TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2.0 ENVIRONMENTAL BENEFITS</td>
<td>2</td>
</tr>
<tr>
<td>3.0 PROJECT AREA DESCRIPTION</td>
<td>3</td>
</tr>
<tr>
<td>4.0 PROPOSED SEWERS</td>
<td>4</td>
</tr>
<tr>
<td>4.1 AREA 1 – Ballston Lake East and West Sides</td>
<td>5</td>
</tr>
<tr>
<td>4.2 AREA 2 – Lake Hill Road to Kingsley, Midline Road to Route 50, Route 50 from Kingsley to Middleline Road</td>
<td>6</td>
</tr>
<tr>
<td>4.3 AREA 3 – Route 50 between Town Line and Kingsley Road</td>
<td>6</td>
</tr>
<tr>
<td>4.4 AREA 4 – Carpenters Acres and Thomas Avenue Areas</td>
<td>6</td>
</tr>
<tr>
<td>4.5 AREA 5 – Remaining Areas of the Town within the Sewer District on West Side of Route 50</td>
<td>6</td>
</tr>
<tr>
<td>5.0 FLOW PROJECTIONS</td>
<td>8</td>
</tr>
<tr>
<td>6.0 OPERATION AND MAINTENANCE</td>
<td>9</td>
</tr>
<tr>
<td>7.0 COST EVALUATION</td>
<td>10</td>
</tr>
<tr>
<td>8.0 PERMITTING AND APPROVAL PROCESS</td>
<td>11</td>
</tr>
<tr>
<td>9.0 THE FINANCING LANDSCAPING</td>
<td>14</td>
</tr>
<tr>
<td>10.0 COMMON FINANCING PROGRAMS</td>
<td>15</td>
</tr>
<tr>
<td>10.1 CWSRF</td>
<td>15</td>
</tr>
<tr>
<td>10.2 USDA RD</td>
<td>18</td>
</tr>
<tr>
<td>10.3 NYS CBDG</td>
<td>18</td>
</tr>
<tr>
<td>10.4 WQIP</td>
<td>20</td>
</tr>
<tr>
<td>10.5 NYS Department of State Designated Inland Waterway/Local Waterfront Revitalization Program/Plan</td>
<td>21</td>
</tr>
<tr>
<td>11.0 RECOMMENDATIONS</td>
<td>21</td>
</tr>
</tbody>
</table>

TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Potential Sewer Connection Points</td>
</tr>
<tr>
<td>5.1</td>
<td>Projected Sanitary Wastewater Flow</td>
</tr>
<tr>
<td>7.1</td>
<td>Annual Debt Service per User</td>
</tr>
</tbody>
</table>

FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overall Sewer Service Pan</td>
</tr>
<tr>
<td>2</td>
<td>Area 1 Concept Plan</td>
</tr>
<tr>
<td>3</td>
<td>Areas 2 and 3 Concept Plan</td>
</tr>
<tr>
<td>4</td>
<td>Area 4 Concept Plan</td>
</tr>
<tr>
<td>5</td>
<td>Area 5 Concept Plan</td>
</tr>
</tbody>
</table>
APPENDICES

APPENDIX A  Cost Estimates

EXHIBITS

Exhibit A  2012 Priority Waterbodies List – Ballston Lake
Exhibit B  CWSRF Program
Exhibit C  USDA RD Program
Exhibit D  NYS OCR CBDG Program
Exhibit E  NYS DEC WQIP Program
Exhibit F  NYS DOS LWRP Program
Exhibit G  2008-2012 American Community Survey Data
1.0 INTRODUCTION

Delaware Engineering, P.C. was retained by the Town of Ballston to complete a comprehensive feasibility study for the construction of public sanitary sewers within the Town of Ballston. The Ballston Sewer Committee has identified the areas comprising the Ballston Lake Watershed and especially those areas immediately adjacent to the lake as having the highest priority for establishing sewers. In addition, the commercial areas along Route 50 are considered important for continued economic growth within the community.

Ballston Lake and tributary drainage corridors and streams are impacted by underperforming on-site sanitary sewer disposal systems. Several environmental studies have been completed on Ballston Lake including “A Study of Phosphorus Loading of Ballston lake by Tributary Flow,” completed by the Ballston Lake Improvement Association in 2014, and a NYSDEC CLASP Report completed in 2011. Studies show that over the last 10 years average phosphorus levels have been increasing significantly and that these increasing levels are negatively impacting water quality in the lake. Failing septic systems due to lack of public sewers within the community have been identified as sources of nutrients to the lake. As a result of the decline in water quality, Ballston Lake was added to New York State’s Priority Water Bodies List in 2012 as an Impaired Waterbody requiring development of a Total Maximum Daily Load (TMDL) (see Exhibit A).

Several engineering studies have been completed in the past to evaluate the costs and design of constructing sanitary sewers within the Town. These included design plans completed by the Saratoga County Sewer District (SCSD) in the 1970s and a conceptual report completed in 2005 by CT Male Associates. Unlike the reports completed previously, this report attempts to divide the town-wide system into smaller corridors and service areas that can be implemented in a phased approach with economically feasible increments.

The approach outlined within the report assumes that financing of the project will be completed by either the Saratoga County Sewer District or the Town of Ballston. The SCSD has indicated that sewer systems that have debt service tied to them cannot be transferred for ownership to the County. As a result, it is likely that operation and maintenance of any constructed system financed by the Town will need to be through a service agreement with the County.
2.0 ENVIRONMENTAL BENEFITS

Environmental benefits of public sewers are well documented. In the Town of Ballston, failing septic systems and decreasing water quality in Ballston Lake have created significant support for the construction of public sewers. Town Building Department records show that areas along the east and west side of Ballston Lake and the Buell Heights area have the greatest number of failing septic systems. This is consistent with soil maps which show significant shale formations at shallow depth in these areas.

Ballston Lake is a 278 acre, NYSDEC Class A lake used for potable water by adjacent residents, contact recreation including swimming and non-contact recreation for boating, fishing, aquatic life, and aesthetics. The lake has been extensively studied by multiple organizations including Union College, NYSDEC and most recently by the Ballston lake Improvement Association, BLIA. The NYSDEC released a CSLAP Lake Water Quality Summary in 2011. The report identifies a continuing trend toward increasing phosphorus levels.

As a result of this and other documentation, Water Index Number H-260-P1089-3-P01090 Ballston Lake (1101-0036) was listed by the State of New York as Impaired by Phosphorus from stormwater runoff, erosion and on-site wastewater treatment (septic) systems. The State is required to continuously evaluate water quality and report waterbodies with impairments to the US Environmental Protection Agency (USEPA) in conformance with Section 303(d) of the Clean Water Act. Ballston Lake is listed as an individual waterbody segment with impairment requiring development of a Total Maximum Daily Load (TMDL). This classification will be used as a regulatory tool to restrict phosphorus discharges to the lake to levels such that the continued decline in water quality is arrested and the lake experiences a gradual recovery. Installation of public sewers, control of storm water runoff and proper management of fertilizers have been identified as necessary in order to reverse the increasing phosphorus trends.
3.0 PROJECT AREA DESCRIPTION

As previously indicated, the Ballston Sewer Committee has identified the areas comprising the Ballston Lake Watershed and especially those areas immediately adjacent to the lake as having the highest priority for establishing sewers. In addition, the commercial areas along Route 50 are considered important for continued economic growth within the community.

Nine corridors were chosen by the Ballston Sewer Committee for evaluation. These areas were then consolidated into five service areas based on the feasibility and economics of providing sewers. An overall map of the service areas and potential sewer system is included as Figure 1. The five service areas include the following:

- **Area One:** Ballston Lake East and West Side, Ballston Lake Main Street and Buell Heights
- **Area Two:** Lake Hill Road to Kingsley, Midline Road to Route 50, Route 50 from Kingsley to Middleline Road
- **Area Three:** Route 50 from Lake Hill Road south to the Town line
- **Area Four:** Carpenters Acres and Thomas Avenue Areas
- **Area Five:** Remaining Areas within the Sewer District on the West Side of Route 50
4.0 PROPOSED SEWERS

There are several potential connection points for linkage to the SCSD collection system. There is an existing SCSD trunk sewer that winds through the County between Saratoga Springs and the wastewater treatment plant located in the Town of Halfmoon. This sewer is located along Oak Street in the Village of Ballston Spa, crosses Route 67 at Underpass Road near Curtis Lumber and follows the Zim Smith Trail through the remainder of the Town. The trunk sewer has extensive capacity in this area to serve the Town’s sewerage needs. Other potential connection points include the Dutch Meadows Subdivision and the pumping station at Stonebridge and Lake Road. There are also several potential connection points to the SCSD system south of the Village of Ballston Spa. These points include sewers at McCrea Hill Road, Rolling Brook Subdivision and the Rossi Industrial Development under construction on Route 50. Connection points to other adjacent communities such as Glenville were evaluated and determined to be too far from the proposed service areas to be considered economical. A complete list of potential tie-in points are shown in Table 4.1.

<table>
<thead>
<tr>
<th>Description</th>
<th>Location</th>
<th>Sewer Type and Size</th>
<th>Estimated Capacity Peak Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rossi Industrial Development¹</td>
<td>Route 50 North of Route 67 Intersection</td>
<td>8” Gravity Sewer</td>
<td>Capacity: 300 gpm Estimated Flows: 75 gpm Available: 225 gpm</td>
</tr>
<tr>
<td>Rolling Brook and Terrace Pines Sewers²</td>
<td>Route 50 at Brookline Road</td>
<td>8” Gravity Sewer</td>
<td>Capacity: 346 gpm Existing Flows: 191 gpm Available: 155 gpm</td>
</tr>
<tr>
<td>McCrea Hill Road and SSP Pump Station³</td>
<td>Route 50 and McCrea Hill Road</td>
<td>8” Gravity Sewer and Pump Station</td>
<td>Capacity w/Upgrades: 346 gpm Existing Flows: 260 gpm Available: 86 gpm</td>
</tr>
<tr>
<td>Stonebridge Pump Station⁴</td>
<td>Lake Road and Stonebridge Drive</td>
<td>Pump Station and 8” Force Main</td>
<td>Capacity w/Upgrades: 600 gpm Existing Flows: 263 gpm Available: 337 gpm</td>
</tr>
<tr>
<td>Dutch Meadows Subdivision⁵</td>
<td>Hubbs Road</td>
<td>8” Gravity Sewer</td>
<td>300 gpm</td>
</tr>
<tr>
<td>Shenentaha Park</td>
<td>Eastline Road and Lake Road</td>
<td>42” Gravity Trunk Sewer</td>
<td>Capacity: 23.4 mgd Existing Flows: 16.1 mgd Available: 7.3 mgd</td>
</tr>
</tbody>
</table>

¹ Capacity Information estimated from “Rossi Commercial Project Narrative” dated October 2010
² Capacity Information estimated from “Cornerstone Condominium Sanitary Sewer Report,” dated June 2007
⁵ Capacity Information estimated from “Stonebridge PUD Sanitary Sewer Report” dated March 2008
⁶ Capacity Information based on an 8” gravity sewer pipe at minimum slope
⁷ Capacity Information estimated from 2005 updates to the SCSD No.1 Trunk Sewer Capacity Model
4.1 AREA 1 – Ballston Lake East and West Sides

A map of Area 1 is included as Figure 2. Area 1 is divided into three parts. Part 1A includes the east and west sides of Ballston Lake. Part 1B includes Buell Heights and Main Street. Part 1C includes an extension on Lake Hill Road to Stevens Elementary School.

Part 1A includes the most environmentally sensitive areas of the proposed Town service area. This area includes all the parcels adjacent to Ballston Lake. It winds along the east side of the lake from East Side Drive and Schauber Road to Lake Road at Stonebridge Drive. On the west side of the lake, it includes Westside Drive from Main Street, Glenridge Road, Whites Beach Road, Powers Lane and Outlet Road to a connection point on Lake Road. A “low pressure” sewer system is proposed for this area. Low pressure sewers require each service connection to be equipped with a grinder type pump station. The areas along the lake have significant elevation changes, shale soils and pass through sensitive wetland areas. In addition, many of the homes along the lake are located at elevations lower than the road. As a result, a low pressure system is anticipated to be about half the cost of conventional sewers around the lake area. It is anticipated that the additional cost of the pump station, along with operation and maintenance of the station will be borne by the property owner. This is consistent with SCSD policies.

Area 1B includes the Buell Heights Subdivision and Main Street and requires a railroad crossing on Main Street. Sewers in these areas are anticipated to be conventional gravity-type with a pump station located on or near Main Street in proximity to the creek crossing. The pump station would initially discharge to the proposed low pressure sewers on West Side Drive until additional service areas are connected and the capacity of these sewers are reached.

Area 1C includes a gravity sewer extension on Lake Hill Road from Jacob Street to serve the Stevens Elementary School. The existing pump station at Stonebridge Drive was designed to handle flows from adjacent areas and has sufficient capacity to transfer flows from Areas 1A, 1B and 1C. Additional flows to serve other areas will require significant investment to extend a force main to the trunk sewers in Shenentaha Park along the Zim Smith Trail.
4.2 AREA 2 – Lake Hill Road to Kingsley, Midline Road to Route 50, Route 50 from Kingsley to Middleline Road

A map of Area 2 is included in Figure 3. Area 2 includes an extension of gravity sewers to Kingsley Road and Route 50. This service area includes Nolan Road and Route 50 between Kingsley and Whites Beach Road. Wastewater would flow through the gravity sewers and pump station constructed as part of Area 1. An upgrade to the pump station on Main Street along with the installation of a new force main from the pump station to the SCSD’s trunk sewer in Shenentaha Park is required. The force main can be installed along the path of the existing force main installed as part of service to Area 1 or an alternative route along the bike path could be utilized. Estimated construction costs savings of up to $1.4 million are anticipated if Area 2 is constructed in conjunction with Area 1. The savings is the result of allowing construction of both force mains in a single trench.

4.3 AREA 3 – Route 50 between Town Line and Kingsley Road

A map of Area 3 is included in Figure 3. Area 3 includes an extension of gravity sewers along Route 50 between the southern town line and Kingsley Road to service commercial areas. A new pump station is required along with a new forcemain to allow for connection to the gravity sewer on Lake Hill Road constructed as part of Area 2.

4.4 AREA 4 – Carpenters Acres and Thomas Avenue Areas

A map of Area 4 is included as Figure 4. Area 4 includes an extension of gravity sewers to the Carpenters Acres Subdivision and Thomas, Euclid and Martin Avenues. New gravity sewers for Carpenters Acres can be connected to the existing County sewers that run through Rolling Brook Drive while the Thomas Avenue area can be connected to the new sewers that are being constructed as part of the Rossi Industrial Park. Both existing systems have sufficient capacity to serve the new areas.

4.5 AREA 5 – Remaining Areas of the Town within the Sewer District on the West Side of Route 50

A map of Area 5 is included as Figure 5. Area 5 includes the remaining areas in the Town of Ballston west of Route 50 and lying within the Sewer District. These regions include all of the residential areas along portions of Goode Street, Jenkins Road, Scotch Bush Road, Parkwood
Drive, Forest Road and Sherwood Lane. Also included are areas along Wakeman Road, Middleline Road, Charlton Road, Connolly Road and areas of Route 50. This is a significant area requiring up to twenty-one miles of sewer pipe and four additional pumping stations.

The Town of Ballston Planning Board has recently been requiring new subdivisions and commercial/industrial parks to construct dry sewers in anticipation of connecting the properties to a regional sanitary sewer system in the future. Currently the only subdivision with dry sewers is Seelye Estates West (Phases I, II and IV) located between Lake Hill Road and Blue Barns Road. The location of these dry sewers is shown in Figure 5. It is anticipated these areas will connect to the pump station constructed on Main Street in Area 1 as the remaining vacant lands develop between Seelye Estates and Firemens Lane.
5.0 FLOW PROJECTIONS

Flow projections were completed for each service area. Projections were based on a combination of land use and drinking water usage rates obtained from the Town Water Department. Projections are based on the use of 200 gpd per equivalent dwelling unit. A summary of the projected flow rates are shown in Table 5.1.

Table 5.1
Projected Sanitary Wastewater Flow

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Equivalent Dwelling Units (EDUs)</th>
<th>Projected Flow based on 200 gpd/EDU (GPD)</th>
<th>Average Daily Flow (GPM)</th>
<th>Projected Flow in 20 Years (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Ballston Lake District</td>
<td>548</td>
<td>109,600</td>
<td>76</td>
<td>121,097</td>
</tr>
<tr>
<td>1B</td>
<td>Buell Heights and Main Street with PS#1</td>
<td>220</td>
<td>44,000</td>
<td>31</td>
<td>48,615</td>
</tr>
<tr>
<td>1C</td>
<td>Stevens Elementary Area</td>
<td>52</td>
<td>10,400</td>
<td>7</td>
<td>11,491</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal Area 1</strong></td>
<td></td>
<td><strong>164,000</strong></td>
<td><strong>114</strong></td>
<td><strong>181,203</strong></td>
</tr>
<tr>
<td>2</td>
<td>Lake Hill, Kingley Road North</td>
<td>413</td>
<td>82,600</td>
<td>57</td>
<td>122,739</td>
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<tr>
<td>3</td>
<td>Route 50 from Town Line to Kingley Road with PS#2</td>
<td>80</td>
<td>16,000</td>
<td>11</td>
<td>23,775</td>
</tr>
<tr>
<td>4</td>
<td>Carpenters Acres and Thomas Avenue Areas</td>
<td>247</td>
<td>49,400</td>
<td>34</td>
<td>54,582</td>
</tr>
<tr>
<td>5</td>
<td>Other Areas</td>
<td>1,237</td>
<td>247,400</td>
<td>172</td>
<td>367,623</td>
</tr>
<tr>
<td></td>
<td><strong>Total All Areas</strong></td>
<td><strong>2,797</strong></td>
<td><strong>559,400</strong></td>
<td><strong>388</strong></td>
<td><strong>749,923</strong></td>
</tr>
</tbody>
</table>

Twenty year growth projections vary depending on the Area. Areas 1 and 4 consist primarily of existing residential subdivisions with minimal undeveloped area. As a result a growth rate of 0.5% per year was assigned to these areas. Areas 2, 3 and 5 consists of portions of Route 50 and other commercial areas where significant economic development is possible. These areas were assigned a growth rate of 2% per year.
6.0 OPERATION AND MAINTENANCE

Operation and maintenance of the proposed sewer system is anticipated to be a combination of property owner responsibility and Saratoga County Sewer District responsibility. In accordance with existing SCSD policies, the maintenance and operation of grinder pump stations and service lines installed in conjunction with low pressure sewers will be the responsibility of the property owner. Sewer lines and pump stations that do not serve individual property owners would be operated and maintained by the District.

Discussion with the SCSD suggests that financing the proposed sewer system will likely be the responsibility of the Town of Ballston. In addition, the District has indicated that any sewers which have debt associated with them cannot be transferred to the District for ownership upon completion. As a result, it is anticipated that a service agreement between the Town and the SCSD will be required for the operation and maintenance of the system by the SCSD. Once the financing of the sewers is closed, the system would then be eligible for ownership transfer to the District. The cost of operation and maintenance of the sewers by the District is anticipated to be $230 per Equivalent Dwelling Unit (EDU).
7.0 COST EVALUATION

Conceptual capital costs and annual costs per user were prepared for each of the proposed service areas. Detailed cost breakdowns are included in Appendix A. A summary of the anticipated debt service costs for each area are shown in Table 7.1.

### Table 7.1
Annual Debt Service per User
(40 Year Bonding at 3%)

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>Total Pipe Length</th>
<th>Project Cost (Assumes 20% Soft Costs)</th>
<th>Annual Debt Service (40 yrs, 3%)</th>
<th>EDUs</th>
<th>Annual Capital Cost/EDU</th>
<th>Annual O&amp;M Cost/EDU</th>
<th>Total Annual Cost/EDU (40 yr Bond)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Ballston Lake District</td>
<td>49,583</td>
<td>$5,760,000</td>
<td>$249,191</td>
<td>548</td>
<td>$455</td>
<td>$230</td>
<td>$685</td>
</tr>
<tr>
<td>1B</td>
<td>Buell Heights and Main Street with PS#1</td>
<td>13,758</td>
<td>$3,360,000</td>
<td>$145,362</td>
<td>220</td>
<td>$661</td>
<td>$230</td>
<td>$891</td>
</tr>
<tr>
<td>1B&amp;1C</td>
<td>Combined Phase IA &amp; IB</td>
<td>63,341</td>
<td>$9,120,000</td>
<td>$394,553</td>
<td>768</td>
<td>$514</td>
<td>$230</td>
<td>$744</td>
</tr>
<tr>
<td>1C</td>
<td>Stevens Elementary Area</td>
<td>700</td>
<td>$216,000</td>
<td>$9,345</td>
<td>52</td>
<td>$180</td>
<td>$230</td>
<td>$410</td>
</tr>
<tr>
<td>1</td>
<td>Area 1 Complete</td>
<td>64,041</td>
<td>$9,336,000</td>
<td>$403,898</td>
<td>820</td>
<td>$493</td>
<td>$230</td>
<td>$723</td>
</tr>
<tr>
<td>2</td>
<td>Lake Hill, Kingley Road North Nolan Lane incl. High School, Rt 50 (Kingsley to Middleline)</td>
<td>49,140</td>
<td>$10,200,000</td>
<td>$441,276</td>
<td>413</td>
<td>$1,068</td>
<td>$230</td>
<td>$1,298</td>
</tr>
<tr>
<td>1&amp;2</td>
<td>Area 1 and 2 Complete (includes savings of single trench)</td>
<td>113,181</td>
<td>$18,136,000</td>
<td>$784,606</td>
<td>1,233</td>
<td>$636</td>
<td>$230</td>
<td>$866</td>
</tr>
<tr>
<td>3</td>
<td>Route 50 from Town Line to Kingley Road with PS#2</td>
<td>5,510</td>
<td>$1,176,000</td>
<td>$50,877</td>
<td>80</td>
<td>$636</td>
<td>$230</td>
<td>$866</td>
</tr>
<tr>
<td>1,2&amp;3</td>
<td>Area 1, 2 and 3 Complete</td>
<td>118,691</td>
<td>$19,312,000</td>
<td>$1,239,381</td>
<td>1,313</td>
<td>$944</td>
<td>$230</td>
<td>$1,174</td>
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<tr>
<td>4</td>
<td>Carpenters Acres Thomas Ave Area</td>
<td>19,908</td>
<td>$2,932,040</td>
<td>$126,847</td>
<td>247</td>
<td>$514</td>
<td>$230</td>
<td>$744</td>
</tr>
<tr>
<td>5</td>
<td>Other Areas</td>
<td>113,000</td>
<td>$26,066,400</td>
<td>$1,127,694</td>
<td>1,237</td>
<td>$912</td>
<td>$230</td>
<td>$1,142</td>
</tr>
<tr>
<td>TOTAL ALL AREAS</td>
<td></td>
<td>251,599</td>
<td>$49,710,440</td>
<td>$2,150,592</td>
<td>2,797</td>
<td>$769</td>
<td>$230</td>
<td>$999</td>
</tr>
</tbody>
</table>

Notes: Equivalent Dwelling Unit counts for the elementary and high schools are based on SCSD Policy of 25 gpd per student with showers and 20 gpd per student without showers.

In addition to debt service, the Saratoga County Sewer District charges an annual user fee to cover operation and maintenance of the system. As previously indicated, this fee is anticipated to be $230 for users in the Town of Ballston. Other costs will include on-site costs by the user to connect to the sewer system. On-site costs are anticipated to vary between $1,500 and $10,000 per user depending on the complexity of the connection. Residential customers in Area 1 and other areas where low pressure sewers are proposed will require the installation of an on-site sewer pump station. Installation and material costs of the pumping systems will range between $5,000 and $10,000 depending on the location of the system to the house and public sewers.
8.0 PERMITTING AND APPROVAL PROCESS

The areas outlined as potential sewer service areas are all within the existing Saratoga County Sewer District No. 1. Thus, additional action regarding special improvement districts is not required.

However, the undertaking to provide the sewer system is considered an Increase or Improvement of Facilities as outlined in Town Law §202-b. This section of law states that the Town Board may determine that it is in the public interest to construct sewage (or other) infrastructure after preparation of a map and plan together with an estimate of cost by an engineer licensed in the State of New York and conduct of a public hearing. After this procedure is followed, the Town Board may direct the engineer to prepare a full design with specifications and estimates. The Town Board may choose to proceed with bidding and construction or the project or modify the plans or reject them prior to bidding.

The costs of the improvements shall be borne by the properties that are benefitted thereby, thus property owners that are not benefitted by the provision of sewers in the Town of Ballston are not subject to funding such improvements.

As previously indicated, the approach outlined within the report assumes that financing of the project will be completed by either the Saratoga County Sewer District or the Town of Ballston. The Saratoga County Sewer District has indicated that sewer systems that have debt service tied to them cannot be transferred for ownership to the County. As a result, it is likely that operation and maintenance of any constructed system financed by the Town will need to be through a service agreement with the County.

The permitting and approval process for the sewer system will include a number of steps that will vary depending on the final selected pipe routes and the selected pump station sites.

With respect to the State Environmental Quality Review (SEQR) process, the proposed collection system is most likely to be classified as a either an Unlisted or Type 1 Action and the Town of Ballston is the logical lead agency for the environmental review. A coordinated review
with all interested and involved agencies is prudent any may be required if the Action is Type 1. Interested and involved agencies may include but is not limited to:

- US Army Corps of Engineers
- NYS Department of Environmental Conservation
- NYS Department of Health
- NYS Department of Transportation
- NYS Office of Parks, Recreation and Historic Preservation
- NYS Department of State
- Saratoga County Sewer District
- Saratoga County Planning
- Saratoga County Highway Department
- Town of Clifton Park

Given the nature of the proposed project, it is likely that the environmental review can be conducted with a detailed and expanded Long Environmental Assessment Form (EAF). The Expanded Long EAF will incorporate essentially all the information that is customary for an Environmental Impact Statement so that the review of potential environmental impacts can be thorough. Either as part of the SEQR process or as a separate but concurrent action, a series of public information sessions are highly recommended, the purpose of which is to inform the public of the project, the goals and intent and to identify significant concerns with respect to the sewer service area and collection system specifics.

Studies and permits are likely needed for:

1. **Watercourses, Wetlands and Habitat** –
   Potential NYSDEC Article 15 and Article 24 Permits

2. **Highway Work Permits** (State, County and Town) –
   Need for areas within the highway Right-of-Way

3. **Cultural Resources** –
   The Ballston Lake Area is identified as Sensitive for Cultural Resources and a sign off from the State Historic Preservation Office will be required for the issuance of permits from state and federal agencies.
4. **Construction stormwater controls** –
   The project will disturb more than one acre of land and thus a General Permit for Construction Stormwater Discharges is required; to obtain the permit, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared.

5. **Infrastructure design and approval** –
   The Saratoga County Sewer District No. 1 as well as the NYSDEC will review and approve the design plans.

The acquisition of easements, rights of way and real property can be time consuming and subject to uncertainty, so public support for the project is very important in advancing the project at pace and without excessive cost. It is difficult to provide a timeframe for the acquisition of easements, rights of way and property at this time. However, in considering alternatives for the collection system, attention has been and will be paid to the potential number of easements and the likelihood of obtaining the easements without cost and excessive schedule impacts.

Aside from the time it will take to obtain easements and land, the permitting, design and review process is anticipated to consume a minimum of nine months.
9.0 THE FINANCING LANDSCAPING

While it has been demonstrated that a sewage collection system around and in the vicinity of Ballston Lake is needed, implementation requires an understanding of the potential costs to users and the availability of grants and financing. The availability and nature of financing through many programs is based on environmental need, median household income, project cost and current O&M costs.

Typical financing and funding mechanisms for sewer infrastructure project are:

1. Issuance of a Bond by the Town to Receive Market Rate Financing.

2. Issuance of a Bond by the Town to a State or Regional Agency to Receive Subsidized Loan Financing.

3. Issuance of a Bond by the Town to a State or Federal Agency to Receive Market Rate or Subsidized Loan and Grant Funds from a Single Agency.

4. Receipt of Grant Funds from a State or Federal Agency to Fund a Portion of the Costs.

5. A combination of Issuance of a Bond by the Town to a State or Regional Agency to Receive Subsidized Loan Financing and Receipt of Grant Funds from a different State or Federal Agency to Fund a Portion of the Costs.

In every case, a combination of environmental and economic need must be demonstrated to either qualify to compete for funding and to secure low cost financing.

Environmental need is demonstrated by having executed a consent order with the State of New York or documenting direct or indirect risks to the environment including demonstrating that existing facilities do not meet current regulatory standards. The recent listing of Ballston Lake as an Impaired Waterbody on the State’s Section 303(d) list demonstrates environmental need.

Economic need is established through an evaluation of the income profile of the area served by the infrastructure. Sources of income data typically accepted by state, federal and regional financing agencies includes US Census Data or income surveys prepared in accordance with acceptable methodologies outlined by the funding agencies.
10.0 COMMON FINANCING PROGRAMS

There are several existing programs operated by state and federal agencies that are commonly utilized by municipalities in New York State to finance sewer projects similar to the project contemplated by the Town. These include:

- NYS Clean Water State Revolving Fund (CWSRF) administered by the NYS Environmental Facilities Corporation (EFC)
- U.S. Department of Agriculture Rural Development (USDA-RD)
- Community Development Block Grant (CDBG) program administered by the NYS Office of Community Renewal (OCR)
- NYS Department of Environmental Conservation (NYSDEC) Water Quality Improvement Projects (WQIP) Program
- NYS Department of State Designated Inland Waterway/Local Waterfront Revitalization Program/Plan

10.1 CWSRF

The CWSRF program provides low-interest rate financing to municipalities to construct water quality protection projects such as wastewater collection and treatment facilities. A variety of publicly-owned water quality improvement projects are eligible for financing. For communities with demonstrated financial hardship, interest rates can be reduced to as low as zero percent. Additionally, project support in the form of principal forgiveness or grants may be available under this program, depending on the IUP and funding commitment from the federal government.

The IUP operates on a Federal Fiscal Year (FFY); thus, while applications to initially list projects are accepted on a rolling basis, listing for eligibility for occurs only once a year unless amendments are issued. The current IUP for FFY 2014 (Oct 1, 2013- Sept 30, 2014) has been issued. Project listing forms for new projects submitted from Oct 1 2013 to the early summer of 2014 will be considered for FFY 2015 (Oct 1, 2014 – Sept 30, 2015).
The procedure to list a project for funding on the IUP consists of submitting a listing form with basic information regarding the project, anticipated costs and project schedule. Projects with this information are listed for potential funding in future FFY IUPs. If an applicant is prepared to proceed with a project, the listing can be enhanced through submission of a Preliminary Engineering Report (PER). With submission of a PER, the project will be listed for potential financing during the next FFY.

Upon submission of a listing form, projects are scored and ranked. Scores are based on criteria including environmental and economic factors and points defined in the IUP. Projects that may be funded within the FFY are grouped by the size of the community or specialized project category (small populations, moderate populations, the City of New York, or Green Infrastructure projects), then within the groupings, listed in descending order with the highest score listed first. The agency then subtracts the estimated cost of each project in descending order from its total available funding for the specific grouping until the funding is depleted. At that location in the list, a line is drawn, called the ‘Subsidy Line.’ For projects that score above the Subsidy Line, an application for subsidized or “Hardship” financing will be accepted by the agency. The agency then notifies applicants for Hardship of the potential financing opportunity for the project (e.g. low interest loan, zero interest loan, grant, or a combination).

Hardship financing is granted to communities where the cost burden of the infrastructure project to the typical single family home is considered excessive. This is determined through evaluating the annual debt load that will result from the project under various financing scenarios against the ability of the residents in the service area to fund those costs. Service areas with high concentrations of industrial and commercial users or second homeowners are challenged to receive Hardship financing because the subsidy is targeted in resident populations with economic need. Subsidy cannot significantly benefit industrial or commercial users or second homeowners. To determine whether Hardship is appropriate for a particular community with a specific project to be accomplished, a number of factors are considered, including:

1. The population served represented as outright number of services
2. The makeup of the population served including residential, commercial, industrial, institutional and second home-owners.
3. The Median Household Income (MHI) of the resident population as reported by the US Census or a certified Income Survey.
4. The cost of the project including capital and engineering, legal, etc.
5. The cost of operations and maintenance for conveyance and treatment of the wastewater.
6. The contribution of large scale industry or institutions to the reduction in capital and operating costs.

With these factors in hand, an analysis can be conducted that evaluates the affordability of the proposed project under Market Rate conditions versus Subsidy versus Hardship. Key to this evaluation is determining the Target Service Charge of the residential population. Target Service Charge (TSC) is determined through the following formula:

\[
TSC = \left(\frac{\text{MHI}}{10,000}\right)^2 \times 24 + \left(\frac{\text{MHI}}{10,000} \times 2\right) + 70
\]

Projects below the Subsidy Line may become eligible to apply for Hardship financing through a process called “Bypass.” Bypass opportunities exist when projects listed above the Subsidy Line cannot meet deadlines for progress within the FFY. The EFC will notify applicants below the Subsidy Line of Bypass opportunities in ranked order. Bypass is not uncommon, although it should not be relied upon. Projects below the Subsidy Line that are not reached through Bypass are eligible for Market Rate Financing through the CWSRF program; however, in many cases, a fiscal analysis comparing direct municipal bonding to Market Rate Financing through the CWSRF program should be conducted to determine which opportunity is more cost effective.

After a project has been deemed eligible for financing through the CWSRF program either as a Hardship, Subsidized or Market Rate financing, applicants conduct environmental studies, adopt necessary resolutions to allow the project to occur including bond resolutions and/or the formation of special improvement districts for Towns, and conduct additional engineering to allow for a closing on Short Term financing which acts as a bridge or construction loan. Short Term financing is available interest free for Hardship communities and at short term Market Rate interest for subsidized and Market Rate communities. Most projects are concluded within two years of taking a Short Term loan and are then rolled into Long Term Financing which may be for periods between 20 and 30 years without interest, at a subsidized interest rate, and at market
rates. Projects that are not finished two years after the initial short term financing require payment of principal and interest (if applicable) and financing is extended for one year periods until the project is finished.

Program information regarding CWSRF Hardship financing is provided in Exhibit B.

10.2 USDA RD

The USDA-RD Water and Waste Disposal Program provides financing for rural communities to establish, expand or modernize water treatment and waste disposal facilities. Funding is intended to provide for safe drinking water and sanitary waste disposal for residential users and help communities thrive by attracting new business. Eligibility is limited to communities of 10,000 or less in population that are unable to obtain credit elsewhere. In addition, financing is available only to those communities with low median household income levels. Priority is given to public entities serving areas with less than 5,500 in population. Grant and loan funds are usually combined based on the income levels and user costs. Program summary information is provided in Exhibit C.

While the Town of Ballston meets the basic eligibility criteria for this program, this program currently caps grant eligibility based on median household income and offers the remaining funding in market rate borrowing. Due to the limited amount of grant available and larger share of market rate borrowing offered to communities, as well as the administrative burden of compliance with federal program requirements which drives up engineering and legal fees, this funding resource is less appealing for communities such as Ballston than funding to the CWSRF program. Moreover, this type of funding is generally utilized by communities that cannot secure financing for their projects through any other method.

It may be advisable to revisit USDA RD funding opportunities in the future if the Town contemplates a project in an area of the community with a lower median household income.

10.3 NYS CBDG

The NYS CDBG program is a federally funded program administered by the New York State Office of Community Renewal (OCR). Eligible applicants include villages, towns, cities or
counties throughout New York State with populations of less than 50,000. CDBG funds are available for community development projects that primarily benefit low and moderate income persons that would benefit from rehabilitation of, for example, residential water and wastewater systems, public facilities and public infrastructure. A community may propose a project that addresses a particular area of need or may propose a project that undertakes a strategy that addresses community development needs within a particular area.

The CBDG program provides grants to assist in closing funding gaps for community development projects aimed at low and moderate income persons. While the program has many facets, specific to the Town’s sewer project, the funding opportunity would be the Public Infrastructure Grant program. This program provides grants after funding has been secured to conduct the project where there is a demonstration that the funding will have a positive impact on low and moderate income populations. Reimbursement grant funding for municipal projects is available in the amount of $600,000, with $750,000 provided to County applicants and $900,000 to joint applicants for the Public Infrastructure portion of the program. Exhibit D provides program summary information.

Access to CBDG funds is through the State’s Consolidated Funding Application (CFA) process. The 2014 round is being conducted in the summer, with applications due in mid-June. Announcements from the Governor should be issued in mid to late October. To have a competitive CBDG application, the following is required:

1. Financing for the entire project must be secured or committed such that CBDG funds are gap funding and/or funding of last resort.
2. Demonstration that the funds will be specifically targeted to designated Low and Moderate Income (LMI) persons. General benefit to all persons with some LMI included does not meet program requirements.
3. Support from the CFA Regional Council.

The Town of Ballston has areas designated as having LMI population; however, the areas are discrete geographies and the area of Ballston Lake is not designated as having LMI population. This being the case, it will not be possible to demonstrate that $600,000 in CBDG investment in
sewers around Ballston Lake will have a direct benefit on LMI populations without benefiting non-LMI populations. As a result, it is not recommended that the Town pursue CBDG funding for the WWTP upgrade project; however, the Town could evaluate LMI designated areas to determine if there are other projects that could achieve the objectives of the CBDG program as outlined in the summary documentation in Exhibit D.

10.4 WQIP

The Water Quality Improvement Projects program is funded through the State of New York Budget, often through Bond Acts, to support projects targeted to achieve specific water quality improvement goals. Information regarding the WQIP program can be found in Exhibit E. Grants are available to support a portion of eligible costs, with remaining costs provided in matching funds from the applicants. Applicants must be municipalities and soil & water conservation districts, and certain not-for-profits are also eligible. The NYSDEC has conducted 11 rounds of grants. Information regarding the grant application including past round application materials can be found on the DEC website. By way of example, the following funding was offered in Round 11:

- $18.4 million in non-ag point source abatement and control
- $8.8 million for WWTP, aquatic habitat restoration and MS4 projects
- $4 million for green infrastructure to mitigate flooding
- $2 million for the Peconic Estuary
- $12 million for WWTP effluent disinfection and failing on-site treatment systems
- $0.2 million for Coastal Nonpoint Source projects

Focus is on projects that will have a positive effect on water bodies listed on the Priority Water Bodies list in the most severe categories. Projects need to be developed beyond concept as there is strong weighting towards projects that are already permitted or have submitted permits and projects must meet Smart Growth objectives. This funding is tightly tailored to specific program objectives and this program is inflexible with respect to the targeting of funds within each round. Due to the surgical targeting of program funds, the Town may wish to initiate discussions with DEC to encourage the inclusion of a funding category within which the Ballston Lake Sewer Project could fit. Should the DEC issue a Round 12 in 2014, the Town should strongly consider
submitting an application, provided an appropriate funding category is incorporated in the grant program in this round.

10.5 NYS Department of State Designated Inland Waterway/Local Waterfront Revitalization Program/Plan

The Local Waterfront Revitalization Program (LWRP) provides 50:50 matching grants on a competitive basis to revitalize communities and waterfronts. This is a reimbursement program open to municipalities that are located along the State’s coast or are designed as inland waterway. For the Town of Ballston, the opportunity rests in seeking designation as an inland waterway. Funding can be utilized for general planning, project design and construction to advance eligible activities. Program benefits include preparing an LWRP; redeveloping hamlets, downtowns, or waterfronts; constructing land or water-based trails; implementing a lake-wide or watershed based revitalization plan; and implement a community resiliency strategy. Information regarding this program can be found in Exhibit F.

While this funding source can support construction projects; it appears that support of planning projects is a best fit. Nevertheless, the Town is strongly encouraged to seek a designation as an inland waterway so that the resources of the DOS and the LWRP program would be available.

11.0 RECOMMENDATIONS

The Ballston Sewer Committee has identified the areas comprising the Ballston Lake Watershed and especially those areas immediately adjacent to the lake as having the highest priority for establishing sewers. In addition, the commercial areas along Route 50 are considered important for continued economic growth within the community. An evaluation of the financial costs of providing sewer service shows the areas adjacent to Ballston Lake, Buell Heights and Main Street to be the most feasible for installation of sewers. In addition, evaluations of Carpenters Acres and Thomas Avenue, along with commercial areas of Route 50 between the Village of Ballston Spa and McCrea Hill Road also show that sewers can be constructed economically. Other areas, including the commercial areas along Route 50 near Lake Hill Road require a significant investment in order to extend sewers to an existing sewer connection point with capacity to service the area.
Given the discussion regarding the common financing mechanisms available for communities such as Ballston to fund sewer extension projects, current programs that would provide significant grant or low cost financing for the sewer project are not available. However, the Town is encouraged to actively seek a designation as an inland waterway from the Department of State and to contact NYSDEC Region 4 to encourage inclusion of a project category in the next round of WQIP grants.

The Town is likely in a position to be able to bond the project directly; however, if desired, the Town could consider utilizing the CWSRF program offered by the NYSEFC. The opportunity is to secure market rate financing through this program. Subsidy, as outlined herein, is unlikely.

Using the 2012 town-wide MHI as reported by the American Community Survey (ACS) of $74,768, the Target Service Charge (TSC) is $1,779. This means that before the community could qualify for subsidy from the CWSRF program, sewer rates would have to exceed $1,779 annually per household. The capital project envisioned to provide sewers around Ballston Lake would result in user costs of between $723 for the recommended first phase of the work and $999 if all phases were completed as a single project. While there are some individual phases that have costs that, if conducted alone, exceed the TSC, it is not practical to seek funding through the CWSRF program for those phases alone. (Exhibit G provides the 2008-2012 American Community Survey listing for the Town),

To secure market rate financing through the CWSRF program, the Town will incur engineering, legal and administrative costs, and the Town would be required to fund issuance costs. Generally, with communities in a similar situation to Ballston, it is more cost effective to bond the project directly and avoid the administrative and issuance costs.

With this backdrop, it is recommended that the Town either proceed with the sewer project through the issuance of municipal bonds and/or that the Town explore opportunities to work in partnership with the County regarding the bonding of the project.