

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE Court House, Morristown, N.J. 07960

Tel. 538-1552

May 7, 1973

Mr. Robert E. Somes, Jr.
Dogwood Drive
Mt. Kemble Lake
Morristown, New Jersey 07960

Dear Mr. Somes:

This letter is in response to my visit to Mt. Kemble Lake to meet with you and Mr. Wallace concerning the problem of sediment control of the lake and its management and maintenance.

Before I offer my suggestion to you, please find attached (1) a March 29, 1967 report made by a Mr. A. Bruce Pyle to a Mr. Gooding concerning the fisheries of Mt. Kemble Lake. (2) a topographic map of the Mt. Kemble Lake drainage area and (3) information bulletin which may be of interest to you, for your files.

Sediment Control and Lake Management

Many lakes, such as yours, in Morris County are suffering from sediment damages and nutrient abundance. These two problems usually go hand in hand. Sediment makes lakes shallow, thus allowing sun light to penetrate to the bottom, which makes weed and algae growth possible. This problem accompanied with the organic pollutant from septic effluent etc. makes the algae growth process compounded. As long as you have organics entering your lake you will always have an algae problem, even if such things as septic effluent and up stream pollutant are controlled. You still have the leaf problem.

Approach to Reducing Problem of Sedimentation

1. The two (2) small upper ponds should serve as sediment traps to protect the lake. The smaller of these two should be cleaned out first to a depth that is obtainable (deep as possible but no less than four feet) At the narrow area, where this pond empties into the larger, a rock weir dam should be constructed out of large stones (150 lbs. each or more). The water should be allowed to filter through this. The larger pond should be cleaned out next. The minimum clean out depth along the water line should be four feet. The graded slope along the water line should be on a 2:1 slope (2 feet horizontal for each 1 foot vertical). The depth of clean out in the center of the pond could vary. The more cleaned out the more storage for sediment.

When the above has been done then Mt. Kemble Lake should be cleaned



but to a minimum depth of four feet. This should be sufficient for the upper end of the lake.

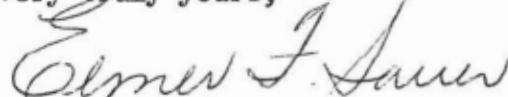
Hopefully, when all the clean outs have been done, only the smaller pond should have to be cleaned out periodically. The period of clean out would depend upon the land disturbance up stream as to whether this should occur every one, two, etc. years. The clean out can be done in stages, but when doing it this way, start with the uppermost pond and work down stream to the next pond. It would be ideal to clean out all three at the same time and then set up a maintenance clean out program.

Things to Keep in Mind for the Future

1. It appears that all the drainage area that contributes to Mt. Kemble Lake is entirely within Harding Township. We would suggest that your association keep in touch with the Harding Township Planning Board as to future building in the watershed. If this occurs, you should make sure that adequate sediment control provisions are part of the approved sub-division and/or grading plan. Harding Township does have a recently adopted Sediment Control Ordinance.
2. Check the farming active in the watershed area of Mt. Kemble Lake, especially plowed land. You will probably find little of this, but with the attached topographic map you can check this. The watershed boundary is outlined in black.

I trust the above comments and suggestions have met your immediate needs .
If there are any questions, please feel free to contact me.

Very truly yours,



Elmer F. Sauer
District Conservationist

EFS:JM
Encl.
cc. Joe.C. Wallace



Drainage Area to
Mt Kemble Lake
Approx 550 acres
Great Swamp