



CAPE COD CRANBERRY GROWERS' ASSOCIATION

One Carver Square • P.O. Box 97 • Carver, MA 02330
Telephone: (508) 866-7878 • Facsimile: (508) 866-4220
Email: cccga@cranberries.org • Web: www.cranberries.org

April 6, 2012

Kathleen Baskin, P.E.
Director of Water Policy and Planning
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Via email and postal mail

Re: Massachusetts Sustainable Water Management Initiative Framework Summary

Dear Ms. Baskin:

Thank you for the opportunity to provide comments on the Massachusetts Sustainable Water Management Initiative (SWMI) Framework Summary, recently released by the Executive Office of Energy and Environmental Affairs. The Cape Cod Cranberry Growers' Association (CCCGA) represents more than 325 cranberry growers in Southeastern Massachusetts. These growers farm 14,200 acres of bog and maintain more than 60,000 acres of wetland and upland support land. The \$88 million dollar farm gate value of the crop makes the cranberry industry the largest food crop in Massachusetts.

We have been involved in the SWMI process since its conception, serving on the Advisory Committee, the Technical Subcommittee and occasionally on the Implementation Tools Subcommittee. CCCGA has long advocated for regulation and policy to be grounded in the best available science and to avoid reactionary or speculative decision making. Water use in the Commonwealth has been a divisive topic for decades and any attempt to break that logjam in a relatively short period of time is ambitious. Although much of the discussion and the proposed SWMI framework does not deal directly with cranberry agriculture, we never the less will be affected by the outcome. Our greatest concern is of the unintended consequences that may affect others. Although there is an attempt to understand the impacts that SWMI may have on registered and permitted water users, there may be direct or indirect impacts that this new framework may have on those groups. We want to insure that the regulatory agencies have and will carefully consider what could happen beyond the known impacts to public water suppliers.

Fluvial fish abundance was an integral component of the SWMI framework and not directly related but certainly similar, the heightened interest in dam removal. Many cranberry growers own and maintain dam and other water control devices, often helping to avert flooding problems while creating many acres of wetlands in southeastern Massachusetts and Cape Cod. Without these water control devices, the ability to grow cranberries could not be sustained. Although we understand the state's research behind fluvial fish and river health, we also believe that in many instances the habitat these dams create can provide value to the environment while creating recreational enjoyment. Removing dams and the absence of fluvial fish is not always necessarily a bad thing.

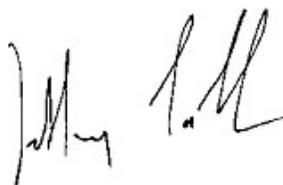
We also want to highlight the positive contributions that cranberry agriculture has made to water use. First, the highest water demand for cranberries is during the state's low-demand period and also when the water is historically at high-flow levels. In addition, a 2009 USGS study titled "*Hydrogeology and Simulation of Groundwater Flow in the Plymouth-Carver-Kingston-Duxbury Aquifer System, Southeastern Massachusetts*" also demonstrates the positive influence of cranberry bog management as compared to native wetlands. The study notes that "*the simulated recharge rate for cranberry bogs was similar to that of wetlands; however, it was assumed that the bogs behave more like ponds than wetlands during the month of October when the bogs are typically flooded for harvesting, resulting in an additional 2 in/yr of recharge. Therefore, the simulated recharge rate for cranberry bogs was 10 in/yr as compared to the 8 in/yr specified for wetlands.*"

The majority of water used in the industry is recycled/reused/shared either within the grower's system or amongst neighboring properties. Working in conjunction with the USDA Natural Resources Conservation Service, Massachusetts Department of Agricultural Resources, UMass Cranberry Station, among others, growers have invested in and implemented water conservation measures over the last twenty years. These measures include by installing tailwater recovery ponds, which collect and re-use water from the bog, creating an internal water cycling system. Bypass canals route streams around bogs, allowing water to continue on its path and helping to keep bog inputs within the bog itself. New-style flumes have been installed, which are engineered to eliminate leaks and increase water use efficiency. In 1997, the state invested 1.5 million dollars into a bog renovation competitive grant program, enabling 160 acres of old bog to be re-built, eliminating high areas and out-dated irrigation systems, which has a tremendous benefit in reducing water needs. This investment sparked an additional 600 acres of bog renovation over the past 5 years. These renovations alone have resulted in a savings of more than 475 acre-feet of water per year.

Research and subsequent technological advances have also had a net-positive influence on cranberry water use. New irrigation systems, with energy efficient pumps and pop-up style irrigation heads deliver water to the right places and in the right amounts. A USDA grant to study subsurface drainage systems, is helping growers understand how to install drainage pipe in their bogs, which reduces the amount of water in the bogs, delivering it to the side ditches for storage. Auto-start technology can turn on/off pumps remotely based on temperature or soil moisture needs. These systems have shown to save an average of 25-30% of water use as compared to conventional systems. The industry has also studied the cranberry plant's water demand by determining the plant's threshold for water stress, helping the growers understand when they need to irrigate their bogs, rather than relying on rule-of-thumb estimates.

In closing, we recognize the efforts that the state and others have put into the SWMI Framework Summary. The use of the best available science is applauded but we do caution the regulatory community to be cognizant of the unintended consequences of water policy and to consider the positive benefits to water use and management, be it agriculture or other sectors. Thank you for the opportunity to comment on the SWMI Framework Summary.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey LaFleur". The signature is fluid and cursive, with the first name "Jeffrey" written in a larger, more prominent script than the last name "LaFleur".

Jeffrey LaFleur
Executive Director