

**OPERATORS ROUND TABLE
DU PAGE PUMPING STATION
April 15, 2016
9:00 AM**

Status of DuPage Water Commission

The Commission's sales for the month of March were a total of 1.955 billion gallons. This represents an average day demand of 63.1 million gallons per day (MGD), which is lower than the March 2015 average day demand of 68.0 MGD. The maximum day demand was 66.9 MGD on March 23, 2016, which is lower than the March 2015 maximum day demand of 77.2 MGD. The minimum day flow was 57.3 MGD.

The Commission's recorded total precipitation for the month of March was 3.34 inches compared to 1.10 inches for March 2015. The level of Lake Michigan for March 2016 is 579.42 (Feet IGLD 1985) compared to 579.01 (Feet IGLD 1985) for March of 2015

Water Conservation

The Water Conservation and Protection Program will be attending Party for the Planet on April 23rd at Cosley Zoo in Wheaton. Party for the Planet is the largest combined Earth Day celebration in North America along with over 100 other AZA-accredited zoos and aquariums.

Ongoing: Staff is working with SCARCE to earn their Earth Flag. The process consists of a green audit, staff training in recycling and conservation, an action that involves the Commission in the community (i.e. a book drive, cleaning a creek, adopting a highway, etc.), and finally presenting the Earth Flag to the Board Members. Staff has completed the green audit and is working with SCARCE to set up a date for staff training.

Wireless Data Project

Staff has conducted a wireless survey to measure actual wireless coverage of the system installation. The results of this survey will be used to determine the adequacy of wireless access throughout the facility.

Office 365

The Commission is getting ready to migrate to Office 365. This will allow us to eliminate the on-site Exchange server and improve reliability for most email activities. Bridgepoint is the consultant assisting us with this project.

Pipeline Maintenance

Butterfield Road exploratory excavation authorized under R-5-16 is expected to begin the week of April 18th. In a related matter, the two 60-inch butterfly valves have been delivered and have been placed in storage.

Resolution R-10-15 appears on the agenda requesting approval of Contract QR-10/13 WAO No. 13 to Rossi Contractors, Inc. The work consists of constructing an excavation spoils storage bin within the DuPage Pumping Station property. The bin will be constructed using pre-cast concrete barrier wall sections and will be used to contain wet spoils generated from vacuum excavation work until such time that the excavated materials dry and are able to be hauled away.

Staff has resumed cathodic protection test station installations along several transmission main routes.

Staff has resumed collecting cathodic protection test point data.

Instrumentation / Remote Facilities Overview**Quick Response Electrical Contract QRE-7/15**

R-11-16 appears on the agenda seeking authorization to perform the following Quick Response Electrical work:

Work Authorization Order No. 3 consists of two parts: Part A is to reroute conduits around a buried valve vault so the frame and lid can be raised to the surface. Part B is to install a new conduit from the AT&T service drop into the facility so future fiber optic cable work can be performed. AT&T has advised Staff that AT&T is converting from a copper to a fiber network in the future and Staff wishes to be ready in advance.

Work Authorization Oder No. 4 is to install new security switches on the new hatches being installed on the West Reservoir. In addition to new switches the work includes installation of a wireless system to monitor the security of all Reservoir hatches.

Condition Assessment

With the repair of the 84" West Reservoir Influent Control Valve, the Condition Assessment of the DPPS West Reservoir and Storm Water Detention Tank is now scheduled for May 4th.

The Commission plans to continue evaluating various methods of determining the condition of its pipelines.

Facility Construction**Storage System Improvements**

The Contract for the Rehabilitation of Coating Systems and Fall Protection Systems for Tank Sites No. 1 and No. 4 East (Contract SS-7/16) with Era-Valdivia Contractors, Inc. is underway. Mobilization and steel repairs at Standpipe No. 1 in Roselle commenced on April 4th. The Contract Completion Date is November 4th.

Manusos General Contracting, Inc. has resumed work on the DPPS West Reservoir hatches and vents. R-13-16 appears on the agenda requesting a time extension of 247 days, the granting of final acceptance and release of final payment upon satisfactory completion of the Work, and after submitting all contractually required documentation.

Security

The Commission is continuing to update its Emergency Response Plan (ERP) and its Vulnerability Assessment as our system grows.

It is imperative that all Commission's padlocks at the metering stations are not locked out of the loops. The Water Purchase Agreement requires the Commission to have access to all metering stations at any time.

Summer Operations

Now that the summer is approaching we need to start thinking about repairing any damage caused by the winter temperatures and preparing our systems for the high flows of summer.

Make sure the overflow drains and vents are clean and drain properly to prevent any freezing problems.

You cannot exceed the 1.7 times allocation.

You must take water at a constant rate.

If you need to take additional water, you can exceed the 1.7 times allocation between 00:00 and 06:00. Try to have your storage reservoirs filled by 06:00.

Manhole lids and frames are in place and at the correct elevation. Catch basins are clean

Meter Testing

Annual Customer Meter Calibration Program

The Annual Customer Meter Calibration program is about 98% complete.

Rick Nolan Meter Technician and should be contacted with any questions or concerns.

The Commission is available to test the large customer meters. We can test 6" 8" and 10" turbine meters. Please contact John Schori at (630) 834-0100 if you have any questions concerning this service.

The Commission has installing 4 different magnetic flow meters in different Naperville meter stations. The Commission will compare meter readings for approximately a year before deciding which manufacture will be selected.

Regulations

Consumer Confidence Report (CCR) needs to be sent to customers by July 1, 2016, Certification of CCR's need to be sent to the IEPA by October 1, 2016. Please send a copy of your CCR to the Commission if you have not done so already.

Revised Total Coliform Rule Implementation

- Up-to-date sample site plan April 1, 2016
- Must follow sample site plan
- If one routine sample comes back TC+ you must collect three repeat sample within 24 hours for each positive sample
- If any routine or repeat sample comes back TC+ the lab must run analysis for *E.coli* if the *E.coli* sample comes back positive you must notify the state by the end of business the day you were notified
- The MCL has been replace with a Treatment Technique (TT) **see attachment**
- If you exceed any of the TT you must complete either a Level 1 or Level 2 assessment you must also correct any deficiencies found during the asseessment

The City of Chicago has lowered its Fluoride feed rate to reach the new 0.7 mg/l recommendation.

Water Quality

The Commission is not feeding chlorine at this time.

Water Rates

Water rate for 2016 \$4.80/1000 gallons

O&M \$4.80/1000 gallons

Other

The City of Chicago has named a new Water Commissioner; Barret Murphy will be replacing Tom Powers who has moved on to other opportunities.

Lead in Drinking Water ***see attachment***

The Commission invites you to view all Committee and Commission Agendas which can be found on our website at www.dpwc.org.

Please contact the Commission with any changes in water department personnel, phone and/or pager numbers. This is an important part of our ERP for system emergency purposes.

Please provide the Commission with a valid e-mail address. All meeting minutes will be distributed via e-mail.

The next Operators Round Table will be July 15, 2016 at 9:00 A.M. or before if events warrant.

AWWA

9th Annual Water Distribution Conference

When: Tuesday, April 19, 2016
 Visit Exhibitors from 7:00 to 8:00 AM

Where: *Map this event »*
 Medinah Banquets
 550 Shriners Drive
 Addison, Illinois 60101
 United States

Water For People Golf Outing

When: May 26, 2016
9 am Shotgun Start

Where: [Map this event »](#)
Heritage Bluffs Golf Course
24355 W Bluff Road
Channahon, Illinois 60410
United States

Dennis Ross
ross@otterlakewater.net
217 965-1566

Disaster Management for Water/Wastewater Utilities

When: Tuesday & Wednesday, June 7-8, 2016
Registration at 7:30 AM

Where: [Map this event »](#)
DuPage Water Commission
600 E. Butterfield Road
Elmhurst, Illinois 60126
United States

Presenter: Karen Tuttle, Texas A&M Engineering Extension Service (TEEX)

Contact: Stacey Ramsey
stacey@isawwa.org
866-521-3595 ext 4

ACE 2016

When: 6/19/2016

Where: [Map this event »](#)
Mc Cormick Place - Chicago
2301 S Martin Luther King Dr
Chicago, Illinois 60616

Contact: Laurie Dougherty
laurie@isawwa.org
866-521-3595 ext. 1

Water Tower Demo

When: 6/19/2016
10:00 am

Where: 806 N. Michigan Ave.
Chicago, Illinois 60616

Pedal With Purpose

When: Sunday, June 19, 2016
entrance on Ohio Street, just west of Lake Shore Drive

Where: [Map this event »](#)
Bobby's Bike Hike
540 N Lake Shore Drive
Chicago, Illinois 60611
United States

Contact: Gary DeKock
gdekock@gmail.com
773-878-0533

Section Breakfast

When: 6/20/2016
@ Clark & Grand Avenues

Where: Maggianos Little Italy
111 W Grand Avenue
Chicago, Illinois 60654
United States

Contact: Sandi McGinnis
sandi@isawwa.org
866-521-3595 x3

Questions & Answers

If you have any comments concerning these issues or would like to have a topic discussed at the next Round Table Meeting, please feel free to email me at mcghee@dpwc.org.

Handouts:

1. DuPage Laboratory Bench Sheet for January, 2016, February, 2016, and March, 2016.
2. Chicago Comprehensive Chemical Analysis
3. DWC Chemical Analysis
4. DWC 2015 CCR
5. Lead Information Sheet
6. Revised Total Coliform Rule Fact Sheet

Operations/Minutes/Ort160415.doc

OPERATORS ROUND TABLE

Village of Addison	Village of Itasca
Jim Russo	John Jackson Mike Subers
Argonne National Laboratory	Village of Lisle
John Daum	Absent
Village of Bensenville	Village of Lombard
Absent	Absent
Village of Bloomingdale	City of Naperville
Elias Vega	Pat O'Malley Amy Ries
Village of Carol Stream	Village of Oak Brook
Absent	Absent
Village of Clarendon Hills	City of Oakbrook Terrace
Joe ferrel	Craig Ward
City of Darien	Village of Roselle
Kris Throm	Absent
City of Downers Grove	Village of Villa Park
Randy Somerstt	Tom Venchus
County of DuPage	Village of Westmont
Absent	Mike Ramsey Brian Beusse
City of Elmhurst	City of Wheaton
Absent	Steve Rajnic
Village of Glendale Heights	Village of Willowbrook
Absent	Absent
Village of Glen Ellyn	Village of Winfield
Absent	Robert Orlando
Village of Hinsdale	City of Wood Dale
Absent	Absent
Illinois American Water Works Company	Village of Woodridge
Absent	Mike Kaczmarek

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
 LABORATORY ACCREDITATION NUMBER: 100228

SAMPLE COLLECTION DATE: February 25, 2015

LAB ID Nos.

1st QUARTER

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	15C1078	15C1079	15C1080	15C1081	15C1082	15C1083	15C1084	15C1085	15C1086
				SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				1	2A	2B	3	4	5A	5B	6	7
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
	73rd Street	79th Street	SOUTH		North	Central	Central	North				
TEMPERATURE		°C	00010	3	2	2	2	1	2	3	3	3
TURBIDITY	TT	N.T.U.	82079	13.5	0.05	0.10	0.15	5.50	0.10	0.10	0.15	0.15
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	--	1 Cc	1 Cc	1 Cc	--	1 Cc	1 Cc	1 Cc	1 Cc
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		2 Mm	1 Mm	1 Mm	1 Mm	2 Mm	1 Mm	1 Mm	1 Mm	1 Mm
COLOR (Apparent)	*15	Pt.-Co. CU	00080	79	1	<1	3	40	6	<1	<1	4
pH	*6.5-8.5	STD. Units	00040	8.17	7.61	7.59	7.70	8.15	7.64	7.63	7.73	7.73
FREE CHLORINE RESIDUAL		CL ₂ , mg/L	50064	--	1.27	1.27	0.98	--	1.17	1.14	0.98	0.99
SATURATION INDEX, LANGELIER		UNITS +/-		0.07	-0.77	-0.75	-0.68	-0.14	-0.86	-0.84	-0.60	-0.58
ALKALINITY, PHENOLPHTHALEIN		0	00415	0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		CaCO ₃ , mg/L	00410	121	110	112	114	117	110	111	114	114
BROMIDE		Br, mg/L	71870	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
CHLORIDE	*250	Cl, mg/L	00940	14.2	16.6	16.7	17.4	13.5	16.2	16.5	17.2	16.9
FLUORIDE	4	F, mg/L	00951	0.14	0.96	0.91	0.91	0.14	0.95	0.93	0.93	0.92
SULFATE	*250	SO ₄ , mg/L	00945	24.8	31.2	31.8	31.8	24.5	30.5	30.8	31.4	31.1
HARDNESS		CaCO ₃ , mg/L	00900	141	141	145	147	142	144	142	143	141
CALCIUM		Ca, mg/L	00916	38.8	35.2	35.4	35.4	35.1	35.2	34.8	35.7	34.9
MAGNESIUM		Mg, mg/L	00927	14.1	12.7	12.7	12.7	12.7	12.7	12.5	12.8	12.6
POTASSIUM		K, mg/L	00937	<3	<3	<3	<3	<3	<3	<3	<3	<3
SODIUM		Na, mg/L	00006	8.76	8.97	8.92	9.28	7.80	8.75	8.70	9.10	8.97
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	155	157	171	182	168	183	181	184	180
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	202	201	191	194	183	193	191	194	194
TOTAL ORGANIC CARBON		TOC, mg/L	00680	1.71	1.48	1.45	1.49	1.66	1.43	1.43	1.52	1.47
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<10	<10	<10	<10	<10	<10	<10	12.0	<10
NITROGEN, AMMONIA		N, mg/L	00610	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
NITROGEN, NITRATE	10	N, mg/L	00620	0.272	0.283	0.285	0.301	0.254	0.276	0.281	0.296	0.290
NITROGEN, NITRITE	1	N, mg/L	00615	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
ORTHOPHOSPHATE		PO ₄ , mg/L	00660	0.11	0.47	0.44	0.44	0.02	0.50	0.46	0.47	0.48
PHOSPHATE, TOTAL		PO ₄ , mg/L	00650	0.08	1.24	1.24	1.16	0.05	0.97	1.00	1.04	1.05
CYANIDE, TOTAL	200	CN, ug/L	00720	<12	<12	<12	<12	<12	<12	<12	<12	<12
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<9	<9	<9	<9	<9	<9	<9	<9	<9
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	<7	<7	<7	<7	12	8.6	<7	7.1	7.4

* Federal/State Secondary MCLs

** Action Level

***Distribution samples are composited. TT - Treatment Technique ND - not detected

H - Holding Time Exceeded

R - Data did not meet QC Criteria

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
 LABORATORY ACCREDITATION NUMBER: 100228

SAMPLE COLLECTION DATE: February 25, 2015

LAB ID Nos. 15C1078 15C1079 15C1080 15C1081 15C1082 15C1083 15C1084 15C1085 15C1086 1st QUARTER

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
					73rd Street	79th Street	South		North	Central	Central	North
ALUMINUM	*50-200	Al, µg/L	01105	366	35.8	31.2	30.9	132	39.9	40.0	36.2	32.4
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	01002	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	01007	24.0	20.6	20.9	20.4	20.6	20.8	20.9	20.5	20.2
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	25.8	24.8	25.0	24.2	23.7	24.0	24.7	24.5	24.7
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	1.97	1.35	1.10	<1	1.54	<1	<1	1.17	1.11
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	3.99	1.28	1.17	2.56	5.04	<1	<1	1.20	2.20
IRON	*300	Fe, µg/L	00031	414	6.04	3.99	6.62	158	4.94	4.26	7.40	12.1
LEAD	**15.0	Pb, µg/L	01051	<2	<2	<2	<2	<2	<2	<2	<2	<2
*LITHIUM		Li, µg/L	01132	3.78	<3	<3	<3	<3	<3	<3	<3	<3
MANGANESE	*50	Mn, µg/L	01055	10.2	<1	<1	<1	5.32	<1	<1	<1	1.09
MERCURY	2	Hg, µg/L	71900	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MOLYBDENUM		Mo, µg/L	01062	<2	<2	<2	<2	<2	<2	<2	<2	<2
NICKEL		Ni, µg/L	01067	3.27	1.90	1.90	1.99	3.10	1.80	1.84	1.92	2.01
SELENIUM	50	Se, µg/L	01147	<2	<2	<2	<2	<2	<2	<2	<2	<2
SILICON		Si, µg/L	01142	2637	1376	1452	1414	1598	1458	1451	1472	1404
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	135	131	132	131	120	127	129	131	131
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM		Ti, µg/L	01152	8.77	<2	<2	<2	3.85	<2	<2	<2	<2
VANADIUM		V, µg/L	00985	<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	01092	7.10	<5	<5	13.3	5.75	<5	<5	17.1	25.0

* Federal/State Secondary MCLs ** Action Level ***Distribution samples are composited. TT - Treatment Technique ND - not detected

Note: Lithium - Laboratory Fortified Matrix (LFM) did not meet QC acceptance criteria.


 CHIEF WATER CHEMIST


 DIRECTOR OF LABORATORIES


 MANAGER OF WATER QUALITY


 DEPUTY COMMISSIONER

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
 LABORATORY ACCREDITATION NUMBER: 100228

SAMPLE COLLECTION DATE: April 22 & 23, 2015

LAB ID Nos. 2nd QUARTER

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	15C2109	15C2110	15C2111	15C2100	15C2112	15C2113	15C2114	15C2101	15C2102			
				SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT							
				1	2A	2B	3	4	5A	5B	6	7			
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION				
	73rd Street	79th Street	SOUTH		North	Central	Central	North							
TEMPERATURE		°C	00010	10	9	9	9	8	9	10	10	12			
TURBIDITY	TT	N.T.U.	82079	0.97	0.05	0.10	0.05	0.30	0.10	0.10	0.15	0.10			
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	2 C	1 Cc	1 Cc	1 Cc	1 C	1 Cc	1 Cc	1 Cc	1 Cc			
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		2 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm			
COLOR (Apparent)	*15	Pt.-Co. CU	00080	<1	<1	<1	<1	<1	<1	<1	<1	<1			
pH	*6.5-8.5	STD. Units	00040	8.24	7.77	7.76	7.84	8.23	7.78	7.78	7.87	7.84			
FREE CHLORINE RESIDUAL		CL ₂ , mg/L	50064	--	1.28	1.29	0.88	--	1.12	1.08	0.88	0.68			
SATURATION INDEX, LANGELIER		UNITS +/-		0.13	-0.41	-0.42	-0.34	0.05	-0.40	-0.37	-0.29	-0.29			
ALKALINITY, PHENOLPHTHALEIN		0	00415	0	0	0	0	0	0	0	0	0			
ALKALINITY, TOTAL		CaCO ₃ , mg/L	00410	115	108	108	107	114	107	107	105	105			
BROMIDE		Br, mg/L	71870	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			
CHLORIDE	*250	Cl, mg/L	00940	14.2	14.8	14.9	15.0	13.5	16.4	16.8	16.3	15.9			
FLUORIDE	4	F, mg/L	00951	0.07	0.94	0.91	0.94	0.07	0.90	0.88	0.93	0.92			
SULFATE	*250	SO ₄ , mg/L	00945	23.8	26.1	26.0	26.8	23.5	27.1	27.4	27.4	27.4			
HARDNESS		CaCO ₃ , mg/L	00900	134	135	134	137	133	134	134	137	137			
CALCIUM		Ca, mg/L	00916	38.7	37.8	37.8	38.3	37.8	37.9	38.2	38.3	36.2			
MAGNESIUM		Mg, mg/L	00927	13.5	13.2	13.2	13.2	13.1	13.2	13.3	13.3	12.3			
POTASSIUM		K, mg/L	00937	1.37	1.33	1.38	1.26	1.27	1.38	1.28	1.31	1.34			
SODIUM		Na, mg/L	00006	9.16	8.96	8.96	8.96	8.82	9.87	10.0	9.85	9.79			
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	155	167	162	160	156	157	163	168	159			
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	183	181	181	181	179	185	188	188	182			
TOTAL ORGANIC CARBON		TOC, mg/L	00680	1.59	1.45	1.46	1.44	1.58	1.42	1.41	1.44	1.42			
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<10	<10	<10	<10	<10	<10	<10	<10	<10			
NITROGEN, AMMONIA		N, mg/L	00610	<0.03	<0.03	<0.03	<0.03	0.054	<0.03	<0.03	<0.03	<0.03			
NITROGEN, NITRATE	10	N, mg/L	00620	<0.2	<0.2	<0.2	H	0.203	<0.2	<0.2	H	H			
NITROGEN, NITRITE	1	N, mg/L	00615	<0.2	<0.2	<0.2	H	<0.2	<0.2	<0.2	H	H			
ORTHOPHOSPHATE		PO ₄ , mg/L	00660	0.019	0.431	0.422	0.467	0.004	0.462	0.482	0.522	0.507			
PHOSPHATE, TOTAL		PO ₄ , mg/L	00650	0.053	1.07	0.800	0.996	0.065	0.937	0.939	1.07	1.00			
CYANIDE, TOTAL	200	CN, ug/L	00720	H	H	H	H	H	H	H	H	H			
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<9	<9	<9	<9	<9	<9	<9	<9	<9			
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	<7	<7	7.37	<7	<7	<7	8.71	8.04	7.02			

* Federal/State Secondary MCLs

** Action Level

***Distribution samples are composited. TT - Treatment Technique ND - not detected

H - Holding Time Exceeded

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
 LABORATORY ACCREDITATION NUMBER: 100228

SAMPLE COLLECTION DATE: April 22 & 23, 2015

LAB ID Nos.

2nd QUARTER

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	15C1078	15C1079	15C1080	15C1081	15C1082	15C1083	15C1084	15C1085	15C1088
				SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		**DISTRIBUTION	RAW LAKE	OUTLETS		**DISTRIBUTION	
	73rd Street	79th Street	South		North	Central	Central	North				
ALUMINUM	*50-200	Al, µg/L	01105	46.6	60.3	56.2	48.3	<7	56.7	56.9	52.7	49.2
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	01002	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	01007	21.8	20.4	20.5	20.8	21.2	20.4	20.2	21.4	21.0
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	22.2	21.8	22.0	22.7	21.1	22.4	21.8	22.3	21.8
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	1.08	<1	<1	<1	<1	<1	<1	<1	<1
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	1.35	<1	<1	1.56	<1	<1	<1	2.78	3.13
IRON	*300	Fe, µg/L	00031	73.8	<3	<3	11.6	5.84	<3	<3	13.1	10.9
LEAD	**15.0	Pb, µg/L	01051	<1	<1	<1	<1	<1	<1	<1	1.07	1.42
LITHIUM		Li, µg/L	01132	<3	<3	<3	<3	<3	<3	<3	<3	<3
MANGANESE	*50	Mn, µg/L	01055	2.37	<1	<1	<1	<1	<1	<1	<1	1.02
MERCURY	2	Hg, µg/L	71900	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MOLYBDENUM		Mo, µg/L	01062	1.13	1.10	1.08	1.13	1.06	1.11	1.11	1.14	1.11
NICKEL		Ni, µg/L	01067	1.90	1.73	1.76	1.85	1.78	1.81	1.76	1.87	1.89
SELENIUM	50	Se, µg/L	01147	<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	01142	922	1071	1075	1107	879	1056	1033	1059	1079
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	125	124	123	125	122	126	126	126	126
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM		Ti, µg/L	01152	1.56	1.42	1.38	1.41	<1	1.53	1.55	1.48	1.48
VANADIUM		V, µg/L	00985	<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	01092	<4	<4	<4	11.6	<4	<4	<4	22.3	22.2

* Federal/State Secondary MCLs

** Action Level

***Distribution samples are composited. TT - Treatment Technique ND - not detected


 CHIEF WATER CHEMIST


 DIRECTOR OF LABORATORIES


 MANAGER OF WATER QUALITY


 DEPUTY COMMISSIONER

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
 LABORATORY ACCREDITATION NUMBER: 100228

SAMPLE COLLECTION DATE: August 26, 2015

LAB ID Nos.

3rd QUARTER

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	15C4262	15C4263	15C4264	15C4265	15C4266	15C4267	15C4268	15C4269	15C4270
				SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				1	2A	2B	3	4	5A	5B	6	7
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
	73rd Street	79th Street	SOUTH		North	Central	Central	North				
TEMPERATURE		°C	00010	16	15	15	19	13	14	14	17	19
TURBIDITY	TT	N.T.U.	82079	0.25	0.10	0.10	0.15	0.30	0.10	0.10	0.15	0.15
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1 Ep	1 Ep	1 Ep	1 Ep	1 Ep	1 Ep	1 Ep	1 Ep	1 Ep
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		1 Ep	1 Ep	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm
COLOR	*15	Pt.-Co. CU	00080	2	3	2	2	4	2	1	1	1
pH	*6.5-8.5	STD. Units	00040	8.11	7.61	7.64	7.79	7.63	7.70	7.67	7.83	7.81
FREE CHLORINE RESIDUAL		CL ₂ , mg/L	50064	--	1.32	1.29	0.86	--	1.19	1.10	1.00	0.93
SATURATION INDEX, LANGELEIER		UNITS +/-		0.04	-0.49	-0.44	-0.21	-0.52	-0.42	-0.45	-0.24	-0.18
ALKALINITY, PHENOLPHTHALEIN		0	00415	0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		CaCO ₃ , mg/L	00410	108	100	108	98	101	101	101	98	101
CONDUCTIVITY		uS/cm		289	296	292	302	287	293	296	295	295
BROMIDE		Br, mg/L	71870	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
CHLORIDE	*250	Cl, mg/L	00940	12.7	14.3	14.3	14.7	12.5	14.2	14.2	14.2	14.2
FLUORIDE	4	F, mg/L	00951	0.12	0.99	0.98	0.95	0.14	1.04	1.08	1.00	1.01
SULFATE	*250	SO ₄ , mg/L	00945	22.9	27.2	27.4	27.4	22.9	26.2	26.3	25.9	25.9
HARDNESS		CaCO ₃ , mg/L	00900	140	132	134	135	137	134	132	134	138
CALCIUM		Ca, mg/L	00916	34.3	34.6	34.1	35.0	34.4	34.3	34.6	34.3	34.2
MAGNESIUM		Mg, mg/L	00927	12.4	12.4	12.3	12.5	12.3	12.3	12.4	12.3	12.3
POTASSIUM		K, mg/L	00937	1.48	1.49	1.44	1.58	1.41	1.43	1.42	1.56	1.56
SODIUM		Na, mg/L	00006	7.81	8.11	8.03	8.24	7.67	8.03	8.12	8.01	7.99
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	146	189	176	172	182	182	182	160	181
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	181	191	190	194	186	188	195	188	183
TOTAL ORGANIC CARBON		TOC, mg/L	00680	1.79	1.66	1.63	1.64	1.90	1.77	1.72	1.64	1.68
OXYGEN DEMAND, CHEMICAL - H		O, mg/L	00335	<15	<15	<15	<15	<15	<15	<15	<15	<15
NITROGEN, AMMONIA		N, mg/L	00610	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
NITROGEN, NITRATE	10	N, mg/L	00620	0.215	0.206	0.224	0.226	0.247	0.217	0.234	0.228	0.241
NITROGEN, NITRITE	1	N, mg/L	00615	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
ORTHOPHOSPHATE		PO ₄ , mg/L	00660	<0.06	0.476	0.479	0.516	<0.06	0.514	0.523	0.547	0.545
PHOSPHATE, TOTAL		PO ₄ , mg/L	00650	0.094	0.951	0.939	0.923	0.071	1.06	1.05	1.04	0.982
CYANIDE, TOTAL	200	CN, ug/L	00720	<12	<12	<12	<12	<12	<12	<12	<12	<12
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<9	<9	<9	<9	<9	<9	<9	<9	<9
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	7.75	<7	9.09	<7	11.3	7.06	<7	10.9	9.73

* Federal/State Secondary MCLs

** Action Level

***Distribution samples are composited. TT - Treatment Technique ND - not detected

H - Holding Time Exceeded

Note: Ammonia Nitrogen - Continuous Calibration Verification (CCV) did not meet QC acceptance criteria.

pH - 2B (79th) - Ran on 8-28-15

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
 LABORATORY ACCREDITATION NUMBER: 100228

SAMPLE COLLECTION DATE: August 26, 2015

LAB ID Nos. 3rd QUARTER

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
					73rd Street	79th Street	South		North	Central	Central	North
ALUMINUM	*50-200	Al, µg/L	01105	7.01	95.6	87.4	76.0	8.29	90.5	90.8	76.9	73.5
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	01002	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	01007	19.3	19.3	18.7	19.5	18.8	18.6	18.6	17.4	17.3
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	21.4	22.6	21.7	22.0	21.5	21.8	22.3	22.1	21.3
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	<1	<1	<1	<1	1.09	1.10	1.08	<1	<1
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<1	<1	<1	2.22	<1	<1	<1	2.03	1.60
IRON	*300	Fe, µg/L	00031	5.97	1.30	<0.80	20.8	7.83	1.30	1.57	16.0	7.88
LEAD	**15.0	Pb, µg/L	01051	<1	<1	<1	<1	<1	<1	<1	1.44	<1
LITHIUM		Li, µg/L	01132	2.26	2.31	2.28	2.31	2.27	2.24	2.23	2.22	2.24
MANGANESE	*50	Mn, µg/L	01055	<1	<1	<1	<1	<1	<1	<1	<1	<1
MERCURY	2	Hg, µg/L	71900	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MOLYBDENUM		Mo, µg/L	01062	1.12	1.13	1.12	1.11	1.10	1.10	1.10	1.11	1.11
NICKEL		Ni, µg/L	01067	2.03	2.03	2.03	2.12	2.06	2.00	2.02	2.02	2.14
SELENIUM	50	Se, µg/L	01147	<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	01142	528	732	749	716	547	748	751	737	737
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	121	122	120	121	121	121	120	121	123
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM		Ti, µg/L	01152	<1	1.32	1.30	1.30	<1	1.42	1.41	1.41	1.41
VANADIUM		V, µg/L	00985	<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	01092	<1.5	<1.5	<1.5	8.80	<1.5	<1.5	<1.5	21.0	12.8

* Federal/State Secondary MCLs

** Action Level

***Distribution samples are composited. TT - Treatment Technique ND - not detected

Roshela Dault
 CHIEF WATER CHEMIST

Hassam Saleh
 DIRECTOR OF LABORATORIES

John W. Pitz
 MANAGER OF WATER QUALITY

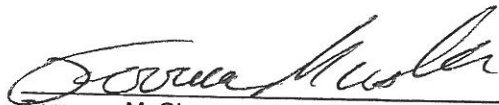
BO E. J.
 DEPUTY COMMISSIONER

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR JANUARY 2016

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂ mg/l	TURBIDITY NTU	PO ₄ mg/l	FREE CL ₂ mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	ANALYST INT
1	0.98	0.09	0.55	0.95	0.09	43	7.4	0.8	0.55	0	AM
2	0.97	0.10	0.54	0.95	0.09	43	7.4	0.8	0.55	0	KD
3	1.05	0.10	0.54	0.98	0.09	43	7.6	0.7	0.56	0	KD
4	1.04	0.10	0.52	0.98	0.09	43	7.6	0.8	0.53	0	AM
5	0.95	0.11	0.53	0.97	0.09	42	7.4	0.8	0.52	0	AM
6	1.01	0.11	0.54	0.96	0.09	42	7.4	0.8	0.53	0	KD
7	1.10	0.11	0.53	0.97	0.08	42	7.4	0.8	0.52	0	KD
8	0.98	0.09	0.51	0.98	0.07	41	7.5	0.7	0.52	0	KD
9	0.99	0.09	0.53	0.99	0.09	41	7.4	0.8	0.54	0	AM
10	0.98	0.09	0.54	0.97	0.08	40	7.5	0.8	0.55	0	KD
11	0.99	0.11	0.54	0.97	0.08	40	7.5	0.8	0.54	0	KD
12	0.98	0.09	0.55	0.98	0.09	40	7.5	0.8	0.55	0	KD
13	0.94	0.09	0.56	0.94	0.09	39	7.5	0.8	0.54	0	AM
14	0.95	0.09	0.55	0.96	0.09	39	7.6	0.8	0.56	0	AM
15	0.97	0.10	0.55	0.97	0.07	39	7.6	0.8	0.55	0	KD
16	0.98	0.10	0.56	0.98	0.07	39	7.6	0.8	0.54	0	KD
17	0.97	0.09	0.53	0.96	0.07	39	7.6	0.8	0.52	0	AM
18	0.96	0.09	0.51	0.95	0.09	39	7.5	0.8	0.54	0	AM
19	0.96	0.09	0.55	0.95	0.09	37	7.5	0.8	0.53	0	AM
20	0.95	0.09	0.53	0.95	0.09	37	7.5	0.8	0.54	0	KD
21	0.96	0.10	0.53	0.97	0.09	37	7.5	0.8	0.52	0	KD
22	0.96	0.11	0.53	0.96	0.09	37	7.5	0.8	0.52	0	KD
23	0.96	0.11	0.52	0.95	0.07	37	7.5	0.7	0.54	0	CT
24	0.99	0.11	0.54	0.97	0.08	37	7.6	0.8	0.54	0	CT
25	0.96	0.10	0.53	0.98	0.08	38	7.6	0.7	0.54	0	RC
26	1.05	0.10	0.55	0.99	0.08	37	7.6	0.8	0.54	0	RC
27	1.00	0.09	0.54	0.99	0.09	37	7.5	0.8	0.55	0	CT
28	0.98	0.09	0.56	0.99	0.09	36	7.5	0.8	0.55	0	CT
29	0.98	0.09	0.54	0.98	0.09	36	7.5	0.7	0.53	0	CT
30	0.99	0.09	0.52	0.97	0.09	36	7.5	0.8	0.53	0	RC
31	0.98	0.11	0.53	0.96	0.08	36	7.4	0.8	0.54	0	RC
AVG	0.98	0.10	0.54	0.97	0.08	39	7.5	0.8	0.54	0	
MAX	1.10	0.11	0.56	0.99	0.09	43	7.6	0.8	0.56	0	
MIN	0.94	0.09	0.51	0.94	0.07	36	7.4	0.7	0.52	0	



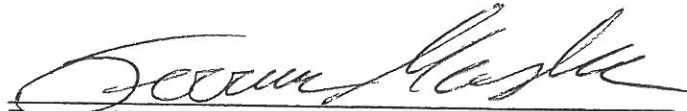
Terrance McGhee
Manager of Water Operations

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR FEBRUARY 2016

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂ mg/l	TURBIDITY NTU	PO ₄ mg/l	FREE CL ₂ mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	ANALYST INT
1	0.98	0.09	0.57	0.97	0.09	35	7.5	0.8	0.56	0	CT
2	1.00	0.09	0.56	0.98	0.08	35	7.5	0.7	0.54	0	CT
3	1.00	0.09	0.57	0.98	0.09	35	7.5	0.8	0.55	0	RC
4	0.97	0.10	0.53	0.94	0.09	35	7.5	0.7	0.55	0	RC
5	0.98	0.10	0.53	0.95	0.09	35	7.6	0.7	0.56	0	RC
6	0.98	0.09	0.55	0.97	0.07	35	7.5	0.7	0.53	0	CT
7	0.99	0.09	0.53	0.97	0.08	35	7.5	0.8	0.53	0	CT
8	0.96	0.09	0.54	0.96	0.07	35	7.6	0.7	0.57	0	CT
9	0.91	0.09	0.51	0.92	0.07	35	7.5	0.8	0.53	0	RC
10	1.00	0.09	0.51	0.97	0.08	35	7.5	0.8	0.54	0	CT
11	0.97	0.09	0.53	0.97	0.08	35	7.5	0.8	0.53	0	CT
12	0.98	0.09	0.54	0.97	0.08	35	7.5	0.8	0.54	0	CT
13	0.93	0.09	0.51	0.95	0.08	35	7.5	0.8	0.54	0	CT
14	0.96	0.10	0.52	0.95	0.08	35	7.6	0.8	0.53	0	RC
15	0.96	0.09	0.51	0.94	0.08	35	7.5	0.8	0.51	0	CT
16	0.95	0.09	0.51	0.94	0.08	35	7.5	0.7	0.56	0	CT
17	0.94	0.09	0.54	0.93	0.07	35	7.5	0.7	0.55	0	RC
18	0.97	0.11	0.56	0.94	0.09	35	7.5	0.7	0.57	0	RC
19	0.97	0.09	0.54	0.96	0.09	35	7.5	0.7	0.57	0	RC
20	0.98	0.09	0.55	0.96	0.08	35	7.5	0.8	0.53	0	AM
21	0.96	0.09	0.58	0.95	0.07	35	7.5	0.8	0.54	0	AM
22	0.95	0.10	0.57	0.95	0.07	35	7.5	0.8	0.54	0	KD
23	0.95	0.09	0.55	0.95	0.09	35	7.6	0.7	0.52	0	KD
24	0.97	0.11	0.55	0.96	0.08	35	7.5	0.7	0.52	0	AM
25	0.98	0.11	0.52	0.96	0.08	35	7.5	0.7	0.51	0	AM
26	0.97	0.11	0.56	0.97	0.08	35	7.6	0.8	0.55	0	AM
27	0.95	0.09	0.55	0.97	0.08	35	7.5	0.8	0.56	0	KD
28	0.96	0.10	0.57	0.96	0.08	35	7.5	0.7	0.55	0	KD
29	0.96	0.09	0.56	0.95	0.09	35	7.5	0.8	0.55	0	AM
30										0	
31										0	
AVG	0.97	0.09	0.54	0.96	0.08	35	7.5	0.8	0.54	0	
MAX	1.00	0.11	0.58	0.98	0.09	35	7.6	0.8	0.57	0	
MIN	0.91	0.09	0.51	0.92	0.07	35	7.5	0.7	0.51	0	



Terrance McGhee
Manager of Water Operations

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET
MONTHLY REPORT FOR MARCH 2016

LEXINGTON SUPPLY

DUPAGE DISCHARGE

DAY	FREE CL ₂ mg/l	TURBIDITY NTU	PO ₄ mg/l	FREE CL ₂ mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride	PO ₄ mg/l	P.A.C. LBS/MG	ANALYST INT
1	0.92	0.09	0.57	0.91	0.09	35	7.4	0.8	0.52	0	AM
2	0.90	0.09	0.53	0.91	0.08	35	7.4	0.8	0.58	0	KD
3	0.91	0.09	0.57	0.90	0.09	35	7.4	0.8	0.56	0	KD
4	0.90	0.10	0.54	0.90	0.10	36	7.4	0.7	0.59	0	KD
5	0.93	0.09	0.53	0.91	0.09	36	7.4	0.8	0.56	0	AM
6	0.95	0.10	0.52	0.94	0.09	36	7.4	0.7	0.53	0	AM
7	0.91	0.09	0.54	0.94	0.10	37	7.4	0.7	0.58	0	KD
8	0.92	0.10	0.56	0.93	0.08	37	7.4	0.9	0.55	0	KD
9	0.96	0.09	0.59	0.94	0.08	38	7.4	0.8	0.52	0	AM
10	0.96	0.09	0.57	0.94	0.08	38	7.4	0.7	0.53	0	AM
11	0.94	0.10	0.58	0.95	0.08	38	7.4	0.7	0.55	0	AM
12	0.96	0.09	0.57	0.96	0.08	38	7.4	0.7	0.54	0	KD
13	0.94	0.10	0.55	0.94	0.09	40	7.4	0.9	0.58	0	KD
14	0.97	0.09	0.57	0.95	0.09	40	7.4	0.8	0.51	0	AM
15	0.96	0.09	0.58	0.94	0.09	41	7.4	0.7	0.52	0	AM
16	0.97	0.09	0.57	0.96	0.09	41	7.3	0.7	0.52	0	KD
17	0.96	0.11	0.53	0.97	0.09	43	7.4	0.8	0.54	0	KD
18	0.95	0.10	0.54	0.97	0.08	42	7.4	0.8	0.59	0	KD
19	0.96	0.10	0.54	0.95	0.09	43	7.4	0.8	0.58	0	CT
20	0.98	0.11	0.53	0.97	0.08	42	7.4	0.8	0.56	0	CT
21	0.97	0.10	0.55	0.96	0.09	42	7.4	0.9	0.58	0	RC
22	0.95	0.09	0.57	0.96	0.07	44	7.5	0.8	0.57	0	RC
23	0.94	0.10	0.56	0.94	0.07	44	7.4	0.7	0.58	0	CT
24	0.96	0.09	0.52	0.94	0.07	44	7.5	0.8	0.53	0	CT
25	0.98	0.10	0.52	0.93	0.07	44	7.4	0.8	0.57	0	CT
26	0.93	0.10	0.58	0.94	0.07	45	7.4	0.7	0.57	0	RC
27	0.95	0.09	0.56	0.93	0.08	46	7.4	0.7	0.54	0	RC
28	0.95	0.10	0.58	0.94	0.08	46	7.4	0.7	0.54	0	CT
29	0.94	0.09	0.53	0.93	0.08	45	7.4	0.7	0.52	0	CT
30	0.96	0.10	0.53	0.94	0.07	47	7.5	0.7	0.53	0	RC
31	0.97	0.08	0.59	0.95	0.07	47	7.4	0.8	0.58	0	RC
AVG	0.95	0.10	0.55	0.94	0.08	41	7.4	0.8	0.55	0	
MAX	0.98	0.11	0.59	0.97	0.10	47	7.5	0.9	0.59	0	
MIN	0.90	0.08	0.52	0.90	0.07	35	7.3	0.7	0.51	0	




Terrance McGhee
Manager of Water Operations



DuPage Water Commission

MEMORANDUM

TO: Owner / Official Custodian / Bottle Recipient

FROM: Terry McGhee 
Manager of Water Operations

DATE: March 31, 2015

SUBJECT: Consumer Confidence Report

The Consumer Confidence Report (CCR) rule requires all community water systems to provide a report to their customers on the quality of their drinking water. You should have received a package from the City of Chicago by now containing all of their source water data and 2014 data tables.

I have included a copy of the data tables for the DuPage Water Commission as part of our CCR requirements. If you have any questions regarding this letter or the information attached please feel free to contact me. If you are not the person who should be receiving the CCR information please contact me so I can update my files.

mcghee@dpwc.org
ph (630) 834-0100
fax (630) 834-0120

Attachments

Cc: File



Annual Drinking Water Quality Report

DU PAGE WATER COMMISSION

IL0435400

**Annual Water Quality Report for the period of
January 1, to December 31, 2015**

This report is intended to provide you with important information about your drinking water and the efforts made by the DU PAGE WATER COMMISSION water system to provide safe drinking water. The source of drinking water used by DU PAGE WATER COMMISSION is Purchased Water from the City of Chicago.

For more information regarding this report contact:

Name Terry McGhee

Phone (630) 834-0100

IS MY WATER SAFE

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of Infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

SOURCE OF DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff
- Industrial, or domestic wastewater discharges, oil and gas production, mining, or farming
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems
- Radioactive contaminants can be naturally-occurring or be the result of oil and gas production and mining activities.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

DESCRIPTION OF THE WATER TREATMENT PROCESS

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand and gravel filters that remove even smaller particles. A small amount of chlorine is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

SOURCE WATER ASSESSMENT

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicago land area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the city's Lakefront Zoning Ordinance.

The city now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC to assure the safety of the city's water supply. Water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills, tanker leaks, exotic species, etc) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level. Since the predominant land use within Illinois' boundary of Lake Michigan

watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. Citizens should be aware that everyday activities in an urban setting might have a negative impact on their source water. Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.

ADDITIONAL INFORMATION ON LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. DuPage Water Commission is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at:

<http://www.epa.gov/safewater/lead>.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak.

- Fixing it or replacing a leaking toilet with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit <http://www.preservingeverydrop.org/> for more information.

SOURCE WATER PROTECTION

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one
- Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier
- Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water."
- Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

2015 Regulated Contaminants Detected

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.

ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.

na: not applicable. Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

2014 Regulated Contaminants Detected

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source Of Contamination
0	0 positive monthly sample	0	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	0	No	Naturally present in the environment

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	7/31/2015	1.10	0.87– 1.10	4	4	ppm	No	Water Additive used to control microbes
Total Haloacetic Acids (HAA5)	2014	16.1	14.0 – 16.1	N/A	60	ppb	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]	2014	31.03	28.6 – 31.03	N/A	80	ppb	No	By-product of drinking water chlorination

Not all sample results may have been used for calculating the highest level detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. **MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. **AL (Action Level):** The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow. **ppm:** parts per million **ppb:** parts per billion **ppt:** parts per trillion **pCi/l:** picoCuries per liter (measurement of radioactivity)



DEPARTMENT OF WATER MANAGEMENT
CITY OF CHICAGO

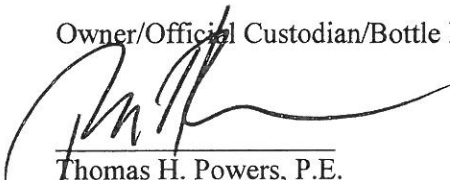
RECEIVED

MAR 28 2016

DuPage Water Commission

TO: Owner/Official Custodian/Bottle Recipient

FROM:


Thomas H. Powers, P.E.
Commissioner
Department of Water Management

SUBJECT: Consumer Confidence Report Parent Supply Information

DATE: March 18, 2015

The Consumer Confidence Report (CCR) rule requires all community water systems to provide a report to their customers on the quality of the drinking water. The Department of Water Management (DWM), as your parent supply, is providing the required information pertaining to compliance monitoring for the period January 2015 through December 2015. If your water supply is required to produce a report you will need this data to complete your Consumer Confidence Report.

The completed 2015 report for the DWM will be mailed to consumers before the July 1st deadline. If this information does not apply to you or if you are not the person to be receiving this package, please send any changes to Andrea Putz using either:

e-mail: andrea.putz@cityofchicago.org, fax: (312) 742-9123, or phone: (312) 742-1070

Included in this information package:

- Summary Tables -
 - 2015 Water Quality Data – includes Regulated and Non-Regulated Contaminant Detections
 - 2015 Violation Summary Table – there were no violations for this facility for the 2015 monitoring period.
 - Source Water Assessment Program Summary
 - Educational Statements Regarding Commonly Found Drinking Water Contaminants
 - Voluntary Testing - short summary of additional testing done by this facility outside of the required testing

In order to expedite the CCR to you before April 1, 2016 we have enclosed 2015 tables that were prepared by DWM with the help by the Illinois EPA. The Illinois EPA posted data tables for the Department of Water Management on the Internet at:

<http://www.epa.state.il.us/water/drinking-water-watch/>

Please let us know if we can be of further assistance.

Attachments

Cc: Alan Stark, DC-BWS

2015 Water Quality Data

-Definition of Terms-

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2015, except where a specific date is indicated.

Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

Date of Sample: If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year, because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

ND: Contaminant Not Detected at or above the reporting or testing limit. **N/A:** Not applicable

Detected Contaminants

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level Detected</i>	<i>Range of Detections</i>	<i>Violation</i>	<i>Date of Sample</i>
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Turbidity Data

			(Lowest Monthly %)	
URBIDITY (NTU/Lowest Monthly %≤0.3 NTU) Soil runoff	N/A	TT (Limit 95%≤0.3 NTU)	99.7%	99.7% – 100.0%
URBIDITY (NTU/Highest Single Measurement) Soil runoff	N/A	TT (Limit 1 NTU)	0.45	N/A

inorganic Contaminants

BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0201	0.0193 - 0.0201
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.30	0.28 - 0.30
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.30	0.28 - 0.30

Detected Contaminants Continued

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level Detected</i>	<i>Range of Detections</i>	<i>Violation</i>	<i>Date of Sample</i>
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Total Organic Carbon

TOC [TOTAL ORGANIC CARBON]

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.

Unregulated Contaminants

SULFATE (ppm) Erosion of naturally occurring deposits	N/A	N/A	27.2	18.8 – 27.2	
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SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	8.48	8.04 – 8.48	
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State Regulated Contaminants

FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	1.01	0.76 – 1.01	
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Radioactive Contaminants

COMBINED RADIUM (226/228) (pCi/L) Decay of natural and man-made deposits.	0	5	0.84	0.50 – 0.84	2/11/2014
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GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	6.6	6.1 – 6.6	2/11/2014
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UCMR3 Compliance Reporting

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for 28 contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe drinking Water Act. The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

CHROMIUM (ppb) Naturally-occurring element; used in making steel and other alloys	100	100	0.3	0.3 - 0.3	
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MOLYBDENUM (ppb) Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide	NA	NA	1.1	1.0 -1.1	
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STRONTIUM (ppb) Naturally-occurring element; has been used in cathode-ray tube TVs to block x-ray emissions	NA	NA	120	110 -120	
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VANADIUM (ppb) Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate	NA	NA	0.2	0.2 - 0.2	
---	----	----	-----	-----------	--

CHROMIUM-6 or HEXAVALENT CHROMIUM(ppb) Naturally-occurring element; used in making steel and alloys	NA	NA	0.19	0.18 - 0.19	
--	----	----	------	-------------	--

Unit of Measurement

ppm - Parts per million, or milligrams per liter

ppb - Parts per billion, or micrograms per liter

NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

%≤0.3 NTU - Percent of samples less than or equal to 0.3 NTU

pCi/L - Picocuries per liter, used to measure radioactivity

Water Quality Data Table Footnotes

TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

UNREGULATED CONTAMINANTS:

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health had recommended an optimal fluoride range of 0.9 mg/l to 1.2 mg/l until November 2015. As of November 2015, the new recommendation is an optimal fluoride level of 0.7 mg/l.

SODIUM

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT SOURCE WATER ASSESMENT SUMMARY FOR THE 2015 CONSUMER CONFIDENCE REPORT (CCR)

Source Water Location

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, and is the second largest Great lake by volume with 1,180 cubic miles of water and third largest by area.

Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our supply. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

Susceptibility to Contamination

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment of all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

2015 VOLUNTARY MONITORING

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has started the 24 months long monitoring program in April 2015, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. coli and turbidity. Cryptosporidium and Giardia were not detected in these samples.

In 2015, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emerigincontaminantstudy.html

2015 Violation Summary Table

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2015.

DuPage Water Commission and Lead

Twenty five years ago the U.S Environmental Protection Agency (USEPA) published the Lead and Copper Rule (LCR) to control lead and copper in drinking water. The reason for the rule is that lead and copper negatively affect our health that much is clear. What is not widely understood outside of the water treatment and regulatory communities is that the LCR's action level is not a health-based limit but rather a trigger for water providers to implement treatment options which include water quality practices that help stabilize the water and prevent a corrosive environment. The LCR was developed to protect the end users, but the simple fact is that as long as there are lead pipes in the ground or lead plumbing in the home, some risk remains.

In light of the recent incidents in Flint Michigan, Lead in drinking water has risen to the front page of every newspaper and the top story for every local news station. These stories have caused our customers to question the safety of the water we supply on a daily basis. Our job is to reassure our customers that the water we supply is safe to drink and that we are diligently monitoring the water quality from the time it leaves our plant to the time it reaches their home.

The source water for the DuPage Water Commission is Lake Michigan, which doesn't contain any detectable lead. As the water passes through the James W. Jardine Treatment plant and flows through the City's tunnel system on its journey to DuPage County, the water does not pick up a detectable concentration of lead. The DuPage Water Commission facilities were constructed well after the use of lead was eliminated in 1986. This adds to the safeguard that the water has no contact with any source of lead on its journey from Lake Michigan to your community.

The City of Chicago routinely test the source water and the water in their transmission system for lead and a variety of other possible contaminants in addition to their LCR required sampling of their distribution system. The Water Commission has recently started an additional testing program to verify the absence of lead and any other common contaminants in the water system. *(Test reports are attached)*

Sources of lead in drinking water are primarily from materials and components associated with service lines and home plumbing. Water suppliers are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at:

<http://www.epa.gov/lead>

<http://extension.psu.edu/natural-resources/water/drinking-water/water-testing/pollutants/lead-in-drinking-water>

<http://www.awwa.org/lead>

There has been a call to remove all lead from the nation's drinking water systems and this will be a huge challenge for our industry, but before we address this task there are other solutions we should be addressing:

- Develop a communication plan to explain to your customers the risks of lead in drinking water
- Explain what your utility is doing to manage the risks associated with lead in drinking water
- Educate your customers on how they can protect themselves from lead in drinking water
- Develop a plan to locate and track the lead service lines in your system
- Develop a strategy and timeline to eventually replace the lead service lines in your system

The most baffling question in solving this lead challenge is who will pay? The proposed concept of cost sharing between the utility and the customers is currently being debated and there are no simple answers on the horizon. In the interim the best you can do is keep your customers informed and make some of the following suggestions:

- **Have your water tested:** Request a test from your local utility or check the Illinois Environmental Protection Agency
- **Be aware of work that can disturb the service line:** Construction, water main replacement or service line repair can loosen up lead, contaminating the water flowing into the house.
- **Run water before use:** Especially important if the home's water has not been used for several hours. The time varies based on the length of the lead service line. Five minutes will considerably reduce the amount of lead.
- **Use only cold water** for drinking, cooking and preparing baby formula.
- **Purchase a water filter:** Make sure it is certified to remove "total lead."
- **Replace the entire lead service line.**
- **Change faucet screens:** Routinely clean screens at the tip of the faucet, where sediment and metals can collect. The components should unscrew easily.

Frequently Asked Questions

Q: How often do water systems have to test for lead?

A: Systems must test every six months until they have achieved compliance and can qualify for a reduced sampling program. Systems that serve more than 50,000 customers can test annually as soon as two consecutive testing periods are below the level that requires federal action. Smaller systems that meet that standard can test every three years.

Q: How do cities decide which homes to test and how are samples collected?

A: Water systems are supposed to collect samples from buildings that are at highest risk of lead contamination. Homeowners are recruited to voluntarily collect the samples, which must be drawn from a tap that has not been used for at least six hours.

Q: How many samples are collected?

A: It depends on a system's size and whether it is on a reduced-sampling program. The number can vary from 100 samples for the largest water districts to five for the smallest.

Q: What is the threshold for the EPA considering a water system in violation?

A: A system is considered out of compliance if more than 10 percent of the sites sampled have lead levels above the federal-action level of 15 parts per billion.

Q: What happens then?

A: Within 60 days, the system must notify customers about the test results and inform them of the possible health risks and outline steps they can take to protect themselves. Those suggestions often include running water for 30 seconds to flush lead, using cold water for cooking and making baby formula, and replacing lead-based plumbing fixtures and service lines. Buying water filters and bottled water also are options.

Q: Are the water systems required to do anything else?

A: Yes. Typically, they are required to study and eventually add corrosion-control treatments to the water supply. Often, systems use a chemical such as phosphate to make the water less corrosive and therefore less likely to leach lead from service lines and plumbing fixtures. They may also be required to replace some lead service lines, which connect water mains to individual homes.

Q: Do all schools and day care centers have to test for lead?

A: No. In fact, most schools are not required to do testing under the rule. Only schools and day care centers that operate their own water systems are required to test for lead. Public and private schools and day care facilities that rely on a municipal water system are not required to test, although some do in the interest of safety.

Q: How do I know if my house might have lead in the water?

A: Just because your community is over or under the federal limit does not mean the drinking water at your house is safe or unsafe. The best way to know might be to call your water supplier to have it tested for lead, a service that many are now offering for free.

Q: Why don't more water systems replace their old lead pipes?

A: The cost, along with some questions about ownership. Many water systems have replaced or are in the process of replacing all of the lead-based water lines they own. But millions of miles of service lines deliver water to old homes, schools and businesses, and often cost \$3,000 to \$7,000 per location to replace. Property owners are generally responsible for those pipes.



April 25, 2016

Terry McGhee
Du Page Water Commission
600 E. Butterfield Road
Elmhurst, IL 60126-4642

Work Order: 1604407

TEL: (630) 340-0100
FAX: (630) 340-0120
RE: Non-Compliance Drinking Water Analysis

Dear Terry McGhee:

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Pat Rodriguez'.

Pat Rodriguez
Customer Service Manager
708-544-3260 ext. 214
pat@suburbanlabs.com



SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260



Case Narrative

Client: DUPAGE_W_C

Date: April 25, 2016

Project: Non-Compliance Drinking Water Analysis

PO:

WorkOrder: 1604407

QC Level: LEVEL I

Temperature of samples upon receipt at lab: 15 C

Chain of Custody: ELEC

General Comments:

- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All water analyses that are required to be performed in the field (e.g., pH, residual chlorine, sulfite, temperature, etc.) but are analyzed in the lab are identified as "in lab" and are considered past holding time. Following industry practices these results do not contain an "H" flag but are qualified as being analyzed in the lab.

Abbreviations:

- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS (Surrogate Standard): Quality control compound added to the sample by the lab.

Method References:

For a complete list of method references please contact us.

- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments:

1604407-001A was preserved in the lab.

SUBURBAN LABORATORIES, Inc.



1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client: Du Page Water Commission

Report Date: April 25, 2016

Project: Non-Compliance Drinking Water Analysis

Workorder: 1604407

Client Sample ID: DWC DISCHARGE

Matrix: Drinking Water

Lab ID: 1604407-001

Date Received: 4/6/2016 12:14 PM

Collection Date: 4/6/2016 9:00 AM

Parameter	Result	MCL	Report Limit	Qual	Units	DF	Date Analyzed	BatchID
Total Nitrates (Nitrate+Nitrite)								
Method: --			Analyst: pgr					
Total Nitrates (as N)	.5	10.0	0		mg/L	1	4/6/2016 3:10 PM	R70674
TURBIDITY								
Method: -180.1-2.0, Aug-93			Analyst: jmk					
Turbidity	ND		0.100		NTU	1	4/6/2016 3:00 PM	R70666
METALS by ICP								
Method: -200.7-4.4,1994			Analyst: jtl					
Calcium	36,500		500		µg/L	10	4/11/2016 1:57 PM	35452
Hardness, Ca/Mg (As CaCO ₃)	140,000		0		µg/L	10	4/11/2016 1:57 PM	35452
Iron	ND	1,000	50.0		µg/L	1	4/11/2016 3:03 PM	35452
Iron	ND	1,000	500		µg/L	10	4/11/2016 1:57 PM	35452
Magnesium	11,800		500		µg/L	10	4/11/2016 1:57 PM	35452
Sodium	7,390		3,000		µg/L	10	4/11/2016 1:57 PM	35452
METALS by ICPMS								
Method: -200.8-5.4, 1994			Analyst: jmk					
Antimony	ND	6.00	2.00		µg/L	1	4/11/2016 2:36 PM	35452
Arsenic	ND	10.0	0.500		µg/L	1	4/7/2016 4:21 PM	35452
Barium	21.3	2,000	5.00		µg/L	1	4/7/2016 4:21 PM	35452
Beryllium	ND	4.00	1.00		µg/L	1	4/11/2016 2:36 PM	35452
Cadmium	ND	5.00	3.00		µg/L	1	4/11/2016 2:36 PM	35452
Chromium	ND	100	5.00		µg/L	1	4/11/2016 2:36 PM	35452
Copper	ND	1,300	100		µg/L	1	4/7/2016 4:21 PM	35452
Lead	ND	15.0	5.00		µg/L	1	4/7/2016 4:21 PM	35452
Mercury	ND	2.00	0.100		µg/L	1	4/11/2016 2:36 PM	35452
Selenium	ND	50.0	2.00		µg/L	1	4/7/2016 4:21 PM	35452
Thallium	ND	2.00	2.00		µg/L	1	4/11/2016 2:36 PM	35452
ALKALINITY, TOTAL								
Method: -2320B-18Ed, 1992, 21Ed, 1997			Analyst: src					
Alkalinity, Total(As CaCO ₃)	106		20.0		mg/L CaCO ₃	1	4/7/2016 3:17 PM	R70711
VOLATILE ORGANIC COMPOUNDS (Regulated)								
Method: -524.2-R4.1			Analyst: rgb					
Benzene	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Carbon tetrachloride	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Chlorobenzene	ND	100	0.500		µg/L	1	4/8/2016 10:19 AM	R70762

Rpt Ver: 4/25/2016 4:57 PM

SUBURBAN LABORATORIES, Inc.



1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client: Du Page Water Commission

Report Date: April 25, 2016

Project: Non-Compliance Drinking Water Analysis

Workorder: 1604407

Client Sample ID: DWC DISCHARGE

Matrix: Drinking Water

Lab ID: 1604407-001

Date Received: 4/6/2016 12:14 PM

Collection Date: 4/6/2016 9:00 AM

Parameter	Result	MCL	Report Limit	Qual	Units	DF	Date Analyzed	BatchID
VOLATILE ORGANIC COMPOUNDS (Regulated)			Method: -524.2-R4.1	Analyst: rgb				
1,4-Dichlorobenzene	ND	75.0	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,2-Dichlorobenzene	ND	600	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,2-Dichloroethane	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,1-Dichloroethene	ND	7.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
cis-1,2-Dichloroethene	ND	70.0	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
trans-1,2-Dichloroethene	ND	100	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,2-Dichloropropane	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Ethylbenzene	ND	700	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Methylene chloride	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Styrene	ND	100	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Tetrachloroethene	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Toluene	ND	1,000	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,2,4-Trichlorobenzene	ND	70.0	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Trichloroethene	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,1,1-Trichloroethane	ND	200	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
1,1,2-Trichloroethane	ND	5.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Vinyl chloride	ND	2.00	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
m,p-Xylene	ND		0.500		µg/L	1	4/8/2016 10:19 AM	R70762
o-Xylene	ND		0.500		µg/L	1	4/8/2016 10:19 AM	R70762
Total Xylenes	ND	10,000	0.500		µg/L	1	4/8/2016 10:19 AM	R70762
<u>Internal Quality Control Compounds</u>								
Surr: 1,2-Dichlorobenzene-d4	115		70-130		%Rec	1	4/8/2016 10:19 AM	R70762
Surr: 4-Bromofluorobenzene	117		70-130		%Rec	1	4/8/2016 10:19 AM	R70762
VOLATILE ORGANIC COMPOUNDS (Unregulated)			Method: -524.2-4.1, 1995	Analyst: rgb				
Methyl tert-butyl ether	ND		0.500		µg/L	1	4/8/2016 10:19 AM	R70762
<u>Internal Quality Control Compounds</u>								
Surr: 1,2-Dichlorobenzene-d4	115		66.8-122		%Rec	1	4/8/2016 10:19 AM	R70762
Surr: 4-Bromofluorobenzene	117		67.7-120		%Rec	1	4/8/2016 10:19 AM	R70762
PESTICIDE COMPOUNDS			Method: -525.2-2.0, 1995	Analyst: ls				
Alachlor	ND	2.00	0.200		µg/L	1	4/21/2016 2:35 PM	35718
Atrazine	ND	3.00	0.200		µg/L	1	4/21/2016 2:35 PM	35718

Rpt Ver: 4/25/2016 4:57 PM

Simazine	ND	4.00	0.200	µg/L	1	4/21/2016 2:35 PM	35718
Internal Quality Control Compounds							
Surr: 1,3-Dimethyl-2-nitrobenzene	95.6		60.3-130	%Rec	1	4/21/2016 2:35 PM	35718
Surr: Perylene-d12	49.2		26-125	%Rec	1	4/21/2016 2:35 PM	35718
Surr: Triphenyl phosphate	108		50.9-181	%Rec	1	4/21/2016 2:35 PM	35718
pH Method 9041A (in laboratory)							
	Method: -9041A-1, Jul-92				Analyst: pgr		
pH	7			pH Units	1	4/6/2016 3:10 PM	R70674
Coliform, Presence-Absence							
	Method: -9223B-PA-18Ed, 1992				Analyst: emk		
E. Coli	0		0	CFU/100m 1	1	4/7/2016 2:55 PM	35433
Total Coliform	0		0	CFU/100m 1	1	4/7/2016 2:55 PM	35433

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260



Prep Dates

Client: Du Page Water Commission

Report Date: April 25, 2016
Original

Project: Non-Compliance Drinking Water Analysis

Workorder: 1604407

Sample ID	Client Sample ID	Collection Date	Prep Batch	Prep Test Name	Leachate Date	Prep Date
1604407-001A	DWC DISCHARGE	4/6/2016 9:00 AM				
			35452	Turbidity Check		4/7/2016 9:21 AM
			35452	Turbidity Check		4/7/2016 9:21 AM
1604407-001B	DWC DISCHARGE	4/6/2016 9:00 AM				
1604407-001C	DWC DISCHARGE	4/6/2016 9:00 AM				
1604407-001D	DWC DISCHARGE	4/6/2016 9:00 AM				
			35433	Total Coliform Prep		4/6/2016 2:38 PM
1604407-001E	DWC DISCHARGE	4/6/2016 9:00 AM				
1604407-001F	DWC DISCHARGE	4/6/2016 9:00 AM				
			35718	525 Prep Code		4/20/2016 12:20 PM



Report Date: April 25, 2016

WorkOrder: 1604407

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- c Analyte not in SLI scope of accreditation
- C Value is below Minimum Concentration Limit
- E Estimated, detected above quantitation range
- G Refer to case narrative page for specific comments
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limit (QL)
- N Tentatively identified compound
- ND Not Detected at the Reporting Limit
- P Present
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- W Sample container temperature is out of limit as specified at testcode



SUBURBAN LABORATORIES, Inc.

1950 S Batavia Ave Ste 150 Geneva, IL 60134

Tel: 708.544.3260

Fax: 708.544.8587

Toll Free: 800.783.LABS

www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

Electronic Version

Company Name: DuPage Water Commission
County Address: Cook County, IL
City: Elmhurst, IL
State: IL
Zip: 60120
Project ID / Location: Safe Water Test Package 1
Project Manager (Required): Kelly McGhee
Sample Collector(s): Kelly McGhee

TURNAROUND TIME REQUESTED
 Normal RUSH*
*Additional Rush Charges Approved.
Date & Time Needed: _____
Normal TAT is 5-7 work days for most work. Rush work must be pre-approved and additional charges apply.

ANALYSIS & METHOD REQUESTED
 Enter an "X" in box below for request

Page 1 **of** 1
PO No. _____
Shipping Method _____
QC Reporting Level 1 2 3
LAB USE ONLY
Sample Container Supplied by Customer Yes No
Temperature of Received Sample _____
Samples preserved within 2 hours of collection Yes No
Re-Condition Seal Yes No
LAB#

Specify Regulatory Program: (Required) None/Info only
 LUST SRP SDWA
 503 Sludge NPDES MWRDGC
 Disposal Other *Please specify in comment section below.

SAFE WATER TEST PACKAGE 1

SAMPLE IDENTIFICATION <small>Use One Line Per Preservation & Container Type</small>	COLLECTION		MATRIX	GRAB/ COMP.	CONTAINERS		PRESERVATIVE	SAFE WATER TEST PACKAGE 1	Re	Condition	Seal	LAB#
	DATE	TIME			Qty	SIZE & TYPE						
1. DuPage Discharge	9-6-06	9:00	DW	G	1	1 Liter Plastic	HNO3	X				007A
2. DuPage Discharge	9-6-06	9:00	DW	G	2	40 mL Glass Vial	HCl	X				007B
3. DuPage Discharge	9-6-06	9:00	DW	G	2	1 Liter Amber Glass	Na2SO3/HCl	X				007C
4. DuPage Discharge	9-6-06	9:00	DW	G	1	8 oz Plastic	Unpreserved	X				007D
5. DuPage Discharge	9-6-06	9:00	DW	G	1	1 Liter Plastic	Unpreserved	X				007E
6. DuPage Discharge	9-6-06	9:00	DW	G	1	120 mL Plastic	Na2S2O3	X				007F
7.												
8.												
9.												
10.												
11.												
12.												

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water (SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P)
CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P)
PRESERVATIVE: H2SO4, HCl, HNO3, Methanol (MeOH), NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

PLEASE COMPLETE THE HIGHLIGHTED SECTIONS:

\$499.00
COLLECT ALL BOTTLES AND VIALS FROM THE SAME TAP
FILL EACH VIAL WITHOUT AIR BUBBLES - DO NOT OVERFLOW AND SPILL HCl PRESERVATIVE
ADD ONE 7 ML HCl FIELD PRESERVATION VIAL TO EACH OF THE LITER AMBER BOTTLES AFTER SAMPLE COLLECTION

- CONDITION CODES:**
- 1. Improper/damaged container/cap
 - 2. Improper preservation
 - 3. Insufficient sample volume
 - 4. Headspace/air bubbles for VOCs
 - 5. Received past holding time
 - 6. Received frozen
 - 7. Label conflicts with COC

Received By: Bell, John [Signature] Ice **Date:** 9/6/06
Relinquished By: [Signature] **Date:** 9/6/06
Received By: [Signature] Ice **Date:** 12/10
Relinquished By: [Signature] **Date:** _____

Submission of samples subject to Terms and Conditions on back. Rev. 7/20/08 Please fill out this form completely, print, sign & submit with samples. Keep a copy for your records.

Page 8 of 8

Revised Total Coliform Rule: A Quick Reference Guide

Overview of the Rule

Title*	Revised Total Coliform Rule (RTCR) 78 FR 10269, February 13, 2013, Vol. 78, No. 30
Purpose	Increase public health protection through the reduction of potential pathways of entry for fecal contamination into distribution systems.
General Description	The RTCR establishes a maximum contaminant level (MCL) for <i>E. coli</i> and uses <i>E. coli</i> and total coliforms to initiate a "find and fix" approach to address fecal contamination that could enter into the distribution system. It requires public water systems (PWSs) to perform assessments to identify sanitary defects and subsequently take action to correct them.
Utilities Covered	The RTCR applies to all PWSs.

* This document provides a summary of federal drinking water requirements; to ensure full compliance, please consult the federal regulations at 40 CFR 141 and any approved state requirements.

Public Health Benefits

Implementation of the RTCR will result in:

- ▶ A decrease in the pathways by which fecal contamination can enter the drinking water distribution system.
- ▶ Reduction in fecal contamination *should* reduce the potential risk from all waterborne pathogens including bacteria, viruses, parasitic protozoa, and their associated illnesses.

Critical Deadlines and Requirements

For Public Water Systems

Before April 1, 2016	<ul style="list-style-type: none"> ▶ PWSs must develop a written sample siting plan that identifies the system's sample collection schedule and all sample sites, including sites for routine and repeat monitoring. ▶ PWSs monitoring quarterly or annually must also identify additional routine monitoring sites in their sample siting plans. ▶ Sample siting plans are subject to state review and revision.
Beginning April 1, 2016	PWSs must comply with the RTCR requirements unless the state selects an earlier implementation date.

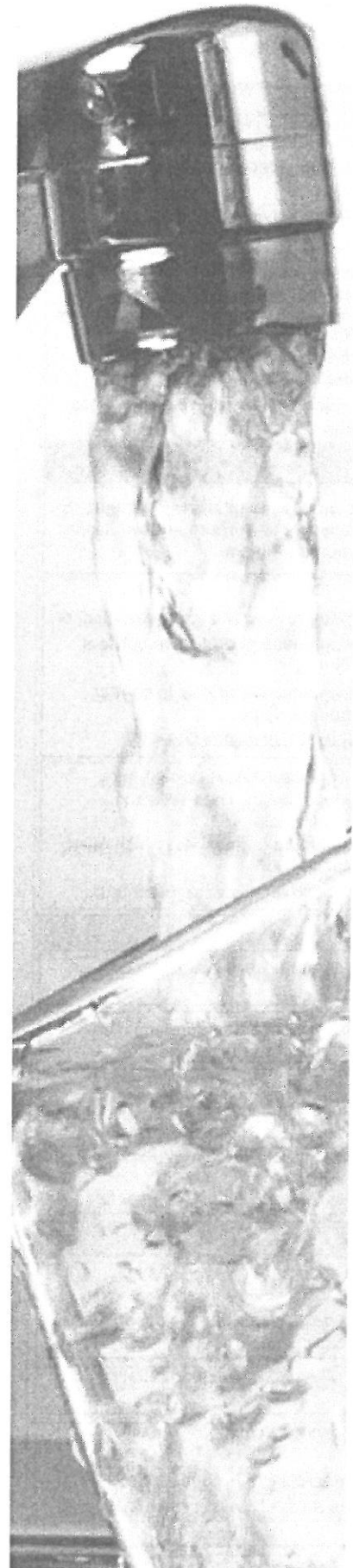
For State Drinking Water Agencies

By February 13, 2015	<p>State submits final primacy program revision package to the EPA Region, including:</p> <ul style="list-style-type: none"> ▶ Adopted State Regulations. ▶ Regulation Crosswalk. ▶ 40 CFR 142.10 Primacy Update Checklist. ▶ 40 CFR 142.14 and 142.15 Reporting and Recordkeeping. ▶ 40 CFR 142.16 Special Primacy Requirements. ▶ Attorney General's Enforceability Certification. <p>NOTE: EPA regulations allow states until February 13, 2015, for this submittal. An extension of up to 2 years may be requested by the state.</p>
Before February 13, 2015	<p>State must submit a primacy program revision extension request if it does not plan to submit the final primacy program revision package by February 13, 2015. The state extension request is submitted to the EPA Region including all of the information required in 40 CFR 142.12(b):</p> <ul style="list-style-type: none"> ▶ A schedule (not to exceed 2 years) for the submission of the final primacy program revision package. ▶ Justification that meets the federal requirements for an extension request. ▶ Confirmation that the state is implementing the RTCR within its scope of its current authorities and capabilities. ▶ An approved workload agreement with the EPA Region.
No later than February 13, 2017	For states with an approved extension, submit complete and final program revision package by the agreed upon extension date.

What are the Major Provisions?

Routine Sampling Requirements

- ▶ Total coliform samples must be collected by PWSs at sites which are representative of water quality throughout the distribution system according to a written sample siting plan subject to state review and revision.
- ▶ For PWSs collecting more than one sample per month, collect total coliform samples at regular intervals throughout the month, except that ground water systems serving 4,900 or fewer people may collect all required samples on a single day if the samples are taken from different sites.





Routine Sampling Requirements (cont.)

- ▶ Each total coliform-positive (TC+) routine sample must be tested for the presence of *E. coli*.
- ▶ If any TC+ sample is also *E. coli*-positive (EC+), then the EC+ sample result must be reported to the state by the end of the day that the PWS is notified.
- ▶ If any routine sample is TC+, repeat samples are required.
 - PWSs on quarterly or annual monitoring must take a minimum of three additional routine samples (known as additional routine monitoring) the month following a TC+ routine or repeat sample.
- ▶ Reduced monitoring may be available for PWSs using only ground water and serving 1,000 or fewer persons that meet certain additional PWS criteria.

Repeat Sampling Requirements

<p>Within 24 hours of learning of a TC+ routine sample result, at least 3 repeat samples must be collected and analyzed for total coliform:</p>	<ul style="list-style-type: none"> ▶ One repeat sample must be collected from the same tap as the original sample. ▶ One repeat sample must be collected from within five service connections upstream. ▶ One repeat sample must be collected from within five service connections downstream.
<p>If one or more repeat sample is TC+:</p>	<ul style="list-style-type: none"> ▶ The PWS may propose alternative repeat monitoring locations that are expected to better represent pathways of contamination into the distribution system. ▶ The TC+ sample must be analyzed for the presence of <i>E. coli</i>. ▶ If any repeat TC+ sample is also EC+, then the EC+ sample result must be reported to the state by the end of the day that the PWS is notified. ▶ The PWS must collect another set of repeat samples, unless an assessment has been triggered and the PWS has notified the state.

Assessments and Corrective Action

The RTCR requires PWSs that have an indication of coliform contamination (e.g., as a result of TC+ samples, *E. coli* MCL violations, performance failure) to assess the problem and take corrective action. There are two levels of assessments (i.e., Level 1 and Level 2) based on the severity or frequency of the problem.

<p>Purpose of Level 1 and Level 2 Assessments</p>	<p>To find sanitary defects at the PWS including:</p> <ul style="list-style-type: none"> ▶ Sanitary defects that could provide a pathway of entry for microbial contamination, or ▶ Sanitary defects that indicate failure (existing or potential) of protective barriers against microbial contamination. <p><i>Guidance on how to conduct Level 1 and Level 2 Assessments and how to correct sanitary defects found during the Assessments can be found at:</i> http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm.</p>
<p>Deadline for Completing Corrective Actions</p>	<p>When sanitary defects are identified during a Level 1 or Level 2 Assessment, they should be corrected as soon as possible to protect public health. The PWS must complete corrective actions by one of the following timeframes:</p> <ul style="list-style-type: none"> ▶ No later than the time the assessment form is submitted to the state, which must be within 30 days of triggering the assessment, or ▶ Within state-approved timeframe which was proposed in the assessment form.

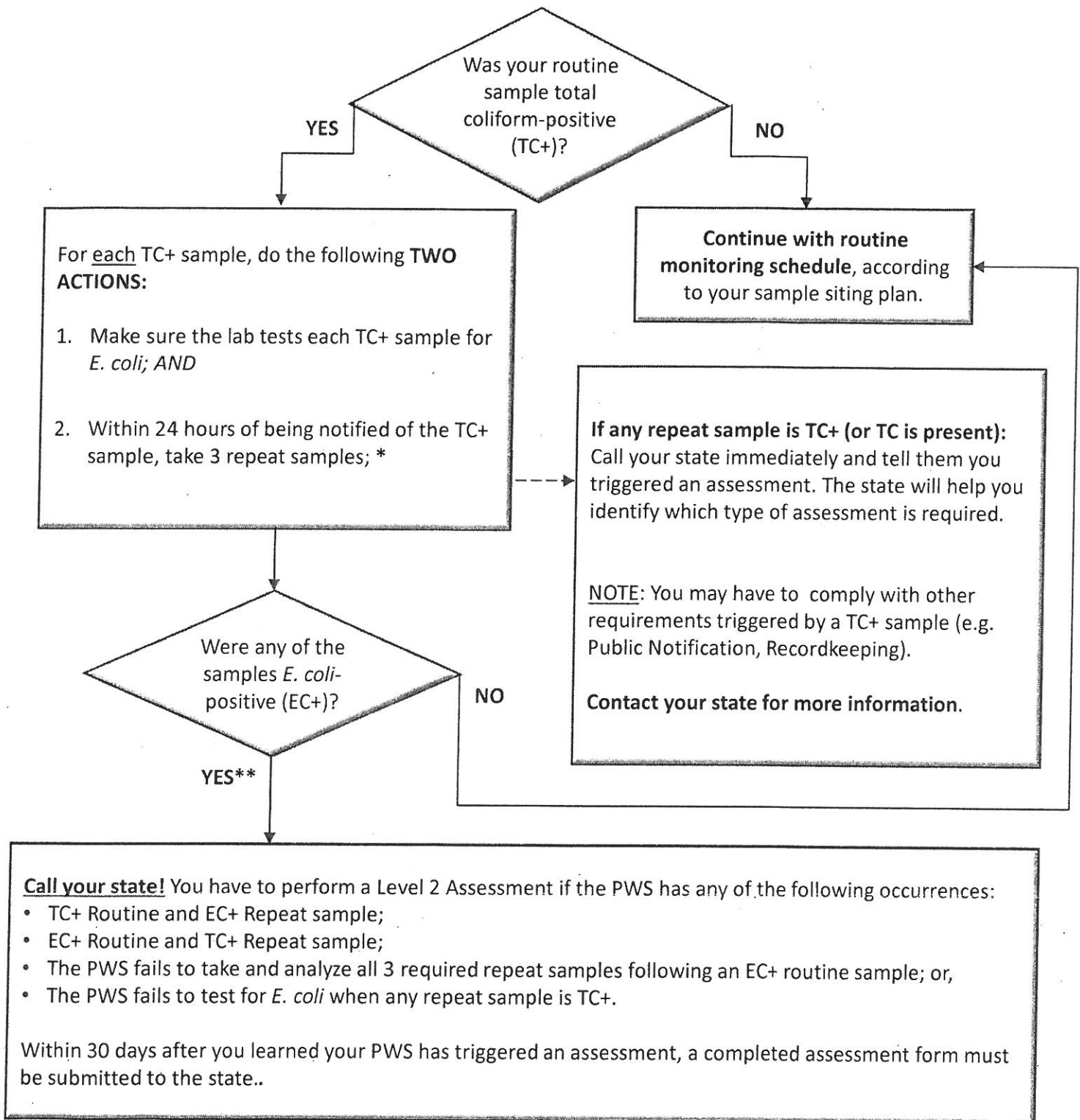
Level 1 Assessments

<p>Conducting Level 1 Assessments</p>	<ul style="list-style-type: none"> ▶ Performed by the PWS owner or operator each time a Level 1 Assessment is triggered. ▶ Upon trigger of a Level 1 Assessment, the Level 1 Assessment form must be submitted within 30 days to the state.
<p>Level 1 Assessment Triggers</p>	<p>Level 1 Assessment is triggered if any one of the following occurs:</p> <ul style="list-style-type: none"> ▶ A PWS collecting fewer than 40 samples per month has 2 or more TC+ routine/repeat samples in the same month. ▶ A PWS collecting at least 40 samples per month has greater than 5.0 percent of the routine/repeat samples in the same month that are TC+. ▶ A PWS fails to take every required repeat sample after any single TC+ sample.

Level 2 Assessments

<p>Conducting Level 2 Assessments</p>	<ul style="list-style-type: none"> ▶ Performed by the state or state-approved entity each time a Level 2 Assessment is triggered. ▶ The PWS is responsible for ensuring that the Level 2 Assessment is conducted regardless of the entity conducting the Level 2 Assessment. ▶ Upon trigger of a Level 2 Assessment, the Level 2 Assessment form must be submitted within 30 days to the state.
<p>Level 2 Assessment Triggers</p>	<p>Level 2 Assessment is triggered if any one of the following occurs:</p> <ul style="list-style-type: none"> ▶ A PWS incurs an <i>E. coli</i> MCL violation. ▶ A PWS has a second Level 1 Assessment within a rolling 12-month period. ▶ A PWS on state-approved annual monitoring has a Level 1 Assessment trigger in 2 consecutive years.

CONDUCT ACTIONS REQUIRED AS A RESULT OF YOUR SAMPLING



NOTES

* If you are missing any routine or repeat sample, contact your state.

** Call your state on the same day you learn of the EC+ result, or by the end of the next business day and tell them you received an EC+ result.

STEP 2: CONDUCT ACTIONS REQUIRED AS A RESULT OF YOUR REPEAT SAMPLING

- **TC+** = Total coliform-positive or present; **TC-** = Total coliform-negative or absent
- **EC+** = *E. coli*-positive or present; **EC-** = *E. coli*-negative or absent; **EC?** = *E. coli* not analyzed

You must COMPLETE AN ASSESSMENT AND SUBMIT THE FORM TO THE STATE WITHIN 30 DAYS after you learned your PWS has triggered an assessment. See the **RTCR Factsheet: Level 1 & Level 2 Assessments and Corrective Actions**.

If Routine Sample Is:	And	Any Repeat Sample Is:	Action: What do your sample results mean?	Violation
TC+ EC-	&	TC+ EC-	The presence of total coliform bacteria in both your original routine sample and in your follow-up repeat sample suggests there could be a problem and your water may not be safe to use. 1. CONDUCT A LEVEL 1 OR LEVEL 2 ASSESSMENT. Contact the state for help determining which type of assessment is required.	No MCL violation
TC+ EC-	&	TC+ EC?	The presence of total coliform bacteria in both your original routine sample and in your follow-up repeat sample suggests there could be a problem and because <i>E. coli</i> was not tested, it is unknown whether or not the water is safe to use. 1. NOTIFY THE STATE within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL violation*
TC+ EC-	&	TC+ EC+	The presence of <i>E. coli</i> bacteria in your water is an indicator of fecal contamination and your water may not be safe to use. 1. NOTIFY THE STATE within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL violation*
TC+ EC-	&	Any or all repeat samples missing	The presence of total coliform bacteria in your original routine sample suggests there could be a problem and because repeat samples were not tested, it is unknown whether or not the water is safe to use. 1. CONDUCT A LEVEL 1 OR LEVEL 2 ASSESSMENT. Contact the state for help determining which type of assessment is required.	No MCL violation
TC+ EC+	&	TC+	The presence of <i>E. coli</i> bacteria in your water is an indicator of fecal contamination and your water may not be safe to use. 1. NOTIFY THE STATE within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL violation*
TC+ EC+	&	Any or all repeat samples missing	The presence of <i>E. coli</i> bacteria in your water is an indicator of fecal contamination and your water may not be safe to use. 1. NOTIFY THE STATE within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL violation*

NOTE

* You are required to provide Tier 1 public notice within 24 hours in response to an *E. coli* MCL violation.

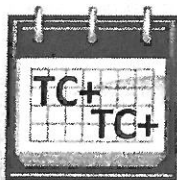
WHAT TO DO IF YOU TRIGGERED AN ASSESSMENT?

WITHIN 30 DAYS OF LEARNING THAT YOUR PWS TRIGGERED AN ASSESSMENT, a completed state assessment form must be submitted to your state. The process for completing and submitting the required form depends on the type of assessment. In both cases, your state will review the completed assessment form to determine if the likely cause of the trigger has been identified and to ensure the problem is corrected.

Level 1 Assessment

You have to do a Level 1 Assessment if you:

1. Fail to collect and analyze at least 3 repeat samples for each routine TC+; or
2. Have two or more TC+ samples (use routine and repeat results in your calculation) in one month.



Your system conducts the assessment.

STEP 1: Call your state, and verify the appropriate person to conduct the assessment (the assessor).

STEP 2: Ask the state for the Level 1 assessment form and determine the process for submission.

STEP 3: Perform the assessment.

STEP 4: If sanitary defect(s) are found, fix them or propose and gain a state-approved schedule for fixing, if the sanitary defect(s) cannot be corrected within 30 days of triggering the assessment.

- After completing each scheduled corrective action you must notify your state.
- The PWS or state (at any time) may consult with each other to discuss progress or the corrective action(s) identified.

STEP 5: Submit the completed assessment form to the state within 30 days of learning that your system triggered the assessment.

Level 2 Assessment

You have to do a Level 2 Assessment if you have either:

1. *E. coli* MCL violation:

Routine	Repeat
TC+ & EC-	<i>E. coli</i> -positive (EC+)
TC+ & EC-	TC+ but not analyzed for EC
TC+ & EC+	TC+
TC+ & EC+	One or more samples is missing

2. Two Level 1 triggers in a rolling 12-month period or for systems on annual monitoring, a Level 1 trigger in two consecutive years.

Your state approves the party that will conduct the assessment.

STEP 1: Call your state to select the appropriate person to conduct the assessment (the assessor).

— Assessors may be the state, a third party or qualified staff from your system.

STEP 2: Ask the state for the Level 2 assessment form and determine the process for submission.

STEP 3: Have the assessment performed.

STEP 4: If sanitary defect(s) are found, fix them or propose and gain a state-approved schedule for fixing, if the sanitary defect(s) cannot be corrected within 30 days of triggering the assessment.

- After completing each scheduled corrective action you must notify your state.
- The PWS or state (at any time) may consult with each other to discuss progress or the corrective action(s) identified.

STEP 5: Submit the completed assessment form to the state within 30 days of learning that your system triggered the assessment.

NOTES—Your PWS will get a treatment technique violation if you:

- Fail to perform an assessment or take corrective action; or,
 - Fail to submit the completed assessment form to the state within 30 days of learning that it triggered the assessment.
- You are required to provide Tier 2 public notice within 30 days in response to a treatment technique violation.

Level 1 Assessment Form

System Name:	Source Water:	PWSID #
System Type:	Population Served:	PWS Address:
Operator in Responsible Charge (ORC):	Phone:	
City, State:		
County:		
Person that collected TC samples if different than ORC:	Phone:	
Address, City, State, Zip:		
Date Assessment Completed:		

Questions	Reviewed? (check if completed or type N/A)	Issue(s) Found? (Y/N)	Issue Description	Corrective Action Taken (Including Date)
1 Evaluate sample site. -condition or location of tap -regular use of connection				
2 Sample protocol followed and reviewed. -flush tap -remove aerator -no swivel -fresh sample bottles -sample storage acceptable				
3 Have any of the following occurred at relevant facilities prior to the collection of TC samples? -any interruptions in the treatment process -any reported loss of pressure events (5 psi) -operation and maintenance activities that could have introduced total coliform -reported vandalism and/or unauthorized access to facilities -visible indicators of unsanitary conditions reported -Has there been a fire fighting event, flushing operation, sheared hydrant, etc.				
4 Have there been any recent -sources introduced -treatment or operational changes -potential sources of contamination				
5 Distribution System -system pressure -cross connection -pump station -air relief valves -fire hydrants or blow off -breaks -repairs				

Level 1 Assessment Form

Questions	Reviewed? (check if completed or type N/A)	Issue(s) Found? (Y/N)	Issue Description	Corrective Action Taken (Including Date)
6 Storage Tank -screens -security -access opening -condition of tank -vent -drain overflow -pressure tank -O&M				
7 Treatment Process -interruptions -POE/POU -softeners -O&M				
8 Source – Well -sanitary seal -vent screened -air gap -cross connection -security -pump to waste line				
9 Source - Surface Water Supply -heavy rainfall -rapid snowmelt				

Note: Form to be completed based on data and documents available to the PWS operator in charge, maintained on file and returned to the Primacy Agency within 30 days of triggering the assessment

Additional Comments:

Reserved for State

Assessment has been successfully completed.
 Likely reason for total coliform-positives occurrence is established.
 System has corrected the problem.
 Was a reset requested and / or granted? – Rationale
 Name of State reviewer:

Level 2 Assessment Form

System Name:	Source Water:	PWSID #
System Type:	Population Served:	PWS Address:
Operator in Responsible Charge (ORC):	Phone:	
City, State:		
County:		
Person that collected TC samples if different than ORC:	Phone:	
Address, City, State, Zip:		
Date Assessment Completed:		

Questions	Reviewed? (check if completed or type N/A)	Issue(s) Found? (Y/N)	Issue Description	Corrective Action Taken (Including Date)
1 Evaluate sample site				
a) What is the condition of the tap?				
What is the location of the tap?				
What is the regular use of the connection?				
Have there been any plumbing changes or construction? If yes, when and what was the repair or change?				
Have there been any plumbing breaks or failure? If yes, when?				
List any identified cross connections after the service connection or in premise plumbing.				
Were all of the backflow prevention devices present, operational and maintained?				
Were there any low pressure events or changes in water pressure after the service connection or in the premise plumbing? If yes, when?				
Are there any treatment devices after the service connection or in premise? POE POU				
Other comments on sample site?				
2 Sample protocol followed and reviewed				
a) Flush tap, remove aerator, no swivel, fresh sample bottles, sample storage acceptable.				
3 Have any of the following occurred at relevant facilities prior to the collection of TC samples?				
a) Were there any operation and maintenance activities that could have introduced total coliforms?				
b) Have there been any interruptions in the treatment process?				
c) Has the system lost pressure to less than 5 psi?				
d) Have there been any vandalism and/or unauthorized access to facilities?				
e) Are there any visible indicators of unsanitary conditions observed?				
f) Have there been any community illness suspected of additional samples collected, including source samples which were positive (not for compliance)?				

Level 2 Assessment Form

Questions	Reviewed? (check if completed or type N/A)	Issue(s) Found? (Y/N)	Issue Description	Corrective Action Taken (Including Date)
g) Have there been any community illness suspected of being waterborne (e.g., Does the community public health official indicate that an outbreak has occurred.)				
h) Did the water system receive any TCR monitoring violations in the past 12 months? If yes, when.				
i) What was the most recent date on which satisfactory total coliform samples were taken? Date:				
j) Have there been a fire fighting event, flushing operation, sheared hydrant, etc.				
k) Other comments on records and maintenance?				
4 Have there been any recent treatment operational changes?				
a) Have any inactive sources recently been introduced into the system (e.g., auxiliary systems)?				
b) Have there been any new sources introduced into the system?				
c) Is there evidence of any potential sources of contamination (main breaks, low pressure, high turbidity, loss of disinfection, etc.)?				
5 Distribution System				
a) System pressure: Is there evidence that the system experienced low or negative pressure? If yes, when?				
b) List any identified cross connections.				
c) Pump station: Are there any sanitary defects in the pump station? Are pump(s) operable?				
d) Last pump maintenance/service date. Date: Maintenance Performed?				
e) Air relief valves: Is the valve vault subject to flooding or does the vent terminate below grade?				
f) Fire hydrant/blow off: Are any located in an area with a high water table or pits?				
g) Is the distribution system secured to prevent unauthorized access?				
h) Are the backflow prevention devices at high risk sites present, operational and maintained?				
i) Have there been any water main repairs or additions? If yes when, and what was the repair or addition?				
j) Have there been any water main repairs or additions? If yes when, and what was the repair or addition?				
k) Have there been any water main breaks? If yes, when?				
l) Was there any scheduled flushing of the distribution system? If yes, when?				
m) Is there any evidence of intentional contamination in the distribution system?				
n) Other comments on the distribution information.				
6 Storage Facilities				
a) Are the overflow and vents properly screened?				
b) Is the facility secured to prevent unauthorized access?				

Level 2 Assessment Form

Questions	Reviewed? (check if completed or type N/A)	Issue(s) Found? (Y/N)	Issue Description	Corrective Action Taken (Including Date)
c) Does the Access opening have the proper gasket and seal tightly?				
d) Could the physical condition of tank be a source of contamination?				
e) Is the Vent turned down and maintain an approved air gap at the termination point?				
f) Does the Drain/overflow line terminate a minimum of 12" air gap?				
g) If present, Is the Pressure tank maintaining an appropriate minimum pressure?				
h) Is proper O&M being performed?				
i) Was there any observed physical deterioration of the tank?				
j) Were there any observed leaks?				
k) Is there any evidence of intentional contamination at the storage tank?				
l) Have there been any facility maintenance? (i.e. painting/coating) If yes, when?				
m) Is facility maintenance occurring per appropriate schedule?				
n) Does the tank "float" on the distribution system or are there separate inlet and outlet lines?				
o) What is the measured chlorine residual (total/free) of the water exiting the storage tank today? Residual:				
p) Are there any unsealed openings in the storage facility such as access doors, vents or joints?				
q) Other comments on the storage system				
7 Treatment Process. (If applicable)				
a) Treatment devices operational and maintained?				
b) Is there any recent installation or repair of treatment equipment?				
c) Were there any recent changes in the treatment process? If yes, when, what was the change?				
d) Were there any interruptions of treatment (lapses in chemical feed, turbidity excursions, disinfection)? If yes which part, when and for how long?				
e) What is the free chlorine residual measured immediately downstream from the point of application? Residual:				
f) Did a review of the filter turbidity profiles reveal any anomalies?				
g) Were there any failures to meet the CxT calculations?				
h) Were the flow rates above the rated capacity?				
i) Were there any anomalies on the settled water turbidities?				
j) Other comments on the treatment system.				
8 Source -- Well				
a) Is the sanitary seal intact?				
b) Is the vent screened?				
c) Does the vent and pump to waste terminate in an approved air gap?				

Level 2 Assessment Form

Questions	Reviewed? (check if completed or type N/A)	Issue(s) Found? (Y/N)	Issue Description	Corrective Action Taken (Including Date)
d) Are there any unprotected cross connections at the wellhead?				
e) How is the well used? (Circle if applicable)	Primary Emergency Not Drinking Water			
f) How far does the casing extend above grade?	Height _____		Comments:	
g) Is the well cap vented?				
h) Is there evidence of standing water near the wellhead?				
i) Is the wellhead secured to prevent unauthorized access?				
j) Have there been any sewer spills, source water spills or other disturbances?				
k) Other comments on the well system. (Are there aspects of well construction and operation that would bear on observed positives?)				
9 Source - Surface Water Supply				
a) Have there been any sewer spills, source water spills or other disturbances?				
b) Have there been any Algal blooms?				
c) Has source water turnover occurred?				
d) Other source water comments				
10 Environmental Events				
a) Has there been heavy rainfall?				
b) Has there been any rapid snow melt or flooding?				
c) Have there been changes in available source water (e.g., significant drop in water table, well levels, reservoir capacity, etc.)				
d) Have there been any Interruptions to electrical power?				
e) Have there been any extremes in heat or cold?				
Note: Form to be completed based on data within 30 days of triggering the assessment				
Additional Comments:				
Print name of person completing form:				
Signature:				
Name of State Reviewer:	Date:			