Letter of Concern

re: Crocker Pond in West Falmouth

Before Selectmen tonight, September 17, is Andrew Bunker's issue about why Crocker Pond in West Falmouth next to Bourne Farm has not been studied. He will present to the selectmen tonight a petition article at 8:30-8:35. Here's what he will say:

This petition article's main concern is Crocker Pond in West Falmouth. It's the pond at what I will call the epicenter of Falmouth's plans to sewer other parts of Falmouth. Most people don't know Crocker Pond or if they do know the Pond don't know the name of it. It is the Pond next to Bournes Farm on 28A in West Falmouth at the junction of Thomas Landers Rd. It is where Pumpkin Day is held each October.

The reason for the concern is that the town hopes to dishcarge wastewater 400 yds uphill from the pond.The CWMP that is now at the state for review and the Technical Memorandum 9 which provides a preliminary anaysis. Both documents appear to largely over look the presence of Crocker Pond. Numbers and analysis are provided for Wings Pond, Herring Creek, the marsh at Old Silver Beach, and Buzzards Bay. But there is no mention of Crocker Pond which will receive a large portion of the nearly 1 million gallons per day of wastewater effluent from site 7 and 10.

There may be bureaucratic or technical reasons for not discussing Crocker Pond in the reviews. The summary of environmental impact analysis says, "there are no surface water in the vicinity of site 7". Perhaps there is a legal or technical meaning to the word "vicinity". But any reasonable person would conclude that Crocker Pond is in the vicinity of site 7. Perhaps the vernal pool that is .3 miles from the WWTF has some special status with the state so it can be mentioned in the report, but Crocker Pond at .25 miles somehow draws the short straw and is once again not even mentioned. The CWMP draws information from the 2001 Falmouth PALS report. It does not even mention that Crocker Pond was in that report nor that it represents one of the healthiest ponds in the report.

So perhaps there are technical, bureaucratic or legalistic reasons that allow excluding Crocker Pond from study. I doubt it. Maybe the State will be okay with ignoring Crocker Pond. I doubt that also. But even if the State okays ignoring the pond, the Town can still decide to study Crocker Pond and the environmental impact to this fairly well protected resource. It is the right thing to do, and it is the prudent thing to do. Unsubstantiated comments have been made in public meetings suggesting that Crocker Pond is already polluted and so we shouldn't worry about it. Sadly, misinformation about the nature of Crocker Pond is passed along by some people who want to use sites 7 and 10. The fact is that Crocker Pond is one of the cleanest Ponds in the PALS study. It has 1/10th the nitrogen concentration of the effluent. It is also a very deep spring fed pond. Nitrogen mitigation happens best with a shallow pond if water seeps gradually through the sediment layers. But a pond that is 28 feet deep with springs will probably not convert or attenuate the nitrogen which could combine with the higher level of phosphorous already in the pond water. Algae blooms and fish die off could be the consequence. Let’s

not set ourselves up for another ugly episode of " how did this happen in Falmouth?" Lets all commit to doing a thorough study of Crocker Pond and the surrounding waters.

Additionally, here are Andrew Bunker's comments that he will send to the state regarding Falmouth's CWMP. Anyone can send in their own. There is also a meeting at the library Oct. 5. where you can make comments.

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Comments to: EEA 14154, Comprehensive Wastewater Management Plan, Falmouth, DEIR

Falmouth's Draft CWMP is short on details about Crocker Pond. This pond's shoreline is only 400 yds horizontally from and more than 60 feet lower than the proposed wastewater infiltration site 7. Maps from technical memorandum 9 depict effluent from both sites 7 and 10 entering Crocker Pond. Yet nowhere, except on the map, is the pond mentioned. The impact on other surface waters including Wing's Pond, Herring Creek, Buzzards Bay and West Falmouth Harbor were provided. Crocker Pond, the closest surface water to sites 7 and 10 appears to have been overlooked without even an explanation.

Chapter 6 of CWMP , The Summary of Environmental Impact Analysis seem to only provide partial or selective information. For instance Crocker Pond is listed in the 2001 PALS Pond Atlas water quality report however the comments on it by CWMP are limited, for no apparent reason, to ponds in an area of town where Crocker Pond is not. No mention is made of this pond in spite of being one of 7 ponds studied in the PALS report and 400 yds from site 7(6.2.3.2 Lakes, Ponds and Rivers.) Chapter 6 mentions a vernal pool that is .3 miles from the WWTF but it does not mention Crocker Pond that is .25 miles from site 7. The report also says that " no surface waters are in the vicinity the WWTF or site 7 or 10" Since Crocker Pond appears to be in line to receive a large percentage of flow from site 7 and 10 shouldn't the report mention the pond and analyze what will happen when the effluents enter the pond?

Chapter 4 of Vol. 2 does discuss nitrogen attenuation in kettle hole ponds. It does so in a simplified way. The v.2 ch.4 explanation describes a shallow kettle hole pond where groundwater seeps in gradually through sediment. In contrast, Crocker Pond is a spring fed kettle hole pond that is 28 feet deep. In Crocker Pond the rate of flow from the welling of springs prevents ice from forming in the winter and creates the sandy patches visible to divers in the deeper parts of the pond. The CWMP does not explain how the flow from site 7 and 10 will enter Crocker Pond. Will it seep in gradually through the sediment and thus allow attenuation of nitrogen or will it flow in rapidly via springs and bring large quantities of unattenuated nitrogen? A study done by The Woods Hole Group for the DEP explains attenuation in kettle hole ponds." A deep pond or lake (>3 m in depth) will intercept more groundwater than a shallow pond." (Crocker Pond is 10m deep)"For a pond/lake deeper than ~2 m, groundwater should seep into the pond through the bottom slowly enough that channels free of fine particles are not created. Such channels would prevent denitrification from taking place." (emphasis added) And this could "potentially lead to nitrogen overload (exceeding the carrying capacity). In the case of ponds and lakes, this can lead

to eutrophication, algal overgrowth, fish kills, etc."(Natural Attenuation of Nitrogen in Wetlands and Water Bodies)

In order to be a useful document The CWMP must first provide some detail about Crocker Pond and then be sure the detail is complete and accurate. This will provide citizens with some of the knowledge needed to guide good decision making regarding site 7 and 10.