



Request for a minor amendment to the
10 year FMP around Lake Weslemkoon

Respectfully submitted by the Lake Weslemkoon Conservation Association

August 17, 2020



Lake Weslemkoon Conservation Association (LWCA)

The LWCA is a community based association that has, over many years, collaborated with other stakeholders to promote, advance, conserve, and protect the water quality, and fish and wildlife habitat, in the watershed of Lake Weslemkoon, Otter Lake, and 10 other surrounding lakes.

We recommend that the 10 Year Forest Management Plan include a minor amendment to remove the Preferred and Optional Harvest Blocks surrounding Lake Weslemkoon and its surrounding small lakes and creeks.

Three Strategic Reasons for this minor amendment to the 10 year Forest Management Plan areas around Lake Weslemkoon

1. Water Quality
2. Jewel Lake Trout
3. Economic



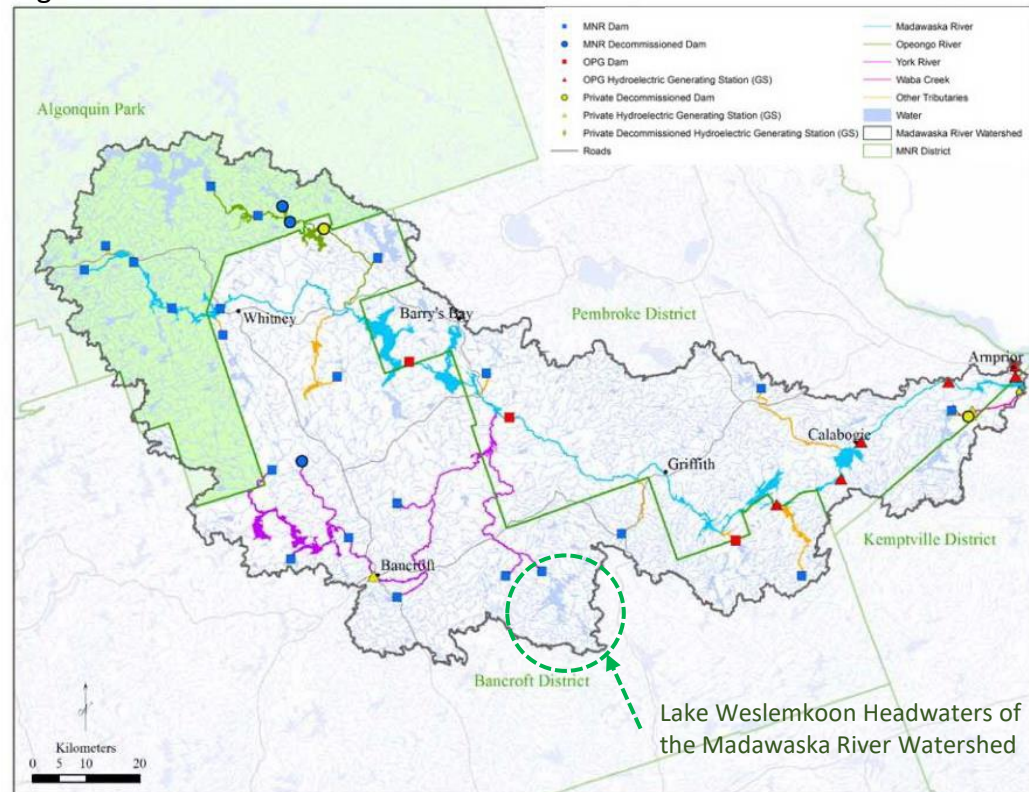
1. Water Quality

For over 50 years the Lake Weslemkoon Conservation Association (LWCA) has been promoting the protection of lands around Lake Weslemkoon to preserve the purity of the watershed into the Lake. Increased forestry in our immediate watershed could lead to deteriorated water quality.

Preserving the water quality in the watershed is important for many reasons including:

1. Lake Weslemkoon is a highly sensitive Lake Trout lake, as determined by the OMNRF. Maintaining and improving sufficient dissolved oxygen levels to protect the lake's natural and unique lake trout population is directly correlated to the purity of the watershed around the lake.
2. Protecting fish habitat, by limiting disruption to the watershed and thus disruption to spawning beds is of utmost importance to protecting the lake trout.
3. Protecting the drinking water for seasonal residential consumption is also vital. 80% of seasonal residents are water access only to their dwelling, thus drilled wells are cost prohibitive, and these residents depend on potable filtered water from the lake.
4. Game fishing, which relies on water quality, is a key local economic driver
5. The watershed into Lake Weslemkoon is an important contributor to the headwaters of the Madawaska River Watershed (MRW) and thus key to the water quality of residents in Griffith, Calabogie, Arnprior and many other communities in the MRW. See Figure 1

Figure 1 – Madawaska River Watershed



Source: White Lake Preservation Project http://www.wlpp.ca/wlppwebsite_037.htm

2. Jewel Lake Trout

Lake Weslemkoon is a highly sensitive Lake Trout Lake which is home to a unique population of Lake Trout, locally known as “Jewel Lake Trout”.

The LWCA has been extensively testing and monitoring the lake water quality in Weslemkoon and Otter Lakes since the 1970’s. These data are analyzed by PhD. experts who in turn inform our residents of any variances that may threaten the Jewel Lake Trout. The Association has been instrumental in promoting best practices in septic system maintenance and repair, riparian zone maintenance and restoration, and watershed protection of the 11 lakes surrounding Lake Weslemkoon in order to safeguard the Jewel Lake Trout. The LWCA have been successful in their efforts; one of the best indicators of water quality is a healthy and natural Lake Trout population such as is found in Lake Weslemkoon.

The following reasons underscore the importance of protecting the watershed of Lake Weslemkoon and thus protecting its unique population of Lake Trout.

1. Lake Trout lakes are rare. Only about one percent of Ontario’s lakes contain Lake Trout, which represents 20-25% of all Lake Trout lakes in the world!
2. Lake Trout is the only major, indigenous sport fish species in Ontario that is adapted to oligotrophic lakes (i.e. lakes with low levels of nutrients, high dissolved oxygen levels, and typically deep areas with very cold water).
3. Lake Trout is a sensitive species adapted to a narrow range of environmental conditions. Any disruption to the Watershed that changes these conditions will reduce/eradicate the population.



Egg donor fish from Lake Weslemkoon. North Hastings Fish Hatchery, and the OMNRF

4. Weslemkoon Lake Trout are a healthy population which is used extensively by the North Hastings Fish hatchery for egg harvest, fingerling rearing, and release to other Bancroft district lakes with nil or deficient populations.
5. Slow growth, late maturity, low reproductive potential and slow replacement rate make Lake Trout susceptible to a variety of stresses, like water quality degradation from watershed disruption.

Sources:

Points 2, 3, 4; OMNRF <https://www.ontario.ca/page/inland-lakes-designated-lake-trout-management>

2. Jewel Lake Trout (continued)

6. There has been a general decline of Lake Trout habitat in many Ontario lakes. Lake Trout lakes are particularly vulnerable to the impacts of human activities, including; exploitation, enrichment from cottage septic systems, acidification, species introductions, and habitat degradation/change to the Lake watershed. Because of their high sensitivity to disturbance, special protection is required for these lakes and their Lake Trout populations. Approximately 5% of the province's Lake Trout populations have already become extinct; 43% of the extinct populations have been in southeastern Ontario.

7. Lake Trout are rich in biodiversity for they have unique gene pools in many individual stocks, like Weslemkoon's Jewel Lake Trout. To protect this healthy rich biodiversity we must protect the surrounding watershed of Lake Weslemkoon.

8. The OMNRF has recognized "it has a great responsibility to manage them (Lake Trout populations) wisely". The OMNRF has developed a coordinated strategy to protect Lake Trout populations and has "designated Lake Weslemkoon for Lake Trout management". The OMNRF "deemed Lake Weslemkoon to be managed for naturally reproducing populations of Lake Trout ('Natural' lakes)". For this natural and unique population to be managed and protected, we must protect the surrounding watershed of Lake Weslemkoon.

9. In Northern and Southern Ontario there are 2,318 Lake Trout lakes, of which 1,827 were identified as native populations, 222 introduced populations, 83 populations of unknown origin, and 122 extinct populations since 1976. Let's not make Lake Weslemkoon a statistic of Lake Trout extinction, but rather protect its watershed by amending the 2021 -2031 Mazinaw Lanark Forest Management Plan.

Source:
Points 9; OMNR 1990
Point 6; Martin and Olver 1976; OMNR 1990



Extracting Lake Trout fish eggs from Jewel Lake Trout from Lake Weslemkoon. North Hastings Fish Hatchery, and the OMNRF



Releasing Lake Weslemkoon Jewel Lake Trout fingerlings into Paudash Lake. North Hastings Fish Hatchery, and the OMNRF

3. Economic

Lake Weslemkoon real estate values are key to the tax base of the Township of Addington Highlands. Water quality, the lake fishery, and forest sight lines have been the most significant contributing factors to growing real estate values on the lake for 100 years, and by extension, the municipal tax base of Addington Highlands.

From the early days of Fishing camps on the lake to the development of cottage lots by the Province in the 1960's, to today's well-heeled cottage buyer... LWCA membership (250 families strong) tells its Board of Directors, that water quality, conserving Jewel Lake Trout habitat, preserving the watershed, and forestry sightlines are the highest contributing factors to their family cottage values, and will be in the future.

This is important for many reasons:

1. The Township of Addington Highlands has a very small tax base of which Lake Weslemkoon and Otter Lake's 430 seasonal residential properties represent approximately 22% of the property tax base*.
2. The Township of Addington Highlands depends upon the Ontario Municipal Partnership Fund (OMPF) to support its budget with provincial uploads totaling \$2,045,000, which is the equivalent of 82% of the Township's 2018 municipal property tax revenue. This underscores the importance that their tax base must continue to grow**.

*Total residential assessment is \$491,712,500. The properties on and around Lake Weslemkoon and Otter Lake have a total assessment of approximately \$107,767,600 which is approximately 22% of the Township's total residential assessment. Source: Christine Reed - CAO/Clerk-Treasurer Township of Addington Highlands

** Source: Ontario Ministry of Finance,

<https://www.fin.gov.on.ca/en/budget/ompf/2018/notices/1134.html>



Source: Lake Weslemkoon Marina

3. Economic (continued)

3. However, with no significant “commercial” property tax base *growth* in the Township, the Lake Weslemkoon tax base growth is ever more crucial to fund the Township budget. In order for Lake Weslemkoon property taxes to grow, water quality of the lake must be maintained/improved for this is what attracts well-heeled cottage buyers. AND one of the best indicators of water quality, is a healthy and *natural* Lake Trout population.
4. Since Lake Weslemkoon seasonal residents are key contributors to the property tax base of the Township of Addington Highlands, they help support the Township budget for services to year round residents. If Weslemkoon’s water quality deteriorates, due to disruption of its watershed by forestry activity;
 - a) its lake Trout stocks will begin to deplete
 - b) Real estate values will depreciate
 - c) the contributing tax base to Addington Highlands will dwindle, and
 - d) OMPF transfer payments will have to increase.



Lake Weslemkoon Cottage



Lake Weslemkoon site lines

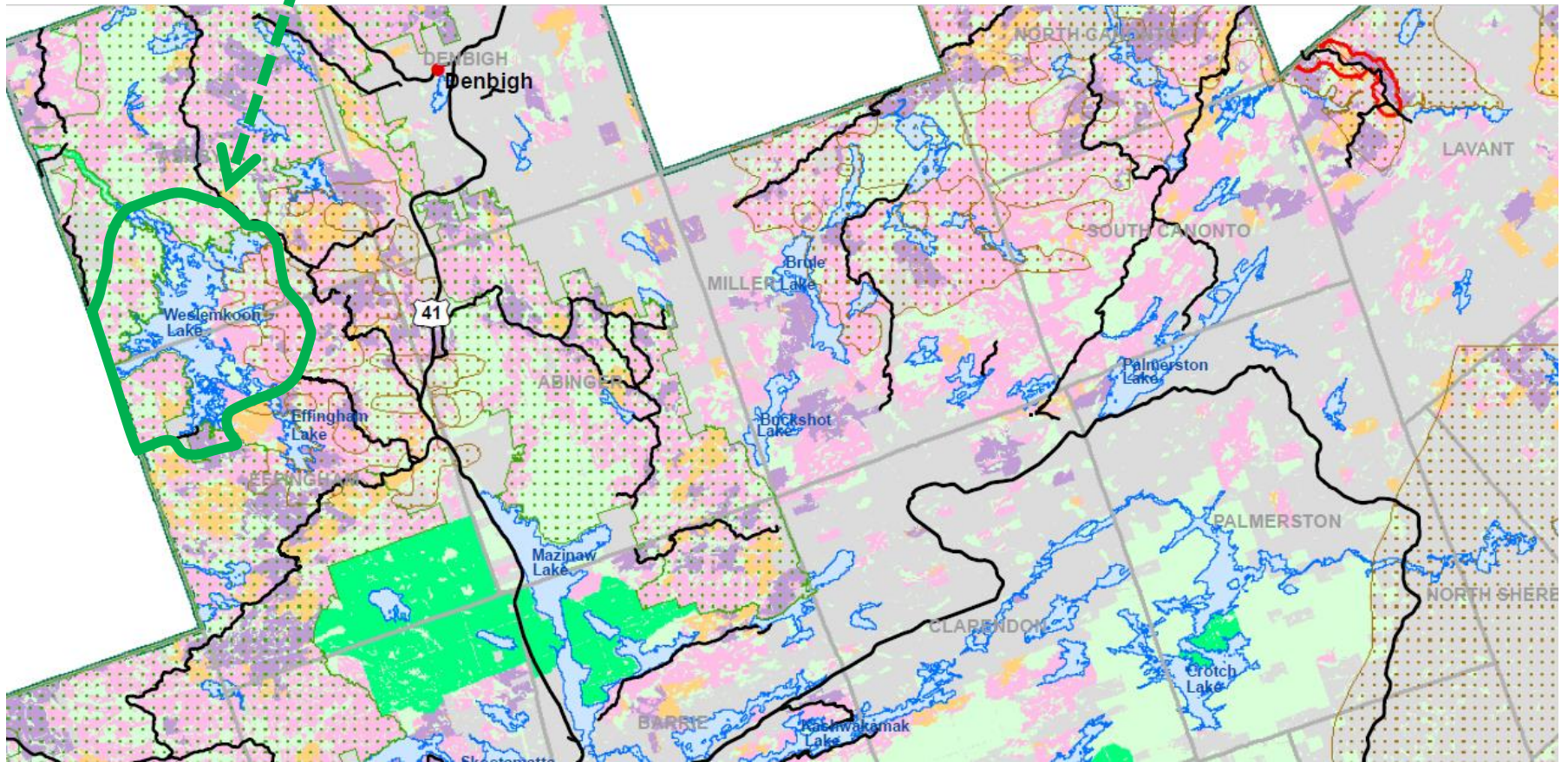


Lake Weslemkoon site lines

Minor area to be amended in the 2021-31 Mazinaw Lanark Forest Management Plan

The minor area that we request to be amended out of the FMP is a small area around the lake Weslemkoon watershed as denoted by the thick green line.

Figure 2 – Minor amendment area of the 2021-31 Mazinaw Lanark Forest Management Plan



Minor amendment area

Source - 2021-31 Mazinaw Lanark Forest Management Plan, LWCA green outlined abbreviations

Minor Amendment areas of the 2021-31 MLF Management Plan

Please note that these minor amendment areas from the FMP are minor in nature. AND there are a substantial number of areas/blocks outside of the surrounding Weslemkoon area that are very suitable to harvest. Further it is unlikely that the amended areas around Lake Weslemkoon will have any material impact to the total yield expected in this 10 year plan.

Part A – South section including both two thirds of the preferred area in this block and a small optional harvest area. Please note that we recommend the preferred part of this block to the south of the green part A area, is suitable to harvest.

Part B – East side of the south end of Lake Weslemkoon, and north of the previously harvested area.

Part C – East side of Lake Weslemkoon, south of Mink Lake (Heath Lake), south to and including the north east side of Effingham Lake (including half of a preferred block, and northwest to include Seymore creek and Shiner Lake.

Part D – South edge of Otter Lake east, east to include MacKenzie Lake, south to include the eastern water shed into Mink Lake, west to include Regina Bay and the two hiking trails from Weslemkoon to Mink Lake.

Part E – South of Otter Lake, west of Trout Lake Road, and along the south watershed of MacKenzie Lake

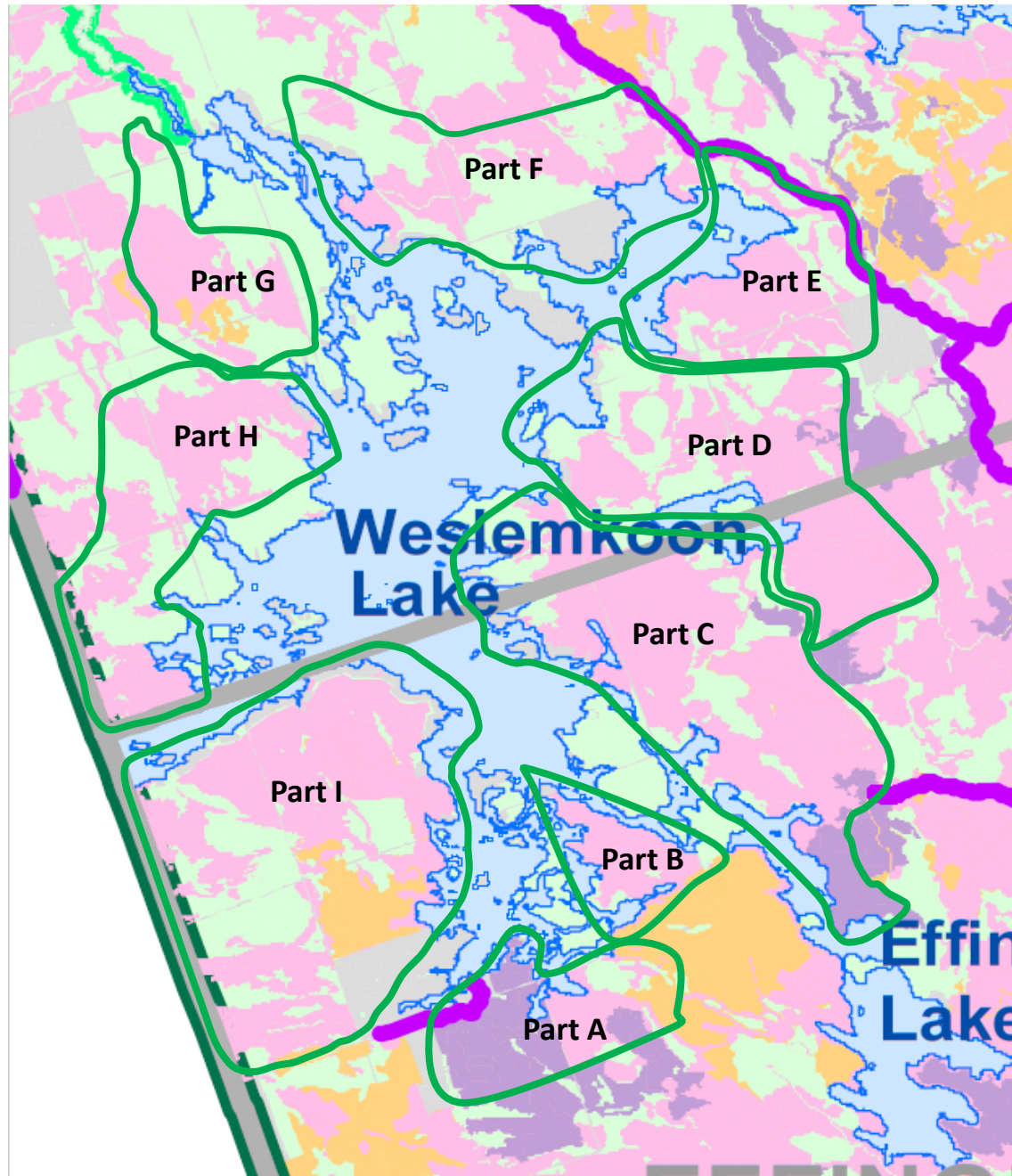
Part F – North shore of Lake Weslemkoon, and the north shore of Otter Lake west of Trout lake Road, to the northwest side of Tanglewood Marina.

Part G – West of the North west passage, and north of Mackey Bay

Part H – West of Mackey Bay, west side of West Bay (north arm), and North side of West Bay.

Part I – South of West Bay, and west of Weslemkoon to the Mazinaw Lanark boundary.

Figure 3 – Minor amendment areas of the 2021-31 Mazinaw Lanark Forest Management Plan



Descriptions of the Forest Management Plan Areas Affecting Lake Weslemkoon and Explanations of Why Forestry Should be Curtailed in these Areas

Part A – This is the inlet area of watershed headlands into Lake Weslemkoon. Year round cottages and residents require this watershed to be an extra large riparian zone, protected from forestry operations so that increased freshets due to forest harvesting of these lands do not flush their septic beds into the Lake. We must remember that all septic tile beds weep/leak and they need time to filter effluent. LWCA undertakes water testing at this end of the lake throughout the year. Coliform and e-coli counts are already high in this area during spring freshet.

Part B –The bogs that are tight to this shoreline are spawning, rearing, and feeding habitat for Small and Large Mouth Bass, the second most valuable fish stock in the lake to the Lake Trout. Excess runoff due to deforestation may affect Bass stock. Protection of cottage sightlines is another issue in this area.

Part C – This area has many environmentally sensitive areas that will be directly impacted by Forestry harvest at any scale. These lands are watershed lands to both Shiner and Mink Lakes (Heath Lake). They have unique populations of Small Mouth Bass, and these lakes and their watersheds also shed spring freshet into Lake Weslemkoon. Environmentally impacting these lakes and their watersheds with forestry harvest will directly impact the Lake Trout habitat of Lake Weslemkoon.

Part D – This area has the same issues as Part C above. In addition to this, Mink Lake is a crown jewel spring fed lake that Weslemkoon cottagers hike to from trails on the east side of Lake Weslemkoon. Mink Lake is a very deep cold spring fed lake surrounded by ridges with no cottages and a land locked shoreline. It has extremely excellent water quality and its Small Mouth Bass are a very unique bright white bellied natural fish population. There must be a significant setback to this lake, in excess of two kilometers from forestry practices of any type to preserve the watershed flow into this lake, the hiking trails from Lake Weslemkoon, AND the tall White and Red Pine raptor nesting sites. Sightings of the Golden Eagle the largest Eagle on the planet which has struggled to maintain its population in North America, have occurred on these trails.

Part E – The watershed from MacKenzie Lake and Trout lake road must be preserved for it flows into Otter Lake (which has Jewel Lake Trout) and it also flows into Lake Weslemkoon. Furthermore, these lands are key site lines for cottagers on the north shore of Otter Lake, who are also members of the LWCA.

Part F – This area has all the same issues as Part E above, but it is exacerbated by even a sharper drop into Otter and Weslemkoon lakes due to topography. In addition, parts of the North shore of Otter Lake contain bogs and shallow coves inaccessible by boat and as a result they have become highly populated spawning beds that would be silted over due to the sharp watershed run off if forestry operations occurred here.

Part G – The North west passage is shallow and has spawning beds that would be directly impacted by forestry in the part G area.

Part H – This area west of Mackey Bay, and the north arm of West Bay are sight lines for all cottages on the east side of the lake. There is a distant ridge that runs through the middle of this proposed optional harvest area, diagonally from the southwest corner of this area to the northeast corner of this area. Any harvest close to this area will destroy this sightline and thus the property values on the east side of the lake. The top of this ridge is populated with dozens of tall silhouetted white pines which are awe inspiring at sunset, and provide valuable nesting habitat for raptors.

Part I – This area has two key watershed lakes that feed Lake Weslemkoon, Canoe Lake and Little Long Lake. There are trails to these lakes from Lake Weslemkoon. To protect Lake Weslemkoon Lake Trout it is imperative that these lands not be harvested in any proportion for the watershed is extremely steep along these lands and it runs directly into Lake Weslemkoon.

Summary

As a community based conservation association that collaborates with other stakeholders to promote, advance, conserve, and protect the water quality, and fish and wildlife habitat, in the watershed of Lake Weslemkoon, Otter Lake, and 10 other surrounding lakes...

We recommend that the 10 Year Forest Management Plan be amended to remove minor Preferred and Optional Harvest areas surrounding Lake Weslemkoon and its surrounding small lakes and creeks due to the negative impact that any level of Silviculture will have on:

1. The water quality of Lake Weslemkoon, Otter Lake and the 10 smaller surrounding lakes, and their surrounding watersheds.
2. The sensitive population of Lake Trout in Lake Weslemkoon, and Otter lake, known as the unique “Jewel Lake Trout”.
3. The real estate values on our lakes and the subsequent tax base of Addington Highlands Township.



Appendix

Research: Impact of Forestry on Lake Trout populations

At present there are no long term studies on the impact of forestry at any level of silviculture on Lake Trout populations in southeastern Ontario.

However, a number of basic relationships have been discussed in the literature pertaining to forest harvest effects on aquatic systems. The following are key excerpts from a literature review completed by Miller L. B. Impacts of Forest Harvesting on Lake Ecosystems 1997

Forestry harvest effects on aquatic systems. These effects are:

- Forest removal will increase total water yield.
- Storm flows and peak flows will increase, likely resulting in an increased occurrence of erosion and channel scour.
- Suspended sediment concentrations and total yield will likely increase
- Removal of streamside vegetation will result in increases in stream temperature
- Concentrations of nutrients are expected to increase
- Watershed losses through increased runoff and streamflow.
- Oligotrophic lakes may become more autotrophic.
- The removal of lake riparian vegetation may result in temperature increases
- It appears reasonable to hypothesize that changes in streamflow will result in alterations in lake water

Source: Miller L. B. Impacts of Forest Harvesting on Lake Ecosystems