

# History of the Canoe Pond Aerator Project

## By Ian Dyson

Work to explore ways to improve the impaired quality of Canoe Pond originally started in 1993 by a group of concerned residents.

Numerous approaches were looked at including the introduction of alum, bio-mats and aeration. The latter was settled on as the method of choice. All this was done with the cooperation of the Brewster Conservation Commission, and in 2002, Brewster selectmen endorsed the plan to clean-up Canoe Pond.

In 2006, the Canoe Pond Restoration Committee was started. By this time, the pond had high levels of phosphorus and nitrogen, was smelly, had frequent algae blooms, very low oxygen levels and was anaerobic in the bottom 2-3 feet (a real problem for fish and other life in the winter if the pond froze). The dire condition of Canoe Pond was confirmed in a study sponsored by Cape Cod townships. The report, which was published in 2009, included reports on both Canoe Pond (which was identified as impaired) and Upper Mill Pond.

In 2003, the neighborhood applied for and received a permit to establish a water garden (near the power line access road) to reduce the amount of nitrogen, phosphorus and organic waste entering the pond.

The permitting process for the aeration project started in 2006. In 2011 CPVA filed the final forms. The Association obtained the permits in 2012, and the aeration project got underway and was up and running in the summer of 2012. All the costs were paid for by the

neighborhood through the CPVA-Canoe Pond Fund.

We are very grateful for all the efforts of a lot of people, some of whom are no longer with us.

The project has been a great success. Water quality has improved substantially in the form of clarity, lack of algae blooms, no smells and excellent oxygen content at all levels. Phosphorus and nitrogen are still high, but with the help of the Conservation Commission we will use the water lilies [they really love the cleaner water] we will reduce them in time.

We can all help improve the water quality of Canoe Pond and Upper Mill Pond by using detergents and fertilizers that have low or no phosphorus and by periodically cleaning out our septic tanks. Surprisingly fish, turtles, birds and wild animals, who fortunately will always be with us, contribute significantly to the organic burden along with run off.

Given the law of unintended consequences, other issues will surface. We continue to maintain the aeration equipment [pumps rebuilt in 2017], pay for the electricity and watch things that inevitably will need replacing. A lot of volunteer effort has and will continue to go into this venture.

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