# Cape Cod Cranberry Growers' Association
## GROWER ADVISORY
## Water Management Act

**Background**

The Water Management Act (WMA), M.G.L. Chapter 21G, was enacted in 1985 for the purpose of managing water resources in Massachusetts. The intention of the act was to establish a program whereby withdrawals of water in the Commonwealth above a threshold quantity are registered and regulated by the Department's Division of Water Supply. The withdrawal registration program was intended to enable the Department to document baseline water use in the Commonwealth and begin a comprehensive management of the surface and groundwater in Massachusetts. These regulations were established in dealing primarily with municipal water suppliers and were worded in such a way that does not fully accommodate the cranberry industry. Individuals more familiar with the WMA may be aware that non-consumptive water use is not required to obtain a registration or permit. However, despite the only nominal flux in water use attributed to growers the DEP regulated the industry as "virtually non-consumptive" in order to be provided the protections of the WMA from other users.

For the purposes of cranberry growers, rights to water are determined by the following four factors.

1. **Registration**

   Registration can be thought of as your base withdrawal as originally filed for in 1988. It was determined by using the average volume of water withdrawn from a particular source during the five years prior to January 1, 1986. To have obtained a registration under this "grandfathered" acreage a registration statement must have been filed on or before January 1, 1988. In most cases this will constitute the largest portion of growers' "water rights". These registrations were a one-time opportunity and no new registration have been issued since that date.

2. **Threshold Volume**

   Threshold volume is the amount of water by which a grower can exceed above his or her registration without requiring a permit. It is determined as an average daily volume of 100,000 gallons for any period of three consecutive months, from a total withdrawal of not less than 9,000,000 gallons. The difficulties in metering water usage in cranberry bogs led the Department to agree to issue registrations base on acreage. In 1987, taking into account water used for harvest or trash flow, for initial winter flood, and for fall frost protection this acreage was calculated to be **4.66 acres**. This calculation was based on studies by the NRCS and the CCCGA showed that average water usage of cranberry growers during the registration period ranged from 8 to 12 acre-feet/acre/year. However, with the introduction of more modernized bog construction this issue was revisited in 1992 when the CCCGA was able to negotiate a Memorandum of Agreement with the DEP which qualified new style bogs as less water intensive. To qualify as modernized and be eligible for the conservation certification the bog must meet several criteria.

   - First, the bog must have been built level to 6 inches.
   - The bog must have been implemented with a tail-water recovery system.
   - The irrigation systems, flumes and internal dikes must have been installed in accordance with NRCS design standards to allow bed specific irrigation and maximize water efficiency.
   - Lastly, the grower **must** have addressed the above criteria in an NRCS approved farm plan.

| **INCREASING THRESHOLD ACREAGE FROM 4.66 TO 9.33 ACRES**<br><br>**STEPS TO OBTAINING A CERTIFICATION** |
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| **Step 1:** Complete Cooperation Agreement Form available at NRCS field office in West Wareham or for the Cape and Islands at the NRCS office in Hyannis |
| **Step 2:** Pay required fee and demonstrate that you meet the criteria laid out on application<br>-This process includes receiving a farm plan |
| **Step 3:** Conservation District file paperwork with the Department of Environmental Protection |
| **Step 4:** DEP may issue certification for no greater than 9.33 acres |
| **Notes:**<br>-No renovation requirements, everything is built new<br>-Allowed up to 9.33 acres per grower per watershed |

If these criteria are met than the threshold acreage for a grower may be increased to **9.33 acres**. It is important to note that the grower receives the allotted threshold volume on a per watershed basis, meaning a grower could potentially have 9.33 "threshold acres" in the Buzzard's Bay watershed, 9.33 acres in the South Coast watershed, 9.33 acres in the Taunton watershed etc. See insert on how to apply for and use the MOA. Note that threshold volumes cannot be transferred from one grower to another if this addition brings the grower over his or her allotted acreage.

## 3. Conservation Credits

Conservation Credits are a mechanism by which growers can create new bog by implementing water conservation practices on base registered acreage. These credits can be applied to all bogs with registrations or to those permitted bogs that were considered old style at the time of permitting. The credits are calculated as follows:

- 4/10 of an acre of new bog for every one acre of old bog laser leveled to within six inches and utilizing an NRCS approved irrigation system
- 4/10 of an acre of new bog for every one acre of old bog serviced by tail-water recovery
- If both of these practices, laser leveling and tail-water recovery, are implemented than the grower may construct 5/10 an acre of new bog for every acre of old bog serviced.

Conservation Credits given must be used to construct credit acreage with water withdrawal points identical to the water withdrawal points from the acreage that was renovated. Conservation credits may be applied to replace a certification in whole or in part provided the withdrawal point is identical to the registered or permitted withdrawal point, thus freeing the certification to be used elsewhere in the watershed.

| **BUILDING NEW BOG UP TO 50% OF REGISTERED ACREAGE**<br><br>**STEPS TO OBTAINING CONSERVATION CREDITS** |
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| **Step 1:** Complete Cooperation Agreement Form available at NRCS field office in West Wareham or for the Cape and Islands at the NRCS office in Hyannis |
| **Step 2:** Pay required fee and demonstrate that you meet the criteria laid out on application |
| **Step 3:** Conservation District Files paperwork with the Department of Environmental Protection |
| **Step 4:** DEP may issue credits no more than ½ of base registered acreage |
| **Notes:**<br>-Bound to same site where the credits are earned |

## 4. Permits

If the grower finds that their total acreage exceeds the sum of the registration, threshold volume, and conservation credit acreage, thus exceeding their allowed water consumption in the eyes of the DEP this should trigger a permit application. Some growers may be apprehensive to apply for a permit after their exceedance of allotted water considering the possibility of enforcement action by the department. However, it is likely that the enforcement will be more heavy-handed if the grower does not demonstrate the effort of applying for a permit. Permits are valid for twenty years. In addition, when going through the permitting process the grower must also submit an Environmental Notification Form to the office of the Massachusetts Environmental Policy Act.

### Obtaining a Permit

The application fee for obtaining a new permit is currently **$3,340.00** and the process is not meant to take more than ninety days each for a technical review, response to a deficiency, and the second technical review for a total of 270 days. If the permit application is withdrawn prior to the first technical review than 50% of the cost is recovered. There are no recurring annual fees for a permit. When a permit application is submitted the following criteria are weighed:

1. Whether the water is available within the safe yield as determined by the Department.

2 What is the impact of the proposed withdrawal on other withdrawal points and on other water sources that are hydrologically interconnected with the water source from which the withdrawal is to be made?

3. What are the anticipated times of year when the withdrawal is or will be made, and any projected changes in the withdrawal over a 20 year period?

4. Are there reasonable protections of water uses, land values, investments and enterprises that are dependent on previously registered, permitted or otherwise allowable withdrawals?

5. What is the proposed use of the water to be withdrawn and other existing, presently permitted or projected uses of the water source from which the withdrawal is to be made?

6. Are there additional requirements from the approved water resources management plan for any city or town in which the withdrawal is located?

7. Have reasonable conservation practices and measures been made?

8. Have reasonable protections been made for public drinking water supplies, water quality, wastewater treatment capacity, groundwater recharge areas, navigation, hydropower resources, water-based recreation, wetland habitat, fish and wildlife, agriculture and floodplains?

9. What is the impact of the proposed withdrawal on economic development and the creation of jobs in the Commonwealth?

## Transfer of Registrations and Permits

Permits and registrations are not recorded in the property deed and therefore do not automatically change ownership when a bog is sold. In order for the new owner to use water on bogs that, per watershed, exceed the threshold acreage, the owner must either obtain a transfer of the existing permit or registration, or apply for a new permit. Contact the DEP Southeast Regional Office for necessary forms.

## Voluntary Registrations for Bogs Less Than 4.6 Acres

If a registered bog is put on the market for sale and is subdivided for sale into units less than 4.66 acres than, in some instances, the purchaser has the option of whether or not to maintain the registration. In most cases, this would apply only to individuals purchasing their first piece of bog. In these instances the new owner could obtain a "voluntary registration" in effect carrying over a piece of the registration from the former complete and larger bog. This would serve to protect the future water rights of the grower allowing them to plant the full potential 9.33 acres of threshold acreage on top of this voluntary registration without triggering a permit. If the purchaser does not plan on ever cultivating more than 4.6 acres of cranberry bog than he/she can elect to fill out a Voluntary Registration Refusal Form. If a grower currently grows at or above the threshold volume continuing this registration is mandatory, not voluntary.

## Maintaining Registrations

Registrations must be renewed every ten years. In addition to renewals, growers must submit an Annual Report Form addressing their water consumption including registration fees. It is important to renew your registration by the scheduled deadline as there is currently no mechanism to retrieve a registration if it has been canceled, with the only recourse being to obtain a new permit. There has been confusion over the fact that Annual Report Forms and the Annual Registration Fee are sent to separate divisions and separate addresses within the DEP. Failure to submit, or failure of the appropriate DEP agency to receive the fees and report forms may also jeopardize your registration.

## Examples of How to Apply Conservation Credits

**Example 1: 10 Base Registered Acres:**
Leveling of 10 acres and tail water recover added to serve the 10 acres;
Conservation Credit = 5 Acres
Rationale: (Maximum credit is 5/10ths of acreage which fully implements all available BMPs so maximum conservation credit is limited to 5 acres.)

**Example 2: 10 Base Registered Acres:**
Tail water recovery added to serve the 10 acres;
Conservation Credit = 4 acres
Rationale: (Maximum credit is 4/10ths of acreage to which only one BMP is added.)

**Example 3: 50 Base Registered Acres:**
Leveling of 25 of the acres, and tail water recovery added to the other 25 acres
Conservation Credit = 20 acres
Rationale: (Maximum credits is 4/10ths of acreage to which only one BMP is added to each 25 acre block, providing 10 acres of credit on each 25 acre block for a total of 20 acres. The 50% maximum credit rule is not applicable.)

**Example 4: 50 Base Registered Acres:**
Leveling of 40 acres, and tail water recovery serves all 50 acres
Conservation Credit = 24 acres
Rationale: (Maximum credit is ½ of 40 acres that is both leveled and has tail water recovery, plus 4/10ths of 10 acres with only tail water. The calculation for this example would be (0.5 x 40) + (0.4 x 10) =24 acres.)

**Example 5: 40 Base Registered Acres: 20 acres built in 1990 and permitted in 1998.**
Tail-water recovery added to serve the 60 acres
Conservation Credit = 16 acres
Rationale: (Maximum credit is 4/10ths of registered acreage; the permitted acreage is not eligible since it was first cultivated after January 1, 1986.)

**Example 6: 40 Base Registered Acres: 5-acre certification of threshold acreage.**
Renovation and tail water recovery added to the 45 acres
Conservation Credit = 20 acres
Rationale: (Maximum credit is 5/10ths of acreage which fully implements all available BMPs, so maximum conservation credit is limited to 20 acres. Credits are not available for the certified acreage; however, the grower may request the department and conservation district to void the certification and apply the credits in its place.)

The information in this guide is provided by the Cape Cod Cranberry Growers' Association as a service to its members. The information represents our interpretation of the state requirements and by no means is intended to act as a substitute for reading and following the specific regulatory requirements.

The Massachusetts Water Management Act
And the MOA of the CCCGA and the MASS DEP
**333 Code of Massachusetts Regulations (CMR) 36.00**

**For more information, please contact:**


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