Minutes for a Ticonderoga Town Board Workshop on Water and Sewer Projects commencing at 10:30 a.m. on March 17, 2023

Present: Mark A. Wright, Supervisor
Dave Woods, Councilman
Joyce Cooper, Councilwoman
Tom Cunningham, Councilman
Tonya M. Thompson, Town Clerk

Absent: Tom Thatcher, Councilman

Others: Derrick Fleury, Water/Wastewater Superintendent and Eric Blanchard, Deputy Water/ Wastewater Superintendent, Greg Swart and Shannon Vogt from AES, Sherry Veneto, Water/Sewer Clerk, Dale Rafferty, Jeff Cook, Michelle Welch, Harry Towne, Kathy Curtis, Buzzy Palmer, Dan Blanchet, Vic Lavallie.

Board Workshop 2023 Water and Sewer Project Planning

Water

Needs in the Water System

- Water Meters: Required to be installed by 2025 (likely requires a 1-2 year extension)
- Mnt Defiance/Abercrombie Tank: not officially required, but well past its useful life.
- Water System Resiliency: The water system is currently divided into two halves. A resiliency plan is needed.
    - The wells feed the northern (and higher elevation) "half" and Baldwin Road (Lake George) serves the southern and lower elevation "half". The well system has the capacity to service the southern half of town but is limited from pipe condition size from doing so.
    - Baldwin Road does not have the capacity and cannot serve the upper half due to elevations differences. Pumping from Lake George to the far reaches of the northern portion is simply not feasible (this was fully vetted during the main water project).
    - Baldwin Road is in poor to failing condition.
    - The water distribution system is in failing condition.

Possible Projects

- Water Meters: Install water meters
    - Decisions to make Type of water meter
        - Ultrasonic: More expensive but more accurate and can ultimately lead to savings
        - Rotating Disk: Cheaper but less accurate
    - Installation method
        - Central Fixed Based System: More convenient, more expensive
        - Drive-by System: More time required, less expensive than Fixed Based
- Abercrombie Tank: Style of Tank
    - Prestressed Wire wound Tank
    - Glass Lined Steel

Resiliency

- Do Nothing
    - Keep fixing things as they break. If failure occurs, southern half of town is without water
- Water main upgrades
    - Replace water mains (exact location TBD) to allow for connection of the well system to the lower system as needed
- Replacement of Baldwin Road Filter Plant

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- Revisit options explored during previous project.
  - Problems, almost zero land for expansion and building is too small for most options.
  - Sewer system is inadequate for any filter option that requires backwash.
  - Cartridge filter options were deemed to be too expensive O&M.

Possible Grants
Water Meters: Applied for EFC GIGP Grant (roughly $1,000,000 grant) have not heard results.

WIIA grant
Discussion with EFC/DOH is that a project that correct pressure issues/pipe breaks in the system (pipe replacement) is a good WIIA project. Report needs to be updated with additional pressure/water main break issues. Still subject to scoring as it relates to other projects. We have not yet applied (due Sept). $5,000,000 grant and $2.2 million min. loan.
Possibility to phase the project for multiple attempts at the WIIA grants. Depends on scoring.

EFC Finance
Overall Projects are not likely hardship eligible (0% loan)
May be eligible for subsidized (low interest and partial 0%) financing with additional evaluation of the distribution system, documentation of pressure issues.

Deadlines
If goal is to pursue 2023 grants
- IUP Updates June 16th requires updated engineering report/updated costs and updated scope.
- Bond Resolution
- Environmental

Decisions
- Are we pursuing Water meters/tank/resilience as 1, 2, or 3 projects.
- No significant benefit to combining unless we can get subsidized financing.
- If we combine, are we moving forward now as water meter deadlines are approaching?
- Or if we separate, what schedule do we want to work with?

Water Costs

Water Main	$ 4,758,730.23
Concrete Tank	$ 1,806,344.79
Water Meters	$ 4,000,000.00
Soft Costs	$ 2,113,015.00
Contingency	$ 1,267,809.00
Totals	$ 13,945,899.03
WIIA	$ 5,000,000.00
Loan	$ 8,945,899.03
	Loan Subsidized
1/2 0%	$ 149,098.32
1/2 Subsidized	$ 241,026.51
Total Loan Payment	$ 390,124.82
EDU	2,290.76

$/EDU/Year	$	170.30

Sewer

Needs in the Water Pollution Control Plant (WPCP)

- WPCP Ventilation Improvements
  - Air quality testing showed air quality that does not meet safety standards.
  - Replacement system will utilize waste heat from the effluent system.
  - $1,000,000 GIGP grant specifically for this system.
- WPCP Remaining Process Upgrades
  - Complete 10+ year process of full upgrades of the plant
  - Includes Aeration Tank Upgrades
  - SCADA replacements
  - Focus on meeting SPDES permit modification phosphorus limit of 1 mg/L.
- WPCP Septage Receiving
  - Possible upgrades to accept more septage.

Needs in the Collection System

Long Term Control Plan

- Required separation project upstream of Outfall 003
  - Lake George Ave
  - Holcomb St
  - Champlain/Amherst Ave "Gully"
- LTCP requires that separation occur until overflows are eliminated.
- Key to funding scoring.

- Champlain Storm Sewer Separation
- North Side Sewer Main
  - Line downstream of hospital through the St. Clair/Grove Street
- Pump Stations
- Miscellaneous Sewer Mains
  - Trunk sewer main
  - Water Street
  - Cemetery Sewer Main

Funding

- Hardship financing: 0% Loan
- BIL Funds: $8.5 million +/-
- Possible Grant Funds
  - WIIA
  - WQIP
    - Stormwater separation
    - Septage Receiving?
    - Phosphorus?

Schedule ASAP

- Determine Scope

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  - Keep all items and options open
  - Cut out certain items now

- Update engineering report with scope

- RPQ process – need to get this done as first immediate step. (issue April 1 – finish process May 1) - This needs to happen to finalize the requirements to actually accept BIL money
  - Write RFQ
  - Establish committee to review
  - Generate matrix
  - Rate responses
  - Interview
  - Award
  - Engineering Contract Prelim Design only (RFQ whole project)

Due June 16th

- Confirm Engineering RFQ complete
- Update IUP if required based on project scope
- Funding Application (BIL will use a modified SRF application) due June 16
  - Budget
  - Other funding identified
  - Engineering Report
- Update SEQR/Bond Resolution

Current Status

Current Bond Resolution $13 million +/-

Current SEQR includes:

- WPCP work
- LTCP Sewers
- Champlain Storm Sewer Separation

Does not include:

- North Side Sewer Main
- Pump Stations
- Miscellaneous Sewer Mains

Discussion was held on all bullet points – decisions will need to be made going forward; more discussion will be had at the water/sewer committee meeting. Mr. Swart may even have some solid numbers available for the Finance Meeting next Thursday regarding how much it is to keep Baldwin Filter plant running, numbers on the meter along with getting the RFQ's for engineering (they will step back from this as they will want to bid) and where the Town is on the Water District Consolidation.

Attached are additional documents handed out at this workshop.

Workshop closed at 12:15 p.m.

Respectfully submitted, Tonya M. Thompson, Town Clerk

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2023-03-17 Town Meeting Sewer Projects

Scenario 1 (Full Amount)		
Lake George Ave	$ 4,871,815.42	
Champlain/Amherst "Gully"	$ 5,786,572.49	
North Side Sewer Main	$ 3,403,108.18	
Pump Stations	$ 2,610,000.00	
Champlain Ave Storm	$ 537,272.07	
Misc. Sewer	$ 598,342.19	
WPCP Ventilation	$ 2,277,958.14	
WPCP Upgrades	$ 2,000,000.00	
Construction Subtotal	$ 22,085,068.50	
Soft Costs (20%)	$ 4,417,013.70	
Contingency (10%)	$ 2,650,208.22	
Total	$ 29,152,290.42	
GIGP Grant	$ 1,000,000.00	Secured
BIL Grant	$ 8,559,500.00	Secured
WIIA Grant	$ 4,538,072.60	Estimated
WQIP Grant	$ 10,000,000.00	Estimated
Total	$ 5,054,717.81	
EDUs	2092.11	
$/EDU/Year Increase	$ 80.54	

Scenario 2 (No WQIP)	
Lake George Ave	$ 4,871,815.42
Champlain/Amherst "Gully"	$ 5,786,572.49
North Side Sewer Main	$ -
Pump Stations	$ -
Champlain Ave Storm	$ 537,272.07
Misc. Sewer	$ -
WPCP Ventilation	$ 2,277,958.14
WPCP Upgrades	$ 2,000,000.00
Construction Subtotal	$ 15,473,618.13
Soft Costs (20%)	$ 3,094,723.63
Contingency (10%)	$ 1,856,834.18
Total	$ 20,425,175.93
GIGP Grant	$ 1,000,000.00
BIL Grant	$ 8,559,500.00
WIIA Grant	$ 4,856,293.98
WQIP Grant	$ -
Total	$ 6,009,381.95
EDUs	2092.11
$/EDU/Year Increase	$ 95.75

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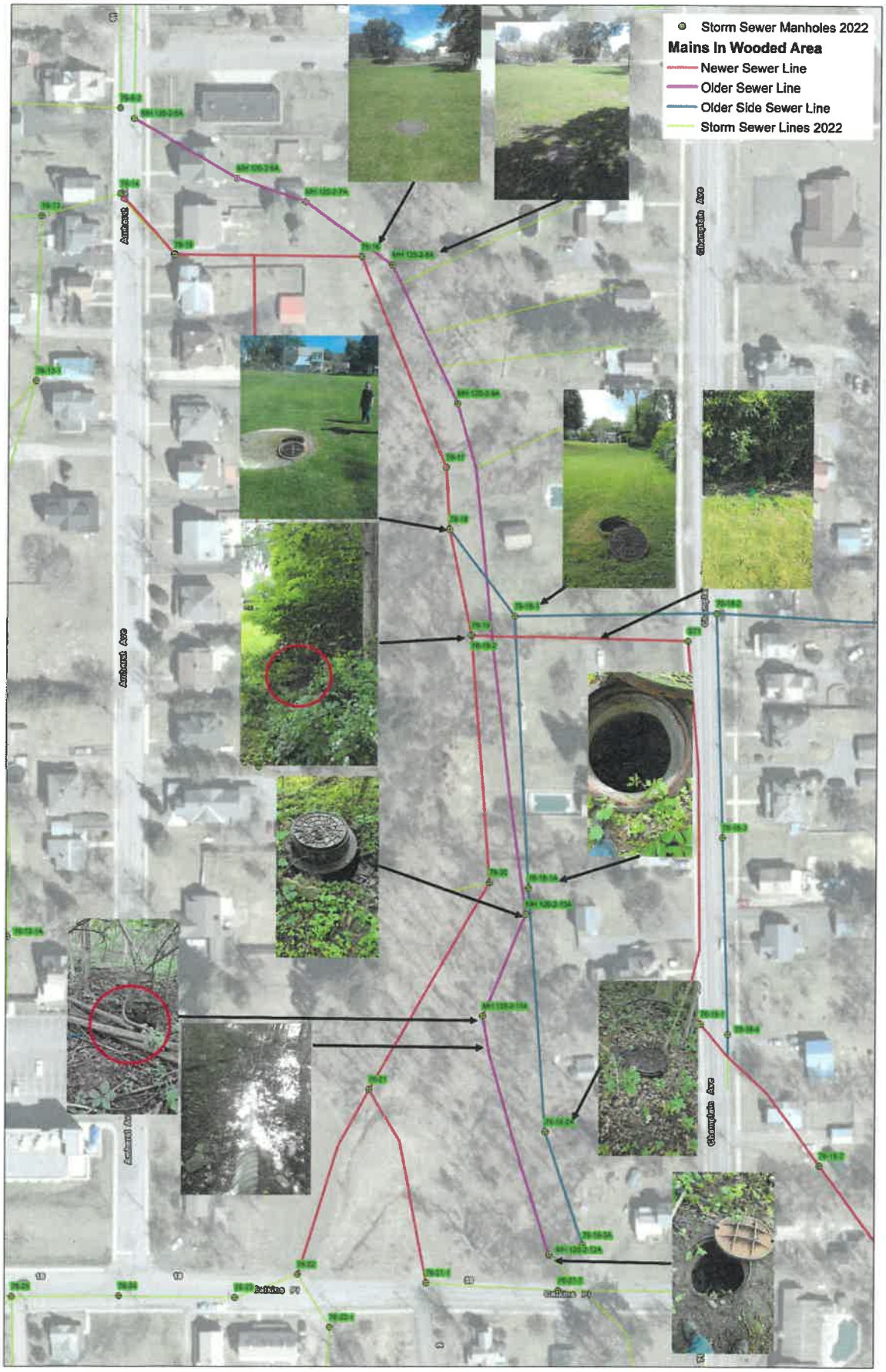
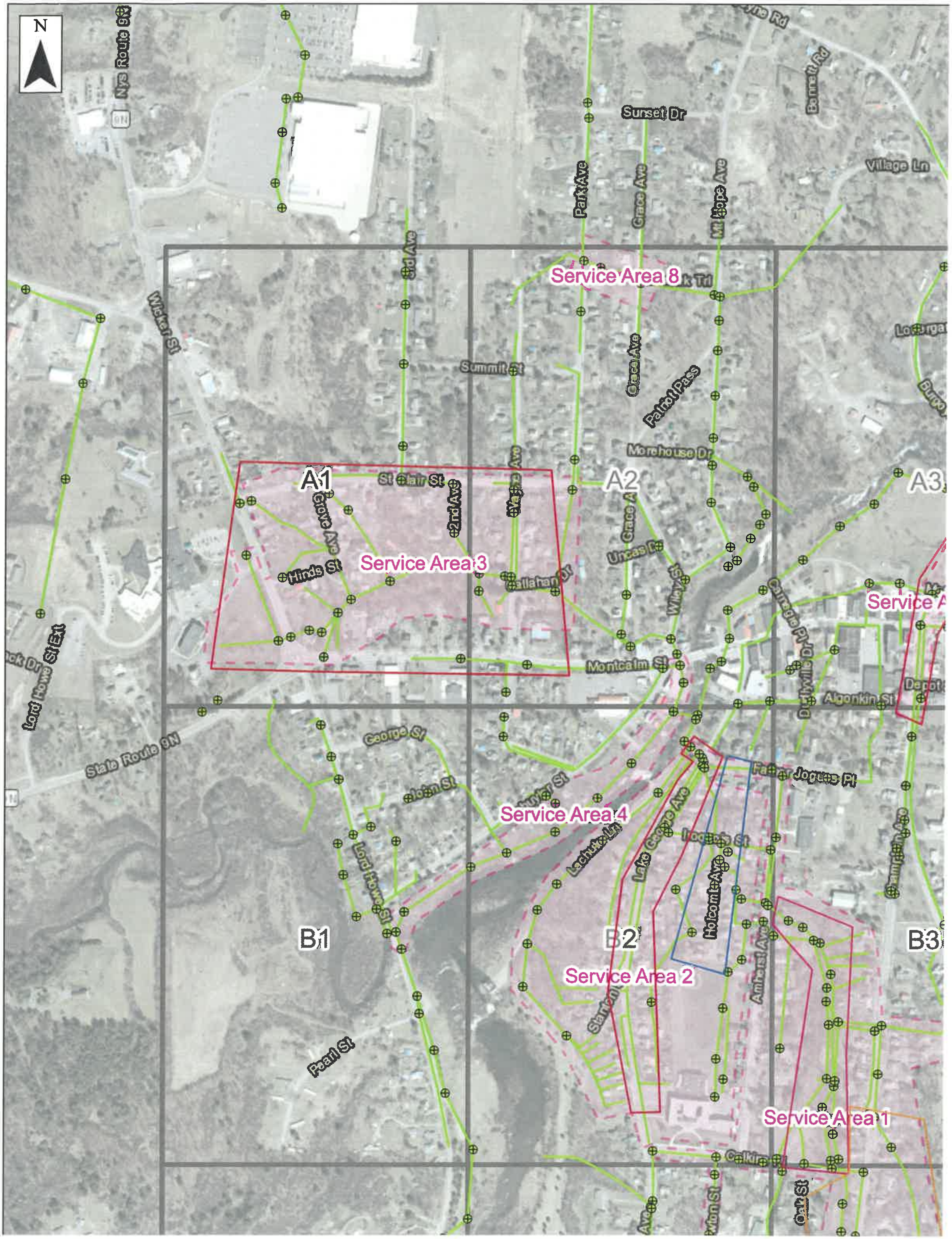
(Scenario 3 Match Bond Resolution)	
Lake George Ave	$ 2,435,907.71
Champlain/Amherst "Gully"	$ 2,893,286.25
North Side Sewer Main	$ -
Pump Stations	$ -
Champlain Ave Storm	$ 537,272.07
Misc. Sewer	$ -
WPCP Ventilation	$ 2,277,958.14
WPCP Upgrades	$ 2,000,000.00
Construction Subtotal	$ 10,144,424.17
Soft Costs (20%)	$ 2,028,884.83
Contingency (10%)	$ 1,217,330.90
Total	$ 13,390,639.91
GIGP Grant	$ 1,000,000.00
BIL Grant	$ 6,195,319.95
WIIA Grant	$ -
WQIP Grant	$ -
Total	$ 6,195,319.95
EDUs	2092.11
$/EDU/Year Increase	$ 98.71


Storm Sewer Manholes 2022
Mains In Wooded Area
Newer Sewer Line
Older Sewer Line
Older Side Sewer Line
Storm Sewer Lines 2022
Amherst Ave
Champlain Ave


N
Nys Route 9N
9N
Sunset Dr
Village Ln
Bonnett Rd
Park Ave
Grace Ave
Mt Hope Ave
3rd Ave
Service Area 8
Wicker St
Summit St
Patriot Pass
Morehouse Dr
A1
A2
A3
St Clair St
Grove Ave
2nd Ave
Hinds St
Service Area 3
Callahan Dr
Uncas Dr
Wiley St
Montcalm St
Algonkin St
Lord Howe St Ext
State Route 9N
George St
John St
Service Area 4
Lachute Ln
Lake George Ave
Iroquois St
Holcomb Ave
Amherst Ave
Father Jogues Pl
Champlain Ave
Lord Howe St
B1
B2
B3
Service Area 2
Service Area 1
Pearl St
Oak St
Dudleyville Dr
Depot St

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Town of Ticonderoga Water Projects

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Notes:
1. Aerial photography is from an ortho imagery provided by ESRI ArcMap program.
2. Tax map parcel numbers, parcel lines, and owner names are from AES's version of the 2016 County GIS shapefile.
Parcel lines have been digitized by County from earlier paper copies of tax maps to create the County GIS shapefile.
The map lines do not accurately depict the true location of property lines.
For accurate determination of the location of property lines, consult a Land Surveyor licensed by the State of New York.

1 inch = 2,000 feet

0 1,000 2,000 4,000
Feet