

Engineer's Map, Plan & Report

For the Proposed New Salem Water District

Drinking Water State Revolving Fund (DWSRF)
Application # 17427

March 2012

Town of New Scotland
Albany County
State of New York

Prepared for:

Town of New Scotland
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DESIGN REGISTERED ARCHITECTS/PROFESSIONAL ENGINEER/

REGISTERED LANDSCAPE ARCHITECT

The Registered Architect/professional Engineer/registered Landscape Architect certified that this Project has been designed by Me, or under My Supervision, in Accordance with the Building Code of the State of New York and applicable federal and state laws and regulations and to the best of my knowledge and belief, these construction documents are in conformance therewith.



067234 MARCH 27, 2012

Registered Engineer NYS Registration No. Date

Prepared by:

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**ENGINEER'S MAP, PLAN & REPORT
 PROPOSED NEW SALEM WATER DISTRICT
 TOWN OF NEW SCOTLAND
 ALBANY COUNTY, NEW YORK
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Abstract

This report has been prepared to accompany the Application to the New York State Drinking Water State Revolving Fund for the proposed New Salem Water District located in the Town of New Scotland, New York. The proposed New Salem Water District will include 154 residential and commercial properties. Approximately 10 of the customers are currently served by a substandard groundwater spring that has potential to be under direct surface influence. There are also approximately 75 existing water users in a “permissive service area” served directly from a 90-year old waterline owned by the Bethlehem Water District. Residents served by the Bethlehem watermain often experience low water pressure and poor water quality. Many of the remaining residences located within the proposed water district are served by private wells that experience low production and go dry in drought cycles, and are potentially under the influence of surface water.

The desired outcome of the proposed improvements is the creation of a healthy, self-sufficient and affordable municipal water district. The proposed source of water is through master metered purchase of finished water from the Bethlehem Water District. The proposed “New Salem Water District” would be owned and operated by the Town of New Scotland, resolving ongoing administrative complications of the currently termed “permissive service area”.

Historical Background

In the late 1850's to 1900's a series of springs were developed into drinking water sources in the area just east of Thacher Park Road. The high elevation of the springs permitted the water to be conveyed to the lower Slingerlands area several miles to the east. The Slingerlands Water Supply Company was created and included the springs and distribution piping to the east along what is now Route 85.

Around 1925, the Town of Bethlehem Water District No.1 was created. The Bethlehem Water District purchased the Slingerlands Water Supply Company. In the 1940's, improvements were made with the development of two deep wells. The deep wells are located along Route 85, approximately 1,600 feet east of the intersection of Route 85 and Route 85A. With the development of the wells, New York State mandated that the spring be disconnected from the district system served by wells. One of the springs named the Felter spring however, remains in service since the wells could not supply adequate pressure to serve customers at the high elevation adjacent to the spring.

Through water rights agreements, the Bethlehem Water District is obligated to serve customers still fed by the Helderberg Spring. The Bethlehem Water District has maintained disinfection (chlorination) to the spring but remains concerned about the deteriorating water quality from the spring which is suspected to be surface influenced.

As part of the proposed improvements, the proposed New Salem Water District will provide new municipal watermains to supply the customers fed by the spring. The New Salem Water District will work with the Bethlehem Water District to develop new agreements with those having water rights to the spring. The new agreements would transfer responsibility for providing water from the Bethlehem Water District to the New Salem Water District.

Approximately 75 residences located in the proposed district are currently served by the Bethlehem Water District. In a permissive service agreement, the Bethlehem Water District was mandated to provide water service to homes in the Town of New Scotland located within 150 feet of Bethlehem's transmission watermains. The current water users within the Town of New Scotland are not charged a water tax but are charged double rate for the water bill.

The proposed district consolidation(s) will seek to address all of the existing water service agreements, permissive service areas, billing issues etc. that currently exist within the limits of the proposed improvements.

Scope of Proposed Improvements

Source of Water Supply

The source of water supply for the proposed district is to purchase finished water from the Bethlehem Water District via a new connection along Route 85. The proposed improvements will include a master meter at the point

of connection and a booster pump to ensure adequate pressure to all customers. A letter of Commitment to Serve the project is included in Exhibit E of this report.

Distribution

The proposed improvements include the installation of an estimated 16,700 LF of new 8-inch watermain to replace existing and aged galvanized old mains that are only 4 inches and smaller and provide water service to existing homes in the proposed water district. The new water distribution system piping will consist of 8-inch watermain (ductile iron or HDPE). Fire protection is desired and hydrants will be placed in the approximate locations shown on the Conceptual Distribution map. New water service laterals will be installed to the edge of each owner's property line. Connection from the property line to the house will be the financial responsibility of each homeowner. In some cases, the existing water service lateral can be connected to the new lateral at the property line, resulting in a significant saving to each homeowner. All services will be metered for water use and water meters are considered included within the scope of the proposed project.

Finished Water Storage

The proposed water district will include a 200,000 gallon finished water storage tank. The tank will be sited at the existing Town of New Scotland Highway Garage parcel and will take advantage of the higher elevation to provide adequate working pressure to serve the district. The high elevation of the land will complement the installation of a ground storage, glass-lined steel tank. The size of the tank has been designed to meet primarily domestic needs but will also meet and fire protection needs of the district as well.

Detailed soils analysis will be conducted during the planning and engineering design process, but the Albany County Soil Survey and knowledge of the property reveals that the site of the proposed tank has favorable conditions for foundations.

Customer Profile

In addition to the residential and commercial customers, the proposed water district will serve:

- Town of New Scotland Senior's Center (Municipal Building)
- Town of New Scotland Highway Garage (Municipal Building)
- The New Salem Volunteer Fire Company (Fire House)

It is important to highlight the above services as including them within the project is looked favorably upon by the DWSRF program.

Projected Water Demand

Domestic Water Demand

A detailed review of the water bills for customers within the Permissive Service Area reveals that the average domestic demand is currently 113 gallons per day per house. For the purpose of estimating projected demands, the use of 125 gallons per day per single family house is presented. While this figure is slightly less than industry standard, use of this demand rate is supported through the analysis of four billing cycles for approximately half of the proposed service area.

The projected demands associated with this project are shown below in Figure 1 – Domestic Demand Projection.

Figure 1 – Domestic Demand Projection

	Year		
	Current Demand 2010	Post Construction 2015	
District Population (est.)	185	375	Demand Multiplier
Customers/EDU's	75	131	
Average Day Demand (ADD) per house	113 gpd/EDU	125 gpd/EDU	
Average Day Demand (ADD)	8,475 gpd	16,375 gpd	[ADD]
Maximum Day Demand (MDD)	16,950 gpd	32,750 gpd	2 x [ADD]
Peak Hour Demand (PHD)	24 gpm	45 gpm	4 x [ADD rate]

The performance of the water distribution system has not yet been simulated through a formal hydraulic model. However, preliminary estimates of pressures based on elevation indicate that adequate pressure 60 to 85psi can be maintained with exception to areas adjacent to the proposed water storage tank. The highest elevation customer (the Town's Highway Garage) will likely require the installation of a booster pump. All other customers within the district are located at lower elevations and hence higher pressures will be recognized. It is anticipated that conformance to the minimum operating pressure of 35 psi can be achieved and will be confirmed with final design.

Needed Fire Flow Demand (NFF)

Fire protection is desired for the propose New Salem Water District. The Needed Fire Flow (NFF) has been calculated in accordance with the Insurance Services Office Method as documented in the *Distribution System Requirements for Fire Protection* (AWWA Manual M31). Figure 2 summarizes the anticipated NFF requirements within the district.

Figure 2 – Approximation of Needed Fire Flow, NFF

	Needed Fire Flow Range	Duration
Residential	750 – 1,000 gpm	2 Hours
Commercial	1,000 – 5,000 gpm	2 – 3 Hours

Preliminary design has concluded is that the pipe sizes and hydraulic head developed by the proposed storage tank will be capable of meeting these Needed Fire Flow design criteria. The size of the finished water storage tank addresses the capability of the system to meet the volume of water needed to fight the fire for the duration component of the Needed Fire Flows.

Concept Automation

As previously discussed, the proposed water system will obtain source finished water from the Bethlehem Water District. The proposed water storage tank will provide hydrostatic system pressure to the New Salem Water District. Automation will consist of tank water level sensors which will direct the booster pump station to refill the water tank. The pump station will be located at the New Salem side of the interconnect meter. The booster pump will be activated when system hydraulic grade line in the tank reaches a predetermined low set-point. Automation will include remote login capabilities, at this time envisioned to include control and adjustment from the Town Highway Garage for the Water System Operator.

Soil and Groundwater Conditions

A preliminary investigation of the Albany County Soils map and knowledge of the area indicate that bedrock is not anticipated throughout the majority of the distribution system. The majority of the project lies within the Talus

Slope of the Helderberg Escarpment and should be free of bedrock. The proposed location for the water storage tank appears favorable and encountering any bedrock only compliments the installation of the tank foundation. A more detailed soils investigation is planned during final engineering design for the tank site and at select locations along the proposed waterline.

Sanitary Sewerage Systems

No municipal sanitary sewers exist within or adjacent to the proposed New Salem Water District. No current sanitary issues are known to be caused by residences within the proposed water district. Creation of a municipal sanitary collection and treatment system is not proposed in conjunction with the proposed water system. In addition, the proposed water system will be supplied by municipal interconnection with the Town of Bethlehem water distribution system. No treatment or further processing of the water product is anticipated.

Capital Project Costs

The estimated costs associated with the proposed project are summarized below in Figure 3.

Figure 3 – Cost Estimate Summary

Construction:	\$2,467,025
Engineering:	\$ 423,922
Legal and Admin Expenses	<u>\$ 150,401</u>
(Rounded) Project Cost:	\$ 3,050,000

The costs shown reflect a anticipated construction start date in 2013. A more detailed breakdown of the cost estimate including construction, design, legal and administrative costs are presented in Exhibit C.

The Projected Service Charge was developed with a portion of the Project being undertaken by the Bethlehem Water District. The Bethlehem Water District would construct the proposed Booster Pump Station and some other associated improvements at their cost. For the purpose of determining the financial impact, the \$152,000 estimated for these improvements was subtracted directly from the financed project amount. The Bethlehem Town Board has signed a “Letter of Commitment” to participate in this fashion and is included in Exhibit E of this report.

Figure 4 – Financed Project Summary

Project Cost:	\$3,050,000
Bethlehem Water District Construction:	<u>- \$152,000</u>
Financed Project:	\$2,898,000

All costs associated with the financed project will be paid for by the benefited parcels within the proposed district. The Town of New Scotland will serve as the taxing agent for this Special Assessment District.

Discussion on Funding Commitments

Drinking Water State Revolving Fund

Since about 2004, the Town of New Scotland has been attempting to find ways to assist in the financing of the Project. Through several iterations to the layout of the proposed system, and several applications to the New York State Drinking Water State Revolving Fund (DWSRF) program, in 2009, the Town of New Scotland was informed that the project ranked high enough to be eligible for [some type of] funding assistance. Subsequent to the priority ranking, the Town was encouraged to submit a Financial Hardship Application.

Financial Hardship Application (DWSRF)

A Financial Hardship Application was submitted to the DWSRF program in November 2010. As a result of this application and supporting income survey, it was determined that the project was eligible for Zero Percent (0%)

financing on the Capital Improvement (the Project). In order to make the repayment amounts minimal, the program allows for the term to extend to 30-years. The Hardship award has made the Zero Interest loan available for two years from the award, which will expire in August 2013. In order to receive the funding, several milestones must be achieved by August 2013, including; Commitment to proceed with the project, Engineering Design and approval of all regulatory agencies.

Commitment from Bethlehem Water District

The Bethlehem Water District has also agreed to sell finished water to the project at a deeply discounted rate. This discounted rate has the same effect as an amortized contribution and the discount rate is applicable for the 30-years (to also coincide with the bond repayment period). Based on anticipated consumption, this discounted rate results the proposed district approximately \$43,000 per year in year 1 and grows at the Consumer Price Index. The Net Present Value of the discounted rate is approximately \$1.35M.

The Bethlehem Town Board has signed a “Letter of Commitment” to participate in this fashion and is included in Exhibit E of this report.

The Bethlehem Water District has also committed to undertaking improvements within the scope of the Project as previously discussed.

Current Average Cost of Water

Approximately 75 of the customers within the Project area are currently served as out-of-district customers of the Bethlehem Water District. As such, these customers do not pay any water tax, but are subject to water bills that are 2x the rate currently paid by in-district customers.

A review of the water bills for the past 4 quarters (1 year) shows that the average bill paid by these customers is \$330 per year. This represents the total annual cost of water for these customers. A summary sheet is included for all of the current customers in Exhibit C.

The remaining parcels within the proposed district are either vacant or are currently served by private wells. For those served by private wells, the current annual cost of water includes operation and maintenance of their system. Operating costs, such as electricity and well repairs, should be factored as expenses that would not be incurred with the public system.

Discussion on Customers with “Deeded Rights”

There are approximately 12 users on the current system that may have “deeded rights” to free water. Stantec has obtained copies of several of the deeds in the possession of the Town of Bethlehem. Those deeds appear to represent that parcels were granted access to water from the “Felter Spring” that was originally owned by the Suburban Water Works Company, and subsequently purchased by the Bethlehem Water District.

For the purposes of estimating the user charges, the parcels with “deeded rights” have been excluded from the tax basis. The Bethlehem Water District’s Letter of Commitment has represented that Bethlehem would reduce the master water purchase amount by the metered usage of recorded flow from those customers.

Upon receiving favorable feedback on the Project via the formal Petition, the Town will investigate the legalities of these customers with “deeded rights”. For the purpose of generating a worst-case financial impact to the remaining customers of the District, the estimated 12 users have been excluded from the tax base. The water bills for these customers have been resolved by the commitment from Bethlehem to pay for the water consumption. District Operation and Maintenance for these customers has been distributed amongst the remaining customers.

Projected Service Charge (PSC) Analysis

The Projected Service Charge is developed using two annual charges to the end-user or customer. The first charge is the Water Tax. Water Tax is levied to generate revenue for bond repayment of the Financed Project. The second charge is the Water Bill. Water bills are generated based on the actual metered water consumption of the individual customer.



Water Tax

The basis of taxation for this special assessment district will be “Unit Basis”. All properties within the proposed district are considered benefitted with the availability for public water and therefore are required to participate in bond repayment.

For bond repayment calculations, the Taxation Units or Equivalent Dwelling Units (EDU's) within the proposed District were determined to be 164 EDU's. In determining the Projected Service Charges the following method was used:

Single-Family Residential Units:	1 Unit
2 and 3-Family Residential Units:	2 or 3 Units respectively
Commercial Properties:	1 Unit
Vacant Properties:	1 Unit
Properties with Standing Agreements/deeded rights:	0 Units

It should be noted that 1 EDU was assigned to each vacant property as they have the opportunity to connect to the system upon build-out and therefore a benefit to the parcel is recognized. Vacant properties were not assigned multiple EDU's as future subdivision aside from this project would determine the appropriate EDU equivalent.

The few commercial properties within the proposed project limit were assigned one (1) EDU. There appears to be no “heavy” commercial users that would warrant multiple EDU consideration other than apartment buildings that will be assigned EDU's based on the number of apartment units.

As previously discussed, parcels that have deeded rights to “free water” have been identified within the project limits. Although under legal review by the Town of New Scotland, the “deeded right” parcels have not been assigned tax at this time.

The project has received award for Zero Interest Financing from the Drinking Water State Revolving Fund (DWSRF), Hardship Assistance Program. Under this award, the costs associated with the construction, shown in Figure 3 above, would be financed over a 30-year bond repayment term at zero percent interest.

Figure 4 below summarizes the financed project. The amount being financed includes the benefit of the Bethlehem Water District's construction contribution:

Figure 5 – Water Tax Summary

Financed Project:	\$2,898,000
Financed Term:	30 Years
Annual Bond Payment:	\$96,600
Bond Repayment EDU's:	164
Annual Bond Repayment per EDU:	\$589.02

The resulting water tax of \$589.02 per year would be levied against each EDU within the proposed district. A typical Single Family Residential parcel would incur 1 tax EDU, resulting in \$589.02 taxes per year.

Water Bill

The basis of billing for this water district will be based on the actual amount of water consumed by the customer. Parcels within the District that do not connect to the system are not considered customers and are therefore will not receive a water bill. In the case of vacant properties, no water bill will be issued. Similarly, those properties



that elect to use private wells only will not be sent a water bill. Each customer within the Project will be individually metered and billed by the proposed New Salem Water District.

Typical Water Consumption:

Development of the typical water usage for the Single Family Residence (SRF) has been refined (from previous estimates) based on actual metered consumption records. Actual metered billing records for the average SFR consumption were used in the calculations and are based on the consumption of customers within the Project limits. Using the billing records for those parcels currently connected to the Bethlehem system, the average customer uses 113 gallons per day.

It is anticipated that consumption after the completion of the project will generally be similar to those of the existing customers. For the purpose of estimating billing, 125 gallons per day has been used, representing the typical Single Family Residence.

Customers would be billed two (2) times per year. The proposed billing rate structure for the district customers will be:

- \$6.00 per 1,000 gallons for the first 15,000, plus
- \$6.50 per 1,000 gallons for 15,000+

For the average customer using 125 gallons per day, the resulting bill would be \$140.38 per cycle, or \$280.76 per year.

Estimated Total Annual Cost for Water (For Typical Customer)

For the purpose of developing an average total annual cost of water, the Single Family Residence is considered. For the Single Family Residence using 125 gallons per day, the total annual cost is estimated as:

Water Tax (1 EDU)	\$ 589.02	
Water Bill (125 gpd)	<u>\$ 280.76</u>	(again, variable with usage)
Total Cost:	\$ 869.78	

In subsequent years, the cost may fluctuate with the addition (or retirement) of debt. Similarly, the cost of operations may change, affecting the water bill component.

By example, for a two-family home, the cost for water would be estimated as:

Water Tax (2 EDU's)	\$ 1,178.04	
Water Bill (250 gpd)	<u>\$ 583.00</u>	(again, variable with usage)
Total Cost:	\$ 1,761.04	

The anticipated taxing units for each parcel within the proposed District have been presented within the Petition.

Connection Fees

The Project will include the installation of a new water service lateral to properties with houses/businesses already constructed. Vacant parcels within the District will not be provided a service lateral under this Project but may install one at the Owner's cost if/and when the property is developed. The Project includes the construction of the service lateral from the watermain to the property line, typically about 15 feet from the edge of the road. All services installed as part of the Project will include a new shut-off valve at the property line. If the property is currently served from Bethlehem, the Project would include the connection of the new service lateral to the existing lateral. In the case of newly served parcels, it would be the financial responsibility of the owner to make the remaining connection between the shut-off and the connection inside the house. Since the layout of the lateral between the shutoff and house varies in length and obstacles encountered, it is difficult to predict the cost to each owner. Owners are suggested to contact one (or more) contractors to get estimates. Generally, this type of installation could range between \$1,500 and \$2,000.

In all cases, customers will be required to purchase a water meter and pressure reducing valve from the Town to ensure compatibility with the Town's automated meter reading and billing system. For those customers provided service laterals during the initial Project, the water meter and pressure reducing valve will be provided at no cost to the customer. The cost of installing the meter will be the financial responsibility of the Customer. Customers should take note that the meters provided by the Bethlehem Water District are shorter in length than the meter assemblies required with this Project. Some minor plumbing adjustments will be necessary. The change in length is primarily due to the required Pressure Reducing Valve (PRV).

The Town of New Scotland is currently developing water (and sewer) permit fee schedules in other districts. Subtracting out the cost of the meter assembly (which is paid for as part of the bonded project), the Permit fee will be less than \$200. The fee will cover required staff inspections and setup of new accounts in the billing program.

Future Extensions

The primary function of this project is not for extension into adjacent lands, but to better service current customers and to incorporate landowners with poor quality wells. Project components have been sized to meet program requirements associated with the currently defined service area. While some components may be adequate for future expansion without modification, analysis would need to be done on a case-by-case basis.

New York State Comptroller Approval Required

The Comptroller's approval is required if debt is proposed to be issued by a town or county, and the "cost of the district or extension" to the "typical property" or, if different, the "typical one or two family home" is above the \$ 696/year threshold (2012 figure provided by NYS OSC). The first year cost exceeds the Comptroller's limit.

Upon successful receiving a successfully completed Petition and Public Hearing, the Town of New Scotland will engage the Office of the State Comptroller for approval.

Conclusion

Through several previous iterations of the Project limit, it is clear that even a "core" project has been financially unreachable without funding assistance. With the securing of zero interest loans and participation from the Bethlehem Water District, the proposed Project has been refined to an extent that warrants consideration by the constituency.

Exhibits

Exhibit A – Supporting Maps

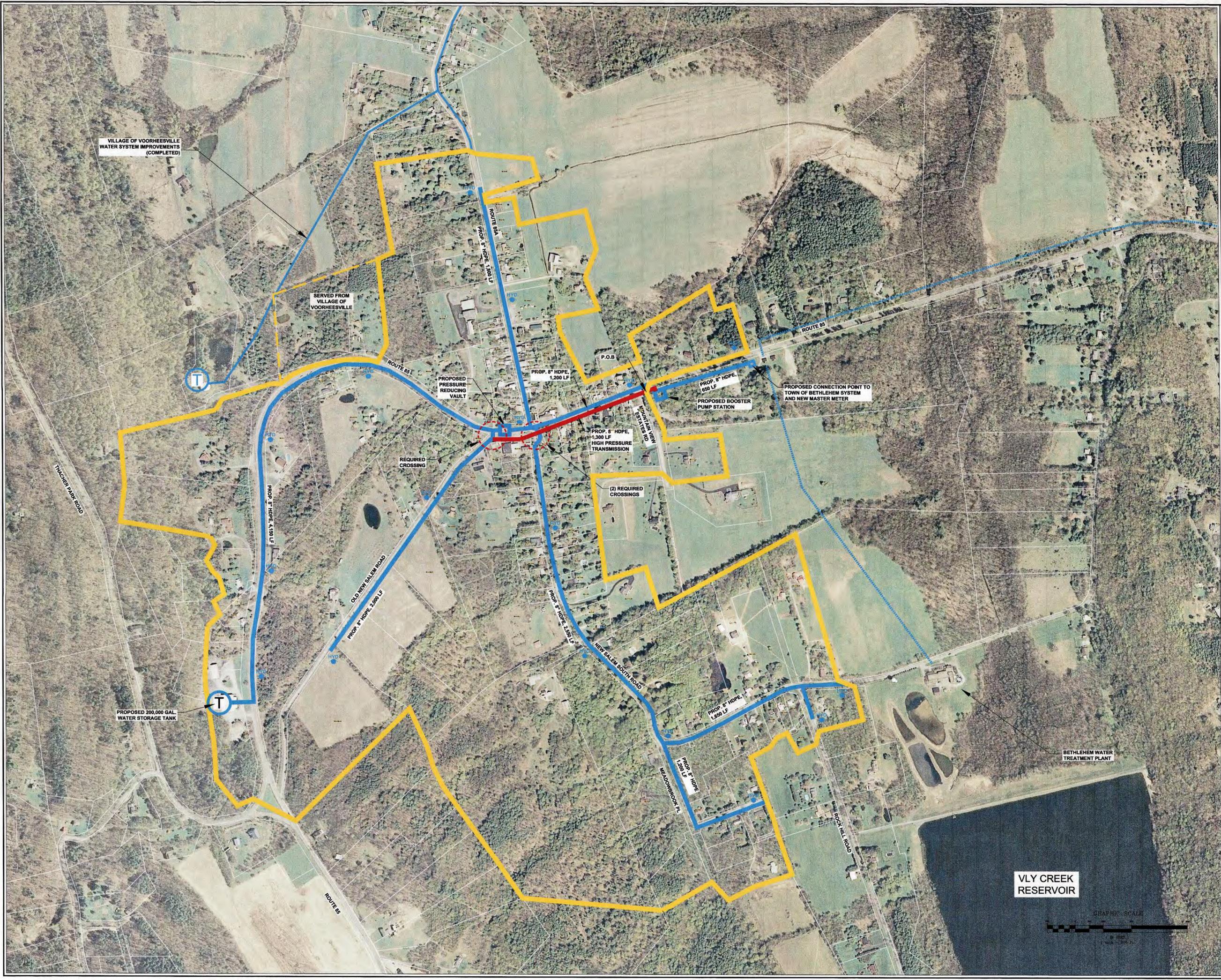
1. Area Map
2. Existing Service Area Map
3. Proposed District Map / Schematic
4. Proposed Water District Parcel List
5. Proposed Water District Boundary Description

GRAPHIC SCALE
1" = 100'

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DISTRICT BOUNDARY AND DISTRIBUTION SYSTEM
PROPOSED NEW SALEM WATER DISTRICT
 TECHNICAL PLANNING REPORT
 TOWN OF NEW SCOTLAND, COUNTY OF ALBANY, STATE OF NEW YORK

DATE	REVISIONS

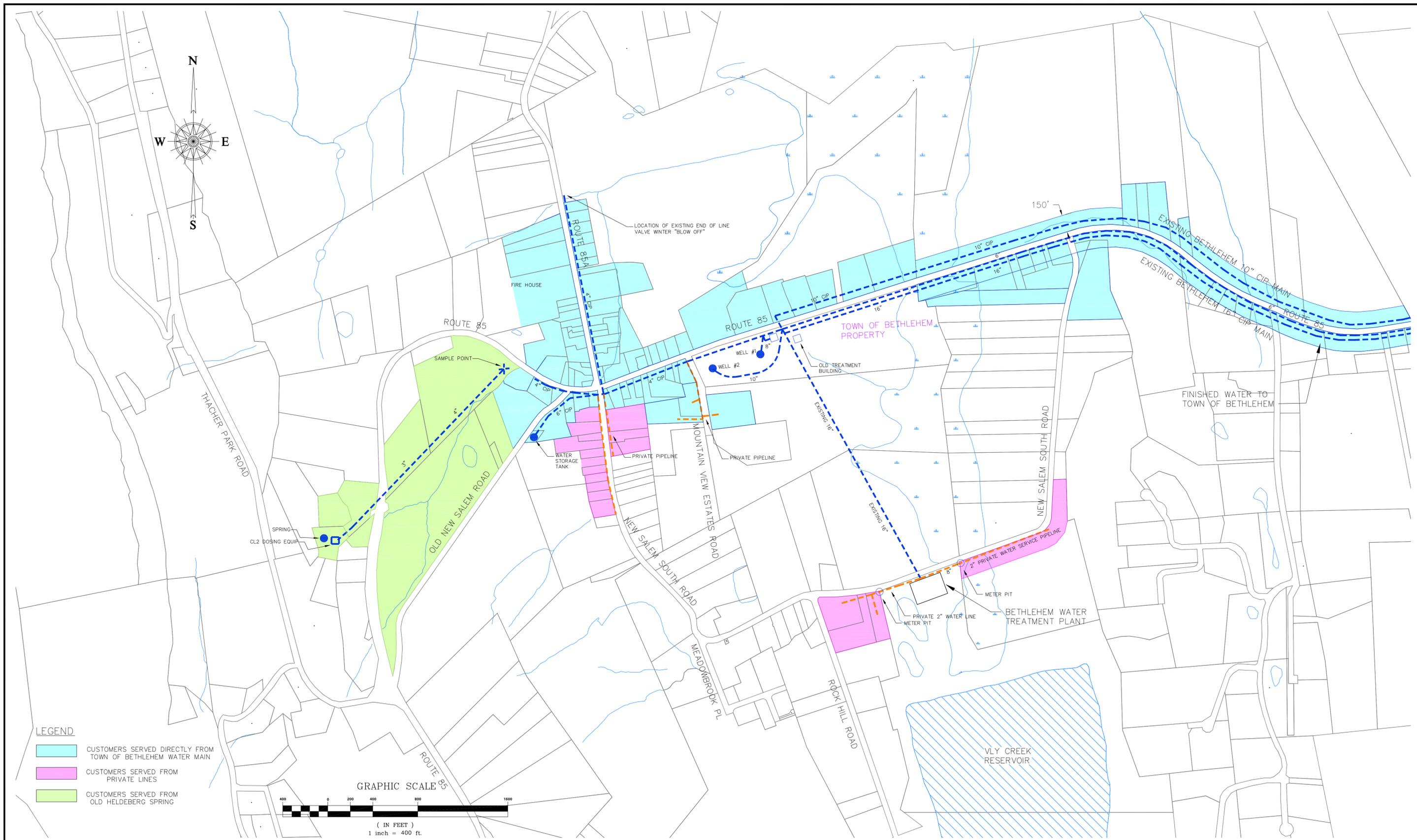
REVISIONS	DATE	BY	CHKD	APPD

Project No. 190710269
 Date: March, 2012

C-1

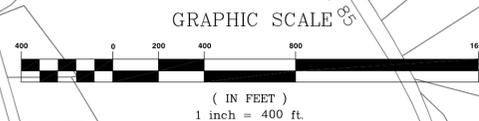
Sheet No. **1**





LEGEND

- CUSTOMERS SERVED DIRECTLY FROM TOWN OF BETHLEHEM WATER MAIN
- CUSTOMERS SERVED FROM PRIVATE LINES
- CUSTOMERS SERVED FROM OLD HELDEBERG SPRING



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DATE	RECORD OF WORK	APPROVED
3/24/08	REVISED PIPING LAYOUT PER HYDRAULIC INVESTIGATION	
DRAWN BY: KJM	FIELD SURVEY:	CHK BY:



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Unauthorized alteration or addition to this map is a violation of section 7209, sub-division 2 of the New York State Education Law.
 Only copies from the original of this map bearing an original signature and the embossed seal of the preparer shall be considered to be true and valid copies.

**EXISTING NEW SALEM AREA WATER LINES
 EXISTING DISTRIBUTION SYSTEM**

TOWN OF NEW SCOTLAND
 COUNTY OF ALBANY, STATE OF NEW YORK

DATE: MAY, 2008

SCALE: 1" = 800' (11" x 17" PLOT)

Sheet No.
EW-1
 2 OF 2
 Cadd

Proposed New Salem Water District
Non-Resident Owner Occupied Parcels

Tax Map Number	Parcel Address	Primary Owner	Additional Owner	Property Class	Total Assessment Value	Taxing Units (EDU's)
82.-4-28.4	Meadowbrook Pl	New Salem Properties		314	\$ 34,800	1
82.-4-34	Meadowbrook Pl	Williams, Mark		311	\$ 23,900	1
82.-2-36	694 New Salem Rd	New Salem Volunteer Fire		662	\$ 1,056,500	1
82.-3-21	705 New Salem Rd	Morrison, Stuart		483	\$ 260,000	1
82.-2-24	726 New Salem Rd	Carl Apartments Inc		311	\$ 9,000	1
82.-3-14.1	New Salem Rd	Macmillen, Earl F		312	\$ 177,500	1
82.-3-15	New Salem Rd	Macmillen, Earl F		311	\$ 28,600	1
82.-3-20.2	New Salem Rd	New Salem Volunteer Fire		331	\$ 45,000	1
82.-3-25	New Salem Rd	Lawson, John H		312	\$ 6,700	1
82.-3-31	New Salem Rd	Lawson, John H		311	\$ 6,600	1
82.-3-40	New Salem Rd	Macmillen, Wilkens H		311	\$ 40,500	1
82.-2-28	720 New Salem Rd	Flynn, Thomas P	Flynn, Theresa	220	\$ 231,300	2
82.-3-29	725 New Salem Rd	Vanvalkenburg, Joseph		230	\$ 185,000	3
83.-1-38.10	180 New Salem South Rd	Wood, Edwin W	Wood, Evelyn S.	312	\$ 11,500	1
82.-4-26	261 New Salem South Rd	Wright, Kathryn E		312	\$ 137,500	1
82.-4-22.1	269 New Salem South Rd	Sullivan, Eugene C	Sullivan, Priscilla D.	312	\$ 42,200	1
83.-1-1	330 New Salem South Rd	Cardona & Wright Development		411	\$ 136,000	4
82.-4-21	New Salem South Rd	Fleetway Construction Co		311	\$ 32,600	1
82.-4-28.2	New Salem South Rd	Capital Region Realty		311	\$ 40,700	1
82.-4-28.4	Meadowbrook Pl	New Salem Properties		314	\$ 34,800	1
82.-4-36	New Salem South Rd	Matejka, James	Ryan, Beth	311	\$ 33,000	1
82.-4-40.1	New Salem South Rd	Kinnear, Foster	Kinnear, Olga	311	\$ 3,400	1
82.-3-30	2693 New Scotland Rd	T & T Flynn, LLC		411	\$ 276,000	1
82.-4-10	2706 New Scotland Rd	Heldeburg Roof Consultants, L.L.C.		449	\$ 353,900	1
82.-2-22.10	2713 New Scotland Rd	Cramer, James J Jr.		411	\$ 197,100	4
82.-2-12	2855 New Scotland Rd	Junco, Jeffrey A		311	\$ 11,700	1
82.-2-11	2859 New Scotland Rd	Town Of New Scotland		330	\$ 20,000	1
82.-2-10	2869 New Scotland Rd	Town Of New Scotland		651	\$ 111,900	1
82.-2-9	2869 New Scotland Rd	Town Of New Scotland		651	\$ 608,800	1
82.-4-3.1	New Scotland Rd	Harris, Stephen A	Harris, Dianne	311	\$ 8,000	1
82.-4-3.2	New Scotland Rd	Legere, Warren	Legere, Patricia	311	\$ 1,100	1
82.-4-7	Ns Tank	Bethlehem Water Dist #1	Company Code 202330	822	\$ 61,600	1

Proposed New Salem Water District
Non-Resident Owner Occupied Parcels

Tax Map Number	Parcel Address	Primary Owner	Additional Owner	Property Class	Total Assessment Value	Taxing Units (EDU's)
82.-4-8	7 Old New Salem Rd	Town Of New Scotland	New Salem Civic Bldg	652	\$ 357,300	1
82.-4-59.21	Old New Salem Rd	Conley, John	Conley, Bethanne	314	\$ 11,900	1
82.-4-59.22	Old New Salem Rd	McEwan, Susan P	McHugh, Catherine	322	\$ 15,796	1
82.-4-59.23	Old New Salem Rd	McEwan, Susan P	McHugh, Catherine	322	\$ 23,694	1
82.-4-59.24	Old New Salem Rd	McEwan, Susan P	McHugh, Catherine	322	\$ 23,694	1
82.-2-33.2	Rte 85	New Salem Volunteer Fire	Department Inc	311	\$ 22,800	1

Total Assessed	
Value	EDU
\$ 4,682,384	47

Proposed New Salem Water District
Resident Owner Occupied Parcels

Tax Map Number	Parcel Address	Primary Owner	Additional Owner	Property Class	Total Assessment Value	Taxing Units (EDU's)
82.-2-15.20	18 Blanchard Ln	Blanchard, Robert C Jr	Blanchard, Theresa E.	210	\$ 350,400	1
82.-4-28.3	24 Glenwood Ter	McCumber, Linda	DiSorbo, Steve	210	\$ 406,900	1
82.-4-25	2 Glenwood Terr	Denninger, Mary Ann		210	\$ 197,400	1
82.-4-27	4 Glenwood Terr	Horton, Winnie W		210	\$ 178,000	1
82.-4-30	10 Meadowbrook Pl	Kazukenus, Peter	Kazukenus, Mary Beth	210	\$ 170,300	1
82.-4-28.1	14 Meadowbrook Pl	New Salem Properties		240	\$ 313,000	1
82.-4-32	16 Meadowbrook Pl	Ruby, Richard J	Ruby, Alice A.	210	\$ 229,100	1
82.-4-33	17 Meadowbrook Pl	Jarvis, Ronald		210	\$ 174,600	1
82.-4-35	3 Meadowbrook Pl	Williams, Mark		210	\$ 163,400	1
82.-4-29	6 Meadowbrook Pl	Jarvis, Kevin	Jarvis, Jodie	210	\$ 244,100	1
83.-1-11.4	19 Mountain View Estates	Moak, Linda M		210	\$ 313,000	1
83.-1-11.6	20 Mountain View Estates	Dunbar, Wayne	Dunbar, Barbara	210	\$ 286,400	1
82.-2-40.1	652 New Salem Rd	Edmunds, Geoffrey B	Edmunds, Lynn S.	210	\$ 258,100	1
82.-3-14.2	659 New Salem Rd	Lailer, Kevin M		210	\$ 226,900	1
82.-2-39	660 New Salem Rd	Macmillen, Wilkins H	Macmillen, Joan B.	210	\$ 215,000	1
82.-3-16	675 New Salem Rd	Kenney, Dean P	Kenney, Beatrice	210	\$ 151,000	1
82.-2-37.2	676 New Salem Rd	Tesch, Charles E	Tesch, Victoria E.	210	\$ 243,000	1
82.-3-17	679 New Salem Rd	Monacelli, Tige A	Monacelli, Annemarie	210	\$ 206,900	1
82.-2-37.1	680 New Salem Rd	Kieserman, MD, Michael		483	\$ 231,700	1
82.-3-18	683 New Salem Rd	Murray, Timothy J	Murray, Maryann	220	\$ 214,000	2
82.-3-19	689 New Salem Rd	MacMillen, Earl F	MacMillen, Beverly	210	\$ 146,000	1
82.-3-20.1	691 New Salem Rd	Whalen, Mark	Whalen, Cara	210	\$ 245,000	1
82.-2-35	702 New Salem Rd	Pollei, Jonathan W	Pollei, Christine S.	210	\$ 147,800	1
82.-2-34	704 New Salem Rd	Miller, Jeremy	Miller, Christina	210	\$ 178,700	1
82.-2-33.1	706 New Salem Rd	Viscio, Nicholas J	Viscio, Nicholas D.	220	\$ 207,000	2
82.-3-22	707 New Salem Rd	Weston, Christopher	Weston, Janice E.	210	\$ 147,300	1
82.-2-32	708 New Salem Rd	Allington, Richard	Allington, Maryann	210	\$ 126,200	1
82.-3-23	709 New Salem Rd	Lawson, John H	Lawson, Jeanne D.	210	\$ 143,400	1
82.-2-31	710 New Salem Rd	Smith, Sherrill L		210	\$ 106,100	1
82.-3-24	713 New Salem Rd	Morgan, Judith		283	\$ 140,000	1
82.-2-30	714 New Salem Rd	Shufelt, Craig L	Shufelt, Robin L.	210	\$ 126,000	1
82.-3-26	715 New Salem Rd	Kindlon, Marcia J		210	\$ 163,000	1

Proposed New Salem Water District
Resident Owner Occupied Parcels

Tax Map Number	Parcel Address	Primary Owner	Additional Owner	Property Class	Total Assessment Value	Taxing Units (EDU's)
82.-2-29	716 New Salem Rd	Reamer, Louise		220	\$ 162,200	2
82.-3-27	719 New Salem Rd	Hart, Lynne S		210	\$ 126,100	1
82.-3-28	721 New Salem Rd	Gulotty, Michael	LaRocca, Donna	210	\$ 131,600	1
82.-2-27	724 New Salem Rd	Shaw, Lisa		210	\$ 81,800	1
82.-2-26	726 New Salem Rd	Van Wormer, Nancy M		220	\$ 186,300	2
82.-2-40.2	New Salem Rd	Edmunds, Geoffrey B	Edmunds, Lynn S.	210	\$ 37,000	1
83.-1-38.20	188 New Salem South Rd	Wood, E. Timothy	Wood, Terry	240	\$ 192,000	1
82.-4-42	189 New Salem South Rd	Lyden, Patricia M		210	\$ 146,200	1
82.-4-41	193 New Salem South Rd	Kleinberger, George H		210	\$ 191,000	1
83.-1-39.1	194 New Salem South Rd	Klapp, Robert	Klapp, Marion	210	\$ 257,400	1
82.-4-40	195 New Salem South Rd	Kinnear, Foster J	Kinnear, Olga W.	210	\$ 176,900	1
82.-4-38	201 New Salem South Rd	Willis, Timothy A	Willis, Linda A.	210	\$ 151,100	1
82.-4-37	205 New Salem South Rd	Throop, Wallace E	Throop, Margaret	210	\$ 146,500	1
83.-1-40	220 New Salem South Rd	Matejka, James M	Ryan, Beth	210	\$ 267,300	1
83.-1-41	234 New Salem South Rd	Kruzansky, Charles J		210	\$ 315,000	1
82.-4-24	243 New Salem South Rd	Caruso, Paul J	Caruso, Patricia	210	\$ 217,800	1
83.-1-42	244 New Salem South Rd	Raiti, Frank F	Raiti, Dora	210	\$ 284,200	1
83.-1-43	248 New Salem South Rd	Herr, Jason R	Herr, Elizabeth	210	\$ 204,300	1
83.-1-44	254 New Salem South Rd	Raiti, Michael F	Raiti, Ann N.	210	\$ 255,700	1
83.-1-45	260 New Salem South Rd	Goldstein, Bruce J	Goldstein, Edith A.	210	\$ 277,000	1
82.-4-23	263 New Salem South Rd	Harrison, M. Timothy	Buongiorno, Marie F.	210	\$ 158,000	1
83.-1-46	266 New Salem South Rd	Sullivan Eugene C		210	\$ 138,300	1
83.-1-47	272 New Salem South Rd	Donaldson, Thomas J	Donaldson, Catherine E.	210	\$ 148,400	1
83.-1-11.53	274 New Salem South Rd	Delorenzo, Mark		210	\$ 391,400	1
83.-1-48	278 New Salem South Rd	Delorenzo, Michael		210	\$ 168,000	1
83.-1-49	282 New Salem South Rd	Delorenzo, Thomas A	Delorenzo, Patricia	210	\$ 266,400	1
82.-4-20	285 New Salem South Rd	Flansburg, Mary E		210	\$ 163,400	1
82.-4-19	287 New Salem South Rd	Murphy, Michele L		210	\$ 174,500	1
83.-1-50	288 New Salem South Rd	Griffin, John Everett	Griffin, Bonnie J.	210	\$ 235,800	1
82.-4-18	291 New Salem South Rd	Champion, Ronald Jr	Champion, Meta	210	\$ 161,900	1
83.-1-51	292 New Salem South Rd	Kidder, Susan D		210	\$ 165,000	1
82.-4-17	293 New Salem South Rd	Cramer Jeremy		210	\$ 100,000	1

Proposed New Salem Water District
Resident Owner Occupied Parcels

Tax Map Number	Parcel Address	Primary Owner	Additional Owner	Property Class	Total Assessment Value	Taxing Units (EDU's)
83.-1-52	294 New Salem South Rd	McCabe, Kathryn A		280	\$ 163,200	2
82.-4-16	295 New Salem South Rd	McDonald, Dorothy Lucy		210	\$ 160,000	1
83.-1-53	300 New Salem South Rd	Wehren, Vida		280	\$ 177,200	2
82.-4-15.20	303 New Salem South Rd	Christensen, Janet		210	\$ 150,700	1
83.-1-54	304 New Salem South Rd	Calvino, Laura M	Calvino, Eric	210	\$ 181,600	1
82.-4-14	305 New Salem South Rd	Crawford, Kimberly		210	\$ 158,000	1
82.-4-13	307 New Salem South Rd	Countryman, Edward	Countryman, Marion	220	\$ 149,700	2
83.-1-55	308 New Salem South Rd	Kinisky, Donald	Kinisky, Kathryn	210	\$ 122,900	1
82.-4-12	311 New Salem South Rd	Crawford, Joanna	Brenner, Margie	210	\$ 124,500	1
83.-1-56	312 New Salem South Rd	Miller, Donald J Jr	Miller, Debora S.	210	\$ 131,200	1
83.-1-57	318 New Salem South Rd	Young, Steven R	Young, Christine M.	210	\$ 215,600	1
82.-4-22.32	New Salem South Rd	Conley, John A	Eckert, Bethann	210	\$ 35,000	1
83.-2-1.3	2647 New Scotland Rd	Kusel, Ronald H	Kusel, Elizabeth	210	\$ 218,700	1
83.-2-1.20	2653 New Scotland Rd	Watters, William R	Carol, Watters A.	210	\$ 224,800	1
82.-3-38	2671 New Scotland Rd	Monacelli, Tige A	Monacelli, Annemarie T.	210	\$ 154,600	1
82.-3-37	2673 New Scotland Rd	Fisher, Donald & Dina		210	\$ 296,000	1
83.-1-11.2	2674 New Scotland Rd	Getz, Kenneth J	Getz, Judith M.	210	\$ 156,400	1
83.-1-9	2676 New Scotland Rd	Smith, Bryan R	Jean, Paquette	210	\$ 158,700	1
82.-3-36	2677 New Scotland Rd	Fisher, Donald	Fisher, Dina	210	\$ 196,900	1
83.-1-10	2678 New Scotland Rd	Countryman, Edward	Countryman, Marion	220	\$ 155,300	2
83.-1-8	2680 New Scotland Rd	Eskeli, Timothy J	Eskeli, Jean A.	210	\$ 180,200	1
82.-3-35	2681 New Scotland Rd	Warner, Brenda		210	\$ 150,000	1
83.-1-7	2682 New Scotland Rd	Kelleher, Cassandra	Donnaruma, Colin	210	\$ 190,300	1
82.-3-34	2683 New Scotland Rd	Sullivan, Charles E	Sullivan, Barbara L.	210	\$ 59,400	1
83.-1-6	2684 New Scotland Rd	Mullen, Dennis M	Mullen, Diane M.	210	\$ 198,900	1
82.-3-33	2685 New Scotland Rd	VonDuhn, Lynda		210	\$ 167,800	1
82.-3-32	2687 New Scotland Rd	Tesch, William & Sandra	Tesch-Layman, Amy	280	\$ 197,300	2
83.-1-5	2688 New Scotland Rd	Stark, Thomas K	Stark, Denise M.	210	\$ 159,100	1
83.-1-4	2690 New Scotland Rd	Pizzurro, Peter E		210	\$ 202,400	1
83.-1-3	2692 New Scotland Rd	Lassonde, Joseph	Lassonde, Barbara	210	\$ 175,100	1
83.-1-2	2694 New Scotland Rd	Peltz, Mark A	Gillespie, Jennifer	220	\$ 160,600	2
82.-2-25	2705 New Scotland Rd	Marsh, Noreen		210	\$ 132,200	1

Proposed New Salem Water District
Resident Owner Occupied Parcels

Tax Map Number	Parcel Address	Primary Owner	Additional Owner	Property Class	Total Assessment Value	Taxing Units (EDU's)
82.-2-23	2707 New Scotland Rd	Salisbury, Larry M	Salisbury, Colleen M.	210	\$ 139,400	1
82.-2-22.20	2711 New Scotland Rd	Eaton, Lawrence	Eaton, Tina	210	\$ 103,500	1
82.-4-3.30	2718 New Scotland Rd	Legere, Warren E	Legere, Patricia C.	210	\$ 200,500	1
82.-2-21	2729 New Scotland Rd	Houk, Valerie J		210	\$ 204,600	1
82.-4-2.10	2756 New Scotland Rd	Primiano, Anthony	Primiano, Judith M.	240	\$ 339,600	1
82.-4-2.20	2764 New Scotland Rd	Smith, Richard & Nancy	Calabro, John &. Cynthia	220	\$ 283,000	2
82.-4-1	2800 New Scotland Rd	Henderson, George		210	\$ 205,000	1
82.-2-15.10	2801 New Scotland Rd	Mathews, James A		240	\$ 351,600	1
82.-4-60	2828 New Scotland Rd	Kirk, Christopher E	Kirk, Donna M.	210	\$ 245,000	1
82.-2-14	2835 New Scotland Rd	Hall, Barbara L		210	\$ 246,300	1
82.-2-13	2845 New Scotland Rd	Obergefell, Jennifer		210	\$ 201,900	1
82.-4-9	1 Old New Salem Rd	Flynn, Thomas	Flynn, Theresa	220	\$ 155,000	2
82.-4-4	10 Old New Salem Rd	Harris, Stephen A	Harris, Diann P.	210	\$ 265,000	1
82.-4-22.31	25 Old New Salem Rd	Conley, John A	Eckert, Bethann	210	\$ 276,300	1
82.-4-5	32 Old New Salem Rd	Livingston, John P	Livingston, Susie C.	210	\$ 208,400	1
82.-4-6	34 Old New Salem Rd	Galvin, Michael E	Galvin, Patricia	210	\$ 152,200	1
82.-4-59.10	70 Old New Salem Rd	Baim, David	Baim, Joan P.	240	\$ 404,000	1
83.-1-11.3	10 Praga Ln	Pasquale Kathleen A		210	\$ 379,000	1
82.-4-43	425 Rock Hill Rd	Youngman, Ray A III		210	\$ 183,000	1
83.-1-37.3	426 Rock Hill Rd	Wood, Jonathan L	Wood, Kathy A.	210	\$ 214,700	1
83.-1-39.2	18 Tractor Path	Klapp, George	Klapp, Judy	210	\$ 289,200	1

Total Assessed Value	EDU Count
\$ 23,079,700	129

BOUNDARY DESCRIPTION OF
PROPOSED NEW SALEM WATER DISTRICT
TOWN OF NEW SCOTLAND
ALBANY COUNTY, NEW YORK

Beginning at the Point Of Beginning, said point describing the northwest corner of Albany County, New York tax map parcel 83.-2-1.1

- (1) Thence in a southeasterly direction, 300 feet, more or less, to a point, said point being the southwesterly corner of tax map parcel 83.-2-1.1;
- (2) Thence in a southerly direction, 60.22 feet, more or less, to a point, said point also being the northwesterly corner of tax map parcel 83.-1-11.4;
- (3) Thence in an easterly direction, 400 feet, more or less, to a point, said point being the northeasterly corner of tax map parcel 83.-1-11.4;
- (4) Thence in an southerly direction, 300 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 83.-1-11.4;
- (5) Thence in a westerly direction, 400 feet, more or less, to a point, said point being the southwesterly corner of tax map parcel 83.-1-11.4;
- (6) Thence in a northwesterly direction, 100 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 83.-1-11.52;
- (7) Thence in a westerly direction, 450 feet, more or less, to a point along the northerly property line of tax map parcel 83.-1-11.52;
- (8) Thence in a southerly direction, 470 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 83.-1-11.52;
- (9) Thence in a southerly direction, 300 feet, more or less, to a point, said point also being a northwesterly corner of tax map parcel 83.-1-11.53;
- (10) Thence in a northeasterly direction, 300 feet, more or less, to a point, said point being the northeasterly corner of tax map parcel 83.-1-11.53;
- (11) Thence in a southeasterly direction, 300 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 83.-1-11.53;
- (12) Thence in a northeasterly direction, 1130 feet, more or less, to a point along the southeasterly property line of tax map parcel 83.-1-11.11, said point also being the northeasterly corner of tax map parcel 83.-1-38.20;
- (13) Thence in a southeasterly direction, 880 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 83.-1-38.10;
- (14) Thence in a southeasterly direction, 220 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 83.-1-38.10;
- (15) Thence in a southeasterly direction, 140 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 83.-1-37.3;
- (16) Thence in a southeasterly direction, 250 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 83.-1-37.3;
- (17) Thence in a southwesterly direction, 330 feet, more or less, to a point, said point being the southwesterly corner of tax map parcel 83.-1-37.3;
- (18) Thence in a southwesterly direction, 150 feet, more or less, to a point along the northeasterly property line of tax map parcel 82.-4-44;
- (19) Thence in a southwesterly direction, 150 feet, more or less, to a point along a northerly property line of tax map parcel 82.-4-44;

- (20) Thence in a northwesterly direction, 164.4 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 82.-4-41;
- (21) Thence in a southwesterly direction, 80 feet, more or less, to a point along the southwesterly property line of tax map parcel 82.-4-40;
- (22) Thence in a southwesterly direction, 90 feet, more or less, to a point along the southwesterly property line of tax map parcel 82.-4-38;
- (23) Thence in a southwesterly direction, 160 feet, more or less, to a point, said point also being the northwesterly corner of tax map parcel 82.-4-37;
- (24) Thence in a southeasterly direction, 480 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 82.-4-44;
- (25) Thence in a southeasterly direction, 140 feet, more or less, to a point, said point also being the northwesterly corner of tax map parcel 82.-4-46;
- (26) Thence in a southwesterly direction, 200 feet, more or less, to a point, said point being a northeasterly corner of tax map parcel 82.-4-28.4;
- (27) Thence in a southerly direction, 90 feet, more or less, to a point along the curve of the northeasterly property boundary, also being the northeasterly corner of tax map parcel 82.-4-28.4;
- (28) Thence in a southeast direction, 300 feet, more or less, to a point along the curve of the easterly property boundary of tax map parcel 82.-4-28.4;
- (29) Thence in a southwesterly direction, 200 feet, more or less, to a point along the southerly property line of tax map parcel 82.-4-28.4;
- (30) Thence in a northwesterly direction, 188.5 feet, more or less, to a point, said point also being the southeasterly corner of tax map parcel 82.-4-28.3;
- (31) Thence in a southwesterly direction, 416.62 feet, more or less, to a point, said point being the southwesterly corner of tax map parcel 82.-4-28.3;
- (32) Thence in a northwesterly direction, 1,020 feet, more or less, to a point, said point also being the easterly corner of tax map parcel 82.-4-55.2;
- (33) Thence in a northwesterly direction, 300 feet, more or less, to a point, said point being the northeasterly corner of tax map parcel 82.-4-55.2;
- (34) Thence in a northwesterly direction, 310 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 82.-4-55.1;
- (35) Thence in a northwesterly direction, 220 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 82.-4-57.11;
- (36) Thence in a northwesterly direction, 330 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 82.-4-57.12;
- (37) Thence in a northwesterly direction, 170 feet, more or less, to a point, said point also being the southerly corner of tax map parcel 82.-4-59.23;
- (38) Thence in a northwesterly direction, 290 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 82.-4-57.2;
- (39) Thence in a southwesterly direction, 1,170 feet, more or less, to a point, said point also being the westerly corner of tax map parcel 82.-4-57.2;
- (40) Thence in a northeasterly direction, 350 feet, more or less, to a point, said point also being the southeasterly corner of tax map parcel 82.-2-9;
- (41) Thence in a southwesterly direction, 80 feet, more or less, to a point along the southerly property line of tax map parcel 82.-2-9;
- (42) Thence in a northwesterly direction, 250 feet, more or less, to a point along the northwesterly property line of tax map parcel 82.-2-9;

- (43) Thence in a northerly direction, 570 feet, more or less, to a point, said point also being the southeasterly corner of tax map parcel 82.-1-32.2;
- (44) Thence in a northerly direction, 220 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 82.-1-11;
- (45) Thence in a northeasterly direction, 220 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 82.-2-12;
- (46) Thence in a northwesterly direction, 170 feet, more or less, to a point along the southwesterly property line of tax map parcel 82.-2-8;
- (47) Thence in a northeasterly direction, 60 feet, more or less, to a point along the westerly property line of tax map parcel 82.-2-8;
- (48) Thence in a northwesterly direction, 220 feet, more or less, to a point, said point being the northwesterly corner of tax map parcel 82.-2-8;
- (49) Thence in a easterly direction, 280 feet, more or less, to a point along the easterly property line of tax map parcel 82.-2-8;
- (50) Thence in a northeasterly direction, 50 feet, more or less, to a point along the southwesterly property line of tax map parcel 82.-2-14;
- (51) Thence in a northwesterly direction, 130 feet, more or less, to a point along the westerly property line of tax map parcel 82.-2-14;
- (52) Thence in a northwesterly direction, 160 feet, more or less, to a point along the westerly property line of tax map parcel 82.-2-14;
- (53) Thence in a northeasterly direction, 100 feet, more or less, to a point, said point being the northerly corner of tax map parcel 82.-2-14;
- (54) Thence in a northerly direction, 90 feet, more or less, to a point along the southerly property line of tax map parcel 82.-2-15.20;
- (55) Thence in a northwesterly direction, 660 feet, more or less, to a point, said point being a westerly corner of the tax map parcel 82.-2-15.20;
- (56) Thence in a northeasterly direction, 370 feet, more or less, to a point, said point also being the southwesterly corner of the tax map parcel 82.-2-15.10;
- (57) Thence in a northwesterly direction, 290 feet, more or less, to a point, said point being the northwesterly corner of the tax map parcel 82.-2-15.10;
- (58) Thence in a northeasterly direction, 629.36 feet, more or less, to a point along the southerly property line of tax map parcel 82.-2-16;
- (59) Thence in a northeasterly direction, 191 feet, more or less, to a point along the southerly property line of tax map parcel 82.-2-17;
- (60) Thence in a northeasterly direction, 60 feet, more or less, to a point along the southeasterly property line of tax map parcel 82.-2-17;
- (61) Thence in a northeasterly direction, 92 feet, more or less, to a point along the southeasterly property line of tax map parcel 82.-2-17;
- (62) Thence in a northeasterly direction, 373.32 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 82.-2-19;
- (63) Thence in a easterly direction, 488.4 feet, more or less, to a point, said point being the southeasterly corner of the tax map parcel 82.-2-19;
- (64) Thence in a southeasterly direction, 218.8 feet, more or less, to a point along the southerly property line of tax map parcel 82.-2-20;
- (65) Thence in a northeasterly direction, 85 feet, more or less, to a point along the northeasterly property line of tax map parcel 82.-2-20;

- (66) Thence in a northerly direction, 625 feet, more or less, to a point, said point also being a northwesterly corner of tax map parcel 82.-2-36;
- (67) Thence in a northeasterly direction, 125 feet, more or less, to a point, said point also being the southwestery corner of tax map parcel 82.-2-39;
- (68) Thence in a northwesterly direction, 225 feet, more or less, to a point, said point being the northwesterly corner of tax map parcel 82.-2-39;
- (69) Thence in a northwesterly direction, 430 feet, more or less, to a point, said point also being the northwesterly corner of tax map parcel 82.-2-40.1;
- (70) Thence in a northeasterly direction, 670 feet, more or less, to a point, said point being the northeasterly corner of tax map parcel 82.-2-40.1;
- (71) Thence in a southeasterly direction, 60 feet, more or less, to a point said point also being the northwesterly corner of tax map parcel 82.-3-40;
- (72) Thence in a southeasterly direction, 410 feet, more or less to a point, said point being the northeasterly corner of tax map parcel 82.-3-40;
- (73) Thence in a southeasterly direction, 155 feet, more or less to a point, said point being the southeasterly corner of tax map parcel 82.-3-40;
- (74) Thence in a southwestery direction, 400 feet, more or less, to a point, said point being the southwestery corner of tax map parcel 82.-3-40;
- (75) Thence in a southeasterly direction, 47.6 feet, more or less, to a point, said point also being the northwesterly direction of tax map parcel 82.-3-14.2;
- (76) Thence in a northeasterly direction, 210 feet, more or less, to a point, said point being the northwesterly corner of tax map parcel 82.-3-14.2;
- (77) Thence in a southeasterly direction, 100 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 82.-3-14.2;
- (78) Thence in a southeasterly direction, 100 feet, more or less, to a point, said point also being the southeasterly corner of tax map parcel 82.-3-15;
- (79) Thence in a northeasterly direction, 484.15 feet, more or less, to a point, said point being within tax map parcel 82.-3-14.1;
- (80) Thence in a southeasterly direction, 288.87 feet, more or less, to a point being within tax map parcel 82.-3-14.1;
- (81) Thence in a southwestery direction, 217.13 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 82.-3-20.1;
- (82) Thence in a southeasterly direction, 250 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 82.-3-20.1;
- (83) Thence in a southwestery direction, 290 feet, more or less, to a point, said point being the southwestery corner of tax map parcel 82.-3-20.1;
- (84) Thence in a southerly direction, 110 feet, more or less, to a point along the easterly property line of tax map parcel 82.-3-21;
- (85) Thence in a southeasterly direction, 400 feet, more or less, to a point also being the southeasterly corner of tax map parcel 82.-3-31;
- (86) Thence in a northeasterly direction, 114 feet, more or less, to a point, said point also being the southwestery corner of tax map parcel 82.-3-1.4;
- (87) Thence in a northeasterly direction, 298.29 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 82.-3-1.4;
- (88) Thence in a northwesterly direction, 205 feet, more or less, to a point, said point also being the northwesterly corner of tax map parcel 83.-2-1.20;

- (89) Thence in a northeasterly direction, 675 feet, more or less, to a point, said point being the northeasterly corner of tax map parcel 83.-2-1.20;
- (90) Thence in a southeasterly direction, 175 feet, more or less, to a point along the easterly property line of tax map parcel 83.-2-1.20;
- (91) Thence in a northeasterly direction, 130 feet, more or less, to a point, said point also being the northeasterly corner of tax map parcel 83.-2-1.3;
- (92) Thence in a southeasterly direction, 360 feet, more or less, to a point, said point being the southeasterly corner of tax map parcel 83.-2-1.3;
- (93) Thence in a southwesterly direction, 350 feet, more or less, to a point, said point being the southwesterly corner of tax map parcel 83.-2-1.3;
- (94) Thence in a southwesterly direction, 393.32 feet, more or less, to a point, said point also being the southwesterly corner of tax map parcel 83.-2-1.20;
- (95) Thence in a southwesterly direction, 60 feet, more or less to the Point Of Beginning, containing 353.44 acres, more or less, as shown on a map titled "District Boundary and Distribution System, Proposed New Salem Water District.", dated March 2012 and prepared by Stantec Consulting Services, Inc.

Exhibit B – Projected Water Demand Calculations

1. Estimation of Domestic Demand



Stantec

PROJECT: Proposed New Salem Water District

SUBJECT: Calculation of Domestic Demands

MADE BY: KJM

DATE: 3/25/2003

CHKD BY: RMD

DATE: 3/25/2003

REVISED BY: ECZ

DATE: 3/24/2008

CHKD BY: KJM

DATE: 3/16/2012

1 Applicable Standards:

	Residential (per house)		Mult.	Commercial*		Mult.
Average Day Demand (ADD):	125 gpd	= 0.087 gpm	1			
Maximum Day Demand (MDD):	250 gpd	= 0.174 gpm	2			
**Peak Hour Demand (PHD):		0.347 gpm	4			

11 Calculations:

Total Demands for each Junction Node are based on the Nearest Neighbor Method of aggregation.

WaterCAD Location (Junction)	Residential Demand					Commercial Demand			
	Residential Units	ADD gpd	MDD gpd	PHD gpm	Base Flow gpm	Commercial Average Day Demand gpd	MDD gpd	PHD gpm	Base Flow gpm
Total	131	16,375	32,750	45.486	11.372				

46 System Demand Summary

	Residential	Commercial	Total		
Average Day Demand (ADD):	16,375	-	16,375	gpd	Σ (ADD)
Maximum Day Demand (MDD):	32,750	-	32,750	gpd	Σ (MDD)
Peak Hour Demand (PHD):			45.5	gpm	See Chart on Page 2



Stantec ASSOCIATES LLP

MADE BY: KJM DATE: 3/25/2003

PROJECT: Proposed New Salem Water District

CHKD BY: RMD DATE: 3/25/2003

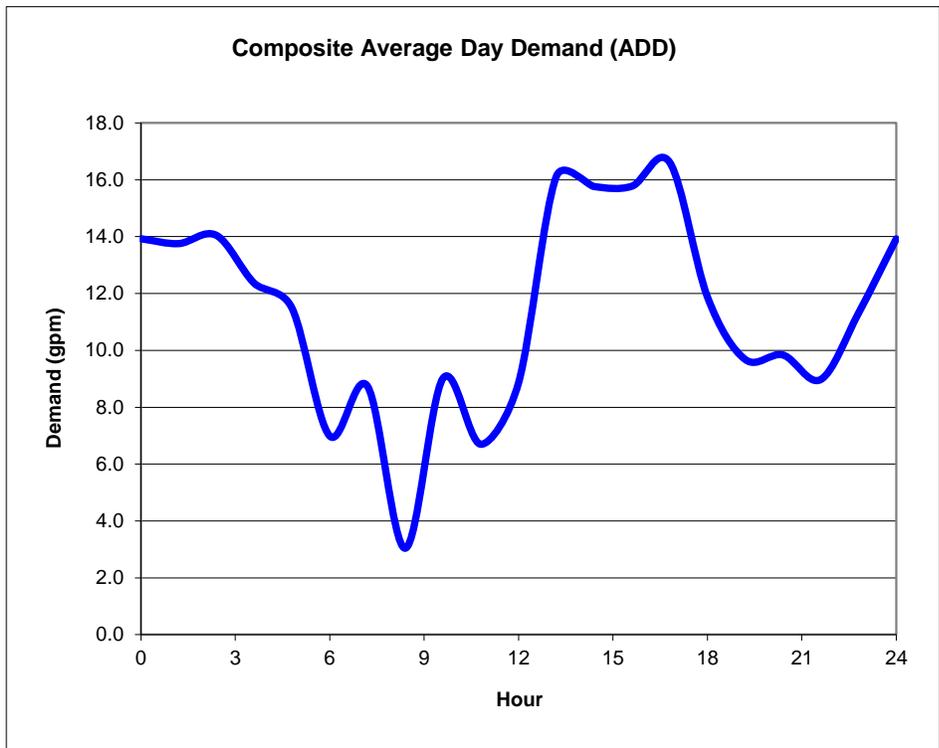
SUBJECT: Calculation of Domestic Demands

REVISED BY: ECZ DATE: 3/24/2008

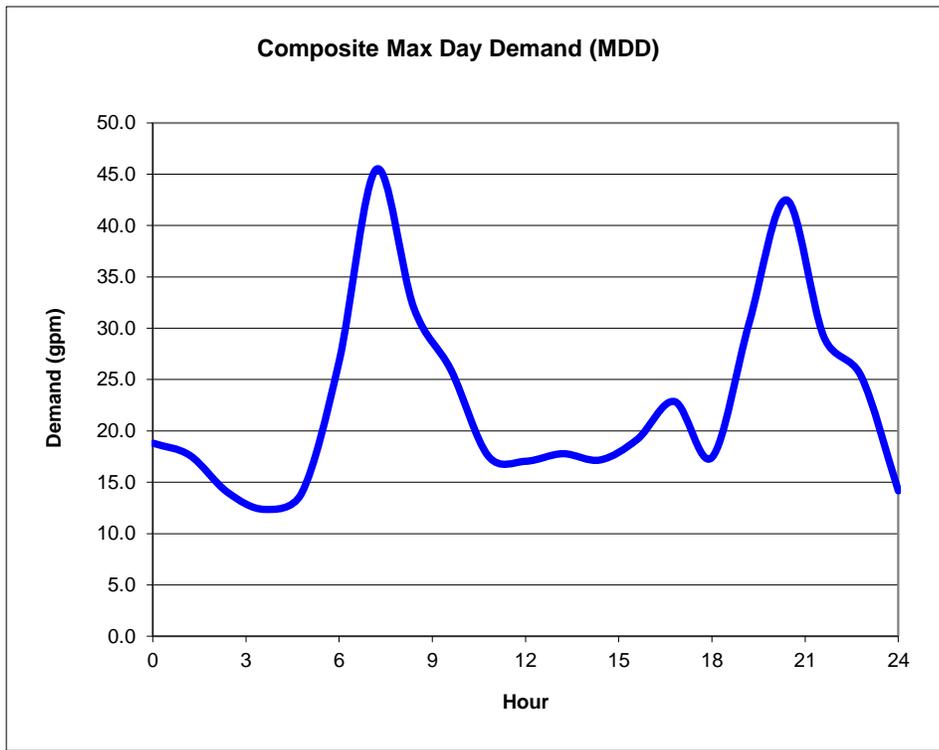
CONCEPTUAL ONLY

REVISED BY: KJM DATE: 3/16/2012

Average Day Demand			
Time (hr)	Res. (gpm)	Comm. (gpm)	Total (gpm)
0.02	13.9		13.9
1.2	13.8		13.8
2.4	14		14.0
3.6	12.4		12.4
4.8	11.5		11.5
6.0	6.99		7.0
7.2	8.74		8.7
8.4	3.04		3.0
9.6	9.02		9.0
10.8	6.7		6.7
12.0	8.86		8.9
13.2	16.1		16.1
14.4	15.8		15.8
15.6	15.8		15.8
16.8	16.6		16.6
18.0	11.9		11.9
19.2	9.68		9.7
20.4	9.84		9.8
21.6	8.97		9.0
22.8	11.3		11.3
24.0	13.9		13.9



Max. Day Demand			
Time (hr)	Res. (gpm)	Comm. (gpm)	Total (gpm)
0.02	18.8		18.8
1.2	17.6		17.6
2.4	14		14.0
3.6	12.4		12.4
4.8	14		14.0
6.0	26.8		26.8
7.2	45.5		45.5
8.4	32		32.0
9.6	25.9		25.9
10.8	17.6		17.6
12.0	17		17.0
13.2	17.8		17.8
14.4	17.2		17.2
15.6	19.2		19.2
16.8	22.9		22.9
18.0	17.4		17.4
19.2	30.5		30.5
20.4	42.5		42.5
21.6	29.2		29.2
22.8	25.3		25.3
24.0	14.2		14.2





Stantec

PROJECT: Proposed New Salem Water District

SUBJECT: Calculation of Domestic Demands

MADE BY: KJM

DATE: 10/15/2010

CHKD BY:

DATE:

REVISED BY: KJM

DATE: 3/16/2012

CHKD BY:

DATE:

1 Applicable Standards:

2 *125 gpd/house as observed from existing customers, and the 1:2:4 (ADD:MDD:PHD) demand multipliers.*

6 Base Flow for WaterCAD: 0.1042 gpm
 7 (Multiply this number by the number of
 8 services per Junction Node)

Demand Multiplier
(n x ADD)

Average Day Demand (ADD) 150 gpd = 0.1042 gpm	1.0
Max. Day Demand (MDD) 600 gpd = 0.4167 gpm	2.0
Peak Hour Demand (PHD) 0.4167 gpm	4.0

Time from Start (hr)	ADD		MDD	
	Mult.	gpm	Mult.**	gpm
0.02	1.224	0.128	1.653	0.172
1.2	1.209	0.126	1.548	0.161
2.4	1.235	0.129	1.235	0.129
3.6	1.087	0.113	1.087	0.113
4.8	1.010	0.105	1.229	0.128
6.0	0.615	0.064	2.355	0.245
7.2	0.769	0.080	4.000	0.417
8.4	0.267	0.028	2.815	0.293
9.6	0.793	0.083	2.280	0.238
10.8	0.589	0.061	1.544	0.161
12.0	0.779	0.081	1.499	0.156
13.2	1.417	0.148	1.564	0.163
14.4	1.386	0.144	1.510	0.157
15.6	1.387	0.144	1.687	0.176
16.8	1.461	0.152	2.010	0.209
18.0	1.045	0.109	1.532	0.160
19.2	0.851	0.089	2.685	0.280
20.4	0.865	0.090	3.736	0.389
21.6	0.789	0.082	2.566	0.267
22.8	0.994	0.104	2.229	0.232
24.0	1.224	0.128	1.246	0.130

26 Demand Multipliers for MDD and PHD relate to
 27 the Base Flow gallon per minute rate for the ADD.
 28 The Base Flow Rate is determined by dividing the
 29 ADD total flow by 1440 minutes.

32 **Residential Demand Multipliers**

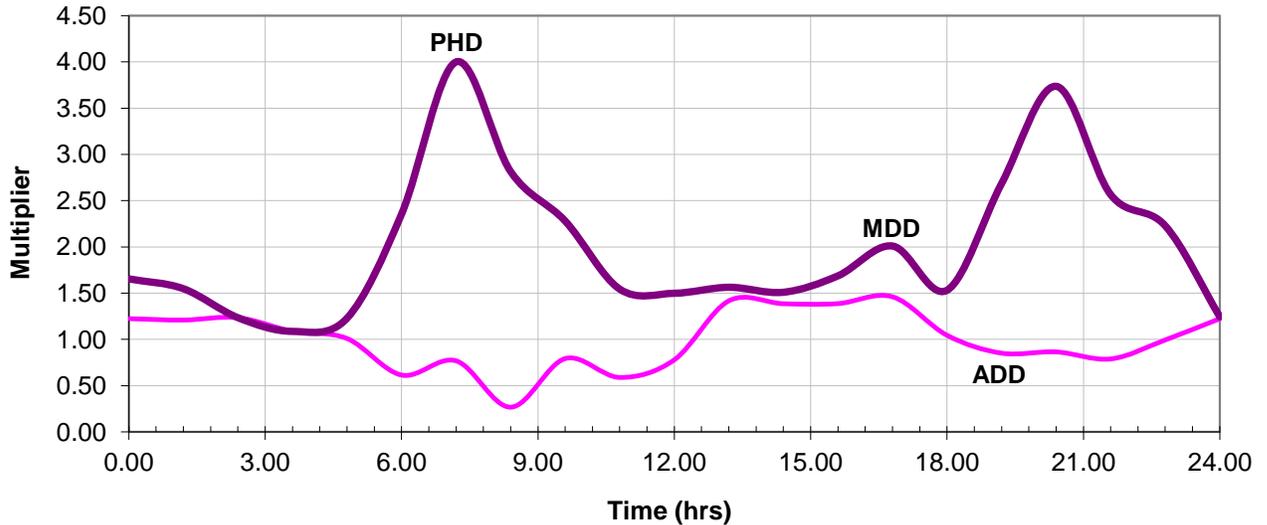


Exhibit C – Cost Opinion

1. Estimated Project Cost Opinion
2. Anticipated Customer Billing Rate
3. Projected Service Charge Summary Sheet
4. Current User Cost Summary



PROJECT # 190710269

SHEET # _____ OF: _____

PAGE # _____ OF: _____

Stantec

MADE BY: KJM DATE: 9/24/2010

DATE: 9/24/2010

PROJECT: New Salem Water District, Town of New Scotland

CHKD BY: RMD DATE: 9/24/2010

DATE: 9/24/2010

SUBJECT: Proposed Water System

REVISED BY: KJM DATE: 3/14/2012

DATE: 3/14/2012

Preliminary Cost Estimate 2012

CHKD BY: RMD DATE: 3/14/2012

DATE: 3/14/2012

Note: 2010 estimate, less 1,600 feet of watermain removed from Old New Salem Road.

CONSTRUCTION	Description	Quantity	Units of Payment	Unit Price	Cost	
	200,000 gal. Finished Water Tank, incl. Installation	1	LS	\$ 185,000	\$ 185,000	
	Tank foundation (concrete work)	1	LS	\$ 35,000	\$ 35,000	
	Site work for foundation	1	LS	\$ 15,000	\$ 15,000	
	8" HDPE watermain, installed conventional trenching	14,700	LF	\$ 80	\$ 1,176,000	
	8" HDPE watermain, installed (rock)	2,000	LF	\$ 140	\$ 280,000	
	Booster Pump Station					
	Building/Enclosure	1	LS	\$ 20,000	\$ 20,000	
	Master Meter	1	LS	\$ 12,000	\$ 12,000	
	Misc. Automation/Controls	1	LS	\$ 15,000	\$ 15,000	
Pumps/Controls	1	LS	\$ 50,000	\$ 50,000		
Electrical and Generator	1	LS	\$ 30,000	\$ 30,000		
Pressure Reducing Valve, incl. pit	1	LS	\$ 8,000	\$ 8,000		
Hydrant, valve and assembly	17	EA	\$ 5,000	\$ 85,000		
In-line 8" Gate Valve	25	EA	\$ 1,200	\$ 30,000		
3/4" HDPE Service Laterals (to right-of-way) Existing service	64	EA	\$ 500	\$ 32,000		
3/4" HDPE Service Laterals (to right-of-way) New service	75	EA	\$ 1,800	\$ 135,000		
3/4" Water Service Meters	139	EA	\$ 250	\$ 34,750		
Restoration	1	LS	\$ 50,000	\$ 50,000		
Land / Easement Acquisition	1	LS	\$ 50,000	\$ 50,000		
					\$ -	
	Contingency:	10%			\$ 224,275	

Construction Costs Subtotal: \$ **2,467,025**

Engineering	Description	Quantity	Units of Payment	Unit Price	Cost
	TASK 1 - DWSRF Application Process	1	LS	\$ 40,000	\$ 40,000
	TASK 2 - Design	6%	Const.	\$ 2,467,025	\$ 148,022
	TASK 3 - Construction Inspection	8%	Const.	\$ 2,467,025	\$ 197,362
		Contingency:	10%		

Design Costs Subtotal: \$ **423,922**

LEGAL & ADMIN.	Description	Quantity	Units of Payment	Unit Price	Cost
	Legal Counsel	1	LS	\$ 50,000	\$ 50,000
	Bond Issuance	3%	total	\$ 2,890,947	\$ 86,728
					\$ -
	Contingency:	10%			\$ 13,673

Legal & Admin. Costs Subtotal: \$ **150,401**

Estimated Total Current Year Project Cost (say): \$ **3,050,000**

Projected Construction Start **06/01/2013** Estimated Inflation Rate: 0.0% / year

(1 years until construction)

Estimated Total Project Cost (say): \$ 3,050,000

NEW SALEM WATER DISTRICT - TONS BILLING RATE ESTIMATE

Earnings: JH, PG, ME	\$10,335.66	(\$60,798 X 17%)
Med./Dent. Ins.	1,400.00	
Retirement	1,600.00	
Subtotal	<u>\$13,335.66</u>	
Electricity (\$400/mo.)	4,800.00	
Telephone (\$50/mo.)	600.00	
Misc. Expend. - truck, maint., etc.	1,500.00	
Total	<u>\$20,235.66</u>	

Spread over hooked up users	119
Annual O&M cost per hookup	\$170.05

Start with 131 assumed customers, subtract the 12 "Deeded rights" customers

Est. of gallons	45.63 (125 gal./day X 365 days =45,625/1,000 = 45.63)
Est. of O&M cost/gal.	\$3.73
PLUS TOB charge	<u>2.27</u>
	\$6.00

Our current rate plan/stucture would be \$6.00/1,000 for the first 15,000 gallons billed semi-annually = \$90.00/bill twice/year
\$6.50 for 15,001 + gallons billed semi-annually

For an estimated 125 gal./day user = \$140.38/bill = **\$280.76/year for water usage**

Original Debt	\$3,050,000.00
Less: TOB Construction	<u>-152,000.00</u>
	\$2,898,000.00
Spread over 30 years at 0% int.	30
	\$96,600.00
Spread over 164 tax units	164

\$589.02 Annual debt payment per TAX UNIT

PROJECTED SERVICE CHARGE SUMMARY

Annual District charge for Debt Repayment	\$589.02
Annual Usage Charge based on 125gal./day usage	<u>280.76</u>
	\$869.78

Summary of Current Customer Costs

Raw Customer Data Provided by Town of Bethlehem					Consumption Statistics					
Customer Location	Jul-10 Bill 1	Apr-10 Bill 2	Jan-10 Bill 3	Oct-09 Bill 4	Annual Usage (Cubic Feet)	Annual Usage (Gallons)	Average Daily (Gallons)	Average Quarterly (Cubic Feet)	Quarterly Bill	Annual Bill
148	2,900	1,300	1,500	2,300	8,000	59,840	164	2,000	\$ 124.40	\$ 497.60
166	1,400	1,400	1,600	1,500	5,900	44,132	121	1,475	\$ 87.23	\$ 348.92
180	1,200	1,200	1,500	1,700	5,600	41,888	115	1,400	\$ 81.92	\$ 327.68
190	900	700	1,000	900	3,500	26,180	72	875	\$ 44.75	\$ 179.00
188	1,000	900	1,100	800	3,800	28,424	78	950	\$ 50.06	\$ 200.24
186	4,000	3,300	5,500	2,900	15,700	117,436	322	3,925	\$ 260.69	\$ 1,042.76
196	2,600	2,700	3,100	2,700	11,100	83,028	227	2,775	\$ 179.27	\$ 717.08
200	1,000	1,100	1,600	1,400	5,100	38,148	105	1,275	\$ 73.07	\$ 292.28
206	800	900	1,100	1,000	3,800	28,424	78	950	\$ 50.06	\$ 200.24
208	700	800	900	800	3,200	23,936	66	800	\$ 39.44	\$ 157.76
210	1,000	900	1,200	1,300	4,400	32,912	90	1,100	\$ 60.68	\$ 242.72
212	1,000	900	1,100	900	3,900	29,172	80	975	\$ 51.83	\$ 207.32
214	3,600	3,000	3,500	3,200	13,300	99,484	273	3,325	\$ 218.21	\$ 872.84
216	3,800	4,200	4,200	4,200	16,400	122,672	336	4,100	\$ 273.08	\$ 1,092.32
218	600	1,400	1,600	2,400	6,000	44,880	123	1,500	\$ 25.28	\$ 101.12
220	500	600	800	800	2,700	20,196	55	675	\$ 25.28	\$ 101.12
222	1,900	1,600	1,700	2,500	7,700	57,596	158	1,925	\$ 119.09	\$ 476.36
224	1,500	1,500	1,800	1,800	6,600	49,368	135	1,650	\$ 99.62	\$ 398.48
226	2,900	3,200	3,100	3,100	12,300	92,004	252	3,075	\$ 200.51	\$ 802.04
228	200	200	200	200	800	5,984	16	200	\$ 11.52	\$ 46.08
230	1,600	800	900	200	3,500	26,180	72	875	\$ 44.75	\$ 179.00
238	900	201	-	-	1,101	8,235	23	275	\$ 14.11	\$ 56.43
240	2,300	2,500	1,600	600	7,000	52,360	143	1,750	\$ 106.70	\$ 426.80
242	2,200	1,500	2,100	1,900	7,700	57,596	158	1,925	\$ 119.09	\$ 476.36
244	1,000	1,000	1,200	1,400	4,600	34,408	94	1,150	\$ 64.22	\$ 256.88
246	400	200	400	300	1,300	9,724	27	325	\$ 15.82	\$ 63.28
246	1,100	900	1,100	1,600	4,700	35,156	96	1,175	\$ 65.99	\$ 263.96
250	1,800	1,800	2,200	1,800	7,600	56,848	156	1,900	\$ 117.32	\$ 469.28
252	700	500	1,000	800	3,000	22,440	61	750	\$ 35.90	\$ 143.60
254	700	700	1,100	1,100	3,600	26,928	74	900	\$ 46.52	\$ 186.08
256	3,500	3,100	3,800	3,800	14,200	106,216	291	3,550	\$ 234.14	\$ 936.56
258	1,700	1,100	1,500	2,100	6,400	47,872	131	1,600	\$ 96.08	\$ 384.32
260	800	600	800	900	3,100	23,188	64	775	\$ 37.67	\$ 150.68
262	1,300	1,500	1,800	1,900	6,500	48,620	133	1,625	\$ 97.85	\$ 391.40
264	1,000	900	1,000	1,000	3,900	29,172	80	975	\$ 51.83	\$ 207.32
266	1,100	800	800	1,200	3,900	29,172	80	975	\$ 51.83	\$ 207.32
268	1,000	900	1,000	1,200	4,100	30,668	84	1,025	\$ 55.37	\$ 221.48
270	1,000	900	1,000	1,100	4,000	29,920	82	1,000	\$ 53.60	\$ 214.40
272	400	300	200	600	1,500	11,220	31	375	\$ 17.54	\$ 70.16
274	1,400	1,200	1,400	1,300	5,300	39,644	109	1,325	\$ 76.61	\$ 306.44
276	700	600	500	600	2,400	17,952	49	600	\$ 25.28	\$ 101.12
278	2,000	1,900	2,000	1,700	7,600	56,848	156	1,900	\$ 117.32	\$ 469.28
280	900	600	700	600	2,800	20,944	57	700	\$ 32.36	\$ 129.44
282	1,900	1,400	1,600	2,100	7,000	52,360	143	1,750	\$ 106.70	\$ 426.80
284	300	300	300	300	1,200	8,976	25	300	\$ 14.96	\$ 59.84
21288	2,000	1,800	2,000	1,900	7,700	57,596	158	1,925	\$ 119.09	\$ 476.36
286	200	200	300	10,500	11,200	83,776	230	2,800	\$ 25.28	\$ 101.12
288	3,800	2,000	1,600	1,700	9,100	68,068	186	2,275	\$ 143.87	\$ 575.48
290	900	1,400	1,500	1,300	5,100	38,148	105	1,275	\$ 73.07	\$ 292.28
292	1,454	-	-	300	1,754	13,120	36	439	\$ 19.72	\$ 78.90
294	1,400	1,200	1,400	1,400	5,400	40,392	111	1,350	\$ 78.38	\$ 313.52
296	600	700	800	1,000	3,100	23,188	64	775	\$ 25.28	\$ 101.12
298	1,200	900	1,049	1,300	4,449	33,279	91	1,112	\$ 61.55	\$ 246.19
300	1,800	2,000	2,000	2,100	7,900	59,092	162	1,975	\$ 122.63	\$ 490.52
302	1,600	1,400	1,500	4,398	8,898	66,557	182	2,225	\$ 140.29	\$ 561.18
394	500	600	600	600	2,300	17,204	47	575	\$ 24.42	\$ 97.68
396	300	-	100	200	600	4,488	12	150	\$ 9.80	\$ 39.20
398	1,100	600	800	800	3,300	24,684	68	825	\$ 41.21	\$ 164.84
400	500	300	500	500	1,800	13,464	37	450	\$ 20.12	\$ 80.48
28534	-	-	-	-	-	-	-	-	\$ 4.64	\$ 18.56
402	1,600	1,700	1,800	1,500	6,600	49,368	135	1,650	\$ 99.62	\$ 398.48
408	1,300	1,300	1,300	1,500	5,400	40,392	111	1,350	\$ 78.38	\$ 313.52

\$ 78.43 \$ 313.74

Exhibit D – Water Supply Decisions Relevant to New Salem Area

1. Water Supply Decision #437, Bethlehem Water District No. 1
2. Water Supply Decision #437-A, Bethlehem Water District No. 1

Exhibit E – Water Supply Decisions Relevant to New Salem Area

1. Water Supply Decision #437, Bethlehem Water District No. 1
2. Water Supply Decision #437-A, Bethlehem Water District No. 1

State of New York
Department of Conservation

WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 437

BETHLEHEM WATER DISTRICT NO. 1

DECISION

ORIGINAL RECORD

State of New York
Department of Conservation

WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 437

In the Matter of the Application
of

WATER DISTRICT NO. 1

TOWN OF BETHLEHEM, ALBANY COUNTY,
for approval of its acquisition of
a source of water supply and of its
financial and engineering plans for
the construction of a water supply
system.

D E C I S I O N

Application filed March 30, 1927.

Hearing held in Delmar, May 10, June 2,
15 and 16, and Albany, October 3 and
10, 1927.

Decision, October 26, 1927.

APPROVED.

DECISION ON WATER SUPPLY APPLICATION NO. 457.

Under the provisions of Article IX of the Conservation Law, Water District No. 1 of the Town of Bethlehem, Albany County, by petition duly filed on March 30, 1927, made application to the Water Power and Control Commission for approval of a project involving the acquisition or taking of new and additional water supplies, of lands for such new and additional sources of water supply and the construction of a complete waterworks system therein.

After due notice published as required by law, the hearing on this application was had in the Fire Hall in Delmar, Town of Bethlehem, Albany County, on May 10, 1927, at 10:00 o'clock in the forenoon and thereafter continued, pursuant to adjournments duly taken and to subsequent orders of the Commission, in the same place on June 2, 15 and 16, 1927, and in the office of the Commission in the city of Albany on October 3 and 10, 1927, when it was finally closed. At this hearing Bethlehem Water District No. 1 was represented by William A. Glenn, Esq., its attorney. Objections were filed by: Edward S. Gilbert and by George W. D. Chase, who appeared at the hearing in person; by William Slingerland, Laura E. Slingerland, Rita S. Sleath, Mrs. Honora S. Mattice, Mrs. Emma Deitz and by Peter Oliver and others, none of whom were represented at the hearing; by Dudley B. Mattice, who appeared in person and was represented by Nathan M. Medwin, Esq.; and by Prentice Carnell and others, represented at the hearing by George J. Eatt, 2nd, Esq.

The project which the district proposes to carry out involves the following:

- (A) The acquisition of the entire plant and system of the Suburban Water Company for the agreed sum of \$90,000 and the subsequent operation of such plant.

- (B) The use and full development of the sources of water supply now used by the said company, namely: the Helderberg and Martin springs, with such acquisition or taking of lands and rights as may be necessary for such development.
- (C) The sinking of certain wells within the district, such wells to be used as sources of water supply, and the acquisition or taking of the lands and rights necessary for such purpose.
- (D) The reconstruction of the present distribution system in the district to make it adequate for the supply of water for domestic use and fire protection to all parts of the district.

The Commission finds it to be necessary, to protect the water supply and the interests of the applicant and of the inhabitants of the territory supplied by it with water and the water supply and interests of any other municipal corporations and other civil divisions of the State and the inhabitants thereof, or the water supply and interests of any other person or waterworks corporation engaged in supplying water to any other municipal corporation or other civil division of the State and the inhabitants thereof, and to bring into cooperation all municipal corporations and other civil divisions of the State which may be affected thereby, and to make just and equitable the submitted plan or scheme to determine and to provide for the payment of the proper compensation for any and all legal damages to persons or property, whether direct or indirect, which will result from the acquiring of said lands and the execution of said plans, and to make safe all dams and reservoirs to be constructed by said plans, that the application, maps and plans submitted should be modified to conform to the following:

1. All water pumped from the Martin spring, so-called, or from elsewhere on the Martin farm, shall be sterilized to the satisfaction of this Commission.

2. The Commission reserves the right to require purification of all water supplied from the district mains, from whatever source derived, if future analyses or inspections shall show such action to be necessary; upon receipt of an order so to do, the Commissioners of the district shall immediately install satisfactory apparatus for such purpose and thereafter operate such equipment at such times as the Commission may direct and to the satisfaction of the Commission.
3. No water pumped from the proposed wells shall be distributed until it shall have been analyzed and the Commission shall have approved thereof.
4. The district shall immediately procure the enactment by the State Department of Health of rules and regulations for the sanitary protection of the sources of water supply to be used, shall put such rules into effect, shall put the surroundings of the sources of supply into condition conformable to such rules and shall thereafter enforce the provisions of such rules and regulations. All water supply property shall be securely fenced, used for no other purpose and the entry of animals and unauthorized persons thereon prevented as far as possible.
5. Until, with the consent and approval of this Commission, other arrangements for the supply of water to them have been made, the district shall continue to supply water in New Scotland, Lew Salem and Pont Grove and to persons resident in the towns of New Scotland and Bethlehem along the supply lines of the district but outside of the boundaries thereof. Such water shall be of quality equal to that supplied in the district and shall be supplied at the rates and under the regulations in force in the district.
6. The district may supply water for fire protection and public service outside of the boundaries thereof, as may be arranged with the local authorities.
7. Complete detailed plans and specifications for all construction work not fully detailed in the plans and specifications filed with the application shall be filed with the Commission and must have been approved by it before any work on such structures is started and all work done under the provisions of this decision must be completed in full conformity with plans and specifications therefor which have been so submitted and approved.

8. This project shall be fully completed within three years of the date of this decision.

The Water Power and Control Commission having given due consideration to the said petition and its exhibits, the proofs and arguments submitted at the hearing and the reports of its engineers thereon, determines and decides as follows:

First. That the application, maps and plans submitted are modified as set forth above and as so modified are the plans herein-after mentioned.

Second. That the plans proposed are justified by public necessity.

Third. That said plans provide for the proper and safe construction of all work connected therewith.

Fourth. That said plans provide for the proper protection of the supply and the watershed from contamination and that filtration is at the present time unnecessary.

Fifth. That said plans are just and equitable to the other municipalities and civil divisions of the State affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of water supply.

Sixth. That said plans make fair and equitable provisions for the determination and payment of any and all legal damages to persons and property, both direct and indirect, which will result from the execution of said plans or the acquiring of said lands.

WHEREFORE, the Water Power and Control Commission does hereby approve the said application, maps and plans of Bethlehem Water District No. 1 as thus modified.

IN WITNESS WHEREOF, the Water Power and Control Commission has caused this determination and approval to be signed and has caused its official seal to be affixed hereto and has filed the same with all maps, plans, reports and other papers relating thereto in its office in the city of Albany, this 26th day of October, 1927.

WATER POWER AND CONTROL COMMISSION

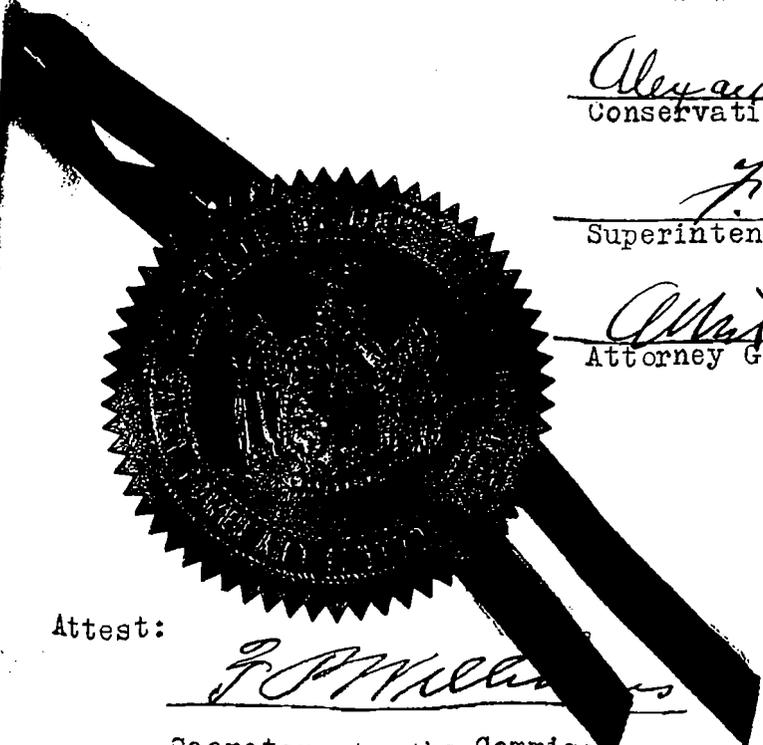
Alexander MacKenzie
Conservation Commissioner-Chairman

F. S. Greene
Superintendent of Public Works

Mal Ottinger
Attorney General

Attest:

J. P. Williams
Secretary to the Commission



10/27/27 = 2 certified copies to W^m A. Glenn, Esq., 25 N. Pearl St., Albany, N.Y.
1 - copy to Nathan M. Medwin, Esq., 82 State St., Albany, N.Y.

10/31/27 = copy to Holmquist + S.D.R.

37 S.D.R. 336

STATE OF NEW YORK
CONSERVATION DEPARTMENT
DIVISION OF WATER POWER AND CONTROL



WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 437-A

BETHLEHEM WATER DISTRICT NO. 1

D E C I S I O N

OFFICIAL RECORD

TO REMAIN IN THE CUSTODY OF THE WATER POWER AND CONTROL COMMISSION

State of New York
Department of Conservation
WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 437-A

In the Matter of the Application

- of -

WATER DISTRICT NO. 1

TOWN OF BETHLEHEM, ALBANY COUNTY,
for approval of its acquisition of
a source of water supply and of its
financial and engineering plans for
the construction of a water supply
system.

BETHLEHEM WATER DISTRICT NO. 1

MODIFYING DECISION

Application filed March 30, 1927
Original decision Oct. 26, 1927
Modifying decision March 3, 1959

MODIFYING DECISION ON WATER SUPPLY APPLICATION NO. 437-A

PROCEEDINGS

On March 30, 1927, the Board of Water Commissioners of Water District No. 1 of the town of Bethlehem in Albany County, acting in the name and on behalf of that district, filed an application with this Commission for approval of a project involving the acquisition by the Water District of the entire plant and system of the Suburban Water Company then operating in the area, the making of certain improvements to that system and of the subsequent operation of this system by the Water District. This application was approved by the Commission on October 26, 1927 subject to certain modifications. Among the modifications included in the decision the following appeared as Condition 5:

- "5. Until, with the consent and approval of this Commission, other arrangements for the supply of water to them have been made, the district shall continue to supply water in New Scotland, New Salem and Font Grove and to persons resident in the towns of New Scotland and Bethlehem along the supply lines of the district but outside of the boundaries thereof. Such water shall be of quality equal to that supplied in the district and shall be supplied at the rates and under the regulations in force in the district."

On November 21, 1958, John D. Brown, Chairman of the Board of Water Commissioners of Water District No. 1, acting in the name and on behalf of that Board, filed an application with this Commission requesting reconsideration and clarification of the above condition with respect to the limits of the territory in which the required service must be provided, the rates to be charged for this service and the type of service to be furnished.

After due notice published in the Albany Knickerbocker News, the Albany Times-Union and the Altamont Enterprise, the hearing on this request was held before John C. Thompson, Executive Engineer of the Commission, in the Town Hall of the town of Bethlehem at Delmar on January 8, 1959 at 10:00 o'clock in the forenoon. The petitioner was represented at this hearing by George F. Wenger, Esq., its attorney. Objections were filed by the town of New Scotland, represented at the hearing by Charles C. Curlette, Esq., its attorney.

REQUEST OF THE WATER DISTRICT

The Board of Water Commissioners of Water District No. 1 of the town of Bethlehem has now requested a modification of Condition 5 referred to above **so that a separate and different** water rate, not more than 100 percent higher than the rate charged within the district, shall be established for water service to customers mentioned in Condition 5 so as to provide for payment by them of part of the cost of a recently completed new source of water supply for the district. It is contended that this complete cost is now being met by customers within the district limits by payment of a water tax based on property valuation which is paid in addition to the regular rate now charged for water service.

The Board of Water Commissioners also has requested clarification of that part of Condition 5 which pertains to the areas outside the district in which service must be furnished. The Board alleges that this portion of Condition 5 is ambiguous since it is not clear whether, by the use of the word "continue", it was meant that only persons receiving water at the time of the decision were to be served or whether it was meant to include all future customers in the areas mentioned.

If it is decided that both present and future customers in the area were to be served, the Board of Water Commissioners further has requested that the customers to whom service must be furnished be limited to individual water takers located within 150 feet of the supply lines on property which abuts the public highway in which those lines are located and that the water supply required to be provided in the area under consideration be limited to residential and small non-business use.

OBJECTIONS

The town of New Scotland contends that the Commission, in its original decision, recognized the fact that the water supply for the property in the areas affected was being taken over by the Bethlehem Water District No. 1 and that, therefore, it made provisions in its decision for the protection of these properties. The town of New Scotland opposes any differential in water rates affecting customers of the water district in the town of New Scotland in comparison with those applicable to customers within the area of the water district. It has, however, voiced no objection, at this time to the establishment of an increased water rate for customers in the town of New Scotland if such an increased rate is identical with the rate charged to similar customers within Bethlehem Water District. The town also opposes any limitation on the area required to be served and the placing of any restriction on the character of the service to be furnished to customers within this area in New Scotland.

After due study of the petition and its exhibits and of the evidence and arguments given at the hearing, the Commission finds as follows:

FINDINGS OF FACT

1. Bethlehem Water District No. 1 was established about 1926 and covers an area in the town of Bethlehem southwest of the city of Albany centering around the unincorporated villages of Slingerlands, Delmar and Elsmere. It now furnishes the public water supply throughout the district and, in addition, provides water service, outside its limits in the towns of Bethlehem and New Scotland, directly to customers generally within the areas outlined in Condition 5 above as well as selling water on a wholesale basis to the Heldervale Water District in the town of New Scotland.

2. There are approximately 3,000 water service customers inside the district limits and about 300 outside its limits. The current average use of water from the district system is estimated to be 1 million gallons per day and peak demands are estimated at 1.25 million gallons per day.

3. Prior to the creation of Water District No. 1, the water supply in the initial area of the district and in the area outlined in Condition 5 was provided by the Suburban Water Company, a privately-owned water utility which began operation about 1901. This company obtained a supply of water from two groups of springs located near New Salem. Water from these springs was conducted to the main distribution system of the company through a transmission line installed in the New Salem-Slingerlands Highway (New York State Highway Route No. 85) and water service was furnished by the company to customers living along this line.

4. Since the acquisition of the system by Bethlehem Water District No. 1, the town or the district has made several applications to the Commission involving the development of additional ground water sources of supply and in 1954 there was filed an application requesting approval by the Commission of the development of a surface water supply. This last named application was approved by the Commission on July 13, 1954 (Water Supply Application No. 2562; 75 State Dept. Repts. 514) and the works proposed to be constructed under this approval have recently been completed (completed works approved September 9, 1958).

5. Under this application the town has constructed an impounding reservoir, a complete filter plant and a new transmission line and has increased the capacity of an existing

"base exchange" water softening plant. The impounding reservoir is located on the east branch of Onesquethaw Creek and on the south branch of Vly Creek. Water from the reservoir is treated at the filter plant located near the reservoir, softened by the "base exchange" softener and, after chlorination, delivered to the distribution system of the district. In connection with the project it was also necessary to install a booster pump station and storage tank to insure a continuous supply of water to customers in New Salem.

6. The impounding reservoir as now constructed is designed to provide a safe yield of 1.1 million gallons per day and provisions are made for future expansion to develop an ultimate safe yield of 3.9 million gallons per day. The filter plant and softening plant are designed to treat 1.5 million gallons of water per day at normal design rates. The new transmission line included in the project consisted of 35,000 feet of 16-inch pipe.

7. The estimated cost of the whole project covered by Application No. 2562 was \$1,854,000 but before it was completed the authorized expenditure was increased to \$2,200,000 and the project was enlarged to include a longer transmission line and some distribution system reinforcement.

8. As finally constructed, a 16-inch line extends from the filter plant to the main intersection in Delmar. This line runs along the New Salem-Slingerlands Highway to a point just outside the district line near Slingerlands where it turns at a right angle to the highway and eventually terminates at the main intersection in Delmar. The former transmission facilities in the New Salem-Slingerlands Highway, which consist of a 6-inch line and a 10-inch line, have been continued in service by the district and have been interconnected with the new 16-inch line.

9. At the time Water Supply Application No. 2562 was filed, the supply of water for the district was obtained from one of the two original groups of springs and from two wells located near these springs at New Salem. This water was softened before being delivered to the distribution system. The combined yield of these supplies was not sufficient to meet the requirements of the system and it was, at times, necessary to restrict use of water in the district and in the outside areas served by it. In addition, the existing transmission mains were unable to supply the normal domestic customers, and still provide any allowance for fire protection so that during an extended dry period pressures in part of the district's system at times were extremely low.

10. Since the construction of the new source of supply, Bethlehem Water District has established a new rate for metered

water service applicable to all domestic, commercial and industrial customers, effective October 1, 1958. This rate is designed to produce revenue sufficient to provide for estimated operating expenses, including taxes paid to the town of New Scotland on property involved in the new source of water supply and on the various transmission and distribution lines. This rate does not include an allowance for debt requirement for the retirement of the securities of the district. This requirement presently is met by the property owners within the district through a tax assessed on the basis of property valuation. The amount to be provided for this debt service has resulted in a tax rate for 1958 of \$8.013 per thousand.

11. In connection with the present application and at the hearing on it, Bethlehem Water District No. 1 has presented figures which have not been contradicted and indicate that the revenues collected by billing for water service under the now existing rates has been just about sufficient to carry normal operation and maintenance charges exclusive of debt service. These figures also reveal that the amount now collected within the district through a tax levy is substantially equivalent to charges against district funds for debt service and for the making of minor capital improvements to the system.

12. The operating expenses, including the taxes paid to the town of New Scotland, thus are now shared by all customers in accordance with the established rate for water service but none of the debt requirement is paid by the outside customers served under Condition 5. Since the facilities provided through this debt requirement are all used to furnish water service to all customers, it seems only fair that the outside customers should also share in the payment of a part of this cost. Since the town of district authorities in Bethlehem cannot exercise any taxing powers in the town of New Scotland the Board of Water Commissioners has requested an increase of up to 100 percent in the rates to the outside customers to compensate for a part of these additional costs of providing service.

13. The Commission and its engineers have analyzed thoroughly the figures supplied to it by the applicant at the hearing and the objections raised by the town of New Scotland against any change in the present rate requirements. Several methods of evaluating these figures have been suggested by the Commission's engineer assigned to this task and his report has been available to the Commission for its guidance in this matter.

14. Based on the evaluation of the figures presented and taking into consideration the complex problem involved in this matter, the Commission is of the opinion that the request of the town of Bethlehem and the results of the evaluations of the Commission's engineers are in reasonably good agreement.

It would seem, therefore, that the request for a maximum of 100 percent increase in the rates charged to all outside customers can be allowed by the Commission without necessarily endorsing completely the town's methods of arriving at this figure or establishing a definite formula for considering any question of rates which may in the future come before it.

15. In the future such factors as an increase in the number of customers sharing in the total cost of operating this system or a difference in actual expenses over estimated expenses could make an appreciable change in the comparable rates. It would seem, therefore, that the Commission, in approving of this change in water rates, should provide that this rate as now provided be limited to a period of five years and that the rate shall again be subject to further review by the Commission, at any time after the end of this five-year period, upon application by interested parties. Since the customers affected by the increase in rates are not necessarily all within any one municipality and thus may not conveniently be represented by the governing body of such a municipality, provisions must be made so that such a future review can be initiated upon a properly verified petition to the Commission by 50 of such individual customers of record. It must be understood, however, that the costs of any such later review must be borne by the persons requesting such review and the Commission must reserve the right to require the furnishing of an adequate bond to guarantee the payment of such costs.

16. Since acquiring the system in 1927 and up until 1950, it was the practice of the town to accept applications for water service from new customers along the existing supply lines outside the district if the buildings to be served were located immediately adjacent to this line. This practice of serving new customers was discontinued in 1950 because of the shortage of the district's supply, and service has been limited by the town to customers connected to the supply lines prior to that date.

17. This change in practice was made under an alleged ambiguity in Condition 5 of the Commission's original decision. In accordance with Condition 5 the town was required to "continue" to supply water to persons residing outside the district in the area specified. It is the contention of the town that it is not clear whether by the use of the word "continue" it was meant that only persons using the water at the time of the original decision were required to be served or whether other future customers were to be served. A clarification of this point is requested by the town.

18. A study of the record of the earlier application clearly indicates that the Commission, in its decision, meant

to provide service for certain future customers in the area as well as for the existing customers. Service would have been furnished to all of these customers by the privately-owned utility if it had continued to operate the system. It further would seem definitely illogical to require that new customers make other arrangements for service when they are located in a position to be so conveniently and efficiently served from the existing system.

19. On the contrary, we do not believe that the Commission at that time had any intention of requiring Bethlehem Water District No. 1 to make extensions of its service into areas not previously supplied by the Water Company particularly when the financing of any such extensions necessarily might become charges against the district. It is our opinion that this provision of requiring the district to "continue" service and to provide additional service certainly could not have been required without any limitation. We believe that, consistent with our interpretations of other decisions of similar nature, the intention, even if not completely expressed in definite terms, was to require continued service to all persons and structures then served and to all new structures, which might be built in the future on similarly situated properties, within a reasonable distance of any of the existing mains of the water system.

20. There are at present no large industrial customers served by this water supply system and there apparently have been no definite requests for such service received by the district at locations inside or outside the district limits. In our opinion, in any area wherein the town is required to provide water service, there should be no distinction in the type of service to be provided between those customers inside or outside the district as long as the town is able to provide such service. The town now has sufficient water for the needs of the complete district system and need not place any restrictions on the use of service by customers served under Condition 5 that are not applicable on service to customers within the district. Restrictions, however, such as on the use of water for air conditioning and sprinkling which the district now imposes on all customers are reasonable and should be permitted.

21. It seems reasonable, however, to provide that the district be given additional protection against any large and excessive draft by an extraordinarily large user of water outside of the district by providing that the maximum average per capita use in the areas outside the district shall never be allowed to exceed the similar per capita use within the district.

22. Some of the property located along the transmission lines of the district is farm property, which extends for a

considerable distance back from these lines. This property presents excellent opportunity for development and there is a possibility that large real estate subdivisions containing additional roads and streets may be developed in these areas.

23. Since, as indicated in Finding No. 19 above we do not believe that it was, or is, the intent of the Commission to mandate the district to serve such developments, we will specifically provide that required service under the Commission's decision, with respect to new customers, be limited to customers whose property abuts the public highway in which the transmission lines are located and whose buildings to be served are not more than 150 feet from these lines. The Commission must also require that the district continue to serve all present individual customers now supplied by it regardless of the location of these customers and that it also must provide service to any additional individual customers located along and within 150 feet of any of the lines now in use for the service of such customers.

24. Such a delineation would include within the area to be served all the average residences along the transmission lines.

25. The district further has indicated that it does not propose completely to deny service to future customers beyond the 150-foot limit but feels that service to such customers should be provided, if the water is available, on a wholesale basis and it has indicated a willingness to negotiate for service with any water district which would be created to cover these areas.

DETERMINATION

Therefore, Condition 5 of the Commission's decision of October 26, 1927 can be and hereby is modified and clarified to read as follows:

5. Until, with the consent and approval of this Commission, other arrangements for the supply of water to them have been made, the district must continue to supply water to all of the present individually serviced customers outside of its limits regardless of their location and must also, on request, supply water in the towns of New Scotland and Bethlehem outside the district limits, to any buildings located not more than 150 feet from any of the district's transmission mains or existing supply mains. Such water shall be of quality

equal to that supplied in the district and shall be supplied under the regulations in force therein. In no case however shall the district be required to supply in these outside areas a quantity of water in excess of the product obtained by multiplying the average per capita consumption of water within the district by the number of individual consumers served under the provisions of this modification. The maximum rate to be charged for such outside service shall in no instance be greater than a rate determined by increasing the unit rate in each of the consumption steps of the district's existing rate schedule for metered water service by 100 per cent.

Furthermore the decision of October 26, 1927 on this application shall also be modified by adding thereto another condition to read as follows:

9. The Commission reserves the right at the end of five years or at any time thereafter to review any of the determinations made herein, at the request of the governing body of any municipality involved or of any of the people affected by this decision and under the conditions referred to herein.

In all other respects the said decision shall remain as originally written.

MODIFYING DECISION

WHEREFORE, the Water Power and Control Commission does hereby modify its previous decision of October 26, 1927 on the said application of the Board of Water Commissioners of Water District No. 1 of the town of Bethlehem as indicated.

IN WITNESS WHEREOF, the Water Power and Control Commission has caused this determination and modification to be signed and has caused its official seal to be affixed hereto and has filed the same with all maps, plans, reports, and other papers relating thereto in its office in the city of Albany this 3rd day of March, 1959.

WATER POWER AND CONTROL COMMISSION


Carl E. Manning
Assistant to the Chief Engineer, Dept. of Public Works, Alternate - Acting Chairman

Howard Siegel
Principal Attorney, Dept. of Law, Alternate

H. P. Burdick
Senior Aquatic Biologist, Conservation Dept., Alternate

Attest:

[Signature]
Secretary to the Commission

437-A

S. O. R.

REF.	
2	3 1957 JAMES I.
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1	
1	
1	Robert W. Austin, P.S.C.
1	Hyman Rosenblum, Esq.
1	Frank H. Bloomer
2	Andreas Winger, Esq.
2	Charles L. Curlette, Esq.

Exhibit E – Co-Funding Commitment

1. Letter of Funding Commitment from Bethlehem Water District
2. Present Worth Analysis of Co-funding

Town of New Scotland - New Salem Water District Proposal

17-Nov-10
 Erik T. Deyoe, PE

TOB Contributions - Capital Outlay & Reduced Rate for Water Sales

Proposed Agreement Terms

- 1 Water purchases at 1.1 x production cost
- 2 Rate increases at CPI 3.98% CPI avg.
- 3 Credit water purchases of 12 customers for current non-billed
- 4 Contract term 30 years
- 5 TOB Capital Outlay for NS Water District project
 - Convert softener build. To PS/meter bldg \$ 127,000 maximum
 - add 2 service PRV's on 85 near softener \$ 25,000 maximum
- 6 After contract all New Scotland Districts pay 2x TOB water rate
- 7 Min. take or pay 3,000,000 galyear (current consumption)

Year	Year	Water Rev. at 2x	Rate	Prop. Water Rev.	Water Purchase Savings	Capital Outlay	Total	PV
0	2012	\$ 63,346.23	\$ 2.27	\$ 20,609.06	\$ 42,737.17	\$ 152,000.00	\$ 194,737.17	\$ 194,737.17
1	2013	\$ 65,867.41	\$ 2.36	\$ 21,429.30	\$ 44,438.11		\$ 44,438.11	\$ 42,882.78
2	2014	\$ 68,488.93	\$ 2.46	\$ 22,282.18	\$ 46,206.75		\$ 46,206.75	\$ 43,028.88
3	2015	\$ 71,214.79	\$ 2.55	\$ 23,169.01	\$ 48,045.78		\$ 48,045.78	\$ 43,175.48
4	2016	\$ 74,049.14	\$ 2.66	\$ 24,091.14	\$ 49,958.00		\$ 49,958.00	\$ 43,322.58
5	2017	\$ 76,996.30	\$ 2.76	\$ 25,049.97	\$ 51,946.33		\$ 51,946.33	\$ 43,470.18
6	2018	\$ 80,060.75	\$ 2.87	\$ 26,046.96	\$ 54,013.79		\$ 54,013.79	\$ 43,618.28
7	2019	\$ 83,247.17	\$ 2.99	\$ 27,083.63	\$ 56,163.54		\$ 56,163.54	\$ 43,766.89
8	2020	\$ 86,560.40	\$ 3.10	\$ 28,161.55	\$ 58,398.85		\$ 58,398.85	\$ 43,916.00
9	2021	\$ 90,005.51	\$ 3.23	\$ 29,282.38	\$ 60,723.13		\$ 60,723.13	\$ 44,065.63
10	2022	\$ 93,587.73	\$ 3.36	\$ 30,447.82	\$ 63,139.91		\$ 63,139.91	\$ 44,215.76
11	2023	\$ 97,312.52	\$ 3.49	\$ 31,659.65	\$ 65,652.87		\$ 65,652.87	\$ 44,366.40
12	2024	\$ 101,185.56	\$ 3.63	\$ 32,919.70	\$ 68,265.86		\$ 68,265.86	\$ 44,517.56
13	2025	\$ 105,212.74	\$ 3.77	\$ 34,229.90	\$ 70,982.84		\$ 70,982.84	\$ 44,669.23
14	2026	\$ 109,400.21	\$ 3.92	\$ 35,592.25	\$ 73,807.96		\$ 73,807.96	\$ 44,821.42
15	2027	\$ 113,754.34	\$ 4.08	\$ 37,008.83	\$ 76,745.51		\$ 76,745.51	\$ 44,974.12
16	2028	\$ 118,281.76	\$ 4.24	\$ 38,481.78	\$ 79,799.99		\$ 79,799.99	\$ 45,127.35
17	2029	\$ 122,989.38	\$ 4.41	\$ 40,013.35	\$ 82,976.02		\$ 82,976.02	\$ 45,281.10
18	2030	\$ 127,884.35	\$ 4.59	\$ 41,605.88	\$ 86,278.47		\$ 86,278.47	\$ 45,435.37
19	2031	\$ 132,974.15	\$ 4.77	\$ 43,261.80	\$ 89,712.35		\$ 89,712.35	\$ 45,590.17
20	2032	\$ 138,266.52	\$ 4.96	\$ 44,983.62	\$ 93,282.91		\$ 93,282.91	\$ 45,745.49
21	2033	\$ 143,769.53	\$ 5.16	\$ 46,773.96	\$ 96,995.56		\$ 96,995.56	\$ 45,901.35
22	2034	\$ 149,491.56	\$ 5.36	\$ 48,635.57	\$ 100,855.99		\$ 100,855.99	\$ 46,057.74
23	2035	\$ 155,441.32	\$ 5.58	\$ 50,571.26	\$ 104,870.06		\$ 104,870.06	\$ 46,214.65
24	2036	\$ 161,627.88	\$ 5.80	\$ 52,584.00	\$ 109,043.88		\$ 109,043.88	\$ 46,372.11
25	2037	\$ 168,060.67	\$ 6.03	\$ 54,676.84	\$ 113,383.83		\$ 113,383.83	\$ 46,530.10
26	2038	\$ 174,749.49	\$ 6.27	\$ 56,852.98	\$ 117,896.51		\$ 117,896.51	\$ 46,688.63
27	2039	\$ 181,704.52	\$ 6.52	\$ 59,115.73	\$ 122,588.79		\$ 122,588.79	\$ 46,847.69
28	2040	\$ 188,936.36	\$ 6.78	\$ 61,468.54	\$ 127,467.82		\$ 127,467.82	\$ 47,007.30
29	2041	\$ 196,456.03	\$ 7.05	\$ 63,914.98	\$ 132,541.04		\$ 132,541.04	\$ 47,167.46
30	2042	\$ 204,274.98	\$ 7.33	\$ 66,458.80	\$ 137,816.18		\$ 137,816.18	\$ 47,328.16
Total							\$ 2,678,736	\$ 1,546,843

Sam Messina
Town Supervisor

TOWN OF BETHLEHEM

OFFICE OF THE SUPERVISOR

445 DELAWARE AVENUE

DELMAR, NEW YORK 12054

(518) 439-4955 x1164

Fax: (518) 439-1699

Email: SMessina@townofbethlehem.org



November 24, 2010

Hon. Thomas Dolin, Supervisor
Town of New Scotland
2029 New Scotland Road
Slingerlands, New York 12159

**Re: Proposed New Salem Water District
Application for Funding from NYSEFC
Letter of Commitment**

Dear Supervisor Dolin:

This Letter of Commitment, made the 24th day of November, 2010, between the Town of New Scotland, Albany County, New York, located in said Town, hereinafter referred to as "New Scotland", and the Bethlehem Water District, a municipal entity of the Town of Bethlehem, Albany County, New York, hereinafter referred to as the "Bethlehem Water District".

WHEREAS, the Town of New Scotland has submitted a formal application to the New York State Drinking Water State Revolving Fund seeking financial assistance for creation of the New Salem Water District, located in New Salem hamlet area of the Town of New Scotland; and

WHEREAS, the Bethlehem Water District currently owns and operates the Helderberg Spring, and associated distribution appurtenances located within the municipal boundary of the Town of New Scotland. Said system being acquired by the Bethlehem Water District through purchase of the Suburban Water Works Company circa 1927 and to this date serving approximately 6 homes within the Town of New Scotland; and

WHEREAS, the Bethlehem Water District currently funds the operation and maintenance of the Helderberg Spring at an estimated cost of \$34,525 per year; and

WHEREAS, the estimated cost to rehabilitate the Helderberg Spring system with needed improvements would cost an estimated \$614,000.00, equivalent to an approximate annual bond repayment of \$37,680 per year for 30 year financing at current market rates. In addition, the estimated cost to operate and maintain the rehabilitated Helderberg Spring would be an

estimated \$8,250 per year (present year), resulting in a projected annual cost to the Bethlehem Water District of approximately \$45,930; and

WHEREAS, the Bethlehem Water District currently operates and maintains approximately 4,200 linear feet of public watermains in the limits of the proposed New Salem Water District, and sells approximately 8,200 gallons per day of water (3 million gallons per year) directly to approximately 75 customers; and

WHEREAS, the Bethlehem Water District currently owns and maintains a building located on New Scotland Road (Tax Parcel No. 83.00-2-1.1), hereinafter referred to as the "Water Softener Building"; and

WHEREAS, the Bethlehem Water District would prefer to participate with the Town of New Scotland with the creation of the New Salem Water District, which would replace all of the current Bethlehem Water Facilities in the proposed New Salem Water District, in-lieu of continued operation, maintenance and necessary upgrades to existing systems owned and operated by the Bethlehem Water District;

NOW, THEREFORE, it is agreed IN CONCEPT as follows:

1. The purpose of this Letter of Commitment is to identify the form and fashion of substantive participation by the Bethlehem Water District in establishment of the proposed New Salem Water District. Substantive participation by the Bethlehem Water District in proposed New Salem Water District will offset future costs associated with operation and maintenance of existing facilities within the project limits; and
2. This Letter of Commitment will serve as the basis for disclosing an offsetting revenue source for use in determining funding assistance through the New York State Drinking Water State Revolving fund; and
3. The subsequent formal Water Purchase Agreement shall include the terms and conditions outlined as follows in this Letter of Commitment. The subsequent Water Purchase Agreement will become effective only upon formal creation of the New Salem Water District by the Town of New Scotland. The terms and conditions shall include:
 - a. The New Scotland Water District will assume operation and maintenance of a public water system that incorporates approximately 75 customers currently serviced by the Bethlehem Water District in the project limit. In addition, the New Salem Water District will provide water to the parcels currently supplied from the Helderberg Spring with water from the New Salem Water District; and

- b. Several properties located within the proposed project area appear to have perpetual “deeded rights” to “free” water through previous agreements. The precise number of properties are served with these “deeded rights” is unknown at this time but is estimated to be 12 parcels. For the purpose of calculating the effect of these users against the financial analysis, Bethlehem agrees to provide the cumulative metered water consumption value of the properties with “deeded rights” at no cost to the proposed district. The number of “deeded right” properties will be confirmed during the engineering design phase of the proposed district; and
- c. The Bethlehem Water District agrees to provide the proposed New Salem Water District with water for a contractual term of 30 years at the following rate structure: The first year rate of purchase shall be \$2.27 per 1,000 gallons and shall escalate at a rate equal to the Consumer Price Index as published annually by the U.S. Department of Labor, Bureau of Labor Statistics. For the purpose of calculating financial impact to the DWSRF program, the CPI increase is approximated at 4.0% per year; and
- d. The minimum annual water purchase shall be 3,000,000 gallons per year (750,000 gallons if billed quarterly);
- e. The Bethlehem Water District agrees to sell up to 9,600,000 per year (2,400,000 gallons if billed quarterly) and at a rate not to exceed 30,000 gallons per day and/or 80 gallons per minute (more precision to be determined in conjunction with subsequent engineering design). Water in excess of these amounts may be purchased with an amendment to the Water Purchase Agreement and may be charged at a higher rate; and
- f. The Bethlehem Water District shall furnish and install a new pump station and appurtenances at the location of the existing Water Softener Building. Said pump station will be designed and constructed for the proposed New Salem Water District project and will be conveyed upon its completion to the New Salem Water District at no cost. The Bethlehem Water District shall deed a subdivided portion of lands associated with access, operation and maintenance of the proposed Pump Station to the New Salem Water District. The Bethlehem Water District shall construct two (2) pressure reducing pits preliminarily identified in the concept design at no cost to the New Salem Water District. The cost of the pump station and pressure reducing pits to the Bethlehem Water District shall not exceed \$152,000; and

- g. Costs associated with engineering design, document preparation and environmental review for Bethlehem Water District contributions to the project shall be borne by the proposed New Salem Water District; and
- h. The Town of New Scotland shall provide an access easement to the Town of Bethlehem's Helderberg Spring parcel through the New Scotland Highway Garage Parcel, with details to be further determined.

We trust that this letter sufficiently details our level of commitment to this project and satisfies the requirements of your application for financial assistance. Please feel free to contact me or Josh Cansler, Commissioner of Public Works, if you have any questions in this regard.

Very truly yours,



Samuel E. Messina
Town Supervisor

cc: Town Board
J. Cansler, Commissioner – DPW
E. Deyoe, P.E., Deputy Commissioner – DPW
J. Potter, Esq., Town Attorney

Sources and Bibliography

Distribution Network Analysis for Water Utilities. AWWA Manual M32. 1989. Denver, Colorado: American Water Works Association.

Distribution System Requirements for Fire Protection. AWWA Manual M31, Third Ed. 1998. Denver, Colorado: American Water Works Association.

Recommended Standards for Water Works. Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers. 1997. Albany, New York: Health Research , Inc.