

# **DIVING AS A TECHNIQUE TO CONTROL EXOTIC AQUATIC PLANTS: THE WEED CONTROL DIVER PROGRAM**



**PREPARED BY:**

**NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES**

**EXOTIC SPECIES PROGRAM**

**29 HAZEN DRIVE**

**CONCORD, NH 03301**



## **DIVING AS A TECHNIQUE TO CONTROL EXOTIC AQUATIC PLANTS**

One common exotic aquatic plant control technique that is routinely used in just about every infested waterbody is some modification of basic hand removal of exotic aquatic plants (like variable milfoil). It is critically important to recognize that this is not a “one size fits all” technique, and it is not a replacement technique in lieu of other larger scale management practices (like herbicide use), but it is a technique that has a place in every management program for exotic aquatic plants. State and other professional biologists set the precedent and course of action for control projects in state waterbodies, but there is a need to have an established program to sufficiently train interested individuals in the method of exotic aquatic plant control using hand removal techniques.

Because an infestation can very easily be spread by such attempts at control, the process is regulated by the Department of Environmental Services (DES), and either a Wetlands Permit is needed for ANY physical removal of an invasive aquatic plant, OR a specialty certification of “Weed Control Diver” can be obtained to obviate the need for a permit.

*Specifically, DES Wetland’s Rules state that:*

*Env-Wt 303.05(e) under Projects That Do Not Require a Permit.*

*Hand removal of exotic aquatic plants or installation and maintenance of benthic barriers on the bottom of a surface water to control the growth of exotic aquatic plants as authorized by RSA 487:17, provided:*

- (1) The work is conducted by SCUBA divers who have received weed control diver certification from the professional association of diving instructors;*
- (2) The project is conducted in accordance with a long-term management plan designed pursuant to Env-Wq 1305.03;*
- (3) The project is not located in prime wetlands, marshes, bogs, or tidal wetlands;*
- (4) Diver-assisted harvesting of exotic aquatic weeds in flowing waters will be initiated only at the most upstream location of the infestation*

If you are a certified SCUBA diver, comfortable in adverse diving conditions, and willing to devote time to control this threat, please consider training to become a Weed Control Diver.

Harvesting without this approved training can not only damage the fragile ecological balance in our lakes and ponds, but it can cause the further spread of these insidious plants. There are also Wetlands Fines and other enforcement actions for trying to help without this certification.

### **BACKGROUND**

Generally obtaining a Wetlands Permit has costs associated with it, as well as a lengthy permit process. When dealing with an infestation of exotic aquatic plants, time is of the essence. Therefore, in 2007, DES biologists overseeing exotic species related activities worked closely with the DES Wetlands Bureau to develop a waiver system or essentially a “permit by notification” for individuals who become certified in Weed Control Diving, such that these certified individuals work closely with DES in identifying work sites, and in pre-dive and post-dive notifications relative to work that is done.

After the waiver system was developed and put into DES administrative rule, DES biologists worked closely with a local Master Dive Instructor to develop a course curriculum that could be offered to interested individuals who wished to perform work on their own waterbodies as

volunteers, or who wished to become divers for hire to work on various waterbodies across the state.

The instructor is affiliated with the Professional Association of Diving Instructors (PADI), and the course curriculum was developed to satisfy DES Wetlands Bureau regulations relative to work being done jurisdictional habitats, DES Biology Section water quality and exotic species concerns, as well as diver safety concerns. The curriculum was submitted to PADI and has since become a specialty course available to interested divers. Efforts are currently being made to expand the pool of instructors who are authorized to teach this course and certify divers, as well as to expand it beyond the PADI organization, to other nationally recognized diving affiliations.

### **THE WEED CONTROL DIVER COURSE**

This course is designed to develop knowledge and skills needed to help combat exotic aquatic plant growth in New Hampshire. Class participants will learn about control methods and how to identify, document and safely and effectively hand harvest and dispose of key exotic aquatic plants.

The Weed Control Diver Course is comprised of 6 hours of classroom session that covers a core curriculum (manual provided), and an 8 hour session of open water dives in exotic aquatic infested waterbodies, for hands-on instruction by the course instructor, as well as the final certification dive.

### **PRE-REQUISITES FOR PARTICIPATION**

- PADI Open Water or equivalent level certification
- 15 years of age or older
- Proof of 10 or more logged dives in low to zero visibility to class
- Ability to demonstrate good buoyancy control and comfort in low visibility
- PADI medical form signed by participant's physician if any questions on form are answered yes.

### **COSTS OF CERTIFICATION**

There is currently a charge of \$150 for participation in the course, including the cost for certification.

Additional information on the course can be obtained by contacting Ted Aldrich, the course instructor at [weedcontroldiver@gmail.com](mailto:weedcontroldiver@gmail.com). Once additional instructors are certified and operational this information sheet will be updated.

### **PROCEDURES ONCE CERTIFIED**

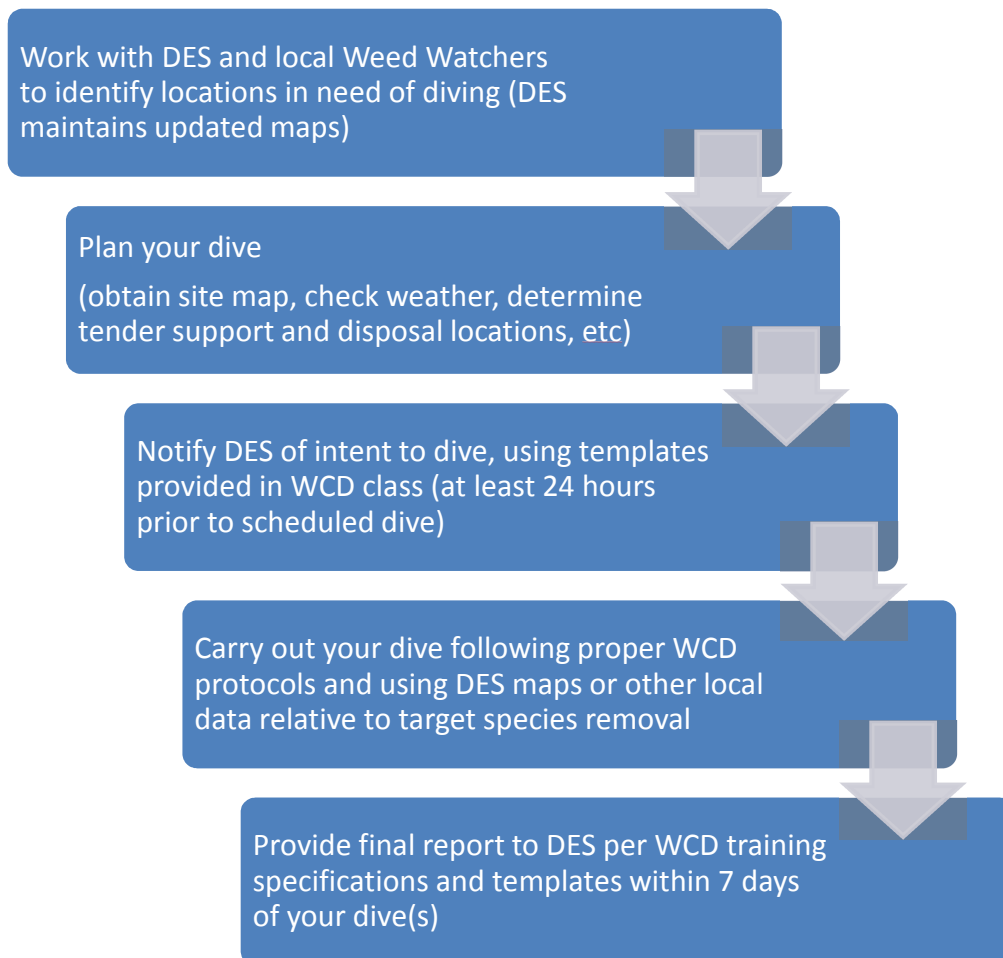
Once certified, Weed Control Divers are able to work as volunteers or as contractors for hire, to use their new skills to aid in the control of exotic aquatic plants. The course instructor provides regular updated lists to DES of the divers as they become certified, but it would be useful to contact DES to indicate if you are interested in serving as:

- A local volunteer diver on a waterbody of your choice
- A volunteer diver willing to help out at various waterbodies

- A contract diver for hire by various waterbodies.

This will help DES keep track of where individuals will be working, as well as maintain a list of divers who are available to help on various waterbodies as the need arises.

When planning to perform a dive follow the steps in the diagram provided below to ensure that you have met the requirements of the DES Wetlands Bureau, DES Biology Section and the Weed Control Diver Certification:



### **ALTERNATIVES FOR NON-DIVERS**

If you are interested in becoming active in some aspect of the program but are uncomfortable underwater or do not wish to become a certified diver, you can still participate in aspects of the Weed Control Diver work.

All dive programs have multiple facets to them, for volunteer capacity at any level. Consider helping with one of the areas outlined below:

<b>Task</b>	<b>Description</b>
Local contact	Be a local contact to serve as a liaison for coordinating dive work, reporting on site conditions, and/or being a go-to person on site during a dive.
Boat donor	Volunteer your boat to be used as a dive platform for a day or longer. Note, your boat will get muddy and dirty!
Lunch/beverage/snack provider	Volunteer to provide lunch, water and/or snacks to divers working on the water for a day.
Tender	Tenders are top-side support for dive activities. Usually tenders paddle around in boats and collect any fragments generated during dive operations. They may also serve as a “runner” to provide dive bags or other items the divers may need. Tenders are welcome to sit in on the classroom portion of the Weed Control Diver class free of charge to learn how they may better help while on the water.
Air supplier	Volunteer to purchase air for divers, or help transition empty/full tanks for divers.
Overnight accommodations	If volunteer or contract divers are coming to your lake and you’d like to cut down on their costs you can volunteer to host a diver for a night or two in your home.
Disposal assistance	Divers will be generating large amounts of harvested material that must be disposed of. Volunteer your services to provide a truck and/or trailer and/or hauling harvested material away to an approved disposal site.

### **GOALS OF THE PROGRAM, NOW AND IN THE FUTURE**

The goal of this program is to expand the capacity for routine and on-going hand removal activities related to exotic aquatic plant control, with limited “red tape” relative to permitting. There must be some degree of accountability and tracking, however, and those who participate in the Weed Control Diver certification program are instructed in how to be accountable and effective in their work with exotic aquatic plants.

There are currently nearly 200 certified Weed Control Divers in New Hampshire. Some of these are divers for hire, though most were certified to work in their own waterbody that has an infestation.

In the future it would be desirable to have at least a handful of divers certified on each infested waterbody in New Hampshire, so that infrastructure exists to carry forward exotic aquatic plant control activities.

## **MORE INFORMATION**

For more information on the role of Weed Control Divers or for obtaining a Wetlands Permit for controlling exotic aquatic plants, please contact the Department of Environmental Services at 603-271-3503.

To register for the Weed Control Diver Certification Program, please contact Ted Aldrich at [weedcontroldiver@gmail.com](mailto:weedcontroldiver@gmail.com).