

## **AGENDA**

Mansfield Conservation Commission  
Wednesday, June 22, 2011  
Audrey P. Beck Building  
CONFERENCE ROOM B  
7:30 PM

1. **Call to Order**
2. **Roll Call**
3. **Opportunity for Public Comment**
4. **Minutes**
  - a. May 18, 2011
5. **New Business**
  - a. IWA Referrals:           W1479 - Bemont - Stafford Rd  
                                  W1480 - St. Martin - Storrs Rd
  - b. Other
6. **Continuing Business**
  - a. Plimpton Subdivision, Wormwood Hill & Gurleyville Roads  
    IWA File #1474, PZC File #1298 (Public Hearing Continued until 7/5/11)
  - b. Protecting Dark Skies in the Last Green Valley
  - c. Water Source Study for the Four Corners Area/Environmental Impact Evaluation (EIE)
  - d. Swan Lake Discharge Mirror Lake Dredging and other UConn Drainage Issues
  - e. UConn Agronomy Farm Irrigation Project
  - f. Eagleville Brook Impervious Surface TMDL Project
  - g. UConn Hazardous Waste Transfer Station
  - h. Ponde Place Student Housing Project
  - i. CL&P "Interstate Reliability Project" (application to State DPUC expected to be submitted in 2011)
  - j. Other
7. **Communications**
  - a. Minutes
    - Open Space (5/17/11)  PZC (5/16/11 & 6/6/11)  IWA (6/6/11)
  - b. Inland Wetlands Agent Monthly Activity Report
  - c. CT Farmland Trust "Conservation Options for CT Farmland-A Guide for Landowners, Land Trusts & Municipalities"
  - d. 5/20/11 letter from Senator Williams and Representative Haddad re: Ponde Place
  - e. 5/23/11 Memo to Zoning Agent Re: Conditional Zoning Permit authorization for Storrs Center Parking Garage/Intermodal Center
  - f. Other
8. **Other**
9. **Future Agendas**
10. **Adjournment**

PAGE  
BREAK

Town of Mansfield  
**CONSERVATION COMMISSION**  
Meeting of 18 May 2011  
Conference B, Audrey P. Beck Building  
**(draft) MINUTES**

*Members present:* Joan Buck (Alt.), Robert Dahn, Peter Drzewiecki, Neil Facchinetti (Alt.), Quentin Kessel, Scott Lehmann. *Members absent:* John Silander, Frank Trainor. *Others present:* Grant Meitzler (Wetlands Agent).

1. The meeting was **called to order** at 7:33p by Chair Quentin Kessel.
2. The draft **minutes of the 20 April 2011 meeting** were approved as written.
3. **IWA referral W1477 (Walker, Riverview Rd.)**. The applicants propose a free-standing photovoltaic system mounted on a frame supported by ten concrete piers. The proposed location – the only place on the property clear of shading trees – is about 50 ft from the Natchaug River. According to Meitzler, there is little danger of flooding along this stretch of the river, as it is below the Mansfield Hollow Dam. The Commission agreed unanimously (**motion:** Dahn, Buck) that no significant impact on the river is likely, provided construction is as specified in the application.
4. The Commission's comments on **UConn's Draft Water Supply Plan** (March 2011), composed by Kessel as authorized at the Commission's 20 April meeting, were included in the Town's 26 April letter to UConn. Kessel also attended the Willimantic River Alliance's 11 May forum on the draft, where he heard a presentation by a representative from Milone & MacBroom, UConn's consultants.
5. Kessel met **Linda Painter, Mansfield's new Town Planner**, at a reception on 16 May. He will invite her to the Commission's September meeting. Retiring Town Planner Greg Padick will be honored at a dinner on 08 June, but well-wishers will have to cough up \$25 to attend.
6. A bill to extend provisions of the **Recreational Land Use Statute** (CGS Sec. 52-557f to 557i) to municipalities has passed the General Assembly. This statute encourages land-owners to open land for recreational use by limiting their liability, but currently applies only to private lands.
7. **Agronomy Farm**. Storrs Heights residents concerned about the impact of turf research at the Agronomy Farm on water quality and quantity met with the Dean of the College of Agriculture & Natural Resources on 21 April. Facchinetti reported that the Dean has agreed to two of their recent requests – engaging a hydrologist to evaluate Robbins' 2008 study of the impact of farm pumping on neighborhood wells, and supplying a map of the locations and concentrations of pesticide applications – but that this is as far as he is willing to go. (For details, see Facchinetti's report, attached.) The Neighborhood Association is now considering recommending that residents take individual action to monitor and treat well water.
8. **Adjourned** at 8:27p.

Scott Lehmann, Secretary, 23 May 2011

## Report to the Conservation Commission on the UConn Agronomy Farm Expansion

Neighbors to the farm met with the Dean of Agriculture on 21 April 2011, at which time he gave us his “final word” in response to our latest set of concerns:

1. He will not formally agree to a pumping limit. Last summer and fall during a dry period, pumping amounted to 21,600 gallons per day, but he said they are able to pump up to 50,000 gallons per day before encountering a DEP requirement for a permit.
2. He will not authorize the monitoring of private well levels; he said this would expose UConn to an unacceptable level of liability.
3. He did agree to hire a hydrogeologist to evaluate the 2008 study by Dr. Robbins, which was undertaken to evaluate the impact of farm pumping on private wells nearby. On 10 May 11, I met with Jason Coite, Steve Olsen and this new hydrogeologist, who holds a masters degree in environmental engineering from the University of New Haven and did graduate studies with Dr. Robbins. We had a frank discussion on the ethics of the situation, and I described, again, how the Robbins study was deficient in several respects: too brief, not enough water pumped, new production wells not in place, and conducted in an extremely wet period. The Dean has been informed about our objection to using a former graduate student of Dr. Robbins to review the Robbins study.
4. The Dean, Jason Coite, and the farm manager will not concede that their monitoring wells are inadequate for protecting our water levels and that the parameters are arbitrary for reducing and stopping pumping from the production wells, which are 15 and 25 feet respectively. These thresholds of 15 and 25 feet were not advocated in the Robbins report.
5. The Dean refuses to test for all pesticides used at the farm, even though nitrogen was detected in one shallow test well (3.4mg./L) which could indicate pesticide migration. After reviewing the Material Safety Data Sheets (MSDS) for the farm pesticides, we found that probable carcinogens are being used at the farm.
6. The Dean refuses to test for pesticides before and after the growing season. He will only test in the fall despite the possibility that the spring thaw could promote pesticide migration toward our private wells.
7. After repeated requests, the the Dean has agreed to provide us with a map detailing the locations and concentrations of pesticide applications, similar to a report the farm manager produced in 2007. We anticipate this report in the summer.
8. Recently we received an abbreviated list of current research projects at the farm.
9. We have not been able to obtain assurances from the Dean that recent budget cuts would not affect the implementation of safeguards at the farm. Necessary upgrades of monitoring for water levels and pesticide contamination cannot be guaranteed.
10. A tour of the pesticide storage facility at the farm revealed that upgrades are needed to improve fireproofing and spill containment.

Neil Facchinetti, 18 May 2011

APPLICATION FOR PERMIT  
MANSFIELD INLAND WETLANDS AGENCY  
4 SOUTH EAGLEVILLE ROAD, STORRS, CT 06268  
TEL: 860-429-3334 OR 429-3330  
FAX: 860-429-6863

FOR OFFICE USE ONLY

File #  
W 1479  
Fee Paid \$185-  
Official Date of Receipt 5-24-11

Applicants are referred to the Mansfield Inland Wetlands and Watercourses Regulations for complete requirements, and are obligated to follow them. For assistance, please contact Grant Meitzler, Inland Wetlands Agent at the telephone numbers above.

Please print or type or use similar format for computer; attach additional pages as necessary.

**Part A - Applicant**

Name STEPHEN H. BEMONT

Mailing Address 787 STAFFORD RD

MANSFIELD, CT Zip 06268

Telephone-Home 860-336-9911 Telephone-<sup>CELL</sup>Business 860-682-2317

**Title and Brief Description of Project**

CONNECTOR BETWEEN HOUSE AND EXISTING GARAGE.

GARAGE WILL BE LIVING SPACE

Location of Project 787 STAFFORD RD. MANSFIELD

Intended Start Date 6-1-11

**Part B - Property Owner** (if applicant is the owner, just write "same")

Name SAME

Mailing Address \_\_\_\_\_

Zip \_\_\_\_\_

Telephone-Home \_\_\_\_\_ Telephone-Business \_\_\_\_\_

Owner's written consent to the filing of this application, if owner is not the applicant:

Signature Stephen H. Bemont date 5-20-11

Applicant's interest in the land: (if other than owner) \_\_\_\_\_

**Part C - Project Description (attach extra pages, if necessary)**

1) Describe in detail the proposed activity here or on an attached page. (See guidelines at end of application – page 6.)

Please include a description of all activity or construction or disturbance:

a) in the wetland/watercourse

b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

CREATE A CONNECTOR BETWEEN EXISTING HOUSE AND GARAGE WHICH WILL HAVE EITHER PIERS FOR A FOUNDATION, OR FROST WALLS AND POURED FLOOR FOR THE 11' X 14' STRUCTURE  
STRUCTURE WILL CONTAIN A NEW FULL BATH TO REPLACE EXISTING FULL BATH IN HOUSE  
EXISTING GARAGE WILL BE CONVERTED TO LIVING AREA.  
A NEW GARAGE WILL BE CONSTRUCTED SOUTH EAST OF THE EXISTING GARAGE. AN AREA TO SUPPORT THE 16' X 24' STRUCTURE WILL BE CLEARED OF BRUSH, LEVELED AND 3/4" CRUSHED STONE WILL BE SPREAD FOR THIS WOODEN FLOORED BUILDING.

2) Describe the amount or area of disturbance (in square feet or cubic yards or acres):

a) in the wetland/watercourse

b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

b) CONNECTOR IS 11' X 14' OR 154 SQ' WILL MOST LIKELY BE PLACED ON PIERS SO MINIMAL FILL WILL BE REMOVED.  
NEW GARAGE WILL BE ON CRUSHED STONE ON LEVELED LAND - NO GROUND REMOVAL.

3) Describe the type of materials you are using for the project: CONCRETE / WOOD

a) include **type** of material used as fill or to be excavated TOP SOIL / GRAVEL

b) include **volume** of material to be filled or excavated CONCRETE

4) Describe measures to be taken to minimize or avoid any adverse impacts on the wetlands and regulated areas (silt fence, staked hay bales or other Erosion and Sedimentation control measures).

ALL CONSTRUCTION IS DOWN HILL AND AWAY FROM EXISTING BROOK AS PER GRANT MEITZLER NO SILT FENCE OR HAY BALES REQUIRED

**Part D - Site Description**

Describe the general character of the land. (Hilly? Flat? Wooded? Well drained? etc.)

FLAT - VERY WELL DRAINED - SLOPED AWAY FROM BROOK  
ALL GRAVEL + SAND - SEE RECENT REPORT HEALTH DEPT REPORT 5-12-11 BY G. HAVENS

**Part E - Alternatives**

Have you considered any alternatives to your proposal that would meet your needs and might have less impact on the wetland/watercourse? Please list these alternatives.

NONE

---

---

---

---

**Part F - Map/Site Plan (all applications)**

1) Attach to the application a map or site plan showing **existing conditions** and the **proposed project** in relation to wetland/ watercourses. Scale of map or site plan should be 1" = 40'; if this is not possible, please indicate the scale that you are using. A sketch map may be sufficient for small, minor projects. (See guidelines at end of application – page 6.)

2) Applicant's map date and date of last revision 5-2-11

3) Zone Classification RESIDENTIAL

4) Is your property in a flood zone?  Yes  No  Don't Know

**Part G - Major Applications Requiring Full Review and a Public Hearing**

See Section 6 of the Mansfield Regulations for additional requirements.

**Part H - Notice to Abutting Property Owners**

1) List the names and addresses of abutting property owners

Name	Address
WILLIAM GLODE	777 STAFFORD RD STORRS/MANSFIELD
CURT HIRSCH	795 STAFFORD RD STORRS/MANSFIELD

2) **Written Notice to Abutters** . You must notify abutting property owners by certified mail, return receipt requested, stating that a wetland application is in progress, and that abutters may contact the Mansfield Inland Wetlands Agent for more information. Include a brief description of your project. **Postal receipts of your notice to abutters must accompany your application.** (This is not needed for exemptions).

**Part I - Additional Notices, if necessary**

1) Notice to Windham Water Works is attached. If this application is in the public watershed for the Windham Water Works (WWW), you must notify the WWW of your project within 7 days of sending the application to Mansfield--sending it by certified mail, return receipt requested. Contact the Mansfield Inland Wetlands Agent to find out if you are in this watershed.

2) Notice to Adjoining Town. If your property is within 500 feet of an adjoining town, you must also send a copy of the application, on the same day you sent one to Mansfield, to

the Inland Wetlands Agency of the adjoining town, by certified mail, return receipt requested.

- 3) The Statewide Reporting Form (attached) shall be part of the application and specified parts must be completed and returned with this application.

**Part J - Other Impacts To Adjoining Towns, if applicable**

- 1) Will a significant portion of the traffic to the completed project on the site use streets within the adjoining municipality to enter or exit the site? \_\_\_ Yes  No \_\_\_ Don't Know
- 2) Will sewer or water drainage from the project site flow through and impact the sewage or drainage system within the adjoining municipality? \_\_\_ Yes  No \_\_\_ Don't Know
- 3) Will water run-off from the improved site impact streets or other municipal or private property within the adjoining municipality? \_\_\_ Yes  No \_\_\_ Don't Know

**Part K - Additional Information from the Applicant**

Set forth (or attach) any other information which would assist the Agency in evaluating your application. *(Please provide extra copies of any lengthy documents or reports, and extra copies of maps larger than 8.5" x 11", which are not easily copied.)*

**Part L - Filing Fee**

Submit the appropriate filing fee. (Consult Wetlands Agent for the fee schedule available in the Mansfield Inland Wetlands and Watercourses Regulations.)

\_\_\_ \$1,000. \_\_\_ \$750. \_\_\_ \$500. \_\_\_ \$250.  \$125. \_\_\_ \$100. \_\_\_ \$50. \_\_\_ \$25.

\$60 State DEP Fee

*Note: The Agency may require you to provide additional information about the regulated area which is the subject of the application, or about wetlands or watercourses affected by the regulated activity. If the Agency, upon review of your application, finds the activity proposed may involve a "significant activity" as defined in the Regulations, additional information and/or a public hearing may be required.*

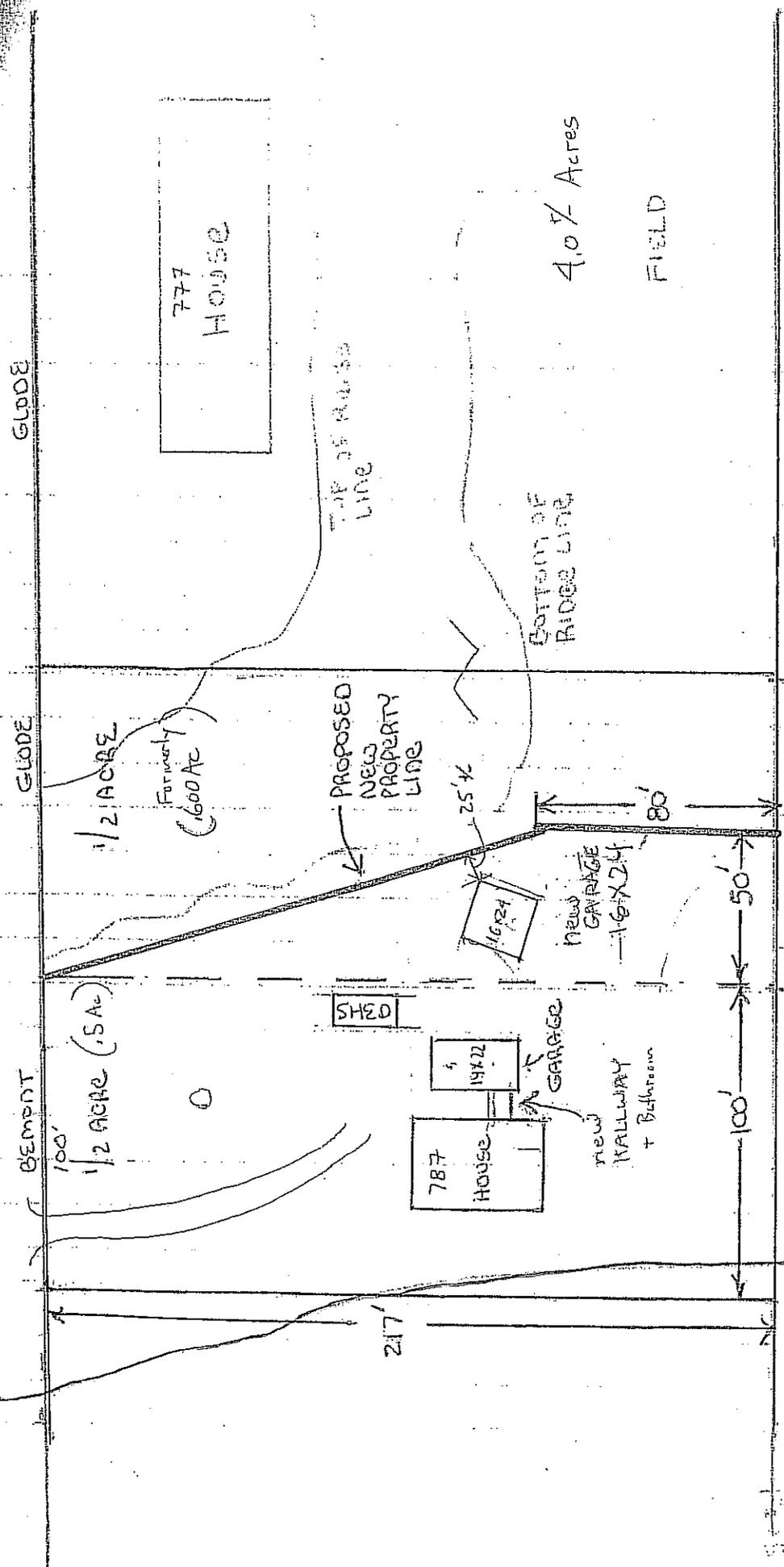
**The undersigned applicant hereby consents to necessary and proper inspections of the above mentioned property by members and agents of the Inland Wetlands Agency, at reasonable times, both before and after the permit in question has been granted by the Agency.**

Sam H. Bemont  
Applicant's Signature

5.20.11  
Date

DUNHAM BROOK

RTE 32



5-02-11  
RBM

SCALE - 1" = 25 FT

1/22/10 inspection - slud appears misplaced with respect to property line.

100'

PROPERTY LINE

DRIVEWAY

150'

250'

144'

Slud rotated 90° per W/land A/F

WELL  
WOOD SHED

MIL 10'

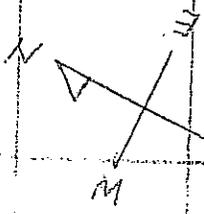
28'

SEPTIC TANK

PRESENT HOUSE

GARAGE

FIELDS



R R TRACKS

100'

220'

25'

24'

10'

14'

16'

16'

120'

120'

1

APPLICATION FOR PERMIT  
MANSFIELD INLAND WETLANDS AGENCY  
4 SOUTH EAGLEVILLE ROAD, STORRS, CT 06268  
TEL: 860-429-3334 OR 429-3330  
FAX: 860-429-6863

FOR OFFICE USE ONLY  
File # 1480  
W 1480  
Fee Paid 185.  
Official Date of Receipt 6.02.11

Applicants are referred to the Mansfield Inland Wetlands and Watercourses Regulations for complete requirements, and are obligated to follow them. For assistance, please contact Grant Meitzler, Inland Wetlands Agent at the telephone numbers above.

Please print or type or use similar format for computer; attach additional pages as necessary.

Part A - Applicant

Name William St. Martin

Mailing Address 124 Meadowbrook Ln  
Mansfield, CT Zip 06250

Telephone-Home 860 634-3521 Telephone-Business 860 377-9739

Title and Brief Description of Project  
Proposed House site: Single family dwelling with  
on site septic & well

Location of Project At 195 Mansfield, CT 06250

Intended Start Date August 1, 2011

Part B - Property Owner (if applicant is the owner, just write "same")

Name Barry Buchanan & DRU BUENHAM

Mailing Address 78 Atwoodville Rd  
Mansfield, CT Zip 06250

Telephone-Home 860 429-2432 Telephone-Business \_\_\_\_\_

Owner's written consent to the filing of this application, if owner is not the applicant:

Signature Barry A Buchanan date 5-25-11

Applicant's interest in the land: (if other than owner) \_\_\_\_\_

**Part C - Project Description (attach extra pages, if necessary)**

1) Describe in detail the proposed activity here or on an attached page. (See guidelines at end of application – page 6.)

Please include a description of all activity or construction or disturbance:

- a) in the wetland/watercourse
- b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

Single family construction, with onsite septic well

A proposed 2 bedroom house to be built into the hill (berm style). Disturbance will be kept to a minimum to preserve the quality of the existing conditions.

Equipment to be used:

- Excavator
- Bobcat
- Bulldozer

2) Describe the amount or area of disturbance (in square feet or cubic yards or acres):

- a) in the wetland/watercourse
- b) in the area **adjacent** to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is **off** your property

Adjacent to wetlands approx. 1400 cyps of onsite material cut to a fill

3) Describe the type of materials you are using for the project: existing gravel, process, & 1" stone

- a) include **type** of material used as fill or to be excavated existing gravel
- b) include **volume** of material to be filled or excavated Approx. 1400 cyps

4) Describe measures to be taken to minimize or avoid any adverse impacts on the wetlands and regulated areas (silt fence, staked hay bales or other Erosion and Sedimentation control measures).

Silt fence to be installed as per plan

**Part D - Site Description**

Describe the general character of the land. (Hilly? Flat? Wooded? Well drained? etc.)

All of the above

**Part E - Alternatives**

Have you considered any alternatives to your proposal that would meet your needs and might have less impact on the wetland/watercourse? Please list these alternatives.

After much consideration we feel our proposed plan has the least impact on the property

**Part F - Map/Site Plan (all applications)**

1) Attach to the application a map or site plan showing existing conditions and the proposed project in relation to wetland/ watercourses. Scale of map or site plan should be 1" = 40'; if this is not possible, please indicate the scale that you are using. A sketch map may be sufficient for small, minor projects. (See guidelines at end of application – page 6.)

- 2) Applicant's map date and date of last revision 5/11/11
- 3) Zone Classification RAR-90
- 4) Is your property in a flood zone?  Yes  No  Don't Know

**Part G - Major Applications Requiring Full Review and a Public Hearing**

See Section 6 of the Mansfield Regulations for additional requirements.

**Part H - Notice to Abutting Property Owners**

1) List the names and addresses of abutting property owners

Name	Address
Katherine Holt	563 Storrs Rd, P.O. Box 163 Mansfield, CT 06250
Vaughn A & Sharon Winkler	619 Storrs Rd Mansfield, CT 06250

2) **Written Notice to Abutters** . You must notify abutting property owners by certified mail, return receipt requested, stating that a wetland application is in progress, and that abutters may contact the Mansfield Inland Wetlands Agent for more information. Include a brief description of your project. Postal receipts of your notice to abutters must accompany your application. (This is not needed for exemptions).

**Part I - Additional Notices, if necessary**

- 1) Notice to Windham Water Works is attached. If this application is in the public watershed for the Windham Water Works (WWW), you must notify the WWW of your project within 7 days of sending the application to Mansfield--sending it by certified mail, return receipt requested. Contact the Mansfield Inland Wetlands Agent to find out if you are in this watershed.
- 2) Notice to Adjoining Town. If your property is within 500 feet of an adjoining town, you must also send a copy of the application, on the same day you sent one to Mansfield, to

the Inland Wetlands Agency of the adjoining town, by certified mail, return receipt requested.

- 3) The Statewide Reporting Form (attached) shall be part of the application and specified parts must be completed and returned with this application.

**Part J - Other Impacts To Adjoining Towns, if applicable**

- 1) Will a significant portion of the traffic to the completed project on the site use streets within the adjoining municipality to enter or exit the site? \_\_\_ Yes \_\_\_ No \_\_\_ Don't Know
- 2) Will sewer or water drainage from the project site flow through and impact the sewage or drainage system within the adjoining municipality? \_\_\_ Yes \_\_\_ No \_\_\_ Don't Know
- 3) Will water run-off from the improved site impact streets or other municipal or private property within the adjoining municipality? \_\_\_ Yes \_\_\_ No \_\_\_ Don't Know

**Part K - Additional Information from the Applicant**

Set forth (or attach) any other information which would assist the Agency in evaluating your application. *(Please provide extra copies of any lengthy documents or reports, and extra copies of maps larger than 8.5" x 11", which are not easily copied.)*

**Part L - Filing Fee**

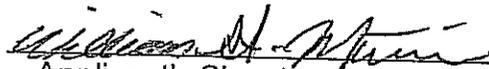
Submit the appropriate filing fee. (Consult Wetlands Agent for the fee schedule available in the Mansfield Inland Wetlands and Watercourses Regulations.)

\_\_\_ \$1,000. \_\_\_ \$750. \_\_\_ \$500. \_\_\_ \$250. \_\_\_ \$125. \_\_\_ \$100. \_\_\_ \$50. \_\_\_ \$25.

\_\_\_ \$60 State DEP Fee

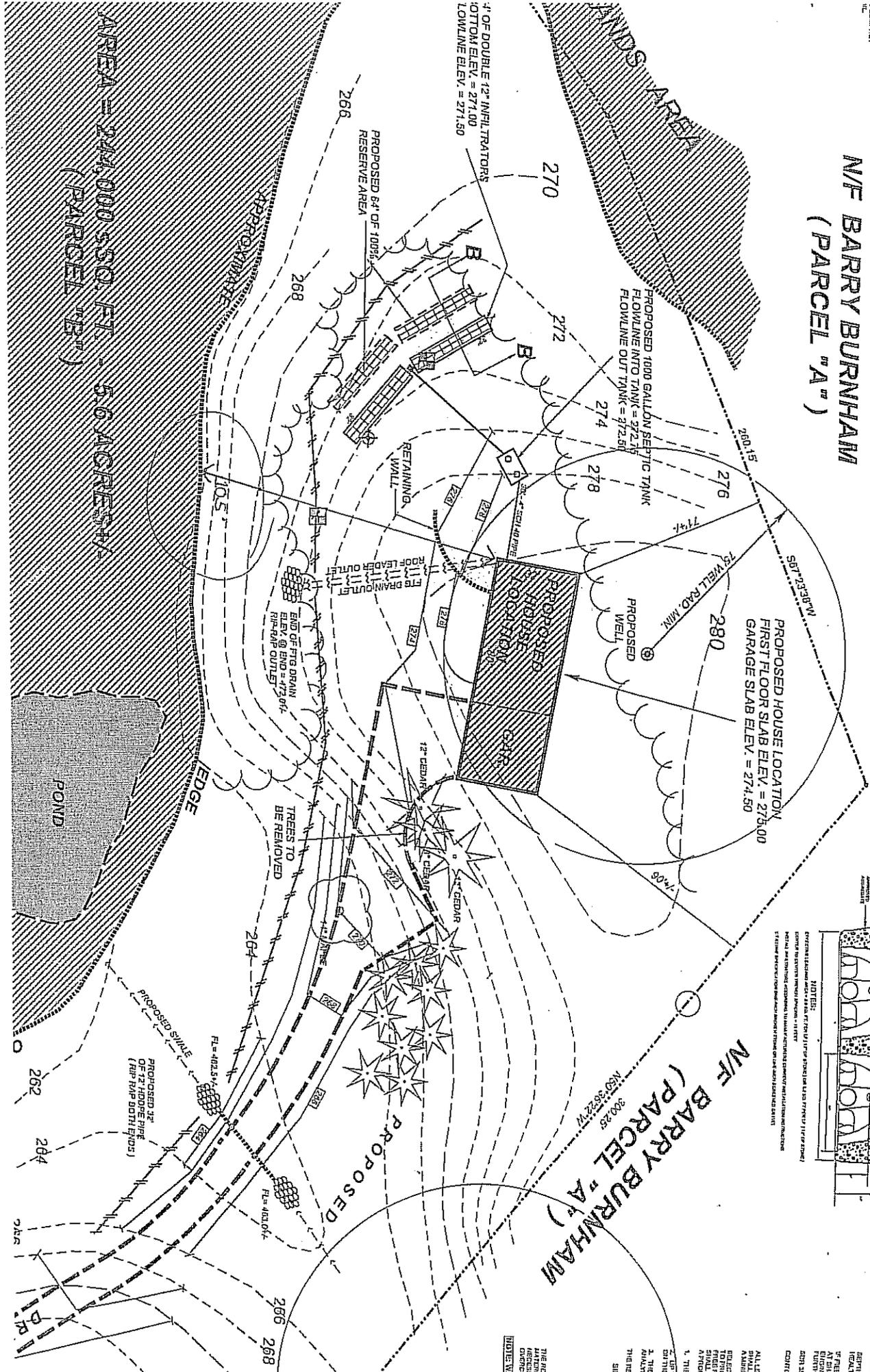
*Note: The Agency may require you to provide additional information about the regulated area which is the subject of the application, or about wetlands or watercourses affected by the regulated activity. If the Agency, upon review of your application, finds the activity proposed may involve a "significant activity" as defined in the Regulations, additional information and/or a public hearing may be required.*

**The undersigned applicant hereby consents to necessary and proper inspections of the above mentioned property by members and agents of the Inland Wetlands Agency, at reasonable times, both before and after the permit in question has been granted by the Agency.**

  
Applicant's Signature

\_\_\_\_\_ Date

# N/E BARRY BURNHAM (PARCEL "A")



PROPOSED HOUSE LOCATION  
FIRST FLOOR SLAB ELEV. = 276.00  
GARAGE SLAB ELEV. = 274.50

PROPOSED 1000 GALLON SEPTIC TANK  
FLOWLINE INTO TANK = 322.21  
FLOWLINE OUT TANK = 312.80

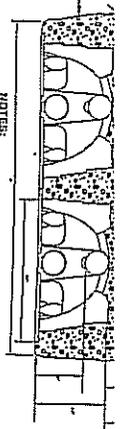
PROPOSED 64' OF 100% RESERVE AREA

4" OF DOUBLE 12" INFILTRATORS  
BOTTOM ELEV. = 271.00  
LOWLINE ELEV. = 271.50

AREA = 244,000 SQ. FT. - 5.6 ACRES  
(PARCEL "A")

POND

N/E BARRY BURNHAM (PARCEL "A")



NOTES:  
1. FOUNDATION SHALL BE CONCRETE ON PREPARED SUBGRADE.  
2. FOOTING SHALL BE CONCRETE ON PREPARED SUBGRADE.  
3. FOUNDATION SHALL BE CONCRETE ON PREPARED SUBGRADE.  
4. FOUNDATION SHALL BE CONCRETE ON PREPARED SUBGRADE.

- 1. THE
- 2. THE
- 3. THE
- 4. THE
- 5. THE
- 6. THE
- 7. THE
- 8. THE
- 9. THE
- 10. THE
- 11. THE
- 12. THE
- 13. THE
- 14. THE
- 15. THE
- 16. THE
- 17. THE
- 18. THE
- 19. THE
- 20. THE
- 21. THE
- 22. THE
- 23. THE
- 24. THE
- 25. THE
- 26. THE
- 27. THE
- 28. THE
- 29. THE
- 30. THE
- 31. THE
- 32. THE
- 33. THE
- 34. THE
- 35. THE
- 36. THE
- 37. THE
- 38. THE
- 39. THE
- 40. THE
- 41. THE
- 42. THE
- 43. THE
- 44. THE
- 45. THE
- 46. THE
- 47. THE
- 48. THE
- 49. THE
- 50. THE
- 51. THE
- 52. THE
- 53. THE
- 54. THE
- 55. THE
- 56. THE
- 57. THE
- 58. THE
- 59. THE
- 60. THE
- 61. THE
- 62. THE
- 63. THE
- 64. THE
- 65. THE
- 66. THE
- 67. THE
- 68. THE
- 69. THE
- 70. THE
- 71. THE
- 72. THE
- 73. THE
- 74. THE
- 75. THE
- 76. THE
- 77. THE
- 78. THE
- 79. THE
- 80. THE
- 81. THE
- 82. THE
- 83. THE
- 84. THE
- 85. THE
- 86. THE
- 87. THE
- 88. THE
- 89. THE
- 90. THE
- 91. THE
- 92. THE
- 93. THE
- 94. THE
- 95. THE
- 96. THE
- 97. THE
- 98. THE
- 99. THE
- 100. THE

THE  
DATE  
BY  
SCALE

PAGE  
BREAK

Memorandum:

June 1, 2011

To: Inland Wetlands Agency  
Planning & Zoning Commission  
From: Grant Meitzler, Inland Wetland Agent  
Re: W1474 - Plimpton - Gurleyville & Wormwood Hill Rds  
4 lot subdivision

plan reference: bearing latest revision date May 24, 2011, 21 sheets  
Vernal Pool Report: undated letter received April 28, 2011, K. Bradley

This memorandum reflects my interpretation of how the Kimberly Bradley report comments have been incorporated, together with recommendations from my previous review of the plans. Kimberly Bradley's comments are indicated by *italics* below.

Summary Recommendations from my previous review:

- I. I recommend professional comment be sought from an appropriate expert to comment on the potential for significant impact on this pool.

The applicant has provided comment on the vernal pool from Kimberly Bradley of GEI Consultants. That review comments on both the nature of this pool and offers a list of suggestions for controlling potential impacts on this wetland. The recommendations:

- A. *Use of erosion and sediment control best management practices to reduce erosion, such as staggered silt fencing, use of combinations of silt fence and hay bales to reduce barrier effects, immediate re-seeding and permanent re-vegetation of native species with 85% cover, and prompt removal of silt fencing on completion.*

1. *staggered silt fencing,*

This treatment is intended for maintaining control on longer down slope areas which, I think, are not present here.

2. *use of combinations of silt fence and hay bales to reduce barrier effects,*

I did not see that this has been done. However, it may be better depending on the time of year when construction actually occurs to maintain a barrier for a short time than to maintain open access to the active construction areas near the vernal pool (Lot 2) which would be a threat to small fauna.

3. *immediate re-seeding and permanent re-vegetation of native species with 85% cover,*

There is a note under the plan narrative indicating immediate stabilization of fill slopes but I do not find any commentary on work in proximity to the vernal pool area (near the 100 ft distance).

4. *prompt removal of silt fencing upon completion.*

Removal is noted on completion of construction. I do not find any

comment on quick completion and removal of silt fence in the Lot 2 areas nearest the vernal pool. I feel it appropriate that the plan reflect the Bradley comments and suggestions insofar as it is feasible.

- B. *Minimize disturbed areas to protect down gradient buffers, including a well established vegetated buffer to the vernal pools.*

The house location on lot 2 has been revised to place it approximately 110' away from the edge of the vernal pool. A portion of the driveway remains within the 100' zone and the plan appears to show the edge of the yard only 70' away from the pool. There is a row of silt fence through the 100' critical area around the vernal pool which is placed as close as 50' to the vernal pool. I did not find any notes on the plan indicating the need for and importance of natural vegetation within this 100' zone around the vernal pool.

- C. *reduce the amount of roadway and impervious surfaces required for placement of residential properties, through the use of a shared driveway and permeable material such as gravel.*

The plans do show a shared drive for Lots 2 and 3, with a gravel surface.

- D. *Do not clear regions and maintain a natural vegetative buffer within 100 ft. of the vernal pool depression (envelope) and limit development to less than 25% of the critical terrestrial habitat located within 750 ft. of the vernal pool.*

A 100 ft buffer has been established on Lot 2 around the vernal pool but as noted above it appears to include portions of yard and drive together with a section of silt fence at only 50' from the pool. There is no comment on the 750' zone meeting the 25% development criteria.

- E. *Stormwater best management practices must be applied, including detention and biofiltration ponds placed appropriate distances from vernal pool habitat, treat stormwater using grassy swales less than 1:4 sloping edges, use of hydrodynamic barriers, avoidance of increase or decreases in wetland water levels, and limitation of impervious surfaces.*

There are no concentrations of flow directed toward this vernal pool. Flows from the shared driveway are directed away from the pool.

- F. *Selection of a portion of the property as a conservation easement would establish a connection with adjacent open space parcels and provide a corridor for migration of wildlife species.*

A conservation easement has been added on Lot 2. As previously noted the area appears to include portions of lawn area, driveway and has silt fence placed 50' within this easement area. The comments recommended natural vegetation that is not noted on the plans.

This easement area has a long curved edge running through what is shown as active yard. Clarification is needed as to how this can be effectively marked.

The following are my previous comments updated according to this May 24, 2011 plan revision.

- II. I recommend placing a stone filled excavation on the west side of the drive near the edge of Gurleyville Rd and at stations 11+00 and 12+00 to limit outflow for the long term.

This has been done and is consistent with the Bradley commentary.

- III. On Wormwood Hill Rd for the Lot 4 driveway, upgrading of the roadside drainage from the present 6" underdrains to 15" pipe is shown. Additional piping is needed to maintain the roadside flow coming from the uphill section of roadside swale.

This has been done.

- IV. Adding new water to the system carrying water across the Potz property and Lot 1 on the Plimpton property requires the acquisition of drainage rights in favor of lot 4 from each of these properties.

A 20' wide easement is needed for the new drainage from Lot 4, following the route of the present drain across the Potz property.  
a 20' wide easement with a "right to drain" onto Lot 1 is also needed.

This has not been shown on the plans yet.

- V. Silt fencing on Lots 2 and 3 should be extended to protect wetland areas located downhill to the rear of each lot.

Silt fence needs to be added southerly of the house on lot 2 downhill of construction areas.

- 6. The potential of significant impact triggers consideration of the holding of a public hearing - May 2, 2011 is an option. The statutory limit for extension of time is 65 more days.

With the items noted as still needing to be addressed, I believe an extension of time is needed. Beyond June 6, 2011 we will need an extension of time to extend the public hearing any further.

PAGE  
BREAK

# Notice of Scoping University of Connecticut Action for Additional Water Supply Source(s)

**Municipalities where proposed project might be located:** Mansfield, Tolland, Coventry

## **Addresses of Possible Project Locations:**

The preferred project location(s) will be selected from a range of options that include:

- Interconnecting with a nearby reservoir-based water system northeast of the Main Campus in Storrs, CT. Such an interconnection would involve a new pipeline that would generally run southerly along Route 195 from the intersection of Baxter Street/Anthony Road and Route 195 in Tolland, CT, through the northeast corner of Coventry, CT, to the nearest feasible point to interconnect with the existing University of Connecticut (UConn) water supply system in Storrs, CT. Alternative local roads could also be considered for portions of the pipeline route.
- Interconnecting with a nearby reservoir-based water system southwest of the Main Campus in Storrs, CT. Such a interconnection would involve a new pipeline which would generally run northerly along Route 195 from the intersection of Conantville Road and Route 195 in southern Mansfield, CT to the nearest feasible point to interconnect with the existing UConn water supply system in Storrs, CT. Alternative local roads could also be considered for portions of the pipeline route.
- Developing new groundwater source or sources in the stratified drift aquifers along the Fenton River, Willimantic River, or Mansfield Hollow Reservoir, and conveying the water from the new source(s) via pipeline to the nearest feasible point to interconnect with the existing UConn water supply system in Storrs, CT.

## **Project Description:**

The University of Connecticut in direct partnership with the Town of Mansfield proposes actions that will identify and implement a long-term source of at least 0.5 - 1 million gallons per day of water for the University of Connecticut's public water supply system. The project comprises the possible creation of new wellfields and the possible installation of new water mains to provide additional water to the University's public water supply system in and around Storrs, which currently also provides service to several Town of Mansfield facilities.

The proposed action would enable growth of the University and surrounding area consistent with prior the University Water Supply Plan, University Master Plans and associated Environmental Impact Evaluations, particularly for the proposed University Technology Park to be developed on the University's North Campus. The proposed action would improve the University water supply's margin of safety and supplement the available water during times of drier years when the existing supply is limited in response to aquatic and environmental concerns. This additional source of water supply would also enable economic development as delineated in the Town Plan of Conservation and Development, particularly as envisioned for the Mansfield Four Corners and Storrs Center areas.

The alternatives for obtaining an additional water supply source for the University's public water supply system include:

- 1) Connecting with a nearby reservoir-based water system to the northeast of the main campus by extending a transmission main south from Tolland along the Route 195 corridor or alternative local roads;
- 2) Connecting with a nearby reservoir-based water system to the southwest of the main campus by extending a transmission main north from southern Mansfield along the Route 195 corridor or alternative route(s) via local roads; and

- 3) Installing and connecting to a new groundwater source or sources in the stratified drift aquifers along the Fenton River, Willimantic River, or Mansfield Hollow Reservoir. The new groundwater source(s) would preferably be installed on lands in Mansfield, CT currently owned by the University, Town of Mansfield, or the Army Corps of Engineers.

**Project Map(s):** [Click here to view a map](#) of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: July 7, 2011**

**There will be a Public Scoping Meeting for this project at:**

**DATE:** June 28, 2011

**TIME:** 7:00 pm to 9:00 pm

**PLACE:** University of Connecticut, Student Union, Room 104, 2110 Hillside Road, Storrs, CT

**NOTES:** Evening parking is available at no charge across Hillside Road in the Field House lot.

**Written comments should be sent to:**

**Name:** Jason Coite

**Agency:** University of Connecticut - Office of Environmental Policy

**Address:** 31 LeDoyt Road, U-3055  
Storrs, CT 06269

**Fax:** 860-486-5477

**E-Mail:** [jason.coite@uconn.edu](mailto:jason.coite@uconn.edu)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Jason Coite

**Agency:** University of Connecticut - Office of Environmental Policy

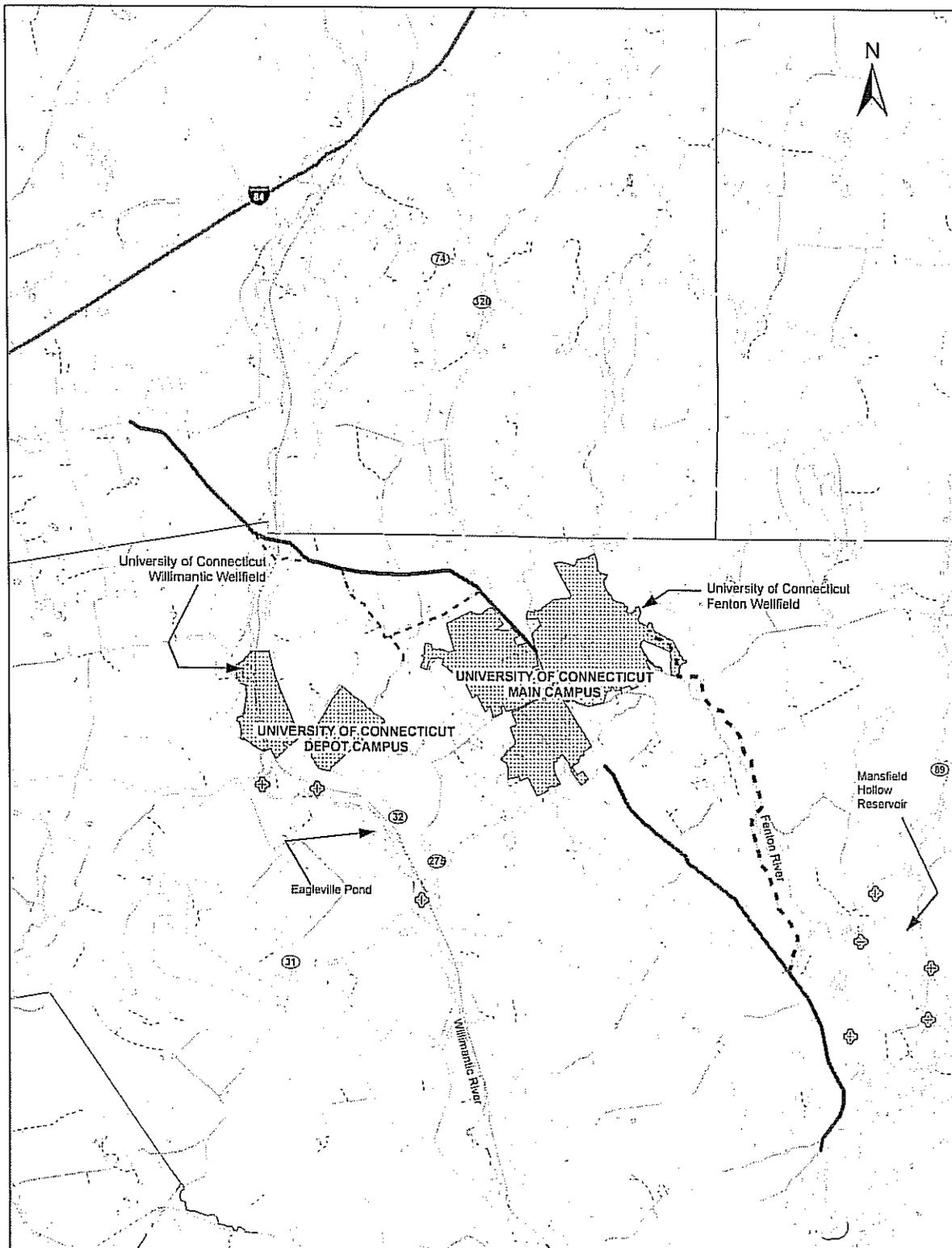
**Address:** 31 LeDoyt Road, U-3055  
Storrs, CT 06269

**Phone:** 860-486-9305

**Fax:** 860-486-5477

**E-Mail:** [jason.coite@uconn.edu](mailto:jason.coite@uconn.edu)

**The agency expects to release an Environmental Impact Evaluation for this project, for public review and comment, in January 2012.**



**LEGEND**

- Possible New Pipeline Routes
- - - Possible Alternative Pipeline Routes
- ⊕ Possible New Well Locations

**University of Connecticut  
Scoping Notice for Additional Water Supply Source(s)  
Mansfield, Coventry, and Tolland, CT  
June 1, 2011**



University of Connecticut - Office of Environmental Policy

PAGE  
BREAK

March 29, 2011 Rev 1

Mr. Nathaniel Y. Arai, P.E.  
Project Engineer  
GZA GeoEnvironmental, Inc.  
One Financial Plaza  
1350 Main Street, Suite 1400  
Springfield, Massachusetts 01103

**Re: Drewfloc 2421 EPA Drinking Water and CT DEP**

Dear Mr. Arai:

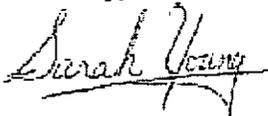
I am writing at the request of Jeffrey Kisty regarding regulatory information for the above referenced product.

The Ashland Hercules Water Technologies product Drewfloc 2421 is not known to contain any of the substances described in the State of Connecticut, Department of Environmental Protection Water Quality Standards, effective February 25, 2011 Appendix D, either as a formulation component or as a known contaminant.

Furthermore, with the exception of a maximum level of acrylamide of 0.1%, Drewfloc 2421 is not known to contain any of the substances listed in the EPA Drinking Water Contaminants, National Primary Drinking Water Regulations either as a formulation component or as a known contaminant.

Please contact me at [ProductStewardshipGroup@Ashland.com](mailto:ProductStewardshipGroup@Ashland.com) should you have any questions regarding this information.

Sincerely,



Sarah M. Young  
Product Compliance Assistant



**ATTACHMENT 3**

**ASHLAND PRODUCT STATEMENT**

As demonstrated in Table 4, the mass balance analysis indicates that the concentration of residual acrylamide exiting Mansfield Hollow Lake is reduced by approximately 98% from  $\pm 0.003$  ppm to  $7 \pm \times 10^{-5}$  ppm, due to dilution and biodegradation.

**Table 4. Mansfield Hollow Lake Mass Balance Input Parameters and Result**

Mansfield Hollow Lake Mass Balance Input Parameter	Value	Source
Mansfield Hollow Lake Volume, V (cubic feet)	119,049,480	1
First Order Reaction Coefficient, k (day <sup>-3</sup> )	$4.7 \times 10^{-2}$	2
Inflow Flow Rate, Q <sub>in</sub> (cubic feet per second)		
Inflow from Fenton River	2.57	3
Inflow from remainder of watershed	Assumed 27.43	4
Outflow Flow Rate, Q <sub>out</sub> (cubic feet per second)	30	5
Inflow Concentration, c <sub>in</sub> (parts per million)		
From Fenton River	0.003	3
From watershed	0	
<b>Resulting Mansfield Hollow Lake Residual Acrylamide Concentration</b>		
Outflow Concentration = in-lake concentration, c (parts per million)		$7 \times 10^{-5}$

1: Lake Bathymetry GIS datalayer from the Connecticut Department of Environmental Protection (2003).

2: First order reaction coefficient for biodegradation of acrylamide in surface water from the *European Union Risk Assessment Report for acrylamide*, Institute for Health and Consumer Protection, European Chemicals Bureau, Existing Substances, European Commission Joint Research Centre, CAS No: 79-06-1, EINECS No: 201-173-7, 1<sup>st</sup> Priority List, Volume: 24.

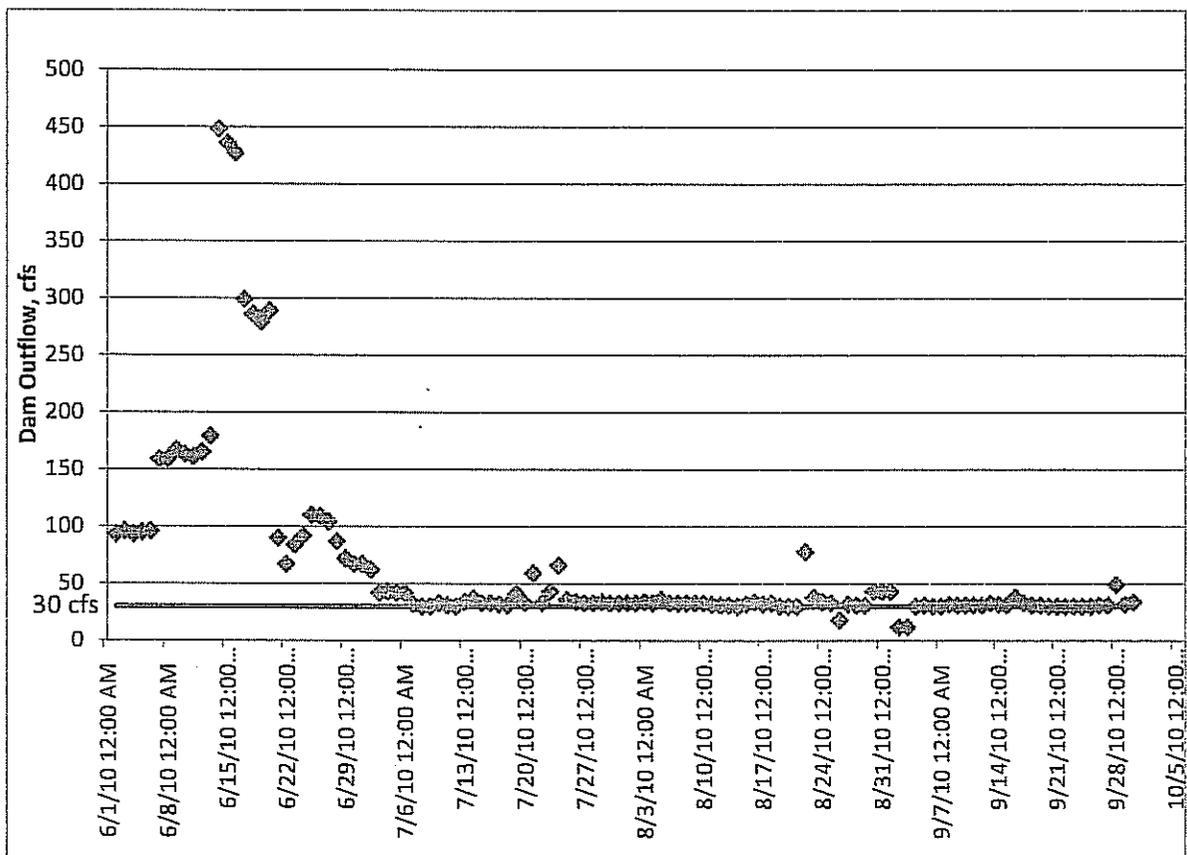
3: Tributary mass balance analyses (Table 3).

4: Based on data providing outflow of 30 cfs (see note 5). However, this term falls out of the analysis when it is multiplied by a concentration of zero, thus the determination of the exact value was not required.

5: Daily outflow data from June to October, 2010 for the Mansfield Hollow Lake Dam, available on-line at the U.S. Army Corps of Engineers website for Mansfield Hollow Lake

[https://rsgis.crrel.usace.army.mil/nae/pls/cwmsweb/cwms\\_realtime.ProjectPage?gagcode=MHD](https://rsgis.crrel.usace.army.mil/nae/pls/cwmsweb/cwms_realtime.ProjectPage?gagcode=MHD)

From the mass balance analyses of the tributary confluences along the Fenton River, the concentration of residual acrylamide entering Mansfield Hollow Lake from the Fenton River is estimated to be  $\pm 0.003$  ppm. The mass balance for a well-mixed lake (Equation 3) was then applied to Mansfield Hollow Lake to estimate the residual acrylamide concentration exiting Mansfield Hollow Lake. The volume of Mansfield Hollow Lake was estimated from the Lake Bathymetry GIS datalayer from the Connecticut Department of Environmental Protection (2003). The outflow from Mansfield Hollow Lake was taken from the daily outflow data for the Mansfield Hollow Lake Dam, available on the U.S. Army Corps of Engineers website for Mansfield Hollow Lake. The data from June to October, 2010 were plotted to estimate the typical low flow of  $\pm 30$  cfs during that period, as shown in Figure 2.



**Figure 2. Mansfield Hollow Lake Dam Daily Outflow, 6/1/2010 – 9/30/2010**

Source: USACE website for Mansfield Hollow Lake Dam -

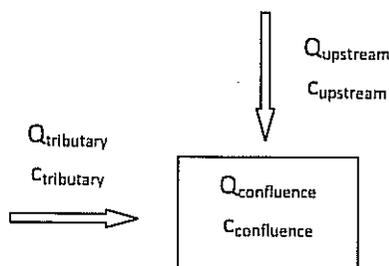
[https://rsgis.crrel.usace.army.mil/nae/pls/cwmsweb/cwms\\_realtime.ProjectPage?gagecode=MHD](https://rsgis.crrel.usace.army.mil/nae/pls/cwmsweb/cwms_realtime.ProjectPage?gagecode=MHD)

**Fenton River Discharge Concentrations**

Dilution of the residual acrylamide concentration where Roberts Brook enters the Fenton River was accounted for by applying a basic mass balance with complete mixing at the confluence, as follows:

$$Q_{\text{upstream}} \times C_{\text{upstream}} + Q_{\text{tributary}} \times C_{\text{tributary}} = Q_{\text{confluence}} \times C_{\text{confluence}} \quad (6)$$

$$Q_{\text{confluence}} = Q_{\text{upstream}} + Q_{\text{tributary}} \quad (7)$$



The flow on the Fenton River was estimated as the annual seven-day minimum for Water Years 2006-2008 from the *USGS Water-Data Report 2008 for Gage 01121330 Fenton River at Mansfield, Connecticut*. A similar mass balance was applied at each location along the Fenton River where a tributary enters the Fenton River as it travels downstream to Mansfield Hollow Lake. The mass balance analysis was performed at a total of ten confluences in addition to the Roberts Brook/Fenton River confluence. Some very small tributaries were neglected. The flows for each tributary were taken as the July to October flow exceeded 50% of the time, as computed by USGS Connecticut StreamStats. The mass balance computations are summarized in Table 3.

**Table 3. Tributary Mass Balance Analyses**

Tributary	Flow, cfs			Concentration, ppm		
	Q <sub>upstream</sub>	Q <sub>tributary</sub>	Q <sub>confluence</sub>	C <sub>upstream</sub>	C <sub>tributary</sub>	C <sub>confluence</sub>
Roberts Brook	0.32	0.18	0.50	0.000	0.037	0.013
1 (unnamed)	0.50	0.09	0.59	0.013	0.000	0.011
2 (unnamed)	0.59	0.11	0.70	0.011	0.000	0.010
3 (unnamed)	0.70	0.03	0.73	0.010	0.000	0.009
4 (Bundy's Brook)	0.73	0.16	0.89	0.009	0.000	0.008
5 (unnamed)	0.89	0.09	0.98	0.008	0.000	0.007
6 (Hanks Brook)	0.98	0.04	1.02	0.007	0.000	0.007
7 (Spring Hill Brook)	1.02	0.06	1.08	0.007	0.000	0.006
8 (unnamed)	1.08	0.08	1.16	0.006	0.000	0.006
9 (Conant Brook)	1.16	0.79	1.95	0.006	0.000	0.003
10 (Chapin Brook)	1.95	0.62	2.57	0.003	0.000	0.003

**Roberts Brook Discharge Concentration**

Dilution of the residual acrylamide concentration in Roberts Brook due to added flow from the watershed was accounted for by applying a mass balance at the downstream end of Roberts Brook, as follows:

$$Q_{\text{Mirror Lake}} \times C_{\text{Mirror Lake}} + Q_{\text{watershed}} \times C_{\text{watershed}} = Q_{\text{Roberts Brook}} \times C_{\text{Roberts Brook}} \quad (4)$$

$$Q_{\text{Roberts Brook}} = Q_{\text{Mirror Lake}} + Q_{\text{watershed}} \quad (5)$$

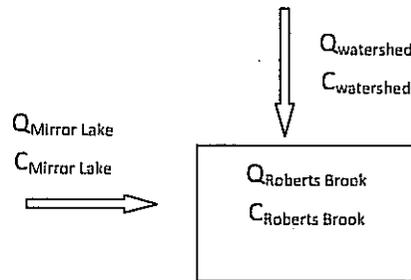


Table 2. Roberts Brook Mass Balance Analysis

Roberts Brook Mass Balance Input Parameter	Value	Source
Flow rate from Mirror Lake, $Q_{\text{Mirror Lake}}$ (cubic feet per second)	0.02	1
Residual Acrylamide Concentration from Mirror Lake, $c_{\text{Mirror Lake}}$ (parts per million)	0.299	2
Flow rate from Roberts Brook Watershed, $Q_{\text{watershed}}$ (cubic feet per second)	0.16	1
Residual Acrylamide Concentration from Roberts Brook Watershed, $c_{\text{Roberts Brook}}$ (parts per million)	0	-
Resulting Roberts Brook Residual Acrylamide Concentration		
$c_{\text{Roberts Brook}}$ (parts per million)	0.037	

1: USGS Connecticut StreamStats, StreamStats Ungaged Site Report, "D50\_07\_10": July to October flow exceeded 50% of the time, May 6, 2011.

2: Mirror Lake mass balance analysis (Table 1).

The input parameters for the computation of the residual acrylamide concentration in Mirror Lake are summarized in Table 1.

**Table 1. Mirror Lake Mass Balance Input Parameters and Result**

Mirror Lake Mass Balance Input Parameter	Value	Source
Mirror Lake Volume, V (million gallons)		
Pre-dredging volume	4.2	1
Post-dredging volume	7.7	
Average volume	6.0	
First Order Reaction Coefficient, k (day <sup>-1</sup> )	4.7 x 10 <sup>-2</sup>	2
Inflow Flow Rate, Q <sub>in</sub> (cubic feet per second)		
Inflow from watershed	0.02	3
Inflow from Geotubes	2.84	4
Outflow Flow Rate, Q <sub>out</sub> (cubic feet per second)		
Outflow to Roberts Brook	0.02	3
Outflow to Geotubes	3.34	4
Inflow Concentration, c <sub>in</sub> (parts per million)		
From Geotubes	0.4	5
From watershed	0	
<b>Resulting Mirror Lake Residual Acrylamide Concentration</b>		

1: From bathymetric survey information, July 2009, BEC, Inc.

2: First order reaction coefficient for biodegradation of acrylamide in surface water from the *European Union Risk Assessment Report for acrylamide*, Institute for Health and Consumer Protection, European Chemicals Bureau, Existing Substances, European Commission Joint Research Centre, CAS No: 79-06-1, EINECS No: 201-173-7, 1<sup>st</sup> Priority List, Volume: 24.

3: USGS Connecticut StreamStats, StreamStats Ungaged Site Report, "D50\_07\_10": July to October flow exceeded 50% of the time, May 6, 2011.

4: Dredge discharge anticipated average daily (12 hour) flow rate is estimated at 1.08 mgd (3.34 cfs) or 25% of maximum daily flow of 1.44 mgd

5: Approximately 15% of water will be retained within the dewatered sediments effectively reducing the return water discharge rate to 981,000 mgd (2.84 cfs).

### Mirror Lake Discharge Concentration

The mass balance for a well-mixed lake can be expressed as (Chapra, 1997):

$$\text{Accumulation} = \text{loading} - \text{outflow} - \text{reaction} - \text{settling} \quad (1)$$

When settling is neglected, this equation becomes:

$$V \frac{dc}{dt} = \sum(Q_{in} c_{in}) - \sum(Q_{out} c_{out}) - kVc \quad (2)$$

Where:

V = lake volume,

c = in-lake concentration,

$\frac{dc}{dt}$  = change in concentration over time,

Q = volumetric flow rate of all water sources entering or leaving the system,

$c_{in}$  = inflow concentration,

$c_{out}$  = outflow concentration = c for a well-mixed lake, and

k = first order reaction coefficient ( $T^{-1}$ ).

Assuming that the system is at steady state,  $\frac{dc}{dt}$  becomes zero and the equation may be solved for the in-lake concentration, c, as:

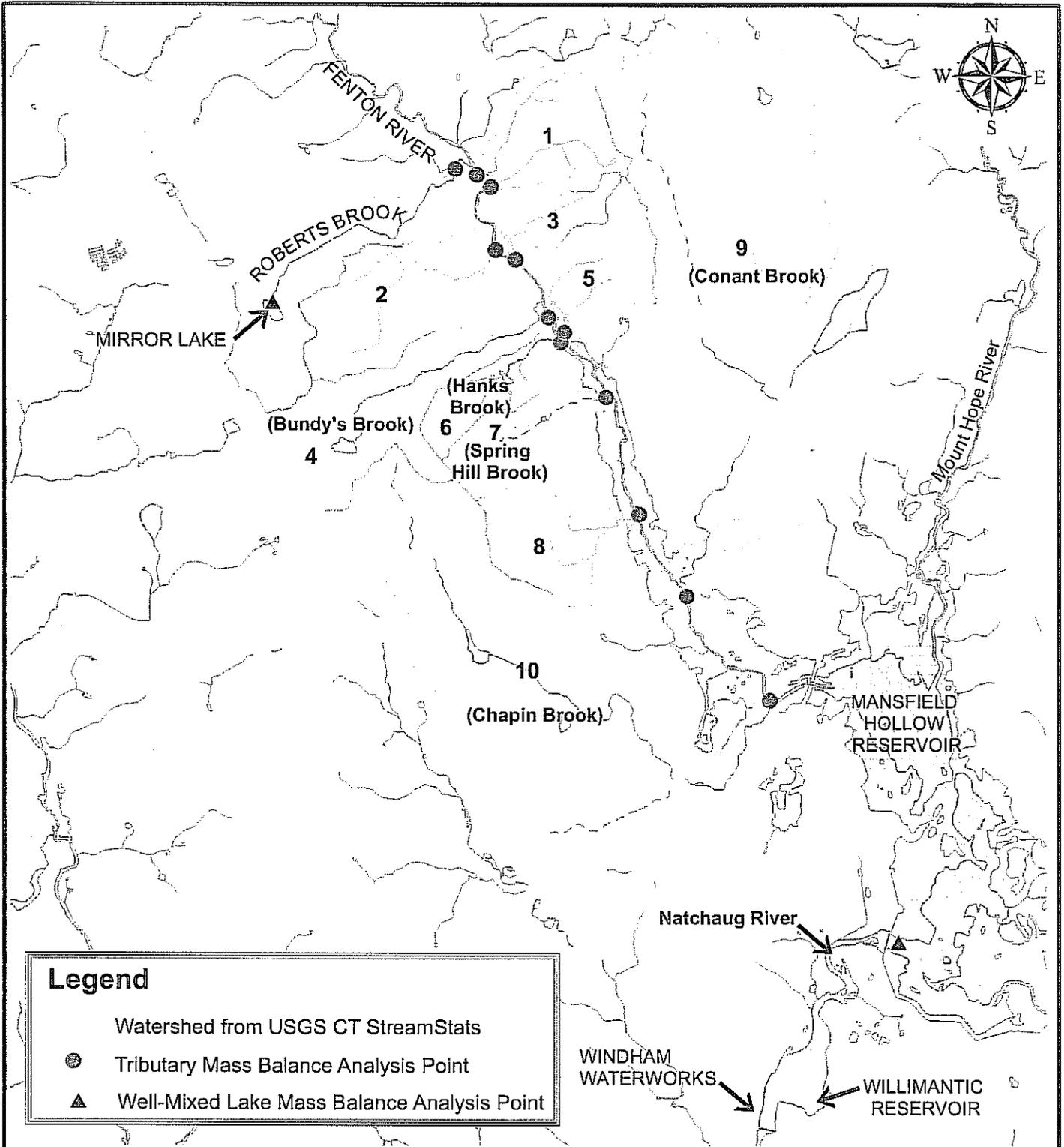
$$c = \frac{\sum(Q_{in}c_{in})}{\sum(Q_{out})+kV} \quad (3)$$

This equation assumes:

1. A constant lake volume as the average of the pre-dredging lake volume and the post-dredging lake volume.
  2. A constant flow rate ( $Q_{in} = Q_{out}$ ).
  3. The inflow ( $Q_{in}$ ) to the lake consists the return flow from the Geotubes and contribution from the watershed.
  4. Return flow can be as high as 2,000 gallons per minute (gpm), but will discharge to the geotextile tube dewatering system at an average rate of 1,500 gpm or 3.34 cubic feet per second (cfs) operating over a 12 hour operating day. The dewatered sediments captured in the geotextile tubes will retain some water which, in total, will reduce the return water flow by approximately 15% to a rate of about 2.84 cfs.
  5. The watershed contribution to Mirror Lake estimated using USGS Connecticut StreamStats. The July to October flow rate exceeded 50% of the time. This flow is expected to represent average conditions during the driest time of the year, when the potential for dilution is lowest.
1. All inputs (loadings) are instantaneously distributed throughout the volume.

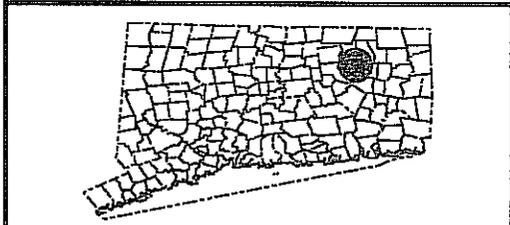
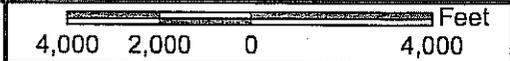


ATTACHMENT 2  
CALCULATIONS AND TABLES



**Legend**

- Watershed from USGS CT StreamStats
- Tributary Mass Balance Analysis Point
- ▲ Well-Mixed Lake Mass Balance Analysis Point



**LOCUS MAP**

**Mirror Lake Dredging  
University of Connecticut  
Storrs, Connecticut**

Project No: 15.0166134.00
Drawn by: ATR
Checked by: RTS
Date: MAY 2011
Figure No: <b>1</b>



ATTACHMENT 1

FIGURE 1 – LOCUS MAP



mandated by the EPA National Primary Drinking Water Standards, is concerned with their use in drinking water treatment. The proposed flocculent for the dredging of Mirror Lake is in almost every way the same as the NSF-approved flocculents, with the exception of the residual monomer content. This evaluation demonstrates that residual monomer introduced into Mirror Lake during the temporary activity of hydraulic dredging will be reduced to trace concentrations of  $7 \pm \times 10^{-5}$  ppm, several orders of magnitude less than the EPA standard of  $5 \times 10^{-4}$  ppm, therefore, GZA concludes that the proposed activity will have no negative impact on the public water supply at the Windham Waterworks drinking water treatment plant intake.

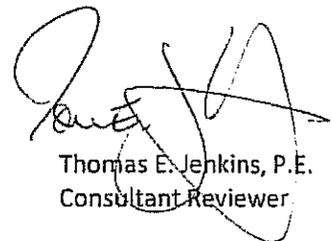
We appreciate your review of this evaluation of the flocculent proposed for use in dewatering sediment dredged from Mirror Lake and hope that the information provided allows DEP to seek acceptance of the proposed activity from DPH with respect to the public drinking water supply.

Please feel free to contact our office should you have questions or require additional information.

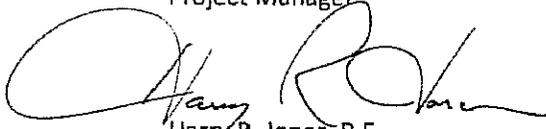
Sincerely,  
GZA GeoEnvironmental, Inc.



Nathaniel Y. Arai, P.E.  
Project Manager



Thomas E. Jenkins, P.E.  
Consultant Reviewer



Harry R. Jones, P.E.  
Principal in Charge

Attachments:

- 1 Figure 1 – Locus Map
- 2 Calculations and Tables
- 3 Ashland Product Statement

cc: Jason Coite – University of Connecticut  
Pat Bisacky – Connecticut Department of Public Health  
Gregory Padick – Director of Planning, Town of Mansfield  
James Hooper – Superintendent, Windham Waterworks  
Robert Miller – Director, Eastern Highlands Health District

From the mass balance analyses of the tributary confluences along the Fenton River, the concentration of residual acrylamide entering Mansfield Hollow Lake from the Fenton River is estimated to be  $\pm 0.003$  ppm.



As was done for Mirror Lake, the mass balance for a well-mixed lake was then applied to Mansfield Hollow Lake to estimate the residual acrylamide concentration exiting Mansfield Hollow Lake. The volume of Mansfield Hollow Lake was estimated from the Lake Bathymetry GIS datalayer from the Connecticut Department of Environmental Protection (2003). The outflow from Mansfield Hollow Lake was taken from the daily outflow data for the Mansfield Hollow Lake Dam, available on the U.S. Army Corps of Engineers website for Mansfield Hollow Lake. The data from June to October, 2010 were plotted to estimate the typical low flow of  $30 \pm$  cfs during that period (see Attachment 2, Figure 2).

The mass balance analysis indicates that the concentration of residual acrylamide exiting Mansfield Hollow Lake is reduced by approximately 98% from  $0.003 \pm$  ppm to  $7 \pm \times 10^{-5}$  ppm, due to dilution and biodegradation.

#### **ESTIMATED IMPACT RESULTS**

Mass balance analysis indicates that residual acrylamide discharged from the dredge dewatering process at Mirror Lake will be reduced to  $7 \pm \times 10^{-5}$  ppm by the time it is discharged over the Mansfield Hollow Lake Dam, a 99.98% concentration reduction. Analyses of the final reach through the Natchaug River and the Willimantic Reservoir to the Windham Waterworks treatment plant intake were not performed and it is anticipated that the concentration would be further diluted and degraded. The analysis utilizes low-flow conditions developed from USGS Connecticut StreamStats and from existing USGS and USACE gage data that represent the flow conditions expected during a summer period when the Mirror Lake dredging is proposed to take place. Low-flow conditions provide the least potential for dilution and, therefore, represent the probable worst case scenario for the fate of residual acrylamide as it travels downstream from Mirror Lake.

The analysis approach is relatively conservative. Not all inputs and parameters were evaluated including additional contributing areas of runoff within the Fenton River watershed not associated with tributary streams and including the travel path distance and travel time. Additional evaluation to incorporate these elements and more details would indicate even further reduction in the concentration of residual acrylamide in the environment as it travels between Mirror Lake and the Windham Waterworks treatment plant.

It is important to recognize that, while Mirror Lake does reside within the Windham Waterworks water supply watershed, the proposed activity is very distantly removed from the treatment plant intake. The EPA/NSF requirement limiting content of residual acrylamide in flocculents, as

translates to a concentration of 0.4 ppm (0.1% of 400 ppm) being applied to the dredge discharge entering the dewatering process.

Applying the same conservative assumption as that for the drinking water treatment process, no degradation or removal of monomer in the dewatering process is presumed to occur, therefore, the dewatering process return water discharge to Mirror Lake will be assumed to contain the same concentration of 0.4 ppm acrylamide applied to the dredge discharge entering the dewatering system.



#### Mirror Lake Discharge Concentration

The concentration of residual acrylamide exiting Mirror Lake was estimated by applying a mass balance for a well-mixed lake<sup>2</sup>, under the assumption that Mirror Lake would be sufficiently well mixed for a uniform distribution of residual acrylamide. Note, the inflow into the lake used in the mass balance equation was estimated using USGS Connecticut StreamStats. The interval of July to October was used to compute the flow rate that is exceeded 50% of the time, as this flow interval is expected to represent average conditions during the driest time of the year when the potential for dilution is lowest, thus computing a conservatively high residual acrylamide concentration. Calculations are described in detail in Attachment 2.

The mass balance analysis indicates that the concentration of residual acrylamide exiting Mirror Lake is reduced by approximately 33% from 0.4 ppm to  $\pm 0.299$  ppm, due to dilution and biodegradation.

#### Roberts Brook Discharge Concentration

Flow from Mirror Lake enters Roberts Brook, which flows for approximately 1.7 miles before joining the Fenton River. The watershed to Roberts Brook, at a point just upstream of where Roberts Brook enters the Fenton River, results in a July to October flow rate exceeded 50% of the time in Roberts Brook of 0.18 cfs, according to USGS Connecticut StreamStats. Any reduction in residual acrylamide concentration along Roberts Brook due to biodegradation or dispersion was neglected. Calculations are described in detail in Attachment 2.

The mass balance analysis for Roberts Brook upstream of the Fenton River estimates that the acrylamide concentration is diluted from 0.4 ppm to  $\pm 0.037$  ppm.

#### Fenton River Discharge Concentrations

Dilution of the residual acrylamide concentration where Roberts Brook enters the Fenton River was accounted for by applying a basic mass balance assuming complete mixing at the confluence.

---

<sup>2</sup> Chapra, Steven C. (1997) Surface Water Quality Modeling, McGraw-Hill, Boston, Massachusetts.



larger scale dredging, dewatering, and discharge process proposed for the Mirror Lake Dredging project. Characterization of the dredged material was made for consolidation and dewatering properties and for the determination of a suitable polymer flocculant. Laboratory testing of the chemical and toxicological characteristics of the simulated dewatering discharge (filtrate) was performed by Connecticut-certified laboratories to assess the discharge from the dredging and dewatering process. Results of laboratory testing have been previously submitted to DEP as supplementary information for the permit application.

The flocculant determined to provide the most efficient removal of suspended solids from the dredge discharge is the DrewFloc 2421 made by Ashland. This flocculant is a non-NSF approved flocculant in that it is not certified for use in drinking water applications. While taking care not to reveal proprietary information about DrewFloc 2421, Ashland has stated that the product contains no constituents listed in the DEP Water Quality Standards or the EPA National Primary Drinking Water Regulations, with the exception of acrylamide (see Attachment 3).

#### IMPACT EVALUATION

The criterion of concern for NSF certification of a polymer flocculant used in the treatment of drinking water is the residual monomer content as established by the U.S. Environmental Protection Agency (EPA) through the National Primary Drinking Water Regulations. Acrylamide is a monomer used in the production of polyacrylamide flocculents. Polymer flocculents applied to drinking water systems must contain <0.05% acrylamide (monomer) at a polymer dosage rate of 1 mg/L or Parts per Million (ppm). DrewFloc 2421, while not NSF-certified, has all of the exact same components in the formulation that NSF-certified Ashland polymer flocculents contain, with the exception of monomer content. The residual monomer quality control specification for DrewFloc 2421 is <0.1% residual monomer as opposed to the NSF standard of <0.05%. EPA has recognized that improvements have occurred in the polymerization processes that have reduced the monomer content in most polymers from 5% to 0.3%<sup>1</sup>. Ashland maintains a higher standard for the DrewFloc 2421 at <0.1% monomer content. This standard is very close to the EPA/NSF level.

#### Initial Discharge Concentration

The EPA/NSF acrylamide content limit to polymer flocculent dosage translates to an application concentration of 0.0005 ppm (0.05% of 1 ppm). Assuming no degradation or removal of monomer in the drinking water treatment process, it is assumed that the limit applies to residual monomer concentration at the end use (the tap). This is a conservative assumption.

Introduction and initiation of the dilution of DrewFloc 2421 and its residual monomer will occur at Mirror Lake, 10± miles along waterways upstream of the Windham Waterworks drinking water treatment plant intake on the Willimantic Reservoir in Mansfield Center. The bench testing process determined that the dewatering process for the dredged sediments from Mirror Lake will require a dosage of 400 ppm of DrewFloc 2421 flocculant containing 0.1% acrylamide. This

---

<sup>1</sup> U.S. Environmental Protection Agency, Technical Factsheet on: Acrylamide, excerpt from the National Primary Drinking Water Regulations.

GZA  
GeoEnvironmental, Inc.

Engineers and  
Scientists

June 7, 2011  
File No. 15.0166134.00

Mr. Ken Major  
CT Department of Environmental Protection  
Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division  
79 Elm Street  
Hartford, CT 06106



RE: Mirror Lake Dredging  
Flocculent Impact Evaluation  
Wastewater Discharge Permit  
Application No. 200903959

ONE FINANCIAL PLAZA  
1350 Main Street  
Suite 1400  
Springfield  
Massachusetts 01103  
413-726-2100  
Fax: 413-732-1249  
www.gza.com

Dear Mr. Major:

On behalf of The University of Connecticut, GZA GeoEnvironmental, Inc. (GZA) is submitting additional information regarding the use of a polymer flocculent in the sediment dewatering process for the Mirror Lake Dredging project, as proposed in the NPDES Permit Application for Wastewater Discharges for the proposed Mirror Lake hydraulic dredging project on the University of Connecticut Storrs Campus.

The CT Department of Public Health (DPH) provided comments to the Department of Environmental Protection (DEP) on UConn's Permit Application for Wastewater Discharges with two (2) letters, one on December 17, 2010 and another on March 1, 2011. Because Mirror Lake is within the watershed of a public drinking water supply (Willimantic Reservoir), the DPH Drinking Water Section, after consulting with Windham Water Works, a public water utility, recommended that the proponent use a flocculent which is already certified by NSF (formerly known as the National Sanitation Foundation) for use in drinking water applications. Alternatively, should the proponent use a flocculent that is not NSF-certified, DPH requested that information be provided that demonstrates no negative impact to the public drinking water supply with use of such a flocculent. The purpose of this letter is to provide that information.

According to the Ashland Hercules Water Technologies (Ashland), the flocculent manufacturer, the concentration of residual acrylamide is the sole concern of NSF in certifying a flocculent used in the treatment of drinking water. While NSF requires that residual acrylamide content not exceed  $5 \times 10^{-4}$  ppm, our analysis predicts that the residual acrylamide will be reduced to  $7 \pm \times 10^{-5}$  ppm by the time it reaches the Willimantic Reservoir, the downstream public water supply source. This concentration meets the NSF criterion for certification of substances used in drinking water treatment applications.

#### SELECTION OF PROPOSED FLOCCULENT

Mirror Lake water and soft sediment samples were collected to run bench scale processing tests using geotextile fabric dewatering tubes. The tests were performed in the labs of Mineral Processing Services, LLC (MPS) of South Portland, Maine in July and August 2010, to simulate the

**Mansfield Open Space Preservation Committee**  
DRAFT Minutes of May 17, 2011 meeting

Members present: Jim Morrow (chair), Quentin Kessel, Vicky Wetherell, Ken Feathers, Susan Westa.

1. Meeting was called to order at 7:35.
2. Vicky was appointed acting secretary.
3. Minutes of the April 19, 2011 meeting were approved.
4. **Old Business**
  - The committee continued discussion of possible open space initiatives.
6. Meeting adjourned at 9:15.
7. Next meeting on June 21, 2011.

PAGE  
BREAK

MINUTES  
MANSFIELD PLANNING AND ZONING COMMISSION  
Regular Meeting  
Monday, May 16, 2011  
Council Chamber, Audrey P. Beck Municipal Building

Members present: R. Favretti (Chairman), M. Beal, J. Goodwin, R. Hall, K. Holt, G. Lewis, P. Plante, B. Pociask, B. Ryan  
Alternates present: K. Rawn, V. Ward  
Alternates absent: F. Loxsom,  
Staff Present: Gregory J. Padick, Director of Planning, Curt Hirsch, Zoning Agent

Chairman Favretti called the meeting to order at 7:07 p.m. Ward was appointed to act if needed.

**Minutes:**

05-02-11- Plante MOVED, Hall seconded, to approve the 5/2/11 minutes with one addition - that Rawn was appointed to act if needed. MOTION PASSED with all in favor except Ward who disqualified herself.

**Zoning Agent's Report:**

Hirsch noted that one of the clothing drop boxes has been removed at Four Corners. He will continue to monitor the others.

**Old Business:**

2. **Approval Request: Revised Plans for exhibit building Paideia Greek Theater Project, 28 Dog Lane, File #1049-7**  
Tabled - awaiting information from applicant.
3. **Request to stop collecting bond escrow funds for Freedom Green Phase 4C**  
Tabled - awaiting information from applicant.
4. **Request to review and revise Plan of Conservation and Development regarding Hunting Lodge Road area**  
Tabled - referred to Regulatory Review Committee.
5. **4-Lot Subdivision Application, (3 New Lots) Wormwood Hill & Gurleyville Roads, S. Plimpton o/a, PZC File #1298**  
Tabled pending 6/6/11 Continued Public Hearing.
6. **Application to amend the Zoning Regulation to add Place of Assembly-Banquet Hall as a permitted use in the Neighborhood Business 2 Zone, M. Healy, applicant, PZC File #1301**  
Tabled pending 6/6/11 Public Hearing.

**New Business:**

1. **Gravel Permit Renewals**
  - A. **Banis property on Pleasant Valley Road File #1164**
  - B. **Hall property on Old Mansfield Hollow Road File #910-2**
  - C. **Green Property, 1090 Stafford Road PZC File #1258**  
Holt MOVED, Pociask seconded, that the Commission set a public hearing for June 20, 2011, for the purpose of hearing special permit, gravel renewal requests. MOTION PASSED UNANIMOUSLY.

**Reports from Officers and Committees:**

Chairman Beal announced that the next meeting is scheduled for 5/25/11 at 1:15 p.m. in Conference Room B. Chairman Favretti reminded members of the Field Trip on Tuesday, May 17, 2011 at 1:30 p.m.

**Communications:**

Communications listed on the agenda were noted.

**Public Hearing:**

**Special Permit Application, Proposed Veterinary Hospital, 266 Stafford Rd, W. Ernst-applicant/ Y. Desiato-owner, PZC File #1300**

Chairman Favretti opened the Public Hearing at 7:15 p.m. Members present were Favretti, Beal, Goodwin, Hall, Holt, Lewis, Plante, Pociask, Ryan and alternates Rawn and Ward. Padick read the legal notice as it appeared in the Chronicle on May 3 and May 11, 2011, and noted the following communications received and distributed to the Commission in addition to the applicant's submissions which included a revised landscape plan: 5/12/11 memo from Grant Meitzler, Assistant Town Engineer; 5/9/11 memo from John DeWolf, Member of Mansfield Advisory Committee on Person with Disabilities; 5/10/11 email from Joy Mercure, 125 Meadowbrook Lane; 5/6/11 memo from Gregory Padick, Director of Planning; 5/5/11 memo from John Jackman, Deputy Chief/Fire Marshal; 5/2/11 letter from John DeCastro, CT DOT; 5/2/11 email from Annette and Roger Whitmore, 37 Higgins Highway; 4/28/11 email from Kathy and Tad McKinney, 22 Higgins Highway; 4/25/11 email from Doreen Palmer, 32 Higgins Highway; and a 4/18/11 plan approval memo from Geoffrey Havens, EHHD.

Wendy Ernst, applicant, addressed concerns raised in Padick's memo and agreed with all recommendations made by Padick and Meitzler.

Lionel Desrosiers, 259 Stafford Road, expressed concern for the traffic and speed on the road and the effects the addition of a business will have. Desrosiers asked if Ernst intends to practice large animal care in the future and if any consideration had been given to relocating the entrance/exit driveway on Stearns Road.

Jim Cayer, 393 Stearns Road, questioned if kenneling will be part of her business plan, expressing concern over noise. Cayer also expressed concern over light pollution and asked for more details on proposed exterior lighting and the potential for people wandering onto his property.

Favretti noted no further questions or comments from the public or the Commission. Beal MOVED, Plante seconded, to close the Public Hearing at 7:43 p.m. MOTION PASSED UNANIMOUSLY. Hall volunteered to work with staff to draft a motion for the next meeting.

**Public Hearing:**

**4//14/11 Draft revisions to the Zoning Regulations Re: Agricultural Uses, PZC File #907-36**

Chairman Favretti opened the Public Hearing at 7:44 p.m. Members present were Favretti, Beal, Goodwin, Hall, Holt, Lewis, Plante, Pociask, Ryan and alternates Rawn and Ward. Padick read the legal notice as it appeared in the Chronicle on May 3 and May 11, 2011, and noted the following communications received and distributed to the Commission: 5/16/11 letter from Attorney O'Brien; 5/16/11 email from Donald and Janis Hoyle, 125a Bassetts Bridge Road; 5/15/11 email from Ann Kouatly, 98 Fern Road; 5/10/11 email from Barbara Casey, 70 Davis Road; 5/10/11 email from Suzanne Hathaway, 117 Birch Road; 5/10/11 email from Careen Jennings, 5d Sycamore Drive; 5/5/11 memo from Gregory Padick, Director of Planning; and a 5/4/11 letter from Ted Melinosky, Vice Chair, WINCOG RPC, which Padick read into the record.

Padick reviewed the following key components of the proposed revisions to the Zoning Regulations regarding agricultural uses: A new Art. X, Sec. T that reorganizes, clarifies and adds new provisions designed to encourage agricultural uses subject to standards to address potential environmental, neighborhood impact or animal welfare issues; Revised farm stand provisions including new permitted-by-right standards for certain stands and new signage provisions; Revised permitted-by-right provisions for the Keeping of Farm Animals. Non-farmable wetlands are excluded from the acreage needed to qualify as a principal farm use and from acreage per animal unit calculations for Accessory/Secondary farm uses; Revised animal unit provisions and new special permit standards that allow more animals than permitted by right on lots that do not qualify as a principal farm; New permitted-by-right provisions for student projects.

Al Cyr, representing the Agriculture Committee, read a statement into the record and submitted a copy for the file.

Ed Wazer, 253 Maple Road, Shundhai Farm, thanked the Commissioners for their time and effort, noting that this is a big improvement over the existing regulations, but that there is still room for improvement. He discussed a few areas that he feels should be revisited: the farm animal acreage chart; that many local farms are on small parcels of land and requiring a 100' setback from property lines greatly restricts activity on small farms; the concern for impact in neighborhoods, noting that some of the most viable farmland is in neighborhood settings. He added that producing food locally saves money.

Robert Roberge, 32 Woodland Road, asked about enforcement of the regulations, noting that permitted-by-right activities should be granted unconditionally. He also wondered who verifies if an animal is neutered or not, and is it a state requirement for certain animals to be neutered after one year.

Charles Dainton, 96 Mansfield City Road, questioned if "non-farmable wetlands" is defined and expressed concern about mandatory neutering of male animals. He also questioned the requirement of maintaining a cover crop in pastures.

Al Cyr, Agriculture Committee, clarified that the neutering of male animals is proposed only for smaller lots, and cover crops on pastures (not pens, arenas, or riding arena) is proposed to prevent erosion.

Cynthia Opterbek, questioned the 100' setback if a lot is only 200' wide, because farming wouldn't be feasible according to the new regulation.

Chris Keuffner, stated that getting a waiver or special permit may be too cumbersome for some people and he's concerned for the impact this will have on local farming.

Favretti noted no further questions or comments from the public or the Commission. Plante MOVED, Beal seconded, to close the Public Hearing at 8:36 p.m. MOTION PASSED UNANIMOUSLY.

### **Public Hearing:**

#### **3/30/11 Draft revisions to numerous sections of the Zoning Regulations, PZC File #907-35**

Chairman Favretti opened the Public Hearing at 8:44 p.m. Members present were Favretti, Beal, Goodwin, Hall, Holt, Lewis, Plante, Pociask, Ryan and alternates Rawn and Ward. Padick read the legal notice as it appeared in the Chronicle on May 3 and May 11, 2011, and noted the following communications received and distributed to the Commission: 5/16/11 letter from Attorney O'Brien; 5/5/11 memo from Gregory Padick, Director of Planning; 4/19/11 memo from Open Space Preservation Committee; and a 5/4/11 letter from Ted Melinosky, Vice Chair, WINCOG RPC, which Padick read into the record.

Padick reviewed the following key components of the proposed revisions to the Zoning Regulations: New Design Criteria for the Planned Business-3 zone (Four Corners Area); Revised application and approval criteria to protect historic resources and new zoning permit, site plan and special permit approval criteria for exterior construction in designated historic village areas; New revisions to existing Architectural and Design Standards; New setback provisions for outdoor recreational facilities; Revised site plan and special permit standards for lighting improvements; Revised provisions for sidewalk, bikeway, trail and other pedestrian and bicycle improvements; Revised notification provisions; Revised standards for refuse areas.

Favretti noted no questions or comments from the public or the Commission. Plante MOVED, Holt seconded, to close the Public Hearing at 9:12 p.m. MOTION PASSED UNANIMOUSLY.

**Old Business:**

1. **Site/Building Modification Request, Proposed gym/fitness center at 1768 Storrs Road**

Brook Magouirk, applicant, submitted return receipts verifying neighborhood notification. Favretti noted no comments or questions from the public or Commission.

Goodwin MOVED, Holt seconded, that the Planning & Zoning Commission authorizes the PZC Chairman and the Zoning Agent to approve with conditions, the 4/27/11 Request for Site/Building Modifications submitted by Brooke Magouirk and as described in the applicant's Statement of Use and other submissions. This conditional approval does not anticipate any significant changes to the site or impacts on the neighborhood. The conditions are:

1. Screening shall be re-established around the dumpster pad;
2. Any changes to the remaining existing uses or new additional uses of the site shall require further PZC review and approval;
3. All conditions of the PZC's 2/21/06 approval for the 120-seat chapel use of the site shall remain in effect.

MOTION PASSED UNANIMOUSLY.

**Adjournment:**

Chairman Favretti declared the meeting adjourned at 9:15 p.m.

Respectfully submitted,

Katherine Holt, Secretary

Memorandum:

May 17, 2011

To: Inland Wetland Agency  
From: Grant Meitzler, Inland Wetland Agent  
Re: Monthly Business

**W1419 - Chernushek - hearing on Order**

- 3.10.09: The hearing on the Order remains open and should continue until the permit application under consideration is acted upon.  
(The Order was dropped on approval of the application required in the Order.)
- 4.30.09: Former ryé grass seeding is beginning to show green. I spoke with Mr. Chernushek this afternoon who indicated health problems that delayed his starting but indicated he will be working this weekend. I will update on this Monday evening.
- 5.26.09: A light cover of grass growth has come in. Mr. Chernushek indicates health problems and two related deaths have delayed his start of work since the permit approval was granted. It appears that some light work has started. He has further indicated that he will start a vacation on June 22, 2009 to finish the work.
- 6.13.09: Work is underway.
- 6.21.09: Bulldozer work has been completed - finish work remains. The additional silt fencing has been placed along the northerly wetlands crossing, and the additional pipe under the southerly crossing has been installed. Remaining work includes finish grading along edges, spreading stockpiled topsoil, and establishing grass growth.
- 7.01.09: I spoke with Mr. Chernushek who indicated he expects work to be completed by September 1, 2009. (Site photo attached).
- 9.03.09: Mr. Chernushek has been working on levelling and grading. The formerly seeded areas have become fairly thick growth surrounding the central wet areas. He has further indicated that with the combination of weather and the slower moving of earth with the payloader compared to the earlier rented bulldozer has led him to contact contractors for earth moving estimates which have not yet been received. The site is not yet finished but has remained quite stable.
- 9.12.09: I met with Mr. Chernushek today and discussed again what his plans are for stabilizing this work site.
- 10.01.09: Mr. Chernushek indicated he has not heard back from the contractor he had spoken with about removing material, and is in progress of contacting others. In discussion is removal of material from the site either within the 100 cubic yard limit or obtaining a permit for such removal.
- 10.28.09: Mr. Chernushek has indicated he has made arrangements with DeSiato Sand & Gravel to remove 750 cubic yards of material. Staff is in the process of clarifying permit requirements.
- W1445 - Chernushek - application for gravel removal from site**
- 11.30.09: Packet of information representing submissions by Mr. Chernushek, Mr. DeSiato and myself is in this agenda packet as Mr. Chernushek's request for modification.
- 12.29.09: Preparation of required information for PZC special permit application is in progress. Tabling any action until the February 1, 2010 meeting is recommended.
- 1.12.10: 65 day extension of time received.

- 2.18.10: No new information has been received.
- 2.25.10: This application has been **withdrawn**.
- 6.30.10: As viewed from the adjacent property, the upstream and downstream areas have grown to a decent protected surface. I did not see indication of sediment movement.
- 10.26.10: A sale of the East portion of the Chernushek property has been in negotiation.
- 12.27.10: The property exchange has been completed. The owner is now the neighboring property owner Bernie Brodin. He has indicated his intention to stabilize the area as weather permits.
- 4.25.11: Mr. Brodin indicates he is starting with grading and spreading hay and seed to stabilize disturbed areas.

**Mansfield Auto Parts - Route 32**

- 2.18.10: Same - they are in the process of rebuilding the engine on the payloader.
- 3.30.10: Same - Mr. Bednarczyk indicates a continuing problem finding engine parts.
- 4.13.10: Owner indicates the payloader is operating again.
- 4.15.10: Owner indicates he will have the cars moved this week.
- 4.23.10: **No vehicles are within 25' of wetlands.**
- 5.17.10: Inspection - no vehicles are within 25' of wetlands.
- 6.02.10: Inspection - no vehicles are within 25' of wetlands.
- 6.23.10: Inspection - no vehicles are within 25' of wetlands.
- 7.15.10: Inspection - no vehicles are within 25' of wetlands.
- 9.01.10: Inspection - no vehicles are within 25' of wetlands.  
Mr. Bednarczyk has started removing tires from the westerly part of his site using roll-off containers. With this arrangement a moderately steady rate of removal of the tires should be possible to maintain until the tires are completely removed.
- 9.28.10: Inspection - no vehicles are within 25' of wetlands.  
Tire removal is continuing with 1 to 2 roll-off containers being removed per month.
- 10.07.10: Inspection - no vehicles are within 25' of wetlands.  
Tire removal has been continuing.
- 11.29.10: Inspection - no vehicles are within 25' of wetlands.  
Owner has been trucking cars for crushing with 6 tires per vehicle. He indicates 3 cars per day or 18 tires per day. The actual number is probably lower than 18.
- 12.23.10: Inspection - no vehicles are within 25' of wetlands.
- 1.07.11: Inspection - no vehicles are within 25' of wetlands.
- 1.20.11: Vehicle storage areas are snowed in and inaccessible.
- 1.26.11: Snows remain, although some clearing has been done I could not count on being able to get out.
- 2.24.11: Inspection - no vehicles are within 25' of wetlands.
- 3.09.11: Inspection - no vehicles are within 25' of wetlands.
- 3.22.11: Inspection - no vehicles are within 25' of wetlands.
- 4.25.11: Inspection - no vehicles are within 25' of wetlands.
- 5.17.11: Inspection - no vehicles are within 25' of wetlands.  
Mr. Bednarczyk's estimate is that approximately 100 tires per month are being removed from the site.

CONNECTICUT  
FARMLAND  
T R U S T

PRESERVING WORKING LANDS FOR FUTURE GENERATIONS

May 25, 2011

Mansfield Conservation Commission  
4 South Eageville Road  
Mansfield, CT 06268

As Conservation Commission Chair, you might receive queries from local farmers and other PA 490 landowners as to what non-development options are available them. Connecticut Farmland Trust (CFT) can help.

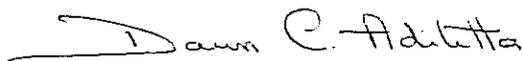
Enclosed is a guide called *Conservation Options for Connecticut Farmland*. Published by the American Farmland Trust, the booklet provides updated information on state and federal programs available to protect farmland and fund farm conservation practices. A PDF file of the comprehensive guide can be found at [http://www.farmlandinfo.org/documents/38186/CT\\_Conservation\\_Options.pdf](http://www.farmlandinfo.org/documents/38186/CT_Conservation_Options.pdf)

In addition, Elisabeth Moore, CFT's Conservation Director, is available to answer your specific questions and help guide landowners through the process of reviewing possible conservation options. She can be reached at (860) 247-0202, ext. 224, or [emoore@ctfarmland.org](mailto:emoore@ctfarmland.org)

To date, Connecticut Farmland Trust has preserved 2,096 acres on 26 farms and assisted partner organizations in saving 789 acres. Please visit our website, [www.ctfarmland.org](http://www.ctfarmland.org), for more information on what we do and how we do it.

Thank you for your assistance in the important work of permanently protecting Connecticut's farmland.

Respectfully,



Dawn C. Adiletta  
Interim Executive Director

P.S. Enclosed is a flyer for our major annual fundraiser – *Celebrations of Connecticut Farms!* We would appreciate it if you would post it in your town hall.

PAGE  
BREAK

# CONSERVATION OPTIONS FOR CONNECTICUT FARMLAND

A Guide for Landowners, Land Trusts & Municipalities



# WORKING TOGETHER FOR FARMLAND PRESERVATION IN CONNECTICUT

Connecticut is home to several organizations that work collaboratively on farmland preservation. Each of these public agencies and organizations plays a vital role in saving Connecticut's valuable and vanishing farmland.

Connecticut Department of Agriculture  
www.ct.gov/DOAG

The Connecticut Department of Agriculture's Farmland Preservation Program was established in 1978. Its expert staff works hard to protect the best farmland soils in the state to maintain and preserve agricultural land for the future. As of December 2009, the CT Farmland Preservation Program had preserved over 35,570 acres on 265 farms, the majority of protected farmland in the state.



USDA Natural Resources  
Conservation Service (NRCS)  
www.ct.nrcs.usda.gov



NRCS is the primary federal agency working to protect natural resources on privately owned land by providing technical and financial assistance to plan and implement conservation stewardship practices. NRCS also administers the Farm and Ranch Lands Protection Program (FRPP), which provides funding to purchase conservation easements on farmland. The agency provides information about soils and other natural resources to communities for land use planning.

Connecticut Farmland Trust (CFT)  
www.CTFarmland.org

The mission of CFT is to permanently protect Connecticut's working



farmland; it is the only private statewide land trust dedicated to protecting Connecticut's farmland. CFT's experienced staff provides technical assistance and outreach to agricultural landowners interested in farmland preservation. CFT is equipped to negotiate and hold agricultural conservation easements and provide innovative, flexible and timely solutions to farm owners across the state. Through partnerships with towns, local land trusts, conservation organizations, individual donors, and state and federal agencies, CFT is able to leverage public and private funds and to provide landowners with conservation options that might not otherwise exist. As of February 2010, CFT held conservation easements on 20 farms totaling 1,766 acres in Connecticut.

American Farmland Trust (AFT)  
www.farmland.org

AFT is the only national non-profit membership organization dedicated to helping America's farmers and ranchers protect their land and produce a healthier environment. Founded in 1980, AFT is the nation's leading advocate for healthy farms, healthy food and a healthy environment. Its work has helped save more than three million acres of farm and ranch land from development and has encouraged thousands of communities around the country to plan proactively for agriculture, helping to sustain local farms and the food and benefits they provide. CFT and AFT are not affiliated, although the two organizations work closely together.



Working Lands Alliance (WLA)  
www.WorkingLandsAlliance.org

A project of AFT, the WLA is a coalition of Connecticut organizations, citizens and businesses working to raise awareness of the need to save Connecticut's valuable and vanishing farmland. WLA members reflect the diversity of people who share a concern about farmland preservation in Connecticut—farmers, planners, conservationists, anti-hunger advocates, historic preservationists, chefs and food retailers. WLA encourages anyone who cares about the future of Connecticut's family farms to join its efforts to educate policy leaders about the importance and benefits of farmland protection. WLA is *your* voice for farmland preservation in Connecticut. Sign up online to receive updates and alerts about farmland preservation policy in Connecticut.



Working Lands Alliance  
A Project of American Farmland Trust

Funding for *Conservation Options for Connecticut Farmland* was provided by the Connecticut Department of Agriculture.

Thanks also to the following individuals who contributed revisions to this publication: Joseph Bonelli, Bonnie Burr, Phil Chester, Joseph Dippel, John Guskowski, Eric Hammerling, Kip Kolesinskas, Elisabeth Moore, Joan Nichols, Steve Reviczky, Henry Talmage and Amy Zeiner. The following AFT staff assisted in the guide's writing, editing and design: Ben Bowell, Cris Coffin, Jiff Martin and Doris Mittasch.

To obtain copies of this publication, contact the Connecticut field office of American Farmland Trust at (860) 683-4230 or visit [www.farmland.org/connecticut](http://www.farmland.org/connecticut).

## Table of Contents

Introduction	1	Can I Protect My Forestland Too?	10
Agricultural Conservation Easements	1	Role for Municipalities and Communities	11
Frequently Asked Questions	2	Role for Land Trusts	13
Estate Planning and Farm Transfer	4	Additional Funding Available	14
Tax Considerations	5	State Policies	17
Farmland Protection Programs in Connecticut	7	Contact Information and Resources	18

## Frequently Asked Questions About Agricultural Conservation Easements

The following answers to frequently asked questions about easements should help landowners understand some of the legal, financial and practical implications of placing an easement on their property.

What is an agricultural conservation easement?

An agricultural conservation easement is a deed restriction or deed covenant that landowners donate or are paid to place on their property.

Typically, an easement permanently restricts residential, industrial and non-agricultural commercial development of the property. The landowner retains ownership of the land, and the easement is held by the entity to which the easement has been donated or sold. The entity that holds the easement is responsible for ensuring that the terms of the easement are upheld. Most easements are perpetual; those that are not are generally referred to as "term" easements.

Why should a landowner donate or sell an agricultural conservation easement?

For many farmers and landowners who own farmland, their land is their primary asset. The sale of development rights provides landowners with a significant source of capital to improve or diversify a farm operation, purchase additional land, pay off debt, offer an inheritance to non-farming children or meet family financial needs without having to sell some or all of their land. For some landowners, donating an easement—or selling an easement at less than its appraised value—provides certain tax advantages, since the donated value of the easement can be taken as a charitable deduction from federal income taxes.

What land qualifies?

Eligibility depends on whether a landowner is donating or selling an easement, and to whom.

Most land trusts have criteria they use to decide whether or not to accept the donation of a conservation easement on farmland.

Typically, these criteria consider the type and extent of a property's agricultural and other natural resources. Most land trusts do not require a minimum acreage or that the property be in active agricultural use.

To qualify for the CT Farmland Preservation Program, the property must be actively farmed, include at least 30 acres of cropland and have a high percentage of prime or important agricultural soils.

The Connecticut Open Space and Watershed Land Acquisition Grant Program, which can be used by towns and land trusts to help finance the purchase of farmland and agricultural conservation easements, has no minimum acreage requirements but gives preference to land with a diversity of natural resources.

Landowners generally negotiate with the land trust or government program over how their application will be configured and how much of their land to place under easement. While easements can be written to exclude farm residences and buildings entirely, most easements include the farm's existing houses and farm buildings. Wetlands and forested land that are part of a farm can be included in the easement but may be excluded based on the negotiation and their contributing attributes to the farm.

Will an easement require a change in how the land is farmed?

Probably not. Most agricultural conservation easements are designed to be flexible to allow farmers to farm as they have been, and to change their farm operation as they see fit, provided there is minimal impact to the protected soils.

For example, easements for the CT Farmland Preservation Program usually allow landowners to install agriculture-related improvements such as fencing, irrigation systems and manure storage facilities. Most improvements require prior approval and are limited to certain areas of the farm. Farmers may also plant or raise any type of agricultural commodity, provided the soils are protected. Similarly, the federal Farm and Ranch Lands Protection Program (FRPP) requires landowners to develop and implement farm conservation plans; other easements may require landowners to farm according to best agricultural management practices.

Because it limits the construction of agricultural-related structures, the CT Open Space and Watershed Land Acquisition Grant Program is more restrictive in its easements than the state Farmland Preservation or federal FRPP programs.

What improvements can be made to the property?

Easements limit subdivision, residential and non-agricultural commercial development, and other uses that would adversely affect the property's agricultural resources.

## Frequently Asked Questions (continued)

Most easements permit limited development related to the farm operation and allow construction of farm buildings and retail farm stands. Some easements may limit new construction to a designated "farmstead area" or limit the total amount of new construction.

Existing houses and buildings may be included in an easement and most easements generally allow for improvements to or reconstruction of those buildings. Some easements may also allow a landowner to reserve one or more future residential building lots. When an easement provides for a future house lot, the location of the lot(s) is usually designated at the time the easement is drafted and building size and other restrictions may apply.

Is public access required?

Most agricultural conservation easements do not require public access.

The exception is the CT Open Space and Watershed Land Acquisition Grant Program, which requires some public access on land protected through its program. Access may be restricted to portions of the property that are not actively farmed. Most easements do not either require or prohibit such non-commercial recreational uses of the property as hunting, fishing and horseback riding. The landowner retains the right to allow or restrict those uses.

Can the property be sold to anyone?

Yes. Landowners can transfer or sell their property to anyone they choose.

However, all future owners of the property are required to abide by the terms of the easement. A small number of easements require that landowners who sell their property give a right of first refusal to

the entity that holds the easement. Most require the property to be sold in its entirety.

Who pays the property taxes?

The landowner remains responsible for all property taxes and must still apply to the local tax assessor to be eligible for Public Act 490, Connecticut's use value assessment law.

However, once enrolled in Public Act 490, land protected with a permanent conservation easement is not subject to a tax penalty when sold or transferred [see inset on page 17].

What if the landowner can no longer farm the land?

An agricultural conservation easement generally does not require that the land subject to the easement be actively farmed.

An easement can only ensure that the land is protected from incompatible uses, so it will always remain available for agricultural use.

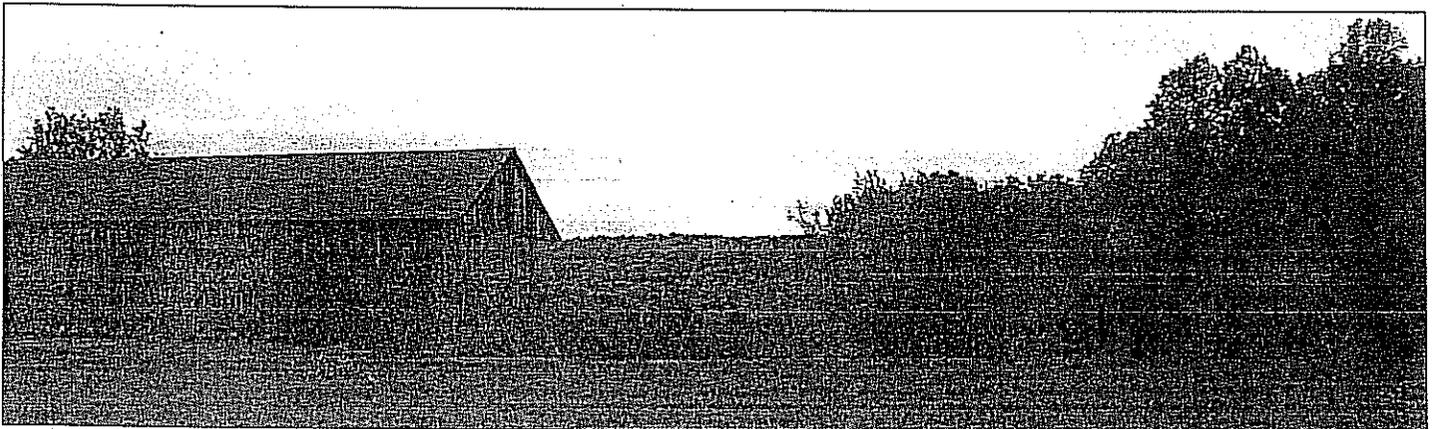
Will a conservation easement affect a landowner's mortgage?

It may, because an easement limits the future uses of the property and typically reduces its value.

Depending on the amount of the mortgage or other monetary lien on the property, the mortgage or lien will need to be discharged prior to the easement or subordinated to the easement.

What if a landowner can't wait or doesn't qualify for a state program?

Other options may exist. Many local and statewide land trusts work with landowners. Groups such as CT Farmland Trust often assist landowners in finding interim financing or other funding sources.



Patrick McMahon photo

## Estate Planning and Farm Transfer

Proper estate planning can provide the framework for a smooth transition of farm ownership and management. It can address the needs of all family members, even those who leave the operation. It can help reduce high inheritance taxes on land made more valuable by inflation and non-farm development pressure. In addition, estate planning is important to help facilitate the transfer of land from one generation to the next. Without estate planning, families may find themselves after the death of a loved one in the position of having to sell land or other farm assets in order to pay taxes or to settle an estate.

A good estate plan should accomplish at least four goals:

- Transfer ownership and management of the agricultural operation, land and other assets
- Avoid unnecessary income, gift and estate taxes
- Ensure financial security and peace of mind for all generations
- Develop the next generation's management capacity

**Inventory** A first step in the estate planning process is to take an inventory of assets, understand who owns what and how titles to all property are held. Families should consider all aspects of the farm business including land, machinery and equipment, farm buildings and structures, and livestock and how to appropriately value these assets. It is also important to consider liquid assets—cash and cash equivalents—that can play an important role in dividing farm estates.

**Define Goals** The next important element of estate planning is to set goals and then to revisit them over time as families, finances, priorities and laws change.

Many farm families do not have formal goals. It is important to identify goals both individually and collectively, write them down, and discuss them with family members to reconcile potential conflicts. Retiring farmers may



Connecticut Farmland Trust photo

or may not be interested in remaining involved in the farm business. Members of the next generation may wish to maintain or change direction of the farm business while others may not be interested in any aspect of farm management.

The estate planning and farm transfer process is also a good time for landowners to evaluate their business structure and decide whether it meets their current needs and helps achieve their goals. They should choose the most appropriate form of business organization, whether it is a sole proprietorship, limited liability company (LLC), partnership or corporation.

**Available Tools** Some of the tools available include:

- A will is an important part of the plan because it names beneficiaries, nominates an executor and appoints guardians for dependents; but a will alone cannot guarantee a secure future for the farm family, land or business.
- Purchase of agricultural conservation easements programs—further discussed in this guide—protect farmland, can reduce taxes and provide cash for retirement and estate planning needs.
- Annual gifting can help transfer the business and reduce taxes.
- Life insurance can provide liquid assets that may be used to pay debt, establish trusts, provide for non-farming heirs and offset the donation of an easement or pay estate taxes.
- Limited Partnerships, LLCs and corporations can allow for separation of management and ownership of the business, if desired, while allowing a business to continue its existence beyond the period of its owners.
- Long-term care insurance can be expensive but can also protect family assets from being used to pay for nursing home costs.
- Trusts can provide financial security for surviving spouses, children and grandchildren, while also giving direction to the beneficiaries.

Farmers should pay close attention to both state and federal regulations as they relate to estate planning and should contact their legal, financial and tax advisors to determine how best to use these tools.

American Farmland Trust has published *Your Land is Your Legacy: A Guide to Planning for the Future of Your Farm*, which provides additional guidance on estate planning and farm transfer; order by calling (800) 370-4879.



Jones Family Farms photo

## Tax Considerations

**Donating** The donation of an agricultural conservation easement generally qualifies as a tax-deductible charitable gift. This means a landowner can claim the value of the easement as a federal income tax deduction.

The value of an agricultural conservation easement is the difference between the property's fair market value (the "before" value) and its value as restricted by the easement (the "after" value), as determined by a qualified appraiser.

Many land trusts in Connecticut accept donations of easements on farmland, including Connecticut Farmland Trust (CFT). Landowners may also donate an easement to a municipality, or to the state through the CT Farmland Preservation Program, provided the land qualifies for the program.

**Bargain Sales** Landowners seeking to sell an agricultural conservation easement may choose, or be asked, to sell the easement at less than the easement's appraised value. This is referred to as a bargain sale. Landowners may claim a federal tax deduction for the donated portion of the sale—the difference between the easement's appraised value and its actual sales price.

**Federal Tax Code** While the entire value of a donated easement, or, in the case of a bargain sale, the value of the donation, is deductible, federal tax law limits the amount of deduction a landowner can claim in any given year. Changes made to the federal tax code in 2006 now allow landowners to claim a deduction of up to 50 percent of their adjusted gross income in any given year and to spread those deductions over a period of 16 years. For qualified farmers—taxpayers whose gross income from farming is greater than 50 percent of their gross income for the taxable year—a larger annual deduction is allowed; under the 2006 tax code changes, farmers can now deduct the value of their easement up to 100 percent of their adjusted gross income in any given year.

The 2006 changes to the federal tax code were extended for an additional two years—through the end of 2009. At the time of this publication, it is not clear if and when this benefit will be extended, although Congress will likely address the issue in 2010. To check on the latest status, visit the Land Trust Alliance Web site at [www.landtrustalliance.org](http://www.landtrustalliance.org).

Landowners considering a bargain sale or donation of an easement that occurs after 2010 should consult with a tax advisor regarding what federal rules may be in effect at that time. In general, because federal and state tax laws change frequently, landowners considering a donation or bargain sale should consult with a tax advisor regarding current applicable federal and state conservation tax provisions.

### Special Use Valuation Section 2032A

IRC Section 2032A allows the executor of certain estates in which the real and personal property included in a farm or other business comprises a substantial portion of the decedent's assets to elect to have the farm assets valued based on the income that the farm can generate as an agricultural operation (as opposed to its development potential).

There are many eligibility criteria for this special use valuation including: the heir or a member of his family must have been using the property for a qualified use at the time of his death, 25 percent of the value of the estate must be farm real estate, and a member of the decedent's family must agree to operate the farm, ranch or closely held business for at least 10 years after the decedent's death without selling or otherwise transferring title to any of the specially valued property.

**Corporate landowners** For landowners who are an S corporation for federal income tax purposes, a state business tax credit is available for the donation or bargain sale of a conservation easement or land for conservation purposes. Corporations that donate a qualifying gift of land or conservation easement can take a tax credit equal to 50 percent of the value of the donation and may carry forward any unused credit for 10 years.

When an S corporation sells land or an easement at any price to the state, a town or a nonprofit land conservation organization for conservation purposes, the amount of capital gain from the sale is exempt from that company's taxable income under the state corporate business tax.

**Stewardship fund** Most land trusts request that a landowner who donates a conservation easement also make a tax deductible cash contribution to offset the land trust's cost of stewardship. Land trusts seek this type of donation because the land trust is obligated to monitor and enforce the terms of the easement in perpetuity. While the landowner who has donated the easement is likely to understand and abide by the easement's terms, issues may

arise when the property is sold to a landowner who was not involved in the easement negotiation and may not understand or may choose to ignore its terms. Dedicated stewardship funds make it possible for land trusts to ensure that the easement's terms can be monitored and enforced in perpetuity.

**Selling** Selling a farm's development rights can provide landowners with an important source of capital to expand or diversify a farm operation, provide for retirement, buy out non-farming members of the family or address other financial needs while ensuring that the farm is protected for future generations.

The proceeds from a sale of development rights are recognized by the IRS as a sale of an interest in real estate and are subject to federal and state capital gains taxes. Depending on the source of the funding, landowners may be able to spread out the capital gain over a period of years by taking the proceeds from the sale in installments. Some landowners may find it advantageous to do a bargain sale and/or a like-kind exchange to reduce their capital gains exposure [see Mapleleaf Farm case study].

## Mapleleaf Farm: Using Like-Kind Exchanges

Farming since the mid 1700s, the Ellis family occupied several sites until Ned Ellis' great grandfather purchased its current farm in the Gilead section of Hebron in 1903. In 1999, Ned and his wife, Renée, approached the state to sell the development rights on 240 acres of their farmland. As part of this deal, the Ellises made use of both a bargain sale and an innovative like-kind exchange.

**Bargain Sale** Ned and Renée had their land appraised for the sale of development rights in 1999, but the land appreciated in value significantly before the state completed the purchase. The family chose to take a charitable tax deduction equal to the difference in price from the time the property was appraised to the time the development rights were sold. The CT Farmland Preservation Program encourages, though does not require, the use of bargain sales.

**Like-Kind Exchange** The Ellis family also made use of a like-kind exchange—essentially a tax-free swap of similar or “like-kind” property—by using some of the proceeds of the sale of their development rights to purchase 170 acres of farmland that they had been leasing. By “swapping” property rather than receiving cash from the sale, the Ellis family avoided paying capital gains tax on the sale (though, should they ever sell the land they received in the swap, they may be required to pay capital gains tax on it).

**Expansion** The Ellis family also invested a portion of the development right proceeds to expand a cattle barn and upgrade the farm's manure management system.

Regarding the sale of development rights, Ned says: “It's something my father always wanted us to do. God meant us to be good stewards of the land; I don't think He meant for the land to be used for houses.”



American Farmland Trust photo

“Once it's gone, it's gone! The land can never be replaced,” says Ned Ellis of Mapleleaf Farm, who successfully participated in a unique project to protect 400 acres of farmland in the Town of Hebron.

## Farmland Protection Programs in Connecticut

The following programs in Connecticut are sources of funding for the purchase of development rights on farmland. The amount of money available in each of these programs fluctuates every year, depending on how much the state legislature or Congress, in the case of the federal program, allocates to the programs.

Demand for these state and federal programs typically exceeds available funds resulting in a process that can be slow and frustrating. Towns and land trusts have emerged as active partners in farmland protection projects, mounting successful fundraising campaigns and contributing a greater percentage of project costs [see Simsbury Land Trust, page 13].

To find out how much money is currently available in any program, it is best to contact the program directly. Eligibility requirements, selection criteria and application information for each of the programs can be found on page 9.

### Connecticut Farmland Preservation Program *CT Department of Agriculture*

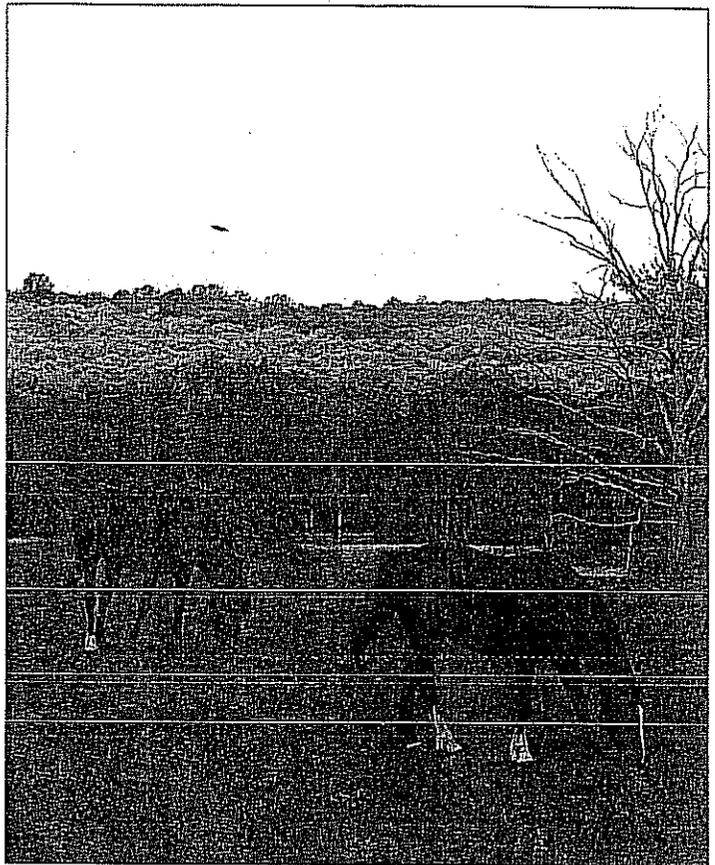
The CT Farmland Preservation Program, established in 1978, is working toward its goal of protecting 130,000 acres of Connecticut's most productive farmland.

As of December 2009, the program had protected 35,570 acres on 265 farms.

Only landowners are eligible for the program and apply to the CT Department of Agriculture. Applications are evaluated according to scoring criteria, including quality of soils, amount of cropland, threat of development and proximity to other protected lands.

The CT Farmland Preservation Program may pay up to 100 percent of the appraised value of the development rights. Current state law gives the Commissioner of Agriculture the ability to pay up to \$20,000 per acre, subject to appraisal. However, from 2007 through 2009, the average price paid by the state toward the purchase of development rights (not including any town or private contribution) was \$5,800 per acre. To maximize farmland preservation funding, the State of Connecticut places a high priority on protecting clusters of farmland that are in close proximity to other active farmland and preserved landscapes.

In recent years, many of the farms protected by the CT Farmland Preservation Program have made use of bargain sales (acquisition at less than appraised value); in the past few years, 50 percent of the 40 farms protected were acquired using a bargain sale of at least 25 percent of the appraised value.



Connecticut Farmland Trust photo

A 2006 study by American Farmland Trust found that three out of four farmers who participated in the CT Farmland Preservation Program were satisfied with their experience, despite some frustrations with the time involved and various administrative issues.

### Joint State-Town Farmland Preservation Program *CT Department of Agriculture*

In 1986, the Connecticut Legislature established the Joint State-Town Farmland Preservation Program to encourage towns to create local farmland preservation programs. Administered in conjunction with the CT Farmland Preservation Program, this program provides for the joint purchase of development rights by the state and a town having a policy in support of farmland and an agricultural land preservation fund [see more on page 9].

Eligible towns may solicit applications to the CT Farmland Preservation Program from willing landowners; once a landowner applies, the state and town work together to purchase the property's development rights jointly. More towns are taking advantage of this program, and the opportunity to protect farmland by leveraging local funds with state funds can raise the criteria score for a farmer/landowner applicant.

Federal Farm and Ranch Lands Protection Program  
U.S. Department of Agriculture/Natural Resources  
Conservation Service (NRCS)

The Farm and Ranch Lands Protection Program (FRPP) is a federal cost-share program that helps fund the purchase of development rights on productive farmland.

Landowners cannot apply directly to the program, but must work with a sponsoring entity, which can be the state of Connecticut, a municipality or a land conservation organization.

FRPP provides matching funds for up to 50 percent of a project's cost. Between 1996 and 2008, FRPP has helped protect 85 farms and about 8,000 acres in Connecticut. Since the program requires partnership, it has been very effective at leveraging federal funds with state, private and local funds. FRPP provides technical assistance to create a conservation plan as required by the program, and farms protected under FRPP get preferential access to other NRCS conservation programs.

Connecticut Open Space and Watershed  
Land Acquisition Grants Program  
CT Department of Environmental Protection

This grant program was established in 1998 to help towns, nonprofit conservation organizations and water companies permanently protect important community lands, including farmland. It can be used to fund the purchase of farmland outright or the purchase of development rights on farmland.

Landowners cannot apply directly to the program but must work with a sponsoring town, water company or land conservation organization. The program provides a maximum of 65 percent of a project's cost (up to 75 percent for projects in "distressed municipalities or targeted investment communities"). Applications to the program are only accepted during specific grant rounds; typically, the CT Department of Environmental Protection holds one grant round per year for this program.

Additional Programs

Although not the primary tools for farmland preservation in Connecticut, other programs may provide funding for land conservation. Look for this symbol in the "Additional Funding Available" section on page 14.

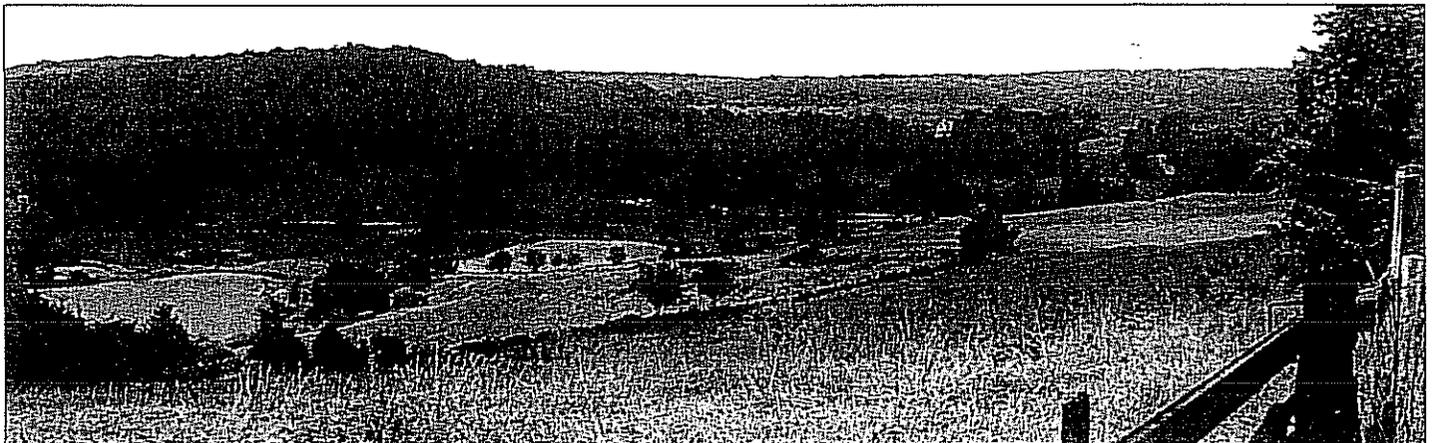


**Important Partnerships  
to Protect Connecticut's Farmland**

The majority of the farms protected by the CT Department of Agriculture's Farmland Preservation Program have been transactions between landowners and the state. Since 2006 many projects have been able to leverage funding from the federal Farm and Ranch Lands Protection Program (FRPP). Recently there has been a higher frequency of projects with additional partners—municipalities and land trusts. These partnerships will continue to be a vital way to leverage additional resources in a state with the third highest farm real estate values in the nation.

Farmed since the 1950s, the Wisneske Farm is now part of a cluster of over 800 acres of preserved farmland. This project also represents the first joint acquisition by the CT Department of Agriculture, the Connecticut Farmland Trust and the USDA Natural Resources Conservation Service (NRCS). The two parcels that comprise the 181-acre farm lie along a scenic ridge above the city of Norwich. The farm contains 100 acres of cropland with approximately 63 acres of prime and statewide important farmland soils. Eugene Wisneske grows hay and leases a portion of the cropland and pasture to a local dairy farmer.

To purchase the development rights on the Wisneske Farm, the state contributed just under \$707,500. The Connecticut Farmland Trust contributed \$50,000 through private fundraising efforts. Miscellaneous acquisition costs, such as appraisals and survey, were paid for through dedicated funding for agriculture preservation made possible by the Community Investment Act [see page 17]. The state received reimbursement for 47 percent of the cost through FRPP.



CT Department of Agriculture photo

# FARMLAND PROTECTION PROGRAMS IN CONNECTICUT

Who may apply?	CT Farmland Preservation Program <i>CT Department of Agriculture</i>	Joint State -Town Farmland Preservation Program <i>CT Department of Agriculture</i>	Open Space & Watershed Land Acquisition Grant Program <i>CT Department of Environmental Protection</i>	Farm & Ranch Lands Protection Program <i>USDA/Natural Resources Conservation Service</i>
Eligibility Requirements	<p>Landowners</p> <p>Property must:</p> <ul style="list-style-type: none"> <li>- Be an active farm operation</li> <li>- Include a minimum of 30 acres of cropland or be adjacent to a larger parcel</li> <li>- Meet minimum program criteria that include: amount of prime and important soils, amount of cropland, proximity to other active farms, viability of agriculture business, proximity to agricultural support services, and surrounding land use</li> <li>- Meet FRPP requirements if federal funding will be used as part of sale</li> </ul>	<p>Municipalities, Landowners</p> <p>Municipality must:</p> <ul style="list-style-type: none"> <li>- Have a policy in support of farmland preservation</li> <li>- Have a farmland preservation plan developed and approved by local policymakers</li> <li>- Have a fund established for the purpose of purchasing development rights</li> <li>- Have a willing applicant who has voluntarily offered to sell development rights</li> <li>- Meet FRPP requirements if federal funding will be used as part of sale</li> </ul> <p>Property must:</p> <ul style="list-style-type: none"> <li>- Be an active farm with 30 acres of prime or important farmland soils</li> <li>- Have minimum gross annual agricultural production of \$10,000.</li> </ul>	<p>Municipalities, Water companies, Nonprofit conservation organizations</p> <p>Program can be used to purchase development rights on farmland or farmland in fee. No minimum acreage or prime agricultural soils required.</p>	<p>Municipalities, States, Nonprofit conservation organizations</p> <p>Property must:</p> <ul style="list-style-type: none"> <li>- Be part of active farm operation</li> <li>- Have prime or important agricultural soils or have historic or archeological resources</li> <li>- Meet minimum program criteria for amounts (or percentages) of prime and important farmland soils and agricultural land use</li> <li>- Be privately owned (non-governmental)</li> <li>- Have pending written offer with landowner</li> </ul>
Selection Criteria	<p>Priority given to:</p> <ul style="list-style-type: none"> <li>- Land with high % of prime and important agricultural soils and cropland</li> <li>- Land in proximity to other active farmland, protected lands and farm services.</li> </ul>	<p>Priority given to:</p> <ul style="list-style-type: none"> <li>- Land with high % of prime and important agricultural soils and cropland</li> <li>- Projects that comply with local and/or regional open space plans or plans of conservation and development</li> </ul>	<p>Priority given to:</p> <ul style="list-style-type: none"> <li>- Land vulnerable to development</li> <li>- Projects that comply with local and/or regional open space plans or plans of conservation and development</li> <li>- Land with diverse categories of natural resources</li> <li>- Projects with pending written offer with landowners</li> </ul>	<p>Priority given to:</p> <ul style="list-style-type: none"> <li>- Land vulnerable to development; land with high % of prime and important agricultural soils</li> <li>- Projects with high % of non-federal matching funds</li> <li>- Projects must have non-federal matching funds in hand</li> </ul>
Cost-share Requirements	<p>State may accept a gift or pay up to 100% of value of development rights.</p>	<p>State may accept a gift or pay from 10-75% of value of development rights depending on quantity of active agricultural land within 3-mile radius of the subject farm.</p>	<p>State pays up to 65% (up to 75% for projects in "distressed municipalities" or targeted investment communities") of either fair market value of development rights or purchase price, whichever is less.</p>	<p>FRPP pays up to 50% of fair market value of development rights. Applicant provides cash match of either 25% of development rights value or 50% of purchase price. Landowner donations of up to 25% of development rights value may be considered part of applicant's match.</p>
Easement Requirements	<p>Only agricultural and compatible uses permitted. Property may never be subdivided or converted to non-agricultural use. No public access required. State easement language required. Subject to federal requirements if FRPP funding is used.</p>	<p>Only agricultural and compatible uses permitted. Property may never be subdivided or converted to non-agricultural use. No public access required. State easement language required. Subject to federal requirements if FRPP funding is used.</p>	<p>Public access required. Limited agriculture-related structures permitted on protected land. State easement language required.</p>	<p>NRCS farm conservation plan is required. NRCS easement language required. No public access required.</p>
Application Period	<p>Applications accepted continuously. Acquisitions must be approved by State Properties Review Board and the Attorney General. If the application is approved by the state, landowners should anticipate a period of 15 months or longer to complete negotiations, survey, and title work before the final closing.</p>	<p>Applications accepted continuously. Acquisitions must be approved by State Properties Review Board and the Attorney General. If the application is approved by the state, landowners should anticipate a period of 15 months or longer to complete negotiations, survey, and title work before the final closing.</p>	<p>Applications accepted and evaluated during designated grant rounds; typically, the CT Department of Environmental Protection holds one grant round per year.</p>	<p>Applications accepted during an annual sign up period. Applicants awarded FRPP funding must sign a cooperative agreement with NRCS stipulating certain easement provisions and agreeing to purchase easement(s) within two years.</p>

## Can I Protect My Forestland Too?

**Connecticut's Forests** Woodlands provide significant value to many Connecticut farms—producing maple syrup, Christmas trees, firewood, lumber and other wood products. In addition they provide many important benefits, such as clean air and water, fish and wildlife habitat, passive recreation, carbon sequestration, scenic beauty and buffers from adjacent land uses. According to the 2007 Census of Agriculture, over 30 percent of the state's total land in farms is woodland. Woodlands cannot be easily separated from the total farm unit. Some of the state's most productive woodlands are being lost or fragmented by sprawling development, limiting their ability to provide social, economic and environmental benefits.

**Permanent Protection of Forestland** Forestland owners may protect their land through many of the same tools and programs available to farmland owners. Forestland may be included as part of an agricultural conservation easement; there are also other programs that allow for protection of just forest resources. Forestland may be eligible for the following programs [see basic criteria in chart on page 9]:

- ✓ **CT Farmland Preservation Program** Forest lands are considered a component of a typical Connecticut farm, and thus may be included in an application to the program. While there is no cap on the amount of forest land that can be enrolled through the program, the amount of non-cropland acreage is considered in the application evaluation. In general, the average farm protected through the program has 35 percent of its acreage in woodland, scrub or wetlands.
- ✓ **Farm & Ranch Lands Protection Program** Farm parcels with up to 66 percent of total acreage in woodland are eligible.



CT NRCS photo

- ✓ **Connecticut Open Space and Watershed Land Acquisition Grants Program** Properties with farm and/or forestland are eligible; no requirements on percentage of forestland.
- ✓ **Forest Legacy Program** The Division of Forestry in the CT Department of Environmental Protection administers this USDA Forest Service program. The Forest Legacy Program pays eligible landowners for the purchase of conservation easements on working forestland that is threatened by development. Forest Legacy requires a minimum of 75 percent forestland; the remainder may be farmland. The program funds up to 75 percent of the cost of purchasing the development rights, and participating landowners must prepare a multiple resource management plan. Applications are taken at any time.  
[www.fs.fed.us/spf/coop/programs/loa/flp](http://www.fs.fed.us/spf/coop/programs/loa/flp)

**Forest Management** While some programs may require a Forest Management or Forest Stewardship Plan, such a plan is valuable for all forestland owners. Forest management plans can help landowners and operators achieve a wide variety of both short- and long-term objectives, such as: controlling invasive species, harvesting saw timber or producing biofuel, improving fish and wildlife habitat, protecting water quality, or simply providing a buffer from adjacent land uses. Such plans should be viewed as an active tool and should be updated whenever new practices are implemented or objectives change. Forest management plans in Connecticut developed in partnership with a certified forester will include: a species inventory and map, identification of goals and objectives, and a recommended schedule of activities and conservation practices. Technical assistance and funding may be available from local, state or federal sources to help prepare and implement the plan.

### Tax Tips

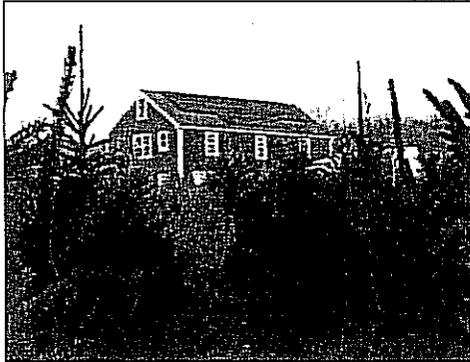
If you are a forestland owner, there may be several federal tax incentives to help maintain your forestland. For example, if you hold your forestland as an investment or for use in a business, you can deduct ordinary and necessary management expenses, such as fees paid to a professional forester or the cost of brush control, thinning and protecting your timber from fire, insects or disease.

This tax tip and others are available in the USDA Forest Service's "Tax Tips for Forest Landowners for the 2009 Tax Year," available online at:  
[www.fs.fed.us/spf/coop/library/taxtips09.pdf](http://www.fs.fed.us/spf/coop/library/taxtips09.pdf).

## Peaceful Hill Farm: Forest Management

Peter Bergan, owner of Peaceful Hill Farm, was named 2009 Connecticut Tree Farmer of the Year by the state's Tree Farm System in recognition of his forest management and conservation efforts.

In 2005, Bergan protected 36 acres of his land through the USDA's Forest Legacy Program, which is designed to protect working forests and preclude future development. Peaceful Hill Farm adjoins the 9,000-acre Meshomasic State Forest, keeping intact a significant forest block needed to maintain healthy wildlife populations.



Peaceful Hill Farm photo

Most of Peaceful Hill Farm is a managed hardwood forest—red, white and chestnut oak, black and yellow birch, sugar maple, hickory and some white pine—planted to rejuvenate a scrubby hillside. The land was heavily logged in the 1960s and Bergan has done only one limited harvest of lumber-grade mature trees since he's owned it. He removes about eight to 10 cords of diseased, dying or crowded trees every year, and uses all the wood himself to fuel the outdoor furnace that heats his home and barns, all of which he built himself. The farm also produces Christmas trees on 7 acres. On weekends before the holidays, as many as 200 cars visit his farm each day.



Peaceful Hill Farm photo

## Role for Municipalities and Communities

Municipalities and local officials play an important role in protecting farmland and creating a supportive environment for local farm businesses. Towns may want to consider creating a Farmland Protection Committee or local Agricultural Commission devoted specifically to this purpose [see New Milford case study, page 12] and/or pursue some of the steps below.

**Planning for Farmland Protection** A good first step toward community action on farmland protection is to conduct an inventory of a municipality's farms and farmland. An inventory can identify the number and types of farms in town, the acres farmed and the general land use needs of local farms. Also consider developing a prioritization process to identify farms that the community thinks are most important to keep in production in the future. This process should involve all stakeholders, including farmland owners, municipal officials, members of land use commissions and land trusts, and non-farm residents. Prioritization criteria might include quality of soils, current land use, threat of development, proximity to other farmland (protected and not protected), proximity to growth areas (e.g., sewer lines and housing) and scenic contribution.

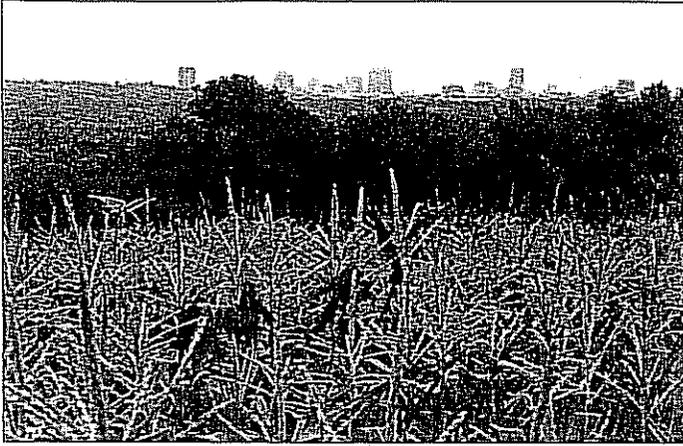
It is important to reach out to local landowners. This can be done by members of a town agricultural commission, a board of selectmen, planning commission or conservation

commission, or in conjunction with a local land trust. The designated board or commission should develop a strategy for communicating to local landowners the town's desire to protect farmland. The town must clearly communicate that it is simply exploring land protection strategies so that landowners are aware of the opportunity without feeling pressured.

An ability to leverage federal, state and private farmland protection funds is key to successfully protecting farmland at the municipal level. Towns that have a local source of



Jones Family Farms photo



CT NRCS photo

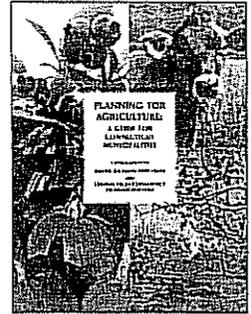
funding for farmland protection to match state and/or federal funding often have an advantage when competing for limited public funds. Some towns have established dedicated funds for land protection, while others have raised money on a case-by-case basis. Strategically, towns should consider the use of many funding sources for a successful farmland preservation program—combining municipal funds, state, and/or federal program funds, as well as funds raised by land trusts or local campaigns. For example, in 2007 Southbury allocated \$240,000 as the town’s contribution to an easement on 43 acres of farmland; a local land trust and FRPP also contributed funds.

**Pro-Active Support for Farm Viability** Municipal officials can help foster the supportive business environment, critical to the long-term sustainability of the local farms and the land they steward. A first step for officials might be to

form an agricultural commission both to provide farmer input into town policies that impact local agriculture and to help develop initiatives that will keep farming viable. Towns may also consider enacting a local right-to-farm ordinance that mirrors the state’s right-to-farm law. Such ordinances help maintain a supportive environment for farmers by reducing farmer/non-farmer neighbor conflicts.

*Planning for Agriculture:  
A Guide for Connecticut  
Municipalities*

A joint publication of AFT and the CT Conference of Municipalities, *Planning for Agriculture* outlines a broad range of tools and resources available to help local governments plan for the future of agriculture in Connecticut. The guide includes case studies and information about agricultural commissions, right-to-farm ordinances, zoning regulations and much more.



Visit [www.ctplanningforagriculture.com](http://www.ctplanningforagriculture.com) to download the guide and find examples of recent efforts to support farming in communities across the state. Printed copies of the guide may also be obtained while supplies last. Contact AFT’s CT office at (860) 683-4230.

**Laying the Groundwork for Farmland Preservation in New Milford**

Preservation of the town’s remaining farmland became an official town priority in 2006 when New Milford Mayor Pat Murphy established the New Milford Farmland Preservation Committee, charging it with assisting the town in identifying and implementing strategies for acquiring and protecting farmland.

The Farmland Preservation Committee’s first task was to identify and map the farmland within the town. Farmland was identified through tax records, interviews with farmers, aerial photography and insight from the Committee’s active farmers. Once the mapping was complete, the Committee prioritized a series of farms on the Ridge Road area of town that comprise over 1,200 acres.

The Committee then developed a Strategic Action Plan that covers many topics including the importance of preserving farmland and the agricultural history of New Milford. The Plan also lays out strategies for preserving farmland, such as increasing residents’ awareness of the economic importance of preserving farmland, supporting the town’s farmers market, and identifying and implementing ways to access state and federal dollars for farmland preservation.

In 2007 the Committee created a brochure to educate residents about many of the topics covered in the Plan and steps that residents can take to support the community’s farms and the proposed Farmland Preservation Fund.

The town took another important step in 2008 when it requested the USDA Natural Resources Conservation Service to help identify and designate “locally important” farmland soils in New Milford. This designation is helpful in improving eligibility for farmland protection funding under the federal Farm and Ranch Lands Protection Program (FRPP). In 2009, the town, in conjunction with one of the Ridge Road farmers, submitted its first application to the CT Farmland Preservation and FRPP programs.

## Role for Land Trusts

Land trusts play an important role in farmland protection efforts. They help landowners navigate the rules and procedures of applying to a public program. They coordinate campaigns to raise funds and public support for preserving properties. Land Trusts also work with municipalities and regional planning agencies to set land preservation priorities.

Over 125 land trusts and conservation organizations serve the communities of Connecticut. These groups run the spectrum from small, all-volunteer outfits to large organizations with professional staff. Some have a strictly local or regional focus, others work statewide on specific areas of natural resource protection.

### **Simsbury Land Trust: Working to Protect Farmland**

Simsbury Land Trust (SLT) is a model example of how a land trust can mobilize community resources to protect farmland. SLT's efforts to protect farmland began with a comprehensive look at the town, examining its history of land use as well as current town objectives and priorities.

SLT then developed its own objectives to complement the town's open space goals. It decided to focus on properties that include ridgelines, farms or fields, and wetlands. It also placed a high priority on lands adjacent to other protected lands, working towards creating a critical mass of protected landscapes and intact wildlife corridors.



Simsbury Land Trust photo

As part of its "Campaign for Simsbury," SLT raised over \$5 million to purchase the development rights on two farms—110 acres on Rosedale Farms and 187 acres on Tulmeadow Farm:

- \$2,435,000 from the Federal Farm and Ranch Lands Protection Program
- \$1,200,000 from state grants (including the Open Space and Watershed Land Acquisition Grant Program)
- \$1,200,000 from individual donations
- Additional funds from the Town of Simsbury and private foundations

SLT's success can be attributed to its strong collaboration with both town officials and farmers. Dick Davis, SLT Trustee, explains: "Farmland preservation projects are very time consuming; not just because there are numerous issues to address, but because it's very important to have a strong commitment on the part of all of the parties—and you don't get that from a quick deal. Land is special, and it takes time for farm families to get used to the idea of giving up their property rights and feeling comfortable with the folks working with them on farmland protection goals. So we feel it is important to have an awful lot of discussion, raise all the questions early on, and try to minimize problems down the road."

Ten years ago there were seven farms left in Simsbury; five have been permanently protected through the joint efforts of the town and SLT.

"I feel very lucky that our family was in a position and had the time to work this out with Simsbury Land Trust," said Don Tuller, one of the owners of Tulmeadow Farm. "We talked with them for several years before proceeding with this project, and now we're hopeful that as we move on to additional land protection phases on our property that their good work will continue."

For more information go to [www.simsburylandtrust.org](http://www.simsburylandtrust.org) or call (860) 651-8773.

## Additional Funding Available To Support Farm and Forest Viability, Land Conservation and Stewardship

Many Connecticut landowners, including towns and land trusts, are unaware of the variety of programs available to help them improve or expand a farm business, address environmental concerns or implement conservation practices on their land.

For example, landowners can get help developing a forest management plan for a woodlot, and then financial assistance to help carry out the plan. Funding is available to defray the cost of fencing to keep livestock out of streams, and to manage farmland for wildlife habitat. There is funding for on-farm energy efficiency projects and for renewable energy systems. Funding also is available to farmers interested in diversifying into new markets or new products, and to help municipalities develop and implement local farmland protection initiatives.

The following are programs available in Connecticut that can be used to foster farm profitability, land conservation and stewardship efforts.



This symbol denotes programs that have been particularly reliable serving the needs of agriculture and farmland preservation and have been consistently funded in recent years.



This symbol denotes programs that offer funding for easements.

### Agricultural Management Assistance (AMA) USDA/NRCS

[www.nrcs.usda.gov/programs/ama](http://www.nrcs.usda.gov/programs/ama)

This program, available only in states where participation in the Federal Crop Insurance Program has been low, is designed to help farmers reduce crop risk. The program funds up to 75 percent of the cost of conservation practices that help increase operation diversification (such as transition to organic production) or improve water management (such as conversion to drip irrigation) or water quality (such as manure storage structures). Applications are taken at any time. Land trusts and farmers (including those with a long-term lease) may apply.



Agriculture Viability Grants—Farm Viability Program  
CT Department of Agriculture  
[www.state.ct.us/doag](http://www.state.ct.us/doag)

This state grants program, authorized and funded through the Community Investment Act [see page 17], funds local initiatives that foster farm viability and farmland protection. Municipalities, regional planning agencies, associations of municipalities, and nonprofit organizations can apply for matching grants up to \$50,000 to plan and implement local farmland preservation strategies, institute agriculture-friendly land use regulations or develop marketing initiatives to support local farm businesses. Municipalities can

also use the grants to invest in small agriculture-related capital projects, such as farmers' markets and community kitchens (but not for land acquisition).



Agriculture Viability Grants—Farm Transition Program  
CT Department of Agriculture  
[www.state.ct.us/doag](http://www.state.ct.us/doag)

This state program, also authorized and funded through the Community Investment Act [see page 17], is available to producers and agricultural cooperatives for projects that will increase profits through market or product development, diversification or expansion. Eligible expenses include equipment and machinery as well as promotional activities. Grants of up to \$50,000 are available, and must be matched 1:1 by the applying entity. Farmers (leasing farmers included) and agricultural cooperatives may apply.

### Business and Industry Loan Guarantee Program (B&I) USDA/Rural Development (RD)

[www.rurdev.usda.gov/rbs/busp/b&i\\_gar.htm](http://www.rurdev.usda.gov/rbs/busp/b&i_gar.htm)

This program is available to all businesses (not limited to farm businesses) located in rural areas only (typically outside of cities or towns of more than 50,000 people; contact Rural Development for clarification on eligibility). The program operates as a loan guarantee program, offering businesses an opportunity to work with commercial lenders who might not otherwise extend credit. Loans may be used to expand or convert businesses, purchase land, or purchase machinery or equipment. There is no minimum loan size, but loans cannot exceed \$10 million. Farmers (leasing farmers included), land trusts and municipalities may apply.

### Conservation Loan & Loan Guarantee Program USDA/Farm Service Agency (FSA)

[www.fsa.usda.gov](http://www.fsa.usda.gov)

This new program provides direct or guaranteed loans to finance qualifying conservation projects. Loans may also be used to finance the borrower's share of a USDA Environmental Quality Incentives Program (EQIP) contract. Qualifying projects are those identified through an NRCS conservation plan. Direct loans may not be more than \$300,000 and guaranteed loans not more than \$700,000. Farmers (leasing farmers included) may apply.

### Conservation Reserve Program (CRP) USDA/Farm Services Agency (FSA)

[www.nrcs.usda.gov/programs/crp](http://www.nrcs.usda.gov/programs/crp)

CRP encourages farmers to convert highly erodible cropland and other environmentally sensitive land to vegetative cover such as tame or native grasses, wildlife plantings, trees, filter strips or riparian buffers. Participating farmers receive annual rental payments for the term of their multi-year contracts. Cost-share funding is provided for the establishment of the vegetative cover practices. Landowners

also may receive funding to fence streams to exclude livestock or build grass waterways. Applications are taken during announced sign-up periods. Farmers (leasing farmers not included), land trusts and municipalities partnered with a farmer may apply.

**Conservation Stewardship Program (CSP)**  
USDA/NRCS

[www.nrcs.usda.gov/programs/new\\_csp/csp.html](http://www.nrcs.usda.gov/programs/new_csp/csp.html)  
Substantially revised in the 2008 Farm Bill, CSP encourages owners of farm and forest land to address natural resource concerns comprehensively by maintaining existing conservation practices as well as undertaking new ones. Landowners may receive annual payments for five years based on the stewardship level and improvements. Supplemental payments may be available for additional conservation activities. The sign-up period varies annually. Farmers (including farmers leasing land for the length of the CSP contract) and land trusts may apply.

**CT Farm Link**  
CT Department of Agriculture  
[www.farmlink.uconn.edu/](http://www.farmlink.uconn.edu/)

This program, authorized and funded through the Community Investment Act [see page 17], is designed to help match people seeking farmland with available land—whether owned by individuals, land trusts, or municipalities. The program is intended for farmers looking to lease land as well as individuals interested in purchasing land for farming. The CT Department of Agriculture accepts applications from both farmland owners and farmland seekers. Farmers (leasing farmers included), farmland owners, land trusts and municipalities may apply.

**Debt for Nature**  
USDA/Farm Services Agency (FSA)  
[www.fsa.usda.gov](http://www.fsa.usda.gov)

The Debt for Nature Program is available to landowners with FSA loans secured by real estate. The program reduces a borrower's debt in exchange for a conservation contract with a term of 10, 30 or 50 years. The contract restricts development of the property for the life of the contract. Eligible lands include marginal cropland or other environmentally sensitive land that must be taken out of production for the life of the contract. Farmers (leasing farmers not included) and farmland owners with FSA loans secured by real estate may apply.

**Environmental Assistance Program (EAP)**  
CT Department of Agriculture  
[www.state.ct.us/doag](http://www.state.ct.us/doag)

This program reimburses farmers for part of the costs of implementing an agricultural waste management plan, which is required by the state of Connecticut and NRCS. Grants under this program must be used for capital improvements and are typically awarded in coordination with the Environmental Quality Incentive Program (EQIP).

Funding from EAP and EQIP together can provide no more than 90 percent of the project cost. Farmers (leasing farmers included) may apply.

**Environmental Quality Incentive Program (EQIP)**  
USDA/NRCS

[www.nrcs.usda.gov/programs/eqip](http://www.nrcs.usda.gov/programs/eqip)

This conservation cost-share assistance program provides up to 75 percent (90 percent for limited resource and new farmers) of the cost to implement certain structural and management practices on eligible agricultural land. Technical and financial assistance is available to plan, design and install erosion control measures and agricultural waste management facilities or to establish conservation practices such as nutrient management, integrated pest management, manure management, and irrigation management. The 2008 Farm Bill expanded eligibility to conservation practices directly related to organic production and transition. Applications are accepted during annual sign-up periods. Farmers (including those with a long-term lease), land trusts and municipalities partnered with a farmer may apply.



**Farm Reinvestment Grants Program**

CT Department of Agriculture  
[www.state.ct.us/doag](http://www.state.ct.us/doag)

Farm Reinvestment grants are available to registered farm businesses that have operated for at least three years. Grants are intended for expansion of existing agricultural facilities, site improvements or expansion into new areas of production. Grants of up to \$40,000 are available and must be matched on a 1:1 basis; grant funds can only be used for capital fixed assets that have a life expectancy of 10 years or more. Farmers (leasing farmers included) may apply.



**Grassland Reserve Program (GRP)**

USDA/NRCS and USDA/Farm Services Agency (FSA)  
[www.nrcs.usda.gov/programs/grp](http://www.nrcs.usda.gov/programs/grp)

The GRP is designed to protect and restore grasslands through the use of permanent easements and term rental agreements. Eligible parcels are generally greater than 40 acres and dominated by grasses used for haying and grazing. Landowners with eligible property can choose to sell a permanent easement or enter into a 10-, 15- or 20-year contract and receive annual rental payments. Cost-share payments for eligible restoration practices are also available. Enrolled land may be hayed or grazed; some management restrictions may apply. The program will pay up to 100 percent of the purchase price of an easement. Applications are accepted continuously. Farmers (including farmers leasing land for the length of the GRP contract) and land trusts (provided the land is not already under an easement) may apply. Land trusts may also partner with NRCS to purchase easements.



Connecticut Farmland Trust photo



**Healthy Forests Reserve Program (HFRP)**  
USDA/NRCS

[www.nrcs.usda.gov/programs/HFRP/ProgInfo](http://www.nrcs.usda.gov/programs/HFRP/ProgInfo)

This program is intended to restore and enhance forest ecosystems by promoting the recovery of threatened and endangered species, improving biodiversity, and enhancing carbon sequestration. The program offers two enrollment options—a 30-year agreement or permanent easements—and provides cost-sharing for restoration of threatened or endangered species habitat. Landowners and land trusts (provided the land is not already under an easement) may apply.

**Joint Venture Grants Program**  
CT Department of Agriculture  
[www.state.ct.us/doag](http://www.state.ct.us/doag)

This small grants program (less than \$5,000 matching) is intended to promote Connecticut agricultural products through the use of the “Connecticut Grown” logo. Funds have been used in the past for brochures, announcements, farmers market promotion and signage. Farmers (leasing farmers included) may apply.

**Renewable Energy Systems and  
Energy Efficiency Improvement Program**  
USDA/Rural Development  
[www.rurdev.usda.gov](http://www.rurdev.usda.gov)

This program provides grants and guaranteed loans to farmers and rural small businesses to purchase renewable energy systems and make energy efficiency improvements to their operations. Renewable energy grants can range from \$2,500 to \$500,000; energy efficiency grants can range from \$1,500 to \$250,000. Grants may be used to pay up to 25 percent of an eligible project’s costs. Loan guarantees can be for up to 50 percent of total eligible project costs. Eligible projects include those that derive energy from a wind, solar, biomass or geothermal source; or hydrogen derived from biomass or water using wind, solar or geothermal energy sources. Farmers (leasing farmers included) may apply.



**Scenic Byways Program**  
U.S. Department of Transportation in cooperation  
with CT Department of Transportation  
[www.ct.gov/dot](http://www.ct.gov/dot)

Administered by the CT Department of Transportation, this federal program is a potential source of funding for the purchase of easements on farmland along designated scenic roads in Connecticut. Grant applications are submitted to the CT Department of Transportation, which prioritizes applications and forwards them to the Federal Highway Administration. A list of designated scenic roads is available from the state Scenic Highways Coordinator at the CT Department of Transportation. Farmland owners may apply.

**Value-Added Producer Grants Program**  
USDA/Rural Development  
[www.rurdev.usda.gov](http://www.rurdev.usda.gov)

This federal program provides grants to producers, producer groups and farmer cooperatives for both the development of feasibility studies and business and marketing plans, and for working capital to market value-added agricultural products and farm-based renewable energy. Applicants are eligible to apply for only one of the two types of grants each grant cycle. The maximum grant award is \$300,000; smaller grants receive priority; a 1:1 match is required. Farmers (leasing farmers included) may apply.



**Wetlands Reserve Program (WRP)**  
USDA/NRCS  
[www.nrcs.usda.gov/PROGRAMS/wrp/](http://www.nrcs.usda.gov/PROGRAMS/wrp/)

This federal program provides technical and financial assistance to landowners to restore, protect and enhance wetlands in exchange for retiring eligible land from agriculture. WRP offers three enrollment options: a permanent conservation easement, a 30-year term easement and restoration cost-share assistance without an easement. Farmland owners and land trusts (provided the land is not already under an easement) may apply.

**Wildlife Habitat Incentives Program (WHIP)**  
USDA/NRCS  
[www.nrcs.usda.gov/programs/whip](http://www.nrcs.usda.gov/programs/whip)

WHIP offers technical and financial assistance to landowners to maintain, restore or enhance habitat for fish and wildlife. Participating landowners work with NRCS to develop conservation plans, and NRCS provides up to 75 percent in cost-share assistance to implement the plans. Applications are taken during annual sign-up periods. Farmers (leasing farmers not included) and land trusts may apply.

## State Policies for Farmland Preservation & Farm Viability

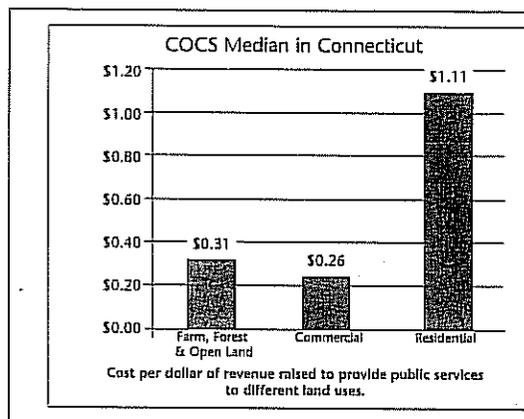
**Public Act 490** In Connecticut, Public Act 490 is helping to keep working farm and forest lands part of the state's landscape. By allowing farm and forest land to be assessed at its current use value rather than its "highest and best use" value for purposes of local property taxes, it reduces the sizeable tax burden that many farmers and owners of working lands would otherwise face. Without use value assessment, most landowners would be unable to afford the property taxes on their farms and forest land.

Use value assessment is not a subsidy for farmers and large landowners, since farm and forest land require far less in municipal services than does land devoted to residential use. In fact, even when taxed at its current use value, farmland generates a fiscal surplus that towns use to offset the high costs of residential services.

A Cost of Community Services study done for Lebanon, Conn., in 2007 found that working and open lands cost the town \$0.17 in services for every tax dollar generated, while residential properties cost \$1.12.

To qualify for Public Act 490, landowners must apply to the local tax assessor. Once land has been classified as eligible, it remains eligible until the use of the land changes or the land is transferred. If land enrolled in Public Act 490 is sold or taken out of agricultural production within the first 10 years of ownership, landowners may face a tax penalty.

The Connecticut Farm Bureau Association is currently updating an extensive guide on Public Act 490 that will be available in early 2010 at [www.cfba.org/](http://www.cfba.org/).



### Cost of Community Services Studies

Cost of Community Services (COCS) studies conducted by American Farmland Trust and others around the county have analyzed local revenues and expenditures by land use to determine the impacts of residential, commercial, and farm, forest and open land on local budgets. More than eight COCS studies completed in Connecticut have consistently shown that farm, forest and open lands generate more tax revenues than they receive in public services, compared with residences that typically require more in public services than they pay in taxes.

**Community Investment Act (CIA)** In 2005 the state's Farmland Preservation Program was dramatically strengthened thanks to enactment of the Community Investment Act (CIA). The CIA has generated more than \$11 million for statewide farmland protection activities since its inception. Unlike state bond funds, which can be used only for purchasing development rights on farmland, CIA funds can also be used for program staff, appraisals and boundary surveys.

The CIA was hailed by Governor Jodi Rell as "landmark legislation" and received broad bipartisan support among state policymakers.

The CIA requires town clerks to collect a fee on all documents filed on municipal land records. A portion of the fee is used to pay for municipal town clerk record management and local capital improvements, and the remainder is then remitted to a dedicated fund that is divided equally among four state agencies to be used for open space protection, affordable housing, historic preservation, agricultural viability and farmland preservation.

In addition to farmland preservation, the CIA provides funding to several key agriculture programs that support farm viability. The Department of Agriculture is required to distribute CIA funds as follows: \$100,000 for the "Connecticut Grown" program to help brand and promote local agricultural products, \$75,000 for the CT Farm Link program to help match farmland seekers with farmland owners and \$1 million for the Agriculture Viability Grants Programs. The highly successful Agriculture Viability Grants Program provides matching grants to farmers, non-profit organizations and municipalities to help develop new markets for farm products, build facilities to support direct marketing and encourage town policies that support agriculture and farmland preservation.

(Note: In 2009, the CIA was amended to provide needed assistance to dairy farmers facing a collapse in milk prices. As a result of this change, CIA funding for the state Farmland Preservation Program has been suspended for two years, although CIA funds continue to cover the cost of administering the program. This amendment to the CIA is set to expire in 2011.)

# CONTACT INFORMATION & RESOURCES

## FEDERAL AGENCIES

USDA/Farm Services Agency  
344 Merrow Road, Suite B  
Tolland, CT 06084  
(860) 871-2944 [www.fsa.usda.gov](http://www.fsa.usda.gov)

USDA/Natural Resources Conservation Service  
344 Merrow Road, Suite A  
Tolland, CT 06084-3917  
(860) 871-4011 [www.ct.nrcs.usda.gov](http://www.ct.nrcs.usda.gov)

USDA/Rural Development  
Southern New England Office  
451 West Street, Suite 2  
Amherst, MA 01002  
(413) 253-4300 [www.rurdev.usda.gov](http://www.rurdev.usda.gov)

## STATE AGENCIES

CT Department of Agriculture  
165 Capitol Avenue  
Hartford, CT 06106  
[www.state.ct.us/doag](http://www.state.ct.us/doag)  
Agriculture Grants: (860) 713-2550  
CT Farm-Link: (860) 713-2588  
Farmland Preservation: (860) 713-2511

CT Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106  
[www.dep.state.ct.us](http://www.dep.state.ct.us)  
Division of Forestry: (860) 424-3630  
Open Space and Watershed Land Acquisition  
Grants: (860) 424-3081

CT Department of Transportation  
1107 Cromwell Avenue  
Rocky Hill, CT 06067  
[www.ct.gov/dot](http://www.ct.gov/dot)  
Scenic Highways Coordinator: (860) 258-4516

University of Connecticut Cooperative Extension System  
Farm Risk Management & Crop Insurance  
New London County Extension Center  
562 New London Turnpike  
Norwich, CT 06360  
(860) 887-1608 [www.canr.uconn.edu/ces/frm](http://www.canr.uconn.edu/ces/frm)  
Through workshops and trainings, the UConn Farm Risk Management Team helps farmers address farm management issues, including farm business planning, farm transfer and estate planning, as well as farmland preservation and land use issues.

## NON-PROFIT ORGANIZATIONS

American Farmland Trust  
775 Bloomfield Avenue  
Windsor, CT 06095  
(860) 683-4230 [www.farmland.org](http://www.farmland.org)

A national organization working to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment at the federal, state, and local level.

Connecticut Farm Bureau  
775 Bloomfield Avenue  
Windsor, CT 06095  
(860) 768-1100 [www.cfba.org](http://www.cfba.org)

A non-governmental, voluntary organization of farm families united to find solutions for concerns facing production agriculture in Connecticut.

Connecticut Farmland Trust  
77 Buckingham Street  
Hartford, CT 06106  
(860) 247-0202 [www.CTFarmland.org](http://www.CTFarmland.org)

A statewide land trust dedicated to farmland protection, CFT accepts donations of agricultural conservation easements and assists landowners with the sale of their development rights.

Connecticut Land Conservation Council  
55 Church Street, Floor 3  
New Haven, CT 06510  
(203) 568-6293 [www.ctconservation.org](http://www.ctconservation.org)

The Council's mission is to advocate for land preservation, stewardship, and funding, and ensure the long term strength and viability of the land conservation community.

Trust for Public Land  
Connecticut Office  
101 Whitney Avenue  
New Haven, CT 06510  
(203) 777-7367 [www.tpl.org](http://www.tpl.org)

A national land conservation organization with a commitment to protecting land for people to enjoy, including farms and forests that support land-based livelihoods; TPL helps communities define a conservation vision, raise funds, and negotiate conservation transactions.

Working Lands Alliance  
775 Bloomfield Avenue  
Windsor, CT 06095  
(860) 683-4230 [www.WorkingLandsAlliance.org](http://www.WorkingLandsAlliance.org)

A statewide coalition of farmers, planners, conservationists, anti-hunger advocates, historic preservationists, chefs, and food retailers working together to increase the state's commitment to farmland preservation.

PAGE  
BREAK



## State of Connecticut

GENERAL ASSEMBLY  
STATE CAPITOL  
HARTFORD, CONNECTICUT 06106-1591

May 20, 2011

Commissioner Jewel Mullen  
Department of Public Health  
410 Capitol Ave.  
Hartford, CT 06134

Re: Ponde Place, Hunting Lodge Rd., Ref. Docket No. 09-02-10

Dear Commissioner Mullen:

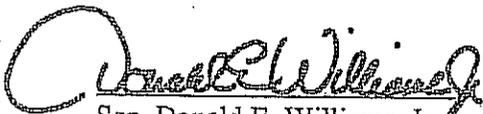
We have read the letter written by Eastern Highland Health District Director Robert Miller to the state Department of Public Health regarding the proposed Ponde Place project, dated May 10, 2011, and the proceeding article authored by Mike Savino in the Willimantic Chronicle dated May 17, 2011. We echo their concerns and calls for closer scrutiny.

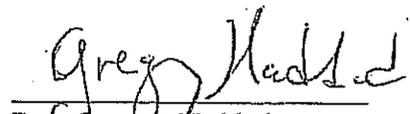
Four sites on the Ponde Place property were recently drilled to create monitoring wells that required no oversight by any regulatory agency. Shortly thereafter, Ponde Place revised its Phase 1-A Application to change the classification of these new wells from monitoring to production wells. The aforementioned wells are located 250 ft. from the nearest residential well and 700 ft. from a historical inferred groundwater contamination plume attributed to the UConn Landfill and former chemical pits. As such, we associate ourselves with the comments made by Robert Miller and published in the Willimantic Chronicle, in which Mr. Miller stated, "long-term use of these high yielding wells and said proximity to both the contaminated site and private wells deserve close scrutiny".

Those of us who are familiar with the UConn Landfill and the former chemical pits recall the social and environmental impacts felt by the surrounding community. The capping of the landfill was a massive, costly and intricate endeavor. The DPH must proceed cautiously and judiciously with the goal of preserving the integrity of the landfill cap while ensuring an adequate water supply, free from contamination for local residents. To that end, it has been expressed by Robert Miller and others that DPH may not have the requisite hydrochemical expertise to facilitate a comprehensive review of this matter. Should that be the case, we encourage DPH to seek outside assistance to ensure a thorough technical review of the proposal is executed.

We thank you for your attention to this matter. Please feel free to contact us directly should you have any questions or comments.

Sincerely,

  
Sen. Donald E. Williams, Jr.  
20<sup>th</sup> Senatorial District

  
Rep. Gregory Haddad  
54<sup>th</sup> House District

---

GREGORY J. PADICK, DIRECTOR OF PLANNING

Memo to: Curt Hirsch, Mansfield Zoning Agent  
From: Gregory J. Padick, Director of Planning  
Date: May 23, 2011  
Re: Zoning Permit Application, Storrs Center Parking Garage/Intermodal Center

Pursuant to the provisions of Article X, Section S of the Zoning Regulations, I have completed my review of the 4/15/11 Zoning Permit application of the Town of Mansfield. and have determined that, subject to the attached conditions of approval, the Zoning Permit is in compliance with all applicable Zoning requirements. Accordingly, you are authorized to issue a Zoning Permits for the subject parking garage and intermodal center subject to incorporation of conditions which do not involve immediate map revisions.

In the process of making this compliance determination, I note the following findings:

- The applicant's submission includes a site and architectural plans with original submission dates of 3/29/11, 4/4/11 and 4/15/11, as revised through the May 4, 2011 Public Hearing, and a comprehensive application packet dated 4/15/11 which contains a Statement of Use; documentation of public water and sewer service; statements of consistency with the PZC approved Preliminary Master Plan, Master Parking Study, Master Traffic Study, Master Stormwater Drainage Study, the Storrs Center Design Guidelines; and a Design Review Checklist and signed Design Certification. This information appropriately meets the submission requirements of Article X, Section S.5.c.
- Pursuant to the provisions of Article X, Section S.6.b.(ii), the Mansfield Downtown Partnership has conducted a public hearing and provided an appropriate opportunity for the submittal of public comment. On 5/5/11, the Mansfield Downtown Partnership determined that the Zoning Permit application for the parking garage and intermodal center complies with the requirements of the Storrs Center Special Design District regulations and the Storrs Center Design Guidelines. This action was taken after consideration of public comments and a report from its Planning and Design Committee. The Director of Planning attended the Downtown Partnership Public Hearing.
- On 1/19/11, the Inland Wetland Agency determined that plans for Phases 1A and 1B, which included site work for the garage and intermodal center site, were consistent with its 10/1/07 License approval for the Storrs Center Project.
- For a number of months various Mansfield staff members have met with applicant representatives to help ensure compliance with all applicable regulatory requirements. Reports have been received from R. Miller, Director of Health; J. Jackman, Deputy Chief/Fire Marshal; Q. Kessel, Conservation Commission Chairman; J. DeWolf, Mansfield Advisory Committee on the Needs of Persons with Disabilities; L. Stoddard, Chairman of the Sustainability Committee; and R. Favretti, Chairman of the Planning and Zoning Commission. Subject to conditions included in this Zoning Permit approval authorization, all identified zoning issues will be addressed.
- All approval criteria contained or referenced in Article X, Section S.6.d, including Article V, Section A.5 and Article XI, Section C.3. have been addressed or will be addressed by conditions included in this Zoning Permit authorization.

Article X, Section S.6.e. authorizes the Director of Planning and Development to add conditions deemed necessary to ensure compliance with all applicable regulatory requirements. The following conditions, except for those that require immediate map revisions, shall be incorporated into the Zoning Permit approval for the Storrs Center parking garage and intermodal center.

1. Pursuant to Article X, Section S.6.g. of the Zoning Regulations, any proposed revisions to the submitted plans and associated application narratives and/or the proposed uses hereby granted Zoning Permit approval shall be

86 submitted to the Director of Planning and Development for review and approval. It is recognized that plans for the Village Street and other site improvements are not yet finalized and accordingly, plan revisions may be appropriate.

2. No construction shall start until title to the garage and intermodal center parcel is conveyed to the Town.
3. Pursuant to Article XI, Section 4.d. no foundation walls shall be constructed until certification from a licensed land surveyor is received by the Zoning Agent confirming that foundation footings are in approved locations.
4. All material removed from the project area shall be disposed of in an appropriate location that has been approved for such disposal.
5. Due to the nature of proposed site work and delivery activities, it is essential that construction access and traffic be fully coordinate with other Storrs Center projects. The construction management plan approved in association with the Phase 1A/1B Zoning Permit approval shall be followed by all site contractors.
6. No Zoning Permit shall be issued for the parking garage or intermodal center projects until final designs for the exteriors of the respective structures, including the color and nature of building materials, has been approved by the Director of Planning and Development. Approval shall not be considered until a recommendation is received from the Chairman of the Downtown Partnership Planning and Design Committee.

In addition to addressing material finishes, glass tints, brick colors, potential concrete scoring, signage, attached lighting and the screening of roof top mechanicals, final plans shall consider extending the width of intermodal center canopies and incorporating additional sheltered cover in the plaza are east of the intermodal center.

7. As articulated in the May 6, 2011 letter from the Planning and Zoning Commission Chairman, it is essential that the intersection area south of the intermodal center be designed to address and minimize potential vehicular and pedestrian safety problems. This issue needs to be carefully analyzed and addressed in association with the Town's forthcoming Village Street Zoning Permit application. The nature and location of pedestrian crossings, parking areas, bus stops, wayfaring and traffic control signage, landscaping and other site improvements need to be comprehensively studied.

The forthcoming Village Street application also needs to address street lighting, benches, bus shelters, trash/recycling receptacles and other streetscape improvements, including landscaping east of the parking garage. As discussed at the 4/19/11 Planning and Design Committee meeting, new plantings shall be placed between the garage and sidewalk and along the easterly side of the adjacent drive. Landscaping objectives should be to help screen the garage's easterly elevation and to enhance the pedestrian pathway. It is encouraged that new vegetative screening be coordinated with the adjacent property owner, the Hellenic Society Paideia.

8. To address State building code requirements, two (2) percent of the number of parking garage spaces need to be accessible spaces (including van spaces). Noting the recommendations from the Mansfield Advisory Committee on Persons with Disabilities, the Town should monitor the use of accessible spaces and, if demand exceeds supply, additional accessible spaces should be delineated in the garage.
9. In association with the preparation of final building plans, the applicant is encouraged to work with the Downtown Partnership Planning and Design Committee and the Mansfield Sustainability Committee to address the adopted Storrs Center Sustainability Guidelines.

Please let me know if you have any questions regarding this report and the listing of approval conditions. If additional information is received regarding the subject conditions or it is determined that wording revisions are necessary to clarify requirements, I will reconsider the conditions.

Cc: Lon Hultgren, Mansfield Director of Public Works; Matthew W. Hart, Mansfield Town Manager; Mansfield Downtown Partnership Inc.; Mansfield Planning and Zoning Commission/Inland Wetland Agency; Mansfield Town Council; Barry Feldman, UConn Vice President and Chief Operating Officer; Storrs Center Alliance, LLC; Education Realty Trust, Inc.