

VILLAGE OF LIBERTYVILLE
BOARD OF TRUSTEES
WATER & SEWER COMMITTEE

Tuesday, February 9, 2016
7:00 pm
Village Hall

Agenda

1. Call to Order
2. Minutes of January 12, 2016 Meeting
3. Water & Sewer Capital Improvement Projects Updates
4. Water & Sewer Rate Study
5. Update on FOG Program
6. Other
7. Adjournment

VILLAGE OF LIBERTYVILLE
BOARD OF TRUSTEES
WATER & SEWER COMMITTEE

Tuesday, January 12, 2016
7:00 pm
Village Hall

Agenda

Attendance

Committee: Trustee Scott Adams, Trustee Donna Johnson
Village Board: Mayor Terry Weppler, Trustee Pete Garrity
Staff: Village Administrator Kevin Bowens, Finance Director Pat Wesolowski, Public Works Director Paul Kendzior, Deputy Village Administrator Kelly Amidei, Police Chief Clint Herdegen, Assistant to DPW Laura Ditanto
Others: Eric Callocchia – Municipal and Financial Services Group
Ed Donahue - Municipal and Financial Services Group
Absent: Trustee Rich Moras

Minutes

1. CALL TO ORDER AT 7:03 PM
2. MINUTES OF DECEMBER 8, 2015 MEETING

The minutes were approved as written.

3. WATER & SEWER CAPITAL IMPROVEMENT PROJECT UPDATE

(a) Peterson Road Interconnect:

Startup is scheduled for January 5, 2016. This interconnect is used as an emergency measure.

(b) W. Park Avenue Easement:

Two letters are being sent to the resident by the Village Attorney advising him that on January 26th, the Village Board will be adopting an ordinance authorizing the filing of an eminent domain suit. After the ordinance is adopted, the Village will be able to commence that process. Late last week the Village received a notice from the Appellate Court, dismissing the resident's appeal (regarding the fines) for failure to comply with appellate court rules. Although it is possible that he will seek to reinstate the appeal, we do not anticipate that he will do so at this time.

(c) Grease Trap Program:

Grease trap inspections are up to date and no violations thus far. Moving forward, Public Works and Community Development Staff will work together to develop a Fats, Oils & Grease (FOG) List for all applicable establishments in the Village. Public Works Utility crews will then inspect all public sewers immediately downstream of the establishments on the FOG List. If grease is observed in the line, inspections will be made by the Community Development Department for those establishment's grease traps that may be contributing to the grease build-up. Depending upon compliance follow-up inspections and enforcement procedures will be undertaken.

Over the next year, Staff plans to inspect all commercial food-preparation locations in

the Village that are required to have a grease trap. Depending on the inspection results, staff may either inspect a location more frequently or less frequently.

(d) WWTP Pretreatment Survey:

- Staff received survey responses all the letters that were sent out except from the County for Winchester House. As of December 23, 2015, The County told Village Staff that they would be sending the pretreatment survey to the Village.
- Staff has received a Proposal from Baxter & Woodman for further assistance with Pretreatment Activities for our identified significant industrial users. This is a requirement of our new IEPA NPDES Permit (Special Condition 11) for the WWTP.

(e) Underground Utilities Improvements – 2016 Program:

- The tentative date for advertising for competitive contractor bids is January 13th.
- The Bid Opening will be February 12th.
- Construction is anticipated to start once the weather breaks, likely late March and be completed by the end of June.

4. WATER & SEWER RATE STUDY UPDATE

Eric Callocchia and Ed Donahue with Municipal and Financial Services Group (MFSG) introduced themselves and presented a PowerPoint presentation to the Committee. The rate model presented allows the Village to plan water and sewer expenditures for capital, operations, maintenance, reserves, etc. This will also supply the Village with a finance plan for water.

MFSG noted that the largest water purchase made the Village is to CLCJAWA for the purchase of water. In 2021, CLCJAWA costs will decrease because their bond will mature that they were paying for the installation of the system.

The driver of the rate increase(s) are the following:

- Increasing operating costs (3.7% per year)
- Major capital improvements planned over the next five to ten years
- Maintaining 25% of Utility Fund operating expenses in a cash reserve

MFSG spoke about alternative rate models such as declining block rates and inclining block rates. Declining block rate structure is when the per-unit price of energy decreases as the energy consumption increases. Inclining block rate structure is when the per-unit price of energy increases as the energy consumption increases.

Staff would also like to look at the Senior Discount and the Summer Sewer Rate. A final rate recommendation will be made at the February Water & Sewer Committee meeting.

5. WASTEWATER PLANT SCREW PUMP WIRING REPAIRS

The electrical wiring that supplies power from the lower level control panel to the upper level motors for the screw pumps at the Wastewater Treatment Plant is corroded, which is causing arcing and shorting out wiring circuits. Years of air saturated with moisture and hydrogen sulfides have corroded the electrical duct and subsequently has caused damage to the wiring that controls the operation of the screw pumps. Moisture is also entering the lower level control cabinet, which is increasing the risk of pump failure and safety concerns. The screw pumps are the most critical component of the waste water treatment process at the plant and also ensure against sanitary sewer system backups.

Three proposals were obtained to address the electrical service wire issues for the screw pumps. The work involves replacing the corroded exterior duct with sealed conduits and replacing the wiring between the control panel and pump motors. Pieper Electric, Inc. provided the lowest cost proposal at \$22,980.00. The next two proposals were \$10,000 and \$20,000 more than Pieper Electric. Staff has placed this item on the 1/12/16 Village Board agenda requesting a waiver of bids to complete this work and accept the proposal from Pieper Electric, Inc.

6. MEETING ADJOURNED AT 7:47 PM

Respectfully Submitted:
Laura Ditanto,
Assistant to the Director

Memorandum

To: Water & Sewer Committee

From: Public Works Staff

Date: February 9, 2016

Re: Staff Report

Item 3: Water and Sewer Capital Improvement Projects Updates

- a) 911 & 915 W. Park Avenue Watermain Easements:
The Board at the January 26th meeting authorized Staff and the Village Attorney to move forward with eminent domain proceedings in order to obtain the necessary watermain easements.
- b) 2016 Underground Utility Improvements Program:
Watermain replacement work is proposed on Johnson Avenue, Merrill Court, Wheeler Court, West Ellis Avenue, East Ellis Avenue, Lange Court and Fourth Avenue at Paddock Lane. Sanitary sewer replacement work is also proposed on Lange Court. The project Pre-Bid was held on February 1st. The Bid Opening is scheduled for February 12th.

Item 4: Water & Sewer Rate Study

Eric Callocchia from Municipal & Financial Services Group will be in attendance to discuss with the Committee:

- a) Review study findings since the January 2016 Water & Sewer Committee meeting.
- b) Rate structure impacts for tiered structure, inclining block, declining block and the current rate structure.
- c) Review customer projections and cost projections based on capital needs.
- d) Provide a recommendation to the Committee and Village staff for rate structure.

Item 5: Fats, Oils & Grease (FOG) Program Update

Now that the grease trap violations have all been resolved for the restaurants and other food preparation establishments in the Village, Public Works and Community Development Staff have been working together to update the master list and beginning to schedule inspections with our Plumbing Inspector for all the applicable establishments (a total of 173). The goal is to complete all initial inspections over a period of one year. Depending upon the amount of grease produced and the size of the grease trap, inspections may continue on a yearly basis or an interval of every other year.

Public Works Utility crews will continue to inspect all public sanitary sewers immediately downstream of the establishments on the list on a monthly basis. If grease build-up is observed in the line, follow-up inspections will be made by the Plumbing Inspector for those establishment's grease traps that may be contributing to the grease problem. Depending upon compliance, follow-up inspections and enforcement procedures will be undertaken.

Staff will also be revising and updating Section 25 of the Municipal Code (Water, Sewers and Sewage Disposal) to add language for the inspection and enforcement procedures as outlined on the attached Standard FOG Protocols.

The attached FOG Program introductory letter was mailed to all new establishments since the initial letter was mailed in 2014. The Village also has information on the FOG Program and Ordinance on our website (see attached).

FOG: 01/11/2016

Standard FOG Protocols

Summary

VOL Staff reviews the FOG Establishment List, performs related monthly observation of public sewers/exterior grease traps and annual inspections of private grease traps. Observations finding FOG accumulations require special inspections, inspections finding violations require enforcement, and enforcement requires timely corrections for code compliance.

FOG Establishment List

1. PW identifies and maintains a list of all establishments in the village that prepare food with fats, oils, or grease (FOG), each prioritized by the concern it causes for contaminating the public sewer system. The list shall indicate if the grease trap at each location is interior or exterior.
2. BD notifies PW of any new FOG Establishments that need to be added to the list.
3. PW Director mails a FOG *Introduction Letter* to each FOG Establishment about the Village FOG Program.

Observation (Monthly)

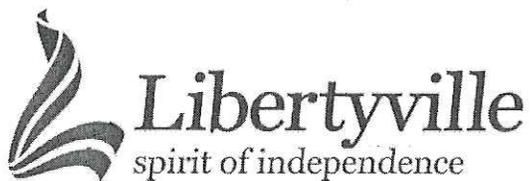
1. PW performs routine monthly maintenance & observation of public sanitary sewers and/or direct observation of exterior grease traps to identify any location(s) with FOG accumulation.
2. PW identifies any establishments that are of immediate concern or are tributary to any sewers found with evidence of FOG accumulation.
3. PW records findings with PW Admin Assistant who logs reports into BS&A.
4. Reported areas of immediate concern are given to the PW Supt. to request immediate PW investigation, PW clean-up, and/or BD *Special Inspection* of related private grease trap systems.

Inspection (Annual & Special)

1. PW schedules annual & special inspections for PW Staff & BD Plbg Inspector at each FOG establishment.
 - a. Each inspection shall be scheduled for the same time that the owner(s) and/or their grease trap maintenance company pumps out the trap for service.
 - b. The inspection shall be scheduled as a Plumbing Inspection in the monthly BS&A FOG Project.
2. BD&PW shall complete the inspection of each FOG establishment & its grease trap as scheduled.
 - a. If no violations are found, then the establishment is advised, the Plbg Inspector records approval in BS&A, and the Plbg Inspector "finals-out" that monthly BS&A FOG Project as applicable.
 - b. If a code violation is found, then the Plumbing Inspector shall immediately initiate Enforcement.

Enforcement

1. If a code violation is found, the BD Plbg Inspector shall issue an inspection report as follows:
 - a. Request immediate action to correct listed violation(s) that immediately threaten public health.
 - b. List other violations & code sections with requests for corrections through the permit process.
 - c. Request a compliance schedule signed by the owner to be provided within one week. Include anticipated dates for permit app., permit issuance, work start, and work completion all within 90 days after the initial inspection. Schedule can be on the insp. report form.
 - d. Request copies of all grease trap service records from the past year.
 - e. Attach a copy of the standard FOG Violation Letter and reference this in the inspection report.
2. If schedule is not received within a week after the inspection, the PW Director mails the *FOG Violation Letter* requesting same to be filed in 2 weeks and requesting that it include anticipated dates for permit app., permit issuance, work start, and work completion all within 90 days after the initial inspection.
3. If non-responsive to the *FOG Violation Letter*, then Bldg Commissioner issues a *Code Violation Notice* mailed certified/return receipt req. and listing applicable violation(s) and required compliance schedule.
4. Bi-weekly follow-ups are conducted as needed by BD/Plbg Inspector related to required compliance.
5. If compliance is not met, decision to shut down the establishment is discussed with Village Administrator.
6. Action on decision is taken.



January 22, 2016

Subject: FOG Program

Dear Restaurant/Food Prep Owner:

The Village has been working on a program to raise awareness and gain compliance with how businesses in the Village manage fats, oils, and greases (FOG). On February 11, 2014, the Village Board passed Ordinance No. 14-O-13 regulating the disposal of fats, oils and greases, and to promote their proper management and disposal. The Illinois Environmental Protection Agency (IEPA) required the Village to enact the Ordinance to provide regulations to ensure compliance and proper installation and maintenance of grease traps.

This new ordinance affects all establishments involved in the preparation of food for commercial purposes. It requires restaurants and food prep businesses to provide grease traps for proper containment and disposal of fats, oils and greases. Prior to the passage of this Ordinance, the Village had an issue with the buildup of grease from several restaurants which caused blockages in the public sanitary sewer, which resulted in a significant back up of the system.

The Village has commenced a pro-active program to inspect food processing facilities for compliance with the Plumbing Code with regards to proper grease trap installation and maintenance. The Village may provide a period of compliance for businesses, depending upon the circumstances.

Enclosed is a FOG brochure that may assist in understanding the issue and what can be done to reduce/eliminate the source of grease build up and subsequent sewer backups by using good housekeeping and maintaining the grease traps that are required by the Plumbing Code. If there are any questions, concerns or additional information needed regarding the Village's FOG Program, please refer to the following page on the Village's website visit at <http://www.libertyville.com/index.aspx?nid=641>. You can also contact this writer at 847/918-2016 or pkendzior@libertyville.com.

Sincerely,

Paul Kendzior, P.E., C.F.M.
Director of Public Works

Cc: WWTP Superintendent
S&U Superintendent
Director of Community Development
Building Commissioner
Plumbing Inspector

Public Works Department

Administration and Engineering Division (847) 918-2100 (847) 918-9439 fax
Streets and Utilities Division (847) 362-3434 (847) 918-2122 fax
Fleet Services Division (847) 362-3434 (847) 918-2122 fax
Waste Water Treatment Plant (847) 918-2007 (847) 362-4256 fax
200 East Cook Avenue Libertyville, Illinois 60048
www.libertyville.com



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- Fee Summary
- Fats, Oils & Grease Ordinance

Fats, Oils & Grease (F.O.G.) Ordinance

The Illinois Environmental Protection Agency (IEPA) oversees and enforces regulations when a sanitary sewer overflow occurs. Fats, Oils and Grease are a major contributor of sanitary sewer overflows when they build up in the sanitary sewer. A sanitary sewer overflow is defined as the discharge of untreated sewage from the sanitary sewer collection system to a surface water and/or ground.

On February 11, 2014, the Village Board passed an ordinance regulating the disposal of fats & greases; and to promote proper disposal of fats & greases and aid in preventing sanitary sewer blockages.

Fully Executed Ordinance

VILLAGE OF LIBERTYVILLE
ORDINANCE NO. 14-O-13

AN ORDINANCE AMENDING CHAPTER 25 OF THE LIBERTYVILLE MUNICIPAL CODE REGULATING WATER, SEWERS AND SEWAGE DISPOSAL

WHEREAS, Chapter 25 of the Libertyville Municipal Code contains sections establishing regulations for disposal of fats and greases;

WHEREAS, in order to promote proper disposal of fats & greases and aid in preventing sanitary sewer blockages, it is necessary for the Village of Libertyville to adopt an Ordinance amending Chapter 25;

NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LIBERTYVILLE, COUNTY OF LAKE, STATE OF ILLINOIS, AS FOLLOWS:

Section One: Recitals. The foregoing recitals are hereby incorporated herein as if fully set forth:

Section Two: Amendments to Chapter 25, Section 25-105 Interceptors. Section 25-105 of the Libertyville Municipal Code shall be and is hereby amended with the following changes. The current municipal code language of: "Grease, oil, and sand interceptors shall be provided in accordance with the Illinois Plumbing Code or other sections of this Code, or, when, in the opinion of the director, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the director or the building commissioner, and shall be located as to be readily and easily accessible for cleaning and inspection" shall be deleted and replaced with the language below:

Section 25-105 Grease, Oil and Sand Traps. All establishments involved in the preparation of food for commercial purposes shall provide grease interceptors or traps.

1. Grease, oil and sand interceptors or traps shall be provided at the cost of the owner when required by the Village for the proper handling of liquid wastes containing grease in excessive amounts, sand and other harmful ingredients, except that such interceptors or traps will not be required for residential dwelling units.
2. All interceptors or traps shall be of a type and capacity approved by the Building Commissioner and the Illinois Department of Public Health; all such devices shall be located so as to be readily and easily accessible for cleaning and inspection. They shall be constructed of impervious materials capable of withstanding abrupt and extreme conditions in temperatures and shall be of substantial construction, gas tight, watertight and equipped with easily removable covers.
3. All grease, oil and sand interceptors or traps shall be serviced and emptied at the cost of the owner on a continuous basis to maintain their minimum design capacity and the continuous efficient operation at all times. No waste removed from the interceptors or traps shall be reintroduced into the sanitary sewer or back into the interceptor or trap, which will cause the interceptors or traps discharge to exceed sewer use ordinance limits. The owner shall be responsible for the legally appropriate sanitary disposal of such waste.
4. The owner shall maintain written records of interceptor or trap maintenance and emptying interceptors and traps for the prior three years, or less, if the device is less than three years old. Said records shall be made available upon request by the Building Commissioner or his designee.
5. Approval of proposed facilities or equipment by the Village Building Division, does not, in any way, guarantee that these facilities or equipment will function in the manner described by their constructor

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or manufacturer, nor shall it relieve any person, firm or corporation of the responsibility of enlarging or otherwise modifying such facilities to accomplish the intended purpose.

Section Three. That is any section, paragraph, clause, phrase or part of this Ordinance is for any reason held invalid, such decision shall not affect the validity of the remaining provisions of the Ordinance, and the application of these provisions to any persons or circumstances shall not be affected thereby.

Section Four. That all Ordinances or parts of Ordinances in conflict with the provisions of this Ordinance are hereby repealed insofar as the conflict herewith.

Section Five. This Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as required by law.

DO's

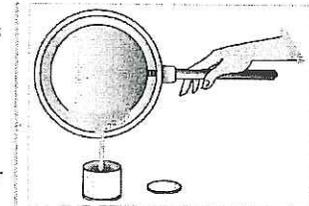
DO pour fats, oils or grease into a can until they cool. Coffee or soup cans work well. They can be stored for reuse until full when it can be thrown in the trash.

DO wipe pans or dishes that contain fats, oil or grease with a paper towel before washing and throw the used paper towel in the trash.

DO place a strainer in the kitchen sink drain to catch food scraps and other solids and regularly empty the strainer in the trash.

DO encourage neighbors to help keep fats, oils and grease out of the sewer system.

DO maintain an approved grease trap where food is processed.



DON'Ts



DON'T pour cooking oil, pan drippings, bacon grease, salad dressings or sauces in the sink or toilet.

DON'T run water over dishes, pans, fryers or griddles to wash oil and grease down the drain.

DON'T use cloth or rags to scrape plates or oily dishware. When you wash them, the grease will end up in the sewer.

DON'T use a garbage disposal or food grinder on fatty or greasy food. Grinding food before rinsing it down the drain does not remove the fats, oils or grease, it just makes the pieces smaller. Even non-greasy food scraps (salads, etc) can plug sewer lines.

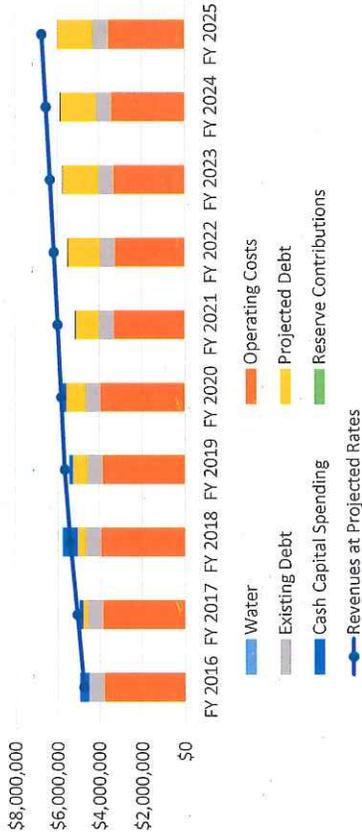
DON'T use chemicals to remove grease clogs; they can damage the piping system



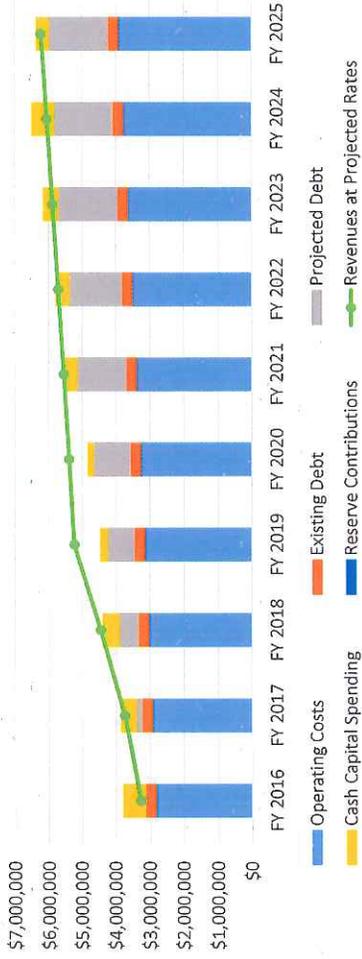
Water Sewer Rate Study

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Beginning Bond Proceeds Available	\$2,090,560	\$2,076,560	\$1,361,560	\$3,021,560	\$1,885,560	\$1,695,560	\$4,490,560	\$6,215,560	\$4,440,560	\$2,640,560
New Debt Issued	\$ 4,200,000	\$ 6,000,000	\$ -6,000,000	\$ 6,000,000	\$ 6,000,000	\$ 6,000,000	\$ 4,000,000	\$ -	\$ -	\$ -
Bond Proceeds Spent on Capital	(\$4,214,000)	(\$6,715,000)	(\$4,340,000)	(\$7,136,000)	(\$6,190,000)	(\$3,205,000)	(\$2,275,000)	(\$1,775,000)	(\$1,800,000)	(\$1,800,000)
EOY Bond Funds Available	\$2,076,560	\$1,361,560	\$3,021,560	\$1,885,560	\$1,695,560	\$4,490,560	\$6,215,560	\$4,440,560	\$2,640,560	\$840,560
Beginning Capital Reserve Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Funds Used for Water Projects	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Funds Used for Sewer Projects	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Reserve Contributions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
EOY Reserve Funds Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Planned CIP Spending	\$ 3,629,600	\$ 2,192,600	\$ 3,188,600	\$ 3,379,600	\$ 2,178,600	\$ 2,575,000	\$ 1,025,000	\$ 1,025,000	\$ 1,025,000	\$ 1,025,000
Bond Proceeds Used for Water Projects	\$ 3,204,000	\$ 2,014,000	\$ 2,460,000	\$ 3,201,000	\$ 2,000,000	\$ 2,550,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Resulting Water CIP Cash Funding	\$ 425,600	\$ 178,600	\$ 728,600	\$ 178,600	\$ 178,600	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Sewer Planned CIP Spending	\$ 1,683,400	\$ 5,171,000	\$ 2,403,000	\$ 4,177,000	\$ 4,385,000	\$ 1,040,000	\$ 1,710,000	\$ 1,260,000	\$ 1,485,000	\$ 1,210,000
Bond Proceeds Used for Sewer Projects	\$ 1,010,000	\$ 4,701,000	\$ 1,880,000	\$ 3,935,000	\$ 4,190,000	\$ 655,000	\$ 1,275,000	\$ 775,000	\$ 800,000	\$ 800,000
Resulting Sewer CIP Cash Funding	\$ 673,400	\$ 470,000	\$ 523,000	\$ 242,000	\$ 195,000	\$ 385,000	\$ 435,000	\$ 485,000	\$ 685,000	\$ 410,000
Water Calculated Rate Increase Needed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Water Rate Increase Plan	0.0%	5.0%	5.0%	5.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Water Operating Surplus / (Shortfall)	(\$187,496)	\$96,142	(\$363,267)	\$217,558	\$62,151	\$849,554	\$651,564	\$597,010	\$686,703	\$731,989
Sewer Calculated Rate Increase Needed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sewer Rate Increase Plan	0.0%	20.0%	20.0%	20.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Sewer Operating Surplus / (Shortfall)	(\$534,245)	(\$129,184)	\$42,263	\$762,868	\$551,738	\$34,558	(\$87,460)	(\$302,231)	(\$465,688)	(\$154,009)
Total EOY Reserve Cash Balance	\$2,910,298	\$2,876,501	\$2,554,681	\$3,534,845	\$4,147,865	\$5,031,239	\$5,594,786	\$5,889,026	\$6,109,271	\$6,686,939
Target Reserve Balance	\$1,626,600	\$1,666,900	\$1,714,700	\$1,723,000	\$1,772,200	\$1,645,100	\$1,662,700	\$1,713,700	\$1,770,600	\$1,841,500
Cover?	YES									
Water Debt as a % of Revenue	15%	19%	20%	25%	28%	30%	36%	38%	37%	36%
Sewer Debt as a % of Revenue	10%	13%	19%	21%	26%	32%	33%	35%	34%	33%
Total Debt as a % of Revenue	13%	16%	20%	23%	27%	31%	35%	37%	36%	35%

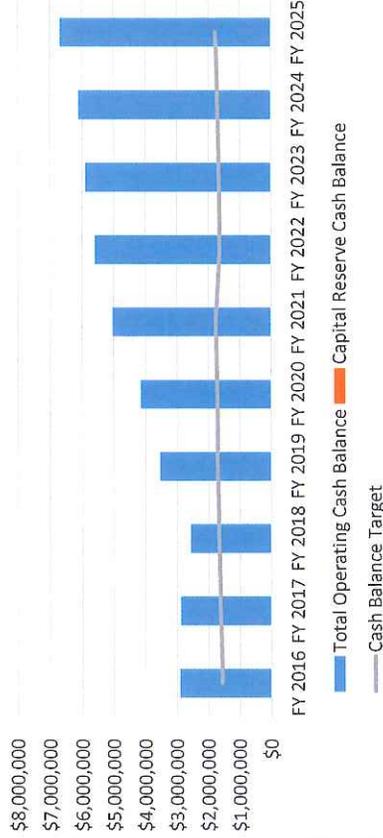
Water Projected Operating Results



Sewer Projected Operating Results



Reserve Cash Balances



Unspent Bond Proceeds

