



via email

March 13, 2015

Karen Pelto
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

Re: Sagamore Lens Sustainable Management of Water Resources Plan

Dear Ms. Pelto:

On behalf of the Association to Preserve Cape Cod (APCC), I offer the following comments concerning the Sagamore Lens Plan.

Founded in 1968, APCC is the largest regional non-profit environmental organization on Cape Cod. Representing more than 5,000 members, APCC's mission is to promote policies and programs that foster the preservation of the Cape's natural resources. APCC focuses its efforts on the protection of groundwater, surface water, and wetland resources, preservation of open space, the promotion of responsible, planned growth and the achievement of an environmental ethic.

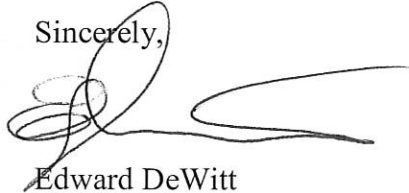
First, APCC applauds the Executive Office of Energy and Environmental Affairs (EOEEA) and the Upper Cape Regional Water Supply Cooperative for undertaking and supporting this critical effort. This is a comprehensive analysis of the many challenges facing the upper Cape's water supply. There is no more important or unique resource in the region than the fresh water contained in the lenses of our sole source aquifer. APCC is particularly pleased to see a regional or aquifer lens approach and a move away from the current regulatory approach of "individual water supply withdrawals." Second, I apologize for not having a more comprehensive view of the plan and have focused our comments on the major areas of concern. This is due primarily to our inability to obtain a copy of the plan until very recently. APCC is disappointed in the failure to fully engage the public, including water customers and organizations like APCC, in the development of the plan. EOEEA should require a formal public engagement process before finalizing any plan. We do note that this is not a "draft plan."

The following is a list of areas that APCC believes require additional analysis and reflection:

1. Sea level rise: Sea level was essentially ignored in preparing the plan. Cape Cod is located in a sea level rise hotspot and is already experiencing an above average rate of sea level rise. APCC, the U.S. Geological Survey (USGS) and the Cape Cod Commission have embarked on a groundwater model update of both the Sagamore and Monomoy lenses to integrate sea level rise changes (two feet, four feet and six feet) on groundwater elevations. This updated model should be utilized to give the best picture of the lens. Sea level rise will not add fresh water volume to the lens, but may give the impression that fresh water is more abundant because of increased groundwater elevations. These slow changes must be factored into the sustainability equations.
2. Stream velocity: Sea level rise impacts on groundwater will also impact stream baseflow. Changes in stream baseflow do not appear to have been considered in the plan. Stream baseflow will impact environmental receptors.
3. Ocean Outfall: The Massachusetts Ocean Sanctuaries Act was amended in 2014 to make it easier to use ocean outfall as a means of discharging treated wastewater. The plan acknowledges that Falmouth is evaluating ocean outfall as a possible wastewater discharge technology. According to USGS, not recharging the aquifer with wastewater will have a significant impact on groundwater elevation and environmental receptors, depending on groundwater interaction. The plan should specifically address the potential loss of this recharge source (positive and negative) and adjust withdrawal rates as appropriate.
4. Population: The use of standard population data and population-based engineering analysis for Cape Cod is problematic. The plan acknowledges that the Cape's population varies significantly and more than doubles ("can triple") in the summer. We agree with the public water suppliers (PWS) in their determination that the DCR figures are seriously flawed. Common sense tells us that people use more water when on vacation and having twice as many visitors as residents will disproportionately increase water demand. It is problematic that the plan takes the approach that even though seriously flawed, this DCR estimate is the "only" withdrawal data (demand predictions) available. This assumption alone challenges the efficacy and validity of the plan to predict sustainable withdrawals.
5. Emerging contaminants: The Sagamore Lens is used both for drinking water withdrawal and wastewater discharge. This dynamic adds to the unique challenges for PWS. We know that Cape Cod has experienced elevated cancer rates, and organizations like Silent Spring have focused their investigations on the water supply. Section 13 of the plan only examined wastewater discharges exceeding 100,000 gpd. More than 80 percent of wastewater discharges on Cape Cod are less than 100,000 gpd. Modelling and stepped up monitoring for pharmaceuticals, home care products and other emerging contaminants must reach beyond high volume discharges if we are to have a sustainable, safe water supply.

While the plan is an excellent first step, APCC does not believe that in its present form the plan can be relied upon to provide assurance of a sustainable source of drinking water utilizing the Sagamore lens. APCC is skeptical of the "conservative" withdrawal estimates based on a number of faulty assumptions underlying the plan.

Sincerely,

A handwritten signature in dark ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Edward DeWitt
Executive Director