

RECEIVED

JAN 05 2015

Attachment E – Notice of Intent

WATER QUALITY ORDER NO. 2013-0002-DWQ
GENERAL PERMIT NO. CAG990005

DIVISION OF WATER QUALITY

STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT FOR RESIDUAL AQUATIC PESTICIDE DISCHARGES TO WATERS OF
THE UNITED STATES FROM ALGAE AND AQUATIC WEED CONTROL APPLICATIONS

I. NOTICE OF INTENT STATUS (see Instructions)

Mark only one item	A. <input checked="" type="checkbox"/> New Applicator	B. <input type="checkbox"/> Change of Information: WDID# _____
		WDID# 340A00001
	C. <input type="checkbox"/> Change of ownership or responsibility: WDID# _____	

II. DISCHARGER INFORMATION

A. Name COASTAL SAN LUIS RESOURCE CONSERVATION DISTRICT			
B. Mailing Address 1203 MAIN ST., SUITE B			
C. City MORRO BAY	D. County SAN LUIS OBISPO	E. State CA	F. Zip 93442
G. Contact Person MARK SKINNER	H. E-mail address mskinner@coastalrcd.org	I. Title RESTORATION SPECIALIST	J. Phone (805) 235-2977

III. BILLING ADDRESS (Enter information only if different from Section II above)

A. Name			
B. Mailing Address			
C. City	D. County	E. State	F. Zip
G. E-mail address	H. Title	I. Phone	

IV. RECEIVING WATER INFORMATION

A. Algaecide and aquatic herbicides are used to treat (check all that apply):

1. Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger.
Name of the conveyance system: _____

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
Owner's name: _____
Name of the conveyance system: _____

3. Directly to river, lake, creek, stream, bay, ocean, etc.
Name of water body: _____

B. Regional Water Quality Control Board(s) where treatment areas are located
(REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region 3
(List all regions where algaecide and aquatic herbicide application is proposed.)

V. ALGAECIDE AND AQUATIC HERBICIDE APPLICATION INFORMATION

A. Target Organisms:
CAPE IVY (*Delainia odorata*)

B. Algaecide and Aquatic Herbicide Used: List Name and Active ingredients
CLEARCAST: IMAZAMOX

C. Period of Application: Start Date OCTOBER 2014 End Date CURRENTLY UNKNOWN

D. Types of Adjuvants Used: METHYLATED SEED OIL

VI. AQUATIC PESTICIDE APPLICATION PLAN

Has an Aquatic Pesticide Application Plan been prepared and is the applicator familiar with its contents?
 Yes No

If not, when will it be prepared? _____

VII. NOTIFICATION

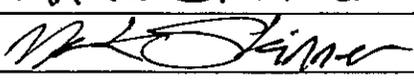
Have potentially affected public and governmental agencies been notified? Yes No

VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal?
 YES NO NA

IX. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the General Permit, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: MARK SKINNER
 B. Signature:  Date: 9/14/2014
 C. Title: _____

XI. FOR STATE WATER BOARD STAFF USE ONLY

WDID:	Date NOI Received:	Date NOI Processed:
Case Handler's Initial:	Fee Amount Received: \$	Check #:
<input type="checkbox"/> Lyris List Notification of Posting of APAP	Date _____	Confirmation Sent _____

COASTAL SAN LUIS RESOURCE CONSERVATION DISTRICT

Aquatic Pesticide Application Plan (APAP)

For the

**Statewide General National Pollutant Discharge Elimination System
(NPDES) Permit for the Residual Aquatic Pesticide Discharges to Waters
of the United States from Algae and Aquatic Weed Control Applications**

Water Quality Order No. 2013-0002-DWQ

General Permit # CAG99005

Prepared by:

**Coastal San Luis Resource Conservation District
1203 Main St., Suite B
Morro Bay, CA 93442
Contact: Mark Skinner
(805) 235-3977**

Submitted to:

**State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
Contact: Russell Norman
(916) 323-5598**

PROJECT SUMMARY

The Coastal San Luis Resource Conservation District (CSLRCD) is proposing to remove a severe infestation of the invasive plant Cape Ivy (*Delairia odorata*) that occurs within the wildlife habitat portion of Chorro Flats. The removal of the Cape Ivy is necessary because it inhibits the health of the native flora and impairs the flood plain function. Eradication will be achieved by a combination of crew removal, goat grazing and herbicide application.

PROJECT SETTING

Chorro Flats is a 128 acre site located at Quintana Road and South Bay Boulevard, immediately east of the City of Morro Bay. The property, owned and managed by the Coastal San Luis Resource Conservation District (RCD), was purchased in 1991. At that time, the RCD planned, and in the mid-1990's, implemented the Chorro Flats Enhancement Project to (1) reduce sediment loads to Morro Bay through passive capture by allowing Chorro Creek to overflow onto its original floodplain; (2) restore and enhance 83 acres wetland and wildlife habitat, and; (3) preserve 45 acres of prime agricultural land. At the present time, 87 acres of the property is held in a USDA Natural Resource Conservation Service (NRCS) Wetland Reserve Program (WRP) easement. Chorro Creek is a steelhead stream.

PROJECT DESCRIPTION

A major infestation of the invasive plant Cape ivy (*Delairia odorata*) exists in the wildlife areas of Chorro Flats, an area of dominated by willow and alder riparian and coastal scrub habitat. The native species richness of the site is impacted by the Cape ivy covering in the canopy of the trees, climbing the structure of plants and creeping along the floor of the floodplain. It is occasionally immersed in ponds and mud pits. The removal of the Cape ivy is identified in the NRCS Conservation Plan for this wetland easement property. The Cape ivy infestation was mapped by an NRCS and RCD team. The result of that survey is shown in the map on page 7 of this application. Work is proposed to begin in July 2015 and be complete by October 2015. After the installation phase is complete there will be a maintenance phase beginning in October 2015. The goal of the maintenance phase is to prevent the re-emergence of cape ivy.

ERADICATION METHODS

An integrated pest management (IPM) approach will be utilized, with a sequence of biological and chemical treatments. A California Conservation Corps (CCC) crew will physically remove the Cape ivy and transport it to a corralled goat herd(s) for disposal. This is a biomass reduction phase. With the completion of the crew work and removal of the goat herd, an herbicide spray application onto any Cape ivy fragments found on the site will be accomplished. With biomass removal there will be a much less use of herbicide on the project site. Herbicide use is necessary because remaining fragments, no matter how small, have the potential to grow and reinfest the property. Herbicide application will negate that potential. A map of proposed eradication methods is shown on page 5.

Crew Removal of Cape Ivy

Initially, woody obstructions on site will be cut and cleared by CCC sawyers using chain saws. This will allow access and safe passage of CCC crew members to remove and transport the plant material. The crew will remove the ivy by hand, removed from branches, trunks and canopies, then placed onto tarps. Fragments will be raked away from tree trunks and shrubs and collected. The plant material filled tarps will be transported to a fenced goat corral(s).

Utilization of Goat Herds

Goats will be housed and contained, on site, in temporary fenced corrals at clearings and tended by a professional herder where Cape ivy will be deposited by the laborers. The goats should consume the entire harvested Cape ivy crop. This approach will minimize site impacts such as damage to native vegetation, creek bank erosion, and impacts to water quality from animal feces, increases in turbidity and nutrients.

Herbicide Application

When the goats are finished and removed there will be an herbicide application onto any found Cape ivy fragments throughout the site with an aquatically labeled mix consisting of Imazamox (*Clearcast*). (See Table 1.) Imazamox a branched chain amino acid inhibitor, is approved for aquatic applications, is relatively safe for fish and other aquatic life. The breakdown products of Imazamox are nicotinic, dicarboxylic, and tricarboxylic acids. None of these products are herbicidal or suggest concern for aquatic organisms or human health. Dissipation studies in lakes indicate that Imazamox has a half-life ranging from 4-49 days, with an average of 17 days. An aquatically labeled surfactant, methylated seed oil, will be amended to the mix. All herbicide applications will be made according to product label specifications.

Imazamox is not listed on the Environmental Protection Agency's (EPA) website as being Subject to the Federal District Court's 2006 injunction, which limits or prevents the use of pesticides within habitats and buffer zones of the California red-legged frog.

Table 1. Aquatic Herbicides to be Used, Known Degradation Byproducts, Application Methods and Surfactants

Herbicide (active Ingredient)	Degradation Byproducts	Application Method(s)	Surfactant
Imazamox	nicotinic, dicarboxylic, and tricarboxylic acids	Backpack sprayer, power sprayer (if necessary)	Methylated seed oil

The herbicide applicator will spray cape ivy fragments on the ground away from tree trunks. The herbicide mix will be applied by a backpack sprayer. However, if the amount of remaining Cape ivy plant material is high, it may be necessary to deploy a mechanical power sprayer.

Best Management Practices (BMP) for Herbicide Application

1. Aquatic Herbicide Spill Prevention and Containment

All herbicide applications will be supervised by a California Department of Pesticide Regulation-certified applicator who has received training specific to the herbicide and surfactant/adjuvant products to be used. Label language is followed to ensure safe handling and loading of herbicides. Application equipment is routinely maintained and checked to identify and/or minimize the possibility of leak development or failure that might lead to a spill. Tank mixing and filling will be done well away from all surface waters. The applicator will avoid spills and spray drift to water bodies. The applicator will have a spill kit at the work site.

In the event of an aquatic herbicide spill, the material will be prevented from entering water bodies. The following measures will be taken: 1) Control: spills will be stopped when they occur which would include up-righting any overturned containers and repairing leaking hoses. 2) Containment: after controlling a spill the material will be contained so that it can't spread beyond the area where the accident occurred. Kitty litter or other absorbent material will be used to soak the material, and then picked up deposited into a drum or heavy plastic bag and hauled off-site for proper disposal according to the consultation of the San Luis Obispo County Agriculture Commissioner.

2. Applications Made According to Label and PCA Recommendation

All aquatic herbicide applications are to be made according to the product label in accordance with regulations of the U.S. EPA, Cal EPA, Cal OSHA, DPR and San Luis Obispo County Department of Agriculture. Prior to application a PCA will prepare a written recommendation that specifies rates of application and any warnings or conditions that limit the application so that non-target flora and fauna are not negatively affected. There will be no application to standing or flowing water.

3. Applications by Qualified Personnel

Aquatic herbicide applications will be conducted by persons holding a valid Qualified Applicator License (QAL.) The QAL shall train employees for proper application including understanding the herbicide label and Material Safety Data Sheet (MSDS) for the herbicide. Training shall also include mixing and spraying the appropriate amounts of herbicide and adjuvants and avoiding adverse effects from herbicide application such as spraying the target species only and not any native plants.

4. Plan to Inform Agencies Receiving Water from Project Site

CSLRCD shall inform the County of San Luis Obispo, whom receives water from the project site for irrigating a golf course, that there is an APAP for the project site and will disclose the herbicide used for the project.

5. Plan for Preventing Fish Kill from Pesticide Application and Plan for the Protection of Terrestrial and Aquatic Wildlife

Imazamox and its breakdown products are relatively safe for fish. In applying this herbicide to terrestrial vegetation (*Delairia*) there is a possibility of a spill and runoff towards water. A spill prevention, control and containment plan is present in this plan under BMP 1. All mixing and use of concentrated herbicide is outside of the riparian corridor, where it cannot enter water.

24 hours prior to the removal/cutting work, a qualified biologist will conduct a survey for red-legged frogs and will instruct the work crew on the identification and biology of red-legged frogs. The biologist will be available should the work crew identify a red-legged frog while the work is taking place. If a red-legged frog is observed, all work will cease immediately until the biologist arrives and assess the situation to determine if the work can proceed, and determine if the US Fish and Wildlife Service should be contacted.

Least Intrusive Method of Aquatic Herbicide Application

Best management practices will be used to make pesticide application as safe and least intrusive as possible. Prior biomass removal will reduce the application of herbicide to a minimum. There will be physical impacts with crews and goats. Crews will gain access and make trails with the use of chainsaws. People will trample the ground. Goats will be contained but will trample the ground where they are contained. Containment is preferable over free roaming where there may be significant damage to stems and trunks.

Decision Matrix for the Analysis of Alternatives

A summary of the alternatives considered is provided in Table 1.

In addition to the use of Imazamox the cape ivy management program shall integrate non-chemical control methods. A number of criteria were used in the evaluation of control methods, including efficacy at controlling cape ivy, human health and safety, damage to the riparian habitat and/or other aspects of the environment, impacts on water quality, etc.

The non-chemical methods in the cape ivy management program are: 1) use of crews for manual removal and 2) use of goats for biomass reduction. Control methods that were evaluated are discussed below.

- ✓ No action—No action would result in the continued degradation of the project site and reduce the quality of wildlife habitat.
- ✓ Prevention—Prevention will take place during the maintenance phase of the project. There is source material of cape ivy upstream and is being treated by other agencies, yet the threat of reinfestation remains a possibility.
- ✓ Manual and Mechanical Methods—See Crew Removal of Cape Ivy.
- ✓ Cultural Method—N/A.
- ✓ Biological Control— See Utilization of Goat Herds. There is a possibility of using the Cape-ivy fly *Parafreutreta regalis* after the spraying is complete.
- ✓ Pesticide Control—See Herbicide Application.

Table 1: Decision Matrix of Alternatives

Alternative Considered	Effectiveness	Cost	Intrusiveness	Impacts to Water Quality	Maintenance of Native Plant and Animal Diversity	Included in Current Maintenance Efforts
No Action	NONE	LOW	NONE	NONE	LOW	NO
Prevention	HIGH	LOW	LOW	MEDIUM	MEDIUM	YES
Mechanical Control	MEDIUM	HIGH	HIGH	LOW	MEDIUM	NO
Biological Control	HIGH	LOW	LOW	MEDIUM	MEDIUM	NO
Pesticide Control (Imazamox)	HIGH	LOW	LOW	MEDIUM	MEDIUM	YES

WATER QUALITY MONITORING

- Objective: Conduct water quality monitoring sufficient to achieve compliance with National Pollutant Discharge Elimination System (NPDES) State-wide General Permit requirements.
- Monitoring will be conducted in accordance with the requirements outlined in Attachment C, Monitoring and Reporting Program, of the General Permit.

Project implementation in the summer to fall of 2015 may occur without any rainfall and may not require water quality monitoring. In the event of precipitation where there is runoff within a week of herbicide application the following monitoring protocol will be enacted:

The General Permit requires discharges to comply with the Monitoring and Reporting Program (MRP). The goals of the MRP are as follows:

1. Identify and characterize aquatic herbicide applications projects conducted by the Discharger
2. Determine compliance with the receiving water limitations and other requirements specified in this General Permit
3. Measure and improve the effectiveness of the APAP
4. Support the development, implementation, and effectiveness of BMPs
5. Assess the chemical, physical, and biological impacts on receiving waters resulting from aquatic herbicide applications
6. Assess the overall health and evaluate long-term trends in receiving water quality
7. Demonstrate that the water quality of the receiving waters following completion of weed management projects are equivalent to pre-application conditions
8. Ensure that projects that are monitored are representative of all aquatic herbicide treatments and application methods used by the Discharger

Background, Event, and Post-Event Monitoring samples shall be collected in accordance with Section II.B. of the General Permit. Water sampling shall be analyzed by a certified lab. Samples will be retrieved, stored, recorded, and shipped to a third party laboratory.

Monitoring procedures for visual, physical and chemical properties will be as follows (source: City of Tiburon):

Sample Type	Constituent/Parameter	Sample Method	Sample Type Requirement
Visual	1. Monitoring area description 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, rain, etc.) 4. Inspection of outlet structure to ensure no leaks	Visual Observation	Background, Event, and Post-Event Monitoring
Physical	1. Temperature (F) 2. pH (F) 3. Turbidity (F) 4. Electrical Conductivity at 25 °C (F)	Grab (3 feet below water surface or mid-depth if the water depth is less than 3 feet)	Background, Event, and Post-Event Monitoring
Chemical	1. Active Ingredient - Imazamox (L) 2. Dissolved Oxygen (F)	Grab (3 feet below water surface or mid-depth if the water depth is less than 3 feet)	Background, Event, and Post-Event Monitoring

(L) – Laboratory Testing; (F) – Field Testing

The discharge of residual aquatic herbicides shall not cause or contribute to an exceedance of the following limitations in the receiving water:

Constituent/Parameter	Concentration (µg/L)	Basis
Toxicity	Aquatic herbicide applications shall not cause or contribute to toxicity in receiving water(s).	Regional Water Boards' Basin Plans

MCL: Maximum Contaminant Level

EPA: Environmental Protection Agency

The constituents that each sample must be analyzed for is shown below:

Analyte	EPA Method	Reporting Limit	Hold Time (days)	Container	Chemical Preservative
Temperature	N/A	N/A	N/A	N/A	N/A
Turbidity	180.1	0.00 NTU	2	100 mL HDPE	None
Electrical Conductivity	120.1	0 µS/cm	28	100 mL HDPE	None
*Imazamox	N/A	N/A	14	1L Amber Glass	None
pH	150.1 or 150.2	1-14	Immediately	100 mL HDPE	None
Dissolved Oxygen	360.1 or 360.2	0.0 mg/L	1	1L Amber Glass	None
Hardness	200.7	1.0 mg/L	1	250 mL HDPE	None

*Active ingredient. Chemical analysis is only required for the active ingredient used in treatment.

Field Sampling

The following field sampling materials will be used:

1. New sampling bottles, one per sample with sample ID labels
2. Coolers sufficient to hold sample bottles, with ice or gel-packs
3. Plastic gloves
4. Subsurface grab sampler
5. Instruments for measuring water and air temperature, pH and depth
6. Field data sheets, site map, and clipboard
7. A clean boat

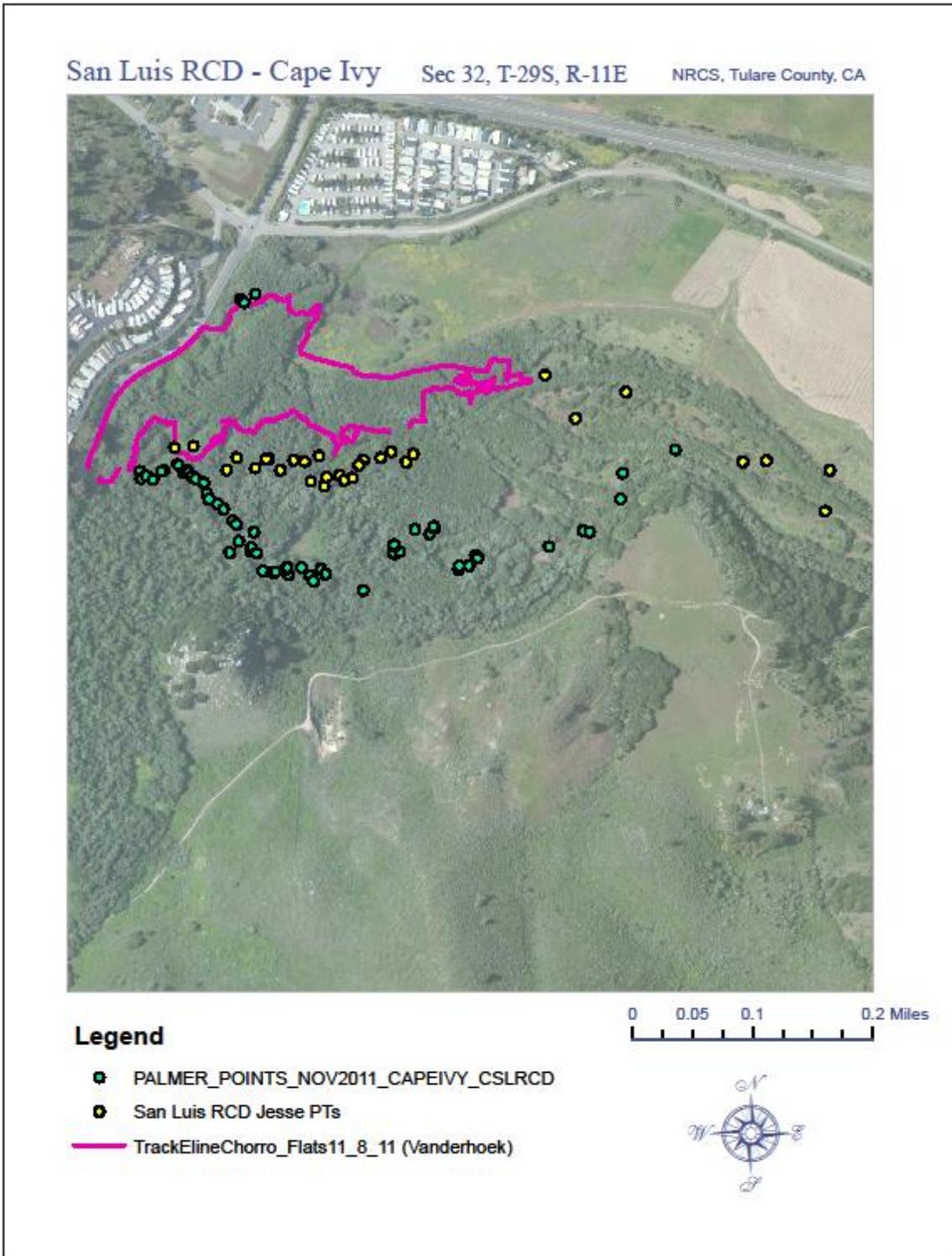
Procedures to Prevent Sample Contamination

- Sampling will be done upwind.
- Sampling will be done in a manner to prevent contact with application equipment, containers, vegetation, personal protective equipment, and treated water.
- Sampling equipment to be used at multiple locations will be thoroughly cleaned with a non-phosphate cleaner, triple rinsed in uncontaminated water, and then rinsed once with the water being sampled prior to its first use at a new location.
- Gloves will be changed between sampling sites.

NATIVE SPECIES REESTABLISHMENT

After the removal of emergent non-native invasive species, the re-establishment of native species by self-recruitment is anticipated and expected. Chorro Flats and the upstream watershed are the expected sources, as plant establishment on site by self-recruitment over time has been observed. Self-recruitment may be competitive against non-desirable species, creates more habitat, and minimizes the long term need for emergent aquatic weed abatement. Limitations to this approach include availability of suitable native species.

Map of Occurrences of Cape Ivy



Map of work sites

