

Greenwood Lake Commission
Progress Report
2000 - 2006



Prepared for

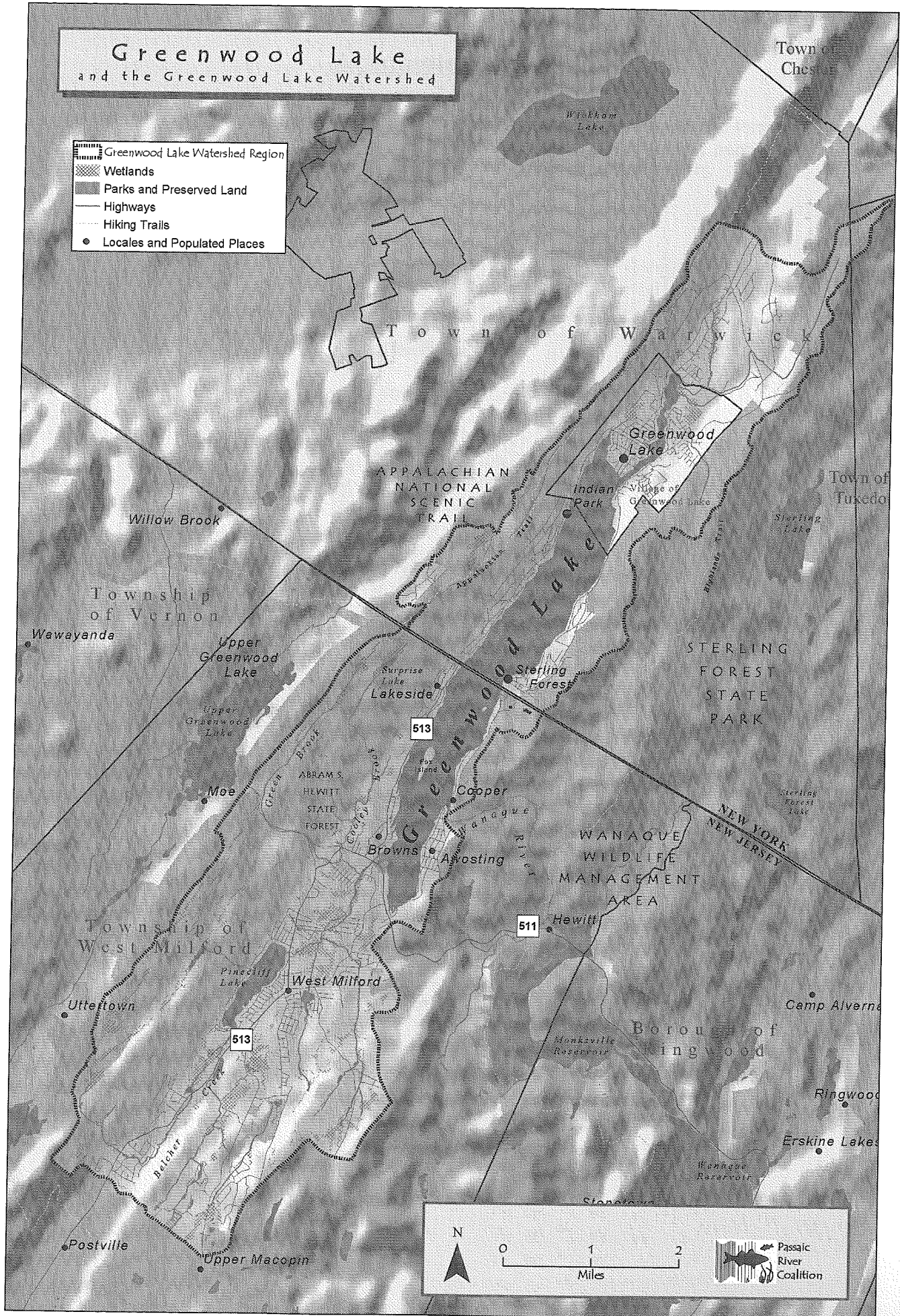
**Governor Jon S. Corzine
and the
New Jersey State Legislature**

**Governor George E. Pataki
and the
New York State Legislature**

August, 2006

Greenwood Lake and the Greenwood Lake Watershed

- Greenwood Lake Watershed Region
- Wetlands
- Parks and Preserved Land
- Highways
- Hiking Trails
- Locales and Populated Places



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Passaic River Coalition

Acknowledgments

The outstanding contributions of the Greenwood Lake Commission and the Passaic River Coalition towards this project are gratefully acknowledged. The following people provided support and information in compiling this progress report.

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The Greenwood Lake Commission was formed in 2001 for the express purpose of improving the water quality of this beautiful bi-state lake. Years of sediment build-up, nutrient loading, and weed growth have impaired this once pristine lake leading to significant decrease of both environmental and economic value of this major regional resource. From its outset, the Commission has been actively involved in addressing years of degradation by assisting local municipalities in obtaining 319 (h) grants to evaluate and remediate storm water pollution, by holding monthly public forums to inform and educate local residents, and by responding to environmental, quality of life, and safety issues raised by concerned citizens.

The Greenwood Lake Commission has been a key participant in the development of the TMDL that cites phosphorus as the limiting pollutant. We have been actively involved in weed harvesting, and are actively pursuing funding for dredging and stump removal. The sediment and uncontrolled plant growth create anoxic zones harmful to the ecosystem and present navigation hazards to boaters and swimmers. The Commission is by all measures a valuable institution with a noble mission.

Incredibly, the Commission functions without an operating budget. All of the Commissioners volunteer their services. We meet using borrowed space. Meeting notes are written by one of the Commissioners or another volunteer. There have been numerous occasions when a Commissioner has paid for expenses out of his or her pocket. We have no funds for supplies or services. Other commissions established by the Legislatures are given a line item each year for their most basic needs. Please note that this comprehensive report was undertaken through the courtesy of one of our Commission member's not-for-profit organization, and we are extremely grateful to the Passaic River Coalition for undertaking the compilation of this report to the Legislatures of New Jersey and New York. We implore the States of New Jersey and New York to advocate for the Greenwood Lake Commission and provide start-up and annual funding so that we may continue to function and achieve our goals of environmental excellence.

Very truly yours,


Steve DeFeo
New York Chair


Ella F. Filippone
New Jersey Chair

August 31, 2006

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Document 3 - S4103B/A5972B and S1121: Boat/Dock Fee Legislation in
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Document 4 - A329/S2171: Legislation for Dredging in New Jersey

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1. Greenwood Lake

1.1 History of Greenwood Lake

Greenwood Lake is located in Passaic County, New Jersey and Orange County, New York. The lake is highly valued as an ecological and recreational resource for both New Jersey and New York. Greenwood Lake, known as "Quampium" at the time, was purchased by the Europeans from the Minsis subtribe of the Lenni-Lenape Indians in 1707 and renamed "Long Pond". In 1765, a small dam was constructed to utilize the water power to run local iron mills. The lake was extended again in 1836 by the creation of the dam located at Ringwood State Park which raised the water level 12 feet. The dam was built to supply water to the Morris and Essex Canal. These canals were traveled on by Pennsylvania coal barges, giving the lake a key role in the progress and development of the East Coast. This expansion of Greenwood Lake also attracted tourists to the area; however, the tourism rates dropped post-World War II and seasonal housing soon became permanent (*Clean Lake Study, 1989*).

1.2 Physical Description of the Lake

Greenwood Lake is one of the largest lakes in the Highlands. Greenwood Lake, approximately 9 miles long, measures 1,884 acres in surface area, 4.04×10^7 cubic meters volume, 5.2 meters deep (on average), and has a maximum depth of 17.4 meters (*Total Maximum Daily Load, 2004*). Greenwood Lake is located on the border of New Jersey and New York, extending northward to the Town of Warwick and the Village of Greenwood Lake, Orange County, New York and south to the Township of West Milford, Passaic County, New Jersey. The North and South basins are very different in terms of depth and bottom contours. The northern or New York section of the lake is deep, with a maximum depth of 18 meters and has steeply sloped banks. In contrast, the southern or New Jersey section is shallow, with a maximum depth of 3 meters, with gradually sloping banks (*Total Maximum Daily Load, 2004*).

The surrounding area is 16,036 acres, including 22 miles of shoreline. The two major characteristics of the watershed are undeveloped forests (78%) and residential (14%). There is only a minor amount of commercial or industrial use in the watershed area (*Total Maximum Daily Load, 2004*). However, if more development does occur, it could affect the quality of Greenwood Lake and may be another contributor of pollution.

Several streams flow into the lake, which makes monitoring the adjacent water bodies a significant resource in understanding water quality in Greenwood Lake itself. Belchers Creek is the major tributary to Greenwood Lake. Discharge from the lake is to the Wanaque River, a tributary of the Passaic River, and a source of drinking water. Annual tributary inflow to the lake totals $1.8 \times 10^7 \text{ m}^3 \text{ yr}^{-1}$, while total outflow is $4.04 \times 10^7 \text{ m}^3$. Greenwood Lake's watershed encompasses a total area of approximately 16,036 acres, exclusive of the lake's surface area. The eastern and western boundaries of the watershed are defined by steep mountain ridges which parallel the lake's shoreline. Several small lakes are located within the watershed including Pinecliff Lake, Reflection Lake, West Milford Lake, and Capri Lake. These small lakes serve as headwaters to Belchers Creek (*Total Maximum Daily Load, 2004*) (see Figure 1 and 2 in the Appendix for pictures of Greenwood Lake and Belchers Creek).

1.3 Recreational and Economic Value

Since the mid 19th century, Greenwood Lake has been the site of recreational use primarily because of its close proximity, historical usage and abundance of non-developed land (*Clean Lake Study, 1989*). The most significant industry for the Greenwood Lake area is recreation and tourism. According to the Clean Lake Study (1989), the most popular uses of the lake

are for boating, swimming, and water skiing, typically on the weekends between April and October. However, residents and tourists enjoy hiking, dining at local restaurants and relaxing at beaches during the summer months as well. During the winter, visitors enjoy ice fishing, ice boating, and snowmobiling in the area. In addition, the waters just below the dam are stocked with trout and used by fishermen. The land surrounding the lake is home to over 60,000 people with thousands more within a short distance. New York City and Paterson are about 40 miles away from the lake. Visitors from both of these cities travel to Greenwood Lake to enjoy the natural beauty that the Highlands has to offer. The potential for the Greenwood Lake tourism industry is much greater than its current use. However, there are a number of environmental problems that are currently preventing the Greenwood Lake area from reaching its full economic and ecological potential.

1.4 Highlands Water Protection and Planning Act

The Highlands Region is a vital source of drinking water for more than half of New Jersey's families, yielding approximately 379 million gallons of water daily. In addition to water resources, the Highlands Region contains exceptional natural resources such as contiguous forest lands, wetlands, pristine watersheds and plant and wildlife species habitats. The region contains many sites of historic significance and provides abundant recreational opportunities (*New Jersey Department of Environmental Protection*).

The Highlands Water Protection and Planning Act, N.J.S.A. 13:20-1 et seq., protects drinking water for over 5.4 million people and helps preserve New Jersey's dwindling open space. The Highlands Water Protection and Planning Act is a law signed in August 2004 that preserves open space and protect the state's great diversity of natural resources including the precious water resources that supply drinking water to more than half of New Jersey's families. The Highlands Act documents the geographical boundary of the Highlands Region and establishes the Highlands Preservation Area and the Highlands Planning Area. It required the Department of Environmental Protection to establish regulations for the Highlands Preservation Area and to create a Highlands Water Protection and Planning Council to develop a regional master plan for the entire Highlands Region (*New Jersey Department of Environmental Protection*).

Of the over 800,000 acres that make up New Jersey's Highlands Region, the Highlands Act designates approximately 398,000 acres of exceptional natural resource value as the Highlands Preservation Area. Greenwood Lake and its watershed are within this significant area. Approximately 145,000 acres within the Highlands Preservation Area are undeveloped. All of the land in the Highlands Region that is not in the Highlands Preservation Area lies within the Highlands Planning Area. The Highlands Preservation boundaries can be found in Map 1 in the Appendix (*New Jersey Department of Environmental Protection*).

1.5 Environmental Problems

Between 1900 and 1970, the New York side of the Greenwood Lake watershed was mainly comprised of weekend homes. However, after 1970 the weekend homes in New York became permanent housing. During 1900 – 1970 in New Jersey, there was a much higher number of year-round residents living in the watershed. Currently, on the New Jersey side, there is a lot of high density housing. The characteristics of residential use of the watershed have changed in both States, and Greenwood Lake has seen a tremendous growth in population over the years, mainly because of the aesthetic and recreational values of the lake. In addition, while there are few developable lots available in the New York portion of the watershed, there is still developable land existing on the New Jersey side. The increase in population size has already shown to have effects on Greenwood Lake (in terms of water quality and quantity), and these effects could worsen with future development.

Many of the environmental problems have negatively impacted recreational, economic and aesthetic attraction to the lake. In addition, as identified by the Highlands Act, Greenwood Lake serves as the headwaters to the Monksville and Wanaque Reservoirs, a water supply for many New Jersey families. In fact, 3.5 million people are supplied water from sources directly linked to Greenwood Lake. Therefore, not only are environmental problems affecting recreation, economics, and aesthetics, but these problems can affect human health. Because of the significant contribution to drinking water, it is crucial that Greenwood Lake's water quality is the highest quality possible. Environmentally conscious recreational, residential, and commercial use of the area will be necessary to ensure that the lake remains a usable resource. As noted in the Clean Lake Study (funded by the U.S. Environmental Protection Agency and produced in 1989),

"It has been recognized that commercial recreation is the most promising business for the Greenwood Lake Watershed. In order to promote such commerce, it is necessary to incorporate stringent water quality guidelines and develop a sound management plan for the lake. Presently, Greenwood Lake is subject to dense growths of aquatic weeds and blue-green algal blooms, both of which affect boating and swimming activities and the aesthetic qualities of the lake. Both problems are symptoms of accelerated eutrophication, and indicate the need for the implementation of sound lake management techniques. Such action is necessary if the area's strong recreational-oriented economic base is to be maintained."

The Clean Lake Study also declared that Greenwood Lake, as the center of economic activity for the area, will determine the present and future economy for the area. Therefore, the restoration of Greenwood Lake is vital and must be addressed. The first step towards addressing the condition of the Lake is understanding its problems and identifying the sources.

Until the formation of the Greenwood Lake Commission, the only environmental understanding of the problems associated with Greenwood Lake was based on the Phase I Diagnostic Feasibility Study and Clean Lake Study. The Phase I Study (1983) contained Restoration and Management Plans that called for:

- Upgrade the Birch Hill Sewage Treatment Plant (STP), prohibit any new discharges to the lake, and closely monitor the four (there were four STPs in 1983; there are now 10 total STPs, public and private, that discharge into Belchers Creek) existing sewage treatment plants within the lake's watershed
- Develop a septic management district to monitor the operation of existing on-site wastewater disposal systems, and increase the design specifications of new systems located within 200 meters of the lake's shoreline
- Develop a comprehensive stormwater quality management plan which emphasizes passive treatment of the first flush of stormwater runoff
- Stabilize the Belchers Creek corridor and its tributaries to decrease erosion and transport of soil into the lake
- Develop a site plan review committee to review all proposed development within the lake's watershed, and to cooperate with local regulatory bodies to ensure that future lake use practices do not exasperate eutrophication of the lake
- Periodically draw-down the lake as a means of macrophyte control
- Conduct an intensive weed harvesting program
- Desnag and dredge specific 'spot' locations
- Control the internal regeneration of phosphorus through the application of alum or the installation of an aeration unit
- Implement a public education and involvement program

However, very few of these important recommendations from the 1983 study have been implemented. Although it was an essential recommendation, the Birch Hill Sewage Treatment Plant has continued to discharge into the lake, and monitoring of the Sewage Treatment Plants is still limited to this day. As will be discussed in subsequent sections, many of these recommendations coexist with the goals of the Greenwood Lake Commission. However, the Commission is currently unable to carry out these necessary steps either financially or because of the lack of authority.

As referred to before, the Clean Lake Study, conducted by the Army Corps of Engineers, identified two main environmental problems, stumps and weeds, and the sources of these problems. The study also included recommendations for restoring the condition of the lake.

The first major environmental problem for Greenwood Lake, identified by the Army Corps of Engineers, is the existence of stumps. When Greenwood Lake was dammed and expanded on the New Jersey end, the trees were left to decay. However, the stumps still remain in the lake and cause damage to boaters, as well as posing a danger to swimmers. The Clean Lake Study included information gathered from marina owners regarding boat damage caused by stumps. It noted that tree stumps in Greenwood Lake are floating and submerged objects that cause collisions with resident boat owners and boaters who dock and use the lake periodically. Approximately 500 boating accidents were said to be caused by stumps in just one year. On average, \$131,250 is spent annually on repairing boats damaged by stumps. In addition, the Study claims that the removal of the stumps would increase the space accessible to boaters by 10 acres. Recreational benefits were also calculated in the report, and it was estimated that approximately \$39,600 in 1980, (the benefits are estimated to be much higher in today's economy) in boating recreational benefits would be recovered if the stumps were removed (based on how many boats can use the lake, etc.) (*Clean Lake Study, 1989*). In addition, not only would boaters and swimmers benefit, but the removal of stumps would increase the water capacity of the lake.

The second major problem for Greenwood Lake, as noted in the Clean Lake Study and later in the Total Maximum Daily Load (TMDL) report, is the excess of aquatic growth and the trophic state of the lake. In addition to stumps, the weeds in the lake are also causing damage for boaters and swimmers. The lake's eutrophic condition means that it is beginning to fill from increased vegetation and sedimentation, is becoming a swamp, and if left untreated, will eventually become a forest. The eutrophication is primarily caused by over fertilization of the lake. There are numerous sources for the excessive amounts of nutrients (primarily phosphorus), including point and non-point sources. As identified in the Clean Lake Study, some potential contributors to the disproportionate total phosphorus (TP) levels are Penaluna landfill, West Milford landfill, malfunctioning septic systems, the Village of Greenwood Lake, underground fuel storage tanks, road salts and runoff. It was also noted that high nutrient levels can also be caused by heavy rain because of the runoff and overflow from the Sewage Treatment Plants (STPs), and an increase in population (*Clean Lake Study citation, 1989*). Other sources of phosphorus, noted in the TMDL, will be discussed in later sections.

To alleviate the weed problem in Greenwood Lake, the Army Corps of Engineers recommended that a collaboration of short-term and long-term restoration tactics be utilized to remove weeds that currently exist, and also prevent new weeds from growing. Methods recommended in the Clean Lake Study include: dredging, draw downs, septic management, weed harvesting, street sweeping, wetland expansion, creation of detention basins, sewerage, introducing carp, and educational programs. However, very few of these crucial recommended actions were initiated to restore Greenwood Lake or Belchers Creek in the years between when the study was conducted and when the Greenwood Lake Commission was established in 2001. As will be explained in subsequent sections of this report, the Greenwood Lake Commission has taken steps towards addressing these

recommendations and will complete as many as are feasible should adequate funding and authority be provided.

2. Greenwood Lake Commission

2.1 Establishment of the Commission

Both New York and New Jersey governments recognize the value of Greenwood Lake, in both economic and ecological terms. The two legislatures jointly concluded that there was a need for a commission to address the problems in and around Greenwood Lake. A bi-state Greenwood Lake Commission was then formed by the legislatures to deal with the environmental issues in Greenwood Lake. New Jersey adopted the bill to create the Greenwood Lake Commission (N.J.S.A. S1788:1R); P.L. 1999 c.402) in January of 2000. The companion bill (A00294 S416-A) was adopted by New York in January of 2001. Details of the bills can be found in Document 1 in the Appendix. The bills stated that the Greenwood Lake Commission, under the Greenwood Lake Protection Act, would serve as "a bi-state cooperative effort to help ensure that the natural, scenic, and recreational resources of Greenwood Lake and its watershed are protected from despoliation due to environmental and other threats from both sides of the border, so that the pristine beauty of the area will be preserved and maintained for the enjoyment and recreation of present and future generations...". As stated in the enabling legislation, Greenwood Lake is vital to the recreation and economy of the Highlands region of northern New Jersey and southern New York, along with providing water supply to millions of northern New Jersey residents. However, the initial legislation does not provide funds or authority to carry out this important mission.

2.2 Commissioners and their Respective Terms

The Commission is comprised of 11 voting members, including one representative from Passaic County, New Jersey; two representatives from the Township of West Milford, New Jersey; the Commissioner of the New Jersey Department of Environmental Protection or a designee; one, from Orange County, New York; one, from the Village of Greenwood Lake, New York; one, from the Town of Warwick, New York; the Commissioner of the New York Department of Environmental Conservation or a designee; one representative from the Greenwood Lake Watershed Management District, a citizen advisory committee that has been active for more than 20 years; and one from each state, representing their respective Governors.

The diverse mix of Commissioners, each equipped with a unique perspective, continue to work collaboratively to accomplish their endeavors. Over the years, a wide range of people have contributed to the Commission. Table 1 in the Appendix shows the past and current Commissioners, who they represented, and the term that they served.

The current Commissioners are all volunteers who meet monthly at various borrowed public meeting rooms. There is no current secretary for the Commission, nor is there a central location to store equipment, files, paperwork, and additional materials, or to meet, take calls and inquires from the public, and so on. As will be addressed in subsequent sections, the lack of funding and stabilization of the Commission is putting a serious damper on their ability to carry out the difficult task of restoring Greenwood Lake and preserving its economic and ecological significance.

2.3 Goals

The Commission was given the following tasks when established:

1. Assess present and projected development, land use, and land management practices and patterns; Identify actual and potential environmental threats and problems around Greenwood Lake and within its watershed; Determine the effect of

- those practices and patterns, threats, and problems upon the natural, scenic, and recreational resources of Greenwood Lake and its watershed
2. Develop recommended regulations, procedures, policies, planning strategies, and model ordinances and resolutions pertaining to the protection, preservation, maintenance, management, and enhancement of Greenwood Lake and its watershed, which would be implemented as appropriate
 3. Undertake research and monitoring of the natural resources of Greenwood Lake and its watershed to meet the standards established by the States of New York and New Jersey and the federal government
 4. Coordinate environmental cleanup, maintenance, and protection efforts undertaken for the benefit of Greenwood Lakes and its watershed
 5. Create and support a program to eliminate detriments to the diversified uses of Greenwood Lake
 6. Coordinate with the Department of Environmental Protection's watershed management program for the area that includes Greenwood Lake
 7. Formulate a financial program to make the Commission self-sustaining
 8. Recommend appropriate state legislation and administrative action pertaining to the protection, preservation, maintenance, management, and enhancement of Greenwood Lake and its watershed
 9. Advocate, and where appropriate, act as a coordinating, distributing, or recipient agency for federal, state, or private funding of environmental cleanup, maintenance and protection projects for Greenwood Lake and its watershed and which projects may include the work of the Commission
 10. Take such other action as may be appropriate or necessary to further the purpose of the enabling legislation referred to in Article II

3. Action in Greenwood Lake: Commission Accomplishments and Future Initiatives for Greenwood Lake Restoration

As stewards of Greenwood Lake, the Greenwood Lake Commission has a complicated task that requires in-depth research, well developed plans, implementation of a variety of supplemental restoration tactics, as well as enforcement and future monitoring to ensure efficiency. While pursuing these strategies, the Commission strives to team up with other organizations, government bodies, and the public to ensure that all stakeholders contribute and benefit.

The Commission has accomplished a great deal of research, plan development, and implementation of both short-term and long-term restoration tactics. While much has been achieved, there still remain crucial steps necessary to restore and protect the lake. Below is an explanation of the Commission's accomplishments in Greenwood Lake as well as strategies that the Commission deems necessary and will pursue when authority and funding permit.

3.1 Research

To effectively restore Greenwood Lake, it is first necessary to understand the problems and condition of the lake. Until the Total Maximum Daily Load report was initiated in 2004, the last formal understanding of the lake was from the Clean Lake Study in 1989. The Greenwood Lake Commission, with funding from various grants, has since been involved in the development of various reports and is pursuing the funding for more studies and implementation of recommendations in the near future.

3.1.1 319 (H) Grant

In 1987, Congress amended the Federal Clean Water Act to establish the Section 319 (h) Non-point Source Management Program that authorizes the U.S. Environmental Protection Agency to grant money to states, territories and Indian tribes to address non-point source pollution. Section 319 (h) Grant funds are used to implement programs and projects designed to reduce non-point source pollution.

New Jersey - In 2004, West Milford Township and the Greenwood Lake Commission were awarded the 319 (h) Grant by the NJDEP in the sum of \$152,330 for "Lake Characterization and Restoration Plan for Greenwood Lake", with the following goals:

- Identify stormwater/surface runoff hot spots in need of restoration and/or protection
- Develop the stormwater component of the Lake Characterization and Restoration Plan
- Install a series of Best Management Practices (BMP) and retrofits in West Milford
- Conduct BMP monitoring in order to assess BMP/retrofit performance. BMP monitoring would analyze Total Phosphorus, Total Nitrogen, and Total Suspended Solids before and after BMP/retrofit installation

The budget for the funding from the 319 (h) Grant is as follows:

- \$40,000 to create a Stormwater Implementation Plan
- \$61,000 for retrofitting storm drains on the New Jersey side
- \$51,000 for monitoring and data gathering in preparation for the development of a Total Maximum Daily Load for the lake

New York - In 2005, the Village of Greenwood Lake, the Town of Warwick and the Greenwood Lake Commission were awarded the 319 (h) Grant by the New York Department of Environmental Conservation in the sum of \$64,550, with similar goals as New Jersey's Restoration Plan. The New York 319 (h) Grant is funding stormwater monitoring (collection done by trained volunteers), the development of a Stormwater Implementation Plan, and installation of retrofits along the New York portion of Greenwood Lake. The grant also funds monitoring of the effectiveness of the retrofits and the assessment of pollutant/nutrient removal.

3.1.2 Total Maximum Daily Load

A Total Maximum Daily Load (TMDL) was initiated on June 7th 2004 by the New Jersey Department of Environmental Protection as an amendment to address Total Phosphorus (TP) in Greenwood Lake (as part of the 319 (h) Grant). The State of New Jersey's 2002 Integrated List of Waterbodies identified Greenwood Lake in the Northeast Water Region as being eutrophic. The report created by the New Jersey Department of Environmental Protection designates one total maximum daily load for Total Phosphorus to address the eutrophication problems in Greenwood Lake.

The goal of the TMDL was to act as a foundation for creating a feasible plan to slow the eutrophication process and reach specific surface water quality standards. The TMDL itself shows the necessary TP level to restore Greenwood Lake, and the amount of TP reductions necessary for each source to reach this pre-determined level. In the TMDL report, all of the contributors (and the percent which they contribute) to the Total Phosphorus were identified, including:

1. Internal loading (release of P sediments, happens in eutrophic lakes): 43%
2. Septic Tank: 17%
3. Low Intensity Residential: 10%
4. High Intensity Residential: 7%
5. Commercial/Industrial/Transport: 7%
6. Mixed Forest: 5%
7. Deciduous Forest: 4%
8. Point Source: 2%
9. Pasture/Hay: 1%
10. Row Crops: 1%
11. Urban/Recreational Grasses: 1%
12. Evergreen Forests: 1%
13. Air Deposition: 1%
14. Woody Wetlands: 0.3%
15. Emergent Herbaceous Wetlands: 0.3%
16. Open Water: 0.2%

Thirty-seven percent overall reductions are needed to meet a target concentration of 0.030 mg/L of phosphorus for the lake. Forty-three percent reductions for Septic Tank Systems, Internal Loading, Low Intensity Residential, High Intensity Residential, Commercial/Industrial/Transportation, Pasture/Hay, Row Crops, Urban/Recreational Grasses will be necessary. A list of annual loads and the necessary reductions of each contributing factor can be found in Table 2 in the Appendix.

The aquatic growth found in Greenwood Lake includes *Lyngbya latissima*, *Potamogeton robbinsii*, *Myriophyllum spicatum*, *Cabomba caroliniana* and *Potamogeton amplifolius*, which are all invasive species. As stated in the TMDL report, this growth is primarily due to the elevated levels of TP. Phosphorus is contributed to the environment from a number of sources including fertilizer application on agricultural lands, fertilizer application on lawns,

discharge from sewage treatment plants, failing or improperly functioning septic systems, lack of pump-out facilities for boats, adherence to sediment particles and the natural process of decomposition.

All possible phosphorus sources were then characterized on an annual scale, including runoff from the land surface, point sources, septic tank systems and internal loading from the lake sediment. According to the study, runoff from land surfaces and internal loading from the lake sediment are the most significant sources of phosphorus for the lake. An empirical model was used to relate annual phosphorus load and steady-state in-lake concentration of total phosphorus. To achieve the TMDL, overall load reductions were calculated for different source categories.

In addition, stormwater runoff "hot spots" that would benefit from Best Management Practices (BMPs) were identified and prioritized. The efficiency of implemented BMPs will be monitored after installation. Other implementation measures include education programs that teach BMPs on lawn care, municipal ordinances to deal with phosphorus, remediation of septic systems, upgrading wastewater treatment facilities, and projects to reduce the internal loading from the sediment. The Department of Environmental Protection believes that these steps will result in attainment of New Jersey's Surface Water Quality Standards for phosphorus (*TMDL citation*). In recent months, questions have been raised about Sewage Treatment Plant contributions to the total phosphorus level. The Greenwood Lake Commission is looking into this further.

3.1.3 Lake Characterization

Under the 319 (h) Grant, a Lake Characterization is needed for Greenwood Lake. The Lake Characterization will give a detailed description of the ecology of the lake. By understanding the ecology in various parts of the lake, the Commission will then be able to treat each area differently, according to its specific plant life and fish populations. This in-depth understanding of the problem will allow the Commission to act more efficiently in using biological management techniques.

Princeton Hydro LLC, in collaboration with the Greenwood Lake Commission, New Jersey Department of Environmental Protection, and Township of West Milford, has submitted a proposal, "Proposed Scope of Work to Develop a Lake Characterization Plan for Greenwood Lake, West Milford Township, Passaic County, New Jersey – Warwick Township and Village of Greenwood Lake, Orange County, New York", to New Jersey EcoComplex of Rutgers, The State University of New Jersey, for \$53,500 to collect supplemental data in order to complete a Lake Characterization Plan for Greenwood Lake. The objectives of the project are to: conduct a two-day monitoring study in the summer of 2007, conduct a detailed fishery survey of the New Jersey end of Greenwood Lake during the spring / early summer of 2007, conduct a detailed aquatic macrophyte survey of the New Jersey end of Greenwood Lake during the mid-summer of 2007, and create a document to serve as a supplement to the Lake Characterization Plan data being collected as part of the existing Non-point Source 319 grant.

3.1.4 Water Quality Monitoring

In June of 2006, with assistance from Senator Frank Lautenberg, Senator Robert Menendez and Congressman Scott Garrett, the Greenwood Lake Commission was awarded a Special Purpose Grant of \$295,600 from the U.S. Environmental Protection Agency (see Figure 3 in the Appendix for a picture of Congressman Scott Garrett and Congresswoman Sue Kelly presenting the Commission the grant check). These funds will go towards synthesizing all studies done to date into one document, analyze what else must be done so that a full list and schedule for implementation is established, and for researching and monitoring the

lake's water quality should gaps in data exist. In addition, some of the funds will be used to design an engineering plan for dredging of the southern portion of Greenwood Lake.

Water quality monitoring in Belchers Creek (near the outflow to Greenwood Lake) was recommended by the United States Geological Survey (USGS). The Greenwood Lake Commission will pursue this project as well as a collaborative study with the USGS. A comprehensive water quality monitoring program in the lake will assist continual efforts to meet water quality standards and maintain these standards.

New Jersey - In 2004, the Township of West Milford directed the Township Health Department to test Belchers Creek for contamination. The Environmental Commission then applied for and received the 2005 Environmental Services Program grant for fecal coliform testing in Belchers Creek. Nine sites on Belchers Creek between Pinecliff Lake and Greenwood Lake were tested twelve times over a period of three months in the summer of 2005. Nine new locations along tributaries feeding into Belchers Creek will be tested in the summer of 2006 with the remaining funds from the grant.

3.2 Develop a Plan

Once the research is complete, the next step is to develop a restoration plan. The Greenwood Lake Commission has developed a series of plans that address non-point and point source contributors of phosphorus, sediments, and other pollutants. As more research is conducted, or more funding is provided, there will be additional plans developed.

3.2.1 Stormwater Implementation Plan

Stormwater, which is a non-point source of pollution, can have a significant impact on the quality of water. The Greenwood Lake Commission has targeted stormwater in its efforts to reduce phosphorus in the lake.

New Jersey - On April 28th 2006, the Stormwater Implementation Plan for New Jersey was completed by Princeton Hydro under the 319 (h) Grant. This plan identified what actions were necessary to reduce the negative effects produced by storm water. The Implementation Plan includes the location of "hot spots" and the plan to install retrofits in two key locations that will reduce the flow of pollutants into Greenwood Lake. The completion of the retrofit plan is intended to occur later this year at other locations.

New York - As noted before, a similar Stormwater Implementation Plan is being developed for New York by Princeton Hydro under the 319 (h) Grant. Similar to the New Jersey Plan, the New York Stormwater Implementation Plan will locate "hot spots" of non-point source pollution in the stormwater system and then install retrofits into these "hot spot" areas. This plan is still in the process of being developed.

3.2.2 Wastewater Management Plan

New Jersey - In 2006, the Township of West Milford was awarded a 604 (b) Grant for the "Development of an Onsite Wastewater Treatment Systems (OWTS) Management Plan for the New Jersey End of the Greenwood Lake Watershed, Passaic County, New Jersey". This plan will take about two years to complete, and will begin in the summer of 2006. The Greenwood Lake Commission recommends that an updated wastewater management plan is also needed for the Township of West Milford.

3.2.3 Restoration Plan

Portions of the EPA grant of \$295,600, the Greenwood Lake Commission will develop a Restoration Plan for Greenwood Lake. This plan will include a variety of components for restoration, addressing the multiple sources of pollution, phosphorus, and sediments mentioned in the TMDL.

3.3 Implement Restoration Tactics with Short-Term Effects

Short-term restoration measures are strategies that remove the by-products of the problem, not the problem itself. If short-term measures are implemented by themselves, they will be ineffective since the problem will return. However, short-term measures are necessary as a supplement to long-term measures and also to ensure that the lake can be currently used for recreational activities. Residents and visitors who use the lake value the immediate restorative effects of short-term tactics.

3.3.1 Weed Harvesting

Weed harvesting is a procedure that cuts and removes nuisance plants, and can also improve the condition of a lake by removing an internal source of nutrients and slowing the buildup of organic sediments. According to the Clean Lake Study, harvesters may have some restorative value in lakes with dense infestations; however its effectiveness is short term, since re-growth can be very rapid. Since weeds are having serious negative effects on safety, health, and the recreational use of Greenwood Lake, the Commission has and continues to harvest in the lake during spring and summer months. This harvesting is only a short-term solution to the weed problem, but quite vital to the overall restoration project, and alleviates the weeds quickly so that the lake can be enjoyed during the peak season.

New Jersey - In 2005, \$200,000 was awarded to the Commission by the New Jersey Department of Environmental Protection for the purchase and operation of a weed harvester for New Jersey, as well as funds to maintain the two other, older harvesters (see Figure 4 in the Appendix for a picture of the purchased weed harvester). In addition, Passaic County and the Township of West Milford have provided funds in 2005 and 2006 for weed harvester maintenance. On average, the Greenwood Lake Commission harvests approximately 2,640 cubic yards of weeds from the lake each year. These weeds are loaded into trucks operated by the Township of West Milford and disposed of by the town as well. Since weed harvesting is the only current tactic being used to quickly remove the weeds, this activity is important to the local residents and visitors who use the lake during the summer. The Commission is committed to informing residents about when and where harvesting will occur, as well as responding to telephone and letter inquiries and concerns. However, one harvester is not sufficient for the excessive quantity of weeds in the southern portion of the lake. If harvesting is to be advantageous during the summer, more than one harvester is needed.

New York - The Greenwood Lake Commission has owned and operated a weed harvester for the past three years. On average, the Greenwood Lake Commission harvests approximately 1,272 cubic yards of weeds from the New York portion of the lake each year. The Greenwood Lake Watershed Management Committee was able to attain the harvester from funding provided by New York State. This harvester is currently being used in the Northeast arm of the Lake. During the initial years of the program, the harvester was run by volunteers from the Village, and is now run by the Village of Greenwood Lake Department of Public Works. The second, small harvester was donated to the Commission by the Lake Hopatcong Commission. The two New York harvesters owned by the Greenwood Lake Commission are both at least 20 years old. The age of the harvesters is clearly affecting their performance, and new harvesters will be needed in the upcoming year.

3.3.2 Drawdown

The purpose of a drawdown is to expose the sediments at the lake's bottom to drying and freezing for two to four weeks, permanently damaging some of the rooted plant species, and perhaps killing some of those plants. Lowering the surface water elevation of the lake also allows for the repair of docks, the installation of sediment covers to control plant growth, and enables the removal of sediment.

New Jersey - A drawdown was scheduled for the Lake in 2005. However, it was cancelled primarily due to a lack of finances, a lack of insurance, and in part, because of weather conditions. The Commission is working diligently to provide a five-foot drawdown beginning October 2nd, 2006 in accordance with the Water Level Management Plan for Greenwood Lake. Aside from the benefits listed above, this drawdown will also allow the Commission to remove the stumps in Greenwood Lake that are causing problems for boaters and swimmers.

New York - The Village of Greenwood Lake has performed work during drawdowns of Greenwood Lake in past years. The last drawdown used a local contractor to move the sediment along the shoreline in the Northeast arm and in an area in the East arm near the Waterstone Avenue Deck along Linden Avenue. The drawdown also occurred at the inlet to the West arm off Jersey Avenue.

3.3.3 Herbicides

The growth of weeds in Greenwood Lake during the summer of 2006 was found to be the worst in years. As mentioned previously, the weeds are having dire impacts on the economical, recreational, and ecological value of the lake. Recommendations to use herbicides to remove nuisance weeds have been brought to the Greenwood Lake Commission.

3.4 Implement Restoration Tactics with Long-Term Effects

Long-term restoration measures are strategies that will effect a measurable reduction in pollution by addressing the source and then remediating the problem. It is important to stress that a combination of short-term tactics (to remove the current problem) and long-term tactics (to prevent the problem from returning) should be utilized.

3.4.1 Stump Removal

As the Clean Lake Study highlights, stumps are a major problem in Greenwood Lake, causing many accidents, and lowering the value of the lake. The Greenwood Lake Commission will be removing stumps in the southern portion of Greenwood Lake in the fall of 2006 during the drawdown. The Commission has already submitted a proposal for the project, and no permit is necessary for the stump removal process. The agency hired by the Commission will remove the stumps with as little disturbance to the bottom of the lake as possible. An additional \$175,000 will be required to complete this project.

3.4.2 Dredging

The layers at the bottom of Greenwood Lake are full of algae stimulating nutrients within the lake sediments. By removing this highly enriched layer, there may be reduced in-lake nutrient concentrations, and therefore, less algal and weed growth. In addition, the more immediate effects of dredging include the removal of many invasive weeds and roots.

Dredging will also make the harvesters more effective, as well as increasing the water capacity of the lake, therefore helping the reservoirs downstream. The previously mentioned \$295,600 grant that the Commission was awarded will also, in part, go towards planning the dredging in Greenwood Lake.

New Jersey - The Greenwood Lake Commission is currently trying to obtain funding from the State of New Jersey for dredging of Greenwood Lake. Bill No. A329/S2171 calls for \$2.5 million from the General Fund to the Department of Environmental Protection to pay for the dredging of Greenwood Lake in Passaic County. According to the Phase I Diagnostic Feasibility Study in 1983, the removal of sediments is essential for the New Jersey portion of the lake.

New York - The Village of Greenwood Lake has received \$100,000 from Senator Thomas Morahan to dredge the Northeast arm of the Lake, not deemed wetlands. The New York Department of Environmental Conservation permitted the Village to make a channel from the 17A Bridge straight to the northern bank of the lake. However, \$100,000 could not cover the full cost of the project, so in July of 2005 when the funds were completely used, the project was forced to end unfinished. Dredging can be an effective means of removing nutrients that are built-up in the floor of the lake, removing muck that makes the lake less attractive and less usable, and also expanding the volume of the lake. While this process is expensive, adequate funding is needed to implement this crucial project.

3.4.3 Regulating Boats in Greenwood Lake

Some of the pollutants entering the lake can come from boats. These same pollutants or nutrients are causing over fertilization, and thus preventing the very same boats from using the lake. In order for the boats to use the lake in the most sustainable manner, the Greenwood Lake Commission recommends that boat regulation is necessary. The Passaic County Sheriff's Department has been patrolling Greenwood Lake for the past year, providing assistance to boaters. The Commission is recommending that the Sheriff's Department be given authority to regulate policies such as: no over-board discharge, no direct toilet discharge, no sink or cooler water to be discharged into the lake, allowing only cleaned boats before entering lake, and using pump-out stations. In addition, docks comprised of foam billet often break apart, are not generally cleaned up, and then float on the lake's surface. The Greenwood Lake Commission recommends that legislation is passed which will require docks comprised of foam billet to be covered by plastic.

3.4.4 Stormwater and Runoff Management

Stormwater is another non-point source of pollution and nutrients in Greenwood Lake. According to the TMDL, 43% reductions of phosphorus from stormwater need to occur in order to reach the target concentration of 0.030 mg/L. The Greenwood Lake Commission is working towards a number of strategies to reduce phosphorus in the stormwater through the 319 (h) grant. In addition, runoff can contribute to the sediments, nutrients, and pollution in Greenwood Lake. With the proper legislation and programs, runoff into Greenwood Lake could be managed so that pollution, sediments, and nutrients are reduced.

Greenwood Lake also has an abundance of geese in the watershed area. These geese are worsening the water quality and contributing to the eutrophication process. The Greenwood Lake Commission is looking into geese control methods to reduce this problem. chafe

New Jersey - As discussed earlier, under the current 319 (h) Grant, a Stormwater Implementation Plan was developed, and there are plans under development to install stormwater retrofits in the areas where the largest reduction of phosphorus would occur. In June 2006, the Greenwood Lake Commission, West Milford Township Environmental

Commission, the County of Passaic, and Princeton Hydro, LLC, submitted a proposal for \$929,800 under a 319 (SFY2007) Grant to fund the initiation of the Stormwater Implementation Project to reduce the phosphorus load entering Greenwood Lake in Passaic County, New Jersey. The objectives of this project are to: select sites for installation of Best Management Practices (retrofits), size and design the selected structural BMPs, develop bid specifications and select a contractor for the three Aqua-Filters and ten Vortech retrofits, and finally install the BMPs and on-site management. Seven months after the BMPs are installed, a Quality Assurance Protection Plan will be developed and submitted to the New Jersey Department of Environmental Protection. Twenty-four months after the installation, a stormwater monitoring program will then be conducted to ensure that the BMPs are effective. Finally, a two year in-lake water quality monitoring program will be established.

The West Milford Environmental Commission received grants in 2003 and 2004 for a stormwater infrastructure inventory. Through this grant, the Township was able to use a Geographic Information System to display all storm drain inlets and outfalls in West Milford.

The Passaic County Engineering Department provided the location of all storm sewers along county roads in the Greenwood Lake Watershed. In addition, Passaic County has made a commitment to maintain and clean out retrofits along county roads.

New York - The Town of Warwick received \$850,000 in federal grant funds to implement a bank stabilization plan that would move the existent East Shore Road and also install catch basins. By moving the road further from the lake, runoff into the lake will be reduced, thus reducing the amount of pollution and sediment that enters the lake. The catch basins will reduce the amount of sediment that is able to enter a waterway by capturing solids that enter stormwater inlets.

In the Village of Greenwood Lake, the streets are swept on a regular basis to prevent pollutants and lake irritants from going into the stormwater drains and flowing into Greenwood Lake. The Village also only permits phosphorus-free fertilizers to be used by residents. The Greenwood Lake Commission recommends the adoption of a phosphorus-free fertilizer ordinance in the remaining towns within the watershed is an important action for the reduction of non-point source contributions of phosphorus in Greenwood Lake. In addition, the Village cleans out their storm drains on a regular basis and has a stormwater management plan for all construction sites. These steps are recognized by the Greenwood Lake Commission as long-term tactics at reducing the amount of phosphorus and sediments that enter the lake. The Commission will work with other adjacent towns to implement similar endeavors.

Also, similar to the New Jersey Stormwater Implementation Plan, New York will install stormwater retrofits in areas where the largest reduction of phosphorus would occur. Funding for this initiative is being provided by the 319 (h) Grant from the New York Department of Environmental Conservation.

3.4.5 Wastewater Management

Wastewater often contains a high concentration of nutrients which, if they enter the lake, cause aquatic growth and algae blooms. Unfortunately, wastewater is another non-point source, so it is difficult to locate specific causes. The Greenwood Lake Commission will identify all wastewater contributors and (with adequate authority and funding) implement programs that will reduce the nutrients and pollution entering the lake in the form of wastewater.

3.4.5.1 Sewer Management

Sewage Treatment Plants can be a point source of pollution and nutrients. Point sources are often one of the easier contributors to fix, since they are more easily located. There are a total of ten private and public Sewage Treatment Plants (STPs) in the New Jersey portion of the Greenwood Lake watershed. Reductions in total phosphorus in Greenwood Lake have been identified as necessary by the Total Maximum Daily Report in order to slow the eutrophication process, and restore Greenwood Lake. To achieve these reductions, the Greenwood Lake Commission strongly recommends that the STPs that discharge into Belchers Creek (which then discharges into Greenwood Lake) to include removal of nitrogen and phosphorus in their processes. Removal of nitrogen and phosphorus from sewer water will also reduce the concentration of nutrients in Greenwood Lake, and thus reduce nuisance weeds in the long-run.

In addition, the Greenwood Lake Commission intends to monitor effluent of these plants when necessary and should be provided with the Daily Monthly Reports from the STPs on a regular monthly basis. The Greenwood Lake Commission recommends that any violations in the STPs found by the Commission be issued fines which would be collected and split by the Commission and the New Jersey Department of Environmental Protection. The Commission hopes to work jointly with the New Jersey Department of Environmental Protection to ensure that the STPs are functioning properly.

3.4.5.2 Septic Management

Septic systems are one of the non-point source polluters of Greenwood Lake. Septic Management has been identified in the TMDL as a necessary component to restore the ecological health of Greenwood Lake. As noted in the TMDL, 43% reduction in septic loading is necessary to achieve the target conditions of 0.03 mg/L phosphorus (*Total Maximum Daily Load, 2004*). The Greenwood Lake Commission recommends that the creation of septic management districts in all municipalities in the Greenwood Lake watershed is a necessary component of the non-point source reduction process.

New York - All septic systems in the Village of Greenwood Lake are required to be pumped out every three years and proof must be presented to the Building Department. The Greenwood Lake Commission recommends that the remaining towns within the watershed adopt similar ordinances in order to reduce the amount of non-point source pollution in Greenwood Lake.

In addition, Orange County Department of Soil and Conservation was awarded \$300,000 from the U.S. Environmental Protection Agency for a Septic Centralization Project. Out of the total funds, \$270,000 was put to use in the Village of Greenwood Lake. While the Greenwood Lake Commission was not fully involved in this project (due to financial constraints), the Commission did provide input to the Village of Greenwood Lake and Orange County.

3.4.6 Educational Programs

Educational programs play a significant role in restoration strategies. As mentioned earlier, there are tens of thousands of people who use Greenwood Lake, many of whom are residents living in the watershed. Many of the non-point sources of pollution and nutrients are human-based. With adequate educational programs, the Greenwood Lake Commission hopes to educate the community about water issues within the lake, and then be able to advise the public on what they can do to help restore and protect their lake. In addition to the following educational programs, the Greenwood Lake will continue to work closely with the public and initiate additional educational mailings and programs. While the Greenwood

Lake Commission feels that education is an important tactic to use in order to improve the water quality in Greenwood Lake, the Commission currently lacks the funding and professional assistance needed to initiate more educational programs.

In 2004, the Greenwood Lake Commission hosted a septic management workshop for all Commissioners, municipal and county officials, and interested public. The workshop provided information regarding functioning of septic systems, potential environmental constraints of septic systems in areas with high groundwater, or where the depth to bedrock is insufficient to provide adequate leaching, and alternative systems that may be utilized in such areas.

Also in 2004, the Greenwood Lake Commission and Passaic River Coalition produced and distributed a brochure on boat fueling, funded by a grant from the BoatU.S. Foundation. This brochure (which can be found in Figure 6 in the Appendix) provided tips on fueling procedures that are illegal and fuel spills, the effects of fuel spills on the water in Greenwood Lake, and specific actions that can be taken to prevent spills while fueling a boat.

New Jersey – The Township of West Milford Environmental Commission attends the Town's annual Autumn Lights festival and distributes materials to attendees on the impacts of our daily activities on stormwater quality and its effect on Greenwood Lake. In addition, viewers are able to download information on a variety of water issues on the West Milford website (www.westmilford.org).

New York - Signs were painted on the storm drains in the Village of Greenwood Lake to inform the public that what you put into the drain goes into the lake. In addition, the Village has a Lake Issues Committee that educates the public on issues relating to the lake, septic systems, and pollution. Lake Issues holds a monthly meeting, and has also prepared a Request For Proposal for dredging the waters surrounding the Village and has sent out requests for funding to all State and Federal representatives. Lake Issues also held a program in the Greenwood Lake School System on lake awareness.

3.5 Enforce Regulations and Analyze Effectiveness

If the effects of the restoration plans are to be maintained, it is imperative that regulations are enforced, and that the Greenwood Lake Commission has the authority to monitor water quality in the lake. Undertaking water monitoring will allow the Commission to analyze the effectiveness of past projects and also identify new areas of concern or discover breaches in regulations.

In order to maintain the effectiveness of the restoration project, the Greenwood Lake Commission must have the authority to issue citations and fines for violations of water quality regulations (which would be enforced by the Commission inspector, in cooperation with the New Jersey Department of Environmental Protection and the New York Department of Environmental Conservation). This authority should be provided by legislation which gives authority to the Greenwood Lake Commission to enforce state and federal laws within the watershed. Furthermore, the Greenwood Lake Commission should be granted authority to pass regulations regarding use of the lake, such as mandatory boat cleaning before entering the lake. These actions will give the Commission the ability to protect Greenwood Lake and ensure that a responsible use of the lake is maintained, which will thus reduce the need for restoration in the future. Without authority to regulate activities and uses of the lake, the restoration actions initiated by the Greenwood Lake Commission will be undermined and may even be reversed.

4. Progress within the Commission

4.1 Development of the Commission

On May 21st 2003, by-laws were approved and made official by the Greenwood Lake Commission. The Greenwood Lake Commission by-laws can be found in Document 2 in the Appendix. Since the enactment of the Greenwood Lake Commission, and the approval of the by-laws, the Commissioners have worked diligently to develop a successful Commission. During the past three years, one of the most significant roles the Commission has filled is as a liaison between the New Jersey Department of Environmental Protection and the New York Department of Environmental Conservation. Since Greenwood Lake is situated in two states, this joint venture has helped the planning effort of Greenwood Lake tremendously.

4.2 Overview of Funding

The Greenwood Lake Commission has not been provided with any funding, but has initiated a number of crucial projects to restore Greenwood Lake through grants. In only a few years, the Greenwood Lake Commission has been able to obtain a series of grants provided by local, state and federal funds (see Table 3 in the Appendix). However, there is currently no consistent funding for the Commission to rely on annually. Typically, commissions which are appointed by the legislature receive a line item. The Greenwood Lake Commission does not receive a line item from New York or New Jersey, which should be corrected.

4.3 Boat and Dock Fee Legislation

On June 22nd 2006, Bill No. S4103B/A5972B was passed in New York that authorizes the Greenwood Lake Commission to charge fees for the usage of boats and docks, under the conditions that a similar bill also passes in New Jersey. Details of both bills can be found in the Appendix (Document 3). This estimated \$140,000 of revenue will go towards sustaining the Commission itself. Most of the grants received thus far have been special purpose grants for one specific project. However, this ongoing revenue from the boat fees will allow the Commission to begin working towards eventual full sustainability (instead of grant reliance) for the organization.

4.4 Strengthening the Commission

Since the formation of the Greenwood Lake Commission, a great deal has been accomplished with Greenwood Lake. However, even while running the weed harvester throughout the week, the problem in Greenwood Lake is so outsized that many residents still feel as though not enough is being done. To address this, the Commission has taken the initiative to obtain funding, conduct research, and develop a long-term plan of action. As progress continues with the Commission's plans, Greenwood Lake will not only have a reduction in nuisance weeds, but it will sustain long-term use because of reductions in nutrients that are currently destroying the lake. However, with the following enhancements, the Greenwood Lake Commission will be able to carry out plans efficiently and be able to restore the lake for current users and protect the lake for future users.

The Greenwood Lake Commission Budget, shown below, lists the necessary expenses for start-up, annual operations, and also for acquisitions. Many of the expenses listed below have been unexpectedly supplemented by the Commissioners themselves or other organizations. The Greenwood Lake Commission is one of few, if any, commissions established without funding, which has slowed progress in Greenwood Lake.

In Table 4 Section 1 the start-up needs of the Commission are listed. These needs add consistency to the Commission, allowing Commissioners to be organized in one central location. The start-up fees are necessary to furnish the office and make it an ideal meeting location for Commission meetings. Aside from the boat, which is necessary for the Commission to patrol and get around the lake, all expenses included in the start-up budget are things necessary for the beginning of any organization. Since the start-up expenses will benefit New Jersey and New York equally, the cost should be funded equally by both states.

The projected annual expenses are included in Section 2 of Table 4. Since these expenses would also benefit both New Jersey and New York equally, these costs would also be divided equally between the two states. The budget includes hiring staff and professional consultants necessary to assist the Commissioners with their endeavors. The staff will be extremely useful with public relations, educating, organizing, lobbying, monitoring and providing expert knowledge. The professional assistance will guide the Commission on legal matters, financial matters, GIS mapping, and so on. The annual operating expenses will ensure that the office is properly run and that the Commission has enough support to succeed. The maintenance costs will also allow the Commission to sustain operations of important projects.

Many other commissions provide a token salary to the appointed officials. Currently, Greenwood Lake Commissioners serve as volunteers. Based on similar state commissions it is suggested in the annual expenses that the chair receive \$9,000/year and other Commissioners, \$6,000/year (see Table 4 Section 2). In addition to the stipends, the Commissioners should be covered by the state pension program. These modest stipends will provide further encouragement to the Commissioners who take on many duties and are each assigned specific tasks. In order to strengthen actions regarding the lake, Commissioners representing a municipality should increase communication with their respective municipality.

Since the Commission is liable for their actions on Greenwood Lake, it is necessary that the Commission has insurance for their actions, as well as personal insurance for each Commissioner. Based on the insurance for similar commissions, the Greenwood Lake Commission should be included under the state's umbrella insurance program or be awarded adequate funds to cover all liability.

The acquisitions listed in Section 3 of Table 4 are purchases that are necessary to enhance the ability of the Commission to restore Greenwood Lake. Since there is no current headquarters, the acquisition of a headquarters would provide permanency to the Commission. The headquarters cost would need to be split between both states, since it would be utilized by persons from both states. The second acquisition is for three weed harvesters, two loaders, and two dump trucks. Two of the harvesters would be used in New York, replacing the harvesters currently used that are both over twenty years old and deteriorating. These two harvesters, plus one loader and one dump truck should be funded by New York State. The other harvester, plus one loader and one dump truck should be funded by New Jersey.

Table 4 Section 1

Greenwood Lake Commission Budget

Start-up Expenses	Cost	Units	Total Cost
Office Supplies			
Desk	\$300	4	\$1,200
Chair	\$200	4	\$800
Filing Cabinet	\$200	5	\$1,000
Bookshelf	\$100	8	\$800
Small Table	\$100	4	\$400
Phone System	\$5,000	1	\$5,000
Technology Supplies			
Computer	\$1,500	3	\$4,500
Router	\$100	1	\$100
Cables	\$100	n/a	\$100
Printer/Fax	\$1,000	1	\$1,000
Color Printer	\$500	1	\$500
Accessories	\$200	n/a	\$200
Memory Disk	\$300	1	\$300
USB Drive	\$75	1	\$75
Copy Machine	\$6,000	1	\$6,000
Fire and Burglar Alarm System	\$5,000	1	\$5,000
Meeting Room Supplies			
Table	\$300	1	\$300
Chair	\$100	12	\$1,200
Folding Chair	\$12.50	50	\$625
Office Fixtures			
Refrigerator	\$550	1	\$550
Microwave	\$100	1	\$100
Coffee Maker	\$100	1	\$100
Sign for Building	\$3,000	1	\$3,000
Boat	\$50,000	1	\$50,000
Miscellaneous	\$2,000	n/a	\$2,000
			Initial TOTAL
			\$84,850
			NJ Total
			\$42,425
			NY Total
			\$42,425

Table 4 Section 2

Annual Expenses	Cost	Units	Total Cost
Salaries and Benefits			
Commission Chairs	\$9,000/yr	2	\$18,000
Commissioners	\$6,000/yr	7	\$42,000
Executive Director	\$90,000/yr	1	\$90,000
Secretary	\$45,000/yr	1	\$45,000
Inspector	\$60,000/yr	1	\$60,000
Assistant	\$40,000/yr	1	\$40,000
Educator	\$40,000/yr	1	\$40,000
Part-time Employees			
Weed Harvester Operator and Support Staff	\$38,000/yr	7	\$266,000
Professional Fees			
General Consultant	\$60,000/yr	1	\$60,000
Attorney	\$50,000/yr	1	\$50,000
Accountant	\$20,000/yr	1	\$20,000
GIS Consultant	\$30,000/yr	1	\$30,000
Operating Expenses			
Rent	\$6,250/month	12	\$75,000
Telephone and Cable	\$140/month	3 for 12 months	\$5,040
Internet	\$150/month	12	\$1,800
Fire and Burglar Insurance	\$5,000/yr	1	\$5,000
Office Supplies	\$5,000	n/a	\$5,000
Printing and Postage	\$25,000	n/a	\$25,000
Travel	\$25,000	n/a	\$25,000
Utilities	\$2,500/month	12	\$30,000
Legal Notices	\$4,000	n/a	\$4,000
Liability Insurance	\$93,000	n/a	\$93,000
Workman's Compensation	\$12,000	n/a	\$12,000
Miscellaneous	\$6,500	n/a	\$6,500
Maintenance			
Weed Harvester	\$30,000	n/a	\$30,000
Office Equipment	\$4,000	n/a	\$4,000
Boat	\$6,000	n/a	\$6,000
Gas and Oil for Boat Operations	\$6,000	n/a	\$6,000
Office Cleaning	\$100/week	52	\$5,200

Water Quality Monitoring	\$225,000	n/a	\$225,000
			Annual TOTAL \$1,264,540
			NJ Total \$632,270
			NY Total \$632,270
			Initial and Annual TOTAL \$1,349,390
			NJ Total \$674,695
			NY Total \$674,695

Table 4 Section 3

Acquisition Expenses	Cost	Units	Total Cost
Headquarters	\$1,800,000	1	\$1,800,000
Weed Harvester	\$200,000	3	\$600,000
Transporter Barge	\$125,000	2	\$250,000
Dumptruck	\$90,000	2	\$180,000
Two-way Radio	\$1,000	7	\$7,000
			Acquisition TOTAL \$2,837,000
			NJ Total \$1,318,500
			NY Total \$1,518,500
			Initial/Annual/ Acquisition TOTAL \$4,186,390
			NJ Total \$1,993,195
			NY Total \$2,193,195

Table 4 Section 4

Action Expenses	Cost	Units	Total Cost	
Dredging				
New Jersey Portion	\$2,500,000	n/a		\$2,500,000
New York Portion	\$2,500,000	n/a		\$2,500,000
Stump Removal	\$175,000	n/a		\$175,000
			Action TOTAL	\$5,175,000
			NJ Total	\$2,675,000
			NY Total	\$2,500,000
			FINAL TOTAL	\$9,361,390
			NJ Final Total	\$4,668,195
			NY Final Total	\$4,693,195

Another essential step towards restoring Greenwood Lake, as noted in previous sections of this report, is to dredge the lake. Dredging would have immediate benefits for users of the lake, as well as long-term benefits by removing sediment which contains high concentrations of nutrients (which cause eutrophication and excessive plant growth). The Greenwood Lake Commission is currently trying to obtain funding from the State of New Jersey to dredge Greenwood Lake. The passage of Bill No. A329/S2171 would provide \$2.5 million to pay for the dredging of Greenwood Lake in Passaic County, New Jersey (see Table 4 Section 4).

Once the lake begins to undergo the restoration process and the Greenwood Lake Commission becomes a permanent entity, additional steps are needed to ensure that the progress in the lake is not reversed. There is still developable land in the Greenwood Lake watershed, and (depending on the conditions and locations) the development of such land could augment the levels of pollution and phosphorus. If this were to occur, the progress accomplished by the Commission would be undermined. This is why it is vital that the Greenwood Lake Commission is supplied with any applications for development permits within the watershed and should have authority to review any proposals. Other recommendations made by the Commission to protect the lake are mentioned in section 3.5 of this report.

Since Bill No. S4103B/A5972B in New York is only active when a similar bill is passed in New Jersey, it is vital that the New Jersey bill (No. S2866) is passed. The boat and dock fees would, in part, allow the Commission to become a permanent entity. The Greenwood Lake Commission's protects the ecology of the lake, but also benefits the people who use Greenwood Lake. Since the public uses the lake (and thus produces many of the problems within the lake), it is important that those who use the lake also, in part, contribute to the restoration of the lake.

While it is important for users of the lake to be held accountable for some contribution towards the restoration of the lake, it is also important that they be held accountable towards the protection of the lake as well. For the past year, the Passaic County Sheriff's Department has patrolled Greenwood Lake, providing assistance to boaters. To best protect the lake, the Sheriff should be given authority to regulate policies such as: no over-board discharge, no direct toilet discharge, no sink or cooler water to be discharged into the lake, allowing only cleaned boats before entering lake, and required pump-out stations. An appropriate program should be established for violations.

In addition to patrolling the lake in order to improve and then maintain water quality, water quality monitoring is necessary to evaluate these efforts and identify problems. Proper monitoring of water quality in Greenwood Lake will aid the restoration process and help ensure that water quality standards are then maintained. The Greenwood Lake Commission recommends that the USGS be involved in the monitoring project. As noted in Table 4 Section 2, \$225,000 will be needed to efficiently monitor the water in Greenwood Lake.

5. Summary of Recommendations

Greenwood Lake is an important natural resource in northern New Jersey and southern New York for recreational, economic and ecological reasons. For decades, travelers from Paterson, New York City and other urban areas have enjoyed the tranquil atmosphere and beautiful landscape that the Highlands, specifically Greenwood Lake, has to offer. Millions of New Jersey residents continue to depend on the watershed for their water supply, which was once of pristine quality. However, there are clear environmental problems in Greenwood Lake that are severely hindering boating, swimming, and other recreational uses, as well as damaging its ecological value, and posing a threat to the health of millions. If the elevated nutrient levels are not reversed, and the eutrophication process is not slowed, Greenwood Lake may one day be irreversibly damaged. If restoration does not occur now, the local community may suffer economic consequences, millions of New Jersey residents who depend on the water supply may find their needs unmet, and the rich history of the lake may be forgotten.

Since its formation, the Greenwood Lake Commission has worked diligently and collaboratively with government bodies, researchers, and the public to understand the problems in Greenwood Lake, developed plans to reverse these problems and maintain water quality standards, and has also begun to implement many of these plans. For years the Commission has worked without the permanency of a headquarters, the security of insurance, the stability of a line item, or the assistance of paid staff. While much has been accomplished by the Greenwood Lake Commission, more is needed. The Greenwood Lake Commission recommends that the following actions are met in order to assist continual efforts to restore Greenwood Lake:

- Start-up, annual, and acquisition funding for the Greenwood Lake Commission, according to the budget (Table 4)
 - Acquisition of permanent headquarters
 - Establishment of a line item not less than \$700,000 (from each state) on an annual basis
 - Annual token salary of \$6,000 for the Commissioners and \$9,000 for the Chairs
- State insurance for the Greenwood Lake Commission and the Commissioners
- Funding for the Greenwood Lake Commission to establish a USGS continuing monitoring program in Belchers Creek (near Greenwood Lake) and to monitor water quality
- Passage of Bill No. A329/S2171 in New Jersey to provide funding for the dredging of Greenwood Lake
- Passage of Bill No. S2866 in New Jersey to allow the Greenwood Lake Commission to collect fees for the usage of boats and docks in the New Jersey portion of Greenwood Lake as has been passed in New York
- Uniform dock codes and zoning for the entire Greenwood Lake watershed
- Authority to pass ordinances for the Greenwood Lake watershed, including ordinances banning phosphorus-based fertilizer use and requiring a septic system pump-out every three years

- Legislation giving authority to the Greenwood Lake Commission to patrol and police Greenwood Lake and enact regulations on the use of the lake, including legislation requiring foam billets to be covered by plastic, and to enter into agreements with law enforcement agencies to assist in this program
- Legislation giving authority to the Greenwood Lake Commission to issue citations and fines to those who violate regulations involving Greenwood Lake
- Legislation giving authority to the Greenwood Lake Commission to review, comment, and have input on all develop and building permit proposals within the Greenwood Lake watershed

Summary of Budget	
Initial Total	\$84,850
New Jersey	\$42,425
New York	\$42,425
Annual Total	\$1,264,540
New Jersey	\$674,695
New York	\$674,695
Acquisition Total	\$2,837,000
New Jersey	\$1,318,500
New York	\$1,518,500
Action Total	\$5,175,000
New Jersey	\$2,675,000
New York	\$2,500,000
FINAL TOTAL	\$9,361,390
New Jersey	\$4,668,195
New York	\$4,693,195

References

- New Jersey Department of Environmental Protection Division of Watershed Management. (2004). *Amendment to the Northeast Water Quality Management Plan – Total Maximum Daily Load for Phosphorus to Address Greenwood Lake in the Northeast Water Region.*
- Princeton Aqua Science. (1983). *Phase 1: Diagnostic-Feasibility Study of Greenwood Lake, New Jersey and New York.*
- United States Army Corps of Engineers. (1989). *Greenwood Lake and Belchers Creek, New Jersey & New York Clean Lake Study, Main Report*

Appendix

Map 1 – New Jersey Highlands Preservation and Planning Areas

Figure 1 – Picture of Greenwood Lake

Figure 2 – Picture of Belchers Creek

Figure 3 – Picture of Congressman Scott Garrett and Congresswoman Sue Kelly Presenting the Greenwood Lake Commission Chairs a Grant Check from the U.S. EPA

Figure 4 – Picture of Weed Harvester

Figure 5 – 2001 Lake Drawdown Pictures

Figure 6 – Boat U.S. Brochure

Table 1 – Greenwood Lake Commission Members

Table 2 – TMDL Calculations for Greenwood Lake

Table 3 – Greenwood Lake Commission Funds

Document 1 - S1788:1R and A00294/S416-A: Legislation in New Jersey and New York Establishing the Commission

Document 2 – Greenwood Lake Commission By-laws

Document 3 - S4103B/A5972B and S1121: Boat/Dock Fee Legislation in New York and New Jersey

Document 4 - A329/S2171: Legislation for Dredging in New Jersey

Document 5 - Income Expense Statement

Appendix

Map 1 – New Jersey Highlands Preservation and Planning Areas

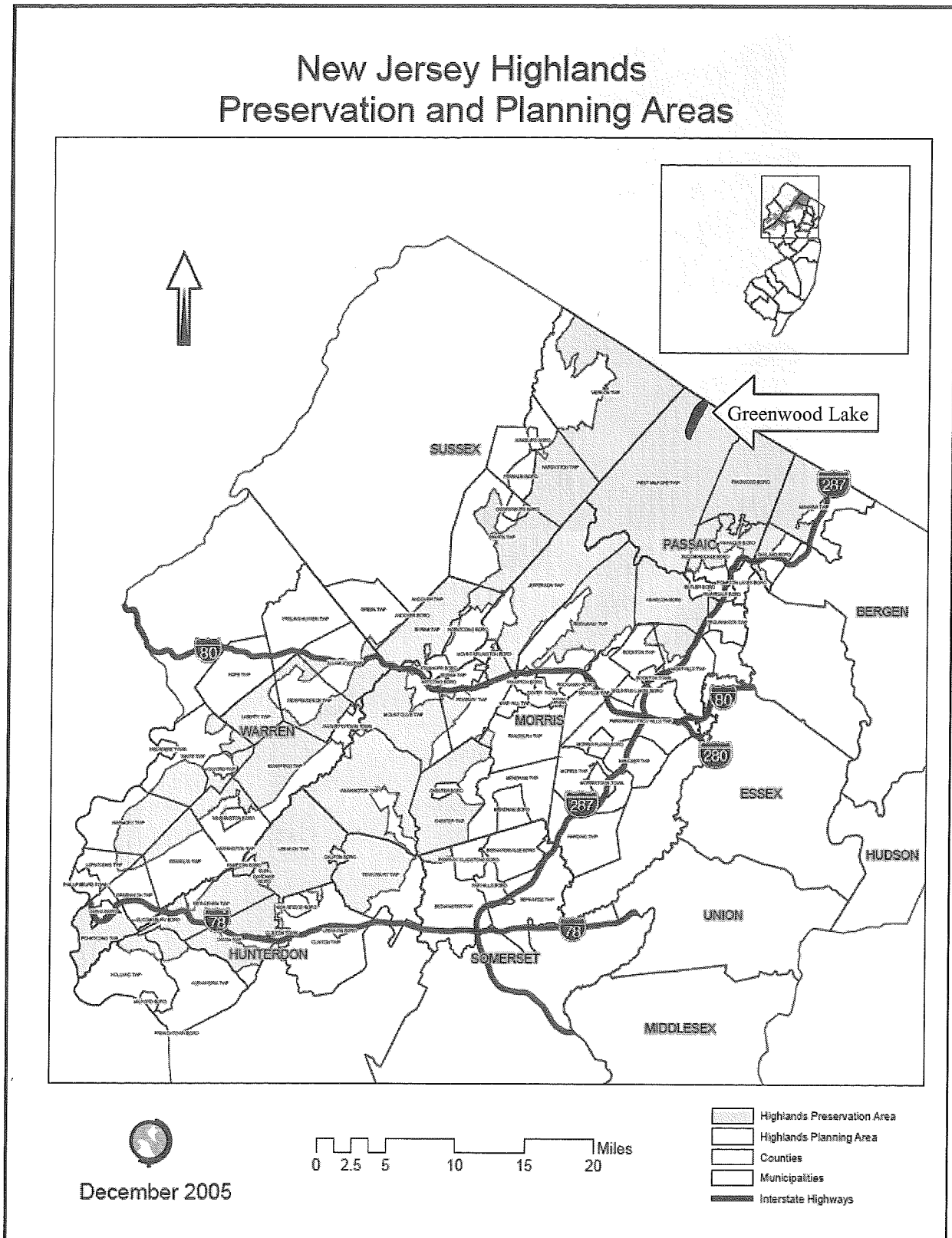


Figure 1 – Picture of Greenwood Lake



Figure 2 – Picture of Belchers Creek

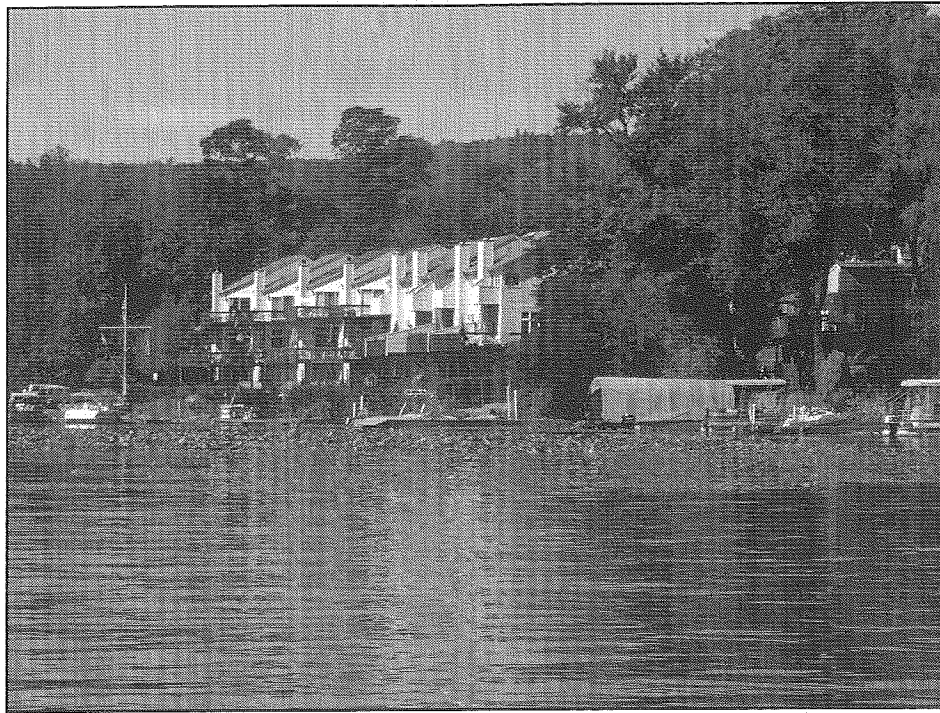


Figure 3 – Picture of Congressman Scott Garrett and Congresswoman Sue Kelly Presenting the Greenwood Lake Commission Chairs a Grant Check from the U.S. EPA



Figure 4 – Weed Harvester



Figure 5 – 2001 Drawdown Pictures

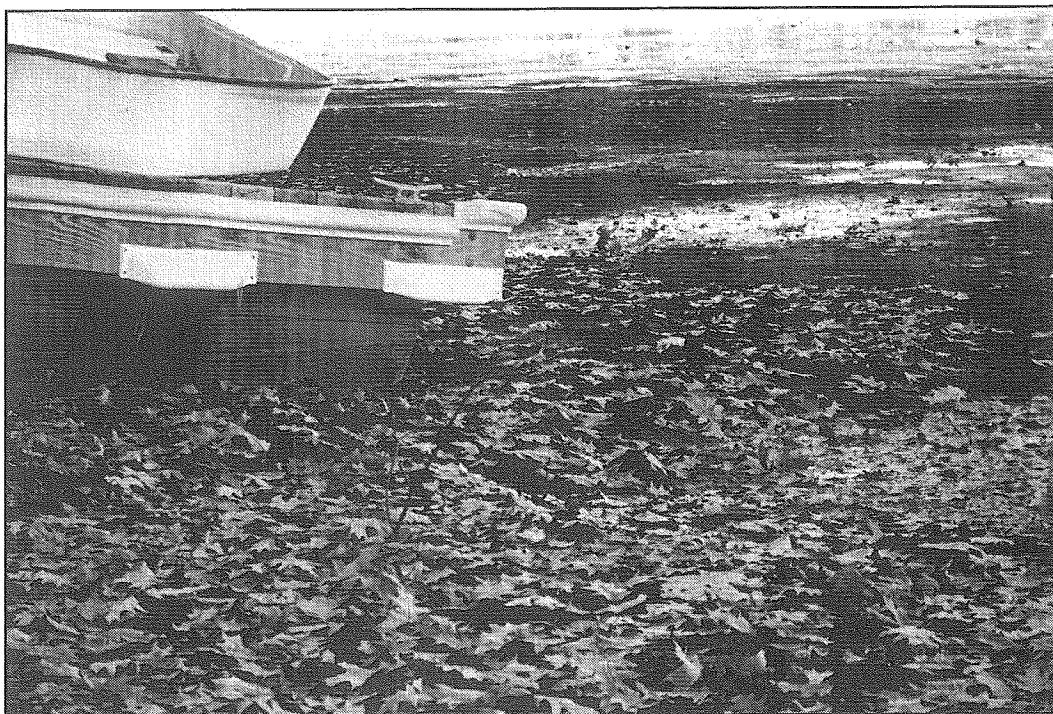
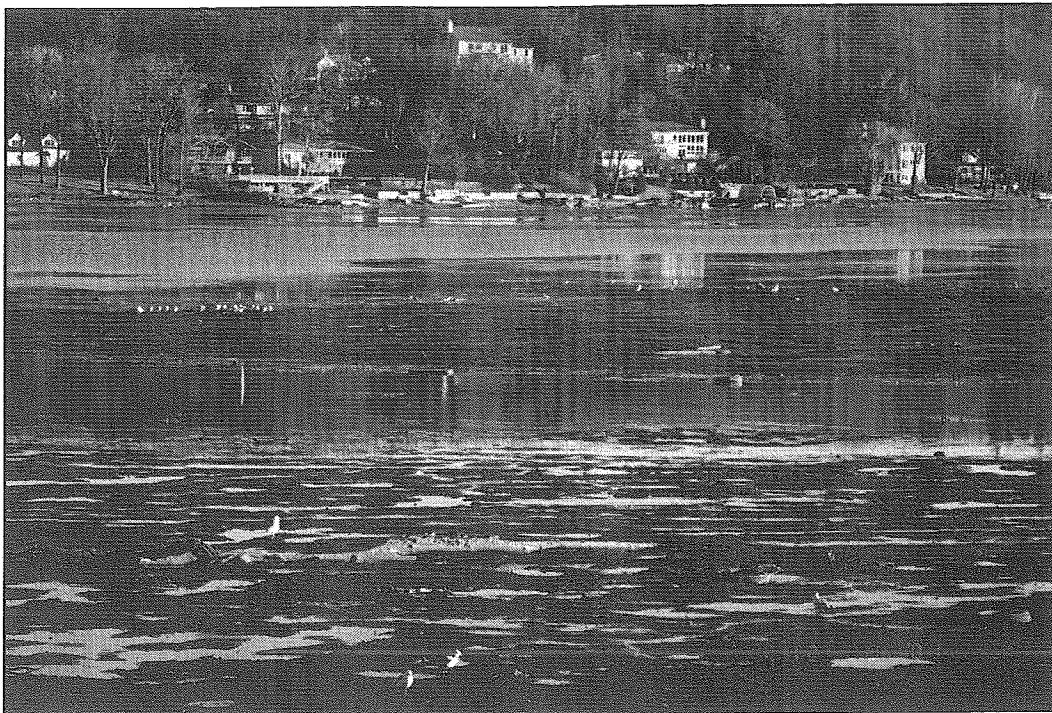
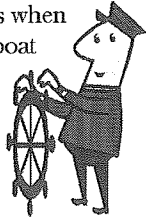


Figure 6 – Boat U.S. Brochure

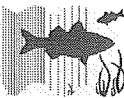
...fill it, don't spill it!

Use these tips when fueling your boat to keep oil and gasoline spills out of Greenwood Lake.



Greenwood Lake Commission

Passaic River Coalition
www.passaicriver.org



"Funded by a grant from the BoatU.S. Foundation"
www.boatus.com/foundation

Greenwood Lake Commission
c/o Passaic River Coalition
246 Madisonville Road
Basking Ridge, NJ 07920



When fueling...
fill it, don't spill it!

Non-Profit Organization
U.S. Postage PAID
Basking Ridge, NJ
Permit #11

When fueling...

It's the Law!



- ✗ Discharging any oily water, oil, or petroleum into the water is against federal law because it pollutes.
- ✗ If you have spilled fuel, immediately stop the source of the leak, use oil absorbent pads or booms, and notify your marina. Call the U.S. Coast Guard and your insurance company.
- ✗ You are responsible for any environmental damage caused by your fuel spill under the Oil Pollution Act of 1990. Preventing spills will help the water and your boating environment.
- ✗ It is against the law to use detergent or other chemicals on a spill to disperse the oil sheen. These products can cause petroleum to sink in the water, causing more harm to aquatic animals and bottom sediments.
- ✗ Any oil or fuel spill that leaves a sheen on the water must be reported to the U.S. Coast Guard National Response Center at 1-800-424-8802.

...a drop in the lake is a BIG mistake!

Clean Fueling

There are specific actions you can take to prevent small fuel spills while fueling your boat or personal watercraft:

- ✓ Always keep your hand on the fuel nozzle while fueling to make sure there is no accidental overflow.
- ✓ Start gradually and slow down toward the end, listening to the filler pipe to avoid back splash and determine when the tank is full.
- ✓ Use oil absorbent cloths at the fuel dock to catch drips when handling the nozzle over the water.
- ✓ Know how much your fuel tank holds and fill it to 90% to allow room for expansion when the fuel gets warm.
- ✓ Capture overflow from the boat's fuel tank vent with a "spill collector" product that attaches itself to the hull with suction cups.
- ✓ Fuel-up personal watercraft on land to avoid spilling oil or gasoline into the water.



Regulations & Reporting

New York State:

While your boat is in the water it is illegal to fuel it from a gasoline can. Fueling on the lake must take place at a dockside gas station, unless your boat is equipped with portable fuel tanks.

Fuel spills on the New York side of the lake must be reported to the Greenwood Lake Police Department at 845-477-9211.

New Jersey State:

Fuel spills on the New Jersey side of the lake must be reported to the West Milford Police Department at 973-728-2800.

Fuel Facts

- One pint of oil can cover one acre of lake surface with a micro-thin oil slick.
- Once petroleum is introduced into the water, it may float at the surface, evaporate into the air, become suspended in the water column or settle to the lake bottom.
- Gasoline contains benzene, a carcinogen, which is hazardous to humans and aquatic life.



Table 1 – Greenwood Lake Commissioners

	Commissioner	Body Representing	Term
1	Steve Defeo	NY Chair, Town of Warwick	beginning - present
2	George Vurno	Governor of NY	beginning - present
3	Ben Winstanley	Orange County	beginning - present
4	Thomas Rudolf	NYDEC	beginning – January 2004
	Len Meyerson	NYDEC	January 2004 - present
5	Jim Moore	Village of Greenwood Lake	beginning - February 10th 2004
	Jim McGovern	Village of Greenwood Lake	February 10th 2004 – August 2005
	Michael Ricardo	Village of Greenwood Lake	August 2005 - present
6	William Olsen	Greenwood Lake Management District	beginning - present
7	Ella Filippone	NJ Chair, Passaic County	beginning - present
8	Sandra Lawson	Governor of New Jersey	beginning - present
9	Thomas Amidon	NJDEP	beginning - June 2004
	Kenneth Klipstein	NJDEP	June 2004 - present
10	Jack Bofinger	Township West Milford	beginning - December 2005
	Eric Hastings	Township West Milford	January 2006 - present
11	John Mulligan	Township West Milford	beginning - September 2004
	James Dykes	Township West Milford	September 2004 - December 2005
	Ed Dobrowsky	Township West Milford	January 2006 - March 2006
	Paul Zarrillo	Township West Milford	May 2006 - present

Table 2

TMDL Calculations for Greenwood Lake (annual loads and percent reductions)			
	Kg TP/yr	% of LC	Reduction %
Loading Capacity (LC)	3,895	100%	n/a
Point Source other than Stormwater	70	1.8%	0%
Loading from Septic Tank System	401	10%	43%
Internal Loading	983	25%	43%
Land Use Surface Runoff			
Low Intensity Residential	235	6%	43%
High Intensity Residential	166	4.3%	43%
Commercial/Industrial/Transportation	174	4.5%	43%
Pasture/Hay	32	0.8%	43%
Row Crops	15	0.4%	43%
Urban/Recreational Grasses	15	0.4%	43%
Deciduous Forest	180	5%	0%
Evergreen Forest	48	1.2%	0%
Mixed Forest	202	5%	0%
Woody Wetlands	13	0.3%	0%
Emergent Herbaceous Wetlands	1	0.03%	0%
Open Water	7	0.2%	0%
Air Deposition	53	1.4%	0%
Other Allocation			
Margin of Safety	1,298	33%	n/a
Reserve Capacity	0	0%	n/a

Table 3

Greenwood Lake Commission Funds				
Source	Revenue	Grants	Year	Use
Orange County	\$30,000	x	Line Item	General
Village of Greenwood Lake	\$10,000	x	Line Item	General
NJ DEP	x	\$152,330	2004	319 (h) for stormwater management \$60,000 for two retrofits along the road surrounding the lake in Passaic County
Passaic County	\$30,000	x	2005	General
Passaic County	\$2,500	x	2005	Weed Harvester Maintenance
Passaic County	Up to \$10,000	x	2006	Weed Harvester Maintenance Reimbursement
West Milford	\$2,500	x	2005	Weed Harvester Maintenance
West Milford	Up to \$10,000	x	2006	Weed Harvester Maintenance Reimbursement
Warwick	\$4,000	x	2005	General
NJ DEP	x	\$200,000	2005	Weed Harvester for NJ and maintenance, and partially for NY's weed harvester maintenance
NJ DEP	x	\$100,000	2005	Stump Removal
NY DEC	x	\$64,550	2005	319 (h) Grant for stormwater management
US EPA	x	\$295,600	2006	Restoration Project, water monitoring, dredging plan
Boat Fees (NYS)	(Estimated) \$140,000	x	2006	

SENATE, No. 1788

STATE OF NEW JERSEY

208th LEGISLATURE

INTRODUCED MARCH 18, 1999

Sponsored by:

Senator HENRY P. MCNAMARA

District 40 (Bergen and Passaic)

Senator DONALD T. DIFRANCESCO

District 22 (Middlesex, Morris, Somerset and Union)

Co-Sponsored by:

Assemblyman Felice

SYNOPSIS

Creates bi-state Greenwood Lake Commission.

CURRENT VERSION OF TEXT

As reported by the Senate Environment Committee on May 6, 1999, with amendments.

(Sponsorship Updated As Of: 1/11/2000)

An Act creating the Greenwood Lake Commission and supplementing Title 58 of the Revised Statutes.

Be It Enacted by the Senate and General Assembly of the State of New Jersey:

1. This act shall be known, and may be cited, as the "Greenwood Lake Protection Act."
2. The Legislature finds and declares that the States of New Jersey and New York and their respective citizens share a common concern to protect the quality of the environment through the preservation of natural and scenic resources and open space to the maximum extent possible along their common border; that the two states and their respective citizens also share the benefits of several environmentally significant waterbodies and watersheds that cross the interstate border region, including Greenwood Lake and its watershed; that, because of the geology and hydrology of the land in the border region, development, land use, and land management practices and patterns in each state necessarily impact, often negatively, upon the natural and scenic resources of, and the extent of open space and recreational opportunities within, both states; that Greenwood Lake is the largest lake in the Highlands region of northern New Jersey and southern New York and is a prime source of enjoyment and recreation for the people who live in or visit the bi-state border area; that Greenwood Lake is vital to the recreation and economy of the Highlands region of

northern New Jersey and southern New York; and that there has been a long history of cooperation among state and local governmental entities and various private organizations and individuals in the vicinity of Greenwood Lake and its watershed to ensure the preservation of Greenwood Lake.

The Legislature therefore determines that there is a need to endorse and formalize that bi-state cooperative effort to help ensure that the natural, scenic, and recreational resources of Greenwood Lake and its watershed are protected from despoliation due to environmental and other threats from both sides of the border, so that the pristine beauty of the area will be preserved and maintained for the enjoyment and recreation of present and future generations; and that the creation of a bi-state commission is an appropriate means to accomplish that very important goal.

3. a. There is created the Greenwood Lake Commission, which shall comprise 11 voting members, as follows: a representative appointed by the Board of Chosen Freeholders of Passaic County, New Jersey; two representatives appointed by the governing body of the Township of West Milford, New Jersey; the Commissioner of the New Jersey Department of Environmental

Protection, or a designee thereof, who shall serve ex officio; a representative appointed by the governing body of Orange County, New York; a representative appointed by the governing body of the Village of Greenwood Lake, New York; a representative appointed by the governing body of the Town of Warwick, New York; the Commissioner of the New York Department of Environmental Conservation, or a designee thereof, who shall serve ex officio; a representative of the Greenwood Lake Watershed Management District, Inc.; and two members of the public with expertise in the protection, preservation, maintenance, management, or enhancement of lakes or the natural, scenic, or recreational resources associated therewith, of whom one shall be appointed by the Governor of the State of New Jersey with the advice and consent of the Senate thereof, and one shall be appointed by the Governor of the State of New York with the advice and consent of the Senate thereof.

b. Vacancies in the appointed positions on the commission shall be filled in the same manner as the original appointments were made.

c. Members of the commission from New Jersey shall serve without compensation, but the commission may, within the limits of funds appropriated or otherwise made available to it, reimburse members for actual expenses necessarily incurred in the discharge of their official duties.

d. Members of the commission from New Jersey shall serve at the pleasure of the relevant appointing authority.

4. a. The commission shall organize as soon as may be practicable after the appointment of its members, and shall select two co-chairpersons ¹[among] ¹ from its members, one from each state, and a secretary who need not be a member.

b. The commission shall meet regularly as it may determine. Meetings of the commission shall be ¹at¹ such times and places as the co-chairpersons of the commission deem appropriate, but to the maximum extent practicable and feasible, shall be rotated between the two states on an alternating basis. Meetings held in New Jersey shall be subject to the provisions and requirements of the "Open Public Meetings Act," P.L.1975, c.231 (C.10:4-6 et seq.).

The commission shall also meet at the call of the governor of either state or at the call of either co-chairperson.

c. A majority of the voting membership of the commission shall constitute a quorum for the transaction of commission business. Action may be taken and motions and resolutions adopted by the commission at any meeting thereof by the affirmative vote of eight members of the commission.

d. The commission shall be entitled to call to its assistance, and avail itself of the services of, such employees of the two states, or any political subdivisions, instrumentalities, entities, agencies, or authorities thereof, as it may require and as may be made available to it for the purpose of carrying out its duties under this act. If requested by the commission, the New Jersey Department of Environmental Protection and the New York Department of Environmental Conservation shall provide primary staff support.

e. The commission may, within the limits of funds appropriated or otherwise made available to it for those purposes, employ such professional, technical, and clerical staff and incur such traveling and other miscellaneous expenses as it may deem necessary in order to perform its duties.

5. The duties of the commission shall be to:

a. assess present and projected development, land use, and land management practices and patterns, and identify actual and potential environmental threats and problems, around Greenwood Lake and within its watershed, and determine the effects of those practices and patterns, threats, and problems upon the natural, scenic, and recreational resources of Greenwood Lake and its watershed;

b. develop recommended regulations, procedures, policies, planning strategies, and model ordinances and resolutions pertaining to the protection, preservation, maintenance, management, and enhancement of Greenwood Lake and its watershed, which would be implemented as appropriate on a voluntary basis by those entities with representatives on the commission;

c. coordinate environmental clean up, maintenance, and protection efforts undertaken, for the benefit of Greenwood Lake and its watershed, by those entities with representatives on the commission;

d. ¹coordinate with the Department of Environmental Protection's watershed management program for the area that includes Greenwood Lake;

e. ¹ recommend appropriate state legislation and administrative action pertaining to the protection, preservation, maintenance, management, and enhancement of Greenwood Lake and its watershed;

¹[e.] ¹f. ¹ advocate, and where appropriate, act as a coordinating, distributing, or recipient agency for, federal, state, or private funding of environmental cleanup, maintenance, and protection projects for Greenwood Lake and its watershed, which projects may include the work of the commission; and

¹[f.] ¹g. ¹ take such other action as may be appropriate or necessary to further the purpose of this act.

6. The commission shall, within 18 months of the date it organizes, prepare a progress report on its activities, and submit it, together with any recommendations for legislation, administrative action, or action by local governments, to the Governors and Legislatures of the State of New Jersey and New York.

7. This act shall take effect upon enactment of substantially similar legislation by the State of New York, unless the State of New York has enacted such legislation prior to the date of enactment of this act, in which case this act shall take effect immediately.

BILL TEXT:

STATE OF NEW YORK

10092--A S. 6375--A

A.

SENATE - ASSEMBLY

March 5, 2002

IN SENATE -- Introduced by Sen. MORAHAN -- read twice and ordered print-
ed, and when printed to be committed to the Committee on Finance --
committee discharged, bill amended, ordered reprinted as amended and
recommitted to said committee

IN ASSEMBLY -- Introduced by M. of A. GUNTHER -- read once and referred
to the Committee on Local Governments -- reported and referred to the
Committee on Ways and Means -- committee discharged, bill amended,
ordered reprinted as amended and recommitted to said committee

AN ACT enacting the "Greenwood Lake Protection Act" and creating the
Greenwood Lake Commission

The People of the State of New York, represented in Senate and Assem-
bly, do enact as follows:

- 1 Section 1. This act shall be known, and may be cited, as the "Green-
- 2 wood Lake Protection Act."
- 3 § 2. The legislature finds and declares that the states of New Jersey
- 4 and New York and their respective citizens share a common concern to
- 5 protect the quality of the environment through the preservation of
- 6 natural and scenic resources and open space to the maximum extent possi-
- 7 ble along their common border; that the two states and their respective
- 8 citizens also share the benefits of several environmentally significant

9 waterbodies and watersheds that cross the interstate border region,
10 including Greenwood Lake and its watershed; that, because of the geology
11 and hydrology of the land in the border region, development, land use,
12 and land management practices and patterns in each state necessarily
13 impact, often negatively, upon the natural and scenic resources of, and
14 the extent of open space and recreational opportunities within, both
15 states; that Greenwood Lake is the largest lake in the Highlands region
16 of northern New Jersey and southern New York and is a prime source of
17 enjoyment and recreation for the people who live in or visit the
18 bi-state border area; that Greenwood Lake is vital to the recreation and
19 economy of the Highlands region of northern New Jersey and southern New
20 York; and that there has been a long history of cooperation among state
21 and local governmental entities and various private organizations and

EXPLANATION--Matter in italics (underscored) is new; matter in brackets

[] is old law to be omitted.

LBD00198-08-2

S. 6375--A

2

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10092--A

1 individuals in the vicinity of Greenwood Lake and its watershed to
2 ensure the preservation of Greenwood Lake.
3 The legislature therefore determines that there is a need to endorse
4 and formalize that bi-state cooperative effort to help ensure that the
5 natural, scenic, and recreational resources of Greenwood Lake and its
6 watershed are protected from despoliation due to environmental and other
7 threats from both sides of the border, so that the pristine beauty of
8 the area will be preserved and maintained for the enjoyment and recre-
9 ation of present and future generations; and that the creation of a
10 bi-state commission is an appropriate means to accomplish that very
11 important goal.
12 § 3. a. There is hereby created the Greenwood Lake Commission, which

13 shall be comprised of 11 voting members, as follows: a representative
14 appointed by the board of chosen freeholders of Passaic county, New
15 Jersey; two representatives appointed by the governing body of the town-
16 ship of West Milford, New Jersey; the commissioner of the New Jersey
17 department of environmental protection, or a designee thereof, who shall
18 serve ex officio; a representative appointed by the governing body of
19 Orange county, New York; a representative appointed by the governing
20 body of the village of Greenwood Lake, New York; a representative
21 appointed by the governing body of the town of Warwick, New York; the
22 commissioner of the New York department of environmental conservation,
23 or a designee thereof, who shall serve ex officio; a representative of
24 the Greenwood Lake Watershed Management District, Inc.; and two members
25 of the public with expertise in the protection, preservation, maintenance-
26 nance, management, or enhancement of lakes or the natural, scenic, or
27 recreational resources associated therewith, of whom one shall be
28 appointed by the governor of the state of New Jersey with the advice and
29 consent of the senate thereof, and one shall be appointed by the governor-
30 nor of the state of New York with the advice and consent of the senate
31 thereof.
32 b. Vacancies in the appointed positions on the commission shall be
33 filled in the same manner as the original appointments were made.
34 c. Members of the commission from New York shall serve without compensation-
35 sation, but the commission may, within the limits of funds appropriated
36 or otherwise made available to it, reimburse members for actual expenses
37 necessarily incurred in the discharge of their official duties.
38 d. Members of the commission from New York shall serve at the pleasure
39 of the relevant appointing authority.
40 § 4. a. The commission shall organize as soon as may be practicable
41 after the appointment of its members, and shall select two co-chairper-
42 sons from its members, one from each state, and a secretary who need not

43 be a member.
44 b. The commission shall meet regularly as it may determine.
Meetings
45 of the commission shall be such times and places as the co-
chairpersons
46 of the commission deem appropriate, but to the maximum extent
practica-
47 ble and feasible, shall be rotated between the two states on
an alter-
48 nating basis. Meetings held in New Jersey shall be subject
to the
49 provisions and requirements of the "Open Public Meetings
Act," P.L.
50 1975, c. 231 (C.10:4-6 et seq). Meetings held in New York
shall be
51 subject to the provisions and requirements of that state's open
meetings
52 law, article 7 of the public officers law.
53 The commission shall also meet at the call of the governor
of either
54 state or at the call of either co-chairperson.
55 c. A majority of the voting membership of the commission shall
consti-
56 tute a quorum for the transaction of commission business.
Action may be
S. 6375--A 3 A.
10092--A

1 taken and motions and resolutions adopted by the commission at
any meet-
2 ing thereof by the affirmative vote of eight members of the
commission.
3 d. The commission may request assistance, and the services
of, such
4 employees of the two states, or any political subdivisions,
instrumen-
5 talities, entities, agencies, or authorities thereof, as it may
require
6 and as may be made available to it for the purpose of carrying
out its
7 duties under this act. If requested by the commission, the
New Jersey
8 department of environmental protection and the New York
department of
9 environmental conservation may provide primary staff support.
10 e. The commission may, within the limits of funds
appropriated or
11 otherwise made available to it for those purposes, employ such
profes-
12 sional, technical, and clerical staff and incur such traveling
and other
13 miscellaneous expenses as it may deem necessary in order to
perform its
14 duties.
15 § 5. The duties of the commission shall be to:
16 a. assess present and projected development, land use,
and land

17 management practices and patterns, and identify actual and potential
18 environmental threats and problems, around Greenwood Lake and within its
19 watershed, and determine the effects of those practices and patterns,
20 threats, and problems upon the natural, scenic, and recreational
21 resources of Greenwood Lake and its watershed;
22 b. develop recommended regulations, procedures, policies, planning
23 strategies, and model ordinances and resolutions pertaining to the
24 protection, preservation, maintenance, management, and enhancement of
25 Greenwood Lake and its watershed, which would be implemented as appro-
26 priate on a voluntary basis by those entities with representatives on
27 the commission;
28 c. coordinate environmental cleanup, maintenance, and protection
29 efforts undertaken, for the benefit of Greenwood Lake and its watershed,
30 by those entities with representatives on the commission;
31 d. coordinate with the department of environmental protection's
32 watershed management program for the area that includes Greenwood Lake;
33 e. recommend appropriate state legislation and administrative action
34 pertaining to the protection, preservation, maintenance, management, and
35 enhancement of Greenwood Lake and its watershed;
36 f. advocate, and where appropriate, act as a coordinating, distribut-
37 ing, or recipient agency for, federal, state, or private funding of
38 environmental cleanup, maintenance, and protection projects for Green-
39 wood Lake and its watershed, which projects may include the work of the
40 commission; and
41 g. take such other action as may be appropriate or necessary to
42 further the purpose of this act.
43 § 6. The commission shall, within 18 months of the date it organizes,
44 prepare a progress report on its activities, and submit it, together
45 with any recommendations for legislation, administrative action, or
46 action by local governments, to the governors and legislatures of the
47 states of New Jersey and New York.
48 § 7. The comptroller of the state of New York is hereby authorized and

49 empowered from time to time to examine the accounts and books
of the
50 commission, including its receipts, disbursements, and such
other items
51 referring to its financial standing as such comptroller may deem
proper
52 and to report the results of such examination to the governor.
53 § 8. This act shall take effect upon the enactment into
law by the
54 state of New Jersey of legislation having substantially similar
effect
55 with this act, but if the state of New Jersey shall have already
enacted
56 such legislation, this act shall take effect immediately;
provided that
S. 6375--A 4 A.
10092--A

1 Greenwood Lake Commission shall notify the legislative bill
drafting
2 commission upon the occurrence of the enactment of the
legislation
3 provided for in this act in order that the legislative bill
drafting
4 commission may maintain an accurate and timely effective data
base of
5 the official text of the laws of the state of New York in
furtherance of
6 effecting the provisions of section 44 of the legislative
law and
7 section 70-b of the public officers law.

Greenwood Lake Commission

By Laws

- Adopted; Mary 21, 2003 –

Article I Name

Greenwood Lake Commission, herein referred to as the Commission

Article II Authorization

The legislatures of the State of New Jersey and State of New York enacted the following Legislation establishing the Greenwood Lake Commission:

New Jersey; Greenwood Lake Protection Act, N.J.S.A. 32:20A-1 et seq.

Signed by the Governor on January 18, 2000

New York; "Greenwood Lake Protection Act and Creating the Greenwood Lake Commission," Laws of New York 2002 Chapter 47.

Signed by the Governor on April 30, 2002

Article III Purpose

The enabling legislation recognized that the citizens of New York and New Jersey share a common concern to protect the quality of the environment through the preservation of natural and scenic resources and open space to the maximum extent possible along their common border. The two states and their respective citizens also share the benefits of the environmentally sensitive Greenwood Lake and its watershed. The legislation further recognized that due to the geology and hydrology of the land in the Greenwood Lake region, development, land use, and land management practices and patterns in each state necessarily impact, sometimes negatively, upon the natural and scenic resources of Greenwood Lake and its watershed.

Greenwood Lake is the largest lake in the Highlands region of northern New Jersey and southern New York and is a prime source of water supply for consumption, enjoyment, and recreation for the people who live in or visit the bi-state border area. The wellbeing of Greenwood Lake is vital to the recreation and economy of the Highlands region of northern New Jersey and southern New York. Furthermore, there has been a long history of cooperation among state and local government entities and various private organizations and individuals in the bi-state area to preserve, restore, and improve the quality of the water and the life of the people who live and visit the region and to assure the sustainability to the ecology of the lake and the surrounding watershed.

Greenwood Lake is also a water supply for the State of New York and a major source of water supply for the State of New Jersey with a current requirement to allow a minimum of 3.3 million gallons per day to be released to supplement the needs of the Wanaque Reservoir system.

The legislatures determined that there is a need to endorse and formalize a bi-state cooperative effort to help ensure that the natural, scenic, and recreational resources of Greenwood Lake and its watershed are protected from despoliation due to environmental and other threats from both sides of the border, so that the pristine beauty of the area will be preserved and maintained for the enjoyment and recreation of present and future generations. Therefore, the creation of a bi-state commission was determined to be an appropriate means to accomplish that very important goal.

Article IV Membership

Section 1: The Greenwood Lake Commission shall be made up of 11 voting members appointed by:

	<u>Number of members</u>
The Board of Chosen Freeholders of Passaic County, New Jersey	1
The governing body of the Township of West Milford, New Jersey	2
The Commissioner of the New Jersey Department of Environmental Protection, or designee	1
The governing body of Orange County, New York	1
The governing body of the Village of Greenwood Lake, New York	1
The governing body of the Town of Warwick, New York	1
The Commissioner of the New York Department of Environmental Conservation, or designee	1
Greenwood Lake Watershed Management District, Inc.	1
Public representative appointed by the Governor of State of New Jersey	1
Public representative appointed by the Governor of State of New York	1
Total	11

Section 2: Members of the Commission shall serve at the pleasure of the relevant appointing authority,

Section 3: Replacement of members: Vacancies in the appointed positions on the Commission shall be filled in the same manner as the original appointments were made. A position will be considered vacant if the appointed individuals has not attended six (6) consecutive meetings of the Commission.

Section 4: The Secretary will notify the relevant appointing authority of a vacancy, requesting the appointment of a new member.

Section 5: Members of the Commission shall serve without compensation, but the Commission may, within the limits of funds appropriated or otherwise made available to it, reimburse members for actual expenses necessarily incurred in the discharge of their official duties.

Article V Meetings

Section 1: The Commission shall meet regularly as determined by the co-Chairpersons. TO the maximum extent practicable and feasible, meetings shall be rotated between the two states on an alternating basis.

Section 2: The Commission shall also meet at the call of the governor of either state or at the call of either co-chairperson.

- Section 3: Meetings held in New Jersey shall be subject to the provisions and requirements of the "Open Public Meeting Act," P.L. 1975 (C.10:4-6 et seq.). Meetings held in New York shall be subject to the provisions and requirements of the "Open Meeting Law," Consolidated Laws, Chapter 47 [Public Officers Law] Article 7, Sections 100-111.
- Section 6: Quorum: A majority six (6) of the voting members of the Commission or their proxy shall constitute a quorum for the transaction of Commission business. Action may be taken and motions and resolutions adopted by the Commission at any meeting thereof by the affirmative vote of either (8) members of the Commission.
- Section 7: Absentee voting shall be permitted in the event that a conflict prevents a Member from attending. An absentee ballot shall consist of a letter to either Chairperson, advising of the conflict and containing voting instructions and the signature of the absent Member.
- Section 8: Roberts Rules of Order shall govern the conduct of all meetings of the Commission in all instances not covered by these By Laws.

Article VI Officers

- Section 1: The Commission shall select two co-chairpersons from its members, one from each state. The co-chairpersons shall be responsible for coordinating input from the Members of their respective States, setting the agendas for meetings, and facilitating the meetings on a rotating basis.
- Section 2: The Commission shall select a Secretary, who need not be an appointed member of the Commission. The Secretary shall keep Minutes of all meetings and a roster of all members of the Commission. The Secretary shall send out all notices and correspondence and perform other such duties as the Chairpersons of the Commission may direct.
- Section 3: The Commission shall select a Financial Officer and two (2) signatories (one of whom can be the Financial Officer) for checks exceeding \$500.00 from among its Members. The Financial Officer shall keep track of and disperse funds as directed by the Commission, and report to the Commission the status of its funds every three months.
- Section 4: Terms of Office. The co-chairpersons shall serve two-year terms and be elected in alternating years. Co-chairpersons may be elected to additional terms of office.

Article VII Duties of the Commission

1. Assess present and projected development, land use, and land management practices and patterns; Identify actual and potential environmental threats and problems around Greenwood Lake and within its watershed; Determine the effect of those practices and patterns, threats, and problems upon the natural, scenic, and recreational resources of Greenwood Lake and its watershed
2. Develop recommended regulations, procedures, policies, planning strategies, and model ordinances and resolutions pertaining to the protection, preservation, maintenance, management, and enhancement of Greenwood Lake and its

- watershed, which would be implemented as appropriate on a voluntary basis by those entities with representatives on the Commission
3. Undertake research and monitoring of the natural resources of Greenwood Lake and its watershed to meet the standards established by the States of New York and New Jersey and the federal government
 4. Coordinate environmental cleanup, maintenance, and protection efforts undertaken for the benefit of Greenwood Lakes and its watershed, by those entities with representatives on the Commission
 5. Create and support a program to eliminate detriments to the diversified uses of Greenwood Lake
 6. Coordinate with the Department of Environmental Protection's watershed management program for the area that includes Greenwood Lake
 7. Formulate a financial program to make the Commission self-sustaining
 8. Recommend appropriate state legislation and administrative action pertaining to the protection, preservation, maintenance, management, and enhancement of Greenwood Lake and its watershed
 9. Advocate, and where appropriate, act as a coordinating, distributing, or recipient agency for federal, state, or private funding of environmental cleanup, maintenance and protection projects for Greenwood Lake and its watershed and which projects may include the work of the Commission
 10. Take such other action as may be appropriate or necessary to further the purpose of the enabling legislation referred to in Article II

Article VIII Progress Report

Within 18 month of the date it organizes, the Commission shall prepare a progress report on its activities, and submit it, together with any recommendations for legislatures of the states of New Jersey and New York.

Article IX Committees

- Section 1: Budget Committee consisting of 3 members
- Section 2: Ad Hoc Committees: the Commission may from time to time form Ad Hoc Committees to deal with issues or items of limited duration or scope. Such committees may include members of the public and at least one member of the Commission and will be automatically dissolved within twelve (12) months unless reinstated by the Commission.

Article X Fiscal Year

The Fiscal year for the Commission shall commence on the first day of January of each year and end on the thirty-first day of December.

Article XI Disbursement of Funds

- Section 1: All disbursements of monies must be made by check drawn from the baking account of the Commission. With the exception of checks made out to employees of the Commission, all checks for amounts over \$500 must be signed by at least 2 Members.
- Section 2: All disbursements of funds must be accompanied by a bill and/or invoice.
- Section 3: All disbursements of funds over \$1,000 must be approved by voting members of the Commission at a regular public meeting.

Section 4: A budget for each project must be approved by the voting members of the Commission at a regular public meeting. No additional funds can be dispersed without approval of the Commission at a regular public meeting.

Article XII Amendments

The By-Laws of the Commission may be altered, amended, or repealed by resolution of the Commissioners, provided that a copy of the proposal to so alter, amend, or repeal such By-Laws shall be mailed, delivered or sent via facsimile to each member of the Commission at least thirty (30) but not more than sixty (60) calendar days prior to the date of the meeting at which such proposal is to be considered.

**Document 3 - S4103B/A5972B and S1121: Boat/Dock Fee Legislation in
New York and New Jersey**

S T A T E O F N E W Y O R K

5972-B

2005-2006 Regular Sessions

I N A S S E M B L Y

March 3, 2005

Introduced by M. of A. RABBITT-- read once and referred to the Committee on Environmental Conservation-- recommitted to the Committee on Environmental Conservation in accordance with Assembly Rule 3, sec. 2 -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee -- reported and referred to the Committee on Ways and Means-- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee

AN ACT to amend the Greenwood Lake Protection Act and the state finance law, in relation to establishing certain fees, reporting requirements and the Greenwood Lake protection fund; and providing for the repeal of such provisions upon expiration thereof

THE PEOPLE OF THE STATE OF NEW YORK, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

- 1 Section 1. Subdivision g of section 5 of chapter 47 of the laws of
2 2002, constituting the Greenwood Lake Protection Act, is relettered
3 subdivision h and a new subdivision g is added to read as follows:
4 G. COLLECT FEES IN ACCORDANCE WITH THE FOLLOWING PROVISIONS: (1) THE
5 OWNER OF A DOCK, WHARF OR MOORING ON GREENWOOD LAKE USED FOR NONCOMMER-
6 CIAL RESIDENTIAL PURPOSES SHALL PAY AN ANNUAL FEE OF \$37.50. THE OWNER
7 OF A DOCK OR WHARF ON GREENWOOD LAKE USED FOR COMMERCIAL PURPOSES SHALL
8 PAY AN ANNUAL FEE OF \$3.75 PER LINEAR FOOT FOR EACH SUCH DOCK. THE OWNER
9 OF A MOORING USED FOR COMMERCIAL PURPOSES SHALL PAY AN ANNUAL FEE OF
10 \$75.00 FOR EACH MOORING. NEW DOCKS CONSTRUCTED FOR COMMERCIAL USE AFTER
11 THE EFFECTIVE DATE OF THIS PARAGRAPH SHALL PAY A FIRST TIME FEE OF \$7.50
12 PER LINEAR FOOT AND \$3.75 PER LINEARFOOT ANNUALLY THEREAFTER.
13 (2) IN ADDITION TO THE REGISTRATION REQUIRED BY THE STATE, ANY MECHAN-
14 ICALLY PROPELLED BOAT OR VESSEL WITH TEN HORSEPOWER OR MORE AND ANY
15 NON-MECHANICALLY PROPELLED BOAT OR VESSEL EIGHTEEN FEET OR MORE IN
16 LENGTH USED ON GREENWOOD LAKE SHALL HAVE AN ANNUAL PERMIT ISSUED BY THE
17 GREENWOOD LAKE COMMISSION. THE FEE THEREFOR FOR BOATS TWENTY FEET OR
18 LESS IN LENGTH OVERALL SHALL BE \$30.00; FOR BOATS TWENTYONE TO TWENTY-

EXPLANATION--Matter in ITALICS (underscored) is new; matter in brackets
{ } is old law to be omitted.

LBD0354406-6

1 FIVE FEET IN LENGTH OVERALL, \$37.50; AND FOR BOATS OVER TWENTYFIVE FEET
2 IN LENGTH OVERALL, \$37.50 AND \$7.50 FOR EACH FOOT BY WHICH THE LENGTH
3 OVERALL EXCEEDS TWENTYFIVE FEET; FOR BOATS OVER TWENTYFIVE FEET IN
4 LENGTH OVERALL OUTFITTED FOR OVERNIGHT USE, \$37.50 AND \$30.00 FOR EACH
5 FOOT BY WHICH THE OVERALL LENGTH EXCEEDS TWENTYFIVE FEET. THE GREENWOOD
6 LAKE COMMISSION MAY ESTABLISH A ONE WEEK USE PERMIT FOR \$11.25. THE
7 GREENWOOD LAKE COMMISSION MAY ESTABLISH A ONE DAY USE PERMIT FOR \$7.50
8 FOR ANY MECHANICALLY PROPELLED BOAT OR VESSEL OR NONMECHANICALLY
9 PROPELLED BOAT OR VESSEL SUBJECT TO THE ANNUAL FEE.

10 (3) THE GREENWOOD LAKE COMMISSION MAY CHARGE A FEE TO AN APPLICANT FOR
11 A PERMIT IN ORDER TO RECOVER THE COSTS INCURRED IN REVIEWING AND ACTING
12 UPON AN APPLICATION FOR SUCH PERMIT.

13 (4) ALL FEES COLLECTED PURSUANT TO THIS SECTION SHALL BE DEPOSITED TO
14 THE CREDIT OF THE GREENWOOD LAKE PROTECTION FUND PURSUANT TO SECTION
15 NINETY-SEVEN-FFFF OF THE STATE FINANCE LAW.

16 S 2. Section 6 of chapter 47 of the laws of 2002, constituting the
17 Greenwood Lake Protection Act is amended to read as follows:

18 S 6. The commission shall, {within 18 months of the date it organ
19 izes,} ON OR BEFORE DECEMBER 31, 2007, prepare a progress report on its
20 activities, and submit it, together with any recommendations for legis
21 lation, administrative action, or action by local governments, to the
22 governors and legislatures of the states of New Jersey and New York.

23 S 3. The state finance law is amended by adding a new section ninety
24 seven-ffff to read as follows:

25 S 97-FFFF. GREENWOOD LAKE PROTECTION FUND. 1. THERE IS HEREBY ESTAB
26 LISHED IN THE CUSTODY OF THE STATE COMPTROLLER A SPECIAL REVENUE FUND TO
27 BE KNOWN AS THE GREENWOOD LAKE PROTECTION FUND.

28 2. SUCH FUND SHALL CONSIST OF ALL MONEYS COLLECTED PURSUANT TO SECTION
29 FIVE OF CHAPTER FORTY-SEVEN OF THE LAWS OF TWO THOUSAND TWO, CONSTITUT
30 ING THE GREENWOOD LAKE PROTECTION ACT AND ALL OTHER MONIES CREDITED OR
31 TRANSFERRED THERETO FROM ANY OTHER FUND OR SOURCE PURSUANT TO LAW. ANY
32 INTEREST EARNED BY THE INVESTMENT OF MONEYS IN SUCH FUND SHALL BE ADDED
33 TO SUCH FUND, BECOME A PART OF SUCH FUND, AND BE USED FOR THE PURPOSE OF
34 SUCH FUND.

35 3. MONEYS OF SUCH FUND SHALL BE AVAILABLE, PURSUANT TO APPROPRIATION,
36 TO THE GREENWOOD LAKE COMMISSION FOR THE PURPOSES OF CARRYING OUT THE
37 PROVISIONS OF CHAPTER FORTY-SEVEN OF THE LAWS OF TWO THOUSAND TWO,
38 CONSTITUTING THE GREENWOOD LAKE PROTECTION ACT.

39 4. THE MONEYS OF THE FUND SHALL BE PAID OUT ON THE AUDIT AND WARRANT
40 OF THE COMPTROLLER ON VOUCHERS CERTIFIED OR APPROVED BY THE CHAIRMAN OF
41 THE GREENWOOD LAKE COMMISSION OR HIS OR HER DULY DESIGNATED REPRESENTATIVE.

42 5. NOTWITHSTANDING THE PROVISIONS OF ANY GENERAL OR SPECIAL LAW, NO
43 MONEYS SHALL BE AVAILABLE FROM THE FUND UNTIL A CERTIFICATE OF ALLO
44 CATION AND A SCHEDULE OF AMOUNTS TO BE AVAILABLE THEREFOR SHALL HAVE
45 BEEN ISSUED BY THE DIRECTOR OF THE BUDGET, AND A COPY OF SUCH CERTIF
46 ICATE FILED WITH THE COMPTROLLER. SUCH CERTIFICATE MAY BE AMENDED FROM
47 TIME TO TIME BY THE DIRECTOR OF THE BUDGET AND A COPY OF EACH AMENDMENT
48 SHALL BE FILED WITH THE COMPTROLLER.

49 S 4. This act shall take effect upon enactment into law by the state
50 of New Jersey of legislation having substantially similar effect with
51 this act, but if the state of New Jersey shall have already enacted such
52 legislation, this act shall take effect immediately and shall expire on
53 June 30, 2008 when upon such date the provisions of this act shall be
54 deemed repealed; provided further that Greenwood Lake Commission shall
55 notify the legislative bill drafting commission upon the occurrence of
56

1 the enactment of the legislation provided for in this act in order that
2 the legislative bill drafting commission may maintain an accurate and
3 timely effective data base of the official text of the laws of the state
4 of New York in furtherance of effecting the provisions of section 44 of
5 the legislative law and section 70b of the public officers law.

SENATE, No. 1121
STATE OF NEW JERSEY
212th LEGISLATURE

INTRODUCED JANUARY 30, 2006

Sponsored by:

Senator JOSEPH V. DORIA, JR.

District 31 (Hudson)

SYNOPSIS

Authorizes Greenwood Lake Commission to charge certain fees for docks, wharfs, moorings and boats.

CURRENT VERSION OF TEXT

As introduced.

AN ACT concerning the authority of the Greenwood Lake Commission, and supplementing P.L.1999, c.402 (C.32:20A-1 et seq.).

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. a. The Greenwood Lake Commission may establish and implement fees to be paid to the Greenwood Lake Commission as follows:

(1) on the owner of a dock, wharf or mooring on Greenwood Lake used for non-commercial residential purposes an annual fee of \$37.50;

(2) on the owner of a dock, wharf or mooring on Greenwood Lake used for commercial purposes an annual fee of \$3.75 per linear foot for each such dock or wharf;

(3) on the owner of a mooring on Greenwood Lake used for commercial purposes an annual fee of \$75 for each mooring; and

(4) on the owner of a new dock on Greenwood Lake constructed for commercial use after the effective date of this act a first time fee of \$7.50 per linear foot and a fee of \$3.75 per linear foot annually thereafter.

b. (1) In addition to any other registration or fee required by the State, the Greenwood Lake Commission may require the owner of any mechanically propelled boat or vessel with ten or more horsepower and any non-mechanically propelled boat or vessel 18 or more feet in length used on Greenwood Lake to have an annual permit issued by the commission and assess a fee therefor as follows:

(a) for boats 20 feet or less in length overall -- \$30;

(b) for boats 21 to 25 feet in length overall -- \$37.50;

(c) for boats over 25 feet in length overall -- \$37.50 plus an additional \$7.50 for each foot by which the length overall exceeds 25 feet; and

(d) for boats over 25 feet in length overall outfitted for overnight use -- \$37.50 plus an additional \$30 for each foot by which the overall length exceeds 25 feet.

(2) Notwithstanding the provisions of paragraph (1) of this subsection to the contrary, the Greenwood Lake Commission may establish a one week use permit for \$11.25 and a one day use permit for \$7.50 for any mechanically propelled boat or vessel or non-mechanically propelled boat or vessel subject to the annual fee established in paragraph (1) of this subsection.

c. The Greenwood Lake Commission may charge a fee to an applicant for a permit issued pursuant to this act in order to recover the costs incurred in reviewing and acting upon an application for such permit.

d. The Greenwood Lake Commission shall establish a separate, nonlapsing, dedicated account to be known as the "Greenwood Lake Commission Fund." All fees and other monies collected by the Greenwood Lake Commission pursuant to this act or any rule or regulation adopted pursuant thereto shall be deposited into this fund. Any investment earnings on monies in the fund shall accrue to the fund and shall be available subject to the same terms and conditions as other monies in the fund.

2. This act shall take effect upon the enactment into law by the State of New York of legislation having substantially similar effect as this act, or if the State of New York shall have already enacted such legislation, this act shall take effect immediately.

STATEMENT

This bill would authorize the Greenwood Lake Commission, created by P.L.1999, c.402, to charge certain specified fees for docks, wharfs, moorings and boats on the lake. Legislation setting forth these same specified fees passed the New York State Senate on June 7, 2005, and is currently pending in the New York State Assembly.

This bill would require the commission to create a dedicated account to be known as the "Greenwood Lake Commission Fund" into which the fees would be deposited.

ASSEMBLY, No. 1369

STATE OF NEW JERSEY

211th LEGISLATURE

PRE-FILED FOR INTRODUCTION IN THE 2004 SESSION

Sponsored by:

Assemblyman JOSEPH PENNACCHIO

District 26 (Morris and Passaic)

Assemblyman ALEX DECROCE

District 26 (Morris and Passaic)

SYNOPSIS

Supplemental appropriation of \$2.5 million to dredge Greenwood Lake in Passaic county.

CURRENT VERSION OF TEXT

Introduced Pending Technical Review by Legislative Counsel.

A SUPPLEMENT to "An Act making appropriations for the support of the State Government and the several public purposes for the fiscal year ending June 30, 2002 and regulating the disbursement thereof," approved June 29, 2001 (P.L.2001, c.130).

BE IT ENACTED by the Senate and General Assembly of the State of
New Jersey:

1. In addition to the amounts appropriated under P.L.1999, c.138, there is appropriated out of the General Fund the following sum for the purpose specified:

O f t e 21 a	42 DEPARTMENT OF ENVIRONMENTAL PROTECTION		
	<i>40 Community Development and Environmental Management</i>		
	<i>42 Natural Resource Management</i> <u>DIRECT STATE SERVICES</u>		
	21-4895 Natural Resources		
	Engineering:.....		\$2,500,000
	<i>Direct State Services:</i>		
	Special Purpose:		
	Greenwood Lake		
	Dredging	(\$2,500,000)	

amount hereinabove appropriated for Greenwood Lake Dredging, not more than \$250,000 shall be expended for:

a. Preparation of an updated analysis of pollutant loadings to Greenwood Lake from the New Jersey portion of the watershed, to be called the "Updated Greenwood Lake Restoration and Management Plan," which shall include (1) a discussion of current land use patterns within the New Jersey portion of the watershed and an evaluation of sediment and nutrient loadings from these land use areas, and (2) a delineation of the areas of Greenwood Lake in need of dredging, the recommended volume of materials to be dredged, an estimate of costs associated with dredging each area, including sediment disposal, and prioritization of these areas for dredging; and

b. Completion of any activities necessary to prepare to dredge those parts of Greenwood Lake which lie within New Jersey, and as prioritized in the "Updated Greenwood Lake Restoration and Management Plan," which shall include any necessary activities to prepare a Request for Proposal (RFP) to accomplish this dredging, such as environmental monitoring, activities required for obtaining required permits, and any professional services required to develop this RFP.

Upon completion of the analysis and the activities described hereinabove, the balance of the funds remaining shall be expended to implement any recommended

dredging activities as prioritized in the "Updated Greenwood Lake Restoration and Management Plan."

The Department of Environmental Protection shall consult and cooperate with the Greenwood Lake Watershed Management District, the Township of West Milford, and Passaic county in connection with the expenditure of the amount hereinabove appropriated. If deemed useful or expedient, the department may transfer all or a portion of the monies hereinabove appropriated to the Greenwood Lake Watershed Management District, the Township of West Milford, or Passaic county in the form of a grant to be expended in accordance with the language set forth hereinabove.

2. This act shall take effect immediately.

STATEMENT

This bill would appropriate \$2.5 million from the General Fund to the Department of Environmental Protection to pay for the dredging of Greenwood Lake in Passaic county and for related activities, as well as for preparation of an analysis to be done in connection therewith.

In 1983, a Phase I Diagnostic Feasibility Report was completed for Greenwood Lake. The report described the current limnological condition of the lake, made a determination of the main sources of pollutant loadings to the lake, and developed a Lake Restoration and Management Plan. This plan, among other recommendations, proposed that removal of sediments was necessary for the New Jersey portion of the lake and estimated that the total cost of dredging would be \$10 million. The plan also recommended a number of other measures to address the loadings to the lake, including reduction of sediment loadings from the Belcher's Creek corridor on the New Jersey side. A portion of these measures has been accomplished. At this time, additional funding in the amount of \$2.5 million is needed for continued efforts in the New Jersey portion of the lake. Of that amount, up to \$250,000 would be used to pay the cost of:

(1) Preparation of an updated analysis of pollutant loadings to Greenwood Lake from the New Jersey portion of the watershed, to be called the "Updated Greenwood Lake Restoration and Management Plan," which shall include (a) a discussion of current land use patterns within the New Jersey portion of the watershed and an evaluation of sediment and nutrient loadings from these land use areas, and (b) a delineation of the areas of Greenwood Lake in need of dredging, the recommended volume of materials to be dredged, an estimate of costs associated with dredging each area, including sediment disposal, and prioritization of these areas for dredging; and

(2) Completion of any activities necessary to prepare to dredge those parts of Greenwood Lake which lie within New Jersey, and as prioritized in the "Updated Greenwood Lake Restoration and Management Plan," which shall include any necessary activities to prepare a Request for Proposal (RFP) to accomplish this dredging, such as environmental monitoring, activities required for obtaining required permits, and any professional services required to develop this RFP.

Upon completion of the analysis and the activities described above, the bill provides that the balance of the funds remaining shall be expended to implement any recommended dredging activities as prioritized in the "Updated Greenwood Lake Restoration and Management Plan."

The need for dredging is more significant for the New Jersey portion of Greenwood Lake. The 1983 Phase I Report found that the maximum depth of the New Jersey portion of the lake was three meters, while the maximum depth for the New York portion was 18 meters. This shallower depth presents greater navigational and recreational impediments in the New Jersey portion of Greenwood Lake. The State of New York has continued efforts to address problems in the New York portion of the basin, including purchase and operation of weed harvesting equipment and improvements to stormwater conveyance systems to reduce pollutant loadings to the lake.

Under the bill, the Department of Environmental Protection would be required to consult and cooperate with the Greenwood Lake Watershed Management District, the Township of West Milford, and Passaic county in connection with the work funded by this bill. If deemed useful or expedient, the bill would authorize the department to transfer all or a portion of the monies appropriated in the bill to the Greenwood Lake Watershed Management District, the Township of West Milford, or Passaic county in the form of a grant to be expended for the same purposes as set forth in the bill.

Greenwood Lake is a vital Highlands area water and recreational resource located in New Jersey and New York. Parts of the lake are in the middle stages of eutrophication and silting due to nonpoint source pollution. These impacts have increased due to the conversion of many seasonal houses in the area to year-round residences. The southern end of the lake in New Jersey is particularly laden with accumulated sediment, which severely reduces the lake's total water holding capacity and interferes with recreational use by encouraging weed proliferation. Dredging would be an environmentally sound and effective solution that could increase the volume of stored water available for downstream reservoirs as well as address many other problems faced by the lake.

Greenwood Lake Commission Income Expense Statement (unaudited) August 1, 2004 through July 22, 2006

Type	Date	Num	Name	Memo	Class	Original Amount	Paid Amount	Balance
6999-1 Weed Harvester								
6999-11 Weed Harvester Operation								
Check	07/13/2005	106	DeFeo's Marina	Labor cost for Pay Period ending 6/11/05 and 6/25/05		3,795.00	3,795.00	3,795.00
Check	08/17/2005	110	DeFeo's Marina	Reimbursement for salary of Harvester Operator		3,322.00	3,322.00	7,117.00
Check	09/14/2005	114	DeFeo's Marina	Reimburse Labor, Flowers for Jim McGovern funeral		1,824.12	1,824.12	8,941.12
Check	05/05/2006	125	John Hearle	Contractor for harvesting Week of 5/1/06 - 40 hours		1,080.00	1,080.00	10,021.12
Check	05/12/2006	126	John Hearle	Contractor for harvesting Week of 5/8/06 - 40 hours		1,080.00	1,080.00	11,101.12
Check	05/18/2006	127	John Hearle	Contractor for harvesting Week of 5/15/06 - 40 hours		1,080.00	1,080.00	12,181.12
Check	05/25/2006	128	John Hearle	Contractor for harvesting Week of 5/22/06 - 24 hours		648.00	648.00	12,829.12
Check	05/31/2006	129	John Hearle	Contractor for harvesting Week of 5/29/06 - 32 hours		864.00	864.00	13,693.12
Check	06/14/2006	130	John Hearle	Contractor for harvesting Week of 6/7/06 - 32 hours		864.00	864.00	14,557.12
Check	06/14/2006	131	John Hearle	Contractor for harvesting Week of 6/14/06 - 32 hours		864.00	864.00	15,421.12
Check	07/11/2006	134	John Hearle	Contractor for harvesting Week of 7/10/06 - 16 hours		432.00	432.00	15,853.12
Check	07/22/2006	138	John Hearle	Week of 7/17/06		648.00	648.00	16,501.12
Total 6999-11 Weed Harvester Operation						16,501.12	16,501.12	16,501.12
6999-1 Weed Harvester - Other								
Check	03/28/2005	91	Aquarius Systems	Deposit for Weed Harvester		50,000.00	50,000.00	50,000.00
Check	04/12/2005	93	Aquarius Systems	Balance Due for Weed Harvester		93,912.00	93,912.00	143,912.00
Check	05/18/2005	96	Village of Greenwood Lake	Reimbursement of Weed Harvesting Expenses		5,824.70	5,824.70	149,736.70
Check	05/18/2005	97	DeFeo's Marina	Invoice #447100		1,387.51	1,387.51	151,124.21
Check	07/13/2005	103	DeFeo's Marina	2 Dock Boxes to store equipment - Invoice #13386		1,216.00	1,216.00	152,340.21
Check	07/13/2005	104	Aquarius Systems	Invoice #205222 - 6-gal fuel tank; Remble Key FOB		259.40	259.40	152,599.61
Check	07/13/2005	105	DeFeo's Marina	Misc. Parts- Invoice #13392, #13359; #13376		364.15	364.15	152,963.76
Check	08/17/2005	108	Aquarius Systems	Misc Parts		104.35	104.35	153,068.11
Check	09/14/2005	113	D&D Products	Hydraulic motor and buffer block for paddle wheels		804.80	804.80	153,872.91
Check	01/18/2006	121	DeFeo's Marina	Winterizing, shrink wrapping & storage		1,838.19	1,838.19	155,711.10
Total 6999-1 Weed Harvester - Other						155,711.10	155,711.10	155,711.10
Total 6999-1 Weed Harvester						172,212.22	172,212.22	172,212.22
6999 Uncategorized Expenses - Other								
Check	04/12/2005	92	Aquarius Systems	VOID: Freight included in invoice total		0.00	0.00	0.00

Greenwood Lake Commission

August 1, 2004 through July 22, 2006

Income Expense Statement (unaudited)

Type	Date	Num	Name	Memo	Class	Original Amount	Paid Amount	Balance
Check	03/22/2006	122	Skylands Clean	Awards Dinner Honoring Bradley Campbell		80.00	80.00	80.00
Total 6999 Uncategorized Expenses - Other							80.00	80.00
Total 6999 Uncategorized Expenses							172,292.22	172,292.22
ADV-01 Legal Notices								
Check	08/17/2005	112	Sandra Lawson	Legal Notices - Draw Down Presentations		57.96	57.96	57.96
Check	10/19/2005	115	Sandra Lawson	Legal Notice- Meeting change		45.09	45.09	103.05
Check	11/03/2005	118	Sandra Lawson	Legal notices - bidders conference Stump Removal		148.97	148.97	252.02
Check	01/18/2006	120	Sandra Lawson	Legal notices; 1)meeting change; 2) 2006 schedule		88.66	88.66	340.68
Check	06/21/2006	133	Sandra Lawson	Legal notices for 2006 drawdown		88.65	88.65	429.33
Check	07/19/2006	136	Sandra Lawson	Reimbursement		24.70	24.70	454.03
Total ADV-01 Legal Notices							454.03	454.03
OFF-01 Office Equipment								
CH-01 Computer Hardware								
Total CH-01 Computer Hardware							2,503.35	2,503.35
CS-01 Computer Software							2,503.35	2,503.35
Check	08/17/2005	109	Sandra Lawson	Gateway Laptop & Quickbooks for Non-Profits (\$399)		456.30	456.30	456.30
Check	08/17/2005	107	Trio Systems, LLC	SonClear Gov Recording Software and Foot pedal		399.00	399.00	855.30
Check	08/17/2005	109	Sandra Lawson	Gateway Laptop & Quickbooks for Non-Profits (\$399)		855.30	855.30	855.30
Total CS-01 Computer Software								0.00
OFF-01 Office Equipment - Other								
Total OFF-01 Office Equipment - Other							3,358.65	3,358.65
Total OFF-01 Office Equipment							2,399.15	2,399.15
PS-01 Professional Services								
Check	06/21/2006	132	TRC Environmental, Corp	Permit Assistance		2,399.15	2,399.15	2,399.15
Total PS-01 Professional Services							192,226.08	192,226.08
Total Expense							140,773.92	140,773.92
Net Ordinary Income								
Other Income/Expense								
Other Income								
3001 Contributions to Commission								
Total 3001 Contributions to Commission								0.00
Total Other Income								0.00
Other Expense								
Total Other Expense								0.00