0.77	2.90	0.015	-	-	0.000	0.000

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE AIII-6 (Continued)

SIGNIFICANCE PROBABILITIES OF WATER QUALITY PARAMETERS
AT UPSTREAM (U) AND DOWNSTREAM (D) LOCATIONS
FOR HANOVER PARK WRP

Parameter (Unit)	Mean Up	Mean Down	Normal Sig. Prob.	Equal Variance Sig. Prob.	T-test Sig. Prob.	Wicoxon Sig. Prob.	Equal Means Sig. Prob.
SO4 (mg/L)	79.90	67.94	0.048	-	-	0.536	0.536
NO2+NO3 (mg/L)	2.57	8.34	0.005	-	-	0.002	0.002
CA (mg/L)	76.88	61.17	0.025	-	-	0.132	0.132
CD (mg/L)	0.001	0.000	0.000	-	-	0.262	0.262
CU (mg/L)	0.005	0.007	0.000	-	-	0.523	0.523
CR (mg/L)	0.002	0.000	0.000	-	-	0.088	0.088
FE (mg/L)	0.749	0.228	0.000	-	-	0.003	0.003
NI (mg/L)	0.011	0.006	0.000	-	-	0.214	0.214
PB (mg/L)	0.000	0.357	0.000	-	-	0.475	0.475
HG (mg/L)	0.041	0.328	0.000	-	-	0.879	0.879
AS (mg/L)	0.000	0.017	0.000	-	-	0.475	0.475
SE (mg/L)	0.000	0.000	-	-	-	1.000	1.000
BA (mg/L)	0.049	0.023	0.004	-	-	0.002	0.002
AG (mg/L)	0.000	0.000	-	-	-	1.000	1.000
FC (Counts/100ml)	603	666	0.075	0.947	0.000	0.699	0.000
F (mg/L)	0.453	0.844	0.313	0.141	0.002	0.011	0.002
MG (mg/L)	31.13	23.17	0.116	0.053	0.032	0.058	0.032
SOL-P (mg/L)	0.68	2.20	0.008	-	-	0.008	0.008
TOC (mg/L)	14.43	14.09	0.081	0.897	0.807	0.583	0.807
B (mg/L)	0.180	0.327	0.119	0.072	0.001	0.009	0.001

Sig. Prob. = Significance Probability. A value ≤ 0.05 indicates parameters are different.

- = No Statistics.