

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
WATER QUALITY STANDARDS AND) R08-9
EFFLUENT LIMITATIONS FOR THE) (Rulemaking - Water)
CHICAGO AREA WATERWAY)
SYSTEM AND THE LOWER DES) Subdocket C
PLAINES RIVER: PROPOSED)
AMENDMENTS TO 35 Ill. Adm. Code)
Parts 301, 302, 303 and 304

NOTICE OF FILING

To: ALL COUNSEL OF RECORD
(Service List Attached)

PLEASE TAKE NOTICE that on the 17th day of June, 2011, I electronically filed with the Office of the Clerk of the Illinois Pollution Control Board, the **Metropolitan Water Reclamation District of Greater Chicago's Submittal of Proposed Aquatic Uses and Dissolved Oxygen Water Quality Standards and Implementation Procedures.**

Dated: June 17, 2011.

**METROPOLITAN WATER
RECLAMATION DISTRICT OF
GREATER CHICAGO**

By: /s/ Fredric P. Andes
One of Its Attorneys

Fredric P. Andes
David T. Ballard
BARNES & THORNBURG LLP
One North Wacker Drive, Suite 4400
Chicago, Illinois 60606
(312) 357-1313

PROOF OF SERVICE

The undersigned attorney certifies, under penalties of perjury pursuant to 735 ILCS 5/1-109, that I caused a copy of the foregoing, **Notice of Filing** and the **Metropolitan Water Reclamation District of Greater Chicago's Submittal of Proposed Aquatic Uses and Dissolved Oxygen Water Quality Standards and Implementation Procedures** to be served via First Class Mail, postage prepaid, from One North Wacker Drive, Chicago, Illinois, on the 17th day of June, 2011, upon the attorneys of record on the attached Service List.

/s/ David T. Ballard

David T. Ballard

SERVICE LIST
R08-9 (Rulemaking - Water)

Richard J. Kissel
Roy M. Harsch
Drinker, Biddle, Gardner, Carton
191 North Wacker Drive
Suite 3700
Chicago, IL 60606-1698

Claire A. Manning
Brown, Hay & Stephens LLP
700 First Mercantile Bank Building
205 South Fifth Street
P.O. Box 2459
Springfield, IL 62705-2459

Deborah J. Williams, Assistant Counsel
Stefanie N. Diers, Assistant Counsel
IEPA
Division of Legal Counsel
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Katherine D. Hodge
Monica T. Rios
Matthew C. Read
Hodge Dwyer & Driver
3150 Roland Avenue
P.O. Box 5776
Springfield, IL 62705-5776

Thomas W. Dimond
Ice Miller LLP
200 West Madison Street
Suite 3500
Chicago, IL 60606-3417

Jerry Paulsen
Cindy Skrukrud
McHenry County Defenders
132 Cass Street
Woodstock, IL 60098

Robert VanGyseghem
City of Geneva
1800 South Street
Geneva, IL 60134-2203

Lisa Frede
Chemical Industry Council of Illinois
1400 East Touhy Avenue
Suite 100
Des Plaines, IL 60019-3338

Matthew J. Dunn, Chief
Office of the Attorney General
Environmental Bureau North
Suite 1800
69 West Washington Street
Chicago, IL 60602

James L. Daugherty, District Manager
Thorn Creek Basin Sanitary District
700 West End Avenue
Chicago Heights, IL 60411

Andrew Armstrong
Environmental Counsel
Environmental Division
69 West Washington Street
Suite 1800
Chicago, IL 60602

Tracy Elzemeyer, General Counsel
American Water Company Central Region
727 Craig Road
St. Louis, MO 63141

Bernard Sawyer
Thomas Granato
Metropolitan Water Reclamation District
6001 West Pershing Road
Cicero, IL 60804-4112

Frederick D. Keady, P.E., President
Vermilion Coal Company
1979 Johns Drive
Glenview, IL 60025

Keith I. Harley
Elizabeth Schenkier
Chicago Legal Clinic, Inc.
205 West Monroe Street
4th Floor
Chicago, IL 60606

James E. Eggen
Director of Public Works & Utilities
City of Joliet, Department of Public
Works & Utilities
921 East Washington Street
Joliet, IL 60431

W.C. Blanton
Husch Blackwell Sanders LLP
4801 Main Street
Suite 1000
Kansas City, MO 64112

Ann Alexander, Sr. Attorney
Natural Resources Defense Council
2 North Riverside Plaza
Floor 23
Chicago, IL 60606

Traci Barkley
Prairie Rivers Networks
1902 Fox Drive
Suite 6
Champaign, IL 61820

Beth Steinhorn
2021 Timberbrook
Springfield, IL 62702

James Huff, Vice President
Huff & Huff, Inc.
915 Harger Road
Suite 330
Oak Brook, IL 60523

Dr. Thomas J. Murphy
DePaul University
2325 North Clifton Street
Chicago, IL 60614

Joe Deal
City of Chicago - Mayor's Office of
Intergovernmental Affairs
121 North LaSalle Street
City Hall - Room 509
Chicago, IL 60602

Vicky McKinley
Evanston Environment Board
223 Grey Avenue
Evanston, IL 60202

Irwin Polls
Ecological Monitoring and Assessment
3206 Maple Leaf Drive
Glenview, IL 60025

Kenneth W. Liss
Andrews Environmental Engineering
3300 Ginger Creek Drive
Springfield, IL 62711

Marc Miller, Senior Policy Advisor
Jamie S. Caston, Policy Advisor
Office of Lt. Governor Pat Quinn
Room 414 State House
Springfield, IL 62706

Bob Carter
Bloomington Normal Water
Reclamation District
P.O. Box 3307
Bloomington, IL 61702-3307

Albert Ettinger, Senior Staff Attorney
Jessica Dexter
Environmental Law & Policy Center
35 East Wacker Drive
Suite 1300
Chicago, IL 60601

Kay Anderson
American Bottoms RWTF
One American Bottoms Road
Sauget, IL 62201

Tom Muth
Fox Metro Water Reclamation District
682 State Route 31
Oswego, IL 60543

Kristy A. N. Bulleit
Brent Fewell
Hunton & Williams LLC
1900 K Street, NW
Washington, DC 20006

Jack Darin
Sierra Club
Illinois Chapter
70 East Lake Street
Suite 1500
Chicago, IL 60601-7447

Lyman C. Welch
Manager, Water Quality Programs
Alliance for the Great Lakes
17 North State Street
Suite 1390
Chicago, IL 60602

Marie Tipsord, Hearing Officer
John Therriault, Assistant Clerk
Illinois Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, IL 60601

Mark Schultz
Regional Environmental Coordinator
Navy Facilities and Engineering Command
201 Decatur Avenue
Building 1A
Great Lakes, IL 60088-2801

Stacy Meyers-Glen
Openlands
25 East Washington
Suite 1650
Chicago, Illinois 60602

Susan M. Franzetti
Nijman Franzetti LLP
10 South LaSalle Street
Suite 3600
Chicago, IL 60603

Jeffrey C. Fort
Ariel J. Teshar
Sonnenschein Nath & Rosenthal LLP
233 South Wacker Drive
Suite 7800
Chicago, IL 60606-6404

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
WATER QUALITY STANDARDS AND)	R08-9
EFFLUENT LIMITATIONS FOR THE)	(Rulemaking - Water)
CHICAGO AREA WATERWAY)	
SYSTEM AND THE LOWER DES)	Subdocket C
PLAINES RIVER: PROPOSED)	
AMENDMENTS TO 35 Ill. Adm. Code)	
Parts 301, 302, 303 and 304)	

**METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER
CHICAGO'S SUBMITTAL OF PROPOSED AQUATIC
USES AND DISSOLVED OXYGEN WATER
QUALITY STANDARDS AND IMPLEMENTATION PROCEDURES**

The Metropolitan Water Reclamation District of Greater Chicago (the "District") submits the attached Proposed Aquatic Uses and Dissolved Oxygen Water Quality Standards and Implementation Procedures. The District makes this filing because during recent hearings on aquatic use issues and the District's habitat reports, interest was expressed in seeing the exact regulatory language that the District would suggest the Board adopt as to aquatic uses and dissolved oxygen water quality standards. Accordingly, the District hereby provides the attached proposed regulatory language that implements the recommendations made in its testimony before the Board.

**METROPOLITAN WATER
RECLAMATION DISTRICT OF
GREATER CHICAGO**

By: /s/ Fredric P. Andes
One of Its Attorneys

Fredric P. Andes
David T. Ballard
BARNES & THORNBURG LLP
One North Wacker Drive
Suite 4400
Chicago, Illinois 60606
(312) 357-1313

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO'S PROPOSED AQUATIC LIFE USES AND DISSOLVED OXYGEN WATER QUALITY STANDARDS AND IMPLEMENTATION PROCEDURES

303.230 Chicago Area Waterway System Category 1 (Modified Warm-water Aquatic Life) Waters

Waters designated as Chicago Area Waterway System Modified Warm-water Aquatic Life (MWAL) Waters are capable of maintaining intermediately tolerant and tolerant aquatic-life populations dominated by species that are adaptive to one or more of the following stressors: habitat modifications, periods of low dissolved oxygen during and following wet weather, widespread siltation, and toxic sediment. MWAL Waters are artificially constructed or channelized but may have limited physical habitat attributes such as natural banks, relatively shallow areas, and instream shelter for aquatic life. The following waters are designated as Chicago Area Waterway System MWAL Waters and must meet the water quality standards of 35 Ill. Adm.Code 302, Subpart D:

- a) North Shore Channel;
- b) North Branch Chicago River from its confluence with the North Shore Channel to Addison Street Bridge;
- c) Calumet River;
- d) Little Calumet River from its confluence with Calumet River and Grand Calumet River to its confluence with Calumet-Sag Channel; and
- e) Lake Calumet.

303.232 Chicago Area Waterway System Category 2 (Limited Warm-water Aquatic Life) Waters

Waters designated as Chicago Area Waterway System Limited Warm-water Aquatic Life (LWAL) Waters are capable of maintaining tolerant aquatic-life populations dominated by species that are adaptive to several of the following stressors: habitat modifications, periods of low dissolved oxygen during and following wet weather, widespread siltation, and toxic sediment. LWAL Waters are artificially constructed or channelized that generally lack significant physical habitat attributes such as natural banks, shallow areas, and instream shelter for aquatic life. Anthropogenic conditions such as commercial navigation and toxic sediments are more prevalent in LWAL Waters. The following waters are designated as Chicago Area Waterway System LWAL Waters and must meet the water quality standards of 35 Ill. Adm. Code 302, Subpart D:

- a) North Branch Chicago River from the Addison Street bridge to its confluence with South Branch Chicago River and Chicago River;

- b) Chicago River;
- c) South Branch Chicago River;
- d) Chicago Sanitary and Ship Canal;
- e) Calumet-Sag Channel; and
- f) Lake Calumet Connecting Channel.

303.234 Chicago Area Waterway System Category 3 (Severely Limited Aquatic Life) Waters

Waters designated as Chicago Area Waterway System Severely Limited Aquatic Life (SLAL) Waters are capable of maintaining transient populations of tolerant aquatic-life dominated by species that are adaptive to several of the following stressors: habitat modifications, extended periods of low dissolved oxygen, widespread siltation, and toxic sediment. SLAL Waters are isolated quiescent waters that often exhibit very low to no flow. They are subject to variable dissolved oxygen concentrations resulting from stagnant low-flow conditions and, in some cases, high-velocity flow patterns during wet-weather pump station discharges designed for flood control. The following waters are designated as Chicago Area Waterway System SLAL Waters and must meet the water quality standards of 35 Ill. Adm. Code 302, Subpart D:

- a) South Fork of the South Branch Chicago River (Bubbly Creek);
- b) Grand Calumet River;
- c) North Branch Canal;
- d) Collateral Channel; and
- e) Other off-channel slips.

303.236 Wet Weather Limited Use Designation

The dissolved oxygen standards in Section 302.405 will not apply during wet weather periods with events of specified magnitude in Chicago Area Waterway Segments receiving or impacted by combined sewer overflows (CSOs) or other wet weather flows..

- a) The wet weather limited use (WWLU) designation is applicable to CAWS Category 1 and 2 Waters, listed in Sections 303.230 and 303.232.
- b) The WWLU designation shall be triggered in a given waterway segment by precipitation of 0.25 inches per day or more in the drainage basin to that

segment. The WWLU designation shall remain in effect during the rain event and for no more than two to six days after the rain event ends, depending on the amount of precipitation measured by Metropolitan Water Reclamation District of Greater Chicago rain gages. Precipitation triggers and maximum duration to apply the WWLU designation will be as follows:

- 1) Two days for 0.25 – 0.49 inches rain per day
 - 2) Four days for 0.50 – 0.99 inches rain per day
 - 3) Six days for 1.0 inches or more rain per day
- c) In instances when a wet weather event has multiple consecutive trigger days, or when consecutive wet weather events result in overlapping WWLU durations, the end of WWLU designation shall be decided by the last day of the latest of the overlapping time periods.
- d) In instances where the WWLU is triggered but the dissolved oxygen concentration is below the appropriate water quality standard for a waterway segment immediately before the WWLU trigger occurred, the WWLU shall not be applied, and dissolved oxygen values occurring during the WWLU time period shall be considered as WWLU-excluded under the procedures in Section 302.406. While the WWLU designation is in effect, NPDES permittees discharging to or upstream of these waters shall comply with applicable requirements in their permits, including: biochemical oxygen demand, ammonia, dissolved oxygen effluent limitations, and operation and maintenance requirements. The following water quality-based requirements shall also apply during that same time period:
- 1) CSO discharges shall comply with the provisions of the approved CSO Long-term Control Plan, as incorporated into the applicable NPDES permits; and
 - 2) Municipal separate storm sewer (MS4) discharges shall comply with best management practices (BMPs) and other requirements of the applicable NPDES permits.
- e) Waters must not exhibit toxic conditions to resident aquatic communities when the WWLU designation is in effect.
- f) The Metropolitan Water Reclamation District of Greater Chicago will analyze their continuous dissolved oxygen monitoring and rain gage data according to the procedures identified in Section 302.406 to determine the number of hours in which the WWLU designation should be applied in each waterway segment. This information will be reported annually to IEPA by March 31 of the following year in electronic and report format. Upon request by the agency, the District will also make preliminary continuous dissolved oxygen monitoring data available no later than one month after it has been

downloaded from the monitoring equipment, and rain gage data available on a quarterly basis.

302.405 Dissolved Oxygen

Dissolved oxygen concentrations shall not be less than the applicable values in subsections (a), (b), (c), and (d) of this Section

- a) (Upper Dresden Island Pool)
- b) For the Chicago Area Waterway System MWAL Waters listed in Section 303.230:
 1. 4.0 mg/l at any time
- c) For the Chicago Area Waterway System LWAL Waters listed in Section 303.232:
 1. 3.5 mg/L at any time
- d) For the Chicago Area Waterway System SLAL Waters listed in Section 303.234:
 1. Waters must maintain sufficient dissolved oxygen concentrations to prevent offensive conditions as required in Section 302.203 of this Part. Quiescent and isolated sectors listed in this Section must maintain sufficient dissolved oxygen concentrations to support their limited ecological functions and transient aquatic communities.

302.406 Procedures for Calculating Compliance with Dissolved Oxygen Standards in the Chicago Area Waterways System (CAWS)

- a) The District will maintain a continuous (hourly) dissolved oxygen monitoring (CDOM) network and a continuous (15 minute) monitoring rain gage network in the CAWS. Proposed modifications to a network will be reported to the agency at least sixty (60) calendar days prior to implementation. The District may implement these changes after the 60-day period unless the agency objects.
- b) The District will apply standard quality assurance / quality control (QA/QC) procedures to finalize the data and will store these data in a database. The database will include information on the location of the CDOM stations and rain gages, the applicable CAWS segment(s), and the applicable dissolved oxygen criteria and WWLU triggers. The database will also include the cumulative daily rainfall for each rain gage.

- c) The District will assess the CDOM and rain gage data by applying the provisions of in Section 303.236(a) through (d). The hourly dissolved oxygen data will be flagged as either a dry weather value or a wet weather value based on the provisions of Section 303.236(b) and (c).
- d) To calculate compliance during dry weather conditions, the District will evaluate all the dry weather values at each CDOM station during a calendar year. The District will compare these values to the applicable criterion in Section 302.405. If the criterion is met, the value will be flagged in the database as "Dry Hour above the WQC". If the criterion is not met, the value will be flagged in the database as "Dry Hour below the WQC".
- e) The District will then evaluate the wet weather dissolved oxygen values at each CDOM station to determine if the value occurred during an hour that is a WWLU-excluded or a WWLU-candidate. For each wet weather event (defined in Section 303.236(b) and (c)), the District will determine if the hourly dry weather dissolved oxygen value immediately preceding a WWLU trigger precipitation is less than the applicable criterion in Section 302.405. In these instances, the dissolved oxygen values for that wet weather event (or over-lapping wet weather events) shall all be flagged as WWLU-excluded. All other wet weather dissolved oxygen values will be flagged as WWLU-qualified.
- f) The District will then evaluate all of the WWLU-excluded values to determine the number of hours in violation of the criteria in Section 302.405. If the values are less than the criterion, these values will be flagged as "Wet Hour below the WQC" and will be considered in violation of the applicable water quality standards. All other values will be flagged as "Wet Hour above the WQC, WWLU Excluded" and will be considered in compliance with the applicable water quality standards.
- g) The District will then evaluate all of the WWLU-qualified values to determine when the WWLU is actually needed. These values will be compared to the dissolved oxygen criteria that are listed in Section 302.405. If the value was greater than or equal to the dissolved oxygen criterion applicable for that CAWS segment, the District will flag the dissolved oxygen value as "Wet Hour above the WQC". If the value was less than the criterion, the value will be flagged as "Wet Hour below the WQC, WWLU Needed".
- h) As identified in Section 303.236(g), the District will evaluate the continuous dissolved oxygen monitoring data and daily rain gage data applying the procedures identified in Section 303.236(a) through (g) to produce the annual report for submittal to the agency.