

October 6, 2014

Mr. Paul Niedzwiecki
Executive Director
Cape Cod Commission
3225 Main Street
Barnstable, MA 02630



Dear Paul:

The Commission's Draft 208 Report and Freshwater Ponds

Orleans Pond Coalition submits these comments on the Commission's draft 208 plan. We thank you for all your hard work on this effort and respectfully urge you to expand the plan to more thoroughly address the unique issues associated with our freshwater ponds. In this light, we present some background on freshwater ponds along with some specific recommendations on monitoring and cost.

The Challenge with Freshwater Ponds

The Orleans Pond Coalition, founded in 2003 by citizens of great foresight, has spent 11 years advocating for the health of all Orleans waters, and for all the waters of the towns which with it shares watersheds. These are all inextricably linked.

Many freshwater ponds in Brewster, Orleans and Eastham are seriously degraded by excess nutrients, predominantly phosphorus. Their degradation began long ago, but because the phosphorus from septic, fertilizer and road runoff moves very slowly we have not yet seen the full impact of the heavy residential development of the 60's, 70's and 80's.

Once phosphorus is in the ponds, it is very difficult to remove, because, unlike estuaries, ponds do not flush; the unused phosphorus settles to the bottom, waiting to regenerate masses of algae in the next season.

Yet significant degradation can already be seen by the observer, who recoils from the mats of green algae spreading across the ponds, piling up at ponds edges and on pond beaches. It grabs the feet and arms of swimmers, coats and stymies kayak paddles and fouls the lines of fishermen. It has caused the state to close several local ponds where extensive mats of green algae supported the growth of potentially toxic blue green algae.

The Commission estimates that 75% of studied Cape ponds do not meet the CCC's own phosphorus standards.

In Orleans, six years of fresh water pond samples taken by trained volunteers have been interpreted by UMass Dartmouth's School of Marine Science and Technology (SMAST). By "interpreted" we mean that a water scientist has written a report to help us understand what they mean. The most recent nine years worth of data has not been interpreted.

In Eastham, five years of fresh water pond data has been interpreted by SMAST, and four more by a pond consultant. The most recent three years worth of data remain uninterpreted. Brewster, Chatham, Harwich and Dennis have similar backlogs of information ready to be analyzed.

The towns all continue to sample ponds and recognize they need to interpret the data although they have been unable to allocate the necessary funds. This challenge highlights the need for ongoing funding for monitoring, echoing the message the CCC has already delivered in the draft 208 Plan.

Recommendations

These steps are essential to begin to resolve the freshwater pond crisis on Cape Cod. If freshwater management planning does occur, we shall have prevented additional decades of degradation as the phosphorus from the development of the 60's, 70's, and 80's moves through the watersheds to our ponds.

Monitoring The CCC has created a very competent monitoring advisory committee which is establishing recommendations for protocols, standards and data collection procedures for saltwater embayments. Their work should be expanded to include freshwater ponds. They should provide for the following needs:

1. Interpretation of the backlog of critical freshwater pond information so that we understand the sources and the extent of the problem in our ponds.
2. Measurement of the interpreted data against the current state and federal standards for surface waters.
3. Identification of gaps in the data and creation of a plan to fill those gaps.
4. Establishment of the PALS (Pond and Lakes Stewards) protocol wherever it is not currently used in Cape towns.
5. Monitoring of actions towns have already undertaken to prevent deposition of additional phosphorus and to treat ponds already in great difficulty; subsequent monitoring must occur to assess the efficacy of that work.

6. Storing the resulting masses of interpreted data and any other pond studies in a central data base so that the Cape's 15 towns may learn from each other. The same program which is to be used for saltwater data can be used for freshwater as well.
7. Gathering existing educational materials in the central data base so that they are available to be shared by towns.

Finance The 208 finance advisory committee should expand their work to include review of the costs of pond protection and remediation. We believe it will become apparent that prevention and remediation of pond degradation will be seen to cost pennies on the dollar compared to the cost of estuary clean up.

Call to action

In general, while the Commission's draft 208 plan relies on freshwater ponds to attenuate nitrogen, thus lessening significantly the extent of wastewater treatment needed, the needs of the freshwater ponds themselves are not addressed. The savings accrued by their natural nitrogen removal function will far outweigh any costs associated with their protection and remediation.

The CCC and DEP should take responsibility for freshwater ponds as the Clean Water Act of 1978 expected governmental bodies to do. The CCC's own 208 executive summary states that, as amended through 2002, the Clean Water Act speaks of the need to correct "substantial water quality control problems" and that "plans shall ... be applicable to all wastes generated within the area involved". We understand that although DEP's charge to the CCC was to plan for all waters, the CCC has focused primarily on nitrogen and our salt water estuaries. However, with citizen support and that of the legislature and the governor's office, we are hopeful that the work could be expanded even now.


Sincerely,



Jim Robertson
President
Orleans Pond Coalition



Sandy Bayne
Co-Chair
Orleans Pond Coalition
Pond Protection Committee



Carolyn Kennedy
Co-Chair
Orleans Pond Coalition
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cc: Orleans' Board of Selectmen