

**MEETING NOTICE AND AGENDA**  
**MANSFIELD INLAND WETLANDS AGENCY**

**Monday, November 2, 2015 ■ 7:00 PM**

Audrey P. Beck Municipal Building ■ 4 South Eagleville Road ■ Council Chambers

**1. Call to Order**

**2. Roll Call**

**3. Proclamation in Honor of Peter G. Plante**

**4. Review of Minutes**

- a. 10-05-15 – Meeting Minutes
- b. 10-14-15 – Field Trip Minutes

**5. Communications**

- a. Conservation Commission Minutes
- b. Monthly Business Memorandum

**6. Public Hearing**

**7:05 p.m.**

**W1557 – C. L. Niarhakos, 101 East Road, 3 lot re- subdivision**

Public Hearing will be opened and adjourned to 12/7/15. No presentation will be made.

**7. Old Business**

- a. **W1556- R. Manning, 37 Higgins Highway, Site Work**  
Memo from Inland Wetlands Agent
- b. **W1558- K. Mehrens, 214 Wormwood Hill Road, 12' x 16' Shed**  
Memo from Inland Wetlands Agent
- c. **W1557 – C. L. Niarhakos, 101 East Road, 3 lot re- subdivision**  
Item tabled- Public Hearing Continued

**8. New Business**

- a. **Other**

**9. Reports from Officers and Committees**

**10. Other Communications and Bills**

- a. CT Aquatic Invasive Grant for Fanwort Follow-up Control in Eagleville Lake
- b. The Habitat

**11. Adjournment**

**DRAFT MINUTES**  
**MANSFIELD INLAND WETLANDS AGENCY**  
Regular Meeting  
Monday October 5, 2015  
Council Chamber, Audrey P. Beck Municipal Building

Members present: J. Goodwin, B. Chandy, G. Lewis, B. Ryan  
Members absent: R. Hall, K. Rawn, B. Pociask, V. Ward  
Alternates present: P. Aho, K. Holt, S. Westa  
Staff present: Jennifer Kaufman, Inland Wetlands Agent

Chairman Goodwin called the meeting to order at 7:00 p.m. and appointed Aho, Holt and Westa to act in the absence of members and appointed Ryan to act as Secretary in Ward's absence.

**Minutes:**

9-08-15 Regular Meeting Minutes- Chandy MOVED, Westa seconded, to approve the 9-08-15 meeting minutes as presented. MOTION PASSED. Aho noted that he listened to the recording and Lewis disqualified himself.  
9-16-15 Field Trip Minutes- Ryan MOVED, Holt seconded, to approve the 9-16-15 Field Trip Minutes as presented. MOTION PASSED with Goodwin, Ryan, Holt and Aho in favor and all others disqualified.  
9-21-15 Special Meeting- Chandy MOVED, Aho seconded, to approve the 9-21-15 special meeting minutes as presented. MOTION PASSED. Goodwin and Holt noted that they listened to the recording although Holt disqualified herself.

**Communications:**

The Conservation Commission meeting draft minutes and the Wetlands Agent Monthly Business report were noted.

**Old Business:**

- a. **W1557 – C. L. Niarhakos, 101 East Road, 3 lot re- subdivision**  
Item is tabled pending an 11/2/15 Public Hearing.

**New Business:**

- a. **W1556- R. Manning, 37 Higgins Highway, Site Work**  
Ryan MOVED, Holt seconded, to receive the application submitted by Doreen Palmer and Roger Manning (IWA File #W1556) under the Wetlands and Watercourses Regulations of the Town of Mansfield for site work on property located at 37 Higgins Highway as shown on a map dated 9/29/2015 and as described in application submissions, and to refer said application to staff and the Conservation Commission for review and comments. MOTION PASSED UNANIMOUSLY.
- b. **W1558- K. Mehrens, 214 Wormwood Hill Road, 12' x 16' Shed**  
Holt MOVED, Ryan seconded, to receive the application submitted by J. and K. Hawes (IWA File #1555) under the Wetlands and Watercourses Regulations of the Town of Mansfield for the site improvements, installation of shed and above-ground pool on property located at 214 Mulberry Rd as shown on a map dated 9/29/2015 and as described in application submissions, and to refer said application to staff and the Conservation Commission for review and comments. MOTION PASSED UNANIMOUSLY.
- c. **Permit Extension Request-Chatham Hill Section II Subdivision**  
Westa MOVED, Holt seconded, to extend the Inland Wetlands License pursuant to the Wetlands and Watercourses Regulations of the Town of Mansfield to Chatham Hill, LLC (File #W1255) for a 14-lot subdivision on property owned by the applicant located on the east side of Fern Road, as shown on map dated 5/21/2004 and as described in other application submissions. MOTION PASSED UNANIMOUSLY.

**Reports from Officers and Committees:**

No reports were offered.

**Other Communications and Bills:**

Noted.

**Adjournment:**

Chairman Goodwin set a Field Trip for 10/14/15 at 2:00 p.m. and declared the meeting adjourned at 7:08 p.m.

Respectfully submitted,

Bonnie Ryan, Acting Secretary

DRAFT MINUTES

MANSFIELD PLANNING AND ZONING COMMISSION  
INLAND WETLANDS AGENCY  
SPECIAL MEETING – FIELD TRIP  
October 14, 2015

Members present: Bonnie Ryan;  
Roswell Hall (Item 3: Present for oral presentation, did not walk the site)  
Conservation: Neil Fachinetti (Item 3)  
Staff present: Jennifer Kaufman

The field trip began at approximately 2:00 p.m.

W1556- R. Manning, 37 Higgins Highway, Site Work

Members were met on site by R. Manning. Members observed current conditions, and site characteristics. No decisions were made.

W1558- K. Mehrens, 214 Wormwood Hill Road, 12' x 16' Shed

Members were met on site by property owner K. Mehrens. Members observed current conditions, and site characteristics. No decisions were made.

W1557 – C. L. Niarhakos, 101 East Road, 3 lot re- subdivision

Members were met on site by property owner C. Niarhakos. Others present were E. Pelletier, Datum Engineering and Surveying; M. & R. Harper, 129 East Road; Joe Boucher, Towne Engineering. Members observed current conditions, and site characteristics on both 101 East Road and 129 East Road. No decisions were made.

The field trip ended at approximately 4:30 p.m.

Town of Mansfield  
**CONSERVATION COMMISSION**  
Meeting of 21 October 2015  
Conference B, Audrey P. Beck Building  
(draft) MINUTES

*Members present:* Aline Booth (Alt.), Quentin Kessel, Neil Facchinetti, Scott Lehmann, Grant Meitzler, John Silander. *Members absent:* Joan Buck (Alt.), Robert Dahn, Michael Soares.  
*Others present:* Mary Harper (W1557 intervener), Jennifer Kaufman (Wetlands Agent).

1. The meeting was called to order at 7:30p by Chair Quentin Kessel. In the absence of Dahn & Soares, Booth was appointed a voting member for this meeting.

2. Booth reported that Buck, who is recovering from grave complications of Lyme disease, wants resign as an Alternate member. The Commission decided to wait to see if she is still of the same mind when she has more completely recovered.

3. **Agenda.** Kaufman distributed hard copies of the IWA Site Plan Review of W1557 (Niarhakos, 101 East Rd) by CME Engineering, and indicated that the Commission's input on this application will not be needed until after its November 18 meeting, at the earliest. Accordingly, New Business item 5a: W1557 was tabled, and Ms. Harper left the meeting at 7:34p. In advance of the Commission's November meeting, members should read the CME review, and the reports of the dueling hydrologists hired by the applicants and interveners at [ftp://mansfieldct.org/grab/W1557-101 East Road - Electronic File/](ftp://mansfieldct.org/grab/W1557-101EastRoad-ElectronicFile/).

4. The draft minutes of the 16 September 2015 meeting were approved as written.

**5. IWA referrals.**

a. **W1556 (Manning, 37 Higgins Hwy).** {Note: "W1556" was formerly assigned to Wassenberg's renewal application, which has been withdrawn.} Storm-water draining from Higgins Hwy (Conn. Rte. 31) at the WSW-tending boundary of No. 31 (owned by Robert Manning) now flows west to a wetland over the neighboring property, No. 37 (owned by Doreen Palmer), causing erosion and road-salt contamination of its well. This is a problem that ConnDOT should fix, but getting its attention would apparently require an expensive lawsuit. Mr. Manning instead proposes to spend the money fixing the problem by installing a catch-basin and 200 ft of 15-inch drain pipe in a trench across No. 37, directing the runoff underground instead of over-ground. The Commission noted that the map supplied by the applicant is difficult to decipher, but after some discussion agreed unanimously (**motion:** Silander, Kessel) to comment that:

While there could be some impact on wetlands from road salt dissolved in runoff, it is unlikely to be significantly worse than it is now, given that (a) runoff now enters the wetland from surface flows and (b) the proposed drain will end short of the wetland, allowing water to infiltrate the soil before entering it. The proposed project seems a reasonable and commendable attempt to mitigate an unfortunate situation.

b. **W1558 (Mehrens, 214 Wormwood Hill Rd).** The applicant proposes to install a 12x16 ft shed on a crushed stone pad about 40 ft from a wetland. The ground is level and there does not appear to be a better location for the shed. The Commission unanimously agreed (**motion:** Lehmann, Silander) that, given the level location, the proposed project is unlikely

to have a significant impact on wetlands, as long as standard precautions are observed during installation.

**6. 2016 meeting dates.** The 2016 meeting dates proposed in the Planning Office memo are not third Wednesdays. They should be corrected – and also checked against religious calendars to avoid significant holidays. Opinion on whether to begin meetings 30 minutes earlier at 7:00p was divided, and it was decided that the Commission would continue to meet at 7:30p.

**7. Monitoring Town-held Conservation Easements.** Kaufman distributed (a) a draft form letter to people who own land to which the Town holds a conservation easement, announcing a monitoring visit “within the next year;” (b) a conservation easement monitoring report form developed by Soares; and (c) a list of Town-held conservation easements. Kessel asked her to send out the letter to the owners of land encumbered by ten of these easements. The Commission will then schedule monitoring visits to these properties in 2016.

**8. Mansfield Tomorrow.** According to Kaufman, the new Plan of Conservation and Development (PoCD) is now final and can be accessed at the Town’s website. A limited number of hard copies will be printed. Draft zoning regulations pursuant to the new PoCD will be reviewed by Town Planner Linda Painter before being presented to the Zoning Regulations Advisory Group. Booth urged that this group get the draft regulations ASAP to enable input at an early stage in what may be a long adoption process.

**9. Fanwort Control.** A follow-up fanwort-control treatment of Eagleville Lake will be required in 2016. Contrary to previous indications, 50% of the cost could again be covered by a state grant. The Commission agreed (**motion:** Silander, Booth) to support the Town’s application for a DEEP grant to help defray the cost of the follow-up treatment of Eagleville Lake with flumioxazin in 2016 to control fanwort. All were in favor save Facchinetti, who remains opposed to these herbicide treatments.

**10. Adjourned at 8:30p.** Next meeting: 7:30p, Wednesday, 18 November 2015.

Scott Lehmann, Secretary, 22 October 2015.



# Town of Mansfield

## Inland Wetlands Agency

Date: October 27, 2015  
To: Mansfield Inland Wetlands Agency  
From: Jennifer Kaufman, Inland Wetlands Agent  
Subject: Monthly Business Report

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### Mansfield Auto Parts - Route 32

On October 22, 2015, I monitored the site and there were no cars or automobile parts that may contain oil or other fluids located within 25 feet of the wetlands.

### Agent Approvals

None

### Permitted as of Right

The property owners of 212 S. Bedlam Road are in the process of getting a zoning permit 12x20 horse barn located 44 feet from the edge of wetlands at 212 S. Bedlam Road. Per section 4.0 of Mansfield's Inland Wetlands and Watercourses Regulations this is a permitted as of right activity as it is building used for agricultural purposes.



# Town of Mansfield

## Department of Planning and Development

**Date:** October 28, 2015

**To:** Mansfield Inland Wetlands Agency

**From:** Jennifer Kaufman, Inland Wetlands Agent

**Subject:** 101 East Road (File #W1557)  
Christopher and Lindsey Niarhakos  
Description of work: 3 Lot Subdivision

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In an October 21, 2015 email, the applicants requested that the public hearing scheduled for November 2, 2015 be continued to the December 7, 2015 meeting. This will allow the applicant time to respond to comments received from the independent consultant CME prior to making a full presentation of their application to the Agency.

If the IWA agrees with staff recommendations, after the public hearing is opened, the following motion would be in order:

\_\_\_\_\_ MOVES, \_\_\_\_\_ seconds to continue the public hearing on the 3-lot subdivision application of Christopher and Lindsey Niarhakos (File W1557), 101 East Road, Williams Heights subdivision to December 7, 2015.



# Town of Mansfield

## Department of Planning and Development

**Date:** October 27, 2015  
**To:** Mansfield Inland Wetlands Agency  
**From:** Jennifer Kaufman, Inland Wetlands Agent  
**Subject:** 37 Higgins Highway (File #W1556)  
R. Manning  
Description of work: site work  
Map Date: 9/29/2015

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### Project Overview

The applicant proposes to install a catch basin at an existing culvert at the edge of Higgins Highway and dig a 2 foot by 200 foot trench to install 15-inch diameter corrugated storm drain pipe to redirect storm water from Higgins Highway underground to the wetland located on the western edge the property. Currently, runoff from Higgins Highway is draining from 37 Higgins Highway onto the parcel to the south (31 Higgin Highway). This reportedly is causing significant erosion and contamination of the drinking water well on the 31 Higgin Highway property. To minimize the impact of the storm water entering the wetlands, the pipe should be shortened and a depression with rip rap installed in accordance with the 2002 CT Guidelines for Soil Erosion and Sedimentation Control. The applicant is working with Eastern Highlands Health District and the CT Department of Transportation to that the project meets the CT Public Health Code and other state permitting requirements.

### Recommendation/Suggested Motion

\_\_\_\_\_ MOVES, \_\_\_\_\_ seconds to grant an Inland Wetlands License pursuant to the Wetlands and Watercourses Regulations of the Town of Mansfield to R. Manning (File #W1556) for site work on property owned by Doreen Palmer and located at 37 Higgins Highway as shown on plans dated 9/29/2015 and as described in application submissions.

This action is based on a finding of no anticipated significant impact on the wetlands, and is conditioned on the following provisions being met:

1. Appropriate erosion and sedimentation controls shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized;
2. Silt Fence shall be installed at least 10 feet from the edge of wetlands and maintained until the area is stabilized; and
3. A storm water filtration device shall be installed at least 20 feet from the edge of wetlands in accordance with the 2002 CT Guidelines for Soil Erosion and Sediment Control.

This approval is valid for five years (until November 2, 2020) unless additional time is requested by the applicant and granted by the Inland Wetlands Agency and is contingent upon all other local, state and

*37 Higgins Highway (File #W1556)*

*R. Manning*

*Page 2*

federal permit requirements being met. . The applicant shall notify the Wetlands Agent before any work begins and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment.



# Town of Mansfield

## Department of Planning and Development

Date: October 27, 2015  
To: Mansfield Inland Wetlands Agency  
From: Jennifer Kaufman, Inland Wetlands Agent  
Subject: 214 Wormwood Hill Road (File #W1558)  
K. Mehrens  
Description of work: installation of a shed  
Map Date: 9/29/2015

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### Notifications

#### Project Overview

The applicant proposes to install a 12 foot by 16 foot shed on a gravel base approximately 38 feet from the edge of wetlands locate on the eastern portion of the property. The topography is level and a stone wall separates the shed from the wetlands. The applicant proposes to install the shed on gravel base, thus very little soil will be disturbed.

#### Recommendation/Suggested Motion

\_\_\_\_\_ MOVES, \_\_\_\_\_ seconds to grant an Inland Wetlands License pursuant to the Wetlands and Watercourses Regulations of the Town of Mansfield to K. Mehrens (File #W1558) for installation of a shed on property owned by the applicants and located at 214 Wormwood Hill Road as shown on plans dated 9/29/2015 and as described in application submissions.

This action is based on a finding of no anticipated significant impact on the wetlands, and is conditioned on the following provisions being met:

1. Appropriate erosion and sedimentation controls shall be in place prior to construction, maintained during construction and removed when disturbed areas are completely stabilized;

This approval is valid for five years (until November 2, 2020) unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment.



TOWN OF WINDHAM  
WATER WORKS

174 Storrs Road  
Mansfield Center, CT 06250  
Tel. 860-465-3075 • FAX 860-465-3085

- Inland Wetlands Commission
- Zoning Commission
- Planning & Zoning Commission
- Zoning Boards of Appeals

TOWN:     Ashford             Chaplin             Eastford  
           Hampton         Mansfield         Pomfret  
           Union             Willington        Windham  
           Woodstock

INSPECTED BY:

  
\_\_\_\_\_  
*Troy Quick      W.W.W. Watershed Inspector*

DATE:                    October 19, 2015 WW File #M1615

The Windham Water Works has received notification of a proposed project per the requirements of Public Act 89-301.

**PROJECT DESCRIPTION:**

Free standing 12 x 16 shed - wood construction

Applicant: Kim Mehrans

**COMMENTS:**

The Windham Water Works has reviewed the proposed project and we would have no objections, we will monitor accordingly.



# Town of Mansfield

## Department of Planning and Development

**Date:** October 27, 2015  
**To:** Mansfield Inland Wetlands Agency  
**From:** Jennifer Kaufman, Inland Wetlands Agent  
**Subject:** Eagleville Lake Aquatic Invasive Control CT DEEP Grant

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At their meeting of October 26, 2015, the Town Council authorized the Town Manager to partner with the Town of Coventry to submit a grant to CT DEEP to perform follow-up control of the aquatic invasive fanwort plant (*Cabomba caroliniana*) in Eagleville Lake. The grant application is due on November 9, 2015.

As you may recall, in 2014, Coventry and Mansfield were awarded a grant from DEEP to perform initial control of a 60-acre infestation of fanwort that was discovered by the Connecticut Agricultural Experiment Station in 2012. Using the DEEP grant, matched with funds from both towns, Aquatic Control Technologies was hired to perform an initial application of Flumioxazin (trade name Clipper) in June and July of this year. Prior to this application, the towns held a public forum and developed a press campaign to inform the public about the aquatic invasive fanwort and its treatment.

According to a follow-up report prepared by Aquatic Control Technologies (attached), the first treatment for Eagleville Lake was successful in significantly reducing the infestation of fanwort, with a level of control greater than 90%. However, as both towns were aware when the initial grant was submitted, treatment of fanwort is a multi-year project and additional herbicide application is usually necessary. The year-end report indicates that because Clipper is a contact herbicide, we can expect significant re-growth in 2016 and follow-up treatment is required. Consequently, Coventry and Mansfield propose to submit a grant to defray the cost of follow-up application of Clipper and to continue the public awareness campaign to inform the public about fanwort and other aquatic invasive plants and to prevent the spread of these plants. The contractor will be responsible for obtaining all necessary state permits.

The Open Space Preservation Committee and the Conservation Commission discussed the follow-up treatment at their October 2015 meetings and recommend that the Town seek DEEP funding for this project.

October 9, 2015

Town of Coventry  
Mr. Eric Trott  
Director of Planning and Development  
1712 Main Street  
Coventry, CT 06238

**Re: Year-End Report for the 2015 Aquatic Management Program at Eagleville Lake –  
Coventry/Mansfield, CT (Project #300-15)**

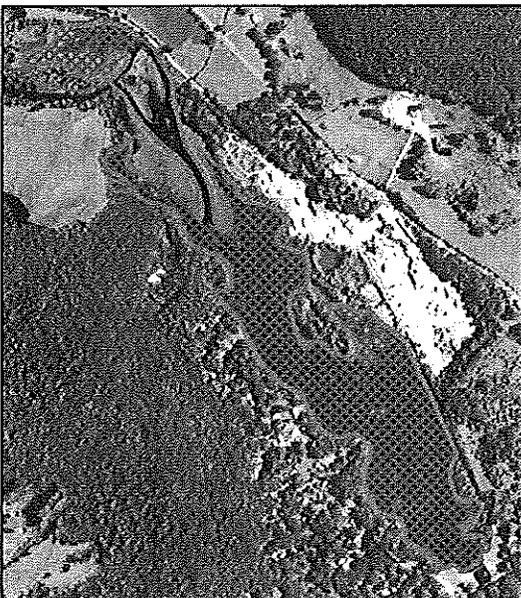
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Mr. Trott,

Aquatic Control Technology (ACT) was contracted with the Town of Coventry to conduct an Aquatic Management Program at Eagleville Lake to control a widespread infestation of the non-native, invasive aquatic plant fanwort (*Cabomba caroliniana*). ACT first inspected Eagleville Lake in September of 2013 at the request of Chuck Lee from CT DEEP. At that time, fanwort covered a substantial portion of the lake and exhibited "topped-out" growth in many areas.

After the Town secured grant funding from CT DEEP in 2015, ACT was hired to conduct a management program to treat the fanwort, including permitting with CT DEEP, pre/post treatment inspections and aquatic herbicide treatments with Clipper (flumioxazin) herbicide. The pre/post treatment inspection work was sub-contracted to Northeast Aquatic Research LLC (NEAR) as its Principal Scientist, Dr. George Knoecklein was familiar with the lake and was located nearby in Mansfield Center.

#### **Herbicide Treatment Summary**



ACT received the approved permit from CT DEEP on May 29<sup>th</sup>. The initial herbicide treatment of Eagleville Lake occurred on July 7<sup>th</sup>, following required notifications and posting. An earlier treatment date was originally selected but was postponed due to heavy rains and high flow through the lake. Due to the dense growth conditions, only the upper half of the lake was treated on this day to limit the amount of decaying plant material and prevent potential oxygen depletion. The second half of the lake was treated on July 21<sup>st</sup>. The total area of treatment is shown in the picture inset on the left.

The first treatment was conducted using ACT's airboat, however difficulties encountered with launching/retrieval of the vessel prompted the use of a smaller Jon Boat for the 2<sup>nd</sup> treatment. All treatments were conducted in accordance with the CT DEEP permit and the product label by ACT's licensed applicators.

**Pre & Post Treatment Results**

The pre & post treatment plant surveys of the lake were conducted by NEAR, LLC on June 6<sup>th</sup> and August 24<sup>th</sup>, respectively. Data on species composition and plant cover was collected at a series of 155 points throughout the lake as shown on Figure 1 (attached). The following table shows a summary of the data collected. Figure 2 (attached) provides a visual representation of the location of fanwort plants during the pre & post treatment surveys.

**Table 1 – Pre & Post Treatment Plant Data**

Eagleville Survey Species List 6-3-15 and 8/24/15	Pretreatment Survey Results (6/3/15)				Post Treatment Survey Results (8/24/15)			
	COUNT	%Frequency	AVG% Cover	Overall %Cover	COUNT	%Frequency	AVG% Cover	Overall %Cover
0 Nothing found at WPT	14	9.4	0.0	0.0	102	65.8	0.0	0.0
1 <i>Pondetia cordata</i> *	8	5.4	20.0	1.1	23	14.8	21.5	3.2
2 <i>Nuphar variegata</i>	30	20.1	71.1	14.3	22	14.2	18.7	2.7
3 <i>Sparganium emergent</i> *	13	8.7	31.7	2.8	8	5.2	14.2	0.7
4 <i>Brasenia shreberri</i>	16	10.7	40.0	4.3	9	5.8	13.2	0.8
5 <i>Cabomba caroliniana</i>	117	78.5	58.9	46.2	13	8.4	48.5	4.1
6 <i>Elodea nuttallii</i>	24	16.1	45.3	7.3	3	1.9	13.7	0.3
7 <i>Nymphaea odorata</i>	3	2.0	15.0	0.3	4	2.6	5.0	0.1
8 <i>Utricularia gibba</i>	9	6.0	9.3	0.6	1	0.6	5.0	0.0
9 Filamentous algae	9	6.0	68.3	4.1	0	0.0	-	-
10 <i>Ceratophyllum echnatum</i>	8	5.4	7.5	0.4	2	1.3	22.5	0.3
11 <i>Nitella</i> sp	5	3.4	9.0	0.3	0	0.0	-	-
12 <i>Potamogeton berchtoldii</i>	3	2.0	5.0	0.1	0	0.0	-	-
13 <i>Potamogeton natans</i>	2	1.3	5.0	0.1	2	1.3	12.5	0.2
14 <i>Utricularia macrorhiza</i>	4	2.7	15.0	0.4	3	1.9	3.7	0.1
15 <i>Ceratophyllum demersum</i>	6	4.0	11.3	0.5	0	0.0	-	-
16 <i>Scirpus</i> sp.*	1	0.7	10.0	0.1	1	0.6	5.0	0.0
17 <i>Lemna</i> sp.	1	0.7	5.0	0.0	0	0.0	-	-
18 <i>Ludwigia</i>	2	1.3	5.0	0.1	0	0.0	-	-
19 <i>Typha</i> *	2	1.3	100.0	1.3	2	1.3	5.0	0.1
20 <i>Eleocharis emergent</i>	2	1.3	5.0	0.1	1	0.6	10.0	0.1
21 <i>Sagittaria</i> sp.	0	0.0	-	-	0	0.0	-	-
22 <i>Sparganium fluctuans</i>					12	7.7	11.7	0.9
23 <i>Potamogeton epihydrus</i>					4	2.6	20.0	0.5
24 Purple Loosestrife*	Not recorded during this survey				11	7.1	34.5	2.4
25 <i>Callitche</i>					4	2.6	10.0	0.3
26 <i>Potamogeton bicupulatus</i>					4	2.6	10.0	0.3
27 <i>Potamogeton nodosus</i>					9	5.8	19.4	1.1
28 <i>Phragmites australis</i> *					1	0.6	10.0	0.1

\* - denotes an emergent species

A significant decrease in fanwort was observed post treatment with the frequency of fanwort dropping from 78.5% to 8.4% and the lake-wide cover reduced from 46.2% to 4.1%. This represents >90% reduction in

fanwort from the treatment. The remaining areas of fanwort were either small populations which escaped treatment due to location or higher water movement, or as in the case of the northernmost cove, actually representative of low biomass re-growth following treatment.

As expected, some of the non-target species, including *Elodea* and waterlilies were also significantly reduced. Other species were generally found in sparse amounts both before and after treatment. Based on past experience at other waterbodies, waterlily growth is expected to re-growth fairly rapidly in later in the fall and in the spring. Several species of plants, including three pondweeds, not recorded during the pre-treatment survey were observed following treatment.

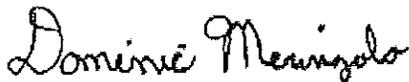
### **Conclusions & Recommendations**

Overall, the treatment program at Eagleville Lake was successful in significantly reducing (by >90%) the infestation of fanwort. As discussed, Clipper is a contact herbicide, therefore significant re-growth is to be expected in 2016 and follow-up treatment is recommended. From past experiences with Clipper at other lakes, a progressive decrease in the density and biomass of re-growth is expected following consecutive years of treatment.

Although we may see a reduction in the density of fanwort in 2016 as a result of this year's treatment, we expect the overall extent of fanwort growth will be similar and that the same areas of the lake will need to be treated. The cost of treatment will again be \$27,400, including permitting, pre & post treatment surveys (conducted by NEAR) and labor and materials for the herbicide treatment.

We trust this report provides you with the needed documentation of the 2015 Management Program at Eagleville Lake and information to plan for work in 2016. If you have any questions, please feel free to give us a call. It has been a pleasure working with you this year and we look forward to continuing work with you in the future.

Sincerely,  
AQUATIC CONTROL TECHNOLOGY



Dominic Meringolo  
Senior Environmental Engineer



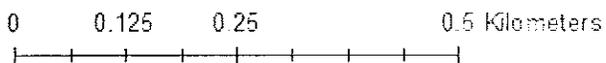
# Eagleville 2015 Survey GPS Waypoints

Pre-treatment survey 6-3-15

Post-treatment survey 8-24-15



- ◊ 6-3-15 Eagleville Fanwort found
- ◊ 6-3-15 Eagleville WPTS



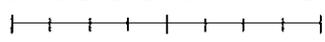


### Eagleville Pre/ post-treatment Fanwort Coverage

Pre-treatment survey 6-3-15  
Post-treatment survey 8-24-15



 Post treatment Fanwort  
 Pre treatment Fanwort

0 0.075 0.15 0.3 Kilometers  


# Flumioxazin Chemical Fact Sheet

## Formulations

Flumioxazin has been used as an agricultural chemical since 2001, and was conditionally registered for aquatic use in 2010. The active ingredient is 2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione. It is available in granular form (Clipper™) for control of submerged plants, and can be used as a direct foliar application to control emergent and floating-leaf plants. It also controls some filamentous algae.

## Aquatic Use and Considerations

Flumioxazin is a broad-spectrum contact herbicide. It works by interfering with the plants' production of chlorophyll. Treated plants will respond quickly to treatment and rapidly decompose. For larger treatments or in dense vegetation, split treatments about two weeks apart are recommended to prevent fish suffocation from low oxygen due to decaying plants.

Flumioxazin needs to be applied to young plants early in the spring as they begin to grow. It should not be used in very hard-water lakes (pH over 8.5), many of which occur in southeastern Wisconsin. Application in the early morning will increase efficacy, particularly in hard-water lakes. A water body should not be treated with flumioxazin if there is an outlet, or in moving waters such as rivers or streams.

Flumioxazin controls invasive Eurasian watermilfoil (*Myriophyllum spicatum*) and curly-leaf pondweed (*Potamogeton crispus*). It may also affect desirable native species, such as coontail (*Ceratophyllum demersum*), duckweeds (*Lemna* spp.), some pondweeds (*Potamogeton illinoensis*, *P. diversifolius*, *Stuckenia pectinata*) and native milfoil (*M. heterophyllum*).

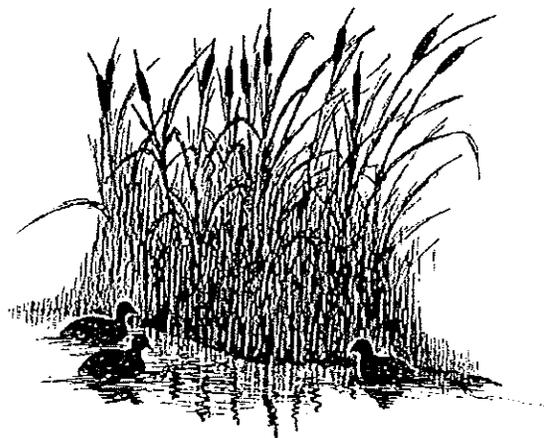
## Post-Treatment Water Use Restrictions

There are no restrictions on swimming, eating fish from treated water bodies, or pet/livestock drinking water use. There is a five-day restriction on irrigation.

## Herbicide Degradation, Persistence and Trace Contaminants

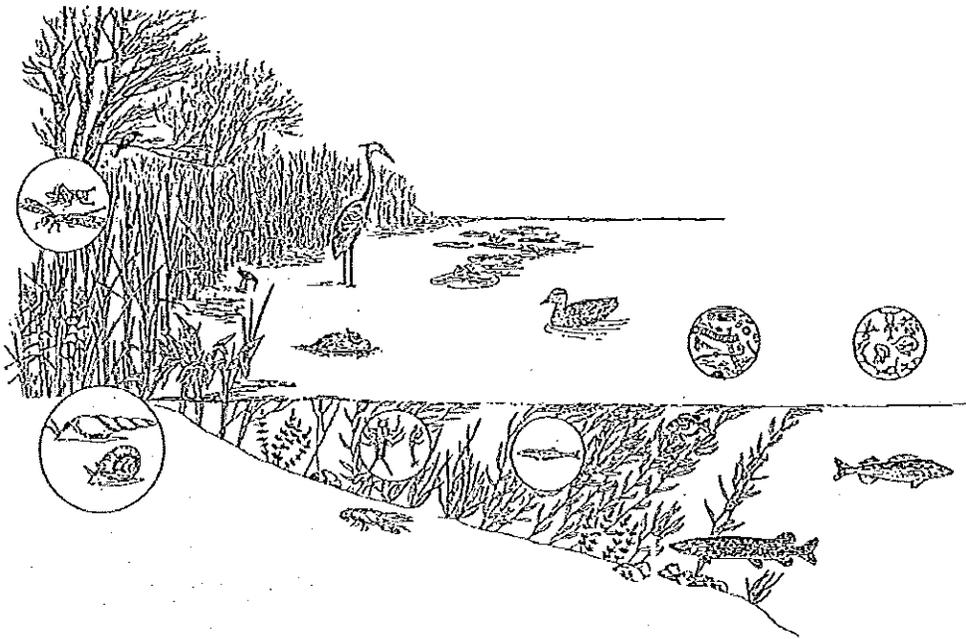
Flumioxazin is broken down rapidly by water and microbes. The half-life (the time it takes for half of the active ingredient to degrade) depends on the pH of the water. In low pH water (such as in northern Wisconsin) the half-life is four to five days; in high pH water (such as in southeastern Wisconsin) the half-life is a day or less.

When flumioxazin degrades, it breaks down into two compounds known as APF (6-amino-7-fluoro-4-(2-propynyl)-1,4-benzoxazin-3(2H)-one) and THPA (3,4,5,6-tetrahydrophthalic acid). Flumioxazin has a low potential for leaching and would not persist in the environment. APF and THPA do have a high potential to leach through soil and may be persistent.



## Flumioxazin Chemical Fact Sheet

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[www.epa.gov/pesticides](http://www.epa.gov/pesticides)

Wisconsin Department of Agriculture, Trade,  
and Consumer Protection  
<http://datcp.wi.gov/Plants/Pesticides/>

Wisconsin Department of Natural Resources  
608-266-2621  
<http://dnr.wi.gov/lakes/plants/>

Wisconsin Department of Health Services  
<http://www.dhs.wisconsin.gov/>

National Pesticide Information Center  
1-800-858-7378  
<http://npic.orst.edu/>

# The Habitat

A newsletter of the Connecticut Association of Conservation & Inland Wetlands Commissions, Inc.

Fall 2015

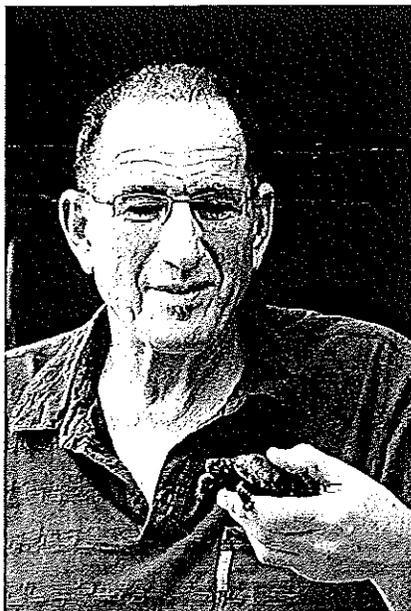
volume 27 number 4



## CACIWC's 38th Annual Meeting & Environmental Conference "Herpetology in Connecticut: A 25-Year Retrospective"

CACIWC is pleased to recruit Dr. Michael Klemens, as the keynote speaker of our 38th Annual Meeting & Environmental Conference. Educated in the United States and Europe, Dr. Klemens is a well-known conservation biologist and land-use planner who seeks to achieve a balance between ecosystem requirements and human needs.

Formally trained as a herpetologist, his current practice spans conservation biology, land-use planning, and empowering communities through the understanding and use of scientific data. Working at the interface of human societies and the natural world, he engages a diversity of stakeholders to explore how to create patterns of development that are ecologically resilient, economically viable, and socially equitable. More than three decades of field work have been concentrated in the northeastern United States.



Dr. Michael Klemens with Bog Turtle  
Photo Credit: Dennis P. Quinn, 2015

Through the support of the MacArthur Foundation he spent several years in east Africa, working with indigenous institutions to build capacity in biodiversity assessment and application of those data to protected area management, as well as studying the ecological impacts

and economic mechanisms of the wildlife trade. His publications include the definitive study of Connecticut's amphibians and reptiles and over 100 scientific papers.

In 1979 he joined the scientific staff of the American Museum of Natural History, where he continues collections-based research on amphibian and reptile biodiversity. He serves as a consultant to various government agencies, as well as municipalities, not-for-profit organizations, and developers. He is in his second elected term to the Salisbury Planning and Zoning Commission, most recently (and currently) as its Chairman.

Dr. Klemens plans to support our continued efforts to educate members on the impact of climate change and habitat degradation on local environments by reviewing new Connecticut-specific species population and habitat data in his keynote address, entitled "Herpetology in Connecticut: A

25-Year Retrospective." As part of his presentation, he will also promote better use of scientific data and discuss ways for commissions and their staff to increase collection of local information, while improving the resiliency of their communities to climate change. 🌿

**Conference Date - Saturday,  
November 14, 2015 - Register Now!**

CACWIC will introduce a revised agenda with new workshops and networking opportunities. The conference will be held at Villa Capri Banquet Facility, 906 North Colony Road, Wallingford, CT; (203)265-7174, [www.villacapri.com](http://www.villacapri.com). We revised the layout of our 2015 workshop rooms to provide more space for displays and encourage networking. Questions? Email: [AnnualMtg@caciwc.org](mailto:AnnualMtg@caciwc.org). 🌿

★ REGISTER ONLINE at [bit.ly/caciwc\\_am15](http://bit.ly/caciwc_am15) ★

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[www.caciwc.org](http://www.caciwc.org)

Many CACIWC members are familiar with the value of using indicator species in the assessment of the health of important habitats within their towns. Amphibians and reptiles can be useful indicators of habitat degradation due to their dependency on a narrow range of environmental conditions through critical phases of their lives. This is especially true in the assessment of wetlands and watercourses since most amphibians, and a large percentage of reptiles, are associated with these habitats for at least part of their lifecycles. Threats to their habitats, ranging from acidification, sedimentation, toxic chemical contamination, introduced species & emerging diseases, vegetation removal to drainage and burial, all take their toll on these indicator species. Alteration of rainfall and temperature ranges associated with climate changes can contribute additional environmental stressors to the habitats that host these fascinating members of our native fauna.

Unfortunately, the long-term status of many reptile and amphibian populations are in jeopardy. The International Union for Conservation of Nature (IUCN) estimates that almost a third of all amphibian species worldwide are experiencing major population loss or threatened with extinction.<sup>1</sup> A United States Geological Survey (USGS) study found that U.S. amphibian populations were declined at an annual rate of 3.7% between 2002 -2011. More alarming were the findings on the species most threatened "red-listed" by the IUCN, which declined 11.6% annually. Moreover, the study showed that all species, even species of least concern showed declining numbers.<sup>2</sup> Unless these rates are altered, these population changes will not be sustainable for many reptile and amphibians species. These include species in Connecticut, which are also under threats from local and global changes.

To help our members understand the impact of these threats on Connecticut reptiles and amphibians, CACIWC is pleased to host **Dr. Michael Klemens**, as the keynote speaker of our **38th Annual Meeting & Environmental Conference**. During his presentation, Dr. Klemens will describe ways for commissions and their staff to increase collection of local data, to provide scientific support for municipal decisions and policy while helping to document statewide trends.

Please see the detailed workshop descriptions in this issue of *The Habitat* and watch for additional conference news on our [www.caciwc.org](http://www.caciwc.org) website. You may direct any questions or comments on our annual meeting to us at: [AnnualMtg@caciwc.org](mailto:AnnualMtg@caciwc.org).

## Other News

1. It is not too late to renew your **2015-16 membership dues** and take advantage of the \$15/per person annual meeting registration discount. Dues paying commissions can save an additional \$10/per person in annual meeting registration fees by registering by October 31, 2015. A copy of the membership dues notice form recently mailed to you can also be found on our website:

*CACIWC news, continued on page 12*



*Wetlands Agencies: What's in Your Appendices to Your Regulations?  
Hopefully Nothing of Substance*

In the past month I've happened upon appendices to the municipal wetlands regulations in two different towns. In each case it was unclear what the content in those appendices was supposed to mean. Was the substance contained in the appendix meant to be binding just as the regulations that preceded it? If so, what were they doing in the appendices, instead of in the regulations? I got to wondering how common a practice it is for wetlands agencies to incorporate material into appendices and what material is being appended. I undertook a decidedly modest and perhaps statistically insignificant survey of 10 % of all municipal wetlands regulations (17 sets).<sup>1</sup> I looked at regulations from large and small towns throughout the state, those with and without staff.

To begin, what is an appendix? According to Black's Law Dictionary, 8th Edition, it is "a supplementary document attached to the end of a writing." In this case, to the end of the municipal wetlands regulations. The regulations themselves "have the full force and effect"<sup>2</sup> of statutes. One half of the towns had no materials in an appendix. About a third of the towns in my survey provided material in an appendix that I categorize as "helpful" or "illustrative." The application form, instructions on filling out the form, diagrams of the placement and control of sedimentation and erosion control barriers, and an application checklist are examples I found. Another category of material is the verbatim inclusion of other laws. In less than a third of the towns I surveyed, I found examples, such as the underlying ordinance that created the wetlands agency, the statutory definition of "farming" from General Statutes § 1-1(q), statutory provisions for processing land use applications in General Statutes § 8-7d and the citation process (for issuing fines) adopted by town ordinance. That can be helpful – as long as the referenced law is up-to-date.

That was a problem with the three towns that included General Statutes § 8-7d. They referenced a version of § 8-7d that was no longer in effect. What was missing was the amended version addressing how additional public notice may be undertaken and the specifics of that notice. That's a significant amendment. If an agency wants to provide the wording of a statute, perhaps it should be prefaced with a statement, such as: "For informational purposes only. For the current language in effect, consult

the most recent version of the Connecticut General Statutes at [www.cga.ct.gov/](http://www.cga.ct.gov/)." (That is the website for the Connecticut General Assembly which maintains a digital version of the state statutes for public access.) For municipal ordinances, the instruction could be to consult the most recent version in the town clerk's office.

I was stumped to find the entire 1997 DEP Guidelines Upland Review Area Regulations Connecticut's Inland Wetlands & Watercourses Act in one set of appendices. Those guidelines were designed to support wetlands agencies with technical information as agencies consider adopting upland review areas. The guidance document offers a variety of approaches for establishing the areas. It's not particularly useful to an applicant, the public or members of an agency, once an upland review area is adopted by regulation. At that point, only the adopted regulation is of concern. In another town, one sentence was excerpted from the guidelines and included in an appendix. However, that town already had established an upland review area which was reflected in its regulations, which was not the same as the method included in the appendix. What was intended by putting a different method in an appendix?

The fourth edition to the DEEP Inland Wetlands and Watercourses Model Municipal Regulations includes three appendices: General Statutes § 1-1(q) (the definition of farming) in Appendix A, General Statutes § 8-7d (the procedural requirements and deadlines for processing land use applications) in Appendix B and the DEP upland review area guidelines in Appendix C. However, DEEP included those to explain what or why it was proposing revisions to the third version of the model regulations.<sup>3</sup> While I didn't see anything in the Model Regulations that encouraged agencies to include the appendices in their municipal regulations, perhaps DEEP was advocating just that through its wetlands training program. A conversation with Darcy Winther, the DEEP municipal liaison set me straight. DEEP had not done so. Perhaps some agencies just included Appendix A, Appendix B and Appendix C of the Model Regulations to their regulations thinking it was expected of them. It has been more than a decade since DEEP has reviewed

*legal, continued on page 12*

*Editor's Note: This article is a reprint from The Habitat, Summer 2010 issue. The Westbrook Conservation Commission uses the practical information about target invasive plant characteristics as part of our training for volunteers and interns assisting with invasive plant management on the town's protected open space. Chemicals are not used; prioritizing when, where and what is cut and/or pulled, and revisited, has been an effective control method.*

## Practical Prescriptions for Managing Invasive Vegetation

in Wetland Settings *by David Roach, General Manager, All Habitat Services, LLC*

Almost everyone can remember a favorite pond or wetlands that was once cattails and perhaps open water that has been overrun by common reed (*Phragmites australis*) or purple loosestrife (*Lythrum* spp.). Most of us have realized that if we ignore the problem of invasive species, they don't go away. We have also realized that sometimes our best efforts to mow or hand pull the offenders doesn't make them go away either, in fact it often makes them more aggressive. The conundrum faced by managers is often how to find the balance between defending native ecosystems from alien invaders without doing more damage to the areas we seek to protect.

In the search for management techniques to control invasive species the options must be scientifically defensible, economically viable and socially acceptable. Within the toolbox of control techniques there are four primary categories to choose from: cultural, physical/mechanical, biological, and chemical controls.

Cultural controls may be the most desirable of all. By not planting invasive species in the first place we avoid the problem, native plants remain healthy and viable and the ecosystem continues to function in balance. Invasive species are opportunists, if habitats are not disturbed the opportunity for new species to become established is minimized. If a site is disturbed remediation of the site using native plants and seeding will help to restore the area to its original undisturbed state. Sometimes, understanding the characteristics of the plant we are trying to control makes modification of the habitat a viable control method. Habitat modification may include manipulating the water or light levels in favor of desirable species to the detriment of invaders.

Biological controls rely on species-specific mechanisms to control certain invasive plant infestations by introducing pathogens or insects to the site. Examples include the milfoil weevil (*Euthrychiopsis lecontei*) which feeds exclusively on Eurasian watermilfoil (*Myriophyllum spicatum*), loosestrife beetles (*Galerucella* spp.) that feed on purple loosestrife and water star grass (*Heteranthera dubia*) which may help

to suppress Eurasian watermilfoil. However, while this method can be extremely effective, it should be used with caution as there is always the possibility of unintended consequences. Multiflora rose (*Rosa multiflora*) and Japanese knotweed (*Polygonum cuspidatum*) were both endorsed by a variety of government agencies for their ability to stabilize soils and stream banks before we realized the implications of introducing those species into the ecosystem.

The use of physical and mechanical control such as pulling, cutting or mowing is another option. Pulling is most effective on young shoots, plants with shallow root systems and or when the ground is relatively soft (such as spring). Varying degrees of success can be achieved through cutting. It will often depend on the characteristics of the target species. Mowing may be used to reduce the overall height to allow more effective follow up treatments. Girdling is useful for larger shrubs and trees. Often this technique may be accompanied by an herbicide application.

For many, chemical control is seen as a last resort. However, anyone that has tried hand pulling Mile-A-Minute Weed (*Persicaria perfoliata*) or mowing Japanese knotweed, only to have it come back even more vigorously, starts to recognize that herbicides may represent the only chance at control. Fortunately, the composition and application of herbicides has reached new levels of sophistication that go beyond simply spraying from the

*invasives, continued on page 5*

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*invasives, continued from page 4*

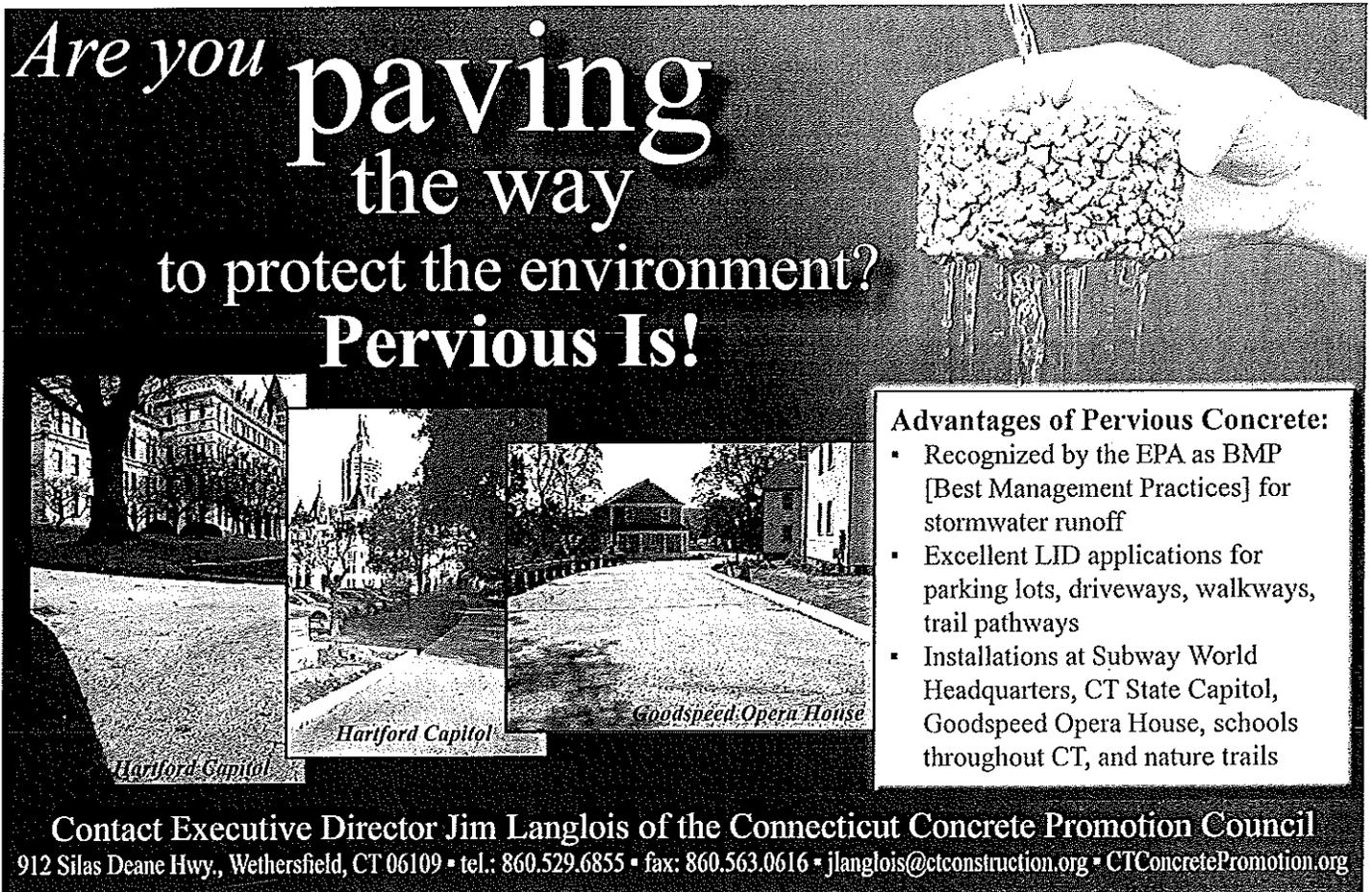
first jug in the tool shed with the skull and crossbones on the label. The tools are available to target individual plants for foliar applications, wipe on, wick applicators and even to inject chemicals onto the stem of the target species. Specialized saws allow herbicides to be applied while the stem is cut. Understanding how the chemicals work in the plant and careful adherence to the label instructions make chemicals another possible tool.

The battle may not be lost if we understand the common traits of invasive plants and use that information to make educated decisions about the timing and application of control mechanisms. Phenology is the study of periodic plant and animal life cycle events and how these are influenced by seasonal and annual variations in climate. In general the phenology of invasive plants presents opportunities for control. Invasives tend to show early expression in spring, and have often greened up while native plants are still dormant. This allows the plant to take advantage of reduced competition for light from the tree canopy but it also highlights their presence in the ecosystem making them easier to target. This is followed by rapid growth, quick maturation and the formation of dense shade and root mass. Their success may be attributed to prolific seed and fruit production as well as

efficient dispersal mechanisms enabling them to colonize available growing space and out-compete native vegetation. Invasive species also tend to have a high degree of plasticity which allows them to adapt quickly to cutting, mowing, or other manipulations of the habitat. They often display some form of allelopathy which allows them to suppress competition from neighboring plants by releasing chemicals to inhibit growth of competition. Other important lifecycle information includes knowing if it is an annual, biannual, or perennial? What is the main mode of reproduction (sexual, asexual or vegetative)? What organ(s) or life cycle stage are the over-wintering stages?

Understanding the invasive plant's physical and lifecycle characteristics provide a framework for determining the best and most targeted control that will have the least impact on the native species we are trying to protect. When all of these factors are taken together it turns out that chemical control is often the most effective method for controlling aggressive invasive species. It is also cost effective offering the greatest control with the least amount of effort. New "reduced risk" formulations using plant specific amino acids offer low toxicity with favorable environmental fate profiles. By selecting the proper

*invasives, continued on page 6*



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formulations, wise use and strict adherence to label instructions unintended consequences can be avoided.

Once the decision has been made to use a chemical control there are a variety of options available to suit the particular needs of each individual site. Understanding how these herbicides work helps to tailor their use to the appropriate plant during the appropriate time of year.

- Glyphosate (N-(phosphonomethyl) glycine, isopropylamine salt) commonly available under the Round-up® label for terrestrial sites and Aquamaster® for aquatic sites. Glyphosate functions as a metabolic disruptor that blocks the synthesis of critical plant amino acids, inhibits growth and causes chlorosis (yellowing of the leaves). It's translocation ability is plant dependant. It is a non-selective treatment for woody or herbaceous plants. It can be applied to the foliage, cut stump, evergreen plants, and invasives like garlic mustard (*Alliaria petiolata*) or Japanese honeysuckle (*Lonicera* spp.) that leaf out before other desirable species. In its concentrated form it is used in frill, girdle and cut stump treatments.
- Triclopyr (3,5,6-trichloro-2-pyridyloxyacetic acid) is the primary ingredient in Garlon® and Brush-B-Gone®. It functions as a growth regulator which mimics the plant hormone auxin. It weakens the cell walls and causes uncontrolled epinastic growth (resulting in leaves that bend downwards). The rapid growth depletes stored food, disrupts the photosynthetic cycle and prevents transport of nutrients to roots. It translocates readily affecting all parts of the plant. It is selective and will not harm monocot species such as cattails and grasses. It is available in ester (oil soluble) and amine (water soluble) formulations as Garlon 4® and Garlon 3A® respectively.
- Imazapyr Isopropylamine salt is a branch chain amino acid inhibitor found in Habitat®, Arsenal®, Chopper®, and Assault®. Imazapyr is a potent growth inhibitor that is very effective at low concentrations. It enters through the meristematic tissue and blocks the synthesis of critical plant amino acids. It translocates readily. The slow action depletes stored food, disrupts the photosynthetic cycle and prevents transport of nutrients to roots. It may take eight or more weeks before the onset of chlorosis is visible. It is generally non-selective although certain grasses and forbs exhibit tolerance. It is foliar and soil active so care must be exercised around the root zones of non-target vegetation.

- Krenite® or fosamine ammonium ethyl carbamoylphosphonate is a growth regulator that prevents cell mitosis. A foliar application allows the active ingredients to migrate to the apical meristematic tissue where it inhibits foliar expression the following spring. There are no visible effects to the plant in the year of application allowing control of tree and woody brush species without unsightly discoloration. It is selective to woody plant species will not injure grasses and forbs.
- Some herbicides carry an aquatic, wetland or upland edge label for control in site specific conditions.

Understanding the phenology of an aggressive invasive provides insight into why that plant is so successful and the windows of opportunity that exist to maximize control measures. Each species and each site is a little different and will require a customized approach to restore the ecological balance. Understanding the tools that are available and the most effective ways to apply those tools will help to ensure success. With a careful application of the suite of available management techniques that can be supported with scientific research, they are more likely to be acceptable to all interested parties and can be effectively accomplished within budgetary limitations.

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*"In general the phenology of invasive plants presents opportunities for control."*

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*See page 7 for The Rogues Gallery of common invasive plants found in wetlands and some practical methods for managing them.*

#### **Additional Resources**

- All Habitat Services, LLC - [www.allhabitat.com](http://www.allhabitat.com)
- University of Connecticut, College of Agricultural and Natural Resources
- Integrated Pest Management Program - [www.hort.uconn.edu/IPM/index.htm](http://www.hort.uconn.edu/IPM/index.htm)
- Invasive Plant Atlas New England - <http://invasives.eeb.uconn.edu/ipane/>
- USDA NRCS Plant Database - <http://plants.usda.gov>
- Dow Agro Sciences Invasive Plant Resource Library - [www.dowagro.com/ivm/invasive/](http://www.dowagro.com/ivm/invasive/)

*David Roach is the General Manager of All Habitat Services, LLC, an innovator in the field of aquatic, wetland and upland habitat management. He has 15 years' experience in both vegetation management and public health mosquito management programs and holds commercial supervisory pesticide applicator licenses for categories of Aquatic Pest, Right of Way, Bird, Mosquitoes and Biting Flies, and Public Health in Connecticut, Rhode Island, Massachusetts and New York.* 🐦

The Rogues Gallery of common invasive plants found in wetlands and some practical methods for managing them.  
 \*Although Poison Ivy is not an invasive species it is included in the list because of its noxious characteristics.

Invasive	Physical/Mechanical	Biological	Chemical
Japanese Knotweed <i>Polygonum cuspidatum</i>	Cutting increases stem density. Repeated cutting may weaken. Cut material is viable. Root fragmentation will result in re-sprouting		Triclopyr or Imazapyr foliar during early growth. Glyphosate injection with sufficient stem diameter or foliar after flowering.
Purple Loosestrife <i>Lythrum salicaria</i>	Cutting ineffective. Pulling may be effective for young plants. Medium plants may be Weed-Wrenched. Root fragments are viable.	<i>Galerucella</i> beetles can defoliate stands of Loosestrife. Beetles must be maintained once Loosestrife population is reduced to biennial rosettes.	Triclopyr foliar during early growth. Glyphosate over-wintering rosettes.
Japanese Barberry <i>Berberis thunbergii</i>	Cutting may be effective for widely scattered plants. Pull with Weed-Wrench when ground is soft.		Triclopyr foliar/basal during early growth. (one of the first plants to leaf out in spring)
Asiatic Bittersweet <i>Celastrus orbiculatus</i>	Frequent cutting may be effective for small infestations. Vines entangled in trees should <i>not</i> be pulled. Hand pull light infestations and/or early growth.		Triclopyr foliar during early spring or to regrowth of cut vines, basal treatment to mature vines.
Garlic Mustard <i>Alliaria petiolata</i>	Cutting close to ground at onset of flowering can achieve 99% mortality. Repeat process to deplete seed bank. Hand pull when soil is soft, must remove upper ½ of root to prevent resprouting.		Triclopyr foliar during early growth. Glyphosate over-wintering rosettes.
Multi-flora Rose <i>Rosa multiflora</i>	Frequent cutting may control growth but will not eradicate. Weed-Wrench small to medium plants. (larger plants should be trimmed for accessibility)		Triclopyr foliar during early spring or to regrowth of cut stems. Basal treatment to fresh cut stems.
Autumn Olive <i>Elaeagnus umbellata</i>	Cutting alone is ineffective. Will sprout from stumps. Seedlings and very young plants can be pulled when ground is soft. Saplings can be pulled with Weed-Wrench.		Triclopyr, Glyphosate or Imazapyr foliar to small/medium scattered shrubs. Basal bark or cut stump treatment.
Winged Euonymus <i>Euonymus alatus</i>	Cutting alone is ineffective. Will sprout from stumps. Seedlings and very young plants can be pulled when ground is soft. Large plants can be Weed-Wrenched.		Triclopyr or Glyphosate foliar to small/medium scattered shrubs. Basal bark or cut stump treatment.
Tree of Heaven <i>Ailanthus altissima</i>	Cutting alone is ineffective. Will sprout vigorously from stumps and root zone. Seedlings and very young plants can be pulled when ground is soft. Large number of seedlings may make this impractical.		Triclopyr foliar to small/medium scattered shrubs. Basal bark or cut stump treatment in late winter/early spring.
Poison Ivy* <i>Toxicodendron radicans</i>	Cutting alone is ineffective. Will sprout vigorously from stumps. Pulling <b>NOT RECOMMENDED</b> – All parts of plant contain volatile oils which may cause allergic rash at all times of year.		Triclopyr or Glyphosate foliar to low growing vines and shrubs. Basal bark or cut stump treatment with Pathfinder II to aerial vines.

# CACIWC's Environmental Conference Workshops

## Climate Adaptation & Water Management

## Legal and Regulatory Updates & Issues

SESSION 1  
(9:30 - 10:30 AM)

### A1. "Connecticut Invasive Plant List"

*Nicole Gabelman, CT Invasive Plant Coordinator*

This workshop will provide background information on invasive plant issues in CT and on how to identify, control and report plants listed on the CT Invasive Plant Early Detection List. Plants on this list are known to be invasive and are present only in relatively low numbers at limited locations, while plants listed on the separate Research List require more documentation in order to evaluate their invasive potential. Conservation Commissions can serve as resources for identifying and reporting such plants. Together we can document the current distribution of these plants and act quickly to detect and control new occurrences.

### B1. "Back to Basics: Wetlands Law & Regulations"

*Janet Brooks, Attorney at Law, LLC*

Designed for both the new and experienced wetlands commissioner, this workshop will review the important rules and procedures for conducting meetings, reviewing and acting on wetlands applications, and responding to appeals. Attorney Brooks will draw upon her private practice experience and work with the Connecticut Attorney General's Office to present this review of the basic steps to ensuring that your inland wetlands commission is functioning within the law while protecting local wetlands and watercourses within your town. She will also utilize findings from both Connecticut court cases and results from her 2013-14 statewide-survey of municipal wetlands regulations to illustrate these important basic points.

SESSION 2  
(10:45 AM - 11:45 PM)

### A2. "Invasive Forest Insects"

*Kirby C. Stafford III, PhD, Chief Entomologist, State Entomologist; The Connecticut Agricultural Experiment Station (CAES)*

Connecticut's forests face increasing pressures from invasive insects. Recently, we have seen the expansion of the emerald ash borer and winter moth, an outbreak of gypsy moth, some increased damage to hemlocks due to the elongate hemlock scale, and the detection this year of the southern pine beetle. CAES, the plant pest regulatory agency for the State, conducts forest health surveys and research on various invasive forest insects. Dr. Stafford will review these insects and how we can potentially reduce their impact on our forest resources.

### B2. "2015 Wetlands Law Update with Question & Answer Session"

*David Wrinn, CT Attorney General's Office; Janet Brooks, Attorney at Law, LLC; Mark Branse, Branse & Willis, LLC*

This trio of wetlands attorneys has been brought back by again popular demand to keep you current with recent legislative changes and the latest state Supreme Court and Appellate Court cases. This workshop will also include the 30-min question-and-answer session that you asked for!

SESSION 3  
(1:30 - 2:30 PM)

### A3. "Pesticides & Integrated Pest Management"

*David R. Brown, ScD, Public Health Toxicologist & Director of Public Health Toxicology for Environment and Human Health, Inc.; and Louis Burch, Program Coordinator, Citizens Campaign for the Environment*

The Connecticut General Assembly has considered numerous bills to extend existing limits on pesticide use on school grounds and other municipal land. This workshop will serve to educate attendees on the current debates regarding pesticide use on these properties. Pesticide toxicity will be reviewed; also use of alternate approaches, including integrated pest management.

### B3. "The Other Half: All About Planning & Zoning and the Zoning Board of Appeals"

*Steven Sadlowski, AICP, Zoning Enforcement Officer & Inland Wetlands Agent; Town of New Hartford; Attorney Mark K. Branse, Branse & Willis, LLC*

This workshop will be a primer on how Planning and Zoning (P&Z) Commissions and Zoning Boards of Appeals (ZBA) work. It will look at their history, authority, the various permits they issue and how they interface with the Wetlands and Conservation Commissions. Just think, you will finally know the real difference between a Special Exception, a Variance and a Site Plan Review! During the Q&A session, Attorney Branse will discuss how CCs and IWCs can work more effectively with their local PZCs.

SESSION 4  
(2:45 - 3:45 PM)

### A4. "Smartphone Apps for Mapping and Managing Land & Resources"

*Cary B. Chadwick, MS, Geospatial Educator; UCONN Center for Land Use Education and Research (CLEAR)*

This session will review mapping apps that can be very useful tools for conservation commissions and staff. Armed with these apps and a mobile device, one can: (1) digitize any paper map, (2) collect tracks and waypoint data, (3) create custom forms for mobile data collection, and (4) create custom web maps. This session will demonstrate various apps and how they can be used for to inventory locations of features such as invasive plants, wetlands and sensitive habitats.

### B4. "2015 Revisions to the Public Health Code Governing Technical Standards for Subsurface Sewage Disposal Systems"

*Matthew Pawlick, Sanitary Engineer II; CT Department of Public Health (DPH), Environmental Engineering Program*

Significant changes to the State Health Code became effective January 1, 2015. Learn how these changes affect septic system design, function and analysis by wetland agencies, including required separating distances from Low Impact Development features such as rain gardens.

Saturday, November 14, 2015

Conservation Biology &  
Habitat Management

**C1. "Pond dredging, Part 2"**

*Mark June-Wells, PhD, Limnologist & Plant Ecologist, NALMS  
Certified Lake Manager, Aquatic Ecosystems Research (AER)*

Pond dredging imparts a significant disturbance to lentic systems. However, dredging is an important tool that can help manage pond and lakes in Connecticut. Mr. Wells will expand on his 2014 CACIWC workshop with additional information on dredging techniques, their risks and what regulatory processes are required.

**C2. "Resilience & Climate Adaptation"**

*Rebecca A. French, PhD, Director of Community Engagement;  
Connecticut Institute for Resilience and Climate Adaption (CIRCA)  
University of Connecticut, Avery Point Campus*

The Connecticut Institute for Resilience and Climate Adaption (CIRCA) is a partnership of UConn and the CT DEEP. The CIRCA team of professionals provides outreach and extension professionals from UConn to both develop relationships with community leaders of at-risk communities along Connecticut's coastline & inland waterways and to provide them with pertinent information on the impacts of climate change on the natural, built, and human environment. In this workshop, Dr. French will review current projects and efforts of the team.

**C3. "Sensible Stormwater Management & Ecological Restoration Solutions - Case Study"**

*Joanne Parsons, ASLA, Site Systems, Inc.*

A demonstration project in Trumbull that sought to restore the Pequonnock River to a natural and sustainable ecosystem by improving water quality, increasing native habitat, and promoting sustainable land use strategies will be presented along with suggestions for other restoration solutions along streamsides. This project at Trumbull's Old Mine Park, won the Connecticut Chapter of the American Society of Landscape Architects (CTASLA) 2014 Design Merit Award for ecological pond & stormwater management.

**C4. "Low Impact Development (LID)"**

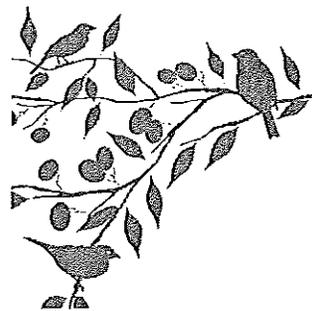
*Sean Hayden, Executive Director;  
Northwest Conservation District*

This workshop will review a series of low impact development (LID) inspired structures that have been installed and are functioning in Connecticut. The presentation will provide information on how they work and why they are important. Mr. Hayden, who has been actively involved in municipal commission education and training programs, will also discuss various methods of incorporating an LID design requirement into town land use regulations and ordinances.

CONFERENCE SCHEDULE

Registration & Breakfast	8:30 – 9:00 am
Welcome & Business Mtg.	9:00 – 9:30 am
Session 1 Workshops	9:30 – 10:30 am
Break 1	10:30 – 10:45 am
Session 2 Workshops	10:45 – 11:45 am
Break 2	11:45 am – 12:00 pm
Luncheon, Keynote Speaker	12:00 – 1:15 pm
Break 3	1:15 – 1:30 pm
Session 3 Workshops	1:30 – 2:30 pm
Break 4	2:30 – 2:45 pm
Session 4 Workshops	2:45 – 3:45 pm
Conference ends	4:00 pm

Displays will be on view  
from 8:30 am – 2:45 pm.



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*Editor's Note: Conservation Commissions can use Wintonbury Land Trust's actions as a model for supporting and promoting farmers in your community.*

## Wintonbury Land Trust: Supporting and Improving Land Access to Local Farmers *by Rachel Murray*

Land trusts are at the forefront of reshaping the agricultural landscape in Connecticut. They can be a leader supporting and promoting new and beginning farmers by providing access to farmland.

### Wintonbury Land Trust and Hawk Hill Preserve

Protection of natural resources, conservation of farmland, and community building through the natural landscape are part of the strongly held mission of The Wintonbury Land Trust (WLT) in Bloomfield, Connecticut. On a recent walk through the newly acquired Hawk Hill Preserve, Land Trust President Dale Bertoldi and Treasurer Vikki Reski spoke about the historical and agricultural presence Hawk Hill has in the community. According to the Connecticut Land Conservation Council (CLCC) there are over 137 land trusts throughout Connecticut. These include local, regional, and statewide organizations. Land trusts provide a real and thriving opportunity for new and beginning farmers to commence a local agriculture business.

The 45-acre Hawk Hill Preserve is nestled between two adjoining farms, including the farmland that's part of the LaSalette Park owned by the Town of Bloomfield. Bloomfield is a community rich in agricultural and cultural history so the desire to acquire this property with its prime agricultural soils, scenic vistas, and potential to support multiple farmers selling local products has been very strong with the Wintonbury Land Trust. The Hawk Hill preserve is one of the oldest continuously operating farm properties in Bloomfield. The Kelly Family purchased the farm land in the 1860's, and operated it as a Dairy Farm until it was sold to a developer in the early 1980's. The original farmhouse, located on an adjoining parcel of land, dates back to 1746 and was originally a Tavern. Additionally, there are fields across the street that were once part of this farm, but are now owned privately could add to the 21 acres of tillable land at Hawk Hill in the future.

Wintonbury Land Trust partnered with the Town of Bloomfield, CT Department of Energy and Environmental Protection, and the USDA Natural Resources Conservation Service to purchase the property from its current owners and additionally purchase the easement on the land so that Hawk Hill is guaranteed to stay as working farmland and open space. In this

arrangement, the Town holds the easement rights and Wintonbury Land Trust owns the property outright. Through the work of a strong local campaign to raise money to purchase the land along with the help of several foundations, Wintonbury Land Trust purchased the Hawk Hill property on April 23, 2015. To help protect the multiple conservation values, and according to the easement, any farmer using the land must provide and follow a detailed Conservation Plan. Additionally, a designated walking trail is available and maintained for hikers to pass through Hawk Hill connecting several local trails.

For the 2015 season, Wintonbury Land Trust leased the 45-acre Hawk Hill Preserve to a local farmer raising Scottish Highland cattle. In this arrangement, the farmer provides and installs her own temporary fencing for the cattle while also mowing hay for her cattle for the upcoming winter. The farmer also agreed to mow the fields not suitable for hay to maintain the aesthetic appeal of the farm and continued management of perennial weeds and invasives. For the 2016 season, it is planned that Wintonbury Land Trust will formally accept "Request For Proposals" (RFPs) for farmers interested in a long-term lease on the Hawk Hill property. Keeping the farmable portions in agriculture will reduce WLT and the Town's stewardship costs, help maintain the conservation values, and add fresh local agricultural products into the community. Stay connected with the Wintonbury Land Trust through their website for more details - <http://wintonburylandtrust.org/>.

*wintonbury, continued on page 13*

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wintonbury, continued from page 12

### Connecticut Land Access Programs

As more Connecticut land trusts realize the value in making land available to farmers, the importance to list and find properties is increasingly significant. The Connecticut Department of Agriculture's CT FarmLink, <http://www.ctfarmlink.org/>, is a statewide resource for farm owners and farm seekers to advertise land available and additionally to search farm properties that are available. Along with farm properties listed on CT FarmLink, New England Farm Finder (NEFF), <http://newengland-farmlandfinder.org/>, is another resource that includes all properties and farm seekers throughout New England. Utilizing these two matchmaking websites are excellent opportunities for land trusts to efficiently and effectively find a farmer for their land. A statewide reality is that there are significantly more farm seekers than there are farm properties available making the case that land trusts have the potential to significantly alter and improve the agricultural landscape in Connecticut.

Land For Good (LFG), <http://landforgood.org/#sthash.FTFWomZ4.dpbs>, is a New England based non-profit with Field Agents in each state working to improve farmland access and keep more farmers working the

land. LFG has an extensive "Toolbox" available on their website with resources helpful for farm seekers and farm owners, including sample leases and different models to use as a guide depending on the needs of the land trust and farmer. Consultation to actually help craft the match between the two parties is also available. In addition, the Connecticut Land Conservation Council, <http://www.ctconservation.org/>, provides users information about land trusts throughout the state and has model agricultural easement language and leases to use as guidance. Lastly, UConn Extension, <http://newfarms.extension.uconn.edu/>, has a helpful website with various agricultural programs and services they provide, from a list of essential resources for beginning farmers called "The Bucket List", to contacts for Extension educators and specialists, and the Farmland Connections Guide and model leases. All of these resources are ready, available, and free of charge for land trusts, land owners, and land seekers alike to utilize.

The role of land trusts is becoming one of establishing a model for acquiring the land through creative partnerships, protecting the land, and establishing a farmer on the land. They can help lead the renaissance for agriculture in Connecticut.

*Rachel Murray, M.S. is the Connecticut Field Agent for Land For Good. She can be reached at [rachel@landforgood.org](mailto:rachel@landforgood.org) or 603-357-1600.* ♡

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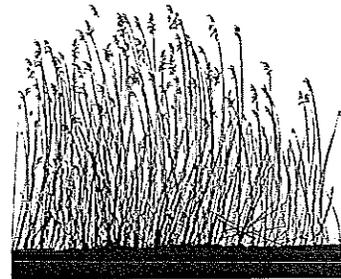
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CACIWC news, continued from page 2

www.caciwc.org. Please consider registering using our online form and payment system.

2. Are you a member or staff to a New London County conservation or wetlands commission? Please consider filling one of our other CACIWC board vacancies (an updated list can be found in this issue of *The Habitat* and on www.caciwc.org). Just send us a note at board@caciwc.org if you are interested in serving in one of the vacant positions.

3. Please do not hesitate to contact us via email at board@caciwc.org if you have questions or comments on any of the above items or if you have other questions of your board of directors. We hope to see all of you at our 38th Annual Meeting and Environmental Conference, Saturday, November 14, 2015!

~ Alan J. Siniscalchi, President

#### Endnotes

<sup>1</sup> Stuart SN, Chanson JS, Cox NA, Young BE, Rodrigues ASL, et al. (2004) Status and trends of amphibian declines and extinctions worldwide. *Science* 306: 1783–1786. doi: 10.1126/science.1103538

<sup>2</sup> Adams MJ, Miller DAW, Muths E, Corn PS, Grant EHC, Bailey LL, et al. (2013) Trends in Amphibian Occupancy in the United States. *PLoS ONE* 8(5): e64347. doi:10.1371/journal.pone.0064347

legal, from page 3

proposed amendments to municipal wetlands regulations. DEEP oversight as agencies are amending their regulations – as the legislature envisioned and mandated<sup>4</sup> – would be invaluable.

Before leaving this topic, I did find one novel issue in an appendix: fining guidelines. I hope that those guidelines reflect an already adopted ordinance which established a citation process reflecting those “fining guidelines.” Simply adopting “fining guidelines” and putting them in an appendix or in municipal regulations isn’t enough. There needs to be authority in the wetlands statute. To date, the legislature has set out three methods to have someone violating the wetlands law financially penalized: the agency can bring an enforcement action in court to stop the violation and, among other things, to have the court impose a civil penalty;<sup>5</sup> a town may adopt an ordinance establishing fines and a citation process;<sup>6</sup> as part of a criminal action handled by the state’s attorney’s office, a court may impose criminal fines.<sup>7</sup>

Each commission would serve its community well by examining the wetlands regulations and noting if there is information contained in appendices. If there is an appendix and the information is “helpful,” no further action

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may be needed. On the other hand, if there is some substantive material that the commission wants to rely on, show it the sunlight of the regulation process: adopt it as a regulation after conducting a public hearing. And for those other issues that leave the commission members wondering why something ever was put in an appendix – or upon reflection sets up a process not supported by the wetlands law, well, an appendectomy may be warranted.

Janet P. Brooks practices law in East Berlin. Read her blog at: [www.ctwetlandslaw.com](http://www.ctwetlandslaw.com) and access prior training materials and articles at: [www.attorneyjanetbrooks.com](http://www.attorneyjanetbrooks.com).

#### (Endnotes)

<sup>1</sup> In a recent discussion with Darcy Winther, DEEP municipal wetlands liaison, I learned that there are 171 “municipalities” for purposes of wetlands regulations, the usual 169 + Fenwick (in Old Saybrook) and the borough of Groton, geographically located within the town of Groton.

<sup>2</sup> *Sarrazin v. Coastal, Inc.*, 311 Conn. 581, 603 (2014).

<sup>3</sup> Discussion with Darcy Winther, DEEP municipal wetlands liaison.

<sup>4</sup> “A copy of the notice and the proposed regulations or amendments thereto . . . shall be provided to the commissioner at least thirty-five days before such hearing.” General Statutes § 22a-42a(b).

<sup>5</sup> General Statutes § 22a-44(b).

<sup>6</sup> General Statutes § 22a-42g.

<sup>7</sup> General Statutes § 22a-44(c).

## Remembering Suellen

**S**uellen Kozy McCuin died August 21, 2015, after a too short battle with an enemy she did not know, just eight days after the official dedication of The Preserve, the “1,000-acre forest” she battled 15+ years to preserve. Suellen was a good person, a fighter, a passionate grass roots environmental activist, and a persistent advocate for preserving nature’s landscapes—as is! Particularly a certain “1,000-acre forest” that Rachel Carson might describe as a spiritual “sense of place.” Her advocacy was not loud, not forceful. Quietly, she knew when to speak, who to speak to, and what to say - indispensable in the ever changing battle for The Preserve.

It was Suellen’s tenure as Executive Director of the Connecticut Council on Soil and Water Conservation that I first became aware of her quiet, “under the radar” persuasive capacity, a skill vital for advocating and educating, politically and otherwise, for Council and Conservation District funds. She was very effective, made friends easily and truly believed in the conservation work her job supported. We miss her.

Suellen’s friendship and passionate voice for conservation touched so many. On a beautiful evening in August we celebrated her life, her accomplishments, and her “sense of place”. Each celebrant in the seemingly endless line that wrapped around the parking lot could have easily represented one acre in the now preserved “1,000-acre forest.”

~ Tom ODell

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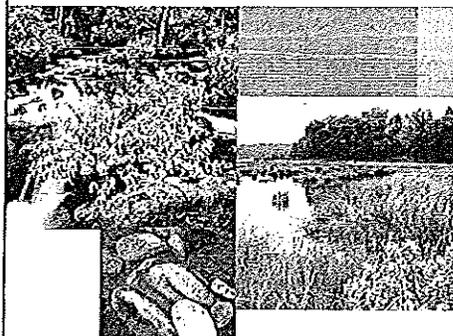
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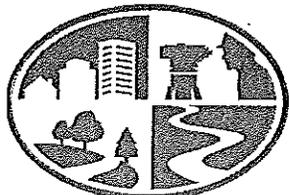
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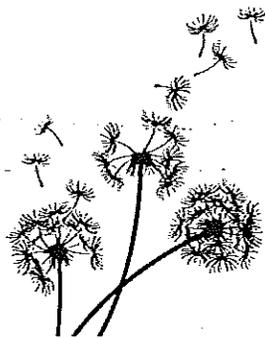
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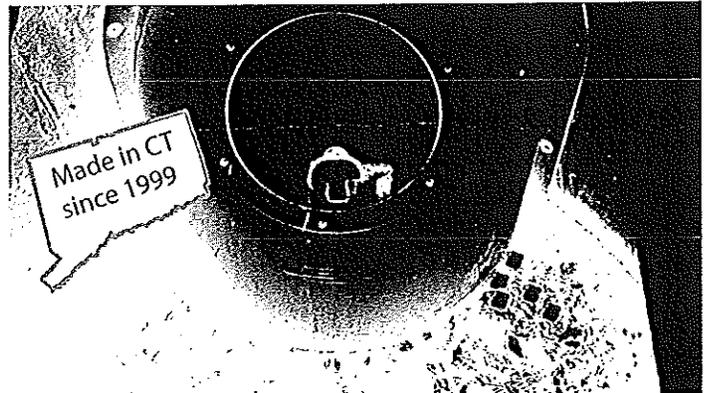
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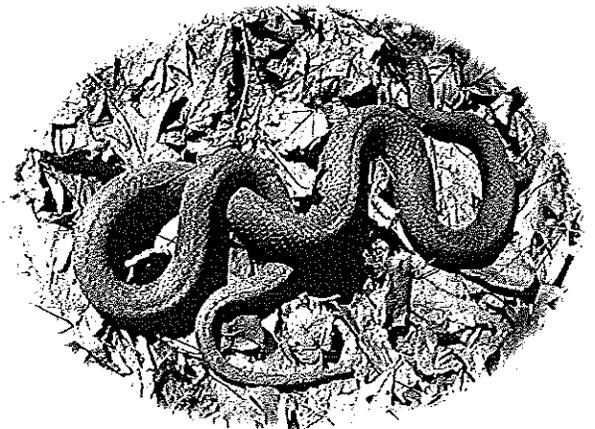


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I avoid conflicts of interest by representing only municipalities, not applicants.

*Edward M. Pawlak, MS  
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Certified Professional Wetland Scientist  
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The Open Space and Watershed Land Acquisition (OSWA) Grant Program provides financial assistance to municipalities and nonprofit land conservation organizations to acquire land for open space and to water companies to acquire land to be classified as Class I or Class II water supply property. For more information and an application, google “CT DEEP Open Space Grants.”

### A Memorial

As you consider applying for a DEEP Open Space and Watershed Land Acquisition Grant take a moment to thank former Senator Eileen Daily for the funding opportunity. Almost 20 years ago Eileen coauthored the legislation establishing this fund for open space acquisition that has led to the preservation of thousands of acres of forest, field and wetlands that contribute to our protected “green” legacy and quality of life.

Eileen died July 29, 2015. She served the 33<sup>rd</sup> District from 1992 to 2011. Prior to that Eileen served as Westbrook’s First Selectwoman; while in that position she provided continuous support and guidance for the town’s Conservation Commission. When she left for the Senate in 1992 we knew we had a friend in the legislature. It was no surprise when Eileen became Chair of the Environment Committee; she promoted environmental legislation passed in 1993, 1995 and 1997 that provided excellent local conservation opportunities. In particular, the 1997 open space funding legislation provided a new sense of purpose, support and direction for Conservation Commissions.

Eileen was always just a local call away from assisting with an environmental problem or idea that needed direction or support. I would like to think that her environmental advocacy, and now legacy, was first nurtured in Westbrook. Thank you Eileen.

~ Tom ODell, Chairman, Conservation Commission, then and now. ♣