

Friends Lake Aquatic Plant Control District

May 2016

TABLE OF CONTENTS

1. PURPOSE 2
2. INTRODUCTION 2-3
3. FRIENDS LAKE PROPERTY OWNERS ASSOCIATION 3
4. WATER QUALITY DATA 3-5
5. AQUATIC PLANT SURVEYS 5-6
6. INITIAL DISTRICT FORMATION ACTIVITIES 6-7
7. PROPOSED DISTRICT BOUNDARIES 7
8. DISTRICT FUNDING AND COSTS 7-11
9. DISTRICT OPERATIONS 11
10. PLANS FOR CONTROLLING INVASIVE SPECIES 11-13
11. CONCLUSION 13

APPENDICES

APPENDIX A Friends Lake District Map

APPENDIX B District Property Listing

APPENDIX C IMPACT OF INVASIVES ON PROPERTY VALUES – SELECTED PUBLICATIONS

1.0 PURPOSE

A majority of the property owners who have lake front property or rights to access the lake seek to have the Town of Chester establish an Aquatic Plant Control District under Article 12-A Section 209 of the Town Law to provide funding for the prevention and control of invasive species if they are detected in Friends Lake. Principally, this funding would allow the District to undertake prompt and aggressive action once these species are detected. By establishing a District before the detection of an invasive species, a reserve would be developed over the first 2 years which would be employed in this effort to react aggressively to minimize harm and control costs if invasive species are discovered. Included in this effort to prevent, mitigate and control, the District also would conduct lake assessments, water quality testing, volunteer aquatic vegetation surveys, and contracted aquatic plant surveys, as well as other activities to promote the health of the Lake and reduce the threat of invasive species introduction. Also, anticipated are continuing education and additional efforts to inform lakefront and lake access owners concerning invasive species and pollutants.

A review of the literature on invasive species indicates that the complete removal of existing milfoil or other invasive species in other lakes and rivers has not occurred. In fact, the literature no longer mentions eradication but does discuss efforts to control. However, there is ample evidence indicating that a prompt and aggressive control program will be effective in mitigating the spread and reducing the long term costs of invasive species once they have been detected.

2.0 INTRODUCTION

Friends Lake is a 454 acre, class AA Special Lake located in the southeastern Adirondack region in the Town of Chester in Warren County, New York. A Class AA Special Lake under the New York State Department of Environmental Conservation Lake Classification and Inventory Program means that the best intended uses for the Lake are for potable water, swimming, angling, boating, aquatic life and aesthetics. The Lake is used by residents and invited guests for a variety of recreational purposes. Unlike many of its neighboring lakes, the Lake has no public access. The Lake Watershed Area is 1,440 hectares (3,556.8 acres) with a Retention Time of 0.9 years. Maximum Depth of the Lake is 9.1 meters and its Mean Depth is 4.2 meters. The Lake has an unnamed outlet at its north end to Chester Creek which continues to the Schroon River and on to the Hudson River.

Fish species in the Lake include brown bullhead, largemouth bass, northern pike, pumpkinseed sunfish, redbreast sunfish, rock bass, smallmouth bass, and yellow perch. The Lake is not stocked by the State, but the strength of its fisheries is best informed by the fact that the State's record largemouth bass was caught here, a record which stood for many years and was just broken recently.

3.0 FRIENDS LAKE PROPERTY OWNERS ASSOCIATION

The Friends Lake Property Owners Association (FLPOA) is a 501 c (3) Not-for-Profit Corporation that was formed by property owners in 1954 with the purpose of protecting and preserving the beauty and health of Friends Lake. In keeping with its purpose, the FLPOA has been following the invasive species growth trend within many neighboring lakes for many years and has been actively involved in educating its members on the threat that invasive aquatic plants pose to the

health of the lake. The Association has about 190 member owners representing about 55% of the total ownership of properties within the proposed district.

At the association's annual meeting in July 2014 where the topic of invasive species was discussed, the membership requested the board to research various avenues available to fund the abatement of invasive species should they be detected in the lake. A report was presented at the annual meeting in July 2015 with the clear majority of the membership at the meeting indicating that the Board should pursue the formation of an aquatic plant control district.

In pursuance of its purpose, the FLPOA, together with property owners who are not members but who are interested in offering their expertise and input, will also pursue the preparation of a Watershed Management Plan to identify issues affecting the water quality of the lake. This plan will also outline specific recommendations to protect the lake in the future including the effects on the quality of the water as a result of storm water runoff, de-icing materials and inadequate septic systems. This will be a cooperative effort among the FLPOA, property owners and the town with the goal of maintaining the quality of the watershed and the lake itself.

4.0 WATER QUALITY DATA

Historically, Friends Lake was sampled by the Conservation Department (predecessor to the New York State Department of Environmental Conservation, hereinafter DEC) in August 1932 as part of the Biological Survey of the Upper Hudson River basin. Friends Lake was also sampled by the DEC as part of the

state ambient lake monitoring program in 1977 and 1982 and was again sampled by the DEC as part of the lake bio-monitoring study conducted in 2008. These data show water quality sampling results as excellent and are generally within the same range as found through the Citizens Statewide Assessment Program (CSLAP) administered by the New York Federation of Lake Associations. The FLPOA has participated in the CSLAP evaluation on an almost yearly basis since 1991 and its sampling and testing is an ongoing project performed and monitored by the FLPOA's Water Quality Committee. The CSLAP results have consistently rated the overall quality of the Lake as excellent, befitting its Class AA Special status. The above information on previous surveys of the Lake and the major findings that follow are contained in the CSLAP 2014 Lake Water Quality Summary of Friends Lake. The CSLAP findings are summarized below on the basis of salient sampling measures:

Evaluation of Eutrophication Indicators

Water clarity readings in Friends Lake were rated "good" in 2014, no change from recent years. Neither chlorophyll nor total phosphorous readings varied significantly from normal trends in 2014. None of these trophic indicators has exhibited any clear long-term trends. The Lake continues to be characterized as *mesotrophic* (i.e. having a moderate amount of dissolved nutrients), based on water clarity, ph, chlorophyll and total phosphorous. An analysis of algae samples in 2014 were well below the levels needed to support safe swimming.

Evaluation of Potable Water Indicators

Algae levels are usually not high enough to render the Lake susceptible to taste and odor compounds or elevated DBP (disinfection by product) compounds that could affect the potability of the water. Deepwater ammonia, iron, manganese, arsenic and phosphorous readings are low and similar to those measured at the lake surface. This suggests that deep water potable intakes should not be compromised.

Evaluation of Biological Condition

The macrophyte data collected through CSLAP show very high plant diversity, and the presence of at least one protected plant species (waterthread pondweed). These data suggest that the quality of the aquatic plant community is “excellent.” Zebra mussels are not found in the lake. The Lake bio-monitoring study found a large number of macro-invertebrate species which indicates that water quality conditions in the Lake are favorable, and the macro-invertebrate community is not dominated by single taxa, suggesting high diversity. The 2014 study noted that banded mystery snail was found in the lake, a species native to North America and not considered invasive.

Swimming, Boating and Fishing

The CSLAP dataset at Friends Lake, including water chemistry data, physical measurements, and volunteer samplers’ perception data, suggests that swimming and contact recreation should be fully supported, although bacterial data are needed to evaluate the safety of the lake for swimming.

The CSLAP dataset on Friends Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data suggest that boating and fishing recreation should be fully supported.

Additional Comments and Recommendations

Public perception of the Lake and its uses is also evaluated as part of the CSLAP program. These assessments also indicate the recreational suitability of the Lake to be highly favorable since the Lake was first evaluated and continuing through the most recent 2014 assessment. Recreational conditions on the lake have been most often described as "could not be nicer" for most uses. Native aquatic plants are present in the lake, but none of the major exotic plants often found in other New York lakes were present.

5.0 AQUATIC PLANT SURVEYS

In addition aquatic plant surveys were conducted in 1996, 2001 and in 2006 by Lawrence Eichler, Marine Scientist, and the Darrin Freshwater Institute. In October, 2015, the lake was specifically surveyed for invasive species by Aquatic Invasive Management LLC (AIM).

The following are the major findings of the October 2015 AIM survey:

"We started the day surface spotting the perimeter of the lake, calm water made visibility good. We looked through all lily pad beds and shallow grassy areas specifically looking for water chestnut. None was observed. The

shoreline is mostly sandy in the shallows and drops quickly in other places. There are isolated patches of bassweed in the coves and shallow points. Milfoil often will take hold in these areas with existing plant growth, preferably over rooting in sand. Curly-leaf pondweed was also looked for and is also receptive to surface spotting. Neither was found. Variable-leaf milfoil is another common invasive found and is harder to spot from the surface. The divers snorkeled select shallow areas that could harbor this plant while on their perimeter search. None was found. These plants (Eurasian Milfoil, Variable Leaf Milfoil, Curly leaf pond weed and Water Chestnut) are most commonly found and already exist in lakes around Friends Lake. While these plants were specifically looked for, the divers also kept an eye out for any other invasive known or other unknown plant growth. While more time may be spent in any one given area it appears that no current established population of invasive species exist. Continued monitoring and general awareness among the Friends Lake community is crucial to keeping unwanted plants and animals out of their lake. A lake survey on a 2 year or appropriate schedule would be a good preventative measure.”

6.0 INITIAL DISTRICT FORMATION ACTIVITIES

This is the founding document of the Friends Lake Aquatic Plant Control District and reflects the checks and balances needed to direct and enable the governance of the District. The FLPOA has had several discussions with Town leaders in an effort to craft a sustainable and financially viable structure to respond to the invasive species threat. During the course of these discussions both parties determined that the best possible recourse is to be proactive and to establish an Aquatic Plant Control District for Friends Lake. Town leaders set a condition for their formal consideration of the establishment of said District: the FLPOA needed to provide the Town with proof that there is sufficient support of the owners of both the majority of the assessed value of all properties as well as a majority of the properties that will be included within the proposed District.

In November, 2015 the Association corresponded with all owners of property within the proposed District, including members and non-members of the Association, and provided them with: information concerning the reasons for establishment of the District; answers to questions posed at Association's annual meeting in July 2015 relating to the creation of a District; and a statement of support to be signed and returned to the Association. A Newsletter was also sent to all property owners within the proposed District in late April and early May 2016 providing further information about the proposed District and seeking their support in the efforts to have the District established.

384 properties will be included within the District, including 24 properties that are private roads and common areas which service the various communities and which have an assessed value of zero. The remaining 360 properties have an

assessed value of \$140,091,700 and signed statements in support of the proposed district from at least 181 property owners have been received. This represents an aggregate of \$80,835,400 in assessed value of the properties to be included within the proposed district. Thus, the Association cleared the threshold established by the Town Board by receiving support from owners of over 57% of the total property assessment in the proposed District. Support from over 50% of the properties has also been received.

7.0 PROPOSED DISTRICT BOUNDARIES

The proposed District encompasses the specific area surrounding the lake and those parcels within the Town that will be benefited by the formation of the District. The benefited parcels identified include both lakefront parcels and non-lakefront parcels that have deeded access rights to the Lake, all of which will benefit from the management of invasive aquatic plant species.

For the proposed District, the benefited area is identified on the Friends Lake Aquatic Plant Control District Map, attached as Appendix A. A property listing of parcels included in the District that includes each tax map parcel number, with the corresponding street address and property owner's name(s) is included in Appendix B.

8.0 DISTRICT FUNDING AND COSTS

The district formation and related costs as well as the reserve for continued monitoring and abatement will be assessed based upon an *ad valorem basis*. This decision was based on several factors in conversations with the Town Board, principally, the existing precedent regarding Loon Lake's invasive mitigation district and a review of assessments of properties within the proposed District. It is axiomatic that lakefront properties are assessed at higher valuations than those properties that only have lake right access and is strongly evidenced by market sales data. These differences in valuation demonstrate that each parcel owner on the lake receives benefits based on the opportunity to use the lake, swim freely from their property, and have boat access and other personal or recreational use of the waterbody. Properties with only lake access rather than lake frontage are also benefitted by the creation of the District, but in a lesser amount since they are not directly located on the lake shore and their property values are reflected accordingly. There are peer reviewed papers and anecdotal evidence which demonstrates that lake front property valuations are more directly harmed by the existence of invasives than their backlot counterparts. (See Appendix C)

8.1 Town Budget and Anticipated Costs

The Town of Chester has experience in invasive species control with both Loon Lake and Schroon Lake. The FLPOA members have had several discussions with leaders from these two Lakes and Brant Lake and their respective advice has colored its efforts. It is important to note here that Loon Lake Park District has a budget of \$50,000 for invasive management for 2016. Loon Lake anticipates

receiving additional funding from Warren County to supplement 2016 invasive management. Similarly, Brant Lake anticipates spending in excess of \$50,000 which includes money from the Brant Lake Association, the Town of Horicon and Warren County since Brant Lake does not have an Aquatic Plant Control District. In these cases, previous expenditures were equal to or greater than those anticipated in 2016. As both Brant Lake and Loon Lake have public access, they have a greater probability of receiving additional public funding in the form of grants to assist in invasive management.

With the establishment of the District, the Town tax bills would indicate two taxes: one for general Town services and one for Warren County; and two district charges – one for the Fire Protection District and one for the Aquatic Plant Control District. The establishment of the District as an entity to receive District revenues legally precludes the Town from using these monies for other purposes. The timetable for funding the District begins with the Town Supervisor's initiation of the budget process in mid-summer and the corresponding need to determine a budget for the District which will be identified by a separate Budget line item.

As the aquatic plant survey conducted by AIM indicates, there is currently no need for a large appropriation to cover anticipated mitigation costs in 2017. At this juncture, it is believed that the first year budget of \$25,000 should be sufficient to address the costs incurred in establishing the District, updating the 2006 Aquatic Lake Plant Assessment Report to include and satisfy the requirements of the APA Permit Application (described further in Section 10.0), continued monitoring and evaluating the health of the lake and the foundation for the establishment of a reasonable reserve. The budget for the second year of

the District would be \$15,000 and would include costs associated with the continuing monitoring and evaluating the condition of the lake. This approach will provide the District with some flexibility, will result in a reasonable assessment for tax payers and allow the Town greater flexibility under the State's tax cap.

Included in the proposed district are 384 properties with a total assessed value of \$140,091,700. Of these 384 properties, the District assessments will be shared by 360 properties as there are 24 private roads, common areas and beaches which service the various communities around the lake with an assessed value of zero. The initial District budget for the first year of \$25,000 divided by its total assessed value results in a projected rate of \$0.178 per thousand dollars of assessed value. The budget of \$15,000 for the second year yields a projected rate of \$.107 per thousand dollars of assessed value. The following chart shows estimated costs for various assessed values for the first two years after the formation of the District.

Assessed Value	Year One Assessment	Year Two Assessment
200,000	35.60	21.40
250,000	44.50	26.75
300,000	53.40	32.10
350,000	62.30	37.45
400,000	71.20	42.80
450,000	80.10	48.15
500,000	89.00	53.50

As with any average there may be properties that will pay more and others that will pay less. However, this amount, should be viewed as an insurance premium intended to protect not only the health of the lake but also the market value of Lake properties. (See Appendix C)

8.2 District Formation Costs

The costs associated with formation of the Friends Lake Aquatic Plant Control District are estimated at approximately \$10,900 and include boundary description and mapping, legal, publication and other miscellaneous costs associated with the formation process itself. This total is included within the anticipated initial budget of \$25,000. Any formation costs that are paid by the Association in connection with the establishment of the District will be reimbursed with District funds once the District is established. The FLPOA and the Town will enter into a Memorandum of Understanding to that effect and to other matters related to the operation of the District. .

8.3 Operation and Maintenance Costs

The practical utility of the District is in its ability to act quickly. Outside funding and the annual budget processes take time to respond and are not the best line of defense for confronting an infestation. Establishment of the District will empower it to marshal sufficient funds to quickly respond to a detected infestation.

The following table outlines a proposed budget in dollars for the first 3 years including the year that the district is established.

	Year 1	Year 2	Year 3
Tax Receipts	25,000	15,000	
District formation costs:			
A .Mapping and Descriptions	- 4,600		
B. Publication costs	- 800 (est.)		
c. Legal	-2,500 (est.)		
Aquatic Lake Plant Assessment	- 900		
AIM Invasive Survey	- 2,100	-2,100(est.)	-2,100 (est.)
Fund Balance	14,100	27,000	24,900

In the absence of the detection of an invasive species, it is anticipated that the annual assessment per property within the district will be in the area of 0.178 per thousand dollars of assessed value for the first year after the district is established and .107 for the second year after the district is established as described above in Section 8.1. This rate will change if the condition of the Lake changes with the need to mitigate any invasive species which are detected in the Lake. The reserve permits the Town and the District to continue to monitor and evaluate the Lake,

contract for lake surveys specifically geared to invasive species and to conduct educational programs in the absence of an invasive and respond promptly once contamination has been detected. The reserve will not be an unlimited and ever expanding fund and at the end of 3 years is anticipated to be in the area of \$24,900. The Town is mindful of the New York State tax cap and the district will fall within that mandate. In addition, the expenditures and the reserve will be subject to the annual audit review of the NYS Office of the State Comptroller, thereby providing an extra safeguard for the control of the funds and to ensure proper fund management.

9.0 DISTRICT OPERATIONS

The Town Board will operate the District and be the governing body for the District as provided in statute. It is anticipated that The Town Board will enter into an agreement with the FLPOA, modeled on the one currently existing between the Town and The Loon Lake Park District Association, which is also a 501(c) 3 organization to provide for the day to day operation of the District. The duties enumerated in the agreement would include: providing recommendations on the Lake's yearly management program, reviewing the water quality and aquatic vegetation surveys, monitoring treatment methods, managing projects as needed, developing an annual budget, reviewing necessary expenditures and such others as determined by the parties.

10.0 PLANS FOR THE CONTROL OF INVASIVES SPECIES

If or when the presence of an invasive species has been detected in the Lake, as the result of the annual volunteer survey, the discovery by a single property owner or the product of an annual contracted lake survey, the focus of the District will change from prevention to control. In anticipation of such an event the District, with the assistance of the FLPOA, has already developed a conceptual plan which will be annually reviewed as events unfold. The District will be required to prepare and file with the Adirondack Park Agency form 2015G-2 which is an application and certification for the management of aquatic invasive species. The application itself has certain requirements including mapping of the lake and a qualitative assessment of the lake which the District will have prepared in anticipation of the permitting process. The Adirondack Park Invasive Plant Program does have a permit to allow a rapid response team to assess and address an early outbreak prior to the permit application. However, the very limited response provided does not constitute the effort required to control invasive species even when they are first detected.

The costs associated with the annual operation and maintenance of the District, once an invasive has been detected, have been estimated based on management operations conducted in nearby lakes, particularly Loon Lake and the presumption that an aggressive mitigation program could be initiated at the start. This cost could be in the area of \$30,000 to 50,000, for the year when invasive species are first detected in the Lake and presumes that there will be sufficient time in the seasonal calendar to initiate a fully functioning program. Since the type or types

of invasives, the extent of the infection and the size of the treatment area, the season of discovery (i.e. a spring discovery would allow the initiation of a larger and more costly mitigation effort than a late fall one), vendor availability and other factors that are currently unknown, there could be variations in costs for abatement when invasives are first detected.

Obviously, the yearly costs will vary based upon the size of the treatment areas and treatment methods chosen once invasives are identified. Annual costs could include: permit preparation and application fees; yearly notice mailings; hand harvesting, herbicide treatment applications or other control methods as deemed appropriate; project management; water quality testing; and aquatic vegetation surveys.

In preparing its plan, the FLPOA is mindful of President Eisenhower's dictum: "In preparing for battle I have always found that plans are useless, but planning is indispensable". As has been the case for the past several years, the FLPOA will continue to review literature and scientific studies so that it can be current on approaches used to control invasives and actively participate in such organizations as the Adirondack Lakes Alliance and the Adirondack Park Invasives Plant Program. In preparation for a mitigation program, it will determine locations for access to the Lake for contractors if enterprises such as hand harvesting or herbicides are required and develop a listing of potential vendors so that it can quickly respond with a mitigation program. It will also participate in water quality evaluations as part of the CSLAP Program as well as contracting for invasive aquatic plant surveys.

Upon first discovery, the District will position buoys and other surface markers in an effort to discourage boat traffic which will stem the further proliferation of the plants. Simultaneously, it will promptly initiate the process to contract with a mitigation vendor to conduct an extensive survey and follow-up mitigation efforts. (The use of untrained hand harvesters will be precluded because there is strong evidence that such efforts tend to worsen the situation.) In addition to these efforts, the District will research additional methods of control and will commence the development of a permit application for herbicide treatments, if deemed appropriate.

After receiving bid proposals from the vendors, the Town in consultation with the District and the FLPOA will then select the appropriate vendor. In determining the selected vendor criteria such as general experience, training and expertise of the staff, recommendations from other clients, the Town's experience with the vendor, if any, and cost will be used. Once the vendor has been selected by the Town the FLPOA, pursuant to the terms of the agreement with the Town, will supervise the day-to-day operation of the vendor as Project Manager. All invoices from the vendor will be reviewed by the FLPOA and upon review will be submitted to the Town for payment.

11.0 CONCLUSIONS

The formation of the Friends Lake Aquatic Plant Control District will provide the Town and property owners with a mechanism for long term prevention and, when appropriate, management and control of invasive species in Friends Lake. The formation of this district will allow the Town and the FLPOA to manage the

lake's health, maintain the current water quality and preserve the recreational and aesthetic values of the Lake. As indicated here, the Lake's excellent health has been documented through many years. As stewards of this invaluable asset, the Town, all property owners within the district and the FLPOA, by establishing the District, will be providing a solid mechanism to preserve this wondrous natural resource so future generations may enjoy its unqualified beauty.

DRAFT

APPENDIX C

IMPACT OF INVASIVES ON PROPERTY VALUES -- SELECTED PUBLICATIONS

1. The effect of an aquatic invasive species (Eurasian watermilfoil) on lakefront property values; by Congwen Zhang, Kevin J. Boyle Department of Agricultural and Applied Economics, Virginia Tech, USA. Published in *Ecological Economics* 2010.

ABSTRACT: Invasive species are one of the major threats to ecosystems. One of these "invaders", Eurasian watermilfoil, can crowd out important native aquatic plants, decrease habitat and diversity of native species in a lake, and interfere with water based recreation. This study uses a hedonic property value method to estimate the effect of Eurasian watermilfoil on lakefront property values at selected Vermont lakes. Results indicate that as the primary component of total aquatic macrophyte growth in a lake Eurasian watermilfoil significantly and substantially affects lakefront property values. As Eurasian watermilfoil infests a lake, adding to the total macrophyte growth, property values can diminish by 1% to 16% for incremental increases in the infestation level. Hence, policies that successfully prevent infestations have significant economic benefits to owners of lakefront properties and local communities.

B. The Effects of Aquatic Invasive Species on Property Values: Evidence from a Quasi-Random Experiment; by Eric J. Horsch, *Graduate Student*, David J. Lewis, *Assistant Professor*, Department of Agricultural and Applied Economics University of Wisconsin, Madison. Selected Paper prepared for presentation at the American Agricultural Economics Association Annual Meeting, Orlando, FL; July 27-29, 2008.

Abstract: The invasion of ecosystems by nonnative species is widely considered to be a principal threat to global biological diversity, yet the social costs of invasive species are not well understood. The purpose of this study is to estimate a hedonic model of lakeshore property values to quantify the effects of a common aquatic invasive species – Eurasian Watermilfoil – on property values across an extensive system of over 170 lakes in the northern forest region of Wisconsin. In

addition to providing empirical evidence as to the potential benefits from reducing the spread of invasive species, this paper also develops a quasi-experimental methodology to identify the effects of changes in endogenous neighborhood amenities within the commonly estimated hedonic framework. In our application, a lake is more likely to be invaded with Milfoil if it is more popular with recreational boaters. Therefore, since lakes popular with recreational boaters are also likely to be popular with potential residents, and since many aspects of a lake's amenities may be difficult to quantify, the likelihood of Milfoil invasions is endogenous in a hedonic price equation. Our identification strategy is based on a spatial difference-in-difference specification, and uses fixed effects to control for observed and unobserved neighborhood effects, while exploiting changes in the Milfoil status of several lakes during the time period of our data. Results indicate that lakes invaded with Milfoil experienced an average 13% decrease in land values *after* invasion.

C. The Actual and Potential Economic Impact of Invasive Species in the Adirondacks Park: A Preliminary Assessment – Full Report and Executive Summary; by Adirondack Park Invasive Plant Program (APIPP) Special Reports

Abstract: The largest share of the total estimated direct economic impact is the potential impact on property values. The impact of aquatic invasive species, particularly Eurasian watermilfoil, on property values has been studied and found to range from 1% to 16%.² Other studies confirm that a reduction in water clarity (and its diminishment from cultural and non-cultural eutrophication) results in decreasing property values. A study in the Adirondacks found that multiple measures of water quality, including the presence of Eurasian watermilfoil, have significant effects on property values overall, *even for properties that are not directly on the water*. According to this study, the presence of invasive species on the nearest lake decreases property values by \$10,459.³ The total value of residential properties in the Adirondack Park is estimated to be approximately \$14 billion. If we assume a conservative impact of 3% on property values Park-wide, approximately \$420 million in property value could be at risk from increasing numbers and densities of aquatic invasive species, such as Eurasian watermilfoil. A slightly less conservative estimate of 6% impact that is still within the low end of the range suggested by the research increases this impact to \$840 million. While this is a simplistic method of computing impact, it is a reasonable (and likely conservative) indication of the order of magnitude of the impact if an aquatic invasive species, in isolation or in combination with others, were to

spread throughout the Park. Currently, second homeowners pay a premium for property within the Park. The presence of aquatic invasive species can be expected to have a dampening effect on their willingness to pay a premium, which will also have a dampening effect on property values.

"I had a good buyer in the \$2 million range. They looked on Lake George and ended up not purchasing because of fear of invasives." Dan Davies, Co-Owner,

Davies, Davies & Associates Real Estate, LLC

DRAFT