

Ed Lynch

TOWN OF LEDYARD CONNECTICUT

741 Colonel Ledyard Highway Ledyard, Connecticut 06339

Water Pollution Control Authority ~ AGENDA ~

Regular Meeting

Tuesday, April 23, 2024

6:30 PM

Council Chambers - Hybrid

REMOTE MEETING INFORMATION

Zoom Meeting Link:

https://us06web.zoom.us/j/81267119643?pwd=zYYr7xwLkfgN7pdauQDFoAHG1VioTU.1

Meeting ID: 812 6711 9643

Passcode: 810557 One tap mobile

16465588656,,81267119643#,,,,*810557# US (New York)

Dial by your location:

+1 646 558 8656 US (New York)

- I. CALL TO ORDER
- II. ROLL CALL
- III. APPOINTMENT OF ALTERNATES
- IV. PLEDGE OF ALLEGIANCE
- V. RESIDENTS AND PROPERTY OWNERS
- VI. APPROVAL OF MINUTES
 - 1. Motion to APPROVE Regular Meeting Minutes from March 26, 2024, as written.

Attachments: WPCA minutes 3-26-24

VII. COMMUNICATIONS AND CORRESPONDENCE

1. Operations Report.

Attachments: 3 - Ledyard Water Systems Monthly Report - March 2024

- 2. Service Correspondence.
- 3. Aged Reports/Finance.

Attachments: WPCA AGED A-R SUMMARY TREND OCTOBER 2023- MARCH 2024

4. Year to Date Water/Sewer Report.

<u>Attachments: Water YTD</u>

Sewer YTD

5. PSR - Steve Banks.

Attachments: April 2024 PSR

6. DEEP Water/Sewer Grant Requests for Proposal.

VIII. OLD BUSINESS

- 1. Motion to RECOMMEND to the Town Council approval of a five percent water rate increase effective July 1, 2024, as recommended and contained in the water and sewer rate table attached to the WPCA legal notice dated April 11, 2024, in accordance with Ordinance #400-001 "An Ordinance Establishing a Water Pollution Control Authority".
- 2. Review of Trail/Sewer line bids continued.

Attachments: Budget Discussion - EBL

L0079

L0083

L0084

L0085

Ledyard Multi-Use Trail 4-23-24

3. Review Lead Survey Study.

Presentation.

4. Final Water Rate Report Review.

Attachments: Ledyard WCOS Report V1.6

5. Review of Groton Utilities Data on New Rate Structure Proposal.

Attachments: 2020 - 2024 WATER USAGE - 03 28 2024

2023 Water Rate Schedule

6. Any Other Old Business to come before the Authority.

IX. NEW BUSINESS

1. Habitat for Humanity Proposal.

Attachments: 2024-04-11 CSP-3

Letter to WPCA 4-18-24

2. Any Other New Business to come before the Authority.

X. ADJOURNMENT

DISCLAIMER: Although we try to be timely and accurate these are not official records of the Town.



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0324 Agenda Date: 4/23/2024 Agenda #: 1.

MINUTES

Minutes:

Motion to APPROVE Regular Meeting Minutes from March 26, 2024, as written.



741 Colonel Ledyard Highway Ledyard, Connecticut 06339

Water Pollution Control Authority Meeting Minutes

Chairman Ed Lynch

Regular Meeting

Tuesday, March 26, 2024

6:30 PM

Council Chambers - Hybrid

I. CALL TO ORDER

The Regular meeting was called to order by Chairman Lynch at 6:30 p.m.

*Please note - this meeting was not recorded due to technical difficulties.

II. ROLL CALL

Present Board Member Monir Tewfik

Board Member Sharon Wadecki Board Member Stanley Juber Board Member Edmond Lynch Alternate Member James A. Ball

Excused Board Member Terry Jones

Non-voting Alternate Member Tony Capon

Alternate Member Jeremy Norris

Jeremy Norris was present via Zoom.

Also in attendance:

Mauricio Duarte, GU General Foreman Water Operations.

III. APPOINTMENT OF ALTERNATES

Jim Ball was appointed as a voting member for Terry Jones.

IV. PLEDGE OF ALLEGIANCE

V. RESIDENTS & PROPERTY OWNERS COMMENTS

Kevin Blacker, 11 Church Street, Noank, spoke about the Cashman application. Mr. Blacker agreed that a meter should be installed on Route 12. He supported the idea of a bond to protect the water lines.

Mike Cherry inquired about service areas in the Gales Ferry area.

VI. REVIEW AND APPROVAL OF MINUTES

1. Motion to APPROVE Regular Meeting Minutes from February 27, 2024, as written.

Editorial correction: Old Business #5 Roxanne's last name change from "Mayer" to "Maher".

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Juber Lynch Ball

EXCUSED 1 Jones

VII. COMMUNICATIONS AND CORRESPONDENCE

1. Operations Report.

Distribution system microbiological and physical analysis sampling and testing was completed in accordance with DPH requirements. All results were within normal limits. Q1 THM results for Ledyard Center and Gales Ferry were in a slightly lower than typical range for first quarter analyses, due to the continued blending of raw water sources to reduce the level of THMs leaving the WTP. Work continues on the five-year Cross Connection inspections. Gate valve inspections and repairs at Colonel Ledyard Road, Gallup Hill Road, and Route 117 are taking place in anticipation of the multi path trail /sewer line project.

RESULT: DISCUSSED

2. Service Correspondence.

Nothing to note.

3. Aged Reports/Finance.

There was nothing remarkable about the aged report. Month to month variations were normal.

4. Year to Date Water/Sewer Report.

There was nothing remarkable about either report.

5. PSR - Steve Banks.

Flows are steadily decreasing from wet weather in December and January. The flows for the last three months were historically higher than normal. The WPCA sent a letter out to customers regarding "illegal" sump pump connections into the sanitary sewer collection system. Hopefully the WPCA can remove these connections and reduce the volume of flow into the Highlands WWTF.

RESULT: DISCUSSED

VIII. OLD BUSINESS

1. Review of Trail/Sewer line bids continued.

After meeting with the Finance Committee on the water budget, Steve Masalin, Public Works Director and Steve Banks, WPCA Supervisor talked about the sewer line extension from the

High School to Pennywise Lane (5-inch PVS line). Mr. Masalin stated that he needed to repave Gallup Hill Road which then afforded the opportunity to place the sewer line on top of the existing 2 ½" line and thus save on both construction and design engineering costs. Chairman Lynch, Mr. Banks and Mr. Masalin met with Mathew Jermine, of Weston and Sampson who agreed that such an approach would save a considerable amount of cost, even when considering the repaving cost of the road. Mr. Jermine stated that he would re-submit the proposal for the new approach. The Commissioners wanted to also look at two additional options; the extension of the sewer line up Route 117 (to Route 214) and up Fairway drive. Chairman Lynch will communicate these two additional options for consideration to Weston and Sampson.

RESULT: DISCUSSED

2. Holmberg Tank Reservoir 2024 Inspection Report.

The WPCA can be reimbursed for the costs of inspecting, cleaning and repairing the tank.

RESULT: DISCUSSED

3. Any Other Old Business to come before the Authority.

The Commissioners are requesting from Groton Utilities the status of the final report for budgeting for water systems and to get complete data on individual usage and cost based on meter size for the next three or so years in order to do a study on a new rate structure based on meter size.

RESULT: DISCUSSED

IX. NEW BUSINESS

1. Motion to APPROVE setting a Public Hearing date of April 23, 2024, at 6:00 (prior to Regular Meeting) to receive comment, both oral and written, regarding a proposed 5% rate increase on Water starting on July 1, 2024.

Updated Motion:

Motion to APPROVE setting a Public Hearing for April 23, 2024, at 6:00 PM (prior to the Regular Meeting) to receive oral and written comments regarding a proposed five percent water rate increase effective July 1, 2024.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Juber Lynch Ball

EXCUSED 1 Jones

2. Motion to APPROVE payment of CorrTech invoice #16805 02, dated February 29, 2024, in the amount of \$3,386.00, for ROV Inspection Holmberg Orchard Concrete Reservoir with Report.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Juber Lynch Ball

EXCUSED 1 Jones

3. Motion to APPROVE a Purchase Order request for \$18,975.00, to Groton Utilities for Ledyard Multi-Use Pathway inspection, and installation of a tapping sleeve valve for 1 fire hydrant by Groton Utilities' Distribution crew (hydrant to be re-located by others).

Updated Motion:

Motion to REQUEST a bid waiver from Town Council for no more than \$25,000.00, to Groton Utilities for Ledyard Multi-Use Pathway inspection, and installation of a tapping sleeve valve for 1 fire hydrant by Groton Utilities' Distribution crew (hydrant to be re-located by others).

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Juber Lynch Ball

EXCUSED 1 Jones

4. Any Other New Business to come before the Authority.

Motion to APPROVE payment of Groton Utilities invoice #0023880 dated February 27, 2024 in the amount of \$82.08, for lead inventory.

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Juber Lynch Ball

EXCUSED 1 Jones

X. ADJOURNMENT

Motion to ADJOURN the Regular Meeting at 7:40 p.m.

A motion was made by Board Member Lynch, seconded by Board Member Wadecki, that this be Approved and so declared. The motion carried by the following vote:

RESULT: APPROVED AND SO DECLARED

MOVER: Edmond Lynch SECONDER: Sharon Wadecki

AYE 5 Tewfik Wadecki Juber Lynch Ball

EXCUSED 1 Jones

DISCLAIMER: Although we try to be timely and accurate these are not official records of the Town.



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1536 Agenda Date: 4/23/2024 Agenda #: 1.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Operations Report.

Background:

(type text here)

Department Comment/Recommendation:



Subject: Ledyard Water Systems

Monthly Report: March 2024

To: Ed Lynch, WPCA Chairman **Cc:** Mark Biron, GM Operations

Joseph Pratt, Manager Water & Wastewater

From: Mauricio Duarte

Date: April 20, 2024

Water Operations and Maintenance Monthly Report and Updates for March 2024.

Operations:

- Daily rounds of all systems
- Operation and maintenance
- Manage water storage tanks.

Laboratory:

- Distribution system samples collected and analyzed per CTDPH schedule (microbiological & physical analyses). All results met CTDPH standards.
- Submitted results of monthly microbiological & physical analyses to CTDPH via CMDP (Compliance Monitoring Data Portal) as required.
- Completed data entry and e-mailed all required monthly forms to CTDPH.
- Preparing for 2023 CCR for Ledyard Center & Gales Ferry.
- We (the GU Water Division team) continue our work to reduce THMs in the Gales Ferry and Ledyard Center systems.

 Prepared for the first six-month-set of lead and copper testing in Ledyard Center and Gales Ferry (bottle set-up, notification of customers, etc.). We will start dropping off lead and copper bottles in early April (Ledyard Center), and once all of them are collected, we will do the same in Gales Ferry in mid- to late-April.

Distribution:

- Completed the 5-year Cross Connection Inspection's for Ledyard, as well as the annual Cross Connection Inspection's for both Ledyard and Gales Ferry.
- We have been monitoring the Multi Use Trail/Sewer Installation project in Ledyard Center. In areas where the contractor will be doing cuts to the existing grade, there is a possibility of the water service not meeting the appropriate depth.
- Repaired valve box at 143 Gallup Hill Road, as well as minor repairs to a few additional valve boxes in the Ledyard and Gales ferry area.
- Monthly repairs of miscellaneous meter and ERT boxes, completed trouble sheets for Ledyard and Gales Ferry.



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1680 Agenda Date: 4/23/2024 Agenda #: 2.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Service Correspondence.

Background:

(type text here)

Department Comment/Recommendation:



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1681 Agenda Date: 4/23/2024 Agenda #: 3.

AGENDA REQUEST GENERAL DISCUSSION ITEM

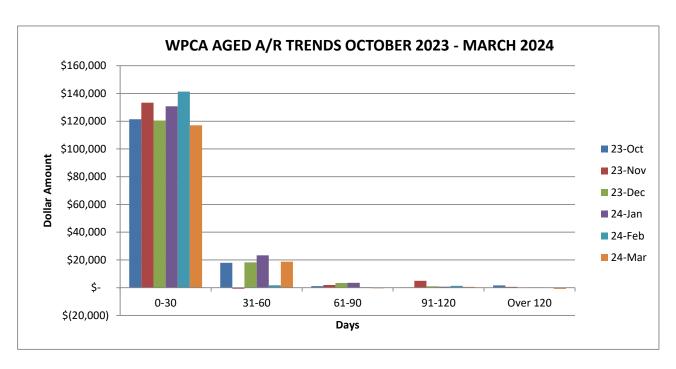
Subject:

Aged Reports/Finance.

Background:

(type text here)

Department Comment/Recommendation:



					_	
ОСТ	OCT	OCT	OCT	ОСТ		
0-30	31-60	61-90	91-120	OVER 120		
\$ 121,368	\$ 17,885	\$ 1,135	\$ 163	\$ 1,673	\$	142,225
					_	
NOV	NOV	NOV	NOV	NOV		
0-30	31-60	61-90	91-120	OVER 120		
\$ 133,322	\$ (795)	\$ 1,998	\$ 4,983	\$ 572	\$	140,080
DEC	DEC	DEC	DEC	DEC		
0-30	31-60	61-90	91-120	OVER 120		
\$ 120,496	\$ 18,201	\$ 3,446	\$ 963	\$ 95	\$	143,200
JAN	JAN	JAN	JAN	JAN		
0-30	31-60	61-90	91-120	OVER 120		
\$ 130,771	\$ 23,335	\$ 3,531	\$ 741	\$ 163	\$	158,541
FEB	FEB	FEB	FEB	FEB		
0-30	31-60	61-90	91-120	OVER 120		
\$ 141,301	\$ 1,771	\$ 251	\$ 1,311	\$ (53)	\$	144,581
					-	
MAR	MAR	MAR	MAR	MAR		
0-30	31-60	61-90	91-120	OVER 120		
\$ 117,081	\$ 18,806	\$ (451)	\$ 575	\$ (853)	\$	135,158

Foot Notes:

Cash Collected in the month of March 2024: \$143,397.05



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1682 Agenda Date: 4/23/2024 Agenda #: 4.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Year to Date Water/Sewer Report.

Background:

(type text here)

Department Comment/Recommendation:



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
5059001 OTHER-GEN - GRANTS/CONTR							
5059001 49002 TRANS IN	-388,678	0	-388,678	-314,272.84	.00	-74,405.43	80.9%
TOTAL OTHER-GEN - GRANTS/CONTR	-388,678	0	-388,678	-314,272.84	.00	-74,405.43	80.9%
TOTAL REVENUES	-388,678	0	-388,678	-314,272.84	.00	-74,405.43	
50590991 CONTRIBUTION TO CNR							
50590991 59305 CONT CNR	130,000	0	130,000	.00	.00	130,000.00	.0%
TOTAL CONTRIBUTION TO CNR	130,000	0	130,000	.00	.00	130,000.00	.0%
TOTAL EXPENSES	130,000	0	130,000	.00	.00	130,000.00	
0591603 SOURCE OF SUPPLY							
0591603 58100 DUES FEES	3,100	0	3,100	657.09	.00	2,442.91	21.2%*
TOTAL SOURCE OF SUPPLY	3,100	0	3,100	657.09	.00	2,442.91	21.2%
TOTAL EXPENSES	3,100	0	3,100	657.09	.00	2,442.91	
0591623 POWER PURCHASED							
50591623 56225 POWER PURC	10,000	0	10,000	6,162.03	3,837.97	.00	100.0%*
TOTAL POWER PURCHASED	10,000	0	10,000	6,162.03	3,837.97	.00	100.0%
TOTAL EXPENSES	10,000	0	10,000	6,162.03	3,837.97	.00	
0591626 GU OPERATION-EMERGENCY							
50591626 53720 GU OP EMER	9,000	0	9,000	19,607.54	4,289.49	-14,897.03	265.5%*
TOTAL GU OPERATION-EMERGENCY	9,000	0	9,000	19,607.54	4,289.49	-14,897.03	265.5%
TOTAL EXPENSES	9,000	0	9,000	19,607.54	4,289.49	-14,897.03	
50591627 GU OPERATING AGREEMENT ANNUAL							

50591627 GU OPERATING AGREEMENT ANNUAL



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
50591627 GU OPERATING AGREEMENT ANNUAL	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
50591627 53725 GU OPS ANN 50591627 53726 GU CUST SE	298,120 96,632	0	298,120 96,632	149,059.98 77,740.04	149,060.02 8,259.96	.00 10,632.18	100.0%* 89.0%*
TOTAL GU OPERATING AGREEMENT ANNUAL	394,752	0	394,752	226,800.02	157,319.98	10,632.18	97.3%
TOTAL EXPENSES	394,752	0	394,752	226,800.02	157,319.98	10,632.18	
50591663 METER/SYSTEMS EXPENSE							
50591663 54110 RTE 12 MET 50591663 54115 RTE 117 WT 50591663 54120 METERS	257,576 252,515 16,000	0 0 0	257,576 252,515 16,000	205,054.75 219,495.32 .00	44,945.25 33,005.68 10,000.00	7,576.05 13.51 6,000.00	97.1%* 100.0%* 62.5%*
TOTAL METER/SYSTEMS EXPENSE	526,091	0	526,091	424,550.07	87,950.93	13,589.56	97.4%
TOTAL EXPENSES	526,091	0	526,091	424,550.07	87,950.93	13,589.56	
50591921 MISC							
50591921 54420 FIN SERV 50591921 54506 FIRE HYDRA 50591921 58810 GOBONDPR 50591921 58821 GOBONDINT 50591921 58820 CWF PRIN 50591921 58821 CWF INT 50591921 58822 LOAN PMT	26,000 5,000 85,275 5,782 250,644 46,978 12,500	0 0 0 0 0	26,000 5,000 85,275 5,782 250,644 46,978 12,500	.00 .00 .00 2,038.27 .00 35,706.41	.00 .00 .00 .00 .00 .00	26,000.00 5,000.00 85,274.54 3,743.76 250,643.62 11,271.67 12,500.00	.0% .0% .0% 35.3%* .0% 76.0%*
TOTAL MISC	432,178	0	432,178	37,744.68	.00	394,433.59	8.7%
TOTAL EXPENSES	432,178	0	432,178	37,744.68	.00	394,433.59	
50591923 PROFESSIONAL FEES							
50591923 53600 ACCTG SERV	9,738	0	9,738	6,821.25	.00	2,916.75	70.0%*
TOTAL PROFESSIONAL FEES	9,738	0	9,738	6,821.25	.00	2,916.75	70.0%
TOTAL EXPENSES	9,738	0	9,738	6,821.25	.00	2,916.75	
50591926 BENEFITS							
50591926 52300 RETIREMENT	3,865	0	3,865	.00	.00	3,865.31	.0%



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
50591926 BENEFITS	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
TOTAL BENEFITS	3,865	0	3,865	.00	.00	3,865.31	.0%
TOTAL EXPENSES	3,865	0	3,865	.00	.00	3,865.31	
5059801 WATER-CHARGE / SERVICE							
5059801 46045 NEW METER 5059801 46046 WATER MISC 5059801 46048 TIE IN 5059801 46049 TRANS FEE 5059801 46050 WATER USE 5059801 46051 WATER LATE 5059801 46053 WATER ASSE 5059801 46054 HYDRANT	-5,000 -3,000 -5,000 -21,000 -1,081,646 0 0 -14,400	0 0 0 0 0 0	-5,000 -3,000 -5,000 -21,000 -1,081,646 0 0 -14,400	.00 3,588.15 -3,520.00 -11,213.55 -835,027.25 -1,585.72 -8,654.14 .00	.00 .00 .00 .00 .00 .00	-5,000.00 -6,588.15 -1,480.00 -9,786.45 -246,618.80 1,585.72 8,654.14 -14,400.00	.0% -119.6%* 70.4% 53.4% 77.2% 100.0% 100.0%
TOTAL WATER-CHARGE / SERVICE	-1,130,046	0	-1,130,046	-856,412.51	.00	-273,633.54	75.8%
TOTAL REVENUES	-1,130,046	0	-1,130,046	-856,412.51	.00	-273,633.54	
GRAND TOTAL	. 0	0	0	-448,342.67	253,398.37	194,944.30	100.0%
	** END OF BEDO	ST C		·			

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YEAR-TO-DATE BUDGET REPORT

REPORT OPTIONS

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Field #
                               Total
                                       Page Break
  Sequence 1
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                                            Ν
  Sequence 2
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  Sequence 3
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  Sequence 4
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                                 Ν
                                            Ν
  Report title:
   YEAR-TO-DATE BUDGET REPORT
  Includes accounts exceeding
                                     0% of budget.
  Print totals only: N
                                                        Year/Period: 2024/ 9
  Print Full or Short description: S
                                                        Print MTD Version: N
  Print full GL account: N
                                                        Roll projects to object: N
  Format type: 1
  Double space: N
                                                        Carry forward code: 1
  Suppress zero bal accts: Y
  Include requisition amount: N
Print Revenues-Version headings: N
  Print revenue as credit: Y
  Print revenue budgets as zero: N
  Include Fund Balance: N
  Print journal detail: N
      From Yr/Per: 2024/ 1
          To Yr/Per: 2024/ 7
 Include budget entries: Y
Incl encumb/liq entries: Y
Sort by JE # or PO #: J
Detail format option: 1
Include additional JE comments: N
  Multivear view: D
  Amounts/totals exceed 999 million dollars: N
          Find Criteria
Field Name
                      Field Value
                      0505
Fund
TWN FUNCTION
DEPT / LOCAT
SDEP/BOEFUNC
Character Code
Org
Object
Project
Account type
Account status
Rollup Code
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YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
019001 OTHER-GEN - GRANTS/CONTR							
019001 49002 TRANS IN	-153,485	0	-153,485	-153,484.97	.00	01	100.0%
TOTAL OTHER-GEN - GRANTS/CONTR	-153,485	0	-153,485	-153,484.97	.00	01	100.0%
TOTAL REVENUES	-153,485	0	-153,485	-153,484.97	.00	01	
0190603 SOURCE OF SUPPLY							
0190603 54225 SLUDGE HAU 0190603 58100 DUES FEES	17,300 3,100	-3,300 -300	14,000 2,800	7,976.20 1,755.52	6,023.80 27.50	.00 1,016.98	100.0%* 63.7%*
TOTAL SOURCE OF SUPPLY	20,400	-3,600	16,800	9,731.72	6,051.30	1,016.98	93.9%
TOTAL EXPENSES	20,400	-3,600	16,800	9,731.72	6,051.30	1,016.98	
0190611 MAINTENANCE OF STRUCTURE							
0190611 54510 ELECTRICIA	3,000	2,000	5,000	4,566.45	433.55	.00	100.0%*
TOTAL MAINTENANCE OF STRUCTURE	3,000	2,000	5,000	4,566.45	433.55	.00	100.0%
TOTAL EXPENSES	3,000	2,000	5,000	4,566.45	433.55	.00	
0190620 WAGES (SEWER)							
0190620 51305 OT/SEASON 0190620 51705 LONGEVITY	15,000 500	0	15,000 500	13,066.57 .00	.00	1,933.43 500.00	87.1%* .0%
TOTAL WAGES (SEWER)	15,500	0	15,500	13,066.57	.00	2,433.43	84.3%
TOTAL EXPENSES	15,500	0	15,500	13,066.57	.00	2,433.43	
0190621 EMPLOYEE UNIFORMS							
0190621 52160 EE UNIFORM	1,000	0	1,000	462.48	237.52	300.00	70.0%*
TOTAL EMPLOYEE UNIFORMS	1,000	0	1,000	462.48	237.52	300.00	70.0%
TOTAL EXPENSES	1,000	0	1,000	462.48	237.52	300.00	



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
50190623 POWER PURCHASED	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
50190623 POWER PURCHASED							
50190623 56200 HEAT 50190623 56220 ELECTRICIT 50190623 56261 GAS/DESIEL	3,000 50,000 4,500	0 0 0	3,000 50,000 4,500	1,406.93 27,824.94 3,422.87	293.07 6,375.06 777.13	1,300.00 15,800.00 300.00	56.7%* 68.4%* 93.3%*
TOTAL POWER PURCHASED	57,500	0	57,500	32,654.74	7,445.26	17,400.00	69.7%
TOTAL EXPENSES	57,500	0	57,500	32,654.74	7,445.26	17,400.00	
50190624 PUMPING SUPPLY & EXPENSE							
50190624 56914 PUMP SUPP	3,300	0	3,300	2,070.00	1,217.50	12.50	99.6%*
TOTAL PUMPING SUPPLY & EXPENSE	3,300	0	3,300	2,070.00	1,217.50	12.50	99.6%
TOTAL EXPENSES	3,300	0	3,300	2,070.00	1,217.50	12.50	
50190641 CHEMICALS							
50190641 56912 CHEMICALS	23,000	2,000	25,000	24,035.10	931.90	33.00	99.9%*
TOTAL CHEMICALS	23,000	2,000	25,000	24,035.10	931.90	33.00	99.9%
TOTAL EXPENSES	23,000	2,000	25,000	24,035.10	931.90	33.00	
50190643 TREATMENT EXPENSE							
50190643 56916 TRTMT EXP	7,500	0	7,500	5,095.00	2,405.00	.00	100.0%*
TOTAL TREATMENT EXPENSE	7,500	0	7,500	5,095.00	2,405.00	.00	100.0%
TOTAL EXPENSES	7,500	0	7,500	5,095.00	2,405.00	.00	
50190663 METER EXPENSE							
50190663 53710 MTR CALIBR	750	0	750	.00	.00	750.00	.0%
TOTAL METER EXPENSE	750	0	750	.00	.00	750.00	.0%
TOTAL EXPENSES	750	0	750	.00	.00	750.00	



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
50190673 MAINTENANCE OF MAINS	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
50190673 MAINTENANCE OF MAINS							
50190673 54515 MNT MAINS	3,000	0	3,000	.00	.00	3,000.00	.0%
TOTAL MAINTENANCE OF MAINS	3,000	0	3,000	.00	.00	3,000.00	.0%
TOTAL EXPENSES	3,000	0	3,000	.00	.00	3,000.00	
50190678 MAINTENANCE OF MISC. PLANT							
50190678 54505 MNT MISC P 50190678 56802 SFTY EQUIP 50190678 56804 LAB EQP	12,000 1,000 2,900	4,050 0 0	16,050 1,000 2,900	12,774.24 150.00 368.40	2,966.54 500.00 34.90	309.22 350.00 2,496.70	98.1%* 65.0%* 13.9%*
TOTAL MAINTENANCE OF MISC. PLANT	15,900	4,050	19,950	13,292.64	3,501.44	3,155.92	84.2%
TOTAL EXPENSES	15,900	4,050	19,950	13,292.64	3,501.44	3,155.92	
50190920 PLANT OPERATIONS WAGES							
50190920 51610 SPVR SAL 50190920 51635 SHIFT OPER 50190920 51640 LAB TECH	91,609 75,046 52,021	0 0 0	91,609 75,046 52,021	69,223.85 57,665.92 38,375.20	.00 .00 .00	22,385.17 17,380.48 13,645.60	75.6%* 76.8%* 73.8%*
TOTAL PLANT OPERATIONS WAGES	218,676	0	218,676	165,264.97	.00	53,411.25	75.6%
TOTAL EXPENSES	218,676	0	218,676	165,264.97	.00	53,411.25	
50190921 MISC							
50190921 54150 LAKESIDE 50190921 54420 FIN SERV 50190921 56100 OPER EXP 50190921 58810 GOBONDPR 50190921 58811 GOBONDINT	2,500 14,000 11,000 117,388 36,097	0 0 0 -4,450 0 0	2,500 14,000 6,550 117,388 36,097	783.40 .00 3,913.93 .00 18,206.22	16.60 .00 2,154.07 .00 .00	1,700.00 14,000.00 482.00 117,388.24 17,890.52	32.0%* .0% 92.6%* .0% 50.4%*
TOTAL MISC	180,985	-4,450	176,535	22,903.55	2,170.67	151,460.76	14.2%
TOTAL EXPENSES	180,985	-4,450	176,535	22,903.55	2,170.67	151,460.76	
50190923 PROFESSIONAL FEES							
50190923 53600 ACCTG SERV	3,000	0	3,000	1,203.75	.00	1,796.25	40.1%*



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
190923 PROFESSIONAL FEES	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
190923 53705 LAB TESTS 190923 58110 TMDS	7,000 1,500	0	7,000 1,500	5,958.00 166.91	542.00 1,123.09	500.00 210.00	92.9%* 86.0%*
TOTAL PROFESSIONAL FEES	11,500	0	11,500	7,328.66	1,665.09	2,506.25	78.2%
TOTAL EXPENSES	11,500	0	11,500	7,328.66	1,665.09	2,506.25	
190926 BENEFITS							
190926 52000 HLTHCARE 190926 52300 RETIREMENT 190926 52500 SOCSEC 190926 52900 GG WORKCOM	50,565 19,902 16,746 8,463	0 0 0 0	50,565 19,902 16,746 8,463	.00 .00 .00	.00 .00 .00	50,564.54 19,901.98 16,746.22 8,462.77	. 0% . 0% . 0% . 0%
TOTAL BENEFITS	95,676	0	95,676	.00	.00	95,675.51	.0%
TOTAL EXPENSES	95,676	0	95,676	.00	.00	95,675.51	
190933 TRANSPORTATION EXPENSE							
190933 54305 CAR MNTNC	1,900	1,700	3,600	2,979.48	220.52	400.00	88.9%*
TOTAL TRANSPORTATION EXPENSE	1,900	1,700	3,600	2,979.48	220.52	400.00	88.9%
TOTAL EXPENSES	1,900	1,700	3,600	2,979.48	220.52	400.00	
190990 CAPITAL							
190990 57505 SEWER TIE	1,000	0	1,000	.00	.00	1,000.00	.0%
TOTAL CAPITAL	1,000	0	1,000	.00	.00	1,000.00	.0%
TOTAL EXPENSES	1,000	0	1,000	.00	.00	1,000.00	
190991 CONTINGENCY							
190991 58910 CONTINGENC 190991 59305 CONT CNR	10,710 20,000	-1,700 0	9,010 20,000	6,227.94 .00	681.52 .00	2,100.54 20,000.00	76.7%* .0%
TOTAL CONTINGENCY	30,710	-1,700	29,010	6,227.94	681.52	22,100.54	23.8%
TOTAL EXPENSES	30,710	-1,700	29,010	6,227.94	681.52	22,100.54	



YEAR-TO-DATE BUDGET REPORT

FOR 2024 09							
50191627 GU OPERATING AGREEMENT	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
50191627 GU OPERATING AGREEMENT							
50191627 53726 GU CUST SE	15,731	0	15,731	12,655.35	1,344.65	1,730.80	89.0%*
TOTAL GU OPERATING AGREEMENT	15,731	0	15,731	12,655.35	1,344.65	1,730.80	89.0%
TOTAL EXPENSES	15,731	0	15,731	12,655.35	1,344.65	1,730.80	
5019701 SEWER-CHARGE / SERVICE							
5019701 46020 SEWERUSE 5019701 46021 SEWER LATE 5019701 46022 SEW ASSESS 5019701 46044 REV NON CU	-553,043 -500 0	0 0 0 0	-553,043 -500 0	-394,889.95 -955.08 -1,111.89 -280.00	.00 .00 .00	-158,152.58 455.08 1,111.89 280.00	71.4% 191.0% 100.0% 100.0%
TOTAL SEWER-CHARGE / SERVICE	-553,543	0	-553,543	-397,236.92	.00	-156,305.61	71.8%
TOTAL REVENUES	-553,543	0	-553,543	-397,236.92	.00	-156,305.61	
5019702 SEWER-GRANTS/CONTR							
5019702 42029 STATE GRAN	0	0	0	-134.00	.00	134.00	100.0%
TOTAL SEWER-GRANTS/CONTR	0	0	0	-134.00	.00	134.00	100.0%
TOTAL REVENUES	0	0	0	-134.00	.00	134.00	
GRAND TOTAL	0	0	0	-228,521.24	28,305.92	200,215.32	100.0%

** END OF REPORT - Generated by Ian Stammel **



YEAR-TO-DATE BUDGET REPORT

REPORT OPTIONS

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Field #
                               Total
                                       Page Break
  Sequence 1
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  Sequence 2
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  Sequence 3
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  Sequence 4
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  Report title:
   YEAR-TO-DATE BUDGET REPORT
  Includes accounts exceeding
                                     0% of budget.
  Print totals only: N
                                                        Year/Period: 2024/ 9
  Print Full or Short description: S
                                                        Print MTD Version: N
  Print full GL account: N
                                                        Roll projects to object: N
  Format type: 1
  Double space: N
                                                        Carry forward code: 1
  Suppress zero bal accts: Y
  Include requisition amount: N
Print Revenues-Version headings: N
  Print revenue as credit: Y
  Print revenue budgets as zero: N
  Include Fund Balance: N
  Print journal detail: N
      From Yr/Per: 2024/ 1
          To Yr/Per: 2024/ 7
 Include budget entries: Y
Incl encumb/liq entries: Y
Sort by JE # or PO #: J
Detail format option: 1
Include additional JE comments: N
  Multivear view: D
  Amounts/totals exceed 999 million dollars: N
          Find Criteria
Field Name
                      Field Value
                      0501
Fund
TWN FUNCTION
DEPT / LOCAT
SDEP/BOEFUNC
Character Code
Org
Object
Project
Account type
Account status
Rollup Code
```

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741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1838 **Agenda Date:** 4/23/2024 **Agenda #:** 5.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

PSR - Steve Banks.

Background:

(type text here)

Department Comment/Recommendation:

Town of Ledyard Highlands W.W.T.F. Plant Supervisor's Report

Meeting Date: April 23, 2024

The goal of the plant staff is to efficiently collect and treat the wastewater and to produce the best quality effluent possible while maintaining the equipment and protecting the Town's assets.

- Univar conducted polymer jar testing on 3-19-24. After some practical trial runs it was determined that the Praestol 133 was not an effective polymer for this facility. Atlantic Coast Polymer ACP 67B is the best product for us. Unfortunately, due to several industry factors, it is expensive and getting more so every day. Will continue to explore other options.
- Flows are steadily decreasing from wet weather in December and January. Checked a few houses for sump pumps into sanitary sewers. Did not receive many responses to our survey.
- Portable trailer mounted 70 kW generator \$60,000, design/installation on Rotary Drum Thickener panel \$30,000, and HACH DR 3900 spectrophotometer \$6900.00 are other items we need if there is any ARPA \$\$ remaining.
- Waiting for revised quote from Weston& Sampson for phase II. This also includes project oversight.
- GU inquired about rain run-off into pressure reducing chamber at 49
 Highland Drive. I notified Public Works and Building departments of this
 issue.
- Started adding sodium bicarbonate to sequencing batch reactors as we are expiring low alkalinity/ pH in basins.
- Having issues with Stenner chemical pump delivering potassium hydroxide to basins. Working with Stenner and USA Bluebook to troubleshoot problems.

Respectfully,

Stephen W. Banks Plant Supervisor



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0348 Agenda Date: 4/24/2024 Agenda #: 6.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

DEEP Water/Sewer Grant Requests for Proposal.

Background:

(type text here)

Department Comment/Recommendation:



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0329 Agenda Date: 4/23/2024 Agenda #: 1.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Motion to RECOMMEND to the Town Council approval of a five percent water rate increase effective July 1, 2024, as recommended and contained in the water and sewer rate table attached to the WPCA legal notice dated April 11, 2024, in accordance with Ordinance #400-001 "An Ordinance Establishing a Water Pollution Control Authority".

Background:

The WPCA was recently informed by Groton Utilities that there will be a five percent increase in water costs from Groton Utilities starting on October 1, 2024. Therefore, the Authority will recommend a five percent rate increase for the next budget (FY 24/25). The total increase will be \$54,604.84. Contingency will increase \$35,476.44. Water usage charge will increase \$19,128.40. The Water Rate Increase Public Hearing meeting date is April 23, 2024, at 6:00 p.m.

Department Comment/Recommendation:



741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-2296 Agenda Date: 4/23/2024 Agenda #: 2.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Review of Trail/Sewer line bids continued.

Background:

From the March 26, 2024, meeting:

After meeting with the Finance Committee on the water budget, Steve Masalin, Public Works Director and Steve Banks, WPCA Supervisor talked about the sewer line extension from the High School to Pennywise Lane (5-inch PVS line). Mr. Masalin stated that he needed to repave Gallup Hill Road which then afforded the opportunity to place the sewer line on top of the existing 2 ½" line and thus save on both construction and design engineering costs. Chairman Lynch, Mr. Banks and Mr. Masalin met with Mathew Jermine, of Weston and Sampson who agreed that such an approach would save a considerable amount of cost, even when considering the repaving cost of the road. Mr. Jermine stated that he would re-submit the proposal for the new approach. The Commissioners wanted to also look at two additional options; the extension of the sewer line up Route 117 (to Route 214) and up Fairway drive. Chairman Lynch will communicate these two additional options for consideration to Weston and Sampson. After meeting with the Finance Committee on the water budget, Steve Masalin, Public Works Director and Steve Banks, WPCA Supervisor talked about the sewer line extension from the High School to Pennywise Lane (5-inch PVS line). Mr. Masalin stated that he needed to repave Gallup Hill Road which then afforded the opportunity to place the sewer line on top of the

After meeting with the Finance Committee on the water budget, Steve Masalin, Public Works Director and Steve Banks, WPCA Supervisor talked about the sewer line extension from the High School to Pennywise Lane (5-inch PVS line). Mr. Masalin stated that he needed to repave Gallup Hill Road which then afforded the opportunity to place the sewer line on top of the

Department Comment/Recommendation:

Budget Discussion - we will be proceeding witht eh public hearing for a water rate increase of 5%. The Weston and Sampson amendment to the original work has been approved to proceed without the need of a waiver - however a new development of going down Gallup Hill from the high school to Pennywise is to be implemented (instead of a separate trail) going on top of the present 2 1/2 inch line which will save significant costs in engineering and construction. A new estimate for both engineering and construction will be done ASAP. In addition a discussion was held to readjust a rate structure based on meter size.









AMENDMENT NO. 2 TO AGREEMENT FOR ENGINEERING SERVICES BY AND BETWEEN

TOWN OF LEDYARD, CONNECTICUT AND WESTON & SAMPSON ENGINEERS, INC. FOR

LEDYARD CENTER SEWER (BID #2021-03)

The AGREEMENT for Ledyard Center Sewer (Bid #2021-03) made on the April 22, 2021 by and between the Town of Ledyard, Connecticut acting through its Mayor, hereinafter called the OWNER, and Weston & Sampson Engineers, Inc., with offices at 712 Brook Street, Suite 103, Rocky Hill, Connecticut, hereinafter called the ENGINEER is hereby amended in accordance with the provisions of said AGREEMENT.

The engineering services in this task amendment consists of the design of a low-pressure sewer extension from the high school to Pennywise Lane, as requested by the OWNER. This amendment is issued to incorporate the following changes:

ARTICLE 2 - SERVICES OF THE ENGINEER is hereby amended as follows:

Immediately following Article 2.09, add the following new subsections to the contract:

2.10. Wetland Delineation (Sewer to Pennywise)

- 1. Wetland limits will be identified and flagged for used in determining work within the upland review area areas. Based on preliminary review, there is a large freshwater wetland area adjacent to the Gallop Hill Road near the intersection of Pennywise Lane.
- 2. Specifically, the freshwater wetlands and watercourses will be delineated, and soil series will be identified for the limits identified above. The wetlands will be identified by Connecticut criteria. USACOE (Army Corps) criteria will be evaluated as well. "Soil Taxonomy" (USDA Handbook 436, Rev 1999), NRCS Web Soil Survey and available maps will be used. Soil borings will be dug with a soil auger to a depth of 2 to 4 feet to conduct this study.
- 3. A field map showing approximate wetland flag locations will be prepared. A Wetlands Report will not be prepared for this project because construction disturbances will be located within the existing paved roadway.

2.11. Soil Borings (Sewer to Pennywise)

1. None anticipated based on construction of the new low pressure sewer alongside the existing pipe alignment.

2.12. Surveying (Sewer to Pennywise)

Supplement existing planimetric from previous record drawings along Gallup Hill Road.

- 1. The survey will record accessible utilities and current existing feature conditions. The existing condition survey within the limits identified above will locate the following.
- 2. Temporary benchmarks will be set at approximately 500 feet intervals on the site and will be included on the plan.
- 3. Underground utilities with surficial structures (i.e., hydrants, manholes, grates, catch basins, hand holes, valve boxes, utility poles, transformers, and risers) for water, gas, sewer, drainage, electrical, telephone within the survey limits.
- 4. Measured inverts and pipe sizes will be recorded for storm and sanitary structures where possible.
- 5. Field survey presumptions regarding the scope and fee proposed herein include:
 - a. ENGINEER reserves the right to negotiate extra work fees for effort that may be required to confirm specifics about boundary, easements, rights-of-way, elevation, or sub surface utilities that may arise from the client or client's review of the initial map produced under the initial defined scope of services.
 - b. Real-time kinetic (RTK) GPS methods will be available to establish field control.
 - c. Traffic control (if necessary) to obtain invert data will be provided by the Town of Ledyard
 - d. Water, storm, and sanitary as-built mapping will be provided by OWNER.

2.13. Sewer Route Design (Sewer to Pennywise)

- 1. The design will extend a 5-inch HDPE low pressure sewer along Gallup Hill Road (adjacent to the existing sewer pipe) from the high school to gravity sewers on Pennywise Lane. The existing clean-out manholes will be replaced to accommodate the new pipe. Design will be incorporated onto the record drawings of the high school force main extension. Construction documents will be prepared as a change order to the multi-use pathway construction project.
- 2. Field Visit Conduct a field visit to inspect the condition of the existing site features, review project area and potential utility conflicts, and prepare a photo log (as needed).
- 3. Existing Data Review existing data provided by the municipality and the utilities, including street line mapping, utility locations, construction and as-built plans of the roadway and existing sewer force main.
- 4. Odor Control Design an odor control system to be installed in the existing water booster pump building across from Pennywise Lane which is currently abandoned. A 120 volt power source is anticipated to be readily available within the building.
- 5. Preliminary Design Plans Prepare preliminary plans to consist of:
 - a. Cover Sheet (1 sheet)
 - b. Sedimentation and Erosion Control Plan (1 sheet)
 - c. Skid-Mounted Odor Control System (1 sheet)
 - d. Plan and Profiles (2 sheets)

- 6. Preliminary Design Submission Assemble and submit all the plans and estimates generated during the Preliminary Design phase.
- 7. Resolve Preliminary Design Comments Attend one preliminary design review meeting to discuss comments and resolve any questions or differences of opinions that arise. Identify permit requirements and make initial contact.
- 8. Coordination For Property Rights None anticipated
- 9. Drainage Analysis None anticipated.
- 10. Public Information Meeting None anticipated.
- 11. Quantity Estimate and Cost Estimate Prepare an estimate of the quantities of all major items of construction. Develop an estimate of probable construction cost for the project based on the estimated quantities and unit prices.
- 12. Technical Specifications Reuse existing technical specifications that have been incorporated into the multiuse pathway construction project. A technical specification will be prepared for the odor control system.
- 13. Final Design for Review Assemble and submit the drawings, estimate, and technical specifications generated during final design.
- 14. Final Submission Package and submit certified plans, estimate, and technical specifications to the for administrative review.
- 15. CTDOT District Coordination None anticipated.

2.14. Wetland Crossing Design (Sewer to Pennywise)

1. Project construction within wetlands not anticipated based on Town's new pipe alignment.

2.15. Groton Utility Review (Sewer to Pennywise)

- 1. Submit progress design plans to utilities for review. Schedule and facilitate up to three on-site or virtual utility meetings.
- 2. Identify potential conflicts and proposed test pit locations, if any, to be conducted by the contractor during construction.
- 3. Address detailed comments including coordination meetings with the utility, further field investigations, redesign efforts, and revisions to contract documents. This budget does not include procuring excavation services for test pits at water main & hydrant lateral crossings.

2.16. <u>Permitting (Sewer to Pennywise)</u>

- 1. Prepare and submit local inland wetland permit and prepare demonstration material and present project at up to two in-person commission meetings to present the project. The proposed pipe alignment along Gallop Hill Road (under the existing paved roadway) to Pennywise will be within the upland review are of adjacent wetlands.
- 2. Coordinate with CTDEEP Wildlife. Prepare and provide to CTDEEP to review endangered species within the project site. Correspondence with CTDEEP to include recommendations. This project does not appear to be located within an area of endangered species as of February 2024.
- 3. Town/State Wetland Application Fees would be paid for directly by the Town.

<u>ARTICLE 4 - TIME OF PROJECT</u> is hereby amended as follows:

Append Article 4.1 to add the following:

The ENGINEER agrees to start the work of Task 2.10 thru 2.16 within 14 calendar days of authorization and complete the work within 120 calendar days thereafter (weather permitting). It is understood that the Town would like the contractor of the Multi-Use Pathway (MUP) to construct this low pressure sewer extension before the MUP project is completed.

<u>ARTICLE 5 - PAYMENTS TO THE ENGINEER</u> is hereby amended as follows:

A. Replace Table 5.1 with the following new Table 5.1:

	Table 5.1											
TASK	DESCRI	FEE TYPE	FEE									
2.01	High School Presser Sewer Ca	Lump Sum	\$6,700									
2.02	Ledyard Town Center Planning	g Report	Lump Sum	\$21,000								
2.03	Multi-Use Walking Path Design	n Change	Lump Sum	\$6,800								
2.04	Geotechnical Rock Investigation	on	Lump Sum	\$37,100								
2.05	Supplemental Survey at High	School	Lump Sum	\$10,600								
2.06	Investigate Route for Phase 2	Lump Sum	\$8,800									
2.07	Retaining Wall Design for Sew	Lump Sum	\$48,300									
2.08	Coordination for Property Righ	ts	Lump Sum	\$4,400								
2.09	Coordination with Utilities		Lump Sum	\$3,700								
2.10	Wetland Delineation	(Sewer to Pennywise)	Lump Sum	\$17,200								
2.11	Soil Borings	(Sewer to Pennywise)	Lump Sum	\$0								
2.12	Surveying	(Sewer to Pennywise)	Lump Sum	\$28,000								
2.13	Sewer Route Design	(Sewer to Pennywise)	Lump Sum	\$41,700								
2.14	Wetland Crossing Design	(Sewer to Pennywise)	Lump Sum	\$0								
2.15	Groton Utility Review	(Sewer to Pennywise)	Hourly	\$22,300								
2.16	Permitting	(Sewer to Pennywise)	Hourly	\$12,900								
			TOTAL FEE:	\$ 269,500								

AMENDMENT NO. 2 TO AGREEMENT FOR ENGINEERING SERVICES BY AND BETWEEN

TOWN OF LEDYARD, CONNECTICUT AND WESTON & SAMPSON ENGINEERS, INC. FOR

LEDYARD CENTER SEWER (BID #2021-03)

IN WITNESS WHEREOF, the parties hereto have executed this AMENDMENT NO. 2 this 23th day of April, 2024.

ACCEPTED FOR:

TOWN OF LEDYARD, CT	WESTON & SAMPSON ENGINEERS, INC.
By:	Ву:
	Rov 6. Tal
Signature	Signature
	Robert Tedeschi, P.E. – Associate
Printed Name	Printed Name
	_4/23/2024
Date	Date



TOWN OF LEDYARD

741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0350 Agenda Date: 4/24/2024 Agenda #: 3.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Review Lead Survey Study. Presentation.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



TOWN OF LEDYARD

741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0351 Agenda Date: 4/24/2024 Agenda #: 4.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Final Water Rate Report Review.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

Town of LedyardWater Cost of Service Study and
Financial Projection Report
April 2024

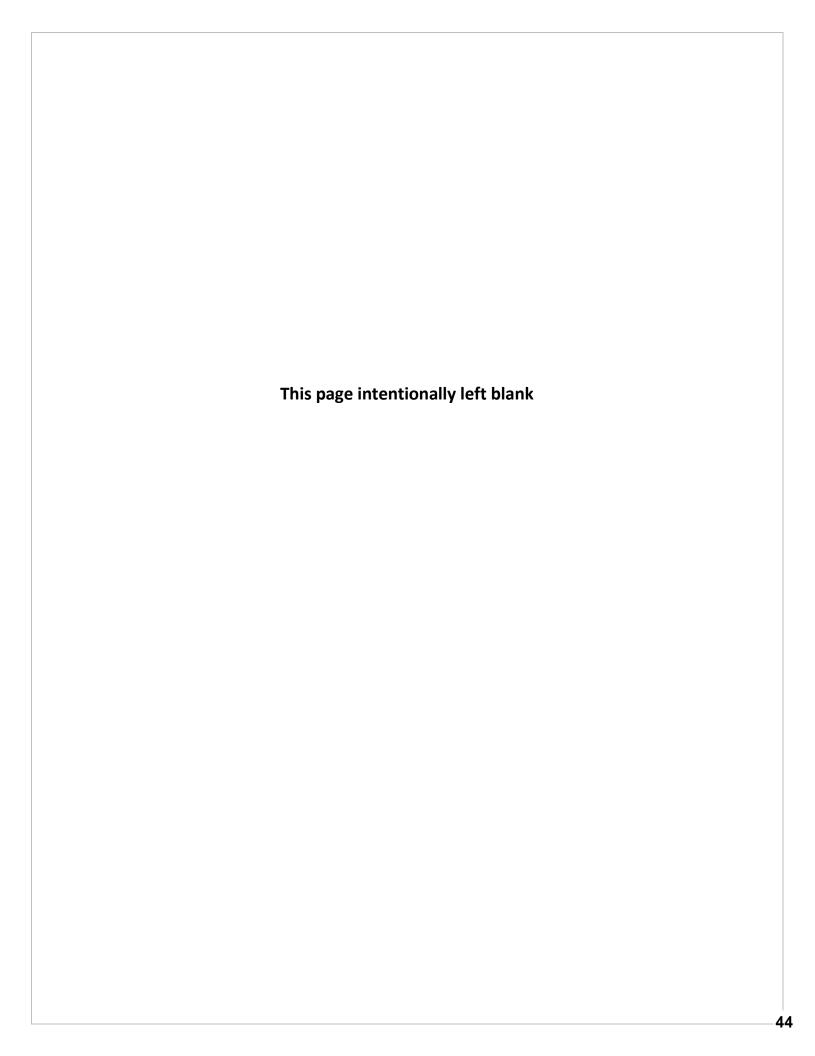


Utility Financial Solutions, LLC 185 Sun Meadow Court Holland, MI USA 49424 (616) 393-9722

Fax (888) 566-4430

Corporate location:

Submitted Respectfully by:
Mark Beauchamp, CPA, CMA, MBA
President, Utility Financial Solutions, LLC
mbeauchamp@ufsweb.com
(616) 393-9722





April 2024

Town of Ledyard 741 Colonel Ledyard Highway Ledyard, CT 06339

We are pleased to present the Report for the water cost of service study and financial projection for the Town of Ledyard (Ledyard). This report was prepared to provide Ledyard with a comprehensive examination of its existing rate structure by an outside party.

The specific purposes of this rate study are:

- Determine water utility's revenue requirements for fiscal year 2025
- Identify cross-subsidies that may exist between rate classes
- Determine rate adjustments needed to meet targeted revenue requirements
- Identify the appropriate monthly customer charge for each customer class

This report includes results of the water cost of service study and financial projection and considerations on future rate designs.

This report is intended for information and use by the utility and management for the purposes stated above and is not intended to be used by anyone except the specified parties.

Sincerely,

Utility Financial Solutions, LLC

Mark Beauchamp, CPA, MBA, CMA

185 Sun Meadow Ct

Holland, MI 49424



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1. Introduction

This report was prepared to provide Town of Ledyard with a water cost of service study and financial projection and a comprehensive examination of its existing rate structure by an outside party. The specific purposes of the study are identified below:

- 1) **Determine water utility's revenue requirements for fiscal year 2025**. Ledyard's revenue requirements were projected for the period from 2025 2029 and included adjustments for the following:
 - a. Projected costs
 - b. Projected changes in staffing levels
 - c. Capital improvement plan projected over next five years
- 2) *Identify cross-subsidies that may exist between rate classes.* Cross-subsidies exist when certain customer classes subsidize the water costs of other customers. The rate study identifies if cross-subsidies exist and practical ways to reduce the subsidies. The cost of service study was completed using 2025 projected revenues and expenses. The financial projections are for the period from 2025 2029.
- 3) Identify financial metrics required to meet bond covenant requirements.
- 4) Identify rate adjustments needed to meet targeted revenue requirements. The primary purpose of this study is to identify appropriate revenue requirements and the rate adjustments needed to meet targeted revenue requirements. The report includes a long-term rate track for to help ensure the financial stability of the utility in future years.
- 5) **Unbundled water rates.** The cost of providing water to customers consists of several components, including distribution, customer services, and transfers to the general fund. Water unbundling identifies the cost of each component to assist the utility in preparing for water restructuring and understanding its cost structure.
- 6) *Identify the appropriate monthly customer charge for each customer class.* The monthly customer charge consists of fixed costs to service customers.



2. Financial Projection Summary

Utility Rate Process

Ledyard retained Utility Financial Solutions to review utility rates and cost of service. This study follows the process set forth for best practice through the American Water Works Association This report includes results of the water cost of service and unbundling study and considerations on future rate designs.

Water consumption can vary significantly due to factors like weather (e.g., a hot, dry summer leading to more irrigation). This variability is a significant challenge for water utility planning since revenues can fluctuate with water usage while many of the utility's costs are fixed. The study assumes little to no growth in water consumption during the projection period. This is a conservative assumption and helps to ensure financial stability.

The assumptions used to develop the expense projection are described in greater detail in the "Significant Assumptions" section of this report.

Utility Revenue Requirements

To determine revenue requirements, the revenues and expenses for Fiscal Years 2022 and 2023, and 2024 budget were analyzed, with adjustments made to reflect projected operating characteristics. *The projected financial statements are for cost of service purposes only.*

Table 1 is the projected financial statement for the Water Department from 2025 – 2029. The 2025 rate of return calculation established an operating income target of \$650,133 (See Table 5).

Operating income for 2025 is projected at -\$587,297 and decreases to -\$737,360 in 2029. Operating income is one target that helps to determine if rate adjustments are needed. The following pages review cash flow and debt coverage ratio which are also important indicators.



Table 1 – Projected Financial Statements

	F	rojected	F	rojected	F	Projected	F	rojected	F	rojected
Description		2025		2026		2027		2028		2029
Operating Revenues:										
Water Sales										
Metered Individual Living Units	\$	765,887	\$	767,801	\$	769,721	\$	771,645	\$	773,574
Schools, Churches, & Commercial		198,068		198,563		199,060		199,557		200,056
Unmetered		3,103		3,111		3,118		3,126		3,134
Metered Apartments		193,329		193,813		194,297		194,783		195,270
Fire Sprinkler Annual Flat Rate		717		719		721		723		724
Miscellaneous		2,575		2,652		2,732		2,814		2,898
Connection Fees		11,296		11,635		11,984		12,344		12,714
Late Fees		783		807		831		856		882
Assessment Fees		8,740		9,002		9,272		9,550		9,837
Transmission Fee		13,228		13,625		14,033		14,454		14,888
Total Operating Revenues	\$	1,197,727	\$	1,201,728	\$	1,205,770	\$	1,209,853	\$	1,213,978
Operating Expenses:										
Contracted and Purchased Services	\$	1,270,701	\$	1,308,822	\$	1,348,087	\$	1,388,530	\$	1,430,186
Utilities		14,898		15,344		15,805		16,279		16,767
Depreciation Expense		299,425		300,634		301,884		303,134		304,384
Contributed Capital Depreciation		27,154		27,195		27,195		27,195		27,195
Total Operating Expenses	\$	1,612,178	\$	1,651,996	\$	1,692,971	\$	1,735,138	\$	1,778,532
Operating Income	\$	(414,451)	\$	(450,268)	\$	(487,201)	\$	(525,285)	\$	(564,554)
Other Income & Expense										
Interest On Long Term Debt	\$	(91,061)	\$	(74,701)	\$	(58,891)	\$	(44,172)	\$	(29,878)
Transfers										
Transfers Out		(200,000)		(200,000)		(200,000)		(200,000)		(200,000)
Capital Contributions		3,242		-		-		-		-
Non Operating Income/Expense	\$	(287,819)	\$	(274,701)	\$	(258,891)	\$	(244,172)	\$	(229,878)
Net Income	\$	(702,270)	\$	(724,969)	\$	(746,092)	\$	(769,457)	\$	(794,433)
Adjusted Operating Income	\$	(587,297)	\$	(623,073)	\$	(660,007)	\$	(698,090)	\$	(737,360)

Operating Revenue	Revenue was provided for each customer class and includes revenue associated with
	commodity (variable), meter charges (fixed), and fire protection. Operating revenue also
	includes other revenue such as miscellaneous and connection fees.
Contracted and Purchased	Includes cost for the operating agreements with Groton Utilities, water purchases,
Services	professional services, maintenance, and equipment (non-capital).
Utilities	Cost associated with purchased power.
Depreciation Expense	Represents general ledger account 0505-98-0000-91991-59500 for depreciation
	expense.
Contributed Capital	Depreciation expense on capital contributions is separated for ratemaking purposes.
Depreciation	Contributed assets were identified using Ledyard's fixed asset listing.
Interest on Long Term Debt	Ledyard currently has two bonds and is 19% leveraged.
Transfers Out	Transfers out were estimated at \$200,000 each year.
Capital Contributions	Represents assets donated to the water system
Net Income	Revenue less expense plus non-operating income.
Adjusted Operating Income	Revenue less expense and transfers out.



Projected Cash Flow

The utility's basic financial statements are kept on an accrual accounting basis. This means they recognize expenses when they are incurred and revenues when they are earned, rather than when cash changes hands. In the accrual basis of accounting, depreciation is recognized as an expense, even though it doesn't involve an actual cash outflow.

Table 2 is the projected cash flow for 2025 – 2029, including projections of capital improvements as provided by Ledyard. To project actual cash flow, several adjustments are made to the accrual basis financial statements:

- Depreciation expense (a non-cash item) is added back since it reduces net income on the income statement but doesn't involve an actual cash outflow.
- Debt principal payments are subtracted. These are actual cash outflows, but they are not treated as expenses on the income statement under accrual accounting.
- Capital Expenditures are subtracted. Like principal repayments, these are actual cash outflows that are not treated as expenses on the income statement.

The projection starts with the actual cash balances from FY2023, which are adjusted for the anticipated cash expenditures in FY2024. It's important to note that changes in the capital improvement plan can have a significant impact on projected cash balances, as they involve large expenditures.

- If new projects are added, or if existing projects become more expensive than anticipated, this can significantly reduce projected future cash balances.
- Conversely, delaying or scaling back capital projects can help preserve cash.

Based on these assumptions and projections, the utility expects to have a cash balance of -\$1.00M in 2025 and falling to -\$5.06M in 2029 under the current rates.

The suggested minimum cash reserve level for 2025 is \$993,276 and \$901,810 for 2029.

Table 2 – Projected Cash Flows

	Projected		P	Projected Pr		rojected	Projected		Р	rojected
Description		2025		2026		2027		2028		2029
Projected Cash Flows										
Net Income	\$	(702,270)	\$	(724,969)	\$	(746,092)	\$	(769,457)	\$	(794,433)
Depreciation Expense/Amortization		326,579		327,829		329,079		330,329		331,579
Subtract Debt Principal		(578,431)		(585,391)		(529,843)		(521,843)		(503,036)
Add Bond Sale Proceeds		-		-		-		-		-
Cash Available from Operations	\$	(954,122)	\$	(982,531)	\$	(946,856)	\$	(960,970)	\$	(965,889)
Estimated Annual Capital Additions		46,758		50,000		50,000		50,000		50,000
Capital Contributions		3,242		-		=		-		=
Net Cash From Operations	\$ (1,004,122)	\$	(1,032,531)	\$	(996,856)	\$	(1,010,970)	\$ ((1,015,889)
Beginning Cash Balance	\$	-	\$	(1,004,122)	\$	(2,036,653)	\$	(3,033,509)	\$	(4,044,479)
Ending Cash Balance	\$ (1,004,122)	\$	(2,036,653)	\$	(3,033,509)	\$	(4,044,479)	\$	(5,060,368)





Minimum Cash Reserve

Table 3 details the minimum level of cash reserves required to help ensure timely replacement of assets and to provide financial stability of the water utility. The methodology used to establish this target is based on the following assumptions.

Allocator	Risk Factor Assigned
Operation & Maintenance Less Depreciation Expense	45 day working capital lag = 12.3% factor
Historical Rate Base	Less than 50% depreciated = 1.0% factor
Current Portion of Debt Service Payment	Highest annual debt payment = 83%
Five Year Capital Improvements – Net of Bond Proceeds	20% of the five year capital plan

Based on these assumptions, Ledyard should maintain a minimum of \$993,276 in cash reserves for 2025 and \$901,810 in 2029.

Table 3 – Minimum Cash Reserves

	Proj	ected	Pr	ojected	Р	rojected	Pr	ojected	F	rojected
Description	20	025		2026		2027		2028		2029
Minimum Cash Reserve Allocation										
Operation & Maintenance Less Deprecial		12.3%		12.3%		12.3%		12.3%		12.3%
Historical Rate Base		1%		1%		1%		1%		1%
Current Portion of Debt Service Payment		83%		83%		83%		83%		83%
Five Year Capital Improvements - Net of		20%		20%		20%		20%		20%
% Plant Depreciated		26%		28%		29%		30%		31%
Calculated Minimum Cash Level										
Operation & Maintenance Less Deprecial	\$ 1	58,498	\$	163,253	\$	168,151	\$	173,196	\$	178,391
Historical Rate Base	2	229,100		229,600		230,100		230,600		231,100
Current Portion of Debt Service Reserve	5	55,678		547,876		488,649		469,792		442,319
Five Year Capital Improvements - Net of		50,000		50,000		50,000		50,000		50,000
Minimum Cash Reserve Levels	\$ 9	93,276	\$	990,729	\$	936,900	\$	923,587	\$	901,810
Projected Cash Reserves	\$ (1,0	004,122)	\$ (2,036,653)	\$ (3,033,509)	\$ (4	4,044,479)	\$	(5,060,368)





Debt Coverage Ratio

Table 4 is the projected debt coverage ratios with capital additions as provided by Ledyard. Debt coverage ratio is a measurement of debt affordability and measures the cash flow from operations in that fiscal year. A ratio of 1.00 indicates there was enough cash flow from operations to pay the debt payment one time. The minimum debt coverage ratio for prudent financial planning purposes is 1.40.

Maintaining a 1.40 debt coverage ratio is good business practice and helps to achieve the following:

- Helps to ensure debt coverage ratios are met in years when sales are low due to cold or wet summers or loss of a major customer(s).
- When debt coverage ratios are consistently met, it may help obtain a higher bond rating if revenue bonds are sold in the future, to lower interest cost.

Table 4 – Projected Debt Coverage Ratios

	Р	rojected								
Description		2025		2026		2027		2028		2029
Debt Coverage Ratio										
Net Income	\$	(702,270)	\$	(724,969)	\$	(746,092)	\$	(769,457)	\$	(794,433)
Add Depreciation/Amortization Expense		326,579		327,829		329,079		330,329		331,579
Add Interest Expense		91,061		74,701		58,891		44,172		29,878
Cash Generated from Operations	\$	(284,630)	\$	(322,439)	\$	(358,122)	\$	(394,956)	\$	(432,975)
Debt Principal and Interest	\$	669,492	\$	660,092	\$	588,734	\$	566,014	\$	532,914
Projected Debt Coverage Ratio (Covenants)		(0.43)		(0.49)		(0.61)		(0.70)		(0.81)
Minimum Debt Coverage Ratio		1.40		1.40		1.40		1.40		1.40

Debt coverage falls below the UFS target ratio throughout the projection period at the current rates.



Optimal Rate Funded Capital (Target Operating Income)

The optimal rate-funded capital target, or target operating income, is an essential concept in utility finance. It ensures the utility can meet its current financial obligations, plan for future capital needs, and operate in a financially sustainable and responsible manner. This concept is central to rate setting and is designed to balance the need for financial sustainability with the goal of fair and equitable rates for customers.

The operating income target aims to address several key financial needs for the utility.

- a. Funding of Interest Expense on Outstanding Debt Principal Utilities often take on debt to fund major capital projects. The interest on this debt is a recurring expense that must be paid to keep the utility in good financial standing. By setting rates to achieve a target operating income, the utility ensures it has enough revenue to cover these interest payments.
- b. Funding of Inflationary Increase on Assets Invested in the System As time passes and inflation occurs, the cost to replace or upgrade the utility's assets (e.g., pipes, treatment plants) increases. Target operating income should be sufficient to cover these increased costs, ensuring that the utility can continue to maintain and replace its infrastructure as needed without placing a financial burden on future generations.

Maintaining an ideal operating income helps ensure that current customers are paying for the full cost of the services they are receiving, rather than deferring these costs to future generations. This is a key principle of intergenerational equity and ensures the utility remains financially viable. Table 5 establishes a utility basis target for operating income, starting at \$650,133 in 2025 and ending with \$678,118 in 2029.

Table 5 – Target Operating Income Calculation

Rate of Return in	%	3.9%		4.0%	4.	1%		4.2%		4.3%
Projected Operating Incon	ne \$	(587,297)	\$ (6	23,073)	\$ (660,0	07)	\$	(698,090)	\$	(737,360)
Target Operating Incon	ne \$	650,133	\$ 6	57,146	\$ 663,0	55	\$	670,424	\$	678,118
System Equity	\$	522,056	\$ 5	45,429	\$ 567,1	49	\$	589,236	\$	611,223
Contributed Capital Estimated		37,016		37,016	37,0	16		37,016		37,016
Interest on Debt	\$	91,061	\$	74,701	\$ 58,8	91	\$	44,172	\$	29,878
Target Operating Income										
System Equity		4.21%		4.28%	4.3	6%		4.44%		4.52%
Contributed Capital Estimated		3.10%		3.10%	3.1	.0%		3.10%		3.10%
Interest on Debt		2.78%		2.78%	2.7	3%		2.70%		2.64%
Target Operating Income Allocation		•								
Debt:Equity Ratio		19%		16%	1	3%		10%		7%
System Equity	\$:	12,397,194	\$ 12,7	31,951	\$ 13,009,9	10	\$ 13	,278,618	\$1	.3,527,269
Contributed Capital Estimated		1,194,065	1,1	94,065	1,194,0	65	1	,194,065		1,194,065
Outstanding Principal on Debt		3,273,953	2,6	88,562	2,158,7	19	1	,636,877		1,133,841
Net Book Value/Working Capital	\$	16,865,213	\$ 16,6	14,579	\$ 16,362,6	94	\$ 16	,109,560	\$1	.5,855,175
Target Operating Income Determinants										
Description		2025	20	026	2027			2028		2029
	F	Projected	Proje	ected	Projecte	d	Pro	ojected	Ρ	rojected



Operating income is projected below this target, suggesting that revenue requirements (and thus rates) will likely need to increase over time to ensure the utility's financial health.

Projected Rate Track

Adjusting system revenue requires balancing the financial health of the utility with the financial impact on customers and cost of service results.

Table 6 is the summary financial projection without any rate changes. Cash balances, operating income and the debt coverage ratio fall to critical levels.

Table 6 – Summary of Financials without Rate Adjustment

		Adjusted	Optimal		Recommended	Debt	
Fiscal	Projected Rate	Operating	Operating	Projected Cash	Minimum Cash	Coverage	
Year	Adjustments	Income	Income	Balances	Reserve	Ratio	
2025	0.0%	\$ (587,297)	\$ 650,133	\$ (1,004,122)	\$ 993,276	(0.43)	
2026	0.0%	(623,073)	657,146	(2,036,653)	990,729	(0.49)	
2027	0.0%	(660,007)	663,055	(3,033,509)	936,900	(0.61)	
2028	0.0%	(698,090)	670,424	(4,044,479)	923,587	(0.70)	
2029	0.0%	(737,360)	678,118	(5,060,368)	901,810	(0.81)	

The study identifies increasing current revenues to maintain debt coverage ratios and minimum cash targets.

Table 7 is a summary of the financial results detailing the total revenue adjustment needed to work toward financial health.

Table 7 – Summary of Financials with Projected Rate Adjustments (One Year)

	Projected	Adjusted	Optimal		Debt	
Fiscal	Rate	Operating	Operating	Projected Cash	Minimum Cash	Coverage
Year	Adjustments	Income	Income	Balances	Reserve	Ratio
2025	100.0%	\$ 573,807	\$ 650,133	\$ 156,982	\$ 993,276	1.31
2026	0.0%	540,934	657,146	288,458	990,729	1.27
2027	0.0%	506,910	663,055	458,519	936,900	1.37
2028	0.0%	471,744	670,424	617,383	923,587	1.37
2029	0.0%	435,399	678,118	774,253	901,810	1.39





Rate adjustments may be phased in to work toward the financial metrics over time and balance customer impacts.

Table 8 and Table 9 show this phased in approach.

Table 8 – Summary of Financials with Projected Rate Adjustments (Two Years)

	Projected	Adjusted	Optimal		Recommended	Debt	
Fiscal	Rate	Operating	Operating	Projected Cash	Minimum Cash	Coverage	
Year	Adjustments	Income	Income	Balances	Reserve	Ratio	
2025	50.0%	\$ (6,745)	\$ 650,133	\$ (423,570)	\$ 993,276	0.44	
2026	40.0%	657,334	657,146	(175,693)	990,729	1.45	
2027	0.0%	623,602	663,055	111,060	936,900	1.57	
2028	0.0%	588,727	670,424	386,907	923,587	1.58	
2029	0.0%	552,675	678,118	661,052	901,810	1.61	

Table 9 – Summary of Financials with Projected Rate Adjustments (Three Years)

	Projected	Adjusted	Optimal		Recommended	Debt	
Fiscal	Rate	Operating	Operating Projected Cash N		Minimum Cash	Coverage	
Year	Adjustments	Income	Income Balances		Reserve	Ratio	
2025	33.0%	\$ (204,133)	\$ 650,133	\$ (620,958)	\$ 993,276	0.15	
2026	31.0%	240,969	657,146	(789,446)	990,729	0.82	
2027	29.0%	795,801	663,055	(330,495)	936,900	1.86	
2028	0.0%	761,356	670,424	117,981	923,587	1.88	
2029	0.0%	725,736	678,118	565,187	901,810	1.93	

The rate track options above work toward a healthy operating income and positive cash balance through 2029. Depending on the system improvement timetable, additional changes may be needed throughout the projection period.



3. Cost of Service Summary

A cost of service study was completed for FY2025 to determine the cost of providing service to each class of customers and to assist in design of water rates for customers. A cost of service study consists of the following general steps:

- 1) Determine utility revenue requirement for test year 2025.
- 2) Classify utility expenses into common cost pools.

Source of Supply	Distribution	Customer		
Treatment	Transmission	Administrative		
Reservoirs	Fire Protection	Hydrants		

3) Functionalize within cost pools.

Variable	Fixed
Base Commodity	Capacity
Max Day Commodity	Customer
Max Hour Commodity	Fire Protection

- 4) Allocate costs to customer classes based on the class's contribution to utility expenses Class usage patterns were analyzed and compared to system use to develop peaking factors used in allocating the variable components of the rate (Base, Max Day, Max Hour). Number of meters, meter costs, meter size, and meter equivalent ratios were used to allocate the fixed components of the rate (Capacity Fixed, Customer, Fire Protection).
- 5) Compare revenues received from each class to the cost of service. The cost of service provides guidance for the direction of the rate design.

The cost of service summary is included as Table 10 which compares the projected cost to serve each class (fixed and variable) with the revenue received from each class. The "% change" column is the revenue adjustment necessary to meet projected cost of service requirements.

Table 10 – Cost of Service Summary

	Projec					
	Cos	st of Service				
Customer Class		(\$)		(\$)	% Change	
Metered Individual Living Units	\$	1,895,555	\$	765,887	147.5%	
Schools, Churches, & Commercial		225,969		198,068	14.1%	
Unmetered		4,519		3,103	45.6%	
Metered Apartments		272,491		193,329	40.9%	
Fire Sprinkler Annual Flat Rate		2,355		717	228.3%	
Total	\$	2,400,889	\$	1,161,104	106.8%	





Cost of Service Components

Summary of Rate Components

The cost of service study is a critical tool in utility finance and management. It ensures that rates are set based on actual costs, and it helps to distribute those costs fairly among customers, based on how they use the service. It provides guidance for setting rates that support the utility's financial health and its capacity to provide reliable service in the long-term. The purpose of the study is to allocate costs between flow (commodity costs, variable) and customer service costs (customer costs, fixed). The cost of service study was based on recognized procedures from the American Water Works Association.

Customer Costs (Fixed) — These are fixed costs, associated with serving customers regardless of how much water they use. They include the costs of operation and maintenance related to meters, services, meter reading, billing, customer service, and a base amount of distribution. Because these costs are largely fixed, they are typically recovered through a fixed 'customer charge' that customers pay regardless of their water use. This portion of the rate ensures that the utility can cover its basic operating costs, even if water use fluctuates significantly. Allocating these costs based on the relative cost of meters, services, and the number of customers ensures that each customer is paying their fair share of these basic operating costs.

Commodity Costs (Variable) – These are the variable costs associated with the actual production and delivery of water. They can include costs related to water supply, water treatment, pumping (energy costs), and distribution infrastructure. Because these costs tend to vary with the amount of water used, they are typically recovered through a variable 'commodity charge' that is based on the volume of water consumed.

For water utilities, the cost of service study is based on Long Term Marginal Costs (LTMC). LTMC is considered a best practice as it sends accurate price signals to consumers based on the full cost of providing additional units of service, including the cost of infrastructure investments that will be needed in the future. This promotes efficient use of water and ensures that the utility collects sufficient revenue to sustain its operations over the long term. This differs from Short-Term Marginal Cost (STMC) which refers to the cost associated with producing one additional unit of output (e.g., one more cubic meter of water treated and delivered) in the short-term.



The rates outlined in Table 11 and Table 12 are not the suggested rates. They are used as a guide to move toward cost of service slowly over time. Classes that charge at or above cost of service may still see an increase due to meeting revenue requirements, but that increase may be lower than the average.

Table 11 details the current monthly charges and provides a comparison with cost of service. The utility's rate schedule currently utilizes a minimum bill in place of a customer charge. The minimum bill assumes 3,333 units per month and any units above 3,333 are billed at the current commodity rate outlined in Table 12.

The cost of service monthly charge identified in the study unbundles the fixed cost components from the commodity components, and therefore no units are associated with this charge. If using a monthly customer charge in the rate schedule, the utility would charge the monthly customer charge and charge all units of water (including units 1-3,333) at the published commodity rate.

Table 11 – Comparison of Current Customer Costs (Fixed) with Cost of Service

					Number of
	Cost of Service	Current -	Current -		Customers/Meters
Customer Class	Meter \$/Month	Meter \$/Month	Minimum Bill		(Monthly)
Metered Individual Living Units	\$ 25.79	\$ -	\$ 30.78	per customer	1,474
Schools, Churches, & Commercial	124.90	-	123.13	per customer	78
Metered Apartments	6.89	-	30.78	per apt unit	330
Fire Sprinkler - 2"	9.53	4.63	-	per customer	4
Fire Sprinkler - 4"	52.70	13.75	-	per customer	3

^{*}Cost of service meter \$/month shows a monthly charge with no units of water included

Table 12 outlines the cost of service commodity rates compared to the current commodity charge. Ledyard currently uses an inclining block rate structure for the Metered Individual Living Units and Metered Apartments customer classes and a flat rate for the Schools, Churches & Commercial class. The current commodity charge column represents the average charge, with higher averages implying more usage in higher blocks for classes utilizing the block rate structure.

The rates below are not the suggested rates. They are used as a guide to move toward cost of service slowly over time.

Table 12 - Comparison of Current Commodity Costs (Variable) with Cost of Service

	Cos	t of Service		Current		Annual
	Con	nmodity by	C	ommodity		Commodity
Customer Class	Class		Charge			Units
Metered Individual Living Units	\$	1.58	\$	0.93	Blocked Rate	910,264
Schools, Churches, & Commercial		1.61		1.68	Flat Rate	68,209
Metered Apartments		1.50		0.93	Blocked Rate	163,248

UFS UTILITY FINANCIAL SOLUTIONS, LLC

Water Department

Customer Costs (Fixed) Breakdown

The customer charge consists of expenses related to, 1) providing a minimum amount of water to the residential customer, and 2) servicing a meter on the customer's premises; together they reflect the cost for availability of service. The methodology used in this study is consistent with methodologies and practices used by AWWA.

The customer charge includes two types of costs called minimum system and direct charges. A further discussion of the two is below:

<u>Minimum System Costs</u>: The cost to provide the minimum level of service based on the potential capacity of the customer's meter. Utilities provide water lines to connect to the water transmission system, pumping stations, reservoirs, and subsequently the water treatment facilities. These water lines are required to provide even the minimal amount of service to a customer.

For cost of service purposes, the total cost of the water distribution infrastructure is broken into two components:

- 1. The minimum system costs, in effect provide a customer with the minimum capacity and should be recovered through the customer charge.
- 2. Demand-related costs are additional infrastructure costs of providing customers with capacity in the water system for usage greater than the minimum amounts and should be recovered through the usage component.

The distribution system is sized to handle the customers' peak usage and the cost above the minimum sizing is recovered through the usage component (commodity costs, variable).



Determination of Meter Equivalents

A meter equivalent is the maximum capacity of the utility's smallest meter size compared with the maximum capacity of other meters. The meter equivalent ratios are standard factors used by AWWA.

Table 13 - Meter Capacity Factors

	Meter
	Capacity Ratios
Meter Size	3/4"
0.75	1.00
1.00	1.67
1.50	3.33
2.00	5.33
3.00	23.33
4.00	43.33
6.00	93.33
8.00	160.00
10.00	233.33
12.00	293.33

The table of capacity factors was calculated using the theoretical volume capacity of each meter size. The table can be interpreted as a 2-inch meter has 8 times more potential capacity than a 5/8-inch meter.

Ledyard uses a customer class designation instead of charging based on actual meter size. For purposes of the cost of service study, the following assumptions were made.

Customer Class	Meter Size
Metered Individual Living Units	5/8" – 3/4"
Schools, Churches, & Commercial	2" and up
Unmetered	5/8" – 3/4"
Metered Apartments	2"
Fire Sprinkler	2"



The customer charge, cost-based rate, breakdown for customers is listed in Table 14. The costs are generated by classifying the trial balance accounts from the general ledger for the test year into common cost pools. The costs are then functionalized into fixed components and allocated to each meter. The minimum system costs for distribution are included under distribution facilities, and direct costs include meters, services, customer service, and billing.

No units are associated with the cost of service monthly customer charge. If using a monthly customer charge in the rate schedule, the utility would charge the monthly customer charge and charge all units of water (including units 1-3,333) at the published commodity rate. Ledyard is currently using a minimum bill mechanism.

Table 14 - Customer Charge Breakdown

			Distribution			S	Meters: Cost of Service Istomer	Cı	leters: urrent stomer	C	Aeters: Current	Percent				
Customer Class		/leters	Cu	ıst. Serv.	F	ire Prot.	F	acilities	Billing	c	harge	CI	harge		Bill	Change
Metered Individual Living Units	\$	2.66	\$	0.76	\$	9.44	\$	9.97	\$ 2.96	\$	25.79	\$	-	\$	30.78	-16%
Schools, Churches, & Commercial		17.71		0.76		50.34		53.13	2.96		124.90		-		123.13	1%
Metered Apartments		0.98		0.76		1.07		1.13	2.96		6.89		-		30.78	-78%

Customer Charge Allocations

Meters	Installation, operation, and maintenance costs of meter based on number of
	meters and meter cost.
Fire Protection	Cost of water flow for fire protection based on number of customers, equivalent
	services, and demand factor.
Distribution	Installation and maintenance cost of distribution system based on capacity ratio.
Facilities	
Billing and	Personnel cost, billing, and collection cost to service accounts based on number
Customer Service	of meters and meter size.

Often, larger meters require additional time in processing and vetting the bills and answering customer service questions. Because of this, a weighting factor is assigned based on the size of the meter.



Commodity Costs (Variable) Breakdown

The commodity charges are generated by classifying the trial balance accounts from the general ledger for the test year into common cost pools. The costs are then functionalized into variable components and allocated to each meter based on allocation factors. The cost based commodity rates are broken down by meter size and listed in Table 15 below. The rate provided shows the average use by meter size across the three tiers.

Table 15 – Commodity Charge Breakdown

	Extra Capacity - Treatment	Extra Capacity -	- Distribution	Extra Capacity	- Transmission			
	Treatment	Distribution	Distribution	Transmission	Transmission	Usage:	Usage: Current	Percent
Rate Class - Unit Costs	Base	Base	MD	Base		Unit Cost	Rates	Change
Metered Individual Living Units	0.72	0.20	0.20	0.17	0.29	\$ 1.58	\$ 0.93	70%
Schools, Churches, & Commercial	0.72	0.20	0.22	0.17	0.30	1.61	1.68	-4%
Metered Apartments	0.72	0.20	0.15	0.17	0.26	1.50	0.93	62%

Commodity Allocation Factors

commounty / motation	
Treatment Base	Cost related to the average day production and treatment of water.
Distribution Base	The cost associated with the average day use of the distribution facilities.
Distribution MD	Cost above the average day consumption, determined by the ratio of maximum
	month to the annual average-day consumption.
Transmission Base	Average-day cost to transport between the treatment plant and local distribution
	lines.
Transmission MH	Cost associated with the maximum hour of consumption, determined by the ratio
	of the max hour factor to annual average day consumption.



Unbundling Process

The cost of treatment, distribution, customer-related, and fire protection are identified as part of the unbundling process and are the first step in determining unbundled charges to customers. The total fiscal year 2025 revenue requirements of \$2.40M are separated into four categories identified in Figure 1.

Utility Cost	Amount	Percentage
Treatment	\$ 828,135	35%
Distribution / Transmission	\$ 969,739	40%
Customer-Related	\$ 382,161	16%
Fire Protection	\$ 220,752	9%
Total	\$ 2,400,787	100%

The expenses consist of treatment costs 35%, distribution costs 40%, customer-related costs 16%, and fire protection costs 9%. These components are broken down into subcomponents and are identified in the following sections.

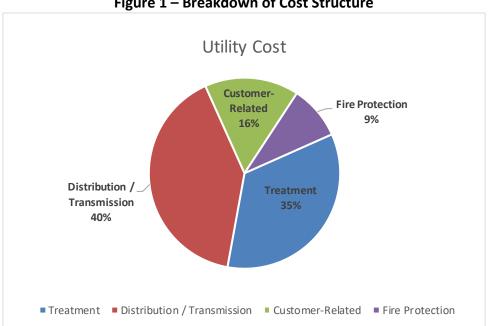


Figure 1 – Breakdown of Cost Structure





Distribution Cost Breakdown

Total distribution costs of \$969,739 for fiscal year 2025 are broken down into the main component shown in Figure 2 below: Distribution, Pumping, Storage, and Transmission.



Figure 2 – Breakdown of Distribution Costs

Each of these components are allocated to customer groups based on certain factors established in the study, such as the length of line extensions to reach certain customer classes. The distribution-related costs are separated into the customer charge based on the cost to provide a minimum amount of water to the customer, and the usage component expressed as a rate per gallons. Pumping and transmission costs are allocated into the usage component of the rates.





Treatment Cost Breakdown

Total treatment costs of \$828,135 for fiscal year 2025 are broken down into the main components in Figure 3 below: Treatment and Source of Supply.

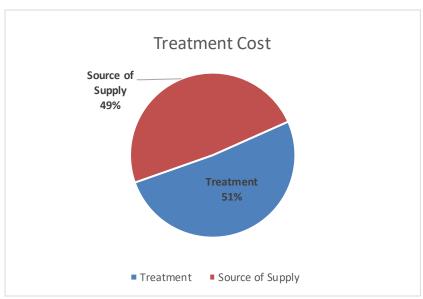


Figure 3 – Breakdown of Treatment Costs

Each of these components are allocated to customer groups based on certain factors established in the study, such as the amount of water used and the peaking requirements of customer class.



Customer-Related Cost Breakdown

Ledyard's total expenses for direct customer-related costs are \$382,161 for fiscal year 2025. The cost is broken down into the following components in Figure 4.

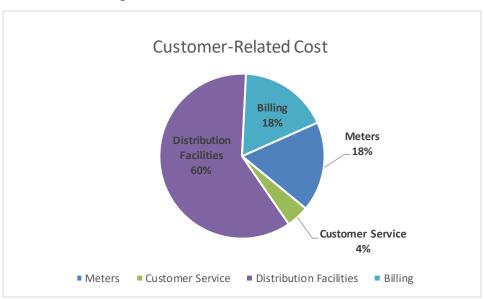


Figure 4 – Breakdown of Customer Costs

Direct customer-related costs are allocated to rate classes based on cost of meters, minimum sizing requirements, customer service and billing costs for each customer class and meter size.





Fire Protection Cost Breakdown

Ledyard's total expenses for fire protection costs are \$220,752 for fiscal year 2025. Fire protection costs are allocated to fire protection classes based on the potential fire flow requirements determined by the number and size of the fire lines.

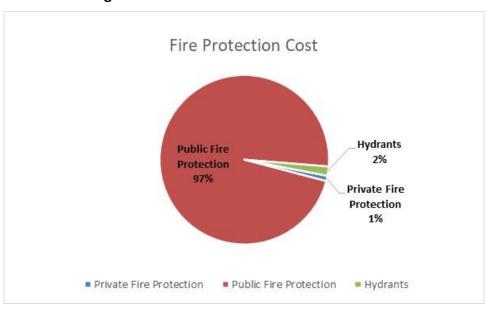


Figure 5 – Breakdown of Fire Protection Costs

					T	otal Fire
	Number of	Demand	Equivalent		Pr	otection
Item	Services	Factor	Connections	Allocation		Costs
Total Public Fire Protection	350	38.32	13,412	\$ 216,247	\$	216,247
Private Fire Protection						
2.0	4	6.19	25			
4.0	3	38.32	115			
Total Private Fire Protection	1		140	\$ 2,253	\$	2,253
Direct Hydrants					\$	3,904
Total			13,551		\$	222,404



Combined Cost Summary

Table 16 compares the cost of service rates for each customer class with the current rates. Charging these rates would directly match the cost of providing service to each customer class shown below.

Table 16 – Total Costs by Customer Class

			Cost of Service	Current
	Cost of Service	Current -	Commodity by	Commodity
Customer Class	Meter \$/Month	Minimum Bill	Class	Charge
Metered Individual Living Units	\$ 25.79	\$ 30.78	\$ 1.58	\$ 0.93
Schools, Churches, & Commercial	124.90	123.13	1.61	1.68
Unmetered	16.73	-	1.54	-
Metered Apartments	6.89	30.78	1.50	0.93
Fire Sprinkler - 2"	9.53	-	-	-
Fire Sprinkler - 4"	52.70	-	-	-

The table above compares the current customer charges with the cost-based customer charges and identifies the cost-based commodity rates for each class.





4. Significant Assumptions

General Assumptions

This section outlines the procedures used to develop the cost of service for Ledyard and the related significant assumptions.

		Cost			C	Capital
Fiscal		Increase	Customer	Investment	Impr	ovements
Year	Inflation	(Units)	Growth	Income		Plan
2025	3.0%	5.0%	0.25%	0.5%	\$	50,000
2026	3.0%	4.0%	0.25%	0.5%		50,000
2027	3.0%	3.0%	0.25%	0.5%		50,000
2028	3.0%	3.0%	0.25%	0.5%		50,000
2029	3.0%	3.0%	0.25%	0.5%		50,000

Rate Implementation

Anticipated rate adjustments are modeled to take place in July of each calendar year.



Forecasted Operating Expenses

Forecasted expenses were based on 2022 and 2023, and 2024 budget and adjusted for inflation. Table 17 is a summary of the expenses used in the analysis.

Table 17 - Projected Operating Expenses

	Projected	Projected	Projected	Projected	Projected
Description	2025	2026	2027	2028	2029
Operating Expenses:					
Contracted and Purchased Services	\$ 1,270,701	\$ 1,308,822	\$ 1,348,087	\$ 1,388,530	\$ 1,430,186
Utilities	14,898	15,344	15,805	16,279	16,767
Depreciation Expense	299,425	300,634	301,884	303,134	304,384
Contributed Capital Depreciation	27,154	27,195	27,195	27,195	27,195
Total Operating Expense	s \$ 1,612,178	\$ 1,651,996	\$ 1,692,971	\$ 1,735,138	\$ 1,778,532

Beginning 2025 Cash Balance

Beginning 2025 cash balance was based on the 2023 available cash balance at year end, adjusted for the projected 2024 cash flow from operations.

Depreciation Expense

Depreciation expense was projected based on historical capital additions and discussions with management on future capital additions.

Interest Income

Interest income was forecasted based on projected cash balances and an interest rate of 0.5%.

Capital Improvements

A capital improvement plan was not available for use in the study. Projected capital investment was estimated at \$50,000 per year based on historic capital spending.



5. Considerations and Additional Information

- 1. The Utility is projected to require increases in rates charged to customers. Projected rate track options are outlined in the projected rate track section of this report.
- 2. Unknown events can occur that affect a utility's financial plan. It is recommended that Ledyard have the financial projection study updated annually to ensure the utility can meet revenue requirements with the current rate plan. Cost of service studies are separate from the financial projection and can be refreshed every 3-5 years.
- 3. Cash balances are decreasing without changes in rates. Projected cash balances are below the suggested minimums during the projection period.
- 4. Debt Coverage Ratio falls below suggested minimum levels without changes in rates.
- 5. Current rate related revenues are projected to result in operating income below the target operating income for each year. Meeting the operating income target indicates current rates are fully funding system revenue requirements and future replacement cost of current infrastructure.
- 6. Infrastructure of the Utility is newer than the national average. The infrastructure in total is approximately 26% depreciated compared with the national average between 50% 55%. This indicates the Utility has newer infrastructure.
- 7. The Utility has a debt to equity ratio of 19% which is lower than the national average of between 40% 60% for water utilities.
- 8. Ledyard may consider movements toward cost of service. The cost of service study indicates a variance exists between revenues and costs for certain rate classes. The study results are listed below:

			F	rojected	
	Co	st of Service	F	Revenues	
Customer Class		(\$)		(\$)	% Change
Metered Individual Living Units	\$	1,895,555	\$	765,887	147.5%
Schools, Churches, & Commercial		225,969		198,068	14.1%
Unmetered		4,519		3,103	45.6%
Metered Apartments		272,491		193,329	40.9%
Fire Sprinkler Annual Flat Rate		2,355		717	228.3%
Total	\$	2,400,889	\$	1,161,104	106.8%

- 9. Currently, Ledyard uses a minimum bill mechanism which includes the first block of water use. Ledyard may consider charging a monthly customer charge in place of a minimum bill. No units of water are associated with a monthly customer charge and all units of water are charged at the commodity rate.
- 10. Ledyard may consider revising the rate schedule to charge by meter size. Charging by meter size is more cost reflective.
- 11. Revisions to the rate structure (considerations 9 and 10), may be considered once the financial health of the utility is restored.



TOWN OF LEDYARD

741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0352 Agenda Date: 4/24/2024 Agenda #: 5.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Review of Groton Utilities Data on New Rate Structure Proposal.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)

GROTON UTILITIES 295 Meridian Street Groton, Connecticut 06340

WATER RATE SCHEDULE FOR GROTON UTILITIES

BILLED ON AND AFTER October 1, 2023, October 1, 2024, October 1, 2025 respectively

AVAILABILITY: Year-Round Water Service for use in a single or multi-family dwelling, business, or industrial establishment. Temporary water service can be available providing all Rules and Regulations of this Department have been met.

1. MONTHLY RATE IS THE SUM OF THE SERVICE CHARGE AND THE CONSUMPTION CHARGE:

a. The Monthly SERVICE CHARGE is based on meter size:

Service Charges									
Meter Size	Octo	ber 1, 2023	Octo	ber 1, 2024	October 1, 2025				
5/8" or 3/4"	\$	19.00	\$	19.25	\$	19.50			
1"	\$	26.00	\$	26.50	\$	27.00			
1.5"	\$	35.00	\$	36.00	\$	37.00			
2"	\$	67.00	\$	68.25	\$	69.50			
3"	\$	148.00	\$	150.00	\$	152.00			
4"	\$	218.00	\$	221.00	\$	224.00			
6"	\$	385.00	\$	410.00	\$	425.00			
8"	\$	700.00	\$	760.00	\$	775.00			
10" or Larger	\$	1,300.00	\$	1,300.00	\$	1,300.00			

b. The Monthly CONSUMPTION CHARGE is based on the number of Cubic Feet (CF) recorded on the meter during the billing month in accordance with this schedule:

Consumption Charge - Cubic Feet (CF) Per Month									
Consumption	October 1, 2023		October 1, 2024		October 1, 2025				
First 10,000 CF	\$	0.050300	\$	0.051600	\$	0.053000			
Additional CF	\$	0.041200	\$	0.044100	\$	0.046500			

2. HYDRANT AND FIRE SPRINKLER ANNUAL CHARGES:

	Fire Sprinkler Annual Service Fee								
Connection Size	October 1, 2023		October 1, 2024		Octo	ber 1, 2025			
Hydrants	\$	588.00	\$	594.00	\$	600.00			
2"	\$	72.00	\$	75.00	\$	78.00			
3"	\$	126.00	\$	132.00	\$	138.00			
4"	\$	225.00	\$	234.00	\$	243.00			
6"	\$	420.00	\$	438.00	\$	456.00			
8"	\$	720.00	\$	750.00	\$	780.00			
10"	\$	1,020.00	\$	1,080.00	\$	1,140.00			

3. <u>TERM OF SERVICE</u>: Water Service is on an annual basis. Seasonal Service requires payment of Twelve (12) Monthly Service Charges plus any Consumption Charge incurred.



TOWN OF LEDYARD

741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1839 **Agenda Date:** 4/23/2024 **Agenda #:** 6.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Any Other Old Business to come before the Authority.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)



TOWN OF LEDYARD

741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 24-0349 Agenda Date: 4/24/2024 Agenda #: 1.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

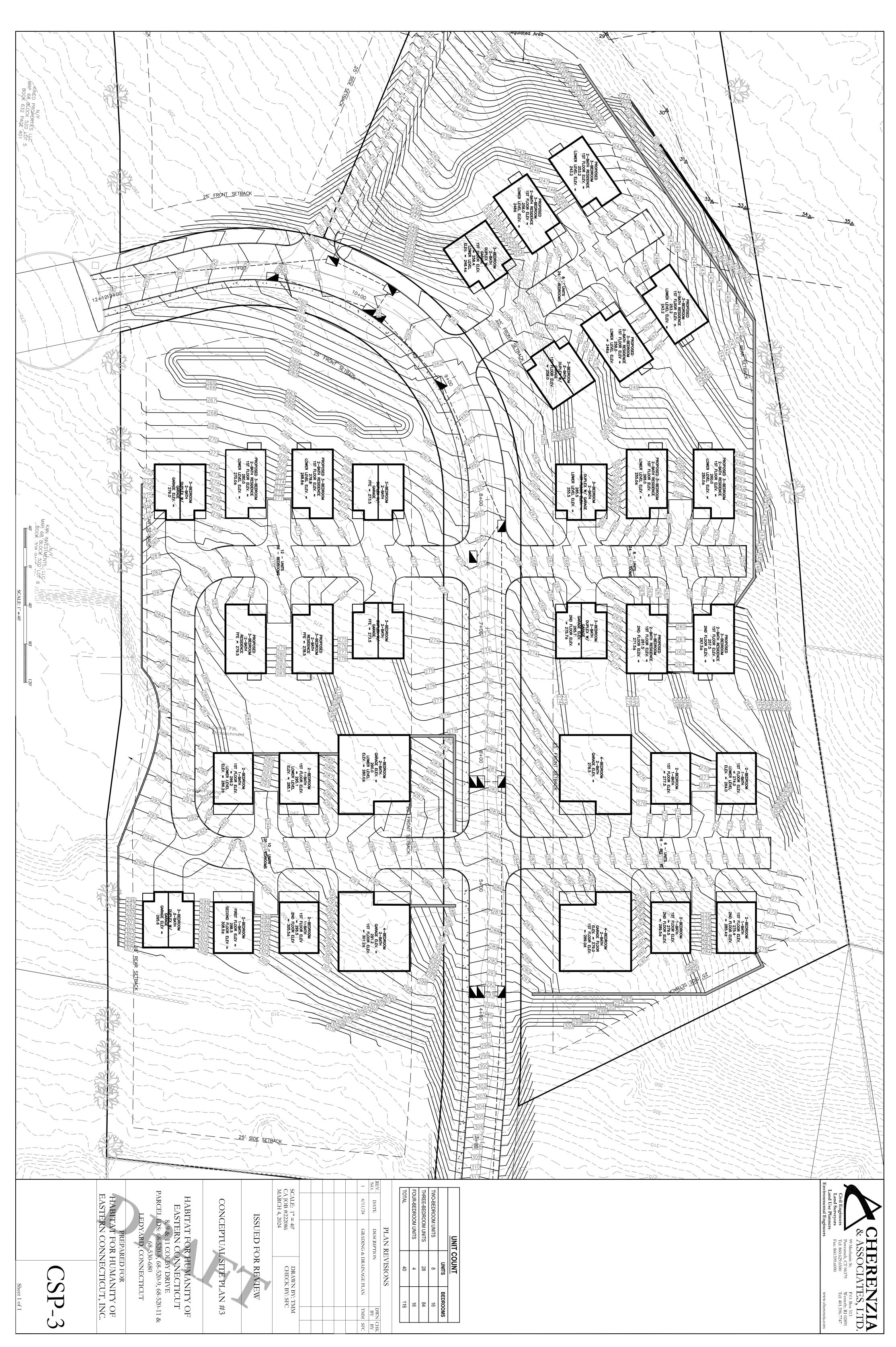
Habitat for Humanity Proposal.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)





April 18, 2024

Mr. Edmond Lynch Town of Ledyard Water Pollution Control Authority

Dear Ed,

Habitat for Humanity of Eastern Connecticut owns roughly 13 acres between the end of Colby Drive and Col. Ledyard Highway, which was donated many years ago. Ideally, we will develop 35-40 homes to be sold with affordable mortgages to households making 80% or less of the area median income. I'd be grateful for the opportunity to present our plan at your next available WPCA meeting, for feedback and potential next steps.

Best Regards,

Sarah H. Lufler ED, HFHECT

enclosure



TOWN OF LEDYARD

741 Colonel Ledyard Highway Ledyard, CT 06339-1511

File #: 23-1840 Agenda Date: 4/24/2024 Agenda #: 2.

AGENDA REQUEST GENERAL DISCUSSION ITEM

Subject:

Any Other New Business to come before the Authority.

Background:

(type text here)

Department Comment/Recommendation:

(type text here)