Mt. Kemble Lake and Land and You

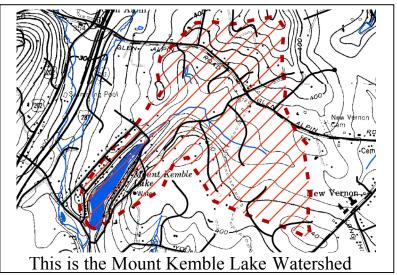


This brochure presents a series of topics affecting lake health with suggested resources for "Best Management Practices". It is always preferable to manage land use before a lake gets loaded with nutrients or pollutants



Our watershed and the lake aging process

Our "watershed" is the area from which rainwater running off the land enters our lake. The runoff from the watershed carries with it various materials such as silt, soil, trash, road deposits, wildlife and pet waste, and leaves. The accumulation of these materials



in the lake contributes to an aging process called eutrophication. The nutrients in the run-off stimulate the growth of algae and weeds. As the algae falls to the bottom of the lake further growth is stimulated. As a man-made lake, our lake starts off with a few strikes against it. It is relatively shallow and warm and it has a moderately high development density (us)

around it. Human interaction with lakes results in something called cultural eutrophication. This comes from things we do to the areas surrounding the lake which can result in additional nutrient load on the lake. Two examples of this are septic system runoff and the runoff of excess fertilizer. Although we cannot stop all of the aging of the lake, we can minimize the impact that we have by becoming effective stewards of our Lake and its watershed. Such effective stewardship will help to keep our lake as an enjoyable resource to us all.

Our watershed is in turn a part of the Great Swamp watershed which filters water for more than one million people downstream.

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Nutrient risks to the Lake: Excess nutrients (phosphorus and nitrogen are examples) can significantly increase the risk of weed growth or algae blooms.

Our Septic Systems

Our septic systems can be major nutrient risk for our Lake

Proper maintenance is critical to minimize risk:

- Regular inspection and pump-out of tank is important.
- Avoid use of toxic chemicals in the home.
- Avoid garbage disposals and other excess loads.

Township regulations govern our septic systems.



Our Lawns and Yards

Improper lawn maintenance will result in harm to our Lake.

- Nutrient load to our lake increases with excess runoff containing fertilizers. Town and State laws are in place now restricting fertilizer use (types and timing).
- Herbicides and pesticides are poisons and runoff of these in excess will endanger our Lake biology and can affect those who use the Lake recreationally or who fish.

If you use a lawn service, make inquiry as to the products they use and how these products affect the Lake.

If you do your own maintenance, you should be aware of the benefits for Lake health in using the following:

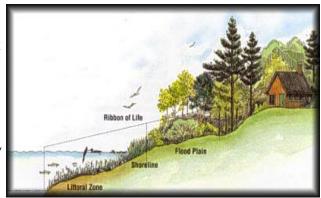
- Phosphorus-free and low-release nitrogen fertilizers
- If you are a lakeside resident, consider leaving a planted buffer area near the Lake for improving runoff quality.
- Alternative ways of dealing with lawn and garden pests.

Our Shoreline

Shoreline buffers (naturally vegetated strips adjacent to the waters edge) can be an important tool to protect our Lake.

Shoreline buffers provide the following protections:

- vegetation filters runoff to improve water quality
- water fowl nesting and feeding are discouraged
- steep slopes are stabilized to prevent erosion

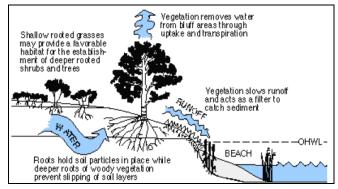


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Our Trees

Trees are an important community resource providing the following benefits:

- moderating surface temperatures,
- improving air quality,
- controlling erosion,
- reducing noise



Maintenance, through pruning, etc., is important for the health of trees. Tree removal is a significant change to the community and a consultation with experts (landscape architects or arborists) can help you make the right decisions for our Land and Lake. A Harding Township ordinance restricts removal of mature trees from the edge (tree conservation area) of the property.

Invasive Plant Species

Biodiversity of plants on our properties is critical to healthy soil and plant maintenance, and to support our wildlife.

- Invasive plants (self-seeded or planted) can radically and negatively change the composition of our soil and further encourage growth of additional invasive species and inhibit the growth of native plants.
- Invasive species do not provide nourishment for our birds.
- Invasive species degrade the ecology and reduce wildlife diversity.

Identify invasive species that may have naturally seeded themselves on your property or that you or your predecessors have planted and make a plan to get rid of them and replace them with native species.

- Learn which plants sold in our local nurseries are actually invasive, such as Japanese barberry, and do not buy them.
- Learn which plants are native to this area and plant them. They will actually thrive in our environment.
- Learn about invasive species which can grow in our lake and become vigilant if you see a plant that looks unusual. Invasive species in warm lakes can ultimately clog the lake so that boats are unable to navigate.
- If you bring a boat from a lake infested with invasive species (such as milfoil), be sure the boat is completely hosed down and clean before putting it in our lake.

Eased Community Properties

Numerous properties within our community belong to us collectively through the Lakeshore Company. Most are restricted against future development (subject to easements). These easements can permit certain activities (beach and tennis courts) or can be to leave the properties in an undeveloped state. Together they help maintain the quality of our Lake and the quality of life within the Lake community.

Property Redevelopment

Redevelopment is governed by Township regulations (R-4 Zoning, setbacks, building areas, construction). When you reconstruct or redevelop your property (including buildings, structures, or landscaping) there is an excellent opportunity to improve the relationship between property and the lake. Properties that do not have lake frontage may also affect the lake via runoff.

A creative design can address the following:

- Regrade or create drains or drywells to address runoff problems.
- Address erosion problems.
- Create or improve existing shoreline buffer areas.

Resources

-	Septic	Harding Township Health Department (973-267-8000) <u>Septic System Care</u> , Rutgers Cooperative Extension, <u>www.beau.org/~laird/e167.pdf</u>
		<u>Septic System Management for Clean Water</u> , ANJEC, 973-539-7547 or <u>www.anjec.org/html/papers.htm#waterresource</u>
-	Lawns	www.epa.gov/pesticides/grants/lei/draft_guidelines.pdf www.nrcs.usda.gov/feature/backyard
-	Fertilizer	http://www.nj.gov/dep/healthylawnshealthywater/ http://ocean.njaes.rutgers.edu/documents/NJFertilizerLaw2011.pdf
-	Shoreline	New Jersey Coalition of Lake Associations, 21 The Boardwalk, Sparta, NJ 07871; Phone: (973) 729-6156 www.rce.rutgers.edu/njriparianforestbuffers/index.htm
-	Trees	Harding Township Shade Tree Advisory Committee (973-267-8000)
-	Invasive Species	www.npsnj.org/references.htm
-	Redevelopment	Harding Township Ordinances: <u>www.ecode360.com/?custID=HA0992</u> , Harding Township Construction Office (973-267-8000)

You are welcome to contact the Environmental Stewardship Committee for more specific suggested resources.

Brochure developed by the MKL Environmental Stewardship Committee of the Mt. Kemble Lake Association, Inc.