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August 6, 2004

Mr. Dave Phillips
NYS Department of Health
Senior Sanitary Engineer
Bureau of Public Water Supply Protection
Flanigan Square
547 River Street
Room 400
Troy, NY 12180-2216

**RE: New DWSRF Application
Town of New Scotland, New York
Proposed New Salem Water District
Pre-Application Submission**

Dear Mr. Phillips:

On behalf of the Town of New Scotland, Vollmer Associates is pleased to submit this DWSRF Pre-Application for project the above referenced project for consideration in the 2004-2005 Intended Use Plan.

The proposed project generally consists of the creation of a formal water district around a pre-existing and substandard water source and insufficient distribution piping. The district would purchase water through intermunicipal agreement with the Town of Bethlehem and proposes to also have an emergency interconnection to the Town of Voorheesville water system. The new source for water would eliminate an existing spring serving several customers that is believed to be under direct surface influence.

This Pre-Application submittal includes following items:

1. The DWSRF Pre-Application Form;
2. Technical Planning Report

If there are additional questions, I can be reached at (518) 452-4358. Thank you in advance for your careful consideration of this DWSRF Application.

Very truly yours,
Vollmer Associates LLP by:

Keith J. Menia, PE
Project Engineer

cc: Ed Clark, Town Supervisor

Drinking Water State Revolving Fund (DWSRF) Pre-Application Form
Preliminary Project Schedule And Cost Estimate
For Intended Use Plan (IUP) Listing Purposes
(Instructions on Back)

DOH Use Only

PWS I.D. No. _____
Project Tracking No. _____
Date Received: ____/____/____

Date Prepared: 7 / 27 / 04

PROJECT INFORMATION

Name of Water System: New Salem Water District

Municipality: Town of New Scotland

County: Albany

Legislative Districts - Congressional: 21 NYS Senate: 46 NYS Assembly: 104

Project Description/Location: New Salem Hamlet, Town of New Scotland / Intersection of Rte. 85 and Rte. 85A

Population Served by Water System: 486

Population Served by Project: 486

Has this project been listed in a DWSRF Intended Use Plan (IUP)? Yes or No. If yes, please indicate the DWSRF project tracking number: No

Are there other funding sources anticipated for the project: Yes or No. If yes, please attach a separate sheet of paper and include source of funding, amount of funding, type of funding, and letter of confirmation.

CONTACT INFORMATION

Name of Borrower: <u>Town of New Scotland</u>	Consulting Engineer: <u>Vollmer Associates LLP</u>
Contact Person, Title: <u>Ed Clark, Supervisor</u>	Contact Person, Title: <u>Keith J. Menia, PE - Project Manager</u>
Address: <u>2029 New Scotland Rd, Slingerlands, NY 12159</u>	Address: <u>Pine West Plaza Bldg 1A, Albany, NY 12205</u>
Phone #: <u>518-439-4889</u>	Phone #: <u>518-452-4358</u>
Fax#: <u>518-439-5884</u>	Fax #: <u>518-452-9234</u>
E-Mail Address: <u>efclark@nycap.rr.com</u>	E-Mail Address: <u>kmenia@vollmer.com</u>

If applicable, on a separate sheet of paper provide contact information for additional parties who should be included on project mailing list, including system owner (if different than borrower) and person responsible for completing subsequent application package.

PROJECT COST ESTIMATE	
Construction Costs	\$ 3,668,844
Engineering Fees	\$ 478,347
Other Expenses	\$ 92,903
Equipment Costs	\$ 0
Land Acquisition	\$ 0
Contingencies (20% used)	\$ 848,019
Subtotal Project Costs	\$ 5,088,019
Deduct other funding sources (HUD, RD, etc.)	\$ 0
Add Est. Issuance Costs	\$ 152,643
<i>(Estimated issuance costs are approximately 3% of project costs)</i>	
Total Amount to Finance	\$ 5,240,756

PROJECT SCHEDULE

1. Submit Engineering Report.	(T) <u>12/31/04</u> (Date)
2. When will all Technical Submittals be completed?	(T) <u>6/30/05</u> (Date)
2. Start of construction date (date Notice to Proceed was issued)?	(T) <u>6/1/06</u> (Date)
3. Is this project being submitted for Refinancing? Yes or <input checked="" type="radio"/> No (circle correct response)	
If yes, Construction Completion Date (actual date)?	_____ (Date)

DATES

(T) TARGET OR (A) ACTUAL

Please return completed form to:
 New York State Department of Health
 Bureau of Public Water Supply Protection
 547 River Street, Flanigan Square, Room 400
 Troy, New York 12180
 Phone: (518) 402-7650
 Fax: (518) 402-7659

INSTRUCTIONS

PRE-APPLICATION FORM, DWSRF PROJECT SCHEDULE AND COST ESTIMATE

This form is used to gather preliminary schedule and cost information about your project. It will help us to determine project eligibility and a target date for providing your DWSRF loan. New York State Department of Health (DOH) staff may call you to verify this information and to develop a more detailed schedule for completion of all activities needed for a complete loan application. You should confer with your engineer and financial advisor regarding the schedule and cost estimate. If you have questions regarding the pre-application form, please call DOH at 1-800-458-1158 (within NYS State) or (518) 402-7650 for assistance.

PROJECT INFORMATION

This section of the form should include the **Name of the Water System**, **Name of the Municipality** serviced by the water system, and the **County and Legislative Districts** in which the project is located. A **Project Description** and the **Location** of the project should also be included (e.g., Construct new water treatment plant at 69 Mill Road in Village of Waterburgh). The applicant should provide information regarding the **Population Served by the Water System** and the **Population Served by the Project**.

Has the project been listed in a previous DWSRF Intended Use Plan (IUP)? If a pre-application has previously been submitted it is not necessary to complete an additional application form. If project information, contact information, actual or targeted activity dates, or project cost estimates previously submitted have changed, the applicant may wish to submit a revised pre-application form. If so, please include the **DWSRF project tracking number**.

Indicate if **other funding sources** (i.e., Rural Development, Housing and Urban Development, etc.) are available for the project. If other sources of funding are available please attach a separate sheet of paper and include the funding source, funding amount, type of funding (i.e., grant, low interest loan), and date the funding was granted (letter of confirmation).

CONTACT INFORMATION

DOH will be using the contact information provided on the pre-application form to identify the borrower, the consulting engineer, and other key project contacts (if applicable). Individuals listed on this portion of the pre-application form may be contacted directly by DOH staff to answer technical questions.

PROJECT COST ESTIMATE

The accuracy of project costs will vary depending on the stage of project development. Please use the best available estimate when completing the form. Cost estimates should be provided for **Construction Costs**, **Engineering Fees** (planning fees, design fees, and construction fees), **Other Expenses** (legal expenses, bond counsel costs, force account costs, fiscal expenses, interest during construction, and miscellaneous expenses), **Equipment Costs**, **Land Acquisition Costs**, and **Contingencies**. **Financial assistance anticipated from other Funding Sources** (Rural Utilities, Housing and Urban Development, etc.) should be subtracted from the **Subtotal Project Costs** of the above listed cost estimates. The **Estimated Issuance Cost** (approximately 3% of project costs) should be added to the subtotal to determine **Total Amount to Finance**. If certain cost elements are unknown and cannot be reasonably estimated, please indicate on the form. Estimates for all expenses will eventually be needed so that sufficient monies for the project are included in the IUP.

PROJECT SCHEDULE

1. Provide the date (targeted or actual) when an approvable **Engineering Report** and all **Technical Submittals** will be completed. Required Technical Submittals include environmental review documents and findings, final plans and specifications, engineer's certification of technical requirements, certification of title to project sites, **Minority & Women's Business Enterprise - Equal Opportunity (M/WBE-EEO)** program documents. Additionally, the borrower should contact DOH and other responsible permitting agencies (e.g., New York State Department of Environmental Conservation) for anticipated review and issuance times. Please contact EFC for applicable loan application deadlines and anticipated loan closing dates.
2. Provide the date (targeted or actual) of **Start of Construction** (i.e., date Notice to Proceed was issued). Although the construction schedule may be very tentative when you complete the pre-application, it is important to set target dates as they indicate when DWSRF financing will be needed.
3. Indicate if the project is being submitted for **Refinancing**. If the project is being refinanced, include the actual date of **Construction Completion**.

TECHNICAL PLANNING REPORT
For
Pre-Application to the
New York State Drinking Water State Revolving Fund

NEW SALEM WATER DISTRICT

Town of New Scotland
Albany County, New York

July 2004

Prepared by:



VOLLMER ASSOCIATES LLP

Engineers
Architects
Landscape Architects
Surveyors
Planners

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**TECHNICAL PLANNING REPORT
NEW SALEM WATER DISTRICT
TOWN OF NEW SCOTLAND
ALBANY COUNTY, NEW YORK**

Table of Contents

Abstract	2
Historical Background	2
Scope of Proposed Improvements.....	2
Source of Water Supply.....	2
Intermunicipal Connections	3
Distribution.....	3
Finished Water Storage.....	3
Customer Profile	3
Projected Water Demand.....	3
Needed Fire Flow Demand (NFF).....	4
Conceptual Automation.....	4
Soil and Groundwater Conditions	4
Sanitary Sewerage Systems.....	4
Adjacent Planned Water System Improvements	5
Town of Bethlehem Water District.....	5
Village of Voorheesville Water District	5
Project Costs	5
Capital Improvement (Project Cost)	5
Financing.....	5
Unassisted Total Annual Service Charge.....	5
Future Extensions	6
Exhibits.....	7
Exhibit A – Supporting Maps	8
1. Area Map.....	8
2. Proposed District Map / Schematic.....	8
Exhibit B – Projected Water Demand Calculations	9
1. Estimation of Domestic Demand.....	9
Exhibit C – Cost Estimate.....	10
2. Estimated Project Cost.....	10
3. Unassisted Bond Repayment Schedule	10
4. Summary Sheet	10
5. Projected Annual User Costs (Unassisted).....	10
Sources and Bibliography	11

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Abstract

This report has been prepared to accompany the Pre-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 consist of approximately 162 residential and commercial services. Approximately 10 of the customers are currently served by a substandard groundwater spring. There are also 94 existing water users in a "permissive service area" served directly from a 90-year old waterline owned by the Town of Bethlehem. 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 purchase of filtered water product from the City of Albany and a transmission agent with, as well as the Town of Bethlehem Water District and intermunicipal, emergency interconnection to the Village of Voorheesville water system. Fire protection is desired for the proposed district.

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 Felter 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 would provide new municipal watermains to supply the customers fed by the spring. The New Salem Water District would 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 94 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 filtered water from the City of Albany through and transmitted by 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 minimize the potential for low pressure.

Intermunicipal Connections

The proposed district will also include emergency connection to the Village of Voorheesville distribution system at a point along Route 85A. The connection will be used only for emergency purposes. The proposed New Salem system is at a comparable hydraulic gradient to the Village of Voorheesville improvements that are currently under construction. Since the proposed New Salem system will be connected to both the Bethlehem and Village of Voorheesville systems, the new district will also provide a hydraulic link between the three water systems.

Distribution

The proposed improvements include the installation of an estimated 20,400 LF of new 8-inch watermain to replace existing 90-year 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 PVC). 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 under the scope of the proposed project.

Finished Water Storage

The proposed water district will include a 300,000 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 compliment the installation of a glass-lined steel tank. The size of the tank has been preliminarily designed to meet both the domestic and fire protection needs of the district.

Detailed soils analysis will be conducted during the planning process, but the Albany County Soil Survey reveals that the area has the potential to reach bedrock by which to obtain favorable footing.

Customer Profile

In addition to 159 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)

Projected Water Demand

According to the *U.S. Department of Commerce, Bureau of the Census*, the population of the Town of New Scotland will grow from 8,626 in 2000 to 9,079 by 2000. This rate of increase corresponds to a growth trend of 0.36% per year. Applying this rate of growth to the proposed New Salem Water District, the anticipated domestic demands for the next 20 years are shown in Figure 1 – Domestic Demand Projection. The anticipated growth is equal to approximately 11 new homes over this period.

Since no water use history exists for customers of the proposed district, ADD domestic consumption rates for residential customers are estimated using 100 gpdpc (gallons per day per capita) x 3 persons per house or 300 gpd per single family residence.

Figure 1 – Domestic Demand Projection

	Year		
	(Base Year 2000) 2004	2014	2024
District Population (est.)	486	502	520
Percent Growth (from base year)	-	3.3 %	7.1 %
Average Day Demand (ADD)	48,600 gpd	50,204 gpd	52,051 gpd
Maximum Day Demand (MDD)	97,200 gpd	100,408 gpd	104,101 gpd
Peak Hour Demand (PHD)	135 gpm	139.5 gpd	145 gpm

The performance of the water distribution system has not been simulated. 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. Service connections will be evaluated with the Engineer's Map, Plan and Report for conformance to the minimum operating pressure of 35 psi.

Needed Fire Flow Demand (NFF)

Fire protection is desired for the proposed New Salem Water District. The Needed Fire Flow (NFF) has been preliminarily 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

Fire protection requirements and system performance will be determined with more certainty in the Engineer's Map, Plan and Report. Preliminary indication is that the pipe sizes and hydraulic head developed by the proposed storage tank will be capable of meeting the approximated residential fire protection needs and the majority of the commercial needs.

Conceptual Automation

As previously discussed, the proposed water system will obtain source finished water from the City of Albany through the Town of Bethlehem. 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 booster pump #2 to refill the water tank. Booster pump #1 will be located at the New Salem side of the interconnect meter. Booster pump #1 will be activated when system pressure at the Booster pump #1 reaches a predetermined low set-point.

Soil and Groundwater Conditions

A preliminary investigation of the Albany County Soils map and knowledge of the area indicate that bedrock can be expected for a portion of the distribution system. The proposed location for the water storage tank is favorable encountering any bedrock compliments the installation of the tank foundation. A more detailed soils investigation is planned 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.

Adjacent Planned Water System Improvements

Town of Bethlehem Water District

The Bethlehem Water District is currently planning improvements in the vicinity of the proposed New Salem Water District. The improvements include the upgrade of the New Salem Water Purification Plant (located adjacent to the Vly Creek Reservoir. Production at the plant will be increased from 6.5 MGD to 10.0 MGD by means of additional storage, pumping and a new 24-inch distribution main along Route 85. The New Salem District would connect adjacent to the Bethlehem improvements.

In addition to the Bethlehem improvements mentioned above, the Bethlehem Water District has recently secured a 2.5 MGD purchase agreement with the City of Albany for finished water.

Village of Voorheesville Water District

The Voorheesville Water District is currently constructing improvements to its system including new transmission watermains along Route 85A and finished water storage tank. Due to their proximity with the New Salem Water District, the Voorheesville improvements are shown on the attached Conceptual Distribution Map. The proposed New Salem District will be extended to include customers along Route 85A not serviced by the Voorheesville improvements. An emergency interconnect is proposed between the two systems.

Project Costs

Capital Improvement (Project Cost)

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

Figure 3 – Cost Estimate Summary

Construction	\$ 3,668,844
Engineering	\$ 478,347
Other Expenses	\$ 92,903
Contingencies (20%)	<u>\$ 848,019</u>
Sub-total:	\$ 5,088,133
Issuance (3%):	<u>\$ 152,643</u>
Total Estimated Cost:	\$ 5,240,756

The costs shown reflect a construction start date in 2006. A more detailed breakdown of the cost estimate including construction, design, legal and administrative costs are presented in Exhibit C.

Financing

Unassisted Total Annual Service Charge

If the proposed district were to attempt to fund the improvements without outside assistance, the estimated annual water cost for the average user would be approximately \$2,115 per year. Since the maximum total annual service charge recommended by the New York State Comptroller's Office is \$621.00 for the typical residential customer

(2004), the project is clearly unaffordable. A summary of the preliminary financial analysis is presented in Exhibit C.

For the project to be affordable, the district would require outside assistance. In addition to the DWSRF Pre-Application, the Town of New Scotland will be conducting a household income survey to determine the Median Household Income (MHI). The information gathered from the income survey will be used to apply for Hardship Grant monies also administered by the DWSRF program. Income survey results and the Hardship Application must be submitted to EFC by December 1, 2004.

The Town will also be investigating the potential for additional co-funding opportunities. Programs such as Rural Development (RD) and the Small Cities Development Block Grant may be pursued depending on the results of the income survey.

Future Extensions

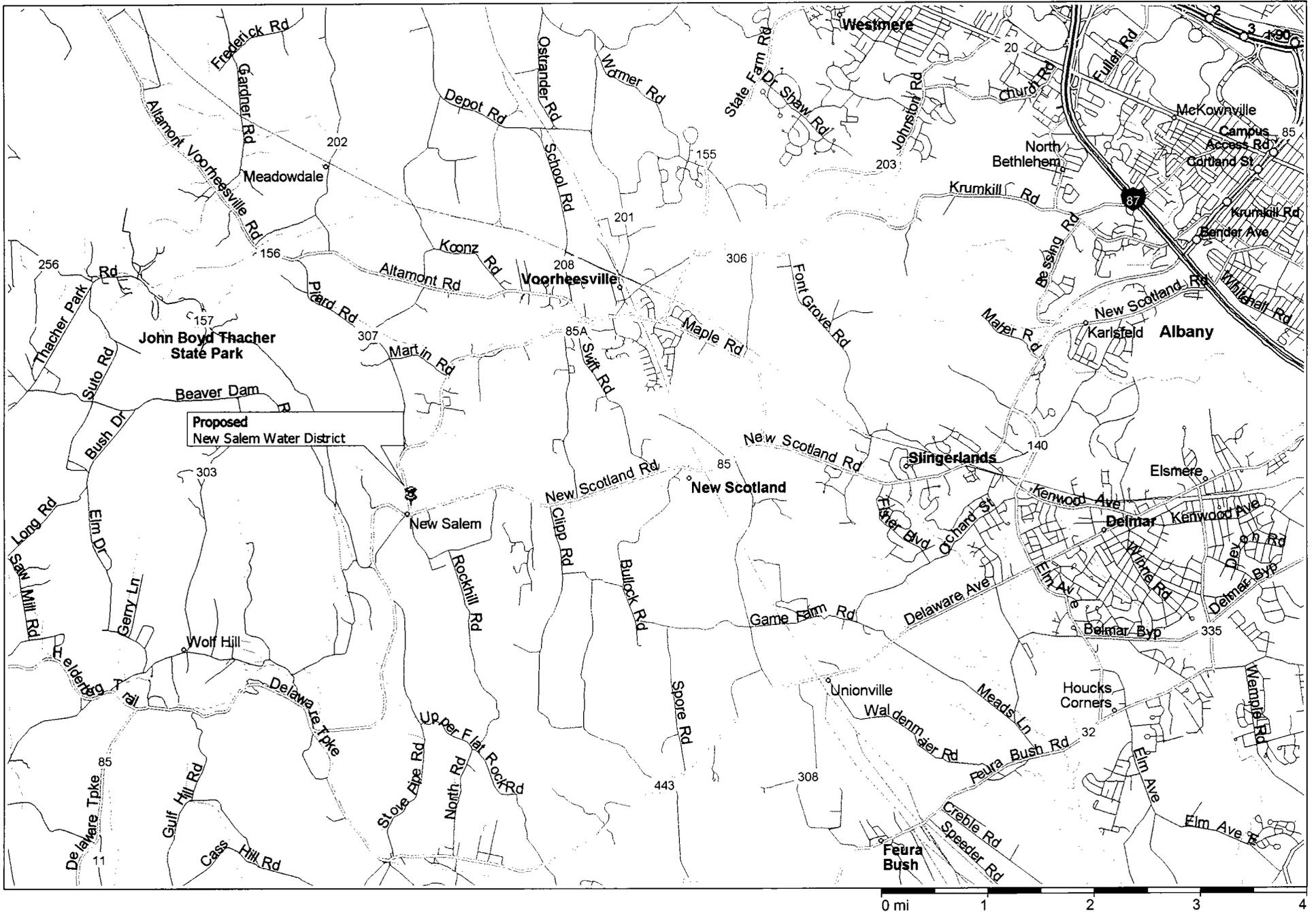
As shown in the water demand projections, the system can expect moderate growth within the 20-year planning horizon. Growth is anticipated through modest extension of the district by development of vacant land within and adjacent to the district. The majority of the reserve capacity of the proposed system will be allocated to connection with other systems along the Route 85 corridor.

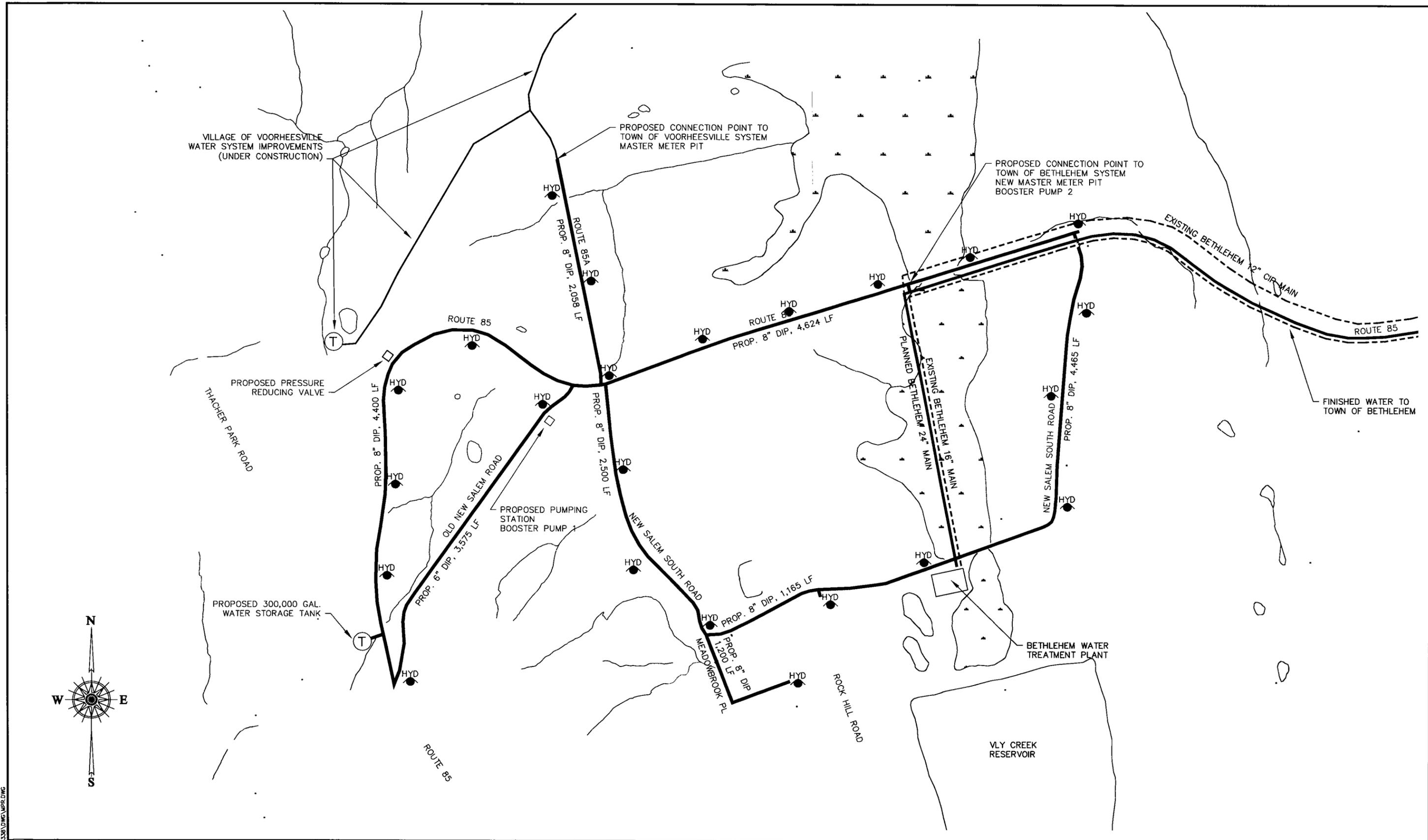
Exhibits

Exhibit A – Supporting Maps

1. Area Map
2. Proposed District Map / Schematic

Area Map





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Exhibit B – Projected Water Demand Calculations

1. Estimation of Domestic Demand



PROJECT: Proposed New Salem Water District

MADE BY: KJM DATE: 7/21/2004

SUBJECT: Calculation of Domestic Demands

CHKD BY: DATE:

REVISED BY: DATE:

CONCEPTUAL ONLY

CHKD BY: DATE:

1 Applicable Standards:

	Residential (per house)		Mult.	Commercial*		Mult.
Average Day Demand (ADD):	300 gpd	= 0.208 gpm	1	600 gpd	= 0.417 gpm	1
Maximum Day Demand (MDD):	600 gpd	= 0.417 gpm	2	1,200 gpd	= 0.833 gpm	2
**Peak Hour Demand (PHD):		0.833 gpm	4		1.667 gpm	3.81

*Note: Where Commercial demand is not known, 600 gpd (ADD) is assumed.

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	162	48,600	97,200	135.000	33.750	-	-	0.000	0.000

46 System Demand Summary

	Residential	Commercial	Total	
Average Day Demand (ADD):	48,600	-	48,600	gpd Σ (ADD)
Maximum Day Demand (MDD):	97,200	-	97,200	gpd Σ (MDD)
Peak Hour Demand (PHD):			135.0	gpm See Chart on Page 2



VOLLMER 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

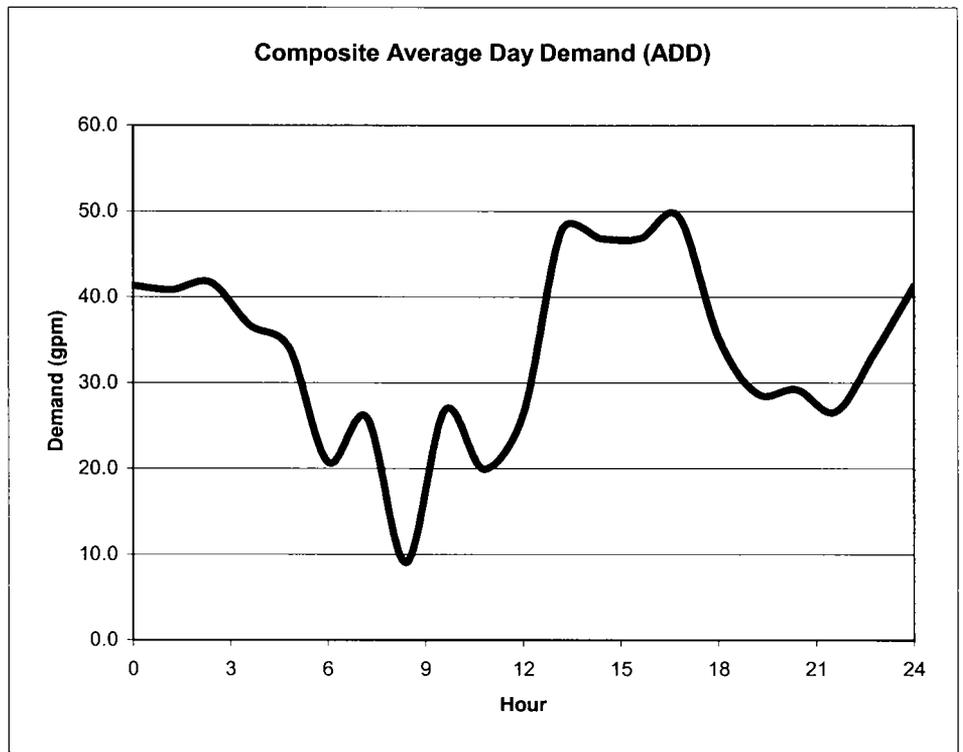
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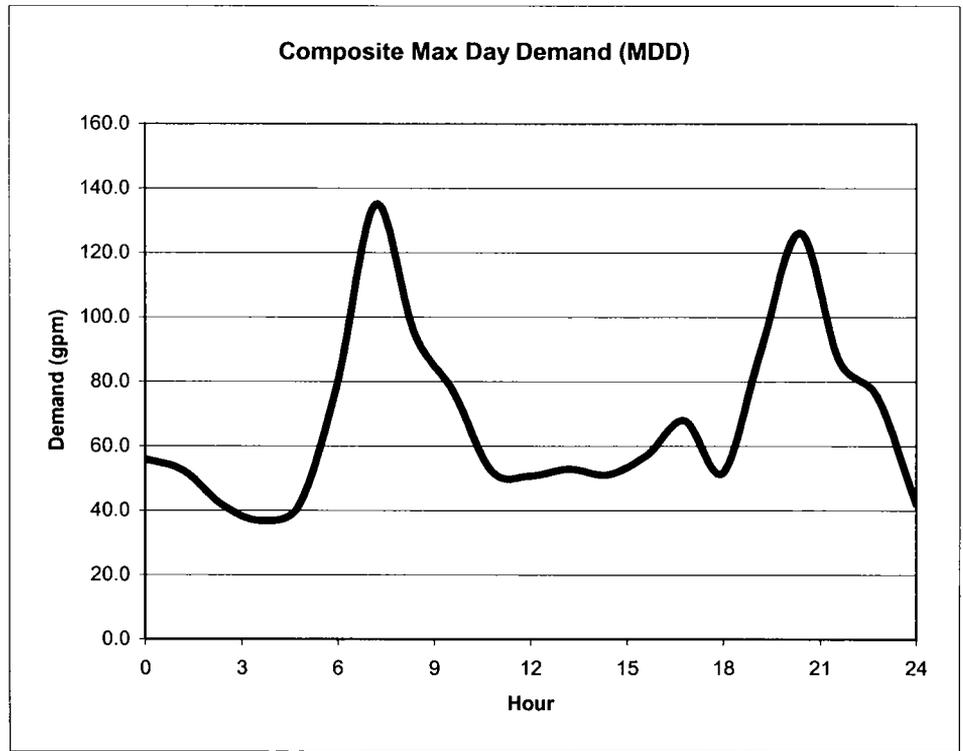
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Average Day Demand			
Time (hr)	Res. (gpm)	Comm. (gpm)	Total (gpm)
0.02	41.3	0.0	41.3
1.2	40.8	0.0	40.8
2.4	41.7	0.0	41.7
3.6	36.7	0.0	36.7
4.8	34.1	0.0	34.1
6.0	20.7	0.0	20.7
7.2	25.9	0.0	25.9
8.4	9.02	0.0	9.0
9.6	26.8	0.0	26.8
10.8	19.9	0.0	19.9
12.0	26.3	0.0	26.3
13.2	47.8	0.0	47.8
14.4	46.8	0.0	46.8
15.6	46.8	0.0	46.8
16.8	49.3	0.0	49.3
18.0	35.3	0.0	35.3
19.2	28.7	0.0	28.7
20.4	29.2	0.0	29.2
21.6	26.6	0.0	26.6
22.8	33.6	0.0	33.6
24.0	41.3	0.0	41.3



Max. Day Demand			
Time (hr)	Res. (gpm)	Comm. (gpm)	Total (gpm)
0.02	55.8	0.0	55.8
1.2	52.3	0.0	52.3
2.4	41.7	0.0	41.7
3.6	36.7	0.0	36.7
4.8	41.5	0.0	41.5
6.0	79.5	0.0	79.5
7.2	135	0.0	135.0
8.4	95	0.0	95.0
9.6	77	0.0	77.0
10.8	52.1	0.0	52.1
12.0	50.6	0.0	50.6
13.2	52.8	0.0	52.8
14.4	51	0.0	51.0
15.6	56.9	0.0	56.9
16.8	67.8	0.0	67.8
18.0	51.7	0.0	51.7
19.2	90.6	0.0	90.6
20.4	126	0.0	126.1
21.6	86.6	0.0	86.6
22.8	75.2	0.0	75.2
24.0	42	0.0	42.0





VOLLMER ASSOCIATES LLP

MADE BY: KJM

DATE: 7/21/2004

PROJECT: Proposed New Salem Water District

CHKD BY:

DATE:

SUBJECT: Calculation of Domestic Demands

REVISED BY:

DATE:

CONCEPTUAL ONLY

CHKD BY:

DATE:

Applicable Standards:

The commonly accepted 300gpd/house, and the 1:2:4 (ADD:MDD:PHD) demand multipliers.

Base Flow for WaterCAD: 0.2083 gpm
(Multiply this number by the number of services per Junction Node)

Demand Multiplier (n x ADD)

Average Day Demand (ADD)
300 gpd = 0.2083 gpm 1.0

Max. Day Demand (MDD)
600 gpd = 0.4167 gpm 2.0

Peak Hour Demand (PHD)
0.8333 gpm 4.0

Time from Start (hr)	ADD		MDD	
	Mult.	gpm	Mult.**	gpm
0.02	1.224	0.255	1.653	0.344
1.2	1.209	0.252	1.548	0.323
2.4	1.235	0.257	1.235	0.257
3.6	1.087	0.226	1.087	0.226
4.8	1.010	0.210	1.229	0.256
6.0	0.615	0.128	2.355	0.491
7.2	0.769	0.160	4.000	0.833
8.4	0.267	0.056	2.815	0.586
9.6	0.793	0.165	2.280	0.475
10.8	0.589	0.123	1.544	0.322
12.0	0.779	0.162	1.499	0.312
13.2	1.417	0.295	1.564	0.326
14.4	1.386	0.289	1.510	0.315
15.6	1.387	0.289	1.687	0.351
16.8	1.461	0.304	2.010	0.419
18.0	1.045	0.218	1.532	0.319
19.2	0.851	0.177	2.685	0.559
20.4	0.865	0.180	3.736	0.778
21.6	0.789	0.164	2.566	0.535
22.8	0.994	0.207	2.229	0.464
24.0	1.224	0.255	1.246	0.260

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

Residential Demand Multipliers

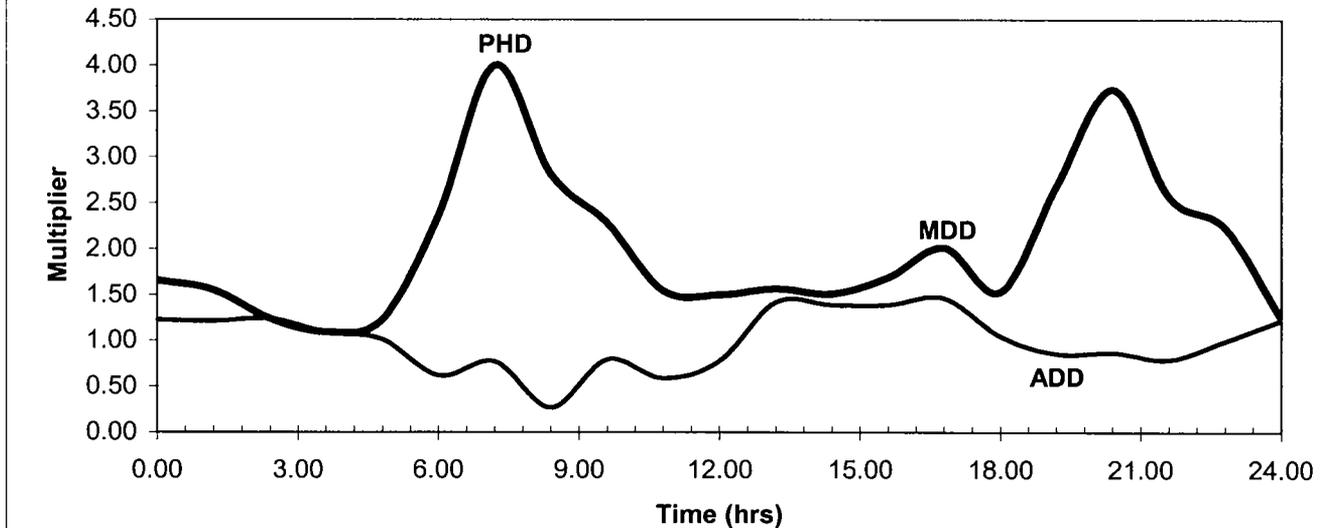


Exhibit C – Cost Estimate

2. Estimated Project Cost
3. Unassisted Bond Repayment Schedule
4. Summary Sheet
5. Projected Annual User Costs (Unassisted)



VOLLMER ASSOCIATES LLP

MADE BY: K. Menia DATE: 7/21/2004

PROJECT: New Salem Water District, Town of New Scotland

CHKD BY: DATE:

SUBJECT: Project Cost

REVISED BY: DATE:

SUMMARY SHEET

CHKD BY: DATE:

Assessment Summary (Taxable Assessment)

Existing spring customers have no Taxable value due to existing Agreements (see User list).

Taxable Assessment Value: \$ 17,416,586

Existing Indebtedness

Total Annual Indebtedness: - /year

Project Costs

Estimated Project Cost: \$ 5,086,852

Annual Bond Repayment: \$ 369,554 /year (30-year bond @ 6%)

Unfunded User Costs

Existing Annual Indebtedness: -

New Annual Indebtedness: 369,554 /year (30-year bond @ 6%)

New Combined Annual Indebtedness: 369,554

Required Ad-valorem Rate: 21.22 /year per \$1,000 TAV

Estimated Annual Water Tax: \$ 2,121.85 (based on \$100,000 TAV)

Estimated Annual Water Bill: \$ 100.00

Estimated Annual Water Cost: \$ 2,221.85

Zero Interest Loan User Costs

Consolidated District TAV: \$ 17,416,586

Existing Annual Indebtedness: -

New Annual Indebtedness: 254,343 /year (30-year bond @ 0%)

New Combined Annual Indebtedness: 254,343

Required Ad-valorem Rate: 14.60 /year per \$1,000 TAV

Estimated Annual Water Tax: \$ 1,460.35 (based on \$100,000 TAV)

Estimated Annual Water Bill: \$ 100.00

Estimated Annual Water Cost: \$ 1,560.35

Target Service Charge

Water Bill	Water Tax	Total Annual Service Charge	Tax Rate /\$1,000 TAV	Tax Revenue Generated	Tax Revenue Needed	Tax Revenue Shortfall	Requested Grant
\$ 100	\$ 100	\$ 200	\$ 1.00	\$ 17,417	\$ 254,343	\$ 236,926	\$ 4,738,520
\$ 100	\$ 150	\$ 250	\$ 1.50	\$ 26,125	\$ 254,343	\$ 228,218	\$ 4,564,354
\$ 100	\$ 200	\$ 300	\$ 2.00	\$ 34,833	\$ 254,343	\$ 219,509	\$ 4,390,188
\$ 100	\$ 250	\$ 350	\$ 2.50	\$ 43,541	\$ 254,343	\$ 210,801	\$ 4,216,023
\$ 100	\$ 300	\$ 400	\$ 3.00	\$ 52,250	\$ 254,343	\$ 202,093	\$ 4,041,857
\$ 100	\$ 350	\$ 450	\$ 3.50	\$ 60,958	\$ 254,343	\$ 193,385	\$ 3,867,691
\$ 100	\$ 400	\$ 500	\$ 4.00	\$ 69,666	\$ 254,343	\$ 184,676	\$ 3,693,525
\$ 100	\$ 450	\$ 550	\$ 4.50	\$ 78,375	\$ 254,343	\$ 175,968	\$ 3,519,359
\$ 100	\$ 500	\$ 600	\$ 5.00	\$ 87,083	\$ 254,343	\$ 167,260	\$ 3,345,193
\$ 100	\$ 550	\$ 650	\$ 5.50	\$ 95,791	\$ 254,343	\$ 158,551	\$ 3,171,027



PROJECT # 2004-p70-0338m

SHEET #

OF:

PAGE #

OF:

VOLLMER ASSOCIATES LLP

MADE BY:

K. Menia

DATE: 7/19/2004

PROJECT: New Salem Water District, Town of New Scotland

CHKD BY:

B. Secor

DATE: 7/19/2004

SUBJECT: Proposed Water System

REVISED BY:

DATE:

Preliminary Cost Estimate

CHKD BY:

DATE:

	Description	Quantity	Units of Payment	Unit Price	Cost
CONSTRUCTION	300,000 gal. Finished Water Tank, incl. Installation	1	LS	\$ 300,000.00	\$ 300,000.00
	8" DIP watermain, installed conventional trenching	20,500	LF	\$ 100.00	\$ 2,050,000.00
	6" DIP watermain, installed conventional trenching	3,600	LF	\$ 90.00	\$ 324,000.00
	Booster Pump Station 1	1	LS	\$ 200,000.00	\$ 200,000.00
	Booster Pump Station 2	1	LS	\$ 100,000.00	\$ 100,000.00
	Pressure Reducing Valve, incl. pit	1	LS	\$ 60,000.00	\$ 60,000.00
	Master Meter Pit	1	LS	\$ 40,000.00	\$ 40,000.00
	Hydrant, valve and assembly	24	EA	\$ 1,500.00	\$ 36,000.00
	In-line 8" Gate Valve	44	EA	\$ 400.00	\$ 17,600.00
	K-Copper Service Laterals (to right-of-way)	162	EA	\$ 1,200.00	\$ 194,400.00
	Water Service Meters	162	EA	\$ 600.00	\$ 97,200.00
	Electrical	1	LS	\$ 25,000.00	\$ 25,000.00
	Automation/Controls	1	LS	\$ 50,000.00	\$ 50,000.00
	Interconnection to Village of Voorheesville	1	LS	\$ 60,000.00	\$ 60,000.00
	Contingency: 20%				\$ 710,840.00
Construction Costs Subtotal:					\$ 4,265,040.00
DESIGN					
	TASK 1 - DWSRF Application Process	240	Hours	\$ 85.00	\$ 20,400.00
	TASK 2 - Survey	800	Hours	\$ 85.00	\$ 68,000.00
	TASK 3 - Preliminary Design	600	Hours	\$ 85.00	\$ 51,000.00
	TASK 4 - Final Design	800	Hours	\$ 85.00	\$ 68,000.00
	TASK 5 - Permitting	120	Hours	\$ 75.00	\$ 9,000.00
	TASK 6 - Construction Observation	2,100	Hours	\$ 70.00	\$ 147,000.00
	TASK 7 - SUB CONSULTANTS		LS		\$ 50,000.00
	TASK 8 - Intermunicipal Meetings / Negotiations	200	Hours	\$ 125.00	\$ 25,000.00
	TASK 9 - {Reserved}				\$ -
	TASK 10 - OOPs	1	LS	\$ 25,000.00	\$ 25,000.00
	Contingency: 20%				\$ 92,680.00
Design Costs Subtotal:					\$ 556,080.00
LEGAL & ADMIN.					
	Legal Counsel	1	LS	\$ 60,000.00	\$ 60,000.00
	Bond Issuance	1	LS	\$ 30,000.00	\$ 30,000.00
	Contingency: 20%				\$ 18,000.00
Legal & Admin. Costs Subtotal:					\$ 108,000.00
Estimated Total Current Year Project Cost:					\$ 4,929,120.00
Projected Construction Start 06/01/2006 Estimated Inflation Rate: <u>1.6%</u> / year					
(2 years until construction)					
Estimated Total Project Cost:					\$ 5,086,851.84



PROJECT # 2004-p70-0338m

SHEET #

OF:

PAGE #

OF:

VOLLMER ASSOCIATES LLP

MADE BY:

K. Menia

DATE:

7/21/2004

PROJECT: New Salem Water District, Town of New Scotland

CHKD BY:

DATE:

SUBJECT: Amortization Schedule, 20-Year Bond

REVISED BY:

DATE:

CHKD BY:

DATE:

Bonded Project Cost: \$ 5,086,852 (P)

Interest Rate: 6.0 % (i)

Financing Start Date: 6/1/2006

Annual Debt Service: \$ 443,495 (A)

Payment No.	Payment Date	Beginning Balance	Principal	Interest	Total Payment	Ending Balance
1	6/1/2006	\$ 5,086,852	\$ 138,284	\$ 305,211	\$ 443,495	\$ 4,948,568
2	6/1/2007	\$ 4,948,568	\$ 146,581	\$ 296,914	\$ 443,495	\$ 4,801,987
3	6/1/2008	\$ 4,801,987	\$ 155,376	\$ 288,119	\$ 443,495	\$ 4,646,611
4	6/1/2009	\$ 4,646,611	\$ 164,698	\$ 278,797	\$ 443,495	\$ 4,481,913
5	6/1/2010	\$ 4,481,913	\$ 174,580	\$ 268,915	\$ 443,495	\$ 4,307,333
6	6/1/2011	\$ 4,307,333	\$ 185,055	\$ 258,440	\$ 443,495	\$ 4,122,278
7	6/1/2012	\$ 4,122,278	\$ 196,158	\$ 247,337	\$ 443,495	\$ 3,926,120
8	6/1/2013	\$ 3,926,120	\$ 207,928	\$ 235,567	\$ 443,495	\$ 3,718,192
9	6/1/2014	\$ 3,718,192	\$ 220,403	\$ 223,092	\$ 443,495	\$ 3,497,789
10	6/1/2015	\$ 3,497,789	\$ 233,628	\$ 209,867	\$ 443,495	\$ 3,264,161
11	6/1/2016	\$ 3,264,161	\$ 247,645	\$ 195,850	\$ 443,495	\$ 3,016,516
12	6/1/2017	\$ 3,016,516	\$ 262,504	\$ 180,991	\$ 443,495	\$ 2,754,012
13	6/1/2018	\$ 2,754,012	\$ 278,254	\$ 165,241	\$ 443,495	\$ 2,475,758
14	6/1/2019	\$ 2,475,758	\$ 294,949	\$ 148,545	\$ 443,495	\$ 2,180,808
15	6/1/2020	\$ 2,180,808	\$ 312,646	\$ 130,849	\$ 443,495	\$ 1,868,162
16	6/1/2021	\$ 1,868,162	\$ 331,405	\$ 112,090	\$ 443,495	\$ 1,536,757
17	6/1/2022	\$ 1,536,757	\$ 351,290	\$ 92,205	\$ 443,495	\$ 1,185,467
18	6/1/2023	\$ 1,185,467	\$ 372,367	\$ 71,128	\$ 443,495	\$ 813,100
19	6/1/2024	\$ 813,100	\$ 394,709	\$ 48,786	\$ 443,495	\$ 418,391
20	6/1/2025	\$ 418,391	\$ 418,391	\$ 25,103	\$ 443,495	\$ 0

Unassisted Average Annual User Cost \$ 2,021



PROJECT # 2004-p70-0338m

SHEET #

OF:

PAGE #

OF:

VOLLMER ASSOCIATES LLP

MADE BY: K. Menia

DATE: 7/21/2004

PROJECT: New Salem Water District, Town of New Scotland

CHKD BY:

DATE:

SUBJECT: Amortization Schedule, 30-Year Bond

REVISED BY:

DATE:

CHKD BY:

DATE:

Bonded Project Cost: \$ 5,086,852 (P)

Interest Rate: 6.0 % (i)

Financing Start Date: 6/1/2006

Annual Debt Service: \$ 369,554 (A)

Payment No.	Payment Date	Beginning Balance	Principal	Interest	Total Payment	Ending Balance
1	6/1/2006	\$ 5,086,852	\$ 64,343	\$ 305,211	\$ 369,554	\$ 5,022,509
2	6/1/2007	\$ 5,022,509	\$ 68,204	\$ 301,351	\$ 369,554	\$ 4,954,305
3	6/1/2008	\$ 4,954,305	\$ 72,296	\$ 297,258	\$ 369,554	\$ 4,882,009
4	6/1/2009	\$ 4,882,009	\$ 76,634	\$ 292,921	\$ 369,554	\$ 4,805,375
5	6/1/2010	\$ 4,805,375	\$ 81,232	\$ 288,323	\$ 369,554	\$ 4,724,144
6	6/1/2011	\$ 4,724,144	\$ 86,106	\$ 283,449	\$ 369,554	\$ 4,638,038
7	6/1/2012	\$ 4,638,038	\$ 91,272	\$ 278,282	\$ 369,554	\$ 4,546,766
8	6/1/2013	\$ 4,546,766	\$ 96,748	\$ 272,806	\$ 369,554	\$ 4,450,018
9	6/1/2014	\$ 4,450,018	\$ 102,553	\$ 267,001	\$ 369,554	\$ 4,347,465
10	6/1/2015	\$ 4,347,465	\$ 108,706	\$ 260,848	\$ 369,554	\$ 4,238,758
11	6/1/2016	\$ 4,238,758	\$ 115,229	\$ 254,325	\$ 369,554	\$ 4,123,529
12	6/1/2017	\$ 4,123,529	\$ 122,142	\$ 247,412	\$ 369,554	\$ 4,001,387
13	6/1/2018	\$ 4,001,387	\$ 129,471	\$ 240,083	\$ 369,554	\$ 3,871,916
14	6/1/2019	\$ 3,871,916	\$ 137,239	\$ 232,315	\$ 369,554	\$ 3,734,677
15	6/1/2020	\$ 3,734,677	\$ 145,474	\$ 224,081	\$ 369,554	\$ 3,589,203
16	6/1/2021	\$ 3,589,203	\$ 154,202	\$ 215,352	\$ 369,554	\$ 3,435,001
17	6/1/2022	\$ 3,435,001	\$ 163,454	\$ 206,100	\$ 369,554	\$ 3,271,547
18	6/1/2023	\$ 3,271,547	\$ 173,261	\$ 196,293	\$ 369,554	\$ 3,098,285
19	6/1/2024	\$ 3,098,285	\$ 183,657	\$ 185,897	\$ 369,554	\$ 2,914,628
20	6/1/2025	\$ 2,914,628	\$ 194,677	\$ 174,878	\$ 369,554	\$ 2,719,951
21	6/1/2026	\$ 2,719,951	\$ 206,357	\$ 163,197	\$ 369,554	\$ 2,513,594
22	6/1/2027	\$ 2,513,594	\$ 218,739	\$ 150,816	\$ 369,554	\$ 2,294,856
23	6/1/2028	\$ 2,294,856	\$ 231,863	\$ 137,691	\$ 369,554	\$ 2,062,993
24	6/1/2029	\$ 2,062,993	\$ 245,775	\$ 123,780	\$ 369,554	\$ 1,817,218
25	6/1/2030	\$ 1,817,218	\$ 260,521	\$ 109,033	\$ 369,554	\$ 1,556,697
26	6/1/2031	\$ 1,556,697	\$ 276,152	\$ 93,402	\$ 369,554	\$ 1,280,545
27	6/1/2032	\$ 1,280,545	\$ 292,722	\$ 76,833	\$ 369,554	\$ 987,823
28	6/1/2033	\$ 987,823	\$ 310,285	\$ 59,269	\$ 369,554	\$ 677,538
29	6/1/2034	\$ 677,538	\$ 328,902	\$ 40,652	\$ 369,554	\$ 348,636
30	6/1/2035	\$ 348,636	\$ 348,636	\$ 20,918	\$ 369,554	\$ 0



PROJECT # 2004-p70-0338m

VOLLMER ASSOCIATES LLP

PROJECT: New Salem Water District, Town of New Scotland

SUBJECT: Proposed Water System

Option 5

SHEET # 1 OF: PAGE # OF:

MADE BY: K. Menia DATE: 2/5/2004

CHKD BY: DATE:

REVISED BY: K. Menia DATE: 7/21/2004

CHKD BY: DATE:

Total Taxable Value of Proposed District: \$ 17,416,586

Annual Bond Repayment (20-yr): \$ 369,554

Water Tax Rate:

Annual Bond Revenue: \$ 369,554

Parcel ID	Street Address	Owner Name	Land Use	Total Assessed Value (TAV)	Valuation	Water District Assessed Value (WDAV)	Annual Water Bill (Estimated)	Annual Water Tax (Estimated)	Current Total Annual Charge (Estimated)	Projected Total Annual Charge (Estimated)
82.-2-8	0 Helderberg	Bethlehem Water Dist #1	822	\$ 1,500	0%	\$ 0	\$ 200	\$ 0.00	0.0212	200
82.-2-9	2869 New Scotland	Town Of New Scotland	651	\$ 394,200	0%	\$ 4	\$ 200	\$ 0		200
82.-2-10	2869 New Scotland	Town Of New Scotland	651	\$ 96,700	0%	\$ 1	\$ 200	\$ 0		200
82.-2-11	2859 New Scotland	Town Of New Scotland	330	\$ 28,000	0%	\$ 0	\$ 200	\$ 0		200
82.-2-12	2855 New Scotland	Junco, Jeffrey A	311	\$ 6,200	100%	\$ 6,200	\$ 200	\$ 132		332
82.-2-13	2845 New Scotland	Solomon, Joel	210	\$ 120,000		\$ -		\$ -		-
82.-2-14	2835 New Scotland	Hall, Barbara L	210	\$ 144,500		\$ -		\$ -		-
82.-2-15.10	2801 New Scotland	Mathews, James A	240	\$ 180,000	100%	\$ 180,000	\$ 200	\$ 3,819		4,019
82.-2-15.20	2815 New Scotland	Blanchard, Robert C Jr	210	\$ 230,000		\$ -		\$ -		-
82.-2-19	2763 New Scotland	Snyder, Alethea J	210	\$ 390,000	100%	\$ 390,000	\$ 200	\$ 8,275		8,475
82.-2-20	2751 New Scotland	Loux, Aileen L	210	\$ 94,600	100%	\$ 94,600	\$ 200	\$ 2,007		2,207
82.-2-21	2729 New Scotland	Houk, Valerie J	210	\$ 124,700	100%	\$ 124,700	\$ 200	\$ 2,646		2,846
82.-2-22.10	2713 New Scotland	Cramer, James J	411	\$ 70,000	100%	\$ 70,000	\$ 200	\$ 1,485		1,685
82.-2-22.20	2711 New Scotland	Eaton, Lawrence	210	\$ 81,800	100%	\$ 81,800	\$ 200	\$ 1,736		1,936
82.-2-23	2707 New Scotland	Salisbury, Larry M	210	\$ 78,000	100%	\$ 78,000	\$ 200	\$ 1,655		1,855
82.-2-24	726 New Salem	Carl Apartments Inc	311	\$ 2,000	100%	\$ 2,000	\$ 200	\$ 42		242
82.-2-25	2705 New Scotland	Atlantic Mortgage & Investment	210	\$ 72,300	100%	\$ 72,300	\$ 200	\$ 1,534		1,734
82.-2-26	726 New Salem	Van Wormer, Nancy M	220	\$ 106,800	100%	\$ 106,800	\$ 200	\$ 2,266		2,466
82.-2-27	724 New Salem	Grant, Richard	210	\$ 39,300	100%	\$ 39,300	\$ 200	\$ 834		1,034
82.-2-28	720 New Salem	Foster, Elizabeth	220	\$ 140,800	100%	\$ 140,800	\$ 200	\$ 2,988		3,188
82.-2-29	716 New Salem	Reamer, Louise	220	\$ 99,000	100%	\$ 99,000	\$ 200	\$ 2,101		2,301
82.-2-30	714 New Salem	Shufelt, Craig L	210	\$ 105,000	100%	\$ 105,000	\$ 200	\$ 2,228		2,428
82.-2-31	710 New Salem	Jones, Richard E	210	\$ 74,000	100%	\$ 74,000	\$ 200	\$ 1,570		1,770
82.-2-32	708 New Salem	Smith-Bogert, Penny	210	\$ 98,500	100%	\$ 98,500	\$ 200	\$ 2,090		2,290
82.-2-33.1	706 New Salem	Carl, Glen	220	\$ 124,000	100%	\$ 124,000	\$ 200	\$ 2,631		2,831

Parcel ID	Street Address	Owner Name	Land Use	Total Assessed Value (TAV)	Valuation	Water District Assessed Value (WDAV)	Annual Water Bill (Estimated)	Annual Water Tax (Estimated)	Current Total Annual Charge (Estimated)	Projected Total Annual Charge (Estimated)
82.-2-33.2	0 Rte 85	New Salem Volunteer Fire	311	\$ 18,400	100%	\$ 18,400	\$ 200	\$ 390		590
82.-2-34	704 New Salem	Sharp, Jill N	210	\$ 80,000	100%	\$ 80,000	\$ 200	\$ 1,697		1,897
82.-2-35	702 New Salem	Morris, Suzanne M	210	\$ 106,000	100%	\$ 106,000	\$ 200	\$ 2,249		2,449
82.-2-36	694 New Salem	New Salem Volunteer Fire	662	\$ 179,400	100%	\$ 179,400	\$ 200	\$ 3,807		4,007
82.-2-37.1	680 New Salem	Kieserman, Md. Michael	483	\$ 230,000	100%	\$ 230,000	\$ 200	\$ 4,880		5,080
82.-2-37.2	676 New Salem	Tesch, Charles E	210	\$ 154,000	100%	\$ 154,000	\$ 200	\$ 3,268		3,468
82.-2-39	660 New Salem	Macmillen, Wilkins H	210	\$ 112,500	100%	\$ 112,500	\$ 200	\$ 2,387		2,587
82.-2-40	652 New Salem	Edmunds, Geoffrey B	210	\$ 224,300	100%	\$ 224,300	\$ 200	\$ 4,759		4,959
82.-3-14.1	0 New Salem	Macmillen, Earl F	105	\$ 150,500	100%	\$ 150,500	\$ 200	\$ 3,193		3,393
82.-3-14.2	659 New Salem	Lailer, Kevin M	210	\$ 98,000	100%	\$ 98,000	\$ 200	\$ 2,079		2,279
82.-3-15	0 New Salem	Macmillen, Earl F	311	\$ 3,700	100%	\$ 3,700	\$ 200	\$ 79		279
82.-3-16	675 New Salem	Kenney, Dean P	210	\$ 86,800	100%	\$ 86,800	\$ 200	\$ 1,842		2,042
82.-3-17	679 New Salem	Dedrick, Karl	210	\$ 96,400	100%	\$ 96,400	\$ 200	\$ 2,045		2,245
82.-3-18	683 New Salem	Murray, Timothy J	220	\$ 110,000	100%	\$ 110,000	\$ 200	\$ 2,334		2,534
82.-3-19	689 New Salem	Macmillen, Earl	210	\$ 80,000	100%	\$ 80,000	\$ 200	\$ 1,697		1,897
82.-3-20.1	0 691 New Salem	Whalen, Mark	220	\$ 119,600	100%	\$ 119,600	\$ 200	\$ 2,538		2,738
82.-3-20.2	0 Rte 85A	New, Salem Volunteer Fire	311	\$ 11,000	100%	\$ 11,000	\$ 200	\$ 233		433
82.-3-21	705 New Salem	Lawyer, William	400	\$ 164,700	100%	\$ 164,700	\$ 200	\$ 3,495		3,695
82.-3-22	707 New Salem	Weston, Christopher	210	\$ 107,000	100%	\$ 107,000	\$ 200	\$ 2,270		2,470
82.-3-23	709 New Salem	Lawson, John H	210	\$ 84,800	100%	\$ 84,800	\$ 200	\$ 1,799		1,999
82.-3-24	713 New Salem	Sirois, Michael L	483	\$ 80,300	100%	\$ 80,300	\$ 200	\$ 1,704		1,904
82.-3-25	0 New Salem	Lawson, John H	312	\$ 3,900	100%	\$ 3,900	\$ 200	\$ 83		283
82.-3-26	715 New Salem	Kindlon, Marcia J	210	\$ 80,000	100%	\$ 80,000	\$ 200	\$ 1,697		1,897
82.-3-27	719 New Salem	Hart, Lynne S	210	\$ 81,000	100%	\$ 81,000	\$ 200	\$ 1,719		1,919
82.-3-28	721 New Salem	Springer, John D	210	\$ 66,300	100%	\$ 66,300	\$ 200	\$ 1,407		1,607

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82.-3-29	725 New Salem	Vanvalkenburg, Joseph	230	\$ 87,000	100%	\$ 87,000	\$ 200	\$ 1,846		2,046
82.-3-30	2693 New Scotland	Valley, Enterprises Parks	411	\$ 160,000	100%	\$ 160,000	\$ 200	\$ 3,395		3,595
82.-3-31	0 New Salem	Lawson, John H	311	\$ 2,600	100%	\$ 2,600	\$ 200	\$ 55		255
82.-3-32	2689 New Scotland	Lupien, Pamela	280	\$ 120,000	100%	\$ 120,000	\$ 200	\$ 2,546		2,746
82.-3-33	2685 New Scotland	Vonduhn, Richard J	210	\$ 110,000	100%	\$ 110,000	\$ 200	\$ 2,334		2,534
82.-3-34	2683 New Scotland	Sullivan, Charles E	210	\$ 29,000	100%	\$ 29,000	\$ 200	\$ 615		815
82.-3-35	2681 New Scotland	Flint, Harry E	210	\$ 77,000	100%	\$ 77,000	\$ 200	\$ 1,634		1,834
82.-3-36	2677 New Scotland	Fisher, Donald	210	\$ 78,500	100%	\$ 78,500	\$ 200	\$ 1,666		1,866
82.-3-37	2673 New Scotland	Fisher, Donald	620	\$ 107,900	100%	\$ 107,900	\$ 200	\$ 2,289		2,489
82.-3-38	2671 New Scotland	Drew, Kenneth	210	\$ 82,600	100%	\$ 82,600	\$ 200	\$ 1,753		1,953
82.-4-1	2800 New Scotland	Henderson, George	210	\$ 104,700	0%	\$ -	\$ -	\$ -		-
82.-4-2.10	2756 New Scotland	Primiano, Anthony	240	\$ 203,800		\$ -		\$ -		-
82.-4-3.1	0 New Scotland	Harris, Stephen A	311	\$ 4,000	100%	\$ 4,000	\$ 200	\$ 85		285
82.-4-3.2	0 New Scotland	Legere, Warren	311	\$ 500	100%	\$ 500	\$ 200	\$ 11		211
82.-4-3.30	2718 New Scotland	Legere, Warren E	210	\$ 114,500	100%	\$ 114,500	\$ 200	\$ 2,430		2,630
82.-4-4	10 Old New Salem	Harris, Stephen A	210	\$ 183,000	100%	\$ 183,000	\$ 200	\$ 3,883		4,083
82.-4-5	32 Old New Salem	Livingston, John P	210	\$ 96,000	0%	\$ -	\$ -	\$ -		-
82.-4-6	34 Old New Salem	Galvin, Michael E	210	\$ 66,700	0%	\$ -	\$ -	\$ -		-
82.-4-7	0 Ns Tank	Bethlehem Water Dist #1	822	\$ 46,000	100%	\$ 46,000	\$ 200	\$ 976		1,176
82.-4-8	7 Old New Salem	Town Of New Scotland	652	\$ 189,200	100%	\$ 189,200	\$ 200	\$ 4,015		4,215
82.-4-9	1 Old New Salem	Peragine, Harold	220	\$ 147,000	100%	\$ 147,000	\$ 200	\$ 3,119		3,319
82.-4-12	311 New Salem South	Shearer, Douglas	210	\$ 68,600	100%	\$ 68,600	\$ 200	\$ 1,456		1,656
82.-4-13	307 New Salem South	Countryman, Edward	220	\$ 75,800	100%	\$ 75,800	\$ 200	\$ 1,608		1,808
82.-4-14	305 New Salem South	Clarke, Jayne	210	\$ 107,000	100%	\$ 107,000	\$ 200	\$ 2,270		2,470
82.-4-16	295 New Salem South	Mcdonald, Hugh J	210	\$ 79,000	100%	\$ 79,000	\$ 200	\$ 1,676		1,876

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82-4-17	293 New Salem South	Pilger, Dawn M	210	\$ 87,100	100%	\$ 87,100	\$ 200	\$ 1,848		2,048
82-4-18	291 New Salem South	Champion, Ronald Jr	210	\$ 85,000	100%	\$ 85,000	\$ 200	\$ 1,804		2,004
82-4-19	287 New Salem South	Murphy, Michele L	210	\$ 94,000	100%	\$ 94,000	\$ 200	\$ 1,995		2,195
82-4-20	285 New Salem South	Canova, Harry A	210	\$ 83,600	100%	\$ 83,600	\$ 200	\$ 1,774		1,974
82-4-21	0 New Salem South	Fleetway Construction Co	311	\$ 16,300	100%	\$ 16,300	\$ 200	\$ 346		546
82-4-22.1	269 New Salem South	Sullivan, Eugene C	312	\$ 25,300	100%	\$ 25,300	\$ 200	\$ 537		737
82-4-22.30	25 Old New Salem	Conley, John A	210	\$ 147,000	100%	\$ 147,000	\$ 200	\$ 3,119		3,319
82-4-23	263 New Salem South	Mowry, Marilyn A	210	\$ 73,500	100%	\$ 73,500	\$ 200	\$ 1,560		1,760
82-4-24	243 New Salem South	Caruso, Paul J	210	\$ 126,000	100%	\$ 126,000	\$ 200	\$ 2,674		2,874
82-4-25	2 Glenwood Terr	Denninger, Mary Ann	210	\$ 109,700	100%	\$ 109,700	\$ 200	\$ 2,328		2,528
82-4-26	261 New Salem South	Wright, Kathryn E	240	\$ 145,000	100%	\$ 145,000	\$ 200	\$ 3,077		3,277
82-4-27	4 Glenwood Terr	Horton, Winnie W	210	\$ 89,000	100%	\$ 89,000	\$ 200	\$ 1,888		2,088
82-4-29	6 Meadowbrook	Cacace, Anthony	210	\$ 128,400	100%	\$ 128,400	\$ 200	\$ 2,724		2,924
82-4-30	10 Meadowbrook	Kazukenus, Peter	210	\$ 82,000	100%	\$ 82,000	\$ 200	\$ 1,740		1,940
82-4-32	16 Meadowbrook	Ruby, Richard J	210	\$ 120,000	100%	\$ 120,000	\$ 200	\$ 2,546		2,746
82-4-33	17 Meadowbrook	Jarvis, Ronald	210	\$ 94,100	100%	\$ 94,100	\$ 200	\$ 1,997		2,197
82-4-34	0 Meadowbrook	Evers, Parker R	311	\$ 7,600	100%	\$ 7,600	\$ 200	\$ 161		361
82-4-35	3 Meadowbrook	Evers, Parker R	210	\$ 101,000	100%	\$ 101,000	\$ 200	\$ 2,143		2,343
82-4-36	0 New Salem South	Evers, Marie P	311	\$ 26,400	100%	\$ 26,400	\$ 200	\$ 560		760
82-4-37	205 New Salem South	Throop, Wallace E	210	\$ 89,500	100%	\$ 89,500	\$ 200	\$ 1,899		2,099
82-4-38	201 New Salem South	Willis, Timothy A	210	\$ 82,800	100%	\$ 82,800	\$ 200	\$ 1,757		1,957
82-4-38.10	0 New Salem South	Willis, Timothy	311	\$ 2,000	100%	\$ 2,000	\$ 200	\$ 42		242
82-4-40	195 New Salem South	Kinnear, Foster J	210	\$ 88,300	100%	\$ 88,300	\$ 200	\$ 1,874		2,074
82-4-40.1	0 New Salem South	Kinnear, Foster	311	\$ 1,800	100%	\$ 1,800	\$ 200	\$ 38		238
82-4-41	193 New Salem South	Kleinberger, George H	210	\$ 111,800	100%	\$ 111,800	\$ 200	\$ 2,372		2,572

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82.-4-42	189 New Salem South	Carl, Sandra	210	\$ 83,200	100%	\$ 83,200	\$ 200	\$ 1,765		1,965
82.-4-43	425 Rock Hill	Youngman, Ray A III	210	\$ 102,000	100%	\$ 102,000	\$ 200	\$ 2,164		2,364
82.-4-59.10	70 Old New Salem	Baim, David	240	\$ 172,800	0%	\$ -	\$ -	\$ -		-
82.-4-59.20	0 Old New Salem	Mcewan, Susan P	321	\$ 27,400	100%	\$ 27,400	\$ 200	\$ 581		781
82.-4-60	2828 New Scotland	Mcnelly, Robert	210	\$ 178,300		\$ -		\$ -		-
83.-1-1	330 New Salem South	Agathos, Nikolas	411	\$ 94,400	100%	\$ 94,400	\$ 200	\$ 2,003		2,203
83.-1-2	2694 New Scotland	Peltz, Mark A	220	\$ 110,000	100%	\$ 110,000	\$ 200	\$ 2,334		2,534
83.-1-3	2692 New Scotland	Lassonde, Joseph	210	\$ 111,000	100%	\$ 111,000	\$ 200	\$ 2,355		2,555
83.-1-4	2690 New Scotland	Pizzurro, Peter E	210	\$ 90,000	100%	\$ 90,000	\$ 200	\$ 1,910		2,110
83.-1-5	2688 New Scotland	Stark, Thomas K	210	\$ 116,000	100%	\$ 116,000	\$ 200	\$ 2,461		2,661
83.-1-6	2684 New Scotland	Mullen, Dennis M	210	\$ 133,500	100%	\$ 133,500	\$ 200	\$ 2,833		3,033
83.-1-7	2682 New Scotland	Morgan, Stephen	210	\$ 110,000	100%	\$ 110,000	\$ 200	\$ 2,334		2,534
83.-1-8	2680 New Scotland	Eskeli, Timothy J	210	\$ 124,000	100%	\$ 124,000	\$ 200	\$ 2,631		2,831
83.-1-9	2676 New Scotland	Smith, Bryan R	210	\$ 93,900	100%	\$ 93,900	\$ 200	\$ 1,992		2,192
83.-1-10	2678 New Scotland	Countryman, Bruce	220	\$ 75,000	100%	\$ 75,000	\$ 200	\$ 1,591		1,791
83.-1-11.2	2674 New Scotland	Getz, Kenneth J	210	\$ 98,100	100%	\$ 98,100	\$ 200	\$ 2,082		2,282
83.-1-11.3	10 Praga	Sapienza, Joseph	210	\$ 226,000	100%	\$ 226,000	\$ 200	\$ 4,795		4,995
83.-1-11.4	19 Mountain View Estates	Moak, Linda M	210	\$ 182,600	100%	\$ 182,600	\$ 200	\$ 3,875		4,075
83.-1-11.6	20 Mountain View Estates	Dunbar, Wayne	210	\$ 170,000	100%	\$ 170,000	\$ 200	\$ 3,607		3,807
83.-1-11.11	21 Mountain View Estates	Mcleod, William J	311	\$ 61,800	100%	\$ 61,800	\$ 200	\$ 1,311		1,511
83.-1-11.12	25 Mountain View Estates	Mcleod, William J	210	\$ 360,000	100%	\$ 360,000	\$ 200	\$ 7,639		7,839
83.-1-11.51	1 Praga	Ellis, Patricia	240	\$ 285,600	100%	\$ 285,600	\$ 200	\$ 6,060		6,260
83.-1-11.52	0 Mountain View Estates	Sapienza, Joseph	314	\$ 12,500	100%	\$ 12,500	\$ 200	\$ 265		465
83.-1-12	2572 New Scotland	Ostrander, Robert R	210	\$ 115,000	100%	\$ 115,000	\$ 200	\$ 2,440		2,640
83.-1-14	2556 New Scotland	Belleville, Richard D	210	\$ 95,000	100%	\$ 95,000	\$ 200	\$ 2,016		2,216

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83.-1-15	2552 New Scotland	Domanico, Cheryl J	210	\$ 70,000	100%	\$ 70,000	\$ 200	\$ 1,485		1,685
83.-1-16	2548 New Scotland	Jordan, Joan M	210	\$ 93,200	100%	\$ 93,200	\$ 200	\$ 1,978		2,178
83.-1-17	2542 New Scotland	Warner, Homer L	210	\$ 110,000	100%	\$ 110,000	\$ 200	\$ 2,334		2,534
83.-1-18	2532 New Scotland	Dowd, Christopher R	210	\$ 172,500	100%	\$ 172,500	\$ 200	\$ 3,660		3,860
83.-1-19	19 New Salem South	Schwartz, Winnifred A	210	\$ 194,500	100%	\$ 194,500	\$ 200	\$ 4,127		4,327
83.-1-20	0 New Salem South	Spratt-Joseph, Maura	314	\$ 33,000	100%	\$ 33,000	\$ 200	\$ 700		900
83.-1-21	22 New Salem South	Tymchyn, William	210	\$ 107,800	100%	\$ 107,800	\$ 200	\$ 2,287		2,487
83.-1-22	28 New Salem South	Plummer, Dean	210	\$ 136,000	100%	\$ 136,000	\$ 200	\$ 2,886		3,086
83.-1-23.10	0 New Salem South	Migliozzi, Lawrence L	314	\$ 10,000	100%	\$ 10,000	\$ 200	\$ 212		412
83.-1-24.1	38 New Salem South	Bogart, Richard	210	\$ 123,200	100%	\$ 123,200	\$ 200	\$ 2,614		2,814
83.-1-24.2	0 New Salem South	Migliozzi, Lawrence L	311	\$ 15,000	100%	\$ 15,000	\$ 200	\$ 318		518
83.-1-25	44 New Salem South	Spollen, Joseph	210	\$ 124,000	100%	\$ 124,000	\$ 200	\$ 2,631		2,831
83.-1-26	50 New Salem South	Berte, Jack	210	\$ 128,000	100%	\$ 128,000	\$ 200	\$ 2,716		2,916
83.-1-27	55 New Salem South	Bennett, Leon J	210	\$ 242,000	100%	\$ 242,000	\$ 200	\$ 5,135		5,335
83.-1-28	62 New Salem South	Teichmann, Harry F	210	\$ 141,000	100%	\$ 141,000	\$ 200	\$ 2,992		3,192
83.-1-29	66 New Salem South	Reynolds, Thomas	210	\$ 122,700	100%	\$ 122,700	\$ 200	\$ 2,604		2,804
83.-1-30	70 New Salem South	Fuller, Susan Whiteley	210	\$ 130,000	100%	\$ 130,000	\$ 200	\$ 2,758		2,958
83.-1-31	0 New Salem South	The Rand Co Llc	314	\$ 7,400	100%	\$ 7,400	\$ 200	\$ 157		357
83.-1-32	78 New Salem South	Kendall, Richard H	210	\$ 145,800	100%	\$ 145,800	\$ 200	\$ 3,094		3,294
83.-1-33.10	103 New Salem South	Applebee, Arthur Dr N	240	\$ 181,000	100%	\$ 181,000	\$ 200	\$ 3,841		4,041
83.-1-33.20	0 New Salem South	Kendall, Richard H	314	\$ 21,800	100%	\$ 21,800	\$ 200	\$ 463		663
83.-1-36.21	0 Rock Hill	Wood, Jonathan L	311	\$ 17,600	100%	\$ 17,600	\$ 200	\$ 373		573
83.-1-36.22	0 Rock Hill	Bethlehem, Water District	311	\$ 10,400	1%	\$ 104	\$ 200	\$ 2		202
83.-1-37.1	0 Rock Hill	Wood, Jonathan L	322	\$ 55,000	100%	\$ 55,000	\$ 200	\$ 1,167		1,367
83.-1-37.3	426 Rock Hill	Wood, Jonathan L	210	\$ 102,000	100%	\$ 102,000	\$ 200	\$ 2,164		2,364

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83.-1-38.10	180 New Salem South	Wood, Edwin W	312	\$ 5,000	100%	\$ 5,000	\$ 200	\$ 106		306
83.-1-38.20	188 New Salem South	Wood, Timothy E	210	\$ 123,000	100%	\$ 123,000	\$ 200	\$ 2,610		2,810
83.-1-39	194 New Salem South	Klapp, George E	210	\$ 127,000	100%	\$ 127,000	\$ 200	\$ 2,695		2,895
83.-1-40	220 New Salem South	Matejka, James M	210	\$ 165,000	100%	\$ 165,000	\$ 200	\$ 3,501		3,701
83.-1-41	234 New Salem South	Kruzansky, Charles J	210	\$ 132,100	100%	\$ 132,100	\$ 200	\$ 2,803		3,003
83.-1-42	244 New Salem South	Raiti, Frank F	210	\$ 114,500	100%	\$ 114,500	\$ 200	\$ 2,430		2,630
83.-1-43	248 New Salem South	Herr, Jason R	210	\$ 94,000	100%	\$ 94,000	\$ 200	\$ 1,995		2,195
83.-1-44	254 New Salem South	Raitia, John C Sr.	210	\$ 132,600	100%	\$ 132,600	\$ 200	\$ 2,814		3,014
83.-1-45	260 New Salem South	Carhart, Donald	210	\$ 140,800	100%	\$ 140,800	\$ 200	\$ 2,988		3,188
83.-1-46	266 New Salem South	Sullivan Eugene C	210	\$ 72,500	100%	\$ 72,500	\$ 200	\$ 1,538		1,738
83.-1-47	272 New Salem South	Donaldson, Thomas J	210	\$ 92,300	100%	\$ 92,300	\$ 200	\$ 1,958		2,158
83.-1-48	278 New Salem South	Delorenzo, Michael	210	\$ 84,800	100%	\$ 84,800	\$ 200	\$ 1,799		1,999
83.-1-49	282 New Salem South	Delorenzo, Thomas A	210	\$ 142,300	100%	\$ 142,300	\$ 200	\$ 3,019		3,219
83.-1-50	288 New Salem South	Griffin, John Everett	210	\$ 137,100	100%	\$ 137,100	\$ 200	\$ 2,909		3,109
83.-1-51	292 New Salem South	Kidder, Susan D	210	\$ 92,000	100%	\$ 92,000	\$ 200	\$ 1,952		2,152
83.-1-52	294 New Salem South	Okeefe, Michael P	280	\$ 125,000	100%	\$ 125,000	\$ 200	\$ 2,652		2,852
83.-1-53	300 New Salem South	Wehren, Vida	280	\$ 121,000	100%	\$ 121,000	\$ 200	\$ 2,567		2,767
83.-1-54	304 New Salem South	Calvino, Laura M	210	\$ 91,100	100%	\$ 91,100	\$ 200	\$ 1,933		2,133
83.-1-55	308 New Salem South	Dottino, Dennis A	210	\$ 75,000	100%	\$ 75,000	\$ 200	\$ 1,591		1,791
83.-1-56	312 New Salem South	Miller, Donald J Jr	210	\$ 85,000	100%	\$ 85,000	\$ 200	\$ 1,804		2,004
83.-1-57	318 New Salem South	Young, Steven R	210	\$ 107,900	100%	\$ 107,900	\$ 200	\$ 2,289		2,489
83.-2-1.1	0 Ns Deep Wells Rt85	Bethlehem Water Dist #1	822	\$ 327,650	1%	\$ 3,277	\$ 200	\$ 70		270
83.-2-1.3	2647 New Scotland	Kusel, Ronald H	210	\$ 160,000	100%	\$ 160,000	\$ 200	\$ 3,395		3,595
83.-2-1.4	0 New Scotland	Coffin, Clarence J	322	\$ 15,000	100%	\$ 15,000	\$ 200	\$ 318		518
83.-2-1.20	2653 New Scotland	Watters, William R	210	\$ 137,700	100%	\$ 137,700	\$ 200	\$ 2,922		3,122

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.