

APPENDIX D

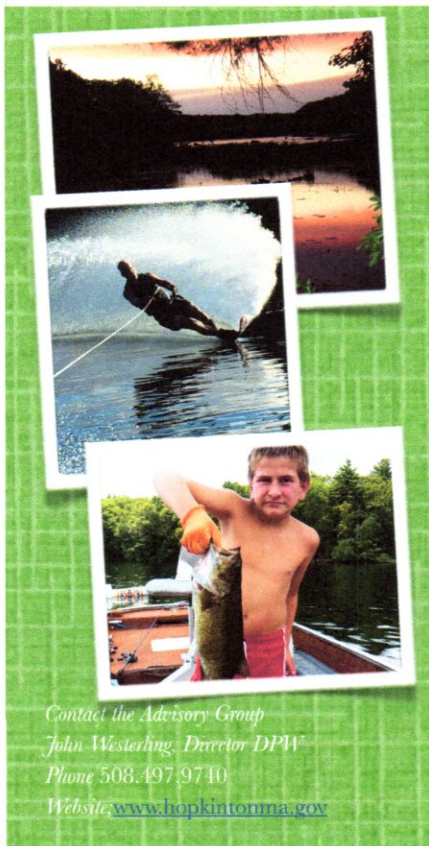
LAKE MASPENOCK VISION STATEMENT



TOWN OF HOPKINTON MA

LAKE MASPENOCK WEED MANAGEMENT & CONTROL ADVISORY GROUP

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VISION STATEMENT

The Lake Maspenock Weed Management & Advisory Group will engage Hopkinton residents in preserving both the recreational value and environmental significance of the Lake and surrounding watershed. To accomplish this goal, the Advisory Group will submit a comprehensive, long term plan to the Board of Selectmen. Public participation is key to the development and implementation of the plan.

Lake Maspenock Watershed Area
provides benefits
to all Hopkinton residents

- Open for recreation all year long
- Parks & Recreation public beach, new playground, swimming lessons and other activities
- Boat Ramp for residents
- A beautiful place for canoeing, kayaking, bird watching and passive enjoyment
- Protected wetland areas home to abundant and diverse wildlife
- Fishing grounds for bald eagles and osprey
- Location of the Long Distance Lake Swim, Fishing Tournament, Ice Fishing Derbies, 4th of July Boat Parade, Lake Clean Ups and other events
- Abuts Peppercorn Hill and Hopkinton Area Land Trust hiking trails
- Highly desirable lake front real estate
- Historic summer cabin community dating back to the early 1900's

Lake Maspenock

Basic Facts and Current Conditions

Lake Maspenock is truly a Great Pond

- Lake Maspenock (aka North Pond) is designated as a “Great Pond” by the Commonwealth of Massachusetts. The lake is approximately 2 miles long and 2,000 feet wide at its widest part.
- A natural pond of 30-40 acres was increased to 234 acres by a dam built in early 1900’s at the south end. The shoreline is shared by the Towns of Hopkinton, Upton, and Milford.
- Lake Maspenock’s watershed area (land draining into the lake) is estimated at 1,813 acres and it is one portion of the much larger Blackstone River drainage.
- Outlet flow (over the dam) is estimated at 28 cubic feet per second. Hydraulic retention (holding) time is 260 days producing an annual flushing rate of 1.4 exchanges per year.
- Average water depth is 8 feet but varies widely with shallow areas less than 6 feet in the north basin and increasing southward to a maximum depth of over 20 feet.

What information and data are available about the Lake’s water quality and aquatic vegetation?

- Two detailed diagnostic/feasibility studies were conducted by engineering firms in 1979 and 1987.
- MA Dept. of Environmental Protection and Dept. of Fish & Wildlife surveys and samples were done in 1980 and 1993.
- A series of aquatic vegetation coverage maps were drawn in 2008, 2012, and 2015.
- Seasonal volunteer water quality samplings were taken routinely between 2011-2015.

What does this information tell us about Lake Maspenock?

- Due to the shallow nature of the lake and its rich sediments, aquatic weeds have probably flourished since the filling of the current basin.
- Weeds started to be a real nuisance with the invasion of two non-native invasive species (fanwort and variable milfoil) which were well established by the 1970’s.
- Considerable development has occurred in the watershed including new structures and conversions of summer cottages to year-round residences.
- Water quality has improved since the 1970’s-1990’s in part due to installation of better stormwater management, public sewer installation and control of sediment in the watershed.

What is the present status of Lake Maspenock?

• **Water quality is considered very good based on:**

1. Very good water clarity, usually 8-12 feet in deeper water
2. Plentiful dissolved oxygen throughout most of the water column
3. Low concentrations of total phosphorus (prime nutrient for aquatic algae) for the last 5 years
4. No major algae blooms have been recorded

• **Aquatic vegetation has been growing at high density in shallower waters:**

1. Winter drawdowns have significantly reduced the two invasive species (fanwort, milfoil)
2. Native largeleaf pondweed has recently dominated due to the decline of its competitors
3. The full impact of the 2015-2016 winter drawdown will be evaluated over the summer of 2016

• **In Summary:**

1. Lake Maspenock meets all its expected recreational and ecological water uses
2. The lake has very good water quality but an overabundance of weeds in some areas needs to be addressed in a strategic and sustainable fashion
3. The lake provides many benefits to Hopkinton residents but long-term management and protection is needed to insure these will endure for future generations