

City of Appleton

Meeting Agenda - Final

Utilities Committee

Tuesday, January 26, 2021	5:00 PM	Council Chambers, 6th Floor

- 1. Call meeting to order
- 2. Roll call of membership
- 3. Approval of minutes from previous meeting

<u>21-0027</u> Approval of the December 8, 2020 Utilities Committee Meeting minutes.

Attachments: December 8, 2020 Utilities Committee Meeting minutes.pdf

4. Public Hearings/Appearances

5. Action Items

<u>21-0114</u> Award the Engineering contract for 2021 Sludge Storage Addition Project to Applied Technologies, Inc. in the amount of \$499,301 with a 15% contingency of \$74,895 for a Project Total not to exceed \$574,196.

Attachments: 2021 SSB Addition_UC Memo_Engineering Award ATI_rev.pdf

21-0115 Award the Engineering contract for 2021 Solids Dewatering Equipment Upgrades Project to McMahon in the amount of \$325,872 with a 10% contingency of \$32,587 for a Project Total not to exceed \$358,459.

Attachments: 2021 Solids Dewatering Equip Upgrades UC Memo_Engineering Award McMah

6. Information Items

<u>21-0028</u> Discussion of Stormwater Permit Requirements for Illicit Discharge Detection and Elimination (IDDE)

 Attachments:
 2021 Illicit Discharge Program presentation.pdf

 2021 IDDE Program combined.pdf

 2020 Ongoing Screening Program reduced.pdf

<u>21-0074</u>	Appleton's Water Main Break History
	Attachments: Water Main Break History.pdf
<u>21-0075</u>	Monthly Reports for October, November and December 2020: - Wastewater Treatment Plant Synopsis and Receiving Station Revenue Report - Water Treatment Facility Synopsis - Water Distribution and Meter Team Monthly Report - November and December
	Attachments: 2020 Q4 Wastewater Treatment Facility Synopsis.pdf
	2020 Q4 Water Treatment Facility Synopsis.pdf
	Water Main Breaks November 2020.pdf
	Water Main Breaks December 2020.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

Meeting Minutes - Final Utilities Committee

Tuesday, December 8, 2020	5:00 PM	Council Chambers, 6th Floor

1. Call meeting to order

Chairperson Meltzer called the Utilities Committee meeting to order at 5:00 p.m.

2. Roll call of membership

Present: 4 - Meltzer, Fenton, Prohaska and Smith

Excused: 1 - Otis

- 3. Approval of minutes from previous meeting
 - <u>20-1547</u> Approval of the November 10, 2020 Utilities Committee Meeting minutes.

Attachments: November 10, 2020 Utilities Committee Meeting minutes

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

Aye: 4 - Meltzer, Fenton, Prohaska and Smith

Excused: 1 - Otis

4. Public Hearings/Appearances

5. Action Items

<u>20-1548</u> Award of 2021A Stormwater Consulting Services Contract for 2021 Stormwater Management Plan Reviews to Brown and Caldwell in an amount not to exceed \$37,500.

Attachments: 2021A Plan Review Award Util Memo BC.pdf

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

Aye: 4 - Meltzer, Fenton, Prohaska and Smith

Excused: 1 - Otis

<u>20-1550</u> Award of 2021B Stormwater Consulting Services Contract for 2021 Stormwater Management Plan Reviews to raSmith in an amount not to exceed \$37,500.

Attachments: 2021B Plan Review Award Util Memo raSmith.pdf

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

Aye: 4 - Meltzer, Fenton, Prohaska and Smith

Excused: 1 - Otis

20-1552 Approval to single source and award 2021C stormwater consulting services contract for Spartan Drive Apple Creek Culvert and Stormwater Management Practices (SMP) Final Design and Construction Documents with Brown and Caldwell (BC) in an amount not to exceed \$141,767.

Attachments: 2021C UC memo combined.pdf

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

Aye: 4 - Meltzer, Fenton, Prohaska and Smith

Excused: 1 - Otis

6. Information Items

<u>20-1604</u> Change Order 1, 2, and 3 to Great Lakes Mechanical in the amount of \$816 for the OCCT Apparatus Test Project resulting in the construction contract being increased to \$122,156 and a decrease in contingency from \$12,134 to \$11,318.

Attachments: Change Order 1 2 3 OCCT Test Apparatus Project.pdf

This item was discussed.

<u>20-1575</u> General Information Regarding the Main Break Report

Attachments: Main Break Cost Allocation.pdf

The report was discussed.

 20-1557
 Monthly Reports for October:

 - Water Distribution and Meter Team Monthly Report

 Attachments:
 Water Main Breaks October 2020.pdf

The report was reviewed.

7. Adjournment

Smith moved, seconded by Prohaska, that the Utilities Committee be adjourned at 5:19 p.m.. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Fenton, Prohaska and Smith

Excused: 1 - Otis



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

Department of Utilities Wastewater Treatment Plant 2006 E Newberry Street Appleton, WI 54915 920-832-5945 tel. 920-832-5949 fax

RE:	Award the Engineering contract for 2021 Sludge Storage Addition Project to Applied Technologies, Inc. in the amount of \$499,301 with a 15% contingency of \$74,895 for a Project Total not to exceed \$574,196
DATE:	January 21, 2021
FROM:	Chris Shaw, Utilities Director
TO:	Chairperson Vered Meltzer and Members of the Utilities Committee

BACKGROUND:

The total biosolids storage capacity at the Appleton Wastewater Treatment Plant (AWWTP) is equivalent to approximately 9,000 wet tons. Since 2010 (economic recession), the annual biosolids production rates have exceeded the 180-day storage requirement specified within Wisconsin Administrative Code NR 204. This deficiency has triggered the need for Appleton City Council resolutions to investigate options to address the deficiency and comply with the requirement.

In recent years, more stringent agricultural nutrient management standards, changing land use patterns, increases in biosolids production, and above normal precipitation has complicated the land application of biosolids on agricultural fields and further strained already limited on site storage. In 2010, the city of Appleton constructed a biosolids compost facility at the Outagamie County landfill to diversify beneficial reuse options and expand off-site biosolids storage. Since that time, 5%-10% the AWWTP annual biosolids production has been diverted to the permitted composting facility. This alternative has provided regulatory recognized off-site storage sufficient to satisfy the NR 204 180-day storage requirements. However, the Outagamie County Recycling and Solid Waste (OCRSW) is in an ongoing process to construct a new landfill expansion. As part of that construction, the OCRSW will require the area that is occupied by the biosolids compost facility by 2023. The city of Appleton made the decision during 2020 to pursue an expansion of the sludge storage building (SSB).

RFP PROCESS

Request for Proposals (RFPs) were submitted to four engineering firms for professional services. The services sought will guide the Utilities Department throughout the sludge storage expansion process from planning and design phases, through active construction. Each of the firms invited as part of the RFP process were selected based on an extensive resume of wastewater industry work and past successful project work at the AWWTP.

The Utilities Department organized an evaluation team to critically review each firm's written proposal based on established weighted criteria described in the RFP. Each proposal was given a score by team members based on content and independent of costs. Sealed fees were revealed following the tally of each team member scores. The table below summarizes the proposal review team's tallied scores, engineering firm's proposed fee, and the calculated value score which incorporates the proposed fee to determine the best overall proposal. The higher the final value score, the greater the value of the proposal.

RFP Evaluation Results

COMPANY	SCORE	QUOTE	VALUE
Applied Technologies	466	\$499,301	93.3
Donohue	287	\$366,135	78.4
McMahon	432	\$487,510	88.6
Strand	315	\$912,700	34.5

Notes

1. "Total Score" represents the combined total from each of the three evaluation team members.

2. Point Value Factor Method = (Qualitative Proposal Score/ Quote Price) x 100,000. The highest

point value factor derived is considered the best value proposal.

The Applied Technologies, Inc. (ATI) proposal received the highest overall evaluation score by the review team and provided the greatest overall value using the point value calculation. ATI demonstrated a comprehensive understanding of project needs and an approach to deliver a successful project. ATI has a history of being part of successful projects at the AWWTP including the 1997 Sludge Storage Building Addition project. ATI received an innovative design award for that work and brings some of the same lead team members for this project.

RECOMMENDATION:

Approval of an Engineering contract for 2021 Sludge Storage Addition Project to Applied Technologies, Inc. in the amount of \$499,301 with a 15% contingency of \$74,895 for a Project Total not to exceed \$574,196.

If you have any questions or require additional information regarding this project please contact Chris Stempa at 920-832-5945.



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

Department of Utilities Wastewater Treatment Plant 2006 E Newberry Street Appleton, WI 54915 920-832-5945 tel. 920-832-5949 fax

RE:	Award the Engineering contract for 2021 Solids Dewatering Equipment Upgrades Project to McMahon in the amount of \$325,872 with a 10% contingency of \$32,587 for a Project Total not to exceed \$358,459.
DATE:	January 21, 2021
FROM:	Chris Shaw, Utilities Director
TO:	Chairperson Vered Meltzer and Members of the Utilities Committee

BACKGROUND:

For approximately 25 years the Appleton Wastewater Treatment Plant (AWWTP) has successfully utilized Ashbrook Simon Hartley Winkle presses or belt filter presses (BFPs) to dewater anaerobically digested sludge. Each of the three BFP have run times in excess of 4,000 hours per year and producing on, average, (5-year) 25,500 wet tons per year. Although reliable and efficient, these BFPs have reached their useful life.

There has been reconditioning work during the late 2000's but that effort was not intended to go beyond the priority repairs identified at that time. The original functioning electrical hard wire relays remained untouched and are still in use today. These existing relays do not provide the diverse functional capabilities offered by present-day technologies. This includes the ability to fully integrate BFP unit processes with the existing supervisory control and data acquisition (SCADA) computer operating system. To accomplish this, the existing hard wire relay system will require replacement by a programmable logic controller (PLC) and new relay modules. Since the original installation of the BFPs, there have been unit processes that have become obsolete (e.g. lime pasteurization process phased out by anaerobic digestion as part of 1994 plant upgrades), including improvements to the solids dewatering polymer batch system. These former treatment processes and ancillary chemical feed systems continue to share common space within existing electrical control panels. This CIP is intended to address unused electrical wiring and components from past improvements and upgrades which remain within the existing BFP control cabinets. Preliminary engineering services in 2021 will provide observations, data, alternatives, costs, conclusions, and recommendations that will be utilized to shape subsequent project construction phasing involving additional dewatering equipment and/or upgrades to the three existing BFPs. It is anticipated that following the installation and successful startup of new equipment that the project work would transition to rebuilding the three existing BFPs and address remnant hard wiring associated from obsolete equipment and processes. This work would also involve upgrades to outdated hard wire relays with PLC technology and the replacement of antiquated and/or degraded components outside the electrical hardwire systems

RFP PROCESS

Request for Proposals (RFPs) were submitted to four engineering firms for professional services. The services sought will guide the Utilities Department throughout the solids equipment upgrade process from planning and design phases, through active construction. Each of the firms invited as part of the RFP process were selected based on an extensive resume of wastewater industry work and past successful project work at the AWWTP.

The Utilities Department organized an evaluation team to critically review each firm's written proposal based on established weighted criteria described in the RFP. Each proposal was given a score by team members based on content and independent of costs. Sealed fees were revealed following the tally of each team member scores. The table below summarizes the proposal review team's tallied scores, engineering firm's proposed fee, and the calculated value score which incorporates the proposed fee to determine the best overall proposal. The higher the final value score, the greater the value of the proposal.

COMPANY	SCORE	QUOTE	VALUE
Applied Technologies, Inc.	224	\$412,273	54.3
Donohue and Associates	338	\$353,650	95.6
McMahon Associates, Inc.	512	\$325,872	157.1
Strand Associates	426	\$694,900	61.3

RFP Evaluation Results

Notes

1. "Total Score" represents the combined total from each of the three evaluation team members.

2. Point Value Factor Method = (Qualitative Proposal Score/ Quote Price) x 100,000. The highest

point value factor derived is considered the best value proposal.

The McMahon Associates, Inc. (McMahon) proposal received the highest overall evaluation score by the review team and provided the greatest overall value using the point value calculation. The McMahon project team proposal demonstrated a comprehensive understanding of project needs and an approach to deliver a successful project.

RECOMMENDATION:

Approval of an Engineering contract for 2021 Solids Dewatering Equipment Upgrades Project to McMahon in the amount of \$325,872 with a 10% contingency of \$32,587 for a Project Total not to exceed \$358,459.

If you have any questions or require additional information regarding this project please contact Chris Stempa at 920-832-5945.



MS4 STORMWATER PERMIT 2.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

UTILITIES COMMITTEE

JANUARY 12, 2021

IDDE PROGRAM COMPONENTS

- WRITTEN OVERALL PROGRAM
- ORDINANCE
- DRY WEATHER FIELD SCREENING CONTRACT (CURRENTLY OMNNI ASSOCIATES) AND REPORT
- ON-GOING FIELD SCREENING PROGRAM DOCUMENT (OUTFALL PRIORITIZATION PLAN)
- WRITTEN RESPONSE PROCEDURES MANUAL

IDDE ORDINANCE

- FIRST ORDINANCE WENT INTO EFFECT IN MARCH 2008, AS REQUIRED BY FIRST PERMIT
- ARTICLE VII OF CHAPTER 20 OF THE MUNICIPAL CODE "ILLICIT DISCHARGES AND CONNECTIONS"
- UPDATED IN 2015 AND AGAIN IN APRIL 2020 PER 2019 PERMIT
- ADMINISTERED AND ENFORCED BY THE INSPECTIONS DIVISION OF THE DEPARTMENT OF PUBLIC WORKS WITH ASSISTANCE FROM THE ENGINEERING AND OPERATIONS DIVISIONS AND OUTFALL FIELD SCREENING CONSULTANT

IDDE OUTFALL FIELD SCREENING

- REQUIRED TO PERFORM DRY WEATHER FIELD SCREENING OF 100% OF MAJOR OUTFALLS AT LEAST ONCE DURING THE PERMIT TERM (MAY 1, 2019 THROUGH APRIL 30, 2024 (DRY WEATHER MEANS DONE BY FALL 2023))
- ALSO REQUIRED TO SELECT AND SCREEN MINOR OUTFALLS
- REQUIRED TO DEVELOP A PRIORITIZATION PROCEDURE FOR SELECTING MINOR OUTFALLS CONSIDERING HYDROLOGICAL CONDITIONS, DRAINAGE AREA, POPULATION DENSITY, TRAFFIC DENSITY, AGE OF BUILDINGS, HISTORY AND LAND USE
- SCREENING REQUIRES VISUAL OBSERVATION AND FIELD ANALYSIS

IDDE SOURCE INVESTIGATION AND ELIMINATION

- REQUIRED TO HAVE WRITTEN PROCEDURES FOR RESPONDING TO KNOWN OR SUSPECTED ILLICIT DISCHARGES. AT A MINIMUM:
 - INVESTIGATE PORTIONS OF THE MS4 THAT INDICATE A REASONABLE POTENTIAL FOR CONTAINING
 ILLICIT DISCHARGES OR OTHER SOURCES OF NON-STORMWATER DISCHARGES
 - PROCEDURES TO RESPOND TO SPILLS INCLUDING TRACKING AND LOCATING THE SOURCE
 - PREVENTING AND CONTAINING SPILLS THAT HAVE ENTERED THE STORM SEWER
 - PROMOTING, PUBLICIZING AND FACILITATING PUBLIC REPORTING OF ILLICIT DISCHARGES THROUGH A CENTRAL CONTACT POINT

IDDE SOURCE INVESTIGATION AND ELIMINATION CONTINUED

- REQUIRED TO HAVE WRITTEN PROCEDURES FOR RESPONDING TO KNOWN OR SUSPECTED ILLICIT DISCHARGES. AT A MINIMUM:
 - NOTIFYING THE DNR IMMEDIATELY OF A SPILL OF A HAZARDOUS SUBSTANCE (FIRE DEPT)
 - DETECTING AND ELIMINATING CROSS-CONNECTIONS AND LEAKAGE FROM SANITARY SEWER
 - PROVIDING DNR ADVANCED NOTICE OF DYE TESTING
 - DOCUMENTATION INCLUDING DATES, REPORTS, LOCATIONS, FOLLOW UP ACTIONS, SOURCES

OTHER PROGRAM REQUIREMENTS

- REMOVE KNOWN ILLICIT DISCHARGES AS SOON AS POSSIBLE. IF LONGER THAN 30 DAYS, NOTIFY DNR TO DEVELOP A PLAN OF ACTION.
- IF THE ILLICIT DISCHARGE COMES FROM OR GOES INTO AN ADJACENT MUNICIPALITY, NOTIFY THAT MUNICIPALITY WITHIN ONE WORKING DAY.
- PROVIDE THE NAME, TITLE AND PHONE NUMBER OF INDIVIDUALS RESPONSIBLE FOR RESPONDING TO REPORTS OF ILLICIT DISCHARGES IN THE RESPONSE PROCEDURE MANUAL.



<u>City of Appleton</u> Illicit Discharge Detection and Elimination (IDDE) Program Section 2.3 WPDES Permit No. WI-S050075-3 Permit Start Date May 1, 2019 January 2021

This document describes the City of Appleton Illicit Discharge Detection and Elimination (IDDE) Program as required in the Phase II Stormwater Permit from the Wisconsin Department of Natural Resources (WDNR). This document is an update to the original program document dated October 2008 and the 2017 revision.

Most costs associated with this program are funded through the City of Appleton Stormwater Utility. Any spill response handled by the Appleton Fire Department will continue to be funded through that budget.

This document will be kept in the Engineering Division of the Department of Public Works located on the fifth floor of City Center, 100 N. Appleton Street, Appleton, Wisconsin.

Bold text below is from the permit.

2.3 Illicit Discharge Detection and Elimination (IDDE) – The permittee shall continue to implement and enforce its program to detect and remove illicit connections and discharges to the MS4. The permittee shall implement the following measurable goals:

2.3.1 IDDE ordinance. An ordinance or other regulatory mechanism to prevent and eliminate illicit discharges and connections to the MS4. At a minimum, the ordinance or other regulatory mechanism shall:

a. Prohibit illicit discharges and the discharge, spilling or dumping of nonstormwater substances or materials into waters of the state or MS4.

b. Identify non-stormwater discharges or flows that are not considered illicit discharges.

c. Establish inspection and enforcement authority.

The City of Appleton "Illicit Discharges and Connections" ordinance first became effective in March 2008 and was updated in 2015. It was updated again in April 2020 for this permit. It is available as Article VII of Chapter 20 of the Municipal Code titled "Illicit Discharges and Connections" and is located on the City's website.

The City of Appleton also has a "Fire Prevention and Protection" Ordinance. Section 6-61 of the Municipal Code specifically addresses the discharge of hazardous materials and can also be found on the City's website. This ordinance was last updated in January 2018.

2.3.2 IDDE field screening. On-going dry weather field screening shall be conducted at 100% of the total major outfalls at least once during the term of the permit. Additionally, the permittee shall select minor outfalls for annual on-going dry weather field screening during the term of the permit. The permittee shall develop a prioritization procedure to assist with selecting minor outfalls and consideration shall be given to hydrological conditions, total drainage area of the site, population density of the site, traffic density, age of structures or buildings in the area, history of the area and land use types when selecting outfalls for annual field screening. At a minimum, field screening shall be documented and include:

a. Visual Observation- a narrative description of visual observations including color, odor, turbidity, oil sheen or surface scum, flow rate and any other relevant observations regarding the potential presence of nonstormwater discharges or illicit dumping.

b. Field Analysis – If flow is observed, a field analysis shall be conducted to determine the presence of illicit non-stormwater discharges or illicit dumping. The field analysis shall include sampling for pH, total chlorine, total copper, total phenol and detergents, unless the permittee elects instead to use detergent, ammonia, potassium and fluoride as the indicator parameters. Other alternative indicator parameters may be authorized by the Department in writing

(1) Field screening points shall, where possible, be located downstream of any suspected illicit activity.

(2) Field screening points shall be located where practicable at the farthest manhole or other accessible location downstream in the system. Safety of personnel and accessibility of the location shall be considered in making this determination.

The City has contracted with a consultant to perform on-going field screening and associated reporting since this requirement began. The City will continue to contract with a qualified consulting firm to perform on-going field screening and reporting. Requests for proposals will be issued approximately every five (5) years.

In 2012, the City contracted with OMNNI Associates to prepare the On-going Field Screening Program, which evaluated outfalls in terms of risk per the WDNR guidance document, and established priorities and rotation of the field screening at each minor, major and supplemental outfall. Supplemental outfalls include those that will likely

provide better information than major or minor outfalls, such as stormwater pond inlet pipes. The program was revised in 2014 and again in 2020 by OMNNI Associates for compliance with this permit.

2.3.3 IDDE source investigation and elimination. Written procedures for responding to known or suspected illicit discharges, including an assessment of risks and the establishment to response times. At a minimum, procedures shall be established for:

a. Investigating portions of the MS4 that, based on the results of field screening or other information, indicate a reasonable potential for containing illicit discharges or other sources of non-stormwater discharges.

This requirement is addressed through the annual Field Screening contract.

b. Responding to spills that discharge into and/or from the MS4 including tracking and locating the source of the spill if unknown.

The City of Appleton Spill and Illicit Discharge Response Procedure Manual was developed using the template manual created by NEWSC. It was reviewed and updated in 2020 as part of this program update and is included as Attachment A.

c. Preventing and containing spills that may discharge into or are already within the MS4.

Spill kits are available at City facilities per the individual Pollution Prevention Plans for each site. DPW Operations and Fire Department staff have spill containment supplies and equipment available for response to spills and illicit discharges.

d. Promoting, publicizing, and facilitating public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including a form, website, email address, and/or telephone number for complaints and spill reporting, and publicize to both internal permittee staff and the public.

Beginning in January 2021, the City will post the Inspections Division phone number monthly on Facebook for reporting of potential illicit discharges by the public. The City's stormwater page on the website was updated to include information for the public on how to report potential illicit discharges to the Inspections Division.

Public reporting of a potential illicit discharge is entered into a Customer Service log and assigned to a Plumbing Inspector in the Inspections Division of the

Department of Public Works. City staff is reminded annually to report any potential illicit discharge to the Inspections Division.

e. Notifying the Department immediately in accordance with ch NR 706, Wis. Adm. Code, in the event that the permittee identifies a spill or release of a hazardous substance, which has resulted or may result in the discharge of pollutants into waters of the state. The Department shall be notified via the 24-hour hotline at 1-800-943-0003. The permittee shall cooperate with the Department in efforts to investigate and prevent such discharges from polluting waters of the state.

The response to any spills or release of hazardous substance is by the Appleton Fire Department. A flow chart of their procedure is included in the Spill and Illicit Discharge Response Procedure Manual.

f. Detecting and eliminating cross-connections and leakage from sanitary conveyance systems into the MS4.

Cross-connections and leaking sanitary sewers are addressed through the sanitary sewer program. This program includes the following elements:

- Televising all sanitary sewers on approximately an 8-10 year cycle
- Making televising reports available to various City staff through Pipe Tech software and GIS applications
- Reconstructing sanitary main in poor condition prior to street reconstruction
- Reconstructing sanitary laterals within the right of way prior to street reconstruction
- A successful pilot project to reconstruct sanitary laterals from the main to the house in a cost-effective manner was completed and, beginning in 2021, the Sanitary Lateral Program will replace approximately 40 laterals from the main to the house annually.
- Monthly workgroup meetings of DPW Engineering, Inspections and Operations staff and Utilities Department staff involved in maintaining the sanitary sewer system

g. Providing the Department with advance notice of the time and location of dye testing within an MS4. Department notification prior to dye testing is required due to the likelihood that dye observed in waterways will be reported to the Department as an illicit discharge or spill.

The City of Appleton will notify the WDNR in advance of any dye testing in the storm sewer system performed by the City or a company contracted with the City.

h. Documentation of the following information:

(1) Dates and locations of IDDE screenings conducted in accordance with section 2.3.2.

(2) Reports of alleged illicit discharges received, including dates of the reports, and any follow-up actions taken by the permittee.

(3) Dates of discovery of all illicit discharges.

(4) Identification of outfalls, or other areas, where illicit discharge have been discovered.

(5) Sources (including a description and the responsible party) of illicit discharges (if known).

(6) Actions taken by the permittee, including dates, to address discovered illicit discharges.

These items are documented in the On-Going Field Screening Report by the City's consultant and the Inspections Division Illicit Discharge log, which are both submitted to WDNR each year with the annual report.

2.3.4 The permittee shall take appropriate action to remove known illicit discharges from its MS4 system discovered under section 2.3 as soon as possible. If it will take more than 30 days to remove an illicit connection or if the potential illicit discharge is from a facility with WPDES permit coverage, the Department shall be contacted to discuss an appropriate action and/or timeframe for removal. Notwithstanding this 30-day timeframe and notification of the Department, the permittee shall be responsible for any known illicit connections to its MS4 system that are a significant risk to human health and the environment.

The City of Appleton will take appropriate action to remove illicit discharges from its MS4 system as soon as possible. If it will take more than 30 days to remove an illicit connection, the City of Appleton will contact the WDNR to discuss appropriate action and/or timeframe for removal.

2.3.5 In the case of interconnected MS4s, the permittee shall notify the appropriate municipality within one working day of either of the following:

a. An illicit discharge that originates from the permittee's permitted area that discharges directly to a municipal separate storm sewer or property under the jurisdiction of another municipality.

b. An illicit discharge that has been tracked upstream to the interconnection point with or outfall from another municipality.

Under either of these conditions, the City of Appleton will notify the affected municipality within one working day. A contact list for the adjacent municipalities is included in the Response Procedures Manual.

2.3.6 The name, title and phone number of the individuals responsible for responding to reports of illicit discharges and spills shall be included in the illicit discharge response procedure.

This information is included in the City of Appleton Spill and Illicit Discharge Response Procedure Manual. As of this program update, the designated individual is the Inspections Supervior, Kurt Craanen, 920-832-6411 (920-832-6413 direct).

ATTACHMENT A

SPILL AND ILLICIT DISCHARGE RESPONSE PROCEDURE MANUAL

CITY OF APPLETON

Spill and Illicit Discharge Response Procedures Manual

November 2020



Department of Public Works-Inspections and Operations Divisions

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The purpose of this Spill and Illicit Discharge Response Procedure Manual is to provide a framework for spill and illicit discharge response procedures in the City of Appleton and to comply with the Wisconsin Department of Natural Resources (WDNR) WPDES Permit No. WI-S050075-3 requirements. All employees are expected to work cooperatively with state and local agencies to define, contain, and clean up spills and illicit discharges.

Any and all spills or illicit discharges that may cause a fire, explosion, immediate safety hazard to life, health or the environment, or need to evacuate, will be responded to by the Appleton Fire Department, following their standard operating procedures. This manual does not apply to any situations under the jurisdiction of the Appleton Fire Department. In general, spills that are reportable to WDNR will be under the jurisdiction of the Fire Department.

This manual is designed to provide general response procedures to be followed by City of Appleton employees that are not members of the Fire Department. However, each situation is unique and field conditions may determine different procedures.

For the City of Appleton, Kurt Craanen, Inspections Supervisor in the Department of Public Works, 920-832-6411, is the designated Illicit Discharge Coordinator. In his absence, the following people can be contacted:

Jim Becker, Plumbing Inspector	920-832-6411
Dale VandeWalle, Plumbing Inspector	920-832-6411
Sue Olson, Staff Engineer	920-832-6474
Ross Buetow, City Engineer	920-832-6474

The numbers listed above are office numbers and are to be used during normal business hours (8:00 am to 4:30 pm). Home and mobile telephone numbers are not to be released to the public.

After hours reports can be called in to the Public Works Department and standard call-in procedures for the Operations Division will be followed.

I - DISCOVERY AND NOTIFICATION

- a) Reports of spills and illicit discharges may be made to the Operations Division located at the Municipal Services Building (MSB), Engineering, Inspections, the Mayor's office, or any other city department. Spills and illicit discharges may also be found by the City's consultant during the Ongoing Field Screening Program, or by city staff performing daily activities. Flow charts depicting various paths are provided in Appendix A.
- b) Front desk personnel in Engineering, Inspections or at MSB receiving calls regarding a spill or illicit discharge will accept information using the City of Appleton Customer Service module. A sample screen is shown in Appendix B.
- c) If it is obvious that there is a fire, explosion or safety hazard to life, health, or the environment, or need to evacuate, <u>9-1-1</u> will be contacted immediately. This includes any incident involving petroleum sheen, sheen from any unknown source, a highly suspicious material or a large volume of material.
- d) If the need to contact <u>9-1-1</u> is not clearly obvious to personnel taking the report, they shall notify the Illicit Discharge Coordinator or MSB Foreman, who will evaluate the situation and make that determination.
- e) If the situation clearly does not require contacting <u>9-1-1</u>, front desk personnel shall notify the Illicit Discharge Coordinator or MSB Foreman of the report.
- f) If a non-emergency spill or illicit discharge is reported to <u>9-1-1</u> during non-business hours, dispatch will contact the Department of Public Works answering service, Mactel, who will follow the call in list and procedures. A Foreman will respond to evaluate the situation and call in additional personnel, if appropriate.

II – LOCATING THE SOURCE

a) The source of the spill or illicit discharge may be easily identified or may need to be tracked down. The City of Appleton may use any or any combination of the following strategies to locate the source:

- Visual and smell indicators
- Uncover manholes upstream to identify where flow may be coming from
- Use additional samples and tests as needed to isolate potential source areas
- Review available MS4 mapping to assist in tracking upstream of the incident
- Dye-test sewers
- Smoke test sewers
- Televise sewers, depending on availability of a camera
- b) Tracking a substance may require the assistance of other persons or agencies, such as:
 - Appleton Fire Department (emergency dial <u>9-1-1</u>, non-emergency 920-832-5810)
 - Appleton Department of Public Works Sewer Crew (daytime 920-832-5580)
 - Appleton Department of Public Works Water Division (daytime 920-832-5580)
 - Appleton Police Department (emergency dial <u>9-1-1</u>, non-emergency 920-832-5500)
 - Consultant contracted to perform on-going dry weather field screening
- c) If the source of the substance is found, it will be contained safely and legally through necessary means to the maximum extent practical.
- d) If the substance may be coming from or going to another municipality, the Coordinator or Foreman will contact that municipality as soon as possible or at least within one working day. Contact names and phone numbers for adjacent municipalities are listed in Appendix C.
- e) If the source of the spill or illicit discharge is not found the available information will be documented in the tracking spreadsheet.

III – Cleanup and Enforcement

- a) The Inspections Division will write any necessary orders for the responsible party to continue containment and begin clean up and repairs found to be causing a spill or illicit discharge. Stepped enforcement procedures, as listed below, may be used:
 - Written orders from the Inspections Division
 - A second notice of the written orders

- Letter from the City Attorney's office
- Citation
- Follow up will continue until the source is eliminated

However, depending on the severity of the situation, the Inspections Division has the discretion to skip any step and require any time frame that they believe is appropriate.

b) If the source of the spill or illicit discharge is not eliminated in 30 days, the WDNR will be notified.

IV – Documentation

- a) Any City of Appleton staff involved in a spill or illicit discharge response may be asked by the Coordinator or Foreman to assist in documenting the incident.
- b) A log will be kept for reports of illicit discharges. The following types of documentation, as appropriate for the situation, may also be kept during a spill or illicit discharge event:
 - A written log that includes:
 - Dates of reports of alleged illicit discharges
 - Follow up actions taken for each report and discovered illicit discharges
 - \circ $\,$ Source of confirmed illicit discharge with description and responsible party
 - Photographs
 - Sketches or Maps
 - A list of the names of those who have been involved, their agency and contact information.
 - Other data as may be deemed appropriate by those involved in managing the incident
 - c) Documentation will be kept in the City of Appleton Customer Service module as much as possible. Additional file information may be kept in the Inspections Division, at MSB, or at the Fire Department, depending on the primary response personnel.

Appendix A

HazMat Response Flow Chart









Appendix B

Pgm -AMS1145 User-KURTC Wsid-QPADEV0018 Customer Request Sheet

Request - 189105 ILLICIT DISCHARGE

Dept/Div- DPW ISP

9 ILLICIT DISCHARGE Type-

Sub type-2 DID NOT ENTER STORM SEWER

FRONT DRIVEWAY Location-

1208 S THEODORE ST Str addr-

Parcel- 31-4-5247-00 HERMANS III 1208 S THEODORE ST JOHN APPLETON WI 54915 Rental- N

Requestor - STEVE KIHL

Phone #1 -Phone #2 -cell phon-fax phon-

needs wo called back- 00/00/00

Assigned to- 6558 JAMES ROBERT BECKER

Request notes-

Status

Request

Page- 1 Date- 10/28/20 Time- 11:09:02

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ADJACENT COMMUNITIES CONTACT LIST

Town of Grand Chute

Robert Buckingham – Community Development Director – 920-832-1599 (Planning & Zoning) Katie Schwarz – Director of Public Works – 920-832-1581

Village of Fox Crossing (formerly Town of Menasha)

George L. Dearborn, Jr. – Director of Community Development – 920-720-7105 (Planning)

City of Menasha

Corey Gordon – Deputy Director of Engineering – 920-967-3610 Adam Alix – Director of Public Works – 920-967-3610

Village of Little Chute

Kent Taylor – Director of Public Works – 920-423-3865 Chris Murawski – Village Engineer – 920-423-3861

Village/Town of Harrison

Town Administrator/Village Manager – 920-989-1062 Jeff Funk – Operations Manager – 920-989-1139

<u>Town of Buchanan</u>

Adam Gitter – Town Administrator/Stormwater Manager – 920-257-5845

Village of Kimberly

Allyn Dannhoff – Director of Operations – 920-788-7500 Greg Ulman – Street Foreman – 920-788-7507
Ongoing Field Screening Program 2020 Revision

Illicit Discharge Detection and Elimination Program City of Appleton

December 4, 2020

ENGINEERING • ARCHITECTURE • ENVIRONMENTAL



Project #: R3000901.00

Illicit Discharge Detection and Elimination Conducted For

City of Appleton

Ongoing Field Screening Program 2020 Revision

Prepared by:

OMNNI Associates One Systems Drive Appleton, WI 54914-1654 (T) 920/735-6900 (F) 920/830-6100 www.omnni.com

December 4, 2020

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PURPOSE AND AUTHORITY

In compliance with the provisions of Wisconsin Statutes Chapter 283 and Wisconsin Administrative Code Chapters NR 151 and NR 216, owners and operators of municipal separate storm sewer systems (MS4) are permitted to discharge stormwater from the MS4 to waters of the state. The Wisconsin Department of Natural Resources (WDNR) regulates these discharges via a Wisconsin Pollutant Discharge Elimination System (WPDES) permit. The current permit – "General Permit to Discharge Under the Wisconsin Pollutant Discharge Elimination System" (WPDES Permit No. WI-S050075-3) – was issued on May 1, 2019 and is effective through April 30, 2024. This is the third issuance of the MS4 General Permit – prior permits were issued in 2006 and 2014.

To comply with the IDDE requirements of the MS4 General Permit, OMNNI Associates (OMNNI) assisted the City of Appleton with the development of an ongoing screening program. The ongoing screening program was originally developed in 2009, and it was updated in 2014 prior to the issuance of the second permit. This 2020 update incorporates the new requirements of the current MS4 General Permit and brings the ongoing screening program into compliance.

OUTFALL SUMMARY

Permitted Area

The conditions and requirements of the MS4 General Permit apply to all areas under the ownership, control or jurisdiction of the permittee in the "permitted area." In most cases, the permitted area consists of the Urban Area (as determined by the U.S. Census Bureau), along with adjacent developing areas.

Nearly all of the City of Appleton is contained in the Urban Area from the 2010 census. A small portion of the extreme northern end of the City was not included in the 2010 Urban Area. However, because development is already occurring in those areas, they were included in the Permitted Area.

As a result, the Permitted Area consists of the entire City of Appleton, with the exception of the former Mackville Landfill, which consists of a detached 120-acre parcel northwest of the City, surrounded by the Town of Center.

A map showing the 2010 urbanized area, along with the permitted area, is included in Appendix A.

Outfall Definition and Classification

Under the current MS4 General Permit, an outfall is defined as "the point at which storm water is discharged to waters of the state or to a storm sewer (e.g., leaves one municipality and enters another)." The MS4 is defined as "a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:

- 1. Owned or operated by a municipality.
- 2. Designed or used for collecting or conveying storm water.
- 3. Which is not a combined sewer conveying both sanitary and storm water.
- 4. Which is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment."

OMNNI used the storm sewer mapping provided by the City of Appleton as a base map to update the current outfall map. Outfalls were identified at the locations where the City's MS4 discharged to a water of the state, to an adjacent municipality, or outside the permitted area. Approximately 324 outfalls were identified during this process.

Approximate drainage basins were delineated for each outfall using past drainage studies, prior drainage basin delineations, subdivision drainage plans, and updated topographic information. Based on this information, each outfall was classified as "major" or "minor." A "major outfall," as defined by the MS4 General Permit, is an MS4 outfall that meets one of the following criteria:

- 1. A single pipe with an inside diameter of 36 inches or more, or from an equivalent conveyance (cross sectional area of 1,018 square inches) which is associated with a drainage area of more than 50 acres.
- 2. A municipal separate storm sewer system that receives storm water runoff from lands zoned for industrial activity that is associated with a drainage area of more than 2 acres or from other lands with 2 or more acres of industrial activity, but not land zoned for industrial activity that does not have any industrial activity present.

Outfalls not meeting the definition of a major outfall are considered "minor outfalls." OMNNI has also worked with the WDNR to develop a third class of outfalls – "supplemental" outfalls. Supplemental outfalls are storm sewer outfalls which may not meet the definition of an outfall according to the MS4 General Permit but should be included in an ongoing field screening program. The majority of the supplemental outfalls are pipes that discharge to a detention basin or MS4 channel. These pipes do not discharge directly to a water of the state, and therefore are not technically outfalls. However, sampling these locations is an important component of the overall screening process, as illicit discharges are more likely to be discovered closer to the source rather than after being diluted in a detention basin or mixed with other discharges in a channel.

The resulting MS4 map includes 324 outfalls, classified as follows:

- 43 major outfalls
- 86 minor outfalls
- 195 supplemental outfalls

A map showing the current configuration of the MS4 outfalls is included in Appendix A. The MS4 outfall map will be revised as outfalls are added, removed or modified. This should occur annually after the City's GIS system has been updated with the previous year's construction.

ONGOING FIELD SCREENING PROGRAM

The proposed ongoing field screening program for the City of Appleton is described in the sections that follow.

OUTFALL SELECTION AND INSPECTION FREQUENCY

The current MS4 General Permit contains the following guidelines for setting the outfall screening schedule:

- 100% of the total major outfalls at least once during the term of the permit [5 years]
- Select minor outfalls for annual on-going dry weather field screening during the term of the permit [5 years]

The MS4 General Permit also requires that a prioritization procedure be developed for selecting the minor outfalls, giving consideration to:

- Hydrological conditions
- Total drainage area of the site
- Population density of the site
- Traffic density
- Age of the structures or buildings in the area
- History of the area
- Land use types

The concept of outfall prioritization was initially introduced in the "Program Guidance #3800-2012-01" (3/15/2012) document that WDNR released for IDDE. In an attempt to provide a more targeted screening approach, the Guidance introduced the concept of "priority outfalls" to prioritize the outfalls based on the illicit discharge potential in the contributing drainage area rather than solely on the pipe or drainage area size. Based on the Guidance, contributing drainage drainage area characteristics or land uses that should be considered when selecting priority outfalls include:

- History of known or suspected illicit discharges reported within the last five years.
- Sections of storm sewer and/or sanitary sewer infrastructure that have exceeded or are approaching their design/useful life.
- Contributing drainage areas with 80 or more percent imperviousness.
- Businesses or industrial parks with frequent changes in property ownership or operations.
- Schools or other institutional facilities.
- Commercial or industrial operations that generate wastewater or wash water including food processing, metal plating or machining shops, auto and scrap recyclers, commercial car washes and chemical manufacturers or users.

Based on OMNNI's experience with outfall screening, the criteria associated with the March 2012 guidance document were more appropriate for identifying outfalls with higher potentials for illicit discharge. OMNNI received approval from WDNR (Suzan Limberg, 7/14/2020) to use the March 2012 criteria for prioritization, based on our professional judgement and experience.

The outfalls were evaluated and given a prioritization score based on the various prioritization criteria, with higher scores indicating higher risks of potential illicit discharges. As a more conservative screening approach, <u>all</u> outfalls were prioritized (major, minor and supplemental),

and those with prioritization scores of 20 or higher were considered Priority Outfalls, which would be screened annually.

After evaluating each outfall and associated drainage basin, the outfalls were classified as "priority," "non-priority major", or "non-priority non-major" outfalls. The classification produced the following results:

- 49 priority outfalls
- 29 non-priority major outfalls
- 246 non-priority non-major outfalls

A map showing the locations of the priority outfalls is included in Appendix B.

The City will use a screening schedule that is more aggressive than the minimum permit requirements. This will provide for the screening of all outfalls over a ten-year cycle, which may reveal potential illicit discharges at outfalls that might have otherwise gone unscreened.

- Priority outfalls will be screened each year, which meets the permit requirement for annual screening.
- Non-priority major outfalls will be screened once every 5 years, which meets the permit criteria for major outfalls.
- The remaining non-priority, non-major outfalls will be screened at least once every 10 years.

A tentative screening schedule for the non-priority outfalls is included in this plan; however, the City reserves the right to revise the actual screening schedule for the non-priority outfalls as long as the goal of screening all non-priority outfalls every 5 years (major outfalls) or 10 years (non-major outfalls) is accomplished.

A table showing the priority status of each outfall, along with the proposed screening frequency, is included in Appendix C. The proposed outfall screening schedule, which lists the outfalls to be screened during the first ten years of this revised ongoing screening program, is included in Appendix D.

TIMING OF SCREENING

The MS4 General Permit specifies that dry weather screening should be conducted for all outfalls. This minimizes the potential interference from non-illicit sources including runoff and groundwater. The 2014 Guidance recommends a minimum of 48 hours between the end of a precipitation event and screening.

If possible, it is recommended to wait a minimum of 72 hours after the end of a runoff producing rainfall event, as this will allow stormwater detention basins and other peak flow limiting devices to discharge the rainfall volume. In addition, screening should be avoided in early spring due to snowmelt and elevated groundwater levels.

FLOWING OUTFALLS

If an outfall exhibits dry weather flow during the field screening (48 hours after the end of a rainfall event), a sample should be collected to test for the presence of substances that are common indicators of illicit discharge. When possible, this sample should be collected from a free-flowing discharge at the end of the pipe or channel representing the outfall. A free-flowing sample is desirable to avoid interference by substances that may be located in the receiving waters.

In the event that the outfall is partially submerged (e.g., part of the pipe is visible above the water surface) or fully submerged (e.g., the entire pipe is below the water surface of the receiving water), an alternate screening method is typically used. This alternate screening method for submerged outfalls was developed by OMNNI and approved by the WDNR Northeast Region in 2009. For submerged outfalls, a limited physical indicator screening should be conducted at the actual outfall. A sample should then be collected from the next-closest accessible point. In most cases, this will be the first manhole upstream of the outfall. This location should reduce the impact of the receiving water on the sample but minimize the number of potential connections between the access point and the outfall.

If there is no flow or submerged pool at the upstream access point, this fact should be noted, and no sample is required. If a visible flow is observed, a sample should be collected from this flow. If pooled water is present, a sample should be collected from the pool. For all upstream sampling, a note is made of the distance and land use of the area between the outfall and the upstream area to assess the potential for illicit connections between the outfall and the upstream location.

The samples collected from the outfall and/or upstream access points will be used during the evaluation of the physical and chemical indicator parameters. The volume of the sample required will depend on the number and type of tests that will be conducted for chemical indicator parameters.

PHYSICAL INDICATOR PARAMETERS

The evaluation of physical indicators of potential illicit discharge will be included during the screening of both flowing and non-flowing outfalls. For non-flowing outfalls, physical indicator parameters are the sole source of data, and will only reveal potential past illicit discharges. For flowing outfalls, physical indicator parameters can be evaluated in conjunction with chemical indicator parameters to identify both active and past illicit discharges.

The list of physical indicator parameters to be evaluated for both flowing and non-flowing outfalls includes:

- Detection and characterization of any odor, including petroleum, VOC/solvent, sulfur, chlorine, sewage, fishy, fragrant or musty odors
- Presence of gross solids, including litter/garbage, vegetative debris and sediment
- Evidence of inhibited or excessive vegetation around the outfall
- Benthic growth on the surface of the pipe/channel or downstream channel

• Stains on the pipe/channel, including oil, rust, paint, corrosion, or general flow line stains

In addition, the following physical indicator parameters should be evaluated at all flowing outfalls:

- Qualitative description of the flow rate (trickle, moderate or substantial)
- Presence of floatable materials, including petroleum sheens, suds/bubbles, algae or sewage
- Subjective description of the turbidity of the sample
- Presence of any colors in the flow or sample
- Identification of non-illicit discharge characteristics, including natural (bacteria) sheen or suds due to natural surfactants

When upstream sampling is conducted for submerged outfalls, the physical indicator screening should be conducted both at the outfall and at the upstream access point.

CHEMICAL INDICATOR PARAMETERS

The current MS4 General Permit specifies the indicator parameters that were required to be used during the initial outfall screening unless alternate parameters were approved by the WDNR. These indicator parameters include:

- pH
- Chlorine
- Copper
- Phenols
- Detergents

For the ongoing field screening program, the current permit provides more flexibility, allowing the municipality to customize the sampling protocol based on the source areas draining to the outfall. The City proposes to continue to use the parameters that have been in use since the 2014 ongoing field screening program:

- pH
- Sample temperature
- Conductivity
- Ammonia
- Chlorine (total and free)
- Detergents (anionic surfactants)

This list may be customized based on the source areas that are identified in the specific outfall drainage area, and in response to conditions that are observed during the screening. (For example, outfalls with a history of an oil sheen may warrant periodic testing for oil and grease or other petroleum-related parameters.) Additional tests that may be considered include:

- Phenols
- Copper
- Fluorides

- Nitrates/Nitrites
- Phosphorus
- E. coli
- RCRA metals
- Volatile organic compounds (VOC)
- Oil and grease

When sampling and chemical analysis is required, the sample should be collected using a sample container that is appropriate for the test(s) being conducted. For example, some test procedures require a certain container material (plastic vs glass), color (clear vs amber), or may require a preservative. The six default chemical indicators being recommended can be analyzed using a sample from one 500-mL unpreserved plastic bottle.

Chemical indicator tests should be conducted following the test manufacturer's instructions. The specific tests used for each indicator parameter will be documented.

CHEMICAL INDICATOR ACTION LEVELS

Because some chemical indicator parameters may have naturally occurring background levels, action levels have been established to define when the detection of one or more chemical indicator parameters signals a potential illicit discharge that warrants further investigation. Detection of a chemical indicator parameter at levels below the action level will generally not be considered a potential illicit discharge unless it is combined with the presence of other chemical or physical indicator parameters.

Parameter	Action Level
рН	Less than 6.0 or greater than 9.0
Sample temperature	Greater than ambient temperature
Conductivity	2,000 μS/cm
Ammonia	0.1 ppm (0.1 mg/L)*
Chlorine (total and free)	Positive detection
Detergents (anionic surfactants)	Positive detection

The action levels for each of the required chemical indicator parameters are summarized below:

*Ammonia concentrations exceeding 0.1 ppm may be allowed if evidence of natural ammonia sources (i.e., decaying vegetation, flow over animal waste, etc.) are documented at the time of the inspection.

REPEAT SCREENING

Priority outfalls will be screened annually, regardless of the presence or absence of physical or chemical indicators. Priority outfalls will continue to be screened each year unless an outfall is reclassified as non-priority.

The sampling frequency for each non-priority outfall is once every five years for major outfalls, and once every ten years for non-major outfalls. If a non-priority outfall has dry-weather flow, a sample will be collected and analyzed for indicator parameters. If no indicator physical or chemical indicator parameters are present, no follow-up is required, and the next inspection will take place five or ten years later, unless an illicit discharge is reported prior to that time.

If indicator parameters are present at a non-priority outfall, the flow should be traced upstream to find the probable source. If the source is found and corrected, the incident will be considered closed, but the outfall will be sampled again the following year to verify that the discharge was eliminated. If no indicator parameters are present in the next year's sample, the outfall will resume its regular inspections according to the original 5- or 10-year cycle.

The repeat screening process is illustrated in the Repeat Screening Process Flowchart in Appendix E.

DOCUMENTATION

Following the completion of the outfall screening, an outfall screening report will be generated. The screening report format may be flexible, but must include the following information:

- Physical characteristics of the outfall (i.e., location, size, shape, material)
- Date and time of the screening and identification of the person conducting the screening
- Time since previous rainfall (i.e., less than 48 hours, 48-72 hours, more than 72 hours)
- Description of any flow observed during the screening
- Description of any physical indicators observed during the screening
- Results of the chemical indicator analysis conducted at outfalls with flow present during the screening
- Overall evaluation of the risk of illicit discharge at the outfall (i.e., unlikely, potential, obvious)
- Photographic documentation of the screening

In addition, an annual summary report will be prepared to document how many outfalls were screened during the year, which outfalls had potential or obvious illicit discharges, and what actions were taken to remedy any identified potential illicit discharges.

UPDATES AND REVISIONS

The MS4 Map will be updated annually to reflect the addition or removal of outfalls during the previous calendar year. As part of the MS4 Map update process, new outfalls will be classified as "major," "minor" or "supplemental," and the priority status will be determined. The outfall screening schedule will be updated to include the newly added outfalls. The initial screening of new outfalls should be scheduled as soon as practical so that the physical characteristics of the outfall can be field verified.

A record will be maintained to track which outfalls are added and removed each year, and screening records associated with removed outfalls will be archived.

If the City desires to change the screening parameters, action levels, screening frequencies, or other key components of the ongoing screening program, then it will be necessary to submit a revised ongoing screening program to the WDNR.

Appendix A Permitted Area Map and MS4 Outfall Map





C:\SyncFolders\IDDE GIS_Appleton\OSP\OSP_MS4Outfalls.mxd

Appendix B Priority Outfall Map



C:\SyncFolders\IDDE GIS_Appleton\OSP\OSP_PriorityOutfallMap2020.mxd

Appendix D Proposed Outfall Screening Schedule

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
A-21A	17.95	Minor	0	0	0	2	0	8	0	0	2	12	Non-Priority Non-Major	10 years
AA-1	464.33	Major	20	0	0	1	0	5	5	2	0	33	Priority	Annual
AB-51	153.97	Major	10	0	0	0	0	0	20	2	0	32	Priority	Annual
AC-12	13.97	Minor	20	0	0	0	0	0	0	8	0	28	Priority	Annual
AC-13	12.65	Supplemental	0	0	0	0	0	0	0	8	0	8	Non-Priority Non-Major	10 years
AD-312	16.68	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-323	53.70	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-332	6.22	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-336	6.69	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-338	70.93	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
AD-341	286.47	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
AD-342	8.63	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-345	100.23	Major	0	0	0	0	0	8	0	2	0	10	Non-Priority Major	5 years
AD-355	40.78	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-405	42.57	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AD-409	14.08	Minor	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
AE-17	48.31	Major	0	0	0	0	0	0	15	0	0	15	Non-Priority Major	5 years
AF-116	938.52	Supplemental	0	0	0	0	0	5	0	4	0	9	Non-Priority Non-Major	10 years
AF-129	7.59	Supplemental	0	0	0	0	0	9	0	4	0	13	Non-Priority Non-Major	10 years
AF-131	4.20	Supplemental	0	0	0	0	0	0	0	8	0	8	Non-Priority Non-Major	10 years
AF-134	26.38	Supplemental	0	0	0	0	0	5	0	6	0	11	Non-Priority Non-Major	10 years
AF-135	1.42	Minor	0	0	0	0	0	8	0	0	0	8	Non-Priority Non-Major	10 years
AF-138	12.61	Supplemental	0	0	0	0	0	0	0	8	0	8	Non-Priority Non-Major	10 years
AF-140	26.38	Minor	0	0	0	0	0	5	0	6	0	11	Non-Priority Non-Major	10 years
AF-67	64.54	Supplemental	0	0	0	0	0	0	0	4	0	4	Non-Priority Non-Major	10 years
AF-70	252.78	Major	0	0	0	0	0	5	0	2	0	7	Non-Priority Major	5 years
AF-88	5.98	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AF-91	7.61	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AG-3	46.47	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
AG-40	233.12	Major	0	0	0	0	0	5	0	0	0	5	Non-Priority Major	5 years
AG-41	233.12	Major	0	0	0	0	0	5	0	0	0	5	Non-Priority Major	5 years
AH-2	19.09	Minor	0	0	0	0	0	0	0	6	2	8	Non-Priority Non-Major	10 years
AJ-13	22.53	Supplemental	0	0	0	0	0	0	0	6	4	10	Non-Priority Non-Major	10 years
AJ-15	64.03	Minor	0	0	0	0	0	0	0	6	4	10	Non-Priority Non-Major	10 years
AK-9	18.39	Supplemental	0	0	0	0	0	0	0	4	6	10	Non-Priority Non-Major	10 years
AL-3	4.59	Supplemental	0	0	0	0	0	0	0	4	6	10	Non-Priority Non-Major	10 years

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
AN-12	1.45	Supplemental	0	0	0	0	0	0	0	0	8	8	Non-Priority Non-Major	10 years
AN-9	4.24	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AO-59	75.20	Supplemental	0	0	0	0	0	9	5	2	2	18	Non-Priority Non-Major	10 years
AP-19	46.69	Supplemental	10	0	0	0	0	0	15	4	0	29	Priority	Annual
AQ-124	195.26	Major	0	0	0	0	0	0	0	0	0	0	Non-Priority Major	5 years
AQ-126	8.50	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AQ-127	106.17	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AQ-129	0.67	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AQ-130	191.68	Major	0	0	0	0	0	0	0	0	0	0	Non-Priority Major	5 years
AS-5	18.73	Minor	10	0	0	0	0	0	0	8	0	18	Non-Priority Non-Major	10 years
AT-4	9.66	Supplemental	0	0	0	0	0	5	0	8	0	13	Non-Priority Non-Major	10 years
AT-6	186.22	Major	0	0	0	0	0	0	10	6	0	16	Non-Priority Major	5 years
AU-69	108.97	Supplemental	0	0	0	0	0	8	0	0	2	10	Non-Priority Non-Major	10 years
AW-62	68.43	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
AX-44	97.49	Major	30	15	0	0	0	0	10	6	0	61	Priority	Annual
AX-45	6.35	Minor	20	15	0	0	0	0	0	8	0	43	Priority	Annual
AX-46	1.52	Supplemental	0	0	0	0	0	0	15	4	0	19	Non-Priority Non-Major	10 years
AX-47	0.96	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
AX-48	28.27	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
AX-49	0.90	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
AX-51	44.92	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
AX-57	8.21	Supplemental	20	0	0	0	0	0	20	2	0	42	Priority	Annual
AY-1	1.82	Minor	0	0	5	0	0	0	0	8	0	13	Non-Priority Non-Major	10 years
AZ-54	54.94	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
B-71	1.01	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
B-72	0.78	Supplemental	0	0	5	0	0	0	0	0	0	5	Non-Priority Non-Major	10 years
B-75	73.26	Major	0	0	0	2	2	5	0	0	0	9	Non-Priority Major	5 years
BB-226	11.30	Minor	0	0	0	4	0	0	0	0	0	4	Non-Priority Non-Major	10 years
BB-229	356.10	Major	30	15	0	2	2	0	0	2	0	51	Priority	Annual
BC-71	42.02	Supplemental	0	0	0	0	0	9	0	0	0	9	Non-Priority Non-Major	10 years
BC-76	1.24	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BC-79	20.33	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BC-80	75.97	Supplemental	0	0	0	0	0	9	0	2	0	11	Non-Priority Non-Major	10 years
BD-15	7.49	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BE-14	15.47	Supplemental	0	0	0	0	0	0	0	0	8	8	Non-Priority Non-Major	10 years
BF-7	5.78	Supplemental	0	0	0	0	0	0	0	0	4	4	Non-Priority Non-Major	10 years

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
BH-3	1.34	Supplemental	0	0	0	0	0	0	0	4	0	4	Non-Priority Non-Major	10 years
BH-5	2.99	Supplemental	0	0	0	0	0	0	0	4	0	4	Non-Priority Non-Major	10 years
BI-9	1.72	Minor	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
BK-55	23.17	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
BK-56	14.00	Supplemental	0	0	0	0	0	0	0	6	0	6	Non-Priority Non-Major	10 years
BK-86	36.91	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BL-10	5.51	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BM-64	72.92	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
BM-97	2,219.12	Major	0	0	0	0	0	5	0	2	2	9	Non-Priority Major	5 years
BN-36	98.50	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
BN-38	221.98	Major	0	0	0	0	0	0	20	0	0	20	Priority	Annual
BO-38	14.39	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BO-46	5.78	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BO-47	10.58	Supplemental	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
BO-49	39.31	Minor	0	0	0	0	0	5	0	0	2	7	Non-Priority Non-Major	10 years
BP-103	23.85	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-104	24.24	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-105	9.10	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-110	15.85	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-113	21.46	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-115	29.00	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-81	18.45	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-82	0.45	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-86	4.34	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-88	11.63	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-89	1.64	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-91	43.91	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-95	50.77	Major	0	0	0	0	0	0	0	0	0	0	Non-Priority Major	5 years
BP-96	1.58	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-97	4.05	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-98	6.35	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BP-99	8.80	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BQ-25	21.41	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BQ-27	29.45	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BR-26	84.76	Supplemental	0	0	0	0	0	0	5	0	0	5	Non-Priority Non-Major	10 years
BS-21	132.25	Supplemental	0	0	0	0	0	0	15	0	4	19	Non-Priority Non-Major	10 years

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
BT-13	164.11	Minor	0	0	0	0	0	5	0	6	0	11	Non-Priority Non-Major	10 years
BT-20	243.98	Supplemental	0	0	0	0	0	0	10	0	2	12	Non-Priority Non-Major	10 years
BT-22	40.78	Supplemental	0	0	0	0	0	5	0	6	0	11	Non-Priority Non-Major	10 years
BT-24	248.92	Supplemental	0	0	0	0	0	0	10	0	2	12	Non-Priority Non-Major	10 years
BT-25	10.48	Supplemental	0	0	0	0	0	0	0	8	0	8	Non-Priority Non-Major	10 years
BT-26	10.51	Supplemental	10	0	0	0	0	0	0	8	0	18	Non-Priority Non-Major	10 years
BT-27	2.74	Supplemental	0	0	0	0	0	5	5	6	0	16	Non-Priority Non-Major	10 years
BT-28	297.00	Major	0	0	0	0	0	0	10	2	2	14	Non-Priority Major	5 years
BT-29	13.35	Supplemental	0	0	0	0	0	0	0	4	0	4	Non-Priority Non-Major	10 years
BU-11	54.24	Major	0	0	0	0	0	0	0	2	0	2	Non-Priority Major	5 years
BU-12	168.13	Major	0	0	0	0	0	0	0	4	2	6	Non-Priority Major	5 years
BV-117	3.98	Supplemental	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
BV-118	3.55	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-119	23.86	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-121	29.83	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-123	3.49	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-124	8.79	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-126	13.85	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-128	23.60	Minor	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
BV-129	5.13	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-131	9.15	Minor	0	0	0	0	0	5	0	0	4	9	Non-Priority Non-Major	10 years
BV-133	5.49	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-135	26.92	Minor	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
BV-136	18.14	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-138	0.64	Supplemental	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
BV-139	3.00	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-140	1.49	Supplemental	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
BV-142	14.91	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-144	18.26	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-146	2.84	Supplemental	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
BV-147	1.05	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-149	10.86	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-156	30.52	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-159	1.48	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-165	18.56	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BV-166	10.43	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
BV-170	0.92	Supplemental	0	0	0	0	0	0	0	0	8	8	Non-Priority Non-Major	10 years
BW-14	5.07	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BW-18	14.01	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BW-19	0.71	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BX-4	2.15	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BX-7	5.04	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BY-3	45.23	Major	0	0	5	0	0	0	10	6	0	21	Priority	Annual
BZ-20	51.18	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BZ-23	82.66	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
BZ-26	186.29	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
C-19	3.61	Minor	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
C-362	17.44	Minor	0	0	0	3	0	0	0	0	0	3	Non-Priority Non-Major	10 years
C-553	741.67	Major	0	0	0	2	4	5	5	2	0	18	Non-Priority Major	5 years
CB-21	35.82	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CC-116	396.81	Major	0	0	0	0	0	5	0	0	0	5	Non-Priority Major	5 years
CC-96	14.62	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CC-97	365.25	Supplemental	40	15	0	1	0	5	0	0	0	61	Priority	Annual
CD-10	0.47	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CD-6	14.71	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CD-8	14.91	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CE-27	17.95	Minor	0	0	0	0	0	8	5	2	4	19	Non-Priority Non-Major	10 years
CF-8	9.68	Supplemental	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
CH-2	24.33	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CH-3	21.84	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CI-31	19.85	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CI-32	18.94	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CI-41	10.21	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
CI-54	11.38	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
DD-175	2.94	Minor	30	0	0	4	0	0	0	0	0	34	Priority	Annual
E-58	1.59	Minor	0	0	0	0	0	0	5	6	2	13	Non-Priority Non-Major	10 years
E-60	44.32	Minor	40	0	0	1	2	8	0	6	0	57	Priority	Annual
EE-195	236.15	Major	0	0	0	3	4	5	5	2	0	19	Non-Priority Major	5 years
F-43	310.64	Major	0	0	0	2	2	5	0	4	0	13	Non-Priority Major	5 years
FF-108	228.30	Major	0	0	0	4	0	0	0	2	0	6	Non-Priority Major	5 years
FF-115	3.46	Supplemental	0	0	0	5	0	0	0	0	0	5	Non-Priority Non-Major	10 years
GG-68	50.16	Minor	0	0	0	1	0	9	5	0	0	15	Non-Priority Non-Major	10 years

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
GG-69	12.13	Minor	0	0	0	4	4	0	0	0	0	8	Non-Priority Non-Major	10 years
GG-71	1.70	Minor	0	0	0	4	0	5	0	0	0	9	Non-Priority Non-Major	10 years
GG-73	1.62	Minor	0	0	0	5	0	5	0	0	0	10	Non-Priority Non-Major	10 years
GG-75	4.11	Minor	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
GG-76	34.29	Minor	0	0	0	3	0	5	0	0	0	8	Non-Priority Non-Major	10 years
GG-77	7.52	Minor	0	0	0	4	0	0	0	0	0	4	Non-Priority Non-Major	10 years
H-60	42.28	Minor	0	0	0	1	0	9	0	2	0	12	Non-Priority Non-Major	10 years
HH-100	9.78	Major	10	0	0	0	0	0	20	0	0	30	Priority	Annual
HH-120	0.19	Minor	0	0	5	0	0	0	15	0	0	20	Priority	Annual
HH-82	3.75	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
HH-97	304.61	Major	20	0	0	0	0	0	15	0	0	35	Priority	Annual
I-34	1.32	Minor	0	0	0	0	0	5	0	4	0	9	Non-Priority Non-Major	10 years
1-36	35.79	Minor	0	0	0	3	0	8	0	0	0	11	Non-Priority Non-Major	10 years
IDDE-100	165.36	Major	0	0	0	0	0	0	0	0	0	0	Non-Priority Major	5 years
IDDE-101	94.87	Major	0	0	0	0	0	0	0	0	0	0	Non-Priority Major	5 years
IDDE-102	2,091.03	Major	0	0	0	0	0	5	5	2	0	12	Non-Priority Major	5 years
IDDE-103	149.19	Supplemental	0	0	0	0	0	8	0	2	0	10	Non-Priority Non-Major	10 years
IDDE-104	37.46	Supplemental	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
IDDE-105	875.32	Minor	0	0	0	0	0	5	0	0	2	7	Non-Priority Non-Major	10 years
II-48	74.36	Major	0	0	0	0	0	0	5	0	2	7	Non-Priority Major	5 years
J-140	9.19	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
J-141	336.64	Major	0	0	0	0	0	0	5	2	2	9	Non-Priority Major	5 years
J-144	0.30	Supplemental	0	0	5	0	0	0	0	2	0	7	Non-Priority Non-Major	10 years
J-146	0.43	Supplemental	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
J-151	0.50	Supplemental	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
JJ-43	62.13	Major	0	0	0	0	0	0	0	4	0	4	Non-Priority Major	5 years
K-18	28.16	Minor	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
KK-19x	26.85	Major	0	0	0	2	0	0	10	6	0	18	Non-Priority Major	5 years
KK-21	3.36	Major	0	0	5	0	0	0	20	0	0	25	Priority	Annual
KK-61	1.14	Minor	0	0	5	0	0	0	15	0	4	24	Priority	Annual
KK-62	0.66	Minor	0	0	5	0	0	0	5	0	8	18	Non-Priority Non-Major	10 years
KK-65	10.68	Minor	0	0	0	0	0	0	0	0	6	6	Non-Priority Non-Major	10 years
KK-66	18.52	Minor	0	0	0	1	0	0	0	4	2	7	Non-Priority Non-Major	10 years
KK-67	1.25	Minor	0	0	5	0	0	0	5	0	8	18	Non-Priority Non-Major	10 years
KK-68	1.82	Minor	0	0	0	0	0	0	20	0	0	20	Priority	Annual
KK-78	1.14	Minor	10	0	0	5	0	0	20	0	0	35	Priority	Annual

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
L-32	135.92	Major	0	0	0	3	4	5	0	0	0	12	Non-Priority Major	5 years
L-78	111.55	Supplemental	0	0	0	3	4	5	0	0	0	12	Non-Priority Non-Major	10 years
L-80	5.19	Minor	0	0	0	2	0	0	0	2	0	4	Non-Priority Non-Major	10 years
L-83	4.32	Minor	0	0	0	0	0	8	0	2	0	10	Non-Priority Non-Major	10 years
L-96	0.12	Minor	0	0	5	3	0	0	0	8	0	16	Non-Priority Non-Major	10 years
LL-24	17.81	Minor	0	0	0	0	0	5	0	6	2	13	Non-Priority Non-Major	10 years
LL-25	2.68	Minor	0	0	0	0	0	0	0	4	0	4	Non-Priority Non-Major	10 years
M-10	8.24	Minor	0	0	0	3	0	5	0	0	0	8	Non-Priority Non-Major	10 years
MM-33	60.61	Minor	0	0	0	4	0	8	0	2	0	14	Non-Priority Non-Major	10 years
N-315	1.81	Supplemental	0	0	5	0	0	5	15	4	2	31	Priority	Annual
N-316	0.34	Supplemental	0	0	5	0	0	5	0	0	6	16	Non-Priority Non-Major	10 years
N-317	0.54	Minor	0	0	5	0	0	0	5	8	0	18	Non-Priority Non-Major	10 years
N-318	4.76	Minor	0	0	0	1	0	5	5	2	6	19	Non-Priority Non-Major	10 years
N-319	697.58	Major	0	0	0	2	0	8	0	0	0	10	Non-Priority Major	5 years
N-331	9.41	Supplemental	0	0	0	1	0	8	0	0	6	15	Non-Priority Non-Major	10 years
N-332	1.19	Supplemental	0	0	0	0	0	9	0	0	0	9	Non-Priority Non-Major	10 years
N-353	3.42	Supplemental	0	0	0	3	0	5	0	0	2	10	Non-Priority Non-Major	10 years
N-354	2.48	Supplemental	0	0	0	0	0	8	0	0	0	8	Non-Priority Non-Major	10 years
N-362	13.30	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
N-363	515.53	Supplemental	0	0	0	2	0	8	0	0	0	10	Non-Priority Non-Major	10 years
N-367	73.87	Supplemental	0	0	0	3	0	5	0	0	0	8	Non-Priority Non-Major	10 years
N-369	350.32	Supplemental	0	0	0	1	0	5	0	0	2	8	Non-Priority Non-Major	10 years
N-388	155.31	Supplemental	0	0	0	1	0	5	0	0	0	6	Non-Priority Non-Major	10 years
N-390	49.44	Supplemental	0	0	0	0	0	8	0	0	0	8	Non-Priority Non-Major	10 years
N-399	137.52	Supplemental	0	0	0	1	0	0	0	0	2	3	Non-Priority Non-Major	10 years
N-400	8.06	Supplemental	0	0	0	5	0	0	0	0	0	5	Non-Priority Non-Major	10 years
NN-29	527.13	Major	0	0	0	3	6	5	5	2	0	21	Priority	Annual
00-34	51.67	Minor	0	0	0	4	4	0	0	0	0	8	Non-Priority Non-Major	10 years
P-188	8.02	Minor	0	0	0	0	0	0	5	2	4	11	Non-Priority Non-Major	10 years
P-192	64.18	Major	0	0	0	0	0	5	0	0	0	5	Non-Priority Major	5 years
P-222	182.87	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
P-231	9.89	Minor	0	0	0	0	0	0	0	4	2	6	Non-Priority Non-Major	10 years
P-241	15.30	Minor	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
P-245	0.10	Minor	0	0	5	0	0	0	0	0	8	13	Non-Priority Non-Major	10 years
P-247	15.66	Minor	0	0	0	0	0	0	0	4	0	4	Non-Priority Non-Major	10 years
PP-22	5.92	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
PP-27	136.53	Supplemental	20	15	0	0	0	0	20	0	0	55	Priority	Annual
PP-32	164.28	Supplemental	10	0	0	0	0	0	20	0	0	30	Priority	Annual
QQ-51	0.83	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
QQ-52	0.83	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
QQ-58	100.03	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
QQ-59	100.03	Supplemental	40	15	0	0	0	0	20	0	0	75	Priority	Annual
QQ-60	106.64	Major	10	15	0	0	0	0	20	0	0	45	Priority	Annual
RR-25	2.08	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
RR-26	3.89	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
RR-29	100.92	Supplemental	20	0	0	0	0	0	10	6	0	36	Priority	Annual
RR-35	0.86	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
RR-38	0.67	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
RR-39	2.30	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
SS-30	67.30	Supplemental	0	0	0	0	0	0	20	2	2	24	Priority	Annual
SS-32	4.56	Supplemental	0	0	0	0	0	0	0	8	0	8	Non-Priority Non-Major	10 years
SS-33	3.39	Supplemental	10	0	0	0	0	0	0	8	0	18	Non-Priority Non-Major	10 years
SS-34	0.93	Supplemental	0	0	0	0	0	0	0	6	0	6	Non-Priority Non-Major	10 years
SS-35	3.56	Supplemental	0	0	0	0	0	0	0	8	0	8	Non-Priority Non-Major	10 years
SS-36	2.73	Supplemental	10	0	0	0	0	0	0	8	0	18	Non-Priority Non-Major	10 years
SS-39	4.28	Supplemental	0	0	0	0	0	0	15	4	0	19	Non-Priority Non-Major	10 years
SS-43	2.56	Supplemental	0	0	0	0	0	0	20	0	0	20	Priority	Annual
TT-28	128.63	Major	20	0	0	0	0	0	0	4	4	28	Priority	Annual
U-20	251.93	Supplemental	50	15	0	0	0	0	0	2	2	69	Priority	Annual
UU-25	32.12	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-136	37.21	Minor	10	0	0	0	0	0	0	4	2	16	Non-Priority Non-Major	10 years
V-335	103.06	Supplemental	0	0	0	0	0	8	0	4	2	14	Non-Priority Non-Major	10 years
V-336	34.07	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
V-339	13.52	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-342	617.36	Supplemental	0	0	0	1	0	5	0	2	0	8	Non-Priority Non-Major	10 years
V-344	13.69	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
V-355	624.07	Supplemental	0	0	0	1	0	5	0	2	0	8	Non-Priority Non-Major	10 years
V-382	11.10	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
V-397	225.10	Supplemental	0	0	0	0	0	5	0	0	2	7	Non-Priority Non-Major	10 years
V-400	38.36	Supplemental	0	0	0	0	0	0	0	2	4	6	Non-Priority Non-Major	10 years
V-401	207.05	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-404	8.65	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years

2020 IDDE Ongoing Screening Program Update

							Prioritiz	ation Scores						
	Drainage Area	Major/Minor	5-yr	Ongoing	80%	Aging	Aging				Multi-			Screening
Outfall ID	(acres)	Classification	History	Issue	Impervious	Sanitary	Storm	Institutional	Industrial	Commercial	Family	Total Score	Priority Status	Frequency
V-405	15.17	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
V-412	0.72	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-413	0.60	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-414	4.72	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-415	1.94	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-430	5.23	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
V-431	0.76	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
V-432	0.16	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
VV-62	43.58	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
VV-74	40.10	Minor	0	0	0	0	0	0	0	2	0	2	Non-Priority Non-Major	10 years
W-260	319.26	Major	10	0	0	3	0	5	10	0	0	28	Priority	Annual
WW-4	13.24	Minor	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
X-560	21.61	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-562	11.59	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-564	49.15	Supplemental	0	0	0	0	0	5	0	0	0	5	Non-Priority Non-Major	10 years
X-565	14.96	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-566	0.49	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-567	1.79	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-574	2.24	Minor	0	0	5	0	0	0	0	8	0	13	Non-Priority Non-Major	10 years
X-575	3.86	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-576	801.95	Supplemental	0	0	0	0	0	5	0	0	2	7	Non-Priority Non-Major	10 years
X-627	77.21	Supplemental	0	0	0	0	0	0	0	0	6	6	Non-Priority Non-Major	10 years
X-628	6.68	Minor	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-630	1.71	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-632	7.83	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-633	18.54	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
X-634	10.23	Supplemental	0	0	0	0	0	0	0	0	2	2	Non-Priority Non-Major	10 years
X-657	23.46	Minor	0	0	0	0	0	5	0	0	2	7	Non-Priority Non-Major	10 years
X-658	143.89	Supplemental	0	0	0	0	0	5	0	6	0	11	Non-Priority Non-Major	10 years
XX-10	15.17	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
XX-6	14.74	Supplemental	0	0	0	0	0	0	0	0	0	0	Non-Priority Non-Major	10 years
Y-252	7.64	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
Y-336	503.18	Supplemental	10	0	0	3	6	5	5	2	0	31	Priority	Annual
Y-96	7.16	Supplemental	0	0	0	0	0	10	0	0	0	10	Non-Priority Non-Major	10 years
Z-129	290.43	Major	10	0	0	2	0	5	5	2	0	24	Priority	Annual
Z-173	178.06	Supplemental	0	0	0	2	0	5	5	0	0	12	Non-Priority Non-Major	10 years

Appendix C Outfall Summary Table

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
A-21A	NPNM		Х									
AA-1	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AB-51	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AC-12	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AC-13	NPNM	2010		Х								
AD-312	NPNM	2010						Х				
AD-323	NPNM	2010						Х				
AD-332	NPNM	2010						Х				
AD-336	NPNM	2010						Х				
AD-338	NPNM	2010						Х				
AD-341	NPNM	2010						Х				
AD-342	NPNM	2010						Х				
AD-345	NPM	2011	х					X				
AD-355	NPNM	2010	~					X				
AD-405	NPNM	2010						X				
AD-409	NPNM	2010						X				
ΔΕ-17	NPM	2020			X			~		X		
AE-17		2020			Λ					Λ	x	
AF-110 AF-120		2019	v								^	
AF-129			^ V									
AF-131			^ V									
AF-134			^ V									
AF-135			X									
AF-138			X									
AF-140	NPNIVI	2010	X								N/	
AF-67	NPNM	2019									X	
AF-70	NPM		X					X				
AF-88	NPNM	2019									X	
AF-91	NPNM	2019									Х	
AG-3	NPNM	2018		Х								
AG-40	NPM	2018		Х					Х			
AG-41	NPM	2018		Х					Х			
AH-2	NPNM	2020			Х							
AJ-13	NPNM	2015			Х							
AJ-15	NPNM	2017			Х							
AK-9	NPNM	2016			Х							
AL-3	NPNM	2016			Х							
AN-12	NPNM	2019									Х	
AN-9	NPNM	2019									Х	
AO-59	NPNM	2019										Х
AP-19	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AQ-124	NPM	2016	Х					Х				
AQ-126	NPNM	2012						Х				
AQ-127	NPNM	2012						Х				
AQ-129	NPNM	2012						Х				
AQ-130	NPM	2016	Х					Х				
AS-5	NPNM	2020									Х	
AT-4	NPNM	2019										Х

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AT-6	NPM	2019					Х					Х
AU-69	NPNM	2019										X
AW-62	NPNM	2012						Х				
AX-44	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-45	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-46	NPNM	2017							Х			
AX-47	Р	2017	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-48	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-49	Р	2017	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-51	Р	2018	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-57	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AY-1	NPNM	2018							Х			
AZ-54	NPNM	2020										Х
B-71	NPNM		Х									
B-72	NPNM		X									
B-75	NPM	2019				х					Х	
BB-226	NPNM	2015			Х							
BB-229	Р	2020	Х	Х	X	х	х	Х	Х	х	Х	х
BC-71	NPNM	2020										X
BC-76	NPNM	2020										X
BC-79	NPNM	2020										X
BC-80	NPNM	2020										X
BD-15	NPNM	2020										X
BE-14	NPNM	2019										X
BE-7	NPNM	2019										X
BH-3	NPNM	2010						Х				~
BH-5	NPNM	2010						X				
BI-9	NPNM	2010	Х					~				
BK-55	NPNM	2020										x
BK-56	NPNM	2020										X
BK-86	NPNM	2020										X
BI -10	NPNM	2020										X
BM-64	NPNM	2020										X
BM-97	NPM	2020					x					X
BN-36	P	2018	Х	X	Х	x	X	Х	х	x	х	X
BN-38	P	2018	X	X	X	X	X	X	X	X	X	X
BO-38	NPNM	2012	~	~	~	~	~	X	~	~	~	~
BO-46	NPNM	2012						X				
BO-47	NPNM	2012						X				
BO-49	NPNM	2012						X				
BP-103	NPNM	2012						X				
BP-104	NPNM	2013						X				
BP-105	NPNM	2013						X				
BP-110	NPNM	2013	ļ	ļ	ļ					x		
BP-113	NPNM	2013	L	L	L			L		x		
BP-115	NPNM	2013	ļ	ļ	ļ			ļ		x		
BP-81	NPNM	2013	L	L	L			L		x		
01		2010										1

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
BP-82	NPNM	2013								Х		
BP-86	NPNM	2013								Х		
BP-88	NPNM	2013								Х		
BP-89	NPNM	2013						Х				
BP-91	NPNM	2013						Х				
BP-95	NPM	2018	Х					Х				
BP-96	NPNM	2013								Х		
BP-97	NPNM	2013								Х		
BP-98	NPNM	2013								Х		
BP-99	NPNM	2013								Х		
BQ-25	NPNM	2013									Х	
BO-27	NPNM	2013									Х	
BR-26	NPNM	2017							Х			
BS-21	NPNM	2017							X			
BT-13	NPNM	2017							X			
BT-20	NPNM	2017							X			
BT-20	NDNM	2017							X			
BT-22 BT-24		2017							X			
BT-24 BT-25		2017							×			
BT-25		2017							×			
BT-20		2017							~ 			
DT-27		2017		V					^ 			
B1-28		2017		X					X			
B1-29		2017			V				X	V		
BU-11		2020			X					X		
BU-12	NPIN	2020			X					X		N N
BV-117	NPNM	2020										X
BV-118	NPNM	2013								X		
BV-119	NPNM	2013								X		
BV-121	NPNM	2013								X		
BV-123	NPNM	2013								Х		
BV-124	NPNM	2013								Х		
BV-126	NPNM	2013									Х	
BV-128	NPNM	2013									Х	
BV-129	NPNM	2013									Х	
BV-131	NPNM	2013									Х	
BV-133	NPNM	2013									Х	
BV-135	NPNM	2013									Х	
BV-136	NPNM	2013									Х	
BV-138	NPNM	2013									Х	
BV-139	NPNM	2013									Х	
BV-140	NPNM	2013									X	
BV-142	NPNM	2013									Х	
BV-144	NPNM	2013									X	
BV-146	NPNM	2020										Х
BV-147	NPNM	2020										Х
BV-149	NPNM	2020										Х
BV-156	NPNM	2013								Х		

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
BV-159	NPNM	2013								Х		
BV-165	NPNM	2013								Х		
BV-166	NPNM	2013								Х		
BV-170	NPNM			Х								
BW-14	NPNM	2013								Х		
BW-18	NPNM	2013								Х		
BW-19	NPNM	2013								Х		
BX-4	NPNM	2013								Х		
BX-7	NPNM	2013								Х		
BY-3	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BZ-20	NPNM	2019									Х	
BZ-23	NPNM	2019									Х	
BZ-26	NPNM	2019									Х	
C-19	NPNM	2020				Х						
C-362	NPNM		Х									
C-553	NPM	2019	~			Х					Х	
CB-21	NPNM	2016				~					X	
CC-116	NPM	2010					x				~	x
CC-96	NDNM	2020					~		x			~
CC-97	D	2014	x	X	X	X	X	X	X	x	X	x
CD-10		2020	X	~	~	~	~	~	~	~	~	~
		2019	Λ	v								
		2018	v	^								
			^ V									
			A V									
			^		~							
CH-2					× ×							
CH-3					X	V						
CI-31	NPNIM					X						
CI-32	NPNIM					X						
CI-41	NPNM					X						
CI-54	NPNM					X						
DD-175	Р	2020	Х	X	X	X	X	X	X	X	Х	Х
E-58	NPNM	2020				X						
E-60	Р	2020	Х	Х	X	Х	Х	Х	Х	X	Х	Х
EE-195	NPM	2020			X					X		
F-43	NPM	2020				Х					Х	
FF-108	NPM	2020			Х					Х		
FF-115	NPNM	2015			Х							
GG-68	NPNM	2015			Х							
GG-69	NPNM	2015			Х							
GG-71	NPNM	2015			Х							
GG-73	NPNM	2015			Х							
GG-75	NPNM	2015			Х							
GG-76	NPNM	2015			Х							
GG-77	NPNM	2015			Х							
H-60	NPNM	2015				Х						
HH-100	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
HH-120	Р		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
HH-82	Р		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
HH-97	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
I-34	NPNM			Х								
I-36	NPNM			Х								
IDDE-100	NPM	2018		Х					Х			
IDDE-101	NPM	2018		Х					Х			
IDDE-102	NPM	2019					Х					Х
IDDE-103	NPNM	2020										Х
IDDE-104	NPNM	2020										Х
IDDE-105	NPNM	2017							Х			
II-48	NPM	2020			Х					Х		
J-140	NPNM	2014							Х			
J-141	NPM	2020					Х					Х
J-144	NPNM			Х								
J-146	NPNM			Х								
J-151	NPNM			Х								
JJ-43	NPM	2016	Х					Х				
K-18	NPNM	2014							х			
KK-19x	NPM	2020				х					Х	
KK-21	Р	2020	Х	Х	х	X	х	Х	Х	х	X	х
KK-61	P	2020	X	X	X	X	X	X	X	X	X	X
KK-62	NPNM	2015	Λ	~	~	X	~		~	~	~	~
KK-65	NPNM	2015				x						
KK-66	NPNM	2015				X						
KK-67	NPNM	2020	x			~						
KK-68	P	2020	X	x	x	x	x	x	x	x	x	x
KK-78	P	2020	X	X	x	X	X	X	X	x	X	X
1-32	NPM	2019	Λ		~	x	~		~	~	x	~
1-78	NPNM	2015				X					~	
1-80	NDNM	2014				X						
1-83		2014				× ×						
L-83		2014	v			^						
L-90		2010	^			v						
LL-24		2010				× ×						
LL-25 M-10		2010				× ×						
N1N1 22		2013				~						
N 21E		2014	v	v	v	~ 	v	v	v	v	v	v
N 216			^ V	^	^	^	^	^	^	^	^	^
N-317		2014	^			v						
N 210		2014				~						
N 210		2014				× ×					v	
N 221		2020				X					X	
IN-331		2014	× ×			X						
IN-332			X									
IN-353			X							ļ		
IN-354	NPNM		Х									
N-362	NPNM	2014				Х						

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
N-363	NPNM	2020				Х						
N-367	NPNM	2014				Х						
N-369	NPNM	2014		Х								
N-388	NPNM			Х								
N-390	NPNM	2020		Х								
N-399	NPNM			Х								
N-400	NPNM			Х								
NN-29	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
00-34	NPNM	2014				Х						
P-188	NPNM			Х								
P-192	NPM	2018		Х					Х			
P-222	NPNM	2018		Х								
P-231	NPNM			Х								
P-241	NPNM			Х								
P-245	NPNM			Х								
P-247	NPNM			Х								
PP-22	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PP-27	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PP-32	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-51	Р	2012	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-52	Р	2014	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-58	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-59	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-60	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-25	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-26	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-29	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-35	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-38	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-39	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
SS-30	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
SS-32	NPNM	2020					Х					
SS-33	NPNM	2020					Х					
SS-34	NPNM	2019					Х					
SS-35	NPNM	2020					Х					
SS-36	NPNM	2020					Х					
SS-39	NPNM	2020					Х					
SS-43	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
TT-28	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
U-20	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
UU-25	NPNM	2018			Х	-				-		
V-136	NPNM	2020		Х								
V-335	NPNM	2016					Х					
V-336	NPNM	2016					Х					
V-339	NPNM	2016					Х					
V-342	NPNM	2016					Х					
V-344	NPNM	2016					Х					

Outfall Screening Schedule, by Outfall ID

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
V-355	NPNM	2016					Х					
V-382	NPNM	2016					Х					
V-397	NPNM	2016					Х					
V-400	NPNM	2016					Х					
V-401	NPNM	2016					Х					
V-404	NPNM	2016					Х					
V-405	NPNM	2016					Х					
V-412	NPNM	2016					Х					
V-413	NPNM	2016					Х					
V-414	NPNM	2016					Х					
V-415	NPNM	2016					Х					
V-430	NPNM	2016					Х					
V-431	NPNM	2016					Х					
V-432	NPNM	2016					Х					
VV-62	NPNM	2018			Х							
VV-74	NPNM			Х								
W-260	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
WW-4	NPNM	2014				Х						
X-560	NPNM	2018			Х							
X-562	NPNM	2017							Х			
X-564	NPNM	2017							Х			
X-565	NPNM	2017							Х			
X-566	NPNM	2017							Х			
X-567	NPNM	2017							Х			
X-574	NPNM	2017							Х			
X-575	NPNM	2017							Х			
X-576	NPNM	2017							Х			
X-627	NPNM		Х									
X-628	NPNM			Х								
X-630	NPNM	2018			Х							
X-632	NPNM	2018			Х							
X-633	NPNM	2018			Х							
X-634	NPNM	2018			Х							
X-657	NPNM	2018			Х							
X-658	NPNM	2017							Х			
XX-10	NPNM		Х									
XX-6	NPNM	2018		Х								
Y-252	NPNM		Х									
Y-336	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Y-96	NPNM		Х									
Z-129	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Z-173	NPNM			Х								
Totals			80	80	79	80	79	80	80	80	80	76

P Priority Outfall

NPM Non-Priority Major Outfall

NPNM Non-Priority Non-Major Outfall

Outfall Screening Schedule, by Year

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
				Priori	ty Outfal	ls (annua	al)					
AA-1	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AB-51	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AC-12	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AP-19	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-44	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-45	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-47	Р	2017	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-48	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-49	Р	2017	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-51	Р	2018	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
AX-57	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BB-229	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BN-36	Р	2018	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BN-38	Р	2018	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BY-3	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
CC-97	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
DD-175	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
E-60	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
HH-100	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
HH-120	Р		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
HH-82	Р		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
HH-97	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
KK-21	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
KK-61	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
KK-68	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
KK-78	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
N-315	Р		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
NN-29	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PP-22	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PP-27	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PP-32	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-51	Р	2012	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-52	Р	2014	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-58	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-59	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
QQ-60	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-25	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-26	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-29	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-35	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-38	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
RR-39	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
SS-30	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
SS-43	Р	2019	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
TT-28	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
U-20	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

Outfall Screening Schedule, by Year

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
W-260	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Y-336	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Z-129	Р	2020	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
			Non-P	riority M	ajor Out	falls (eve	ery 5 yea	rs)				
AD-345	NPM	2011	Х	-				Х				
AF-70	NPM		Х					Х				
AQ-124	NPM	2016	Х					Х				
AQ-130	NPM	2016	Х					Х				
BP-95	NPM	2018	Х					х				
JJ-43	NPM	2016	Х					х				
AG-40	NPM	2018		х					х			
AG-41	NPM	2018		X					X			
BT-28	NPM	2017		X					X			
IDDF-100	NPM	2018		X					X			
IDDE-101	NPM	2018		x					x			
P-192	NPM	2018		x					x			
ΔΕ-17	NDM	2010		~	x				~	x		
RU-17		2020			X					X		
BUI-12		2020			X					X		
EF-105		2020			×					× ×		
EE-108		2020			× ×					× ×		
11-108		2020			× ×					× ×		
11-40 D 75		2020			^	~				^	v	
D-75		2019									^ V	
C-555		2019				X					X	
F-45		2020									^ V	
KK-19X		2020				^ 					^ V	
L-32		2019				X					X	
N-319		2020				X	V				X	v
AI-0		2019					X					X
BIVI-97		2020					X					X
LC-116		2020					X					X
IDDE-102		2019					X					X
J-141	NPIN	2020					X					X
		N	ion-Prioi	rity Non-	Major O	utfalls (e	very 10 y	/ears)				
A-21A	NPNM		X									
AF-129	NPNM		X									
AF-131	NPNM		X									
AF-134	NPNM		X									
AF-135	NPNM		X									
AF-138	NPNM		X									
AF-140	NPNM		X									
B-71	NPNM		Х									
B-72	NPNM		Х									
BI-9	NPNM		Х									
C-362	NPNM		Х									
CD-10	NPNM		Х									
CD-8	NPNM		Х									
Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
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CE-27	NPNM		Х									
CF-8	NPNM		Х									
KK-67	NPNM		Х									
L-96	NPNM		Х									
N-316	NPNM		Х									
N-332	NPNM		Х									
N-353	NPNM		Х									
N-354	NPNM		Х									
X-627	NPNM		Х									
XX-10	NPNM		Х									
Y-252	NPNM		Х									
Y-96	NPNM		Х									
AC-13	NPNM	2010		Х								
AG-3	NPNM	2018		Х								
BV-170	NPNM			Х								
CD-6	NPNM	2018		Х								
1-34	NPNM			Х								
1-36	NPNM			X								
1-144	NPNM			X								
J-146	NPNM			X								
J-151	NPNM			X								
N-369	NPNM	2014		X								
N-388	NPNM	2014		X								
N-390	NPNM	2020		X								
N-399	NPNM	2020		X								
N-400	NPNM			X								
P-188	NPNM			X								
P-222	NPNM	2018		X								
P-231	NPNM	2010		X								
P-241	NPNM			X								
P-245	NPNM			X								
P-247	NPNM			X								
V-136	NPNM	2020		X								
VV-74	NPNM	2020		X								
X-628	NPNM			X								
XX-6	NPNM	2018		X								
7-173	NPNM	2010		X								
ΔH-2	NPNM	2020		~	X							
Al-13	NPNM	2015			X							
Al-15	NPNM	2013			X							
AK-9	NPNM	2016			X							
AI -3	NPNM	2016			X							
BB-226	NPNM	2015			X							
CH-2	NPNM				X							
CH-3	NPNM				X							
FF-115	NPNM	2015			X							
 GG-68	NPNM	2015			X							

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
GG-69	NPNM	2015			Х							
GG-71	NPNM	2015			Х							
GG-73	NPNM	2015			Х							
GG-75	NPNM	2015			Х							
GG-76	NPNM	2015			Х							
GG-77	NPNM	2015			Х							
UU-25	NPNM	2018			Х							
VV-62	NPNM	2018			Х							
X-560	NPNM	2018			Х							
X-630	NPNM	2018			Х							
X-632	NPNM	2018			Х							
X-633	NPNM	2018			х							
X-634	NPNM	2018			X							
X-657	NPNM	2018			X							
C-19	NPNM	2020				х						
CI-31	NPNM	2020				X						
CI-32	NPNM					x						
CI-41	NPNM					X						
CI-54	NPNM					X						
F-58	NPNM	2020				X						
H-60	NPNM	2015				X						
KK-62	NPNM	2015				X						
KK-65	NDNM	2015				X						
KK-66	NDNM	2015				X						
1-78	NPNM	2020				X						
1-80	NPNM	2014				X						
1-83	NPNM	2014				X						
11-24	NPNM	2014				X						
11-25	NPNM	2010				x						
LL 25 M-10	NPNM	2010				X						
MM-33	NPNM	2015				X						
N-317	NPNM	2014				X						
N-318		2014				X						
N-331	NDNM	2014				X						
N-362	NPNM	2014				X						
N-363	NPNM	2014				X						
N-367	NPNM	2020				X						
00-34	NPNM	2014				X						
W/W/-4	NPNM	2014				x						
55-32	NPNM	2020				~	x					
<u>55 52</u> 55-33	NPNM	2020					X					
SS-34	NPNM	2019					x					
SS 34 SS-35	NPNM	2015					X					
SS-36	NPNM	2020					x		ļ			
55-39	NPNM	2020					x		ļ			
V-335	NPNM	2016					X					
V-336	NPNM	2016					X		ļ			
• 330		2010					~					

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
V-339	NPNM	2016					Х					
V-342	NPNM	2016					Х					
V-344	NPNM	2016					Х					
V-355	NPNM	2016					Х					
V-382	NPNM	2016					Х					
V-397	NPNM	2016					Х					
V-400	NPNM	2016					Х					
V-401	NPNM	2016					Х					
V-404	NPNM	2016					Х					
V-405	NPNM	2016					Х					
V-412	NPNM	2016					Х					
V-413	NPNM	2016					Х					
V-414	NPNM	2016					X					
V-415	NPNM	2016					X					
V-430	NPNM	2016					X					
V-431	NPNM	2016					X					
V-431	NDNM	2010					X					
AD-312		2010					~	x				
AD-323		2010						X				
AD-323		2010						X				
AD-332		2010						×				
AD-330		2010						×				
AD-336		2010						^ V				
AD-341		2010						^ V				
AD-342		2010						^ V				
AD-405		2010						X				
AD-403		2010						×				
AD-409		2010						^ V				
AQ-120		2012						×				
AQ-127		2012						^ V				
AQ-129		2012						^ V				
		2012						^ V				
		2010						^ V				
		2010						^ V				
BO-38		2012						^ V				
BO-40 BO-47		2012						^ V				
BO-47		2012						×				
BU-49 BD 102		2012						^ V				
BF-103		2013						^ V				
BP-104		2013						^ V				
BP-105		2013						^ V				
BP-09		2013						^ V				
DP-91		2013						٨	v			
AX-40		2017							X			
		2018							X			
BK-20		2017							X			
85-21	NPNM	2017							X			
BT-13	NPNM	2017							Х			

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
BT-20	NPNM	2017							Х			
BT-22	NPNM	2017							Х			
BT-24	NPNM	2017							Х			
BT-25	NPNM	2017							Х			
BT-26	NPNM	2017							Х			
BT-27	NPNM	2017							Х			
BT-29	NPNM	2017							Х			
CC-96	NPNM	2014							Х			
IDDE-105	NPNM	2017							Х			
J-140	NPNM	2014							Х			
K-18	NPNM	2014							Х			
X-562	NPNM	2017							Х			
X-564	NPNM	2017							X			
X-565	NPNM	2017							X			
X-566	NPNM	2017							X			
X-567	NPNM	2017							X			
X 507 X-574		2017							X			
X-574 V 575		2017							×			
X-375 X 576		2017							^ V			
X-570		2017							^ V			
A-038		2017							~	v		
BP-110	NPINIVI	2013								X		
BP-113	NPNM	2013								X		
BP-115	NPNM	2013								X		
BP-81	NPNM	2013								X		
BP-82	NPNM	2013								X		
BP-86	NPNM	2013								Х		
BP-88	NPNM	2013								Х		
BP-96	NPNM	2013								Х		
BP-97	NPNM	2013								Х		
BP-98	NPNM	2013								Х		
BP-99	NPNM	2013								Х		
BV-118	NPNM	2013								Х		
BV-119	NPNM	2013								Х		
BV-121	NPNM	2013								Х		
BV-123	NPNM	2013								Х		
BV-124	NPNM	2013								Х		
BV-156	NPNM	2013								Х		
BV-159	NPNM	2013								Х		
BV-165	NPNM	2013								Х		
BV-166	NPNM	2013								Х		
BW-14	NPNM	2013								Х		
BW-18	NPNM	2013								Х		
BW-19	NPNM	2013								Х		
BX-4	NPNM	2013								Х		
BX-7	NPNM	2013								Х		
AF-116	NPNM	2019									Х	
AF-67	NPNM	2019									Х	

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AF-88	NPNM	2019									Х	
AF-91	NPNM	2019									Х	
AN-12	NPNM	2019									Х	
AN-9	NPNM	2019									Х	
AS-5	NPNM	2020									Х	
BQ-25	NPNM	2013									Х	
BQ-27	NPNM	2013									Х	
BV-126	NPNM	2013									Х	
BV-128	NPNM	2013									Х	
BV-129	NPNM	2013									Х	
BV-131	NPNM	2013									Х	
BV-133	NPNM	2013									Х	
BV-135	NPNM	2013									Х	
BV-136	NPNM	2013									Х	
BV-138	NPNM	2013									Х	
BV-139	NPNM	2013									Х	
BV-140	NPNM	2013									Х	
BV-142	NPNM	2013									Х	
BV-144	NPNM	2013									Х	
BZ-20	NPNM	2019									Х	
BZ-23	NPNM	2019									Х	
BZ-26	NPNM	2019									Х	
CB-21	NPNM	2016									Х	
AO-59	NPNM	2019										Х
AT-4	NPNM	2019										Х
AU-69	NPNM	2019										Х
AZ-54	NPNM	2020										Х
BC-71	NPNM	2020										Х
BC-76	NPNM	2020										Х
BC-79	NPNM	2020										Х
BC-80	NPNM	2020										Х
BD-15	NPNM	2020										Х
BE-14	NPNM	2019										Х
BF-7	NPNM	2019										Х
BK-55	NPNM	2020										Х
BK-56	NPNM	2020										Х
BK-86	NPNM	2020										Х
BL-10	NPNM	2020										Х
BM-64	NPNM	2020										Х
BV-117	NPNM	2020										Х
BV-146	NPNM	2020										Х
BV-147	NPNM	2020										Х
BV-149	NPNM	2020										Х
IDDE-103	NPNM	2020										Х
IDDE-104	NPNM	2020										Х
Totals			80	80	79	80	79	80	80	80	80	76

Outfall ID	Class	Last Screened	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Р	Priority Ou	tfall										
NPM	Non-Priorit	y Major Outfa	II									
NPNM	Non-Priority Non-Major Outfall											

Appendix E Repeat Screening Process Flowchart

Repeat Screening Process

City of Appleton - IDDE Ongoing Field Screening



ENGINEERING • ARCHITECTURE • ENVIRONMENTAL



One Systems Drive Appleton, WI 54914 1-800-571-6677

omnni.com westwoodps.com



TOTAL =

Appleton Wastewater Treatment Plant Operations Synopsis October 2020 – December 2020

Wastewater Treatment Program

 The Appleton Wastewater Treatment Plant (AWWTP) final effluent met Wisconsin Department of Natural Resources (WDNR) discharge monitoring reporting limits for carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS), phosphorous, and ammonia. The plant maintained good treatment and a healthy microbiological population with a sludge retention time of eight days. Dewatering processes functioned well and converted 16.9 Million Gallons (MG) of primary digested sludge to biosolids.

Parameter	October	November	December	Average
Industrial Flow (MG)	38.2	33.4	34.9	35.5
Domestic Flow (MG)	269.8	298.3	235.5	267.9
Total Flow (MG)	308.0	331.7	270.4	303.4
Influent CBOD Load (Avg Daily lbs)	23,338	19,737	23,363	22,146
Influent TSS Load (Avg Daily lbs)	44,850	41,426	46,762	44,346
Influent Phosphorous Load (Avg Daily lbs)	509	384	503	465
Influent Ammonia Load (Avg Daily lbs)	1,858	1,950	2,357	2,055
Effluent CBOD Load (Avg Daily lbs)	491	562	501	518
Effluent TSS Load (Avg Daily lbs)	373	286	347	335
Effluent Phosphorous Load (Avg Daily lbs)	26	18	20	21
Effluent Ammonia Load (Avg Daily lbs)	85	56	283	141
% Treatment Removal of CBOD	97.9	97.2	97.9	97.6
% Treatment Removal of TSS	99.2	99.3	99.3	99.2
% Treatment Removal of Phosphorous	94.9	95.3	96.0	95.4
% Treatment Removal of Ammonia	95.4	97.1	88.0	93.5

Summary of Treatment

Work in Progress:

- 2017 Appleton Wastewater Plant Improvement Projects: (WAS Pumping System Replacement, High Pressure Blower #3 Replacement, Digester Biogas Mix Compressor Glycol Cooling System): Start-up of High-Pressure Blower #3 and new WAS pumps occurred during the first half of 2020. Final project completion was delayed in the quarter as the contractor completed the remaining punch list items. Final project completion is now expected to occur early in the first quarter of 2021.
- 2019 Appleton Wastewater Plant Improvement Projects: McMahon under professional engineering service contract for the multi-process improvements project. The project includes replacement of the Return Activated Sludge (RAS) pumps, process piping modifications (e.g. blended sludge, filtrate, waste gas flare), outside secondary chemical offloading containment repairs, primary clarifiers #5 & #6 drive replacements (2020 CIP), and H-Building effluent pump replacements (2020 CIP). On November 18, 2020 Common Council approved contract amendment #1 with McMahon. This contract amendment accounted for the additional costs of engineering services associated with the 2020 CIPs previously mentioned that were not part of the original contract. The public construction bid process was completed in late November 2020. The City opened and reviewed the

bids from three contractors. Staab Construction (Staab) was the least cost responsible bidder. Common Council approved the construction contract with Staab on December 2, 2020. A virtual construction kick-off meeting was held with Staab, McMahon, and AWWTP staff on December 18, 2020. Active construction is anticipated to occur beginning in mid to late January 2021.

- Engineering Services RFP 2021 Appleton Wastewater Plant Sludge Storage Building Addition: On November 17, 2020 Requests for Proposals (RFP) were sent to four engineering firms as part of the 2021 Appleton Wastewater Plant Sludge Storage Building Addition. The deadline for RFP submission was Friday, January 8, 2020. Engineering services sought as part of this RFP will provide a path forward to construct 5,000 cubic yards of additional biosolids storage capacity. The additional storage will address long time deficiencies associated with satisfying the Department of Natural Resources 180-day storage requirement based on annual production. The firm awarded this contact will also be required to design a 600 cubic yard biosolids compost processing area as part of the future construction project.
- Engineering Services RFP: 2021 Appleton Wastewater Plant Solids Dewatering Equipment Upgrades: On November 17, 2020 Requests for Proposals (RFP) were sent to four engineering firms as part of the Appleton Wastewater Plant Solids Dewatering Equipment Upgrades. Sustained increases in annual biosolids production rates coupled with aging and less efficient dewatering equipment have necessitated this project. The deadline for RFP submission was Friday, January 8, 2020. Engineering services sought as part of this RFP will evaluate needs and the type of dewatering technology to be advanced as part of a 2022 construction project.

Regulatory Summary

• Monthly Discharge Monitoring reports for October, November, and December were filed electronically on time for regulatory compliance.

Laboratory

- All sampling and laboratory testing procedures were performed in accordance with requirements outlined in the AWWTP Wisconsin Pollutant Discharge Elimination System (WPDES) permit.
- Discharge Monitoring Report (DMR) and Health Department testing program objectives associated with sampling and analysis were met during the reporting period.
- Analysis of Single-Blind Proficiency samples for laboratory recertification occurred during the reporting period.
- Sampling of influent in support of Wisconsin State Lab of Hygiene COVID Sewage Surveillance was initiated during the reporting period.

Staffing & Training

• In response to COVID-19, adjustments have been made to staff schedules and work areas, as well as virtual meetings which limit group sizes and face-to-face contact among employees.

EFFLUENT QUALITY SUMMARY July 2019/2020 – September 2019/2020

Table 1-2019 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P ⁽³⁾ (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal ⁽²⁾ Coliform Colonies/	Chlorine ⁽²⁾ Residual (mg/L)	рН (s.u.)
Permit Limit	25	30	I,322 ⁽³⁾	1	23 (3)	10, 11, 4.4, 18	(100 ml) 400 col/100ml	0,038 mg/L doile	6.0 - 9.0 daile linuit
							Geo, mean	uauy	aany nna
July 2019	5	2	150	0.14	13	1.85	4	<0.032	6.8/7.1
August 2019	4	1	98	0.17	14	1.60	10	<0.032	6.8/7.2
September 2019	5	3	525	0,17	21	2.33	53	<0.032	7.1/7.3
October 2019	4	3	409	0.16	20	1,98	NA	NA	7,1/7.4
November 2019	5	3	333	0.13	15	2.91	NA	NA	7.2/7.4
December 2019	5	3	411	0.13	17	3.65	NA	NA	7.1/7.4
		May - O	ctober Period A	Average ⁽³⁾	17				

Table 2 - 2020 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P ⁽³⁾ (ibs/day)	NH3-N ⁽⁴⁾ (mg/L)	Fecal ⁽²⁾ Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	рН (s.u.)
July 2020	4	2	311	0,25	30	0.73	4	< 0.032	6.7/6.9
August 2020	6	3	189	0,30	19	1.15	11	<0.032	6.6/7.2
September 2020	6	3	191	0,34	23	18.0	8	<0.032	6.8/7.2
October 2020	6	4	373	0.31	26	0.88	NA	NA	7.1/7.4
November 2020	6	3	286	0.19	18	0.59	NA	NA	6.9/7.2
December 2020	7	5	347	0,28	20	3.96	NA	NA	6.88/7.11
		May - O	ctober Period 4	Average ⁽³⁾	21		•		

NOTES:

1) Seasonal NH3-N limits: 10 mg/L Jan. 1 – Mar. 31, 11 mg/L Apr. 1 – May 31, 4.4 mg/L June 1 – Sep 30, 18 mg/L Oct 1 – Dec 31.

2) Seasonal fecal and residual chlorine limits are in effect May 1st through September 30th. Limit of Detection 0.032 mg/L.

3) April 1, 2017 WPDES Reissuance with new TSS limits expressed as monthly concentration limit (mg/L) and loading limit (lbs).

The future TMDL phosphorus limit will be 23 lbs/day expressed as a 6-month average during the months of May - October and November - April.

YEAR 2020 RECEIVING STATION REVENUE

.

Hauler		nuary	February	N N	arch	April		May	June	July	August	September	October	November	December	× -	-T-D Total
A & B Leist Trucking	s	78,336.68	\$ 78,457.11	\$ \$	8,498.49	\$ 92,808.40	s	99,535.11	\$ 100,563.41	\$ 103,701.53	\$ 107,300.47	\$101,620.13	\$ 114,710.23	\$ 104,185.37	\$ 105,138.0	8 \$	1,174,855.01
Buttles Custom Ag *	s	4,350.46	• •	\$9	•	، بر	69	'	· · ·	•	s.	، ج		•	-	\$	4,350.46
Dean Foods	\$	1	s S	\$		-	s	1	- S	- S	s .	\$	\$	\$	-	s	
Hickory Meadows	\$	36,386.43	\$ 26,652.57	\$	2,134.86	\$ 47,032.79	\$	37,834.45	\$ 47,374.78	\$ 52,505.79	S 24,017.66	\$ 25,463.54	\$ 40,005.22	\$ 54,115.44	\$ 42,457.4	8 \$	485,981.01
Holland Sanitary Dist. 1	s	•	S	\$		-	\$	T	- S	-	\$	\$	\$ -	s .	- S	s	
leff Waldvogel Trikg.	s	32,158.85	\$ 30,912.64	61 63	3,131.12	\$ 37,695,30	ŝ	41,634.20	\$ 51,895.76	\$ 46,871.88	\$ 41,576.05	\$ 41,167.54	\$ 39,423.40	\$ 28,191.89	\$ 31,119.3	0 \$	455,777.93
Movin Materiels	S	•	S	s	-	-	\$	•	- 5	- \$	- \$	- \$	- 	\$	- \$	\$	1
Waldvogel Trucking	s	2,194.20	\$ 1,954.49	\$	2,113.56	\$ 2.350.76	ŝ	2,554.51	\$ 2,295.43	\$ 2,477.14	\$ 2,677.33	\$ 2,428.05	\$ 1,743.44	\$ 1.820.71	\$ 1,936.4	6 S	26,546.08
2020 Total	s	153,426.62	\$137,976.81	\$ 17.	5,878.03	\$ 179,887.25	\$	81,558.27	\$ 202,129.38	\$ 205,556.34	\$ 175,571.51	\$170,679.26	\$ 195,882.29	\$ 188,313.41	\$ 180,651.3	2 \$	2,147,510.49
2019 Total	**	\$271,217.51	\$240,466.77	\$30	1,788.32	\$301,125.30	E\$	127,779.40	\$311,857.27	\$354,997.19	\$328,472.17	\$307,790.57	\$292,411.49	\$256,462.25	\$ 188,614.7	s 5	3,482,982.99

*Buttles Custom Ag new customer in November 2019

Holland Sanitary District 1 new customer in March 2018

Dean Foods new customer in April 2018

3% Rate Increase effective 1/1/18

1% Rate Increase effective 1/1/19

5% Rate Increase effective 10/1/20

Effective 5/1/19 Dean Foods is billed with Jeff Waldvogel Trucking

January 20, 2021 Date:

K. Rindt (via email) Copies:

C. Shaw (via email)

B. Kreski

Utilities Committee

Appleton Water Treatment Plant Operations Synopsis October, November and December 2020

Performance Summary

The table below presents selected water production and quality performance metrics for the current and previous reporting periods.

<u>Treated Water Quality</u>. All compliance parameters met or exceeded regulatory requirements.

<u>Water Production</u>. Compared with Q3 of 2020 (quarter over quarter or Q/Q), average water production decreased by nearly 13% consistent with seasonal change. However, compared with Q4 of 2019 (year over year or Y/Y), average water production was unchanged.

<u>Raw Water Quality</u>. Average Q/Q lake turbidity declined by about 13% consistent with seasonal change in lake conditions, yet Y/Y average raw water turbidity increased by 13% due to extended warm weather conditions.

<u>Energy Efficiency</u>. Applied electrical energy Q/Q efficiency declined by approximately 3% and Y/Y efficiency declined by nearly 8%. These efficiency changes are likely due to increased gravity filter backwashing, slightly lower average transmissivity of UV disinfection influent, and increased finished water discharge pressure.

	Pre	evious (Q3	2020)	C	Current (Q4 20	020)
WATER PLANT PARAMETERS	July	August	September	October	November	December
Water Treated Finished (million gallons), total Finished (million gallons / day), average	297.3 9.6	313.6 10.1	267.1 8.9	262.2 8.5	262.2 8.4	259.9 8.4
Electrical Energy (WTF) Consumption (Megawatt-hours) MWH / million gallons produced	532.2 1.79	536.5 1.71	473.5 1.77	473.6 1.81	454.1 1.80	481.1 1.85
Lake Turbidity (NTU), average	21.9	17.88	17.3	13.9	30.87	5.63
Water System Microbial Quality Total Coliform Samples Compliance with Standard	81 100%	81 100%	81 100%	82 100%	82 100%	81 100%
Finished Water Quality Water Temperature (Degrees F) Turbidity (NTU), average %<0.15 NTU standard pH (SU), average Total Chlorine (mg/L) Fluoride (mg/L) Orthophosphate (mg/L)	79.6 0.02 100 8.8 1.91 0.72 0.79	76.1 0.02 100 8.8 1.92 0.74 0.77	65.5 0.02 100 8.7 1.91 0.73 0.68	51.7 0.02 100 8.8 2.01 0.75 0.82	41.2 0.02 100 8.7 2.01 0.69 0.60	34.6 0.02 100 8.8 1.99 0.73 0.63

Laboratory

- In support of plant operations, staff conducted analyses according to method protocols for pH, turbidity, alkalinity, hardness, free/total chlorine, ammonia, phosphorus, potassium permanganate, and fluoride.
- In support of distribution operations, staff performed required 81+ monthly Coliform bacteria analyses along with heterotrophic plate count (HPC) testing.
- Staff collected and processed raw and finished water samples to comply with Disinfection By-Products Rule (DBPR) sampling requirements. Provided support to consecutive customers with shipping of DBPR2 samples.
- Re-coated the floor of laboratory areas deploying temporary sampling sinks and analytical work areas to complete the work without interruption of normal compliance and process performance monitoring activities.

Safety

- Maintained WTF Safety programs by completing scheduled safety inspections, fire prevention inspections, and monthly meetings. No significant incidents to report.
- Maintained appropriate COVID-19 countermeasures as directed by city policy.

Operations

- Operated two UV Disinfection reactors continuously during the quarter.
- Completed maintenance and required upgrades project for the Ridgeway Tower including 5-year regulatory inspection.
- Completed 5-year regulatory inspection of the North Tower.
- Continued construction phase for the Lake Station mechanical/electrical rehabilitation. Major work completed includes replacement of the intake sluice gate, shore well cleaning, construction of the process water well, and construction of the new chamber and piping for the second travelling screen.
- Completed the conditioning phase and began the testing phase for Optimized Corrosion Control Treatment (OCCT) pipe loop testing apparatus. Began feeding blended phosphate to the finished water discharge headers rather than the Gravity Filter influent.
- Paused for the winter months gradual Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Completed annual hoist inspections.

Staffing & Training

- Maintained staff schedules and work areas to limit group sizes and face-to-face contact among employees.
- Completed annual performance evaluations for all staff.

WATER MAIN BREAK/ JOINT LEAK REPORT - NOVEMBER 2020

YEARLY WATER MAIN BREAK COMPARISON

<u>MONTH 19</u>	<u>MONTH 20</u>	<u>YTD 19</u>	<u>YTD 20</u>
15	7	85	78

							ESTIMATED	DOLLAR VALUE OF WATER	
LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	WATER LOSS IN GALLONS	REVENUE LOSS**	
507 S. Fidelis St.	278549	CIP	8"	1970-1979	1/16" Crack	12 Hours	171,046	\$1,039.96	
NOTES: Resident called in, sump pump running.									
1120 N. Divison St.	278593	DIP	12"	1970	3" Hole	4 Hours	434,227	\$2,640.10	
NOTES: Break was found as water	was on the	e road.							
2415 S. Madison St.	278715	CIP	6"	1956	1/16" Crack	4 Hours	45,584	\$277.15	
NOTES: Called in for water bubbling up. Call came in quickly after it started.									
1624 E. Moon Beam Tr.	278771	DIP	8"	1984	6" Hole	2.5 Hours	809,834	\$4,923.79	
NOTES: Water bubbling up was called in by resident.									

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**	
	07004						405.000	* ****	
Northland Ave. & Roemer Rd.	27821		12"	2020	Joint Leak	1.5 Hours	135,000	\$820.80	
NOTES: Reported by the County.									
1818 E. Glendale Ave.	278847	CIP	8"	1952	8" Hole	4 Hours	2,029,810	\$12,341.24	
NOTES: PD reported as water was running down the road.									
2525 N. Brookdale Ct.	278870	CIP	8"	1961	1/8" CracK	10 Hours	278,525	\$1,693.43	
NOTES: Called in for water in road. Duration is based on the time of call and soil saturation.									

WATER MAIN BREAK/ JOINT LEAK REPORT - DECEMBER

YEARLY WATER MAIN BREAK COMPARISON

<u>MONTH 19</u>	MONTH 20	<u>YTD 19</u>	<u>YTD 20</u>
15	27	100	105

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
2011 N. Nicholas St.	279050	CIP	8"	1963	3/16" Crack	8 Hours	334,227	\$2,032.10
NOTES: Break was found as wate	r was in th	e road and th	e duration is I	based on so	il satuartion.			
1819 E. Witzle Blvd.	279055 k during rc	CIP outine work. D	8" uration was b	1971 based from t	1/128" Crack 8" Split he last time hydran	36 Days t was tested.	590,976	\$3,593.13
1117 N. Briarcliff Dr. NOTES: Resident called in water b	279099 pubbling in	CIP road. Duratic	8" on is based or	1964 n soil saturat	1/16" Crack	12 Hours	182,236	\$1,107.99
1617 W. Pine St. NOTES: Water in the road was ca	279118 lled in. Dur	CIP ation is based	6" d on soil satu	1953 ration and ti	3" Hole me of call.	5 Hours	407,716	\$2,478.91

	WORK	TYPE OF				ESTIMATED	ESTIMATED WATER LOSS	DOLLAR VALUE OF WATER REVENUE	
LOCATION	ORDER	PIPE	SIZE	YEAR	BREAK	DURATION	IN GALLONS	LOSS**	
931 E. Florida Ave.	279117	CIP	8"	1969	1/32" Crack	4 Hours	33,290	\$202.40	
NOTES: Police Dept. called in wat	er bubbling	g out of terrac	e. Duration b	ased on tim	e of call.				
	070445		0.1	1001			1 007 050	* 0.404.00	
1233 E. Pauline St.	279145	CIP	8"	1964	4" Hole	6 Hours	1,067,658	\$6,491.36	
NOTES: Break reported by Applete	on Police [Dept. Duratior	n is based on	soil saturati	on.				
E. Harrison St. & S. East St.	279150	CIP	6"	1946	1/16" Crack	4 Hours	40,772	\$247.89	
NOTES: Water bubbling into the ro	oad was ca	lled in by res	ident.						
812 E. Glendale Ave.	279153	CIP	8"	1952	3" Hole	5 Hours	407,716	\$2,478.91	
NOTES: Break reported by Applete	on Police [Dept. Duratior	n is based on	soil saturati	on.				
812 E. Glendale Ave.	279153	CIP	8"	1952	2" Hole	5 Hours	181,207	\$1,101.74	
NOTES: Break reported by Appleto	on Police [r was back	Dept. Duratior	is based on	soil saturati	on. Believe break h	appened same	time as first one	was repaired	
S. Pierce Ave 700 Block	279156	CIP	6"	1927	1" Crack	5 Hours	773,586	\$4,703.40	
NOTES: Break was reported by Appleton Police Dept. for water bubbling in the road. Duration is based on soil saturation.									

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**			
S. Pierce Ave 700 Block	279156	CIP	6"	1927	1/16" Crack	2 Hours	19,340	\$117.59			
NOTES: Broke after turning the wa	NOTES: Broke after turning the water back on from the previous break.										
								• • • • • •			
701 E. Taft Ave.	279201	CIP	8"	1963	1/16" Crack	5 Hours	69,631	\$423.36			
NOTES: Break was found as wate	r was in the	e road and th	e duration is I	based on so	il satuartion.						
910 E. Florida Ave.	279376	CIP	8"	1969	1/16"	4 Hours	60,779	\$369.54			
NOTES: Water bubbling into the ro	bad was ca	lled in by res	dent.				, , , , , , , , , , , , , , , , , , ,				
907 E. Pacific St.	279450	CIP	8"	Pre 1930	45" x 1/4" Split	8 Hours	921,590	\$5,603.27			
NOTES: Break was reported by Ap	opleton Pol	lice Dept. for	water bubblin	g in the road	d. Duration is based	d on soil saturat	ion.				
119 Northbreeze Dr.	279451	DIP	8"	1978	6" Hole	5 Hours	1,859,469	\$11,305.57			
NOTES: Water bubbing into road v	NOTES: Water bubbing into road was called in by resident. Duration based on soil saturation.										
1610 S. Lee St.	279449	CIP	8"	1970	1/16" Crack	10 Hours	151,947	\$923.84			
Break was reported by Appleton Police Dept. for water in the road. APD originally called and thought it might be snow melting, called again later to report it. Duration is based on soil saturation.											

	WORK	TYPE OF				ESTIMATED	ESTIMATED WATER LOSS	DOLLAR VALUE OF WATER REVENUE		
LOCATION	ORDER	PIPE	SIZE	YEAR	BREAK	DURATION	IN GALLONS	LOSS**		
Atlanic St. & Rankin St.	279597	CIP	6"	1922	1/32" Crack	76 Days	9,749,636	\$59,277.79		
NOTES: Found break with Correla was running into storm se	tor. Duratio wer, neve	on established r surfaced.	d from when t	he hydrant v	was last tested and	based on the s	uper saturated tre	nch. Water		
1019 E. Meadow Grove Blvd.	279534 opleton Po	DIP lice Dept. for	12" water bubblin	1979 g in the road	4" Hole	4 Hours	579,862	\$3,525.56		
802 E. Parkway Blvd.	279632	CIP	8"	1967	3/16" Crack	3 Hours	122,315	\$743.68		
NOTES: Water in the road was ca	lled in. Dur	ation is based	d on soil satu	ration and ti	me of call.					
Taft Ave. & Madison St.	279630	CIP	6"	1956	4" Hole	4 Hours	565,180	\$3,436.29		
NOTES: Police Dept. called in brea	ak.									
2901 S. Carpenter St.	279677	DIP	8"	1971	3"x1" Split	4 Hours	136,394	\$829.28		
NOTES: Water in the road was called in. Duration is based on soil saturation and time of call.										
E. Henry St. & S. Theodore St.	279723	DIP	8"	1972	2" Hole	4 Hours	168,435	\$1,024.08		
VOTES: Called in by a Sanitation Operator. Duration is based on time of call.										

								DOLLAR VALUE OF	
							ESTIMATED	WATER	
	WORK	TYPE OF				ESTIMATED	WATER LOSS	REVENUE	
LOCATION	ORDER	PIPE	SIZE	YEAR	BREAK	DURATION	IN GALLONS	LOSS**	
Memorial Dr. & Seymour St.	279728	CIP	8"	1928	1/32" Crack	72 Hours	573,707	\$3,488.14	
Called in on Friday 12/18/20 but could not locate leak. On 12/20/20 water was bubbling up on the road. Traffic camera shows it was running on and off since 12/17/20.									
509 S. Mathias St.	279850	CIP	8"	1963	1/16" Crack	4 Hours	57,660	\$350.57	
NOTES: Break called in by the Police Dept. Duration is based on time of call.									
1524 E. Roeland Ave.	279918	CIP	8"	1964	1/32" Crack	35 Days	6,267,980	\$38,109.32	
NOTES: Found break with Correla	tor. Duratio	on established	d from when t	he hydrant	was last inspected a	and based on th	ne soil saturation.		
2515 S. Madison St.	279952	DIP	6"	1972	4 1/2" Hole	6 Hours	1,230,767	\$7,483.06	
NOTES: Resident called it in. Duration is baded on time of call.									
1310 S. Madison St.	279953	CIP	6"	1929	1/32" Crack	4 Hours	20,386	\$123.95	
NOTES:									
Resident called in water bubbling in road. Duration is based on soil saturation and time of call.									

In addition to the dollar value of water revenue lost, there is an average cost of \$9,000 to repair each water main break (including final restoration) and an average cost of \$630 to produce the lost water for each main break.