City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda - Final

Utilities Committee

Tuesday, June 21, 2016 | **5:30 PM** | **Council Chambers, 6th Floor**

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

16-973 Approval of the June 7, 2016 Utilities Committee Meeting minutes.

Attachments: June 7, 2016 Utilities Committee Meeting Minutes.pdf

4. Public Hearings/Appearances

5. Action Items

6. Information Items

16-975 2016 Water Treatment Facility Power Generation Test.

Attachments: 2016 WPPI Test and Payment.pdf

16-993 Edison Avenue River Crossing - Water Main Repair.

Attachments: Edison Avenue River Crossing.pdf

16-978 Update: Revised Total Coliform Rule

Attachments: Total Coliform Update.pdf

16-974 Monthly Reports for May 2016
- Water Distribution and Meter Team Monthly Report

Attachments: Water Team Reports May.pdf

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Paula Vandehey at 920-832-6474.

City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Minutes
Utilities Committee

Tuesday, June 7, 2016 | **5:30 PM** | **Council Chambers, 6th Floor**

1. Call meeting to order

Chairperson Dannecker called the Utilities Committee Meeting to order at 5:30 p.m.

2. Roll call of membership

Present: 5 - Dannecker, Baranowski, Meltzer, Reed and Jirschele

3. Approval of minutes from previous meeting

16-897 Approval of the May 24, 2016 Utilities Committee Meeting minutes.

Jirschele moved, seconded by Meltzer, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 4 - Dannecker, Meltzer, Reed and Jirschele

Abstained: 1 - Baranowski

4. Public Hearings/Appearances

5. Action Items

16-909 Approve Amendment #1 to Robert E. Lee and Associates for the Water Clarifier Coating Contract to increase field inspections services resulting in an increase of $16,000.

Baranowski moved, seconded by Jirschele, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Jirschele

16-910 Preliminary Resolution 3-P-16 for Sanitary Sewer, Storm Sewer, Sanitary Laterals & Storm Laterals be adopted and refer the matter to Finance Committee to determine the assessment rate.

Baranowski moved, seconded by Meltzer, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Jirschele

16-822 Approve May 2016 Revisions to Stormwater Utility Credit Policy.

Motion by Baranowski, seconded by Meltzer to amend the rain barrel minimum size for single family residences to 40 gallons. Motion carried. 5-0

Motion by Baranowski, seconded by Reed to amend the property owner certification language on the pledge form. Motion carried. 5-0

The updated policy, including the amendments, is attached.

Meltzer moved, seconded by Jirschele, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Jirschele

16-902 Request approval of electronic Compliance Maintenance Annual Report (eCMAR) for 2015 and request the following Resolution be presented to the Common Council for approval:

Whereas, the City of Appleton has successfully been operating a biosolids compost program in cooperation with the Outagamie Department of Solid Waste; and

Whereas, Outagamie County has committed to continue allowing biosolids composting during the next five years on over five acres of County property; and

Whereas, the City of Appleton has applied for re-issuance of the Wisconsin Pollution Discharge Elimination System (WPDES) permit; and

Whereas, the WPDES permit application requests for biosolids compost program and outfall; and

Whereas, the City of Appleton will meet requirements of NR 204 for biosolids storage when WDNR reissues the WPDES permit allowing storage on the County property; and,

Whereas, the WDNR continues supporting and providing guidance for the City of Appleton's biosolids compost program.

Now, therefore, be it resolved by the City Council that the City of Appleton:

Article 1. Continues supporting an active biosolids program.

Article 2. Within the next five years provide for long term biosolids storage planning.

Baranowski moved, seconded by Meltzer, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Jirschele

6. Information Items

7. Adjournment

Baranowski moved, seconded by Jirschele, that the Utilities Committee meeting be adjourned at 5:50 p.m. Roll Call. Motion carried by the following vote:

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Jirschele

"…meeting community needs…enhancing quality of life."

Department of Utilities
Appleton Water Treatment Facility
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 ph
920-832-5949 fax

TO: Chairperson Greg Dannecker and Members of the Utilities Committee

FROM: Chris Stempa, Utilities Deputy Director

DATE: June 15, 2016

RE: ***2016 Water Treatment Facility Power Generation Test***

The Appleton Water Treatment Facility has completed an annual electrical test for WPPI Energy. The test occurred on June 7, 2016 after the water plant was dispatched by WPPI Energy to provide power under the existing contract for capacity agreement. The water plant successfully provided 3.223 megawatts of power for the two hour test.

Power production data from this test is used in calculating capacity credits and deriving the monthly payments from WPPI Energy over the next 12 months. The payments for capacity are based on two types of credits. The first credit is based on the previous month's peak demand and the annual test capacity results in kilowatts. The second credit is for generated power produced in excess of the previous month demand.

Below is an example of how to apply the most recent generator tested capacity of 3,233 kW to the May 2016 water plant peak usage of 1,032 kW. The recently amended WPPI contract (post generator emissions compliant equipment installation) formula pays a $4.00 per kW (formally $3.00 per kW) for demand consumed and $1.50 per kW that is generated in excess of the peak demand.

WPPI Fee Variables

Annual Tested Generator Capacity	3,233 kW
May Peak Demand	1,135 kW
Power Produced in Excess of Demand =	2,098 kW

WPPI Fee Constants under Existing Capacity Agreement

Capacity Credit Demand	$4.00/kW
Capacity Credit for Excess Demand	$1.50/kW

Capacity Credit for Demand =	1,135 kW x $4.00/kW = $4,540
Capacity Credit for Excess Demand =	2,098 kW x $1.50/kW = $3,147
Total Monthly Capacity Credit =	$7,687

In the case of the above example a $7,687 total credit is paid to the city for having the electrical generation potential available. The program contract with WPPI Energy has demonstrated annual returns in excess of $80,000.

If you have any questions regarding the test please contact me.

"...meeting community needs...enhancing quality of life."

DEPARTMENT OF PUBLIC WORKS
100 North Appleton Street
Appleton, WI 54911
Phone (920) 832-6474
Fax (920) 832-6489

TO: Utilities Committee

FROM: Mark Kilheffer, Staff Engineer

SUBJECT: Edison Avenue River Crossing – Water Main repair

DATE: June 16, 2016

An existing 12" cast-iron-pipe water main (circa 1920's) developed a significant leak on April 8, 2016. Properties adjacent to Olde Oneida St., N. Island St., Eagle Flats Parkway, & Lawe Street experienced substantial pressure loss until valves were isolated and the leak was determined to be on the water main in the Fox River between the west end of Edison Avenue and Water Street near the former Water Treatment Facility property. (See attached map.) An estimate of 3-4 million gallons of lost water per day was occurring. The main was isolated from the rest of the system and currently is not being used.

Department of Public Works sought four companies for quotes on making repairs to this section of water main. This work requires divers who are experienced in making pipe repairs. The request asked for a cost to 1) install a clamp, 2) cost to replace up to 20 lineal feet of main if the pipe has a substantial crack/split, and 3) date they could mobilize to make said repairs.

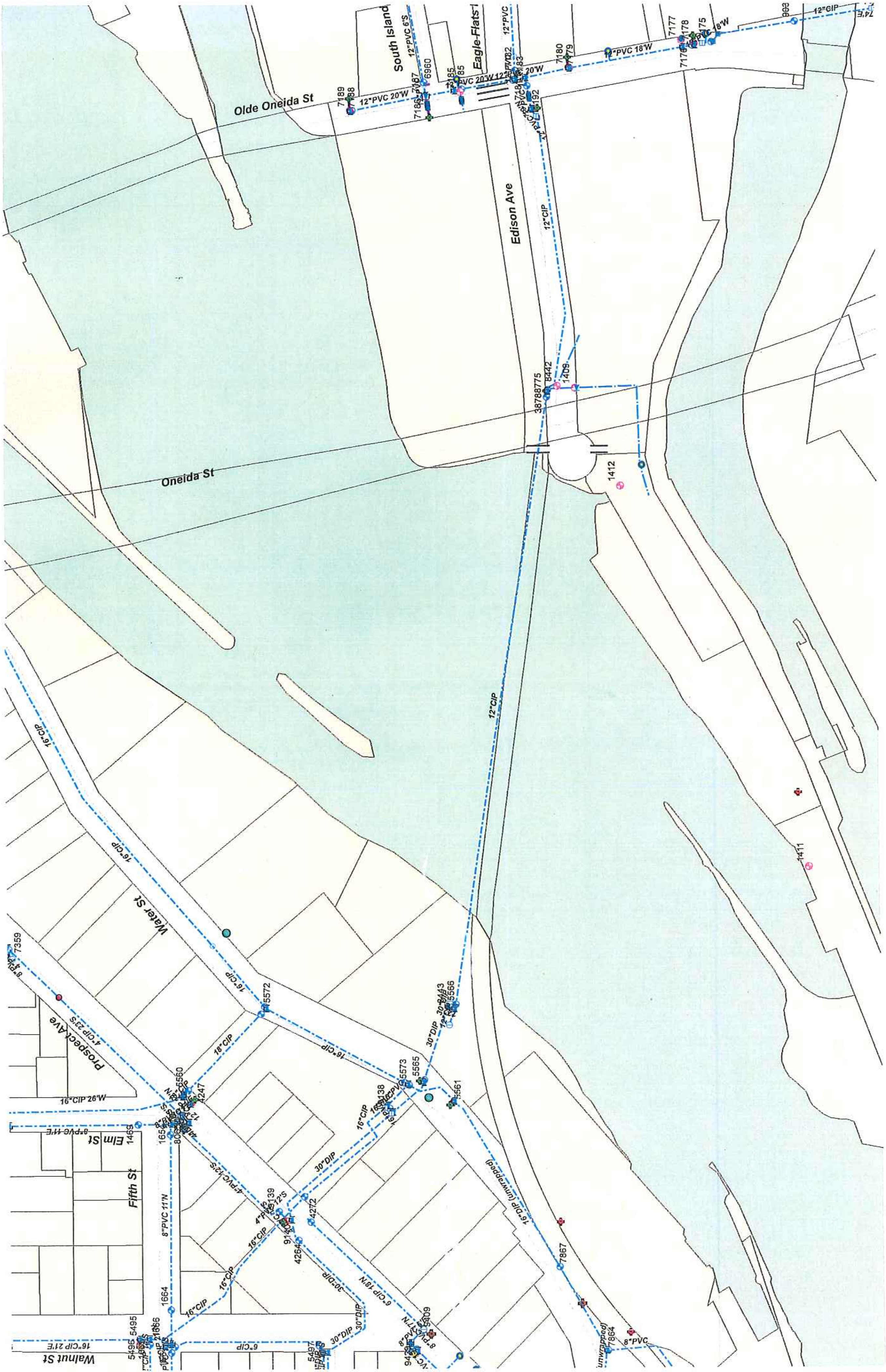
Of the four companies, two responded to the request for quotes.

Global Infrastructure out of Griffith, Indiana provided a quote of $13,499.20 for installation of a clamp, and $21,969.35 for pipe replacement. Start date was flexible for June, July, or in August of 2016 and take 3-5 days.

Ballard Marine, out of Neenah, Wisconsin provided a quote of $5,685.00 for installation of a clamp, and $13,660.00 for pipe replacement. Start date was early part of August of 2016, and take 2.5 to 5 days.

Based on the above quotes, the Department of Public Works hired Ballard Marine to repair the Edison Avenue River water main crossing.

Attachment


Olde Oneida St
South Island
Eagle-Flats
Edison Ave
Oneida St
Water St
Prospect Ave
Elm St
Fifth St
Walnut St
12"PVC 6'S
12"PVC
12"PVC 20'W
12"PVC 18'W
12"CIP
16"CIP
18"CIP
30"DIP
16"CIP 26'W
4"CIP 23'S
8"PVC 11'N
8"PVC 11'E
4"PVC 12'S
6"CIP 18'N
16"CIP 21'E
6"CIP
8"PVC
16"DIP (unwrapped)
7189
7188
6960
7180
7179
7177
7178
7175
1409
8442
1412
1411
5572
5565
5573
5561
5566
7867
7864
4272
4264
1664
5495
5496
7359
1469

EPA
United States
Environmental Protection
Agency

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 *E. coli* and uses *E. coli* 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	▶ 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	State submits final primacy program revision package to the EPA Region, including: ▶ 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. 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.
Before February 13, 2015	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): ▶ 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

Within 24 hours of learning of a TC+ routine sample result, at least 3 repeat samples must be collected and analyzed for total coliform:	▶ 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.
	▶ The PWS may propose alternative repeat monitoring locations that are expected to better represent pathways of contamination into the distribution system.
If one or more repeat sample is TC+:	▶ The TC+ sample must be analyzed for the presence of *E. coli*. ▶ 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.

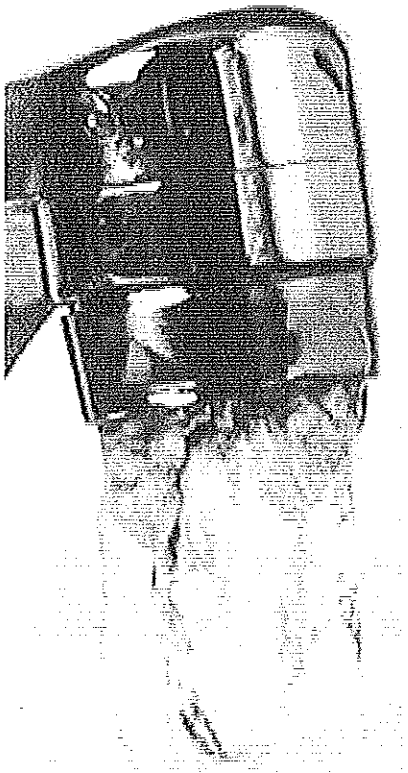
Purpose of Level 1 and Level 2 Assessments	To find sanitary defects at the PWS including: ▶ Sanitary defects that could provide a pathway of entry for microbial contamination, or ▶ Sanitary defects that indicate failure (existing or potential) of protective barriers against microbial contamination. *Guidance on how to conduct Level 1 and Level 2 Assessments and how to correct sanitary defects found during the Assessments can be found at:* http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm.
Deadline for Completing Corrective Actions	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: ▶ 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.

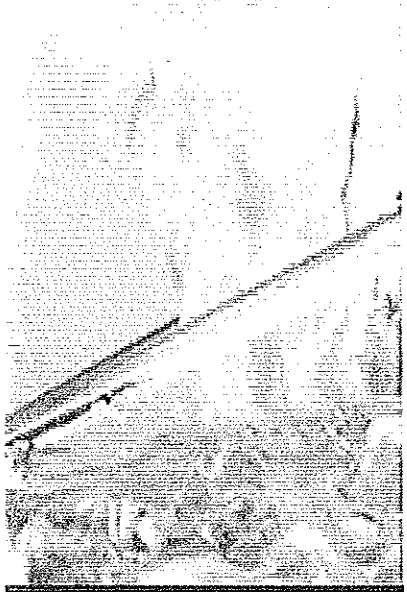
Level 1 Assessments

Conducting Level 1 Assessments	▶ 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.
Level 1 Assessment Triggers	Level 1 Assessment is triggered if any one of the following occurs: ▶ 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

Conducting Level 2 Assessments	▶ 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.
Level 2 Assessment Triggers	Level 2 Assessment is triggered if any one of the following occurs: ▶ A PWS incurs an *E. coli* 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.





For additional information on the RTCR:

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA website at http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm; or contact your state drinking water representative.

Seasonal System Provisions

The RTCR defines seasonal systems and specifies additional requirements for these types of PWSs:

- A seasonal system is defined as a non-community water system that is not operated as a PWS on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

Start-up Procedures for Seasonal Systems	At the beginning of each operating period, before serving water to the public, seasonal water systems must: ▶ Conduct state-approved start-up procedures. ▶ Certify completion of state-approved start-up procedures. ▶ An exemption from conducting state-approved start-up procedures may be available for seasonal systems that maintain pressure throughout the distribution system during non-operating periods.
	Examples of state-approved start-up procedures, which need to be completed prior to serving water to the public, may include one or more of the following: ▶ Disinfection. ▶ Distribution system flushing. ▶ Sampling for total coliform and *E. coli*. ▶ Site visit by state. ▶ Verification that any current or historical sanitary defects have been corrected.
Routine Monitoring for Seasonal Systems	▶ The baseline monitoring frequency for seasonal systems is monthly. ▶ A reduced monitoring frequency may be available for seasonal systems that use ground water only and serve fewer than 1,000 persons.

Other Provisions for the State Drinking Water Agency

Special Monitoring Evaluation	The state must perform a special monitoring evaluation at all ground water systems serving 1,000 or fewer persons during each sanitary survey to review the status of the PWS and to determine whether the sample sites and monitoring schedule need to be modified.

Major Violations

E. coli MCL Violation

A PWS will receive an *E. coli* MCL violation when there is any combination of an EC+ sample result with a routine/repeat TC+ or EC+ sample result:

***E. coli* MCL Violation Occurs with the Following Sample Result Combination**	
Routine	**Repeat**
EC+	TC+
EC+	Any missing sample
EC+	EC+
TC+	EC+
TC+	TC+ (but no *E. coli* analysis)

Treatment Technique Violation

A PWS will receive a Treatment Technique violation when any of the following occur:

- Failure to conduct a Level 1 or Level 2 Assessment within 30 days of a trigger.
- Failure to correct all sanitary defects from a Level 1 or Level 2 Assessment within 30 days of a trigger or in accordance with the state-approved timeframe.
- Failure of a seasonal system to complete state-approved start-up procedures prior to serving water to the public.

Key Points for Public Water Systems to Remember

Find and correct sanitary defects as soon as you become aware of them.

- This can help reduce *E. coli* MCL violations, which trigger a Level 2 Assessment.
- This can help reduce TC+ sample results, which may trigger a Level 1 Assessment.

Make sure to collect all routine and repeat samples as required.

- Timely and correct monitoring can help reduce triggering a Level 1 or Level 2 Assessment because:
  - Failure to conduct repeat monitoring triggers a Level 1 Assessment.
  - A Level 1 Assessment triggered twice within a certain timeframe triggers a Level 2 Assessment.

WATER SUMMARY FOR MAY 2016

Work done by Construction Maintenance				
	May 15	May 16	YTD 15	YTD 16
Hydrants repaired	5	2	23	9
Hydrants replaced	0	0	6	2
Hydrant leaks	0	0	1	1
Valves replaced	0	0	0	1
Valves tested & inspected	0	0	0	559
Valves Rebuilt	0	0	5	0
Valve boxes repaired	33	2	95	24
Curb boxes repaired	49	14	149	66
Curb boxes replaced	3	8	32	17
Lead or galvanized replaced	0	2	0	2
New services 1"	0	0	0	0
New services >1"	1	0	2	1
Water main breaks	2	1	42	21
Joint leaks repaired	0	0	1	0
Water quality	0	0	1	0
Service leaks (City side)	0	0	0	1
Work done by Meter Service Team				
	May 15	May 16	YTD 15	YTD 16
New accounts set with 3/4" or 1"	17	15	47	55
New accounts set with larger meter	0	0	1	1
Meters tested	764	715	2984	3934
Meters failed	0	32	0	293
Meters stalled	0	0	0	0
Service calls	168	103	674	642
Final readings	327	376	1342	1392
Read meters - no reading	0	0	0	0
New meters installed	638	688	3027	4065
Exception meters inspected	0	0	0	0
Exception meters removed	0	0	0	0
Service leaks found	1	3	2	23
Cross connection inspections	605	698	2831	3815

WATER MAIN BREAK/JOINT LEAK DATA LOG MAY 2016

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Ashpalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
34 Partridge Court	Local	Concrete	Major	Yes 100' away	5/25/2016 7:30 p.m. Wednesday	Fixed right away due to road damage and potential property damage.

WATER MAIN BREAK/JOINT LEAK REPORT MAY 2016

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
34 Partridge Court	210971	DIP	8"	1978	4" hole	6 hours	972,458	$5,915.35
								$0.00
								$0.00
								$0.00
								$0.00
								$0.00
								$0.00

**Water loss is calculated at the residential rate of $4.55 per 100 cubic feet.