

CRANBERRY BOG WORKING GROUP  
MEETING MINUTES  
July 1, 2019

Members present: Melinda Lindquist, Ken Belitz, Alex Parra, Susan Provenzano

Public: John Ballantine, Mark Duffy, Debbie Geltner, Iva Mooney, Tom Brownrigg, Amy Reukauf, Elizabeth Ventura

Conservation Administrator: Sylvia Willard

The meeting convened at 7:20 pm

The June 10<sup>th</sup> meeting minutes were reviewed and approved.

The rest of the meeting was devoted to hearing the proposals for growing wet hay and a discussion of permaculture farming proposal.

#### Hay Farming

Mark Duffy presented an overview of the hay farming proposal (see attached). He began by explaining that because he receives funding from the USDA he is limited as to what crop he can grow at the bog. Because the bog was growing cranberries when a certain set of regulations came into effect, that means that the bog can now only be used to grow hay or cranberries. If a farmer doesn't rely on the USDA, then any crop could be grown. Ballantine asked if this crop limitation was in writing. Willard responded that she believed it is and would check on it.

Duffy explained that it is hard to grow crops on a combination of sand and muck. Water will drain quickly through the sand but get trapped in the muck below. The amount of sand varies across the bog anywhere from a few inches to 18" according to Geltner's core samples taken for the previous Cranberry Bog Alternatives Committee.

Duffy said he would need special equipment to cut and bale the hay and not get stuck. One of the first steps would be to clear the ditches, which should aid in the flow of water through the bog and hopefully dry it some. DEP will not allow a lowering of the water table. He would not use all areas, as some sections are too small to maneuver machinery. Ballantine asked why Duffy wants to grow hay at the bog. Duffy replied that to feed his dairy cows he needs acres of hay. He is losing acres due to development and so haying the bog would help make up that loss and provide much needed hay for his cows. Duffy would do round bales which are wrapped in plastic. Round bales sell for \$200-\$300 per ton. Belitz asked how many tons might come from the bog, but Duffy couldn't give a figure as there were too many unknowns.

Duffy also wants to keep the bog in agriculture to help keep the bog as it has been for the last 100 years. He would want a minimum of 30 acres and would commit to ten years. The town would have to give monetary help to convert the bog from its current state to be suitable to grow hay, but then he would handle operating costs, and he is open to maintaining the bog for the town, as he did when he leased the bog as a cranberry farmer.

Parra wondered if the state should have an interest or partake in the conversion because the growing of hay is based on the need from Great Brook Farm.

Duffy would also like the bog house to remain available as a residence for his workers.

There was some discussion about the cost of conversion to hay, and how valuable the hay would be for Duffy. The working group will follow up to get more information.

#### Permaculture Proposal

Elizabeth Ventura and Amy Reukauf provided some additional information on the proposal they had previously presented for a permaculture/ education farming initiative. They had worked on costs and a timeline but were still working on a business plan.

Since they know a lot about bees, they would start by establishing an apiary and then study the land to best determine how to use it. They felt they could conduct permaculture education courses which would not only bring in some revenue but also produce some ideas for the best use of the bog land. Some other income ideas were to rent canoes to go around the ponds and rent camp sites. These would be free to town members, but not for non-residents. They mentioned that there might be grant funding for pollinators in the area.

Lindquist requested a more specific proposal. She also noted that they would not need to lease the land in order to keep bees or conduct educational programs, as these activities can and do take place at the bog now. There were also comments that, because this is town land, it may not be possible to rent campsites.

Someone posed the question of how much farming has to be done for the bog to be kept in agriculture. Parra had researched regulations regarding what is required to keep the bog in 'agricultural use', which is desirable because it allows active management of the bog (ie: cutting of trees and mowing). Agricultural status requires that the activity be a 'for profit' enterprise. It may not be profitable every year, but it must show the potential to be profitable.

Parra expressed interest in hearing if Northeastern would be interested in having an agriculture station similar to those sponsored by UMass and Harvard. Willard commented that Boston College currently has people studying dragonflies at the bog. The agriculture status requires that the activity be a for profit enterprise.

#### Future meetings:

- Ken Belitz has scheduled a site visit with Nick Nelson of Interfluve, restoration consultants who specialize in renovation of cranberry bogs restored to natural habitat, at the bog on Monday July 22 at 9:30 am. Sylvia will post a notice. All interested may attend.
- Next CBWG meeting will be held on Monday July 22 at 7 pm. At this meeting we will hear about the meeting with Nelson and bog restoration and discuss how to go forward and present information to the town.

Meeting adjourned at 9:20 pm

## Concept Hay Proposal

CBWG 7-1-2019  
Mark Duffy

### What is 'growing hay'?

- Perennial mixture, harvested 3 or more times per year
- No annual routine herbicide or pesticide use once established
- Ditch around perimeter with some interior drainage
- Access to the bog surface – permanent ramps for equipment
- No tilling planned once established
- Ponds, pathways, dikes, berms, waterways remain
- Vistas maintained by regular mowing

### Proposal to 'grow hay'?

- Farming on the bog requires light equipment – seeder, mower, baler
- Means need enough acreage to make purchase and maintenance of this equipment economically reasonable
- Request 30+ acres
- Gradually renovate bog over 2+ years – acre by acre – to convert from cranberries to arable fields and establish hay
- Town would compensate farmer for conversion on per acre basis at agreed upon price as converted up to acreage suitable for conversion
- Specific list of work per acre and projected cost available for discussion

### Town's Role

#### Town Contributes

##### Capital for conversion and long-term lease

- Funding for conversion
- Bog house tenancy for workers
- Long-term lease to grow hay

#### Town Gets

##### Agricultural use and experienced bog stewardship

- Retains ownership of bog and surrounding 120+ acres of wetland and conservation land (adjacent to 200+ acres owned by Chelmsford)
- Active stewardship of fields and bog by experienced farmer
- Maintenance of bog, including pathways, water structures and waterways
- Mowing and maintenance fields preserves vistas
- Long-term tenant for bog house capable of maintenance/ minor repairs

### Farmer's Role

#### Farmer Provides Continued farming and active stewardship of the bog

- Conversion of 30+ acres of bog fields from cranberries to hay (Town funds this activity)
- Long-term commitment to maintain and hay the converted fields
- Long-term commitment to maintain surrounding pathways, water structures and waterways
- Equipment, materials, expertise and labor to support the above activities. Note: Town remains responsible for major repairs as it has been in the past
- Bog house tenants (includes minor repairs)

#### Farmer Gets Long term access to bog to grow hay for dairy operation at GBF

- Long-term agricultural lease allowing growing and harvesting hay on converted acreage
- Bog house tenancy

### Long Term

- Someone will continue at Great Brook after Mark retires
- The cows at Great Brook need hay
- The bog fields are the largest contiguous piece of agricultural land in Carlisle. Once they are converted, and hay has been established, someone will always want to hay it
- Growing and harvesting hay will maintain vistas, ditches, ponds, waterways and wildlife habitat in the area of the active bog
- Of the 309 acres of land at the bog (Carlisle and Chelmsford) less than 13 percent is available for growing a crop. Even if farmed, over 250 acres of ponds and wetlands surrounding the working bog will continue to be a protected resource for people and wildlife