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The Association for Crocker Pond
11 Westmoreland Drive
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February 12, 2014

Andrea Adams, Senior Regulatory Planner
John Idman, Chief Regulatory Officer
The Cape Cod Commission
Re: Falmouth Comprehensive Wastewater Management Plan

Dear Ms. Adams and Mr. Idman,

Thank you for the opportunity to provide comments regarding Falmouth's CWMP. The Association for Crocker Pond is a 10 member citizen group made up of citizens owning property abutting Crocker Pond, and other citizens who are concerned about the impact on Crocker Pond. We have submitted comments to The State prior to the deadline and also submitted those comments to The Cape Cod Commission (also attached). We hope you have record of this and had the chance to read them.

The State has issued a MEPA Certificate since the filing deadline and would like to share our concerns regarding the following statement from the certificate "...the FEIR provides historic monitoring data for Crocker Pond and the results of remodeled groundwater flow from Site 7 to better simulate the hydrogeologic conditions, the groundwater surface water interfaces and the recharge areas for both waterbodies. The modeling results indicate that the recharge site will not affect water quality in Wing Pond or Crocker Pond. Comments by the CCC indicate that the recharge site poses a low risk to the water quality of Crocker Pond."

As abutters and citizens who have swum, fished and enjoyed Crocker Pond for much of our lives, who have watched our children swim in the pond and who hope to see our grandchildren swimming and playing there, we may be attuned to the short and long term risks associated with Site 7 discharge. The pond has existed 10,000 years or more with a good degree of balance. The Town would like to "borrow" the soils around Crocker Pond for it's adsorptive capacity. It is believed that the soils may have 100 or more years of capacity to adsorb phosphorous and other chemicals after which the discharge site would be abandoned having done it's job. The science is said to be in agreement but that is not the case.

The USGS clearly states that chemicals that have adsorbed to soils can later desorb with changing conditions. (<http://toxics.usgs.gov/highlights/pHexperiment/index.html>) The State and we hope the Cape Cod Commission is charged with protecting resources into the future. If that is so then this issue must be addressed. People present at the WQMC meeting at West Falmouth library were recently told that effluent discharge is the driver of Ph which in turn controls the degree of adsorption. It didn't occur to us to ask at that time "What will happen when discharge ceases and Ph is no longer "driven" by the effluent?". The truth is that no one can say. It depends on conditions in the groundwater at the time. Granted, we will all be gone in 100 years, but that is not the issue. The issue is, will there be a "Sword of Damocles", a time capsule of phosphorous, hanging over Crocker Pond forever? To us it seems short sighted to use the soils this way, possibly creating a perpetual threat to Crocker Pond. We understand that Falmouth is in an ecologic and financial bind. But

Falmouth has declined the invitation to submit soils for thorough testing to determine their exact parameters in regard to Phosphorous adsorption and Ph. Instead they choose to use the example of what occurred at Ashumet Pond. And yet USGS studies from Ashumet Pond tell us that phosphorous, once adsorbed can later desorb back into groundwater. The research should not be used selectively. We agree with The State and The CCC that a robust monitoring program must be put into place to protect the health of Crocker Pond. But testing Crocker Pond will not predict or stop desorption if it occurs in the future. We believe that more research is needed regarding what could lead to desorption of phosphorous and other chemicals as conditions change. We also note that an ocean outfall would eliminate these concerns.

With regard to Chemicals of Emerging Concern The State certificate concludes:

"The water quality monitoring program will **support** development of a baseline and identification of trends in the presence of CECs in groundwater downgradient..."

The word "support" could potentially be a weak link in an important phrase. A 2013 report by L. Schaider and others of the Silent Spring Institute states: "Studies of the Cape Cod aquifer have shown a high degree of persistence and long-range transport for some OWCs." It goes on to say "We found four hormones and six pharmaceuticals in Cape Cod kettle ponds, which are primarily, fed by groundwater...." In this study 20 wells on Cape Cod were tested. All wells were impacted by CEC. (L. Schaider, Pharmaceuticals, Perfluorosurfactants, and other Organic Wastewater Compounds in Public Drinking Water wells in a Shallow Sand and Gravel Aquifer) (Science of the Total Environment journal homepage: www.elsevier.com/locate/scitotenv)

Please keep in mind that Crocker Pond is a kettlehole pond which, in this case, will receive 140,000 gpd of effluent including CEC's collected from 1700 properties. We believe that CEC's are already, by definition, a concern. Therefore The State's wording should be more specific and concrete. We believe the water quality monitoring program **must include** an ongoing CEC testing program. The program should be managed by The Silent Spring Institute or another recognized expert in this field. To merely "support" development of a baseline and identification of trends, possibly leaves too much to chance and interpretation. There is no discussion of treatment for CEC's at the plant level. This also should at least be addressed by regulatory bodies if only to explain why it is not considered important. Again, Crocker pond will receive a great volume of effluent on a daily basis and will therefore be the recipient of whatever chemicals enter the sewer system and are not removed through "incidental treatment".

Thank you for the chance to comment.

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