

6-27-18 Beaches SOP

Over the years I have had the pleasure of training a few people to take water samples from the Monponsett Ponds, as required by the Department of Public Health for public and semi-public recreational waters. I trained them so that I had a plan B, a back-up for the rare case when I am not available. The ideal candidate needs to understand the importance of the task, the importance of sampling correctly and be observant, for there is a field report to complete.

I also have a detailed written Standard Operating Procedure, (SOP) as Plan C, “no training but read this and you can do it”. It is not difficult, but it needs to be done correctly.

For instance, how you walk into the pond is important. We are there to sample the water itself, not the debris at the bottom. So, walking in slowly and carefully, so as to not stir up the bottom is the way to go.

I like to use barbecue tongs to hold the sample cup. I use those to both keep my hands out of the water and to reach out a bit, enabling the dipping cup to be a little further away from where I had been walking.

Approaching the beach areas, we give thought to where the sample should be taken and why. At one beach, I take the sample closer to the catch basin outfall, as that can deliver pollutants after a heavy rain. At another beach, I take the sample in the public area but closer to the dirt road for the same reason; the sloped road erodes and delivers pollutants from the street to the pond after a heavy rain. Therefore, cleaning up after your dog and reducing fertilizer in your yard is so important. Rain washes all surfaces and delivers all that is there to our water bodies. The reason for those locations is to sample the worse case scenario. When it comes to public health, we are trying to protect and prevent; not avoid and pretend.

Both before and after taking the sample we keep our eyes open for any possible health threats. Our observations are then written on the field data report. Trash, erosion, animal waste are high on the list. One year I wrote “large dead snapping turtle” for weeks. I could not believe how long it took for that carcass to deteriorate! That beach’s samples never tested high in E. coli though. That is all the samples are tested for. That is what the State requires as indicators of illness causing pathogens.

Those pathogens could come from rotting garbage, septic systems leaking into the pond or from animal waste. This year’s field reports have been indicating the large amounts of duck and geese droppings. Even when there are no ducks or geese seen that morning of sampling, I write down, if it is what I observe, “Beach covered with geese prints, feathers and droppings.”

I love birds and follow several pages on Facebook dedicated to bird photography and bird knowledge. I see lots of posts telling us just how adorable those baby ducks and geese are and how graceful the swans are. I love the children’s book *Make Way for Ducklings* as much as anyone, but I don’t want them at our recreational beaches! What do I photograph when I see

these large fowl? I take pictures of their large sized and large amounts of foul droppings. They don't win any prizes, but they do inform.

Last week's samples had one beach, the Halifax Beach Association, test a little high for E. coli. I say "a little" because the threshold is 235 Colony Forming Units (CFU) per 100 mL (milli Liter). A count of 440 is over that threshold but low compared to thousands and hundreds of thousands that a septic system would deliver. That beach is closed for now. The rest of the pond is open. That is the difference between my tests for E. coli, which is specific for each sample site, as opposed to the testing for cyanobacteria that "speaks for" the whole pond.

You can protect yourself and your children by discouraging birds; don't feed them, and by making your own observations. If you see a lot of droppings along the shore, it is one thing to walk in with your kayak, but that is not a good beach for swimming. Children are more prone to illness in these conditions, as they are more likely to swallow water and they tend to jump around a lot, stirring up the bottom.

Please make being observant and making wise choices your Standard Operating Procedure.

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