

January 24, 2014

Pembroke Watershed Association  
c/o Mr. Ray Holman, President  
P.O. Box 368  
Pembroke, MA 02359

**Re: 2014 Proposal/Agreement for the Aquatic Vegetation and Algae Control Program at  
Furnace Pond – Pembroke, MA**

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Dear Mr. Holman:

Since the inception of the algae management program at Furnace and Oldham Ponds the water quality and clarity of Furnace Pond has improved. As a result, an increase in submersed aquatic plant growth has been observed in recent years. Most notable has been the floating-leaf waterlily growth. The waterlily growth has become widespread and abundant along large expanses of the shoreline and is in some areas so dense that access is impaired, and habitat and recreational value are degraded. Due to the fact that Furnace Pond's management needs and objectives need to change in response to changing conditions, we feel that at this point in time amending the current Order of Conditions to include a variety of plant and algae management options is in the best long-term management interest of the pond. We have therefore prepared the following multi-faceted management program for the Association's consideration. Please accept the following as our 2014 Proposal/Agreement for vegetation and algae management services at Furnace Pond.

## **SCOPE OF SERVICES**

### Permitting

Although a valid Order of Conditions (OOC) is in place for the management of algae, it does not cover any of the techniques that may be necessary for the management of rooted plants. Therefore, Aquatic Control will prepare and file for an amendment of the existing OOC with the Pembroke Conservation Commission to include a variety of rooted aquatic plant management options.

As in the past, Aquatic Control staff will prepare and file for the required *License to Apply Chemicals* permit with the MA DEP – Office of Watershed Management.

### Algae Control

Based upon conditions and Secchi disk readings, Aquatic Control in conjunction with the PWA will jointly determine if and when an algaecide treatment is to be performed. If treatment is deemed necessary, the treatment will be scheduled for a mutually agreeable date that will allow notification of the Association, Town, and public. Prior to the scheduled treatment date Aquatic Control will provide the Association with pre-printed signs for posting around the shoreline of the pond. The signs will warn of the treatment date and the temporary water-use restrictions to be in effect post-treatment. Although the USEPA copper sulfate label does not require any restrictions on the use of treated water following treatment, Aquatic Control will, as an extra precaution, close the pond to all uses on the day of treatment only. This is in keeping with good pesticide use practices. If desired Aquatic Control will also provide the Association with a written treatment notification for distribution to local media outlets.

Copper sulfate treatments will be performed using Aquatic Control's specially equipped spray boats. Dissolved copper sulfate crystals will be evenly applied throughout the designated treatment zone(s). Dose will be determined by the dominant algae species assemblage, but will likely range between 0.25-0.3 ppm copper sulfate.

#### Waterlily Control

Area selective waterlily control will be performed using the USEPA/MA registered herbicide AquaPro (Glyphosate). Designated areas totaling 5-7 acres of growth will be targeted around the pond shoreline. Specific treatment areas will be determined in cooperation with the PWA based on the level of waterlily growth, level of use, etc. The herbicide treatment will be performed later in the growing season (late July- August) to optimize translocation of the herbicide within the plant and the level of carry-over control. The herbicide will be applied as a foliar spray and the pond will be closed to swimming and boating on the day of each treatment.

### **TENTATIVE SCHEDULE OF PERFORMANCE**

- ◆ Permitting ..... February
- ◆ Pre-treatment inspection.....late June
- ◆ Algal monitoring ..... June- September
- ◆ Algal treatment..... July –September (as required)
- ◆ AquaPro treatment for the control of waterlilies.....late July-August

### **INSURANCE**

Aquatic Control carries workmen's compensation, property damage and liability insurance which will remain in effect throughout the duration of this Agreement (December 31, 2014). A "certificate of insurance" will be provided to the Association upon request.

### **CLIENT (PWA) RESPONSIBILITIES**

- Full compliance with the Pembroke Conservation Commission's, Order of Conditions (OOC) permit for this project, unless otherwise agreed to in writing by ACT.
- Measurement and reporting of weekly Secchi disk readings.
- All pre-treatment notifications of pending chemical treatments. ACT to provide a written "notice of treatment" for distribution to local media outlets, if desired
- Posting of pre-printed signs around the entire Furnace Pond shoreline prior to copper sulfate treatments. ACT to provide the signs and posting instructions.
- Compliance/enforcement (to the extent possible) of the temporary water use restrictions to be imposed post-treatment.

### **COST AND PAYMENT SCHEDULE:**

The cost of the 2014 aquatic management program is broken down by task in the following schedule.

#### Permitting

- Prepare and file amendment to Order of Conditions..... \$500
  - Postage and preparation of certified mailing to pond abutters ..... \$3.00/abutter
- Prepare and file MA DEP pesticide use permit ..... \$250

#### Algae Control

- Whole pond copper sulfate treatment  
(inclusive of all materials, labor, and equipment) ..... \$2,950/treatment

**Waterlily Control**

- Treatment of 5-7 acres of designated waterlily growth using AquaPro (inclusive of all materials, labor, and equipment necessary for two treatments) ..... \$4,750

Invoices will be submitted upon completion of each task and payment, in full, will be due within 30 days of the receipt of each invoice. The Association has a \$1,000 credit from 2013, which will be applied toward the services performed during 2014.

Specific, mutually agreeable date(s) for chemical treatment will be scheduled with an Association representative in advance. Our ability to proceed with this management program is contingent upon timely receipt of the required permits. **In order to file your permits in a timely manner it is important that this proposal be signed and returned as soon as possible.** In the meantime, if you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

**Aquatic Control Technology**



Marc D. Bellaud  
President/Aquatic Biologist

**Accepted By:   Pembroke Watershed  
                          Association**

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(sign name)

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