How Inter-Municipal Policies Could Benefit the Seneca Lake Watershed Anna Hertlein, Spring 2012

Characterization of Seneca Lake

Seneca Lake is located at the heart of the Finger Lakes in central New York State. The lake provides drinking water to over 100,000 residents¹ living within the watershed. The lake watershed covers five counties and 41 municipalities². The counties include Chemung, Ontario, Schuyler, Seneca, and Yates. Sometimes Stuben County is included because Keuka Lake, just southwest of Seneca Lake, is included in the watershed³. Although the five counties all rely on the lake for clean drinking water, there is very little coordination among the counties to establish a watershed management policy for the entire area. There are efforts in each town and county to preserve the integrity of the lake, but Seneca Lake could benefit from a more comprehensive watershed protection and management plan.

There are many threats to the quality of the water in Seneca Lake. With 46% of the land in the watershed used for agriculture⁴ the lake is threatened by fertilizer and manure runoff. Fertilizers and organic wastes high in phosphorous and nitrogen create nutrient loading problems, which encourage increased algae and aquatic plant growth. Growth increase can be problematic, as they essentially suffocate the lake by blocking sunlight from other organisms in the lake habitat. The most effective way to curb this form of non-point

¹ Halfman, John. Water Quality of Seneca Lake, New York: A 2011 Update. (Geneva, NY: Finger Lakes Institute) 2011. Pg 1.

² Draft, Seneca Lake Watershed Characterization and SubWatershed Evaluation. New York State Department of State. Pg 10

³ Halfman, 2011. Pg. 1

⁴ Halfman, 2011. Pg. 3

source pollution is to implement agricultural best management practices, as well create zoning laws for lakefront residents.

New York State is in a very unique position because it is a 'home rule' state. Home rule is a type of local governance which allows municipalities to write their own local rules and regulations without having them pass through the state assembly for approval. There are many benefits to home rule, as municipalities have an increased amount of autonomy and can expedite the local legislative process. But home rule can also create problems in uniformity of regulations across town lines. This can be seen in the region as the Southern Tier prepares itself for the potential development of natural gas from the Marcellus Shale. While some municipalities are creating stricter zoning laws to prohibit or curb development in their jurisdiction, others are not taking such action which is creating a patchwork effect of regulations across the state.

The same can be assumed for watershed protection plans based on the varying needs of municipalities. This is where a comprehensive, integrated watershed management and protection plan would benefit the Seneca Lake watershed. This is a policy tool that would allow all of the counties and municipalities to implement a plan to benefit the entire watershed. It is a way to share resources and distribute the financial burden to all benefactors.

Current Watershed Management

The Seneca Lake watershed is not completely without organization already. There are several regional and local groups that currently manage the watershed through different mediums. Watershed protection has been achieved in some capacities but the problem with the current management regimes is rooted in geography, funding, and

politics. Some organizations do not address the entire watershed, while others do not have the legal or regulatory authority to implement strict management plans. Regardless, we can draw some lessons from current management approaches in the region.

Watershed Specific

An organization that is entirely devoted to the Seneca Lake watershed is the Seneca Lake Pure Waters Association (SLPWA or 'the Association'). This is an interest group, not a policy making organization, but it has a lot to offer the watershed. The mission of the SLPWA is to "enhance and preserve the quality of Seneca Lake"⁵. To achieve this, the Association has vowed to sponsor research on the lake, promote understanding of preservation and improvements, act as clearinghouse for documents about Seneca Lake, as well as encourage support and compliance with laws and regulations regarding the health of the lake⁶. The Association has taken a keen interest in many current issues regarding the watershed that are at the root of many local policy questions. These issues include drilling for natural gas in the Marcellus Shale, monitoring the lake level, non-point source pollutants (agricultural and lawn care run-off), and the impacts of landfill leachate. SLPWA has kept tabs on up to date studies related to these topics and continues to investigate their impacts locally.

Although SLPWA has no regulatory or law making power, the organization is still very beneficial to municipalities in the watershed. The Association is committed to keeping abreast with local and state politics, which can help interested local governments and citizens gain access to studies and stay up to date with State hearing dates and comment

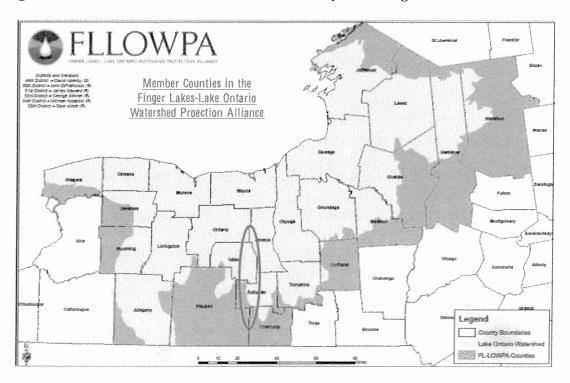
⁵ "Our Mission". Seneca Lake Pure Waters Association. 2010-2011. www.senecalake.org.

⁶ "Active Projects". Seneca Lake Pure Waters Association. 2010-2011. www.senecalake.org.

periods. SLPWA acts as policy watchdog for the lake and plays the important role as the informant for the watershed.

Think Big, Act Small

Reaching beyond the Seneca Lake watershed is the Finger Lakes-Lake Ontario Watershed Protection Alliance (FLLOWPA or 'the Alliance'). This is an organization of the 25 counties entirely or partially in the Ontario drainage basin. According to their website, FLLOWPA "fosters coordinated watershed management programs across the Lake Ontario drainage basin based on local needs.⁷" Below is a map of the region included in the alliance:



Their mission is to "facilitate processes that encourage watershed partnerships and implementation of action plans to protect and enhance water quality based on (1) local needs assessment (2) holistic approaches (3) information exchange and public education

4

⁷ "Current Membership". Finger Lakes-Lake Ontario Protection Alliance. 28 Oct. 2011. www.fllowpa.org

and (4) measurable goals and milestones.⁸" Although their constituency is large, the Alliance facilitates a good deal of information sharing and enables many county-based watershed protection programs.

The Alliance is governed by the Water Resource Board within the organization. Each member county has one voting member, and there are also representatives from many county agencies including Soil and Water Conservation Districts and planning departments. The full Board meets twice a year, while regional boards meet more often. FLLOWPA has two part time employees for administrative purposes, otherwise they operate based on member participation and input. Member create their own water related programs, which are approved by the NYS Department of Environmental Conservation (DEC). The majority of the funding for FLLOWPA come from the New York State Environmental Protection Fund⁹. The 2010-2011 annual budget was \$1million, cut drastically from year previously due to financial troubles in the state¹⁰.

Below is a chart documenting some of the programs that have been supported by FLLOWPA and their relationship to Seneca Lake. Because the programs are implemented on a county-by-county basis, many focus on other lakes in their respective county, Seneca Lake may or may not be emphasized in the program.

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<sup>8 &</sup>quot;Mission", Finger Lakes-Lake Ontario Protection Alliance, 28 Oct. 2011, www.fllowpa.org

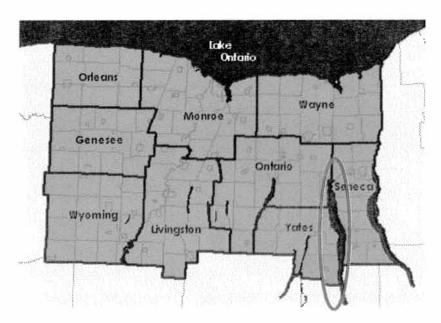
<sup>&</sup>lt;sup>9</sup> The New York State Environment Protection Fund is an allocation that was created in 1993 to fund environmental projects in the state. Under Title 7, money is allocated to the NYS DEC and the Office of Parks, Recreation and Historical preservation. Under Title 9, money is provided for local governments and non-profit organization for environmental protection projects.

<sup>&</sup>lt;sup>10</sup> "Funding", Finger Lakes-Lake Ontario Protection Alliance, 28 Oct. 2011, www.fllowpa.org

| County   | Lakes in County                                             | Programs                                                                                                                                                              | Seneca Lake Specific<br>Programs?                                                                                                                                  |
|----------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ontario  | Seneca,<br>Canandaigua,<br>Honeoye, Candice,<br>and Hemlock | Harvest invasive aquatic vegetation on Honeoye, groundwater database, integrate more GIS, monitor Honeoye tributaries                                                 | Inspect septic systems in<br>Seneca Lake watershed<br>(town of Geneva)                                                                                             |
| Seneca   | Seneca and Cayuga                                           | Aquatic plant harvesting in Cayuga/Seneca Canal, assist highway departments, education on 'whole farm planning' and stormwater mgmt                                   | Support "Seneca Lake Area<br>Partners in 5 Counties"<br>grassroots community<br>organizing. Organize and<br>implement Seneca Lake<br>Water shed Management<br>Plan |
| Yates    | Seneca, Keuka, and<br>Canandaigua                           | Stormwater education programs, hydroseed 10 acres of lakefront property, inspect 150 septic systems near lakeshores, expand use of GIS                                | None funded through FLLOWPA                                                                                                                                        |
| Schuyler | Seneca, Cayuga, and<br>three smaller non-<br>finger lakes   | Collaborate with other funders to replace 35 steel septic tanks, improve road ditches, expand GIS (apply to decision making), water quality education in high schools | None funded through FLLOWPA                                                                                                                                        |
| Chemung  | Seneca                                                      | Stormwater management, assist farms with nutrient management plans, stabilize road ditches                                                                            | None funded through<br>FLLOWPA                                                                                                                                     |
| Stuben   | Keuka Lake                                                  | Weed harvesting in lake,<br>seed 85 acres to prevent<br>erosion, 4 streambank<br>stabilization projects                                                               | None funded through<br>FLLOWPA                                                                                                                                     |

### Regional But Not Regulatory

The oldest<sup>11</sup> and only management group with legal status in the watershed is the Genesee Finger Lakes Regional Planning Council (GFLRPC or 'the Council'). The Council was created pursuant to Articles 5-6 and 12-B of the New York State General Municipal Laws, which grants legal authority for municipalities to create councils or corporations with legal status. The region represented in this planning council includes the counties of Orleans, Genesee, Wyoming, Wayne, Monroe, Livingston, Ontario, Yates, and Seneca. As you can see from the map<sup>12</sup> below, the southern part of the Seneca Lake watershed is not represented<sup>13</sup>:



The mission statement of the Genesee Finger Lakes Regional Planning Council is to "identify, define, and inform its member counties of issues and opportunities critical to the physical, economic and social health of the region.<sup>14</sup>" A regional council is formed to carry

<sup>&</sup>lt;sup>11</sup> Established in 1977.

<sup>12 &</sup>quot;Our Mission". Genesee Finger Lakes Regional Planning Council. 6 March 2012. www.gflrpc.org

<sup>&</sup>lt;sup>13</sup> The southern part of the watershed is represented by the Southern Tier Central Regional Planning and Development Board which focuses on Stuben, Schuyler, and Chemung counties.

<sup>14 &</sup>quot;Our Mission". Genesee Finger Lakes Regional Planning Council. 6 March 2012, www.gflrpc.org

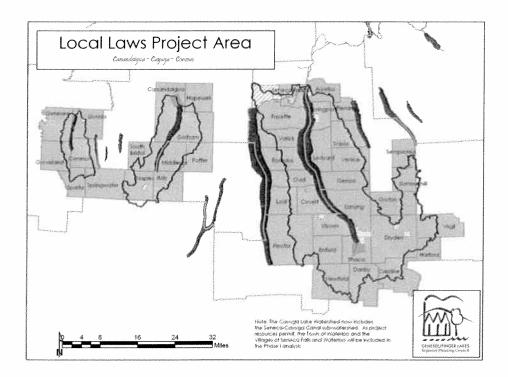
out these missions, their purpose is to orchestrate cooperation and communication among its members to address problems that transcend political boundaries. Regional councils also act as a source of funding, since they can attain state and federal grants for local projects as well as collect dues from members. Some money is project-specific, while other is appropriated from a council budget.

The GFLRPC has 32 voting members, representing the nine counties that are part of the region. The voting members are mostly elected representatives and local legislation policy makers. The Council tries to formulate programs to address regional issues, including some that are related to local watersheds. Through the Local, Regional and Water Resources Planning Committee, the members of the GFLRPC attempt to create policy regarding flooding, water resource management, and protect the quality of water in the Finger Lakes. Though it is important to keep in the mind that the Council is not strictly for watershed management, it works on many other regional issues, such as economic development.

Three Finger Lakes in the region have had watershed protection plans written with the help of the GFLRPC. Canandaigua Lake, Cayuga Lake, and Conesus Lake have all benefited from funding granted by the New York State Environmental Protection Fund, while working with the New York State Department of State and a local inter-municipal group. Watershed protection plans were developed in 2004-2005 "to identify priority actions needed to protect and improve water quality<sup>15</sup>" and the GFLRPC works to create specific watershed management and water quality control laws for the surrounding

<sup>18 &</sup>quot;Watershed Management Plan". Genesce Finger Lakes Regional Planning Council, 6 March 2012, www.gfirpc.org

municipalities. Below is a map<sup>16</sup> illustrating the watershed and their respective municipalities which benefited from the creation of the plans:



These three protection plans were executed in three phases. In the first phase the GFLRPC looked at all of the existing laws of the municipalities in the watersheds (municipalities with less than 6% of their property in the watershed were excluded). The council aggregated this data into a document titled the "Assessment of Ordinances and Practices" which was published in 2005. Included were municipal budgets (what was spent on watershed protection already), an exhaustive list of water quality best management practices, land use inventories, current regulations, and marina inventories. From this, the second phase attempted to write local laws that could improve water quality. The Council focused their efforts on 13 municipalities within each watershed instead of every village, town, and city, to target updating comprehensive plans, writing dock and marina laws,

<sup>&</sup>lt;sup>16</sup> "Watershed Management Plan". Genesee Finger Lakes Regional Planning Council. 6 March 2012. www.gflrpc.org

revising lakefront zoning, reviewing the Erosion, Sediment Control and Stormwater Management Law in the town of Caroline, as well as beginning to run workshops. Updating (or writing, if it doesn't already exist) a municipal comprehensive plan can be a very effective and inexpensive policy tool used in watershed management.

After the initial assessment and the recommendations were made, the Council wrote a manual of suggestions for local government regarding how to write laws that will reduce non-point source pollution. There were many workshops hosted in the region related to maintaining a healthy watershed. It is surprising how little emphasis was placed on intermunicipal cooperation during the process. Laws and regulation were very municipal-specific.

Each watershed management regime bears pros and cons regarding their effectiveness and relationship to Seneca Lake. Below is a chart summarizing these regimes in relation to their impact on the Seneca Lake watershed.

|                                        | SLPWA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FLLOWPA                   | GFLRPC                 |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------|
| Region                                 | Seneca Lake and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ontario Drainage Basin,   | Central New York,      |
| w yelphonologic                        | watershed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Central and Western New   | western Finger Lakes   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | York                      |                        |
| Members                                | Concerned citizens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25 counties and state     | 9 counties, 32 voting  |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | agencies (SWCD)           | members (locally       |
|                                        | TOTAL DESCRIPTION OF THE PROPERTY OF THE PROPE | managed by Water          | elected officials)     |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Resource Board            |                        |
| Power                                  | No regulatory power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Power through counties,   | Legal status as a      |
| ************************************** |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | no regulatory power       | council, non-          |
| ·<br>·<br>·                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | regulatory, con-taxing |
| Funding                                | Fees from inembers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NYS Environmental         | Federal and State      |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Protection Fund           | government grants      |
| Projects                               | Marcellus Shale Fracking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | County-based, lake and    | Canandaigua, Conesus,  |
|                                        | research, study on landfill                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | tributary specific.       | and Cayuga lakes       |
| depression of the second               | leachate, lake level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Spectrum of programs.     | watershed              |
|                                        | monitoring, LPG storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | management plans       |
| Pros                                   | Seneca Lake specific,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Information and resource  | Resources from State   |
|                                        | commitment to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | sharing over large rugion | government successful  |

|      | continuing research    |                        | mgmt plans              |
|------|------------------------|------------------------|-------------------------|
| Cons | Member-dependent       | Very large, not Seneca | Not watershed or        |
|      | funding base, no legal | Lake specific          | water resource-specific |
|      | power                  |                        |                         |

# Seeking Solutions Through Case Studies

Seneca Lake is not the only body of water that spans more than one county and touches more than one small town or big city. The entire state is scattered with examples of other lakes that have created policy incorporating watershed management which transcend town and county boundaries. Following are three examples of integrated watershed management from which policies and practices might be applied to the Seneca Lake watershed.

The Catskills: Ultimate Protection Plan or Sell Out?

The Catskills are mountain range in the southeasten part of the state. Located about 100 miles northwest of New York City, this area is the watershed which provides drinking water to the city, the home of about nine million citizens. New York City has relied on this source of water since the mid-1800s<sup>17</sup> and has taken many pains to protect it legally, financially, and environmentally. As New York City's population boomed, they moved deeper and deeper into the Catskills region, constructing more reservoirs and dams, while buying up towns and displacing citizens<sup>18</sup>. Moreover, the Environmental Protection Agency (EPA) awarded New York City a Filtration Avoidance Determination, which exempts the city from building a water filtration plant (based on the quality of the water) which is dependent on a strong watershed protection plan.

<sup>17 &</sup>quot;Watershed History". Catskills Watershed Corporation. March 2006. www.cwconline.org

<sup>18</sup> Ihid

Like the Seneca Lake watershed, the Catskills span five counties in the state: Delaware, Green, Schoharie, Sullivan, and Ulster. In order to preserve the quality of the drinking water coming from the area and to ensure equal distribution of the benefits and burdens of providing healthy water from the area, the Catskills Watershed Corporation was founded in 1997 through a legal agreement with the region, city and state.

The Catskills Watershed Corporations (CWC or the 'Corporation') is "an agreement that recognizes that in order to establish a working partnership between the city and the communities in the Catskills/Delaware Watershed, an independent, locally-based and administered, non-profit corporation needed to be established."<sup>19</sup> The board of the Corporation is made up of 12 members, representing each of the five counties proportional to population(within the counties there are 39 townships), one member representing New York City who is appointed by the mayor of the city, a representative of the State appointed by the governor, and a member of the environmental community, also appointed by the governor.

This board is charged with maintaining the intent of the 1997 agreement between the region in the city, which requires the city to fund 14 different projects in the watershed that will preserve their Filtration Avoidance Determination status. Some of the programs developed and implement by the Board include residential septic rehabilitation, economic development of the impacted communities, stormwater controls, wastewater management, salt storage improvements, and educational outreach to residents in the watershed.

The CWC has been an extremely successful in watershed protection because of the pressure to preserve the outsity of the watershed for the Filtration Avoidance

" Ibid.

<sup>19 &</sup>quot;Our Mississ". Catsleds Watershed Corposation. March 2006. www.cwconfine.org

Determination status and because the programs are funded by New York City. This model, though successful, might not be the right fit for the Seneca Lake watershed. Seneca Lake lacks the funding base that the CWC is able to procure. Additionally, the characteristics of the Catskills watershed are much different than those in Seneca Lake. Because of the number of established reservoirs and dams in the Catskills and size of the watershed, the two do not have the same kind of protection needs. Seneca Lake is influenced much more by agricultural run-off than the Catskills, but can still benefit from reviewing their septic system plans.

Skaneateles Lake Watershed: Small Scale Success

Closer to home Skaneateles Lake, which is three Finger Lakes east of Seneca Lake, produces unfiltered drinking water which it delivers to the city of Syracuse. Smaller than Seneca Lake, at 16 miles long and 413 billion gallons deep, Skaneateles provides 220,000 people with clean drinking water<sup>21</sup>. The lake is surrounded by three counties, Onondaga, Cayuga, and Cortland, and home to five towns, Skaneateles, Niles, Scott, Spafford, and Sempornius.

In 1969, the Skaneateles Lake Association Incorporated (SLA or 'the Association') was formed. Like the Catskills model, the Association is a nonprofit corporation, a member of the New York State Federation of Lake Associations<sup>22</sup> and a member of the Finger Lakes Regional Watershed Alliance<sup>23</sup>. The stated mission of the Association is "to take all action

<sup>21</sup> "Skaneateles Lake and the Watershed". Skaneateles Lake Association, Inc. www.skaneateleslake.org

<sup>&</sup>lt;sup>22</sup> The NYS Federation of Lake Associations is a statewide, volunteer based organization that serves as an umbrella group for local lake associations. Its mission is to protect the lake waters of the state by assisting existing efforts at the local level. This organization is supported by the NYS DEC.

<sup>&</sup>lt;sup>23</sup> The Finger Lakes Regional Watershed Alliance is a new organization (created in 2010) as a collective of watershed protection groups in the Finger Lakes. Its mission and purpose are "to bring together the members, expertise and desires of the Finger Lakes watershed associations to preserve and protect the watersheds of the Finger Lakes region with a collective regional voice."

necessary to protect and improve the water quality of the Skaneateles Lake and to protect and improve its watershed."24

The membership is one of the primary funding bases for the SLA, members include local residents, as wells as organization, companies, and municipalities. There is also a significant amount of support coming from the city of Syracuse because of their reliance on the watershed for drinking water. With their funding and support base, the Association focuses on several specific goals including: education and public awareness, protection of lake ecology though invasive species pulls, addressing non-point source pollution though a farm management plan, curbing truck traffic near the lake through zoning, and updating and implementing a master plan written in 1996.

Because this watershed closer resembles the Seneca Lake watershed, it serves as a better model for watershed organization than the Catskills model. Seneca Lake could mimic this model without a legally binding agreement issued from the state, like the Catskills have worked with. The SLA has a much more 'grassroots' support base and relevant protection projects. Conversely, the SLA is similar to the CWC because of the funding and pressure coming from a city outside of the watershed that relies on the drinking water. These outside influences play a large role in the creation and maintenance of the organizations.

Canandaigua Lake: Learning From Our Neighbors

The best policy approach might be just on the other side of the watershed, in Canandaigua Lake, the Finger Lake just west of Seneca Lake at the north. Our neighbors have a slightly different watershed land use demographic, but there are still many features that make this model viable. Within the Canandaigua Lake watershed, there are two

<sup>&</sup>lt;sup>24</sup> "Skaneateles Lake and the Watershed". Skaneateles Lake Association, Inc. www.skaneateleslake.org

counties (Yates and Ontario), home to nine towns, four villages and one small city. This is a much smaller population of local governments to manage than Seneca Lake would face. Although it is the 3<sup>rd</sup> largest Finger Lake, stretching 15.5miles long and holding 429 billion gallons of water, this is again a much smaller area than the Seneca Lake watershed holds. Another differentiating characteristic of the watershed is the land use. 46% of the land in the watershed is forested, while 27% is agriculture.<sup>25</sup> These numbers are essentially flipped to characterize the Seneca Lake watershed.

To manage the watershed, the municipalities convene under the Canandaigua Lake Watershed Council. The Council was founded with the mission of "maintain[ing] and enchanc[ing] the high quality water quality of the Canandaigua Lake through education, research, restoration and if necessary regulation. The Watershed Council strives to cooperate and partner with various citizen groups along with county, state and federal agencies to more effectively and efficiently implement the plan.<sup>26</sup>"

Most of the funding comes from the municipalities represented in the watershed, and funds are used for both site-specific and watershed-wide projects. One site-specific project is the Sucker Brook Comprehensive Protection Plan. Sucker Brook is a tributary which is known to deliver high levels of phosphorous, bacteria, and sediment. The council wrote a comprehensive plan for the tributary with recommendations to improve the its health. The recommendations were later developed into grants written to win both state and federal money.

75

<sup>&</sup>lt;sup>25</sup> "What is a Watershed?" Canandaigua Lake Watershed Council. www.canandaigualake.org 25 Nov. 2005

<sup>&</sup>lt;sup>26</sup> "Mission of the Watershed Council." *Canandaigua Lake Watershed Council*. www.canandaigualake.org 25 Nov. 2005

Other broader programs include an agriculture environmental management program. 90% of the farmers (of all types of farms) participate in this program which subsidizes the cost of agricultural best management practices<sup>27</sup>. Another example are watershed-wide capital improvement projects such as improving sewer lines, curbing road bank erosion, and ecological restoration.

Because of the local source and overall scale of funding, the Canandaigua Lake Watershed Council and its projects, are comparable to what could be done in the Seneca Lake watershed.

## Conclusion and Policy Recommendations

After reviewing these three watershed management case studies comparisons can be drawn, and recommendations can be suggested from the existing frameworks. Below is a summary of the case studies.

|                                                             | Skaneateles                                                                                                       | Canandaigua                                                                                                                                                         | Catskills                                                                                                                                                   |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Organization                                                | Incorporated<br>Association                                                                                       | Council of towns, villages, and city                                                                                                                                | Corporation created from agreement between region, city, and state                                                                                          |
| Programs                                                    | Emphasis on lake<br>ecology protection,<br>1996 comprehensive<br>'Master Plan', projects<br>to curb truck traffic | Sucker Brook<br>comprehensive protection<br>plan, Agricultural<br>Environmental Management<br>program, Capital Investment<br>Projects, Septic system<br>inspections | Stormwater management, sand and salt storage solutions, septic system remediation, public education, economic development, tax consulting, land acquisition |
| Funding                                                     | Membership and support from Syracuse, grants from NYS                                                             | Member counties and municipalities, some grants from state                                                                                                          | New York City, some grants<br>from state                                                                                                                    |
| Pros (in relation<br>to the application<br>for Seneca Lake) | Well organized<br>strategies and<br>comprehensive plans                                                           | Similar characteristics of<br>Seneca Lake watershed,<br>similar community qualities,<br>could have similar funding                                                  | Well established model of governance and programs                                                                                                           |
| Cons (in relation<br>to the application<br>for Seneca Lake) | Different<br>characteristics and<br>quality of lake                                                               | Scale: Smaller area, only<br>working with two counties<br>and 14 towns/villages. No<br>legal authority?                                                             | Different characteristics of watershed, funding source not relevant                                                                                         |

<sup>&</sup>lt;sup>27</sup> "Projects." Canandaigua Lake Watershed Council. www.cananóaigualake.org 25 Nov. 2005

16

Ultimately, we have to ask ourselves "what do we want from Seneca Lake?" A comprehensive, integrated watershed management plan can only be successful if the goals and objectives are clear. In the cases of the Skaneateles and Catskills watersheds, the goal of unfiltered drinking water is very clear and objective. It is easy to monitor successes and failures based on this bench mark.

From a combined effort of the organizations already existing in the watershed and the structure of a watershed council, Seneca Lake would benefit from more structure and uniform municipal efforts. The goals and mission of the Seneca Lake Pure Waters Association could be easily supported by the structure and funding of the Canandaigua Lake Watershed Council. Regardless of the model Seneca Lake could chose to mimic, the entire watershed would benefit from improved policy making strategies which incorporate the municipalities of the entire watershed.

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