

AGENDA

Mansfield Conservation Commission
Wednesday, October 20, 2010
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. September 15, 2010
- 5. New Business (No IWA or PZC Referrals)**
 - a. Public Act 490
- 6. Continuing Business**
 - a. Swan Lake Discharge and other UConn Drainage Issues
 - b. UConn Proposed Reclaimed Water Facility (Review comments from State Dept. of Public Health)
 - c. UConn Agronomy Farm Irrigation Project
 - d. USDA Animal Health Research Facility- UConn Depot Campus (see memo from Director of Planning)
 - e. Eagleville Brook Impervious Surface TMDL Project (new website established)
 - f. Natchaug River Basin project (Committee work in progress)
 - g. UConn Hazardous Waste Transfer Station (no new information)
 - h. Ponde Place Student Housing Project (no new information)
 - i. CL&P "Interstate Reliability Project" (Alternative tower locations with lines over Hawthorne Lane and section of Conservation easement is pending before PZC)
 - j. Other
- 7. Communications**
 - a. Minutes
 - Open Space (9/21/10) • PZC (9/20/10 & 10/4/10) • IWA (10/4/10)
 - b. Inland Wetland Agent Monthly Activity Report
 - c. Storrs Agricultural Experiment Station-Phragmites Control Study
 - d. Notice of 11/13/10 CACIWC Annual Meeting/Conference/Recognition Awards Nomination Form
 - e. Status Report Mansfield 2020: A Unified Vision
 - f. 9/27/10 Presentation Slides: Agriculture in Mansfield
 - g. 9/28/10 Article Re: Agriculture in Connecticut
 - h. Fall 2010 Joshua's Trust Newsletter
 - i. Willimantic River Review, Fall 2010
 - j. Other Correspondence
- 8. Other**
- 9. Future Agendas**
- 10. Adjournment**

PAGE
BREAK

Town of Mansfield
CONSERVATION COMMISSION
Meeting of 15 September 2010
Conference B, Audrey P. Beck Building
(DRAFT) MINUTES

Members present: Joan Buck (Alt.), Robert Dahn, Peter Drzewiecki (from 8:00p), Neil Facchinetti (Alt.), Quentin Kessel, Scott Lehmann, John Silander. *Members absent:* Joan Stevenson, Frank Trainor. *Others present:* Grant Meitzler (Wetlands Agent).

1. The meeting was **called to order** at 7:30p by Chair Quentin Kessel.
2. The draft **minutes of the 18 August meeting**, with the addition of "Joan Buck (Alt.)" to the list of absent members and correction of minor typos, were approved.
3. **Election of officers.** Kessel, Silander, and Lehmann (resp.), having indicated that they were willing to serve as Chair, Vice Chair, and Secretary (resp.) for the coming year, were elected by acclamation. Kessel will also inform the Town Manager that Dahn and Drzewiecki are willing to continue as Commission members.
4. **IWA referral W1462 (Laurel La. bridge replacement)** The Town proposes to replace the 1-pier steel and timber Mt. Hope River bridge on Laurel Lane with a single-span steel bridge. The existing bridge (which currently serves one house) is not wide enough to qualify as a 1-lane bridge, and emergency vehicles must use extreme caution in crossing it. Its pier and abutments, which constrict the river's flow, would be removed. After some discussion, the Commission agreed on the following **motion** (Buck, Silander: all in favor save Drzewiecki, not yet present):

The Commission notes that the construction phase of this project could have a significant impact on wetlands and urges that care be taken to minimize it. A long-term benefit to the river system may be expected from replacing the existing substandard bridge with one less likely to fail and eliminating constrictions on flow.

{No one on the Commission expected to go on the IWA field trip to the site, which was scheduled for 9/16/10, the day after this meeting.}

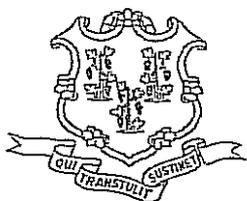
5. **Agronomy farm.** Facchinetti spoke on Agronomy Farm issues at the 9/14/10 Town-Gown Committee meeting on behalf of the Storrs Heights Neighborhood Association. He asked the Committee to endorse a memorandum of understanding that irrigation and application of agricultural chemicals at the farm shall be done in a manner that does not diminish the supply or degrade the quality of well-water in the neighborhood. He also asked that an independent hydrologist be appointed to oversee the monitoring program and suggested that neighborhood wells be monitored directly for impacts on water quality and quantity (as opposed to indirectly via information obtained from monitoring wells at the farm).
6. **Open Space.** Buck attended the 8/17/10 meeting of the Open Space Preservation Committee and reported on discussion of Penner property issues and the up-coming referendum question on open-space funding.
7. **Swan Lake outfall.** Kessel will communicate item 6 of the July minutes to Barry Feldman at UConn, suggesting that the University save money by shelving this project, which is probably

needed only for a diversion that is unlikely to be approved by DPH and DEP.

8. Ponde Place water. The developers of Ponde Place would like the University to agree to back up its water supply in the event of an emergency. Kessel will attend the Water & Wastewater Advisory Committee meeting tomorrow and point out that it would be irresponsible for the University to assume any additional water obligations, given the current drought advisory, which is likely to be perennial.

9. Adjourned at 8:30p. Next meeting: 7:30p, Wednesday, 20 October 2010

Scott Lehmann, Secretary, 18 September 2010



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

September 16, 2010

Mr. Timothy Tussing
Facilities Manager
University of Connecticut
25 Ledoyt Road, Unit 3252
Storrs, CT 06269-3252

RECEIVED

SEP 20 2010

EASTERN HIGHLANDS
HEALTH DISTRICT

Re: Reclaimed Water Facility Drinking Water Section Review

Dear Mr. Tussing:

The Department of Public Health Drinking Water Section (DWS) received the project narrative, plans and specifications for the Reclaimed Water Facility for the University of Connecticut (UCONN) dated July 2010. The Enforcement and Operator Certification, Planning and Source Water Protection Units have reviewed this proposal. Please find their reports attached.

In general, the DWS supports this proposal. It provides UCONN with an industry recommended margin of safety with the Fenton River Wellfield off-line and it does not impact public drinking water sources of supply. As noted in the Cross-Connection Report, diligence will be required to ensure that the reclaimed water distribution system is completely separated from the potable water system.

If you have any questions or would like to discuss any of these reports you may call me at 860-509-7333.

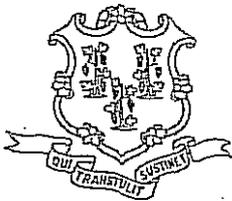
Sincerely,

Lori Mathieu
Public Health Services Manager
Drinking Water Section

Enc.

Cc: Robert L. Miller, Eastern Highlands Health District
Tom Chyra, DWS





STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

MEMORANDUM

RECEIVED

SEP 20 2010

EASTERN HIGHLANDS
HEALTH DISTRICT

TO: Lori Mathieu, Public Health Services Manager

FROM: Steve Messer, Supervising Sanitary Engineer, Planning Unit

DATE: September 16, 2010

SUBJECT: University of Connecticut Reclaimed Water Facility—Planning Review

The Department of Public Health (DPH) Drinking Water Section (DWS) Planning Unit (PU) has reviewed the project narrative and specifications, dated July 2010, for the proposed Reclaimed Water Facility (RWF) at the University of Connecticut (UCONN). The RWF is a tertiary treatment facility proposed to treat the wastewater treatment plant effluent for use in the Central Utilities Plant (CUP) and for irrigation. The CUP facilities consist of a boiler plant, chiller plant, co-generation plant, and two sets of cooling towers. The water supply necessary to operate the CUP facilities is currently provided solely by UCONN's public water system. This review has been conducted to determine what level of impact the proposal provides in reducing current demands upon the public water system and what subsequent anticipated gains may be achieved in increasing the available water and Margin of Safety (MOS) of the UCONN public water system.

The current individual water demands of the CUP facilities are as follows:

- Boilers: Total daily consumption flows range from 0.01-0.35 million gallons per day (MGD) with an annual average consumption flow of 0.15 MGD.
- Cooling Towers: Total daily consumption flows range from 0.003-0.45 MGD with an annual average consumption flow of 0.09 MGD.
- Chillers: Very negligible consumption flow necessary with an annual average daily demand of 200 gallons/day.
- Overall CUP system: Total daily consumption flows range from 0.01-0.62 MGD with an annual average consumption flow of 0.25 MGD and a maximum month demand of 0.39 MGD. The overall system demand peaks considerably during the summer months (June, July, August, September, and October) averaging 0.32 MGD.

UCONN's peak water supply demand occurs as students return to campus in late August. This period of peak water supply demand is also coincident with high water use at both the CUP facilities and for irrigation purposes and further coincides with periods of low instream flows. It is expected the use of treated effluent from the proposed RWF will eventually offset a significant portion of these peak demands. The RWF is designed for a maximum day flow demand of 1.0 MGD to accommodate projected peak day future demands of 0.75 MGD for the CUP facilities and 0.25 MGD for turf irrigation. A 1.0 million gallon pre-cast concrete storage tank will also be provided to further accommodate projected future peak day demands of the RWF.



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The following assessment is a summary of UCONN’s current water system capabilities:

- The Willimantic wells, based upon the September 2009 72-hour simultaneous pump test, have a DPH approved safe yield of 1,350 gallons per minute (gpm), or 1.4580 million gallons per day (MGD), when adjusted for the critical dry period. The 1.4580 MGD DPH approved safe yield substantiates the total quantity of water supply, minus any additional water system restrictions/limitations, that is regularly available from the Willimantic River Wells to assist in dependently meeting the Average Day Demands (ADD) or the Maximum Month Average Day Demands (MMADD) of the UCONN public water supply system.
- The total well production and associated available water to the UCONN public water supply system from the Fenton River Wells is further limited beyond the Department of Environmental Protection (DEP) diversion registration restriction of 0.8443 MGD by recent management strategies implemented to protect the Fenton River including a phased reduction in total well field production as the flow rate of the river drops below 6 cubic feet per second (cfs). Effectively, UCONN can not depend on the Fenton River wells in critical situations or prolonged dry periods.
- The table below summarizes current available water (noted as either a registered diversion or DPH approved safe yield), water system demands (2008), and associated margin of safety values:

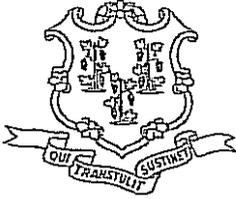
Source	Available Water	ADD	MMADD	ADD MOS	MMADD MOS
Fenton River Wells (A, B, C, D)	0.8443 MGD Registered Diversion				
Willimantic River Wells (#1, #2, #3, #4)	1.4580 MGD Safe Yield				
Total Available Water	2.3023 MGD	1.267 MGD	1.594 MGD	1.817	1.444
Total Available Water without Fenton River Wells	1.4580 MGD	1.267 MGD	1.594 MGD	1.15	0.915

- UCONN’s current margin of safety (MOS) for the various water system demand conditions indicates the critical operating period to be the Maximum Month Average Day Demand (MMADD) condition without the availability of the Fenton River Wells. Ground water systems serving more than 1,000 persons, such as the UCONN, are strongly recommended to maintain a minimum margin of safety of 15% (1.15) over their MMADD. Maximum Month Average Day Demands are especially critical for ground water systems as similar water system demand conditions can last for up to 2-3 months in critical dry years and wells can not be pumped beyond their DPH approved safe yield capabilities for extended time periods without causing adverse effects to the water supply sources and/or the surrounding environment. Currently, UCONN, without the availability of the Fenton River Wells, falls well short of meeting the water industry recognized standard practice of minimally maintaining a 15% MOS over current MMADD values (0.915 vs. 1.15).

- The table below summarizes projected available water, system demands, and associated margin of safety based upon the projected water system demand reductions from the CUP facilities following the construction and implementation of the proposed RWF. The assessment does not capture the additional demand reductions expected from irrigation as current quantifiable demand data was not provided for irrigation purposes. The RWF is designed to accommodate up to an additional 0.25 MGD, if needed, for irrigation purposes. Utilizing the treated wastewater from the RWF for irrigation purposes will realize additional water system demand reductions and associated increases in both available water and margin of safety for the water supply system beyond the values noted in the table below.

Source	Available Water	ADD	MMADD	ADD MOS	MMADD MOS
Fenton River Wells (A,B, C, D)	0.8443 MGD Registered Diversion				
Willimantic River Wells (#1, #2, #3, #4)	1.4580 MGD Safe Yield				
Total Available Water	2.3023 MGD	1.017 MGD	1.204 MGD	2.264	1.912
Total Available Water without Fenton River Wells	1.4580 MGD	1.017 MGD	1.204 MGD	1.434	1.211

- UCONN's projected margin of safety (MOS) values following the construction and implementation of the proposed RWF exceed the recommended minimum values for all water system demand conditions including the critical operating period of Maximum Month Average Day Demand. The projected MOS for UCONN's critical operating period of MMADD conditions without the availability of the Fenton River Wells also exceeds minimum recommended standard practices (1.21 vs. 1.15). It is strongly recommended that the University of Connecticut continue to pursue a reclaimed water facility to realize these projected water system demand reductions, increases in available water and margin of safety for the water supply system, and to assist in reducing the amount of water withdrawals necessary from the Willimantic River Wells. The investigation of additional water supply options such as interconnections with the Connecticut Water Company's Northern Region/Western System and Windham Water Works, who currently has excess available water within the region, should also be continued. DPH is available to work with the University of Connecticut and provide technical assistance to ensure the public water supply system acquires the necessary adequate short and long term capacity that will assure system sustainability.



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

MEMORANDUM

RECEIVED

SEP 20 2010

EASTERN HIGHLANDS
HEALTH DISTRICT

TO: Lori Mathieu, Public Health Services Manager

FROM: William Sullivan, Sanitary Engineer 3

DATE: September 16, 2010

SUBJECT: University of Connecticut Reclaimed Water Facility— Backflow Prevention / Cross Connection Control Review

Documents/Plans Reviewed: Project Narrative & Plans / Specifications Prepared by Milone & MacBroom Inc. in association with Hazen & Sawyer, P.C. (ID Project No.: 901229)

Review Limits: This plan review is of the proposed RWF, RWF Storage Tank and Potable Water Distribution System. While the project narrative includes discussion on other facilities associated with the RWF, namely the Water Pollution Control Facility (WPCF) and Central Utilities Plant (CUP), plans and specifications of plumbing modifications / additions of the WPCF and CUP were not included with the submittal. A separate review of the proposed plumbing modifications to the WPCF and CUP by this office is necessary, prior to construction.

Review Requirements / Questions / Recommendations (by DWG. NO.):

1) Section 19a-37d of the Connecticut General Statutes requires that Public Water Systems perform an evaluation of cross connection protection, based on permit applications that specify installation of reduced pressure principle backflow preventers. To conform to this requirement these plans should also be reviewed by the University of Connecticut's current contracted Cross Connection Inspector (i.e. Connecticut Water Company).

RWF

P-02:

2) The "reduced pressure zone preventer"s listed must be one in the same with "reduced pressure principle backflow preventer" (RPD), as defined in Section 19-13- B38a of the Regulations of Connecticut State Agencies(RCSA).

P-06:

3) There is a conflict between P-06 & P-02 relative to the specification of an RPDs:

-P-02 calls for one containment RPD (2 ½") and then two isolation RPDs (2" RPD in sodium hypochlorite room and ½" RPD in mechanical)



-P-06 calls for two containment RPDs in parallel (2½", 2") and then one isolation RPD (2"). There also appears to be a 1" RPD plumbing symbol on the plan, however, no written detail next to the symbol is given.

What is the final design relative to backflow prevention in the RWF? In particular, what is the proposed design relative to potable water supply to the individual treatment unit processes in the RWF?

4) Plan must specify that all RPDs conform to (listed as) the latest revision of the ASSE 1015 standard or AWWA C511 standard and must be installed and maintained in accordance with the requirements of RCSA Section 19-13-B38a.(f).

5) Plan must specify that the line to all urinals be equipped with an atmospheric vacuum breaker that conform to (listed as) the latest revision of the ASSE 1001 standard and that these devices must be installed and maintained in accordance with the requirements of RCSA Section 19-13-B38a.(f).

6) Plan must specify that the line to all water closet tanks be equipped with an antisiphon fill valve that conform to (listed as) the latest revision of the ASSE 1002 standard and that these devices must be installed and maintained in accordance with the requirements of RCSA Section 19-13-B38a.(f).

7) Is the 3" line serving the fire protection system from the potable distribution system or is it from a dedicated fire distribution system?

If the 3" line is from the potable distribution system an RPD must be specified on this line per RCSA Section 19-13-B38a(c)(2)(A) and must be installed and maintained in accordance with the requirements of RCSA Section 19-13-B38a.(f).

P-08 (hose bib also shown on P-06)

8) Plan must specify that the line to all hose bibs be equipped with vacuum breakers that conform to (listed as) the latest revision of the ASSE 1011 standard and that these devices must be installed and maintained in accordance with the requirements of RCSA Section 19-13-B38a.(f).

M-08:

9) Is the 8" reverse flush supply line is from the potable water system (reverse flush also shown on M-20)?

RWF Storage Tank

M-13:

10) Plans specifies construction of a 4" potable water supply line up the side of the RWF storage tank and to extend this pipe down through the tank dome 1'. It should be mentioned that the Project Narrative (Page 4-1) provides no explanation as to the need for the supply of potable water into this storage tank. This exposed water line on the side of the RWF tank is to be heated and insulated. The water stored in the RWF Storage tank is not considered a potable water supply source (reference Table 3-1 of the Project Narrative). The RCSA Section 19-13-B38a(b) specifies an "air gap" separation be maintained between potable water lines or systems, which are subject to contamination. The definition of "air gap" per RCSA Section 19-13-B38a.(1) is provided below:

"Air gap" means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or outlet supplying water to a tank plumbing fixture, or other device, and the flood level rim of the receptacle. The

vertical physical separation shall be at least two times the inside diameter of the water inlet pipe above the flood rim level but shall not be less than one inch;

The supply line into the RWF storage tank does not comply with the above cited definition. A revision to the plan is required so as not to violate the above referenced regulation.

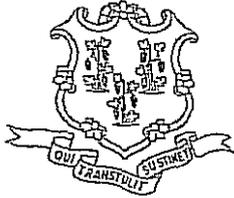
Potable Water Distribution System

C-10:

11) It is recommended that the language found in "Potable Water - Sanitary Sewer - Reclaimed Water Separation Notes" be replaced with the specifications found in Part 8 of the 2003 Edition of the "Recommended Standards for Water Works. Plans C-12 through C15 identify 9 locations where potable water lines cross with the reuse water lines. The separation, placement and crossing of water lines, sanitary sewer and reuse water lines conform to the above referenced standard. Since "reuse water" is not identified by this standard it is recommended that it be considered one in the same with "sewer pipe".

C-23

12) The plan indicates a interconnection between domestic water ("INCOMING DOMESTIC WATER FILL PUMPING (BY OTHERS) and the reclaimed water distribution system ("2" FROM RW IRRIGATION LINE") within the "PRECAST METER PIT AT SHERMAN FIELD". RCSA Section 19-13-B38a(b) specifies an "air gap" separation be maintained between potable water lines or systems, which are subject to contamination.



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

MEMORANDUM

TO: Lori Mathieu, Public Health Services Manager
Eric McPhee, Supervising Environmental Analyst, SWP
Steve Messer, Supervising Sanitary Engineer, Planning
William Sullivan, SE3, Enforcement and Operator Certification

FROM: Patricia Bisacky, Environmental Analyst *PB*

DATE: 9/16/10

DPH PROJECT #: N/A

SUBJECT: University of Connecticut Reclaimed Water Facility—SWP Review

The Department of Public Health Drinking Water Section (DWS) Source Water Protection Unit (SWP) has reviewed the project narrative, drawings and specifications for the proposed Reclaimed Water Facility for the University of Connecticut (UCONN) dated July 2010. The Reclaimed Water Facility is a tertiary treatment facility which is proposed to treat the wastewater treatment plant effluent. The reclaimed water then will be distributed for use in the Central Utilities Plant and for irrigation of the Sherman Athletic Field and the Visitor Center lawn. A significant portion of the UCONN campus lies within the public drinking water supply watershed of Mansfield Hollow Reservoir, an active source of public drinking water for the customers of Windham Water Works (PWSID# CT1630011).

A review of the submitted materials indicates that the reclaimed water facility, the reclaimed water distribution system and the proposed facilities which will utilize reclaimed water for irrigation are not located within public drinking water supply watershed areas. The project as proposed is not likely to have an impact to public drinking water sources of supply. If any additional fields are proposed to be irrigated, it is recommended that UCONN contact the DWS for further guidance.

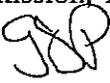
The following observation is beyond the regulatory review of this report, however it is noted that the reclaimed water distribution system manholes will be marked "Water" on the top. It is suggested that UCONN use a different term to avoid confusion with the potable water system.



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TOWN OF MANSFIELD
OFFICE OF PLANNING AND DEVELOPMENT

GREGORY J. PADICK, DIRECTOR OF PLANNING

Memo to: Mansfield Planning and Zoning Commission, Town Council, Conservation Commission
From: Gregory Padick, Director of Planning 
Date: 10/13/10
Re: August 2010 Draft Final Environmental Assessment (EA) - USDA Animal Health Research Center

Copies of the project abstract and assorted other pages of an August 2010 Draft Final Environmental Assessment (EA) for a new United States Department of Agriculture (USDA) Animal Health Research Center to be located at UConn's Depot Campus have been distributed to the Town Council, the Planning and Zoning Commission and the Conservation Commission. The draft final EA provides detailed information about the proposed project which has been in the planning stages for many years and was the subject of a recent public information session. Although the 9/21/10 transmittal letter from P. Ferri of UConn's Office of Environmental Policy specifies a thirty (30) day comment period, Mr. Ferri has verbally related to me that any review comments from Mansfield representatives received this fall would be considered.

I have reviewed the draft final EA and have the following comments:

- The subject EA has been prepared pursuant to National Environmental Policies Act (NEPA) requirements. The project is not subject to Connecticut's Environmental Policies Act (CEPA) procedures. If the August 2010 EA finding that the subject project is not expected to result in significant environmental impacts is found appropriate by federal reviewers, the project will be allowed to proceed to final design and construction processes. Final construction plans will necessitate a number of State permits but no municipal approvals are required.
- The attached EA abstract summarizes the proposed facilities, the planned uses and the animal research benefits the facility is expected to produce. The body of the EA report provides more details about the project, the selected Depot Campus site, alternative sites that were considered and potential environmental impacts.
- Table 2-1 on Page 15 summarizes the potential environmental consequences of each alternative. Based on my review to date, the EA finding of no significant impact on the physical environment is adequately documented in the EA. The site is not adjacent to existing private residences and no significant neighborhood impacts are expected. The site would be accessed by State roadways and no short term or long term traffic impacts are anticipated. The project would be served by UConn sewer and water systems and the anticipated need for 1,200 gallons of water per day is not expected to be a problem.
- Whereas the project may change prior to construction, it is recommended that Mansfield representatives request an opportunity to review final plans prior to the start of construction.
- Any additional comments or issues raised by the Conservation Commission (at its 10/20/10 meeting), by the Town Council (at its 10/25/10 meeting), or the Planning and Zoning Commission (at its 11/1/10 meeting) can be incorporated into a letter from the Town.

Summary/Recommendation

My review indicates that the subject Draft Final EA is thorough and appropriately addresses potential environmental impacts. Accordingly, subject to any review comments from Town Council, PZC or Conservation Commission members, it is recommended that Mansfield representatives support the findings of the EA. Any letter of support should request an opportunity to review final designs prior to construction.

Announcements

NOTICE OF DRAFT
ENVIRONMENTAL
ASSESSMENT
PUBLICATION
United States
Department of
Agriculture
& University of
Connecticut

The United States Department of Agriculture (USDA) has commissioned the development of a National Environmental Policy Act (NEPA) Environmental Assessment (EA) relative to the proposed design and construction of a new Agricultural Research Service (ARS) Animal Health Research Center (AHRC) at the University of Connecticut (UConn) Depot Campus. The land would be leased by the USDA from UConn. The primary objectives of the proposed facility would be to study host-pathogen interactions of endemic diseases affecting livestock in the United States and to discover highly effective vaccines to control and eliminate these diseases. The Environmental Assessment is intended to help public officials make decisions that are based on the understanding of the environmental consequences, and take actions that protect, restore, and enhance the environment and human health and safety.

The Draft Environmental Assessment is available for review at the University of Connecticut, Office of Environmental Policy, Mansfield Town Hall (Town Clerks Office), and the Mansfield Public Library. Also, an electronic copy of the document can be accessed at

<http://www.envpolicy.uconn.edu/eia.html>.

Interested persons are invited to review the document to learn more about the project. Please direct questions about the Draft Environmental Assessment to Steve Soltung of STV Incorporated, at 610-385-8262 and/or steve.soltung@stvinc.com.

All written comments for this project should be sent to Steven Soltung, Environmental Manager, STV Incorporated, 202 West Welsh Road, Douglassville, Pennsylvania 19518, Fax 610-385-8510.

The Chronicle

9-18-10



University of Connecticut
*Office of the Vice President and
Chief Operating Officer*

Office of Environmental Policy

September 21, 2010

Town of Mansfield
Audrey P. Beck Municipal Building
4 South Eagleville Road
Mansfield, CT 06268

Re: USDA proposed Animal Health Research Facility

General Public:

UConn requests your review of the attached USDA's Final Draft Environmental Assessment report for the proposed Agricultural Research Service (ARS) Animal Health Research Center (AHRC) at UConn's Depot Campus. The Final Draft addresses comments received during our May 18, 2010 public information session. Public advertisements announcing the report's availability have been published in both the Willimantic Chronicle and the Hartford Courant.

Hardcopies of this report have been provided for public viewing at the Mansfield Town Hall and the Mansfield Public library. You can also view it online at: <http://www.envpolicy.uconn.edu/Draft%20Final%20USDA-UConn%20EA%208-13-10.pdf>. The comment period is open for 30 days.

You can send your comments to:

Paul Ferri
UConn – Office of Environmental Policy
31 LeDoyt Road, Unit 3055
Storrs, CT 06269

Sincerely,

Paul Ferri
UConn – Office of Environmental Policy
860-486-9295
paul.ferri@uconn.edu

Received 9/21/10

An Equal Opportunity Employer

31 LeDoyt Road Unit 3055
Storrs, Connecticut 06269-3055

Telephone: (860) 486-5446
Facsimile: (860) 486-5477
web: www.ecohusky.uconn.edu

* PORTIONS OF THIS REPORT ARE ATTACHED. Full Report Available at www.enr.policy.uconn.edu/eic.html

**DRAFT
FINAL**

USDA



**Environmental
Assessment (EA)**

for the
**Design and Construction
of a USDA Agricultural
Research Service (ARS)
Animal Health Research Center
(AHRC)**

at the
University of Connecticut

Storrs, Connecticut

August 2010



30-14093

DRAFT FINAL

ENVIRONMENTAL ASSESSMENT (EA)

for the

DESIGN AND CONSTRUCTION OF A USDA AGRICULTURAL RESEARCH SERVICE (ARS) ANIMAL HEALTH RESEARCH CENTER (AHRC)

at the

UNIVERSITY OF CONNECTICUT STORRS, CONNECTICUT

August 2010



Prepared by:

STV Group Incorporated
205 West Welsh Drive
Douglassville, PA 19518
(610) 385-8200

Prepared for:

United States Department of Agriculture
Agriculture Research Center
5601 Sunnyside Avenue
Mail Stop 5125
Beltsville, MD 20705-5125

STV Project No. 30-14093

The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies either express or implied, of the U.S. Government.

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COVER SHEET

Proposed Actions: Design and construction of a USDA Agricultural Research Service (ARS) Animal Health Research Center (AHRC) at the University of Connecticut, Storrs, Connecticut

Type of Statement: NEPA Environmental Assessment (EA)

Lead Agency: U.S. Department of Agriculture

Consulting Agencies: State of Connecticut:
Connecticut Department of Environmental Protection
Connecticut Office of Policy and Management
University of Connecticut

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Abstract:

The United States Department of Agriculture (USDA) is proposing to design and construct a new Agricultural Research Service (ARS) Animal Health Research Center (AHRC) at the University of Connecticut (UConn) Depot Campus (ARS-AHRC: Preferred Alternative). The land would be leased by the USDA from UConn. The primary objectives of the proposed facility would be to study host-pathogen interactions of endemic diseases affecting livestock in the United States and to discover highly effective vaccines to control and eliminate these diseases. The proposed facility would provide the ability to work with pathogens and vaccines at bio-safety level 2 (BSL-2). Since the proposed function will focus on vaccines, the animal component is critical to the overall mission. Research of animal vaccines will be the core competency; e.g. immune responses, determinants of disease susceptibility, animal challenges, parameters to measure if an animal is protected, and the testing of vaccines that can enhance the immune response. Locating the new research facility at UConn would provide the following benefits:

- There is a history of USDA's ARS performing collaborative research at UConn.
- Additional collaborative scientific research between UConn and ARS would provide critical mass to speed the development of urgently needed vaccines.
- There is also a distinct advantage given UConn's proximity to other USDA research facilities within the Northeast U.S.
- The proposed project would increase the number of undergraduates, graduate students and postdoctoral trainees working on projects related to animal health.
- The proposed project would build upon pre-existing ARS-UConn collaborative activities.

The mission of the ARS-AHRC at UConn would be to deliver scientific information that would advance the discovery of highly effective vaccines and other countermeasures specifically designed for the control and eradication of infectious diseases that threaten animal agriculture and public health. Some of the tangible goals of locating and maintaining the proposed facility on the Depot Campus of UConn include:

- Reducing costs of animal studies that do not require high containment facilities;
- Increasing the number of scientists working in animal health research;
- Implementing vaccine discovery programs that would support animal health studies in other centers;
- Conducting bio-therapeutic studies;
- Conducting internationally recognized research;
- Discovering vaccines of national priority;

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- Providing direct access between personnel at other USDA research facilities and UConn academic and research departments, including Pathobiology and Veterinary Science, Animal Science, Molecular and Cell Biology, and the School of Pharmacy, and
- Providing access to the Department of Immunology, the Department of Genetics and Developmental Medicine, and the Department of Molecular, Microbial and Structural Biology at UConn's Health Center in Farmington, CT.

The proposed scientific program to be employed at the new facility would include the following:

- Immunology (mechanisms of immune evasion & protective immunity);
- Host functional genomics;
- Animal model development (pathogenesis and challenge models);
- Biological discovery support function;
- Diagnostic discovery (to differentiate infected from vaccinated animals); and
- Clinical research.

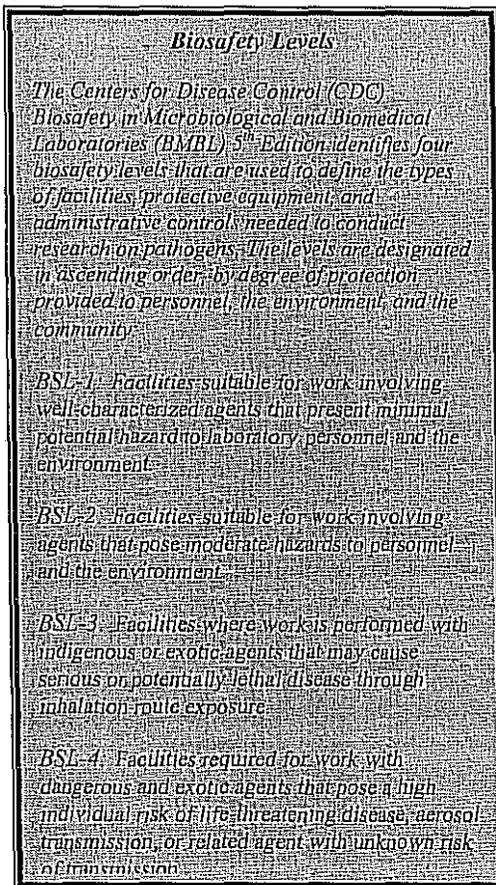
Implementation of the Preferred Alternative and other project alternatives would result in impacts to soils, topography, geology, woodlands, and terrestrial wildlife. All of these impacts are anticipated to be minor. It does not appear that there would be direct impacts to jurisdictional wetlands and/or associated waterways within the Preferred Alternative location, which, if noted, would require mitigation. None of the aforementioned impacts are characterized as significant.

The USDA is proposing to build this project entirely within the confines of UConn's Depot Campus. This EA evaluates potential environmental impacts associated with the No Action Alternative (Alternative 1), the Preferred Alternative, and two additional Alternative Sites.

SECTION 1 PURPOSE OF AND NEED FOR ACTION

1.1 INTRODUCTION

The U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) proposes to construct a Bio-Safety Level-2 (BSL) Animal Health Research Center (AHRC, together ARS-AHRC) facility on lands currently owned by the University of Connecticut (UConn). This environmental assessment (EA) analyzes the potential impacts associated with the construction and operation of the ARS-AHRC.



The purpose of this EA is to identify and evaluate the environmental aspects of implementing the proposed project in accordance with the National Environmental Policy Act (NEPA) of 1969. NEPA requires that federal agencies consider environmental consequences in their decision-making process. The President's Council on Environmental Quality (CEQ) issued regulations to implement NEPA that include provisions for both the content and procedural aspects of the required environmental analysis. These federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation that is designed to ensure deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action.

This EA has been prepared in accordance with NEPA, Section 102(2)(C) and the CEQ *Regulations for Implementing the Procedural Provisions of NEPA*; 40 Code of Federal Regulation (CFR), Parts 1500 through 1508. The objective of this EA is to determine and report the magnitude of the environmental impacts of the Proposed Action. If no

potentially significant impacts are identified from the Proposed Action, a Finding of No Significant Impact (FONSI) can be issued and the Proposed Action may proceed. If significant impacts are deemed probable (in accordance with Council on Environmental Quality criteria (40 CFR 1508.27)), even after mitigation measures or specific conditions are incorporated into the design, a Notice of Intent (NOI) to prepare a NEPA Environmental Impact Statement (EIS) is required, followed by the completion of the EIS itself.

1.2 PURPOSE OF AND NEED FOR ACTION

The USDA proposes to design, construct, and operate an Animal Health Research Center (AHRC) at UConn's Depot Campus (see Figure 1-1: Project Location Map). Construction and operation of the AHRC (i.e., Proposed Action) would be intended to deliver scientific information that would advance the discovery of highly efficacious vaccines and other countermeasures specifically designed for the control and eradication of infectious diseases that threaten animal agriculture and public health.

The objective of this EA is to ensure consideration of the environmental aspects of the proposed actions in the Federal decision-making processes; determine whether or not the proposed actions have the potential for creating significant impacts on the human and/or natural environment; and to make environmental information available to the public before decisions are made and actions taken.

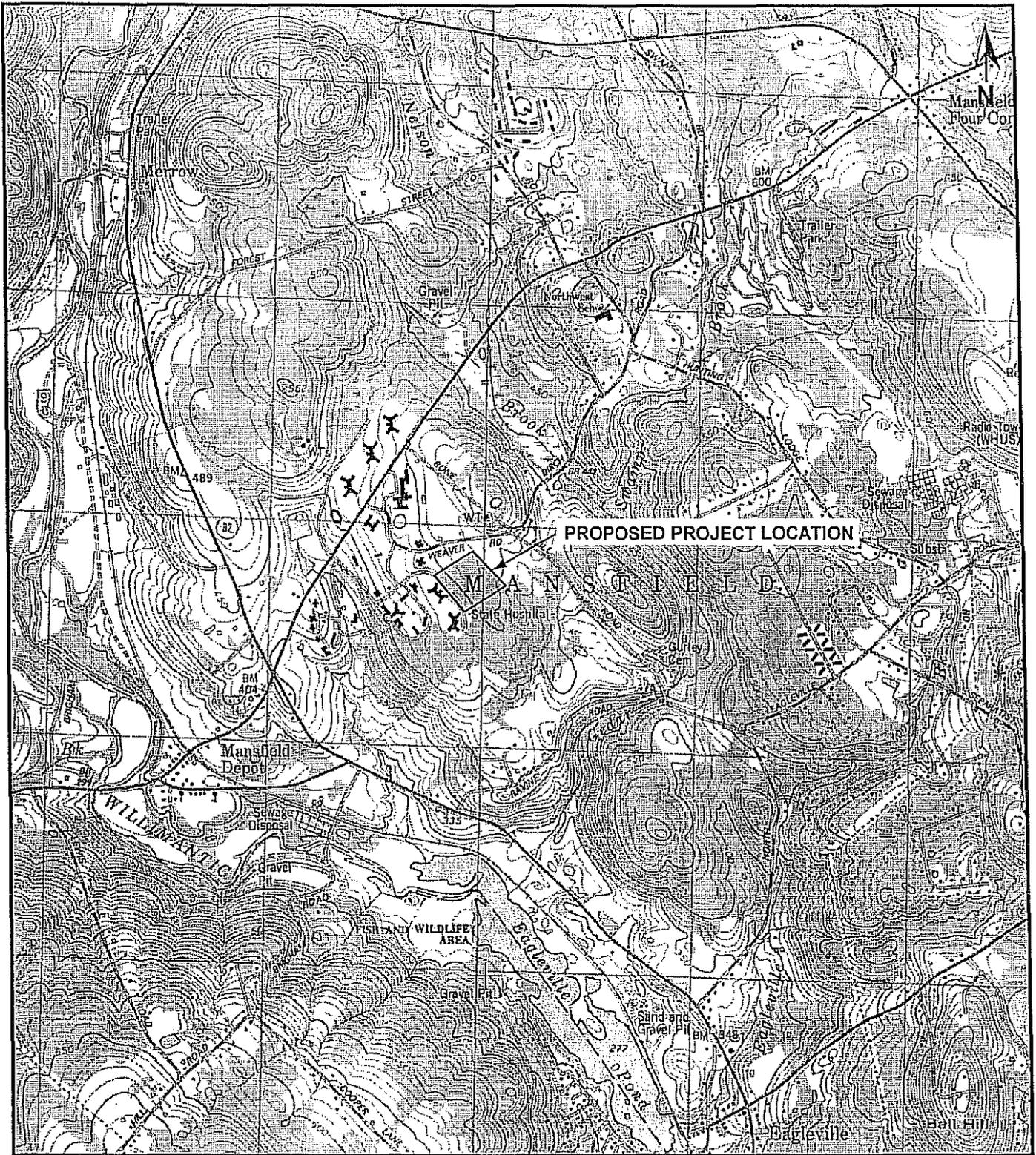
1.3 THE DECISION

The decision to be made is whether to implement the Proposed Action (Preferred), modify the Proposed Action, or select from other Alternative Actions, within which the No Action Alternative is included.

1.4 SCOPING AND POTENTIALLY SIGNIFICANT ISSUES

Scoping covers the range and detail of issues covered in this EA document. Agency scoping was conducted as part of the original NEPA process to ensure that identification of issues of concern (i.e., potentially significant impacts) occurred as early in the assessment process as possible. Further, scoping enabled the project objectives to concentrate on "real problems," rather than spend time and effort on addressing and studying issues that are of little or no concern. The following activities were conducted to define and refine the scope of this EA:

- Evaluated existing/current site conditions and natural resources and the human environment within and adjacent to the proposed project area and alternative sites.
- Arranged and conducted a Public Information Session during which members of the general public were briefed on the proposed project and then given the opportunity to ask questions about any aspect of the project.
- Coordinated with UConn personnel knowledgeable of site conditions, existing planning documents (e.g. available master plans), University codes and standards, etc.
- Corresponded with local, state, and federal regulatory agencies (ongoing) to obtain information pertaining to critical resources (e.g., threatened and endangered species) and environmental permits and approvals required for land development activities within the proposed project area.



SCALE: 1" = 2,000'



REFERENCE: United States Department of Interior Geological Survey
Coventry, Conn (1983)

FIGURE 1-1
PROJECT LOCATION MAP - PREFERRED ALTERNATIVE
USDA-APHIS ARS ANIMAL HEALTH RESEARCH CENTER
UNIVERSITY OF CONNECTICUT

In accordance with CEQ regulations (specifically sections 1500.4 and 1501.7), this EA includes detailed discussions of only those issues deemed to be potentially significant. Issues pertinent to this EA are summarized and incorporated by reference. Project scoping resulted in the identification of the following potentially critical issues, each of which is addressed in greater detail within the body of this document.

Construction Impacts

Impacts that result from construction of the new facilities would be similar to those from any small to medium-sized construction project. Construction would produce temporary local increases in noise and dust levels. Gaseous emissions from construction equipment would be similar to those of routine construction jobs. Construction activities would use standard earthmoving machinery and carpentry, mechanical, and electrical equipment. There would be no unusual worker hazards associated with construction of the facilities associated with the AHRC. No threatened or endangered species would be affected, and no wetlands are located within the Proposed (Preferred) project area. The Proposed project area is not located within a floodplain; however, streams and potential wetlands are found within the two alternative site locations.

Project Communications and Coordination

The USDA proposes to construct and operate the AHRC within the Depot Campus of UConn. UConn maintains close ties and communications with the local community (e.g., residents, municipal officials, special interest groups, business people, etc.). Extensive coordination between USDA, UConn personnel, the local community, and future site contractors will be essential toward maintaining project continuity and avoiding conflicts with ongoing operations within the partially occupied Depot Campus, as well as other areas within the UConn campus (e.g., roads, parking areas, etc.). Frequent communications between affected parties will be conducted during the project planning activities and prior to and during construction activities to reduce the potential for disruption of off- and on-site vehicular circulation, mitigate noise impacts, reduce air emissions, and ensure adherence with site development and building permit and approval requirements.

Natural Resources

Natural features and resources across the proposed project area, adjacent areas, and alternative project areas include primary- and secondary-growth woodlands, open fields, steep slopes, overland drainage features, and indigenous wildlife. Reviews of secondary source information and site visits revealed that there are no threatened or endangered species, wetlands, or prime farmland soils within the Proposed project area. Reviews did, however, indicate the potential presence of threatened and endangered species with one of the alternative sites. Tree clearing from the Proposed location would not result in segmentation of woodlands, thereby maximizing the amount of remaining contiguous woodlands habitat and reducing adverse impacts to wildlife that may utilize it as a wildlife corridor. Direct and indirect impacts associated with construction activities and facility operations within the Proposed project area as well as the alternative sites will likely affect some of these resources.

Water Demand

Any new facilities built within the North, East and Depot Campuses will be held to a high standard of water conservation through the use of high-efficiency fixtures and other features consistent with UConn's *2004 Sustainable Design Guidelines* and *2007 Sustainable Design & Construction Policy*.

The Willimantic River Wellfield in northwest Mansfield and the Fenton River Wellfield in northeast Mansfield represent the sources for a drinking water supply system that UConn maintains within the Storrs campus. Water from the Willimantic Wellfield supplies water to the Depot Campus and the Main Campus, while the Fenton River Wellfield supplies water to the Main Campus. The average daily demand on the water system for the two campuses is 1.36 million gallons per day (Mgpd) with a peak demand of 2.2 Mgpd. Current registered water diversions include 2.3077 Mgpd from the Willimantic River Wellfield and 0.844 Mgpd from the Fenton River Wellfield, for an aggregate of 3.1517 Mgpd. However, despite these registered diversions, the available supply from the Willimantic Wellfield is limited by the configuration of the well field – the production wells are in close proximity to each other which results in a cumulative drawdown that limits the amount of water that can be pumped. In addition, two of the wells have pump capacities that are less than their individual registered diversions. However, these pump limitations are advantageous, since running at these wells at their full diversion rate would exacerbate the drawdown and further limit the overall capacity of the well field. Consequently, the withdrawal rate is maximized at 1400 gpm (2.016 Mgpd), compared to the registered diversion of 2.3077 Mgpd, as was stated in the 2007 Water/Wastewater Master Plan (*DRAFT Report of the Willimantic River Study, An Analysis of the Impact of the University of Connecticut Water Supply Wells on the Fisheries Habitat of the Willimantic River* (not yet published)).

Water quality of the Willimantic and Fenton River Wellfields currently meets all state and federal standards for public drinking water supplies. The system has been operated since 2006 by New England Water Utility Services, Inc. (FEIS: North Hillside Road Extension; May 2009).

Peak daily demand for the new AHRC is anticipated to be less than 2,000 gpd, including domestic use, laboratory use and wastewater demand. This projected water demand/water usage for the new AHRC should not result in significant adverse impacts to the current hydrologic regime or aquatic habitat within the Willimantic River.

Site Lighting

The outdoor lighting system at the AHRC will consist of metal pole mounted, metal halide fixtures for the parking lot. Walkways around the AHRC will include a post-top style pedestrian light fixture with a partial cut-off shield that directs light downward to reduce nighttime light pollution. Pole height, light spacing, and lamp wattage will be determined, based upon the specific application, during design of the AHRC. Design criteria for exterior lighting will include minimizing unnecessary light spillage. The design goal will be to provide measures to mitigate impacts of lighting while still providing the level of lighting necessary for pedestrian and motor vehicle safety. The University's Sustainable Design Guidelines articulate clear goals related to the environmental impact of exterior lighting. The guidelines state that projects should provide site lighting that is sensitive to light pollution of the night sky and minimize impacts on nocturnal environments. There are two strategies for achieving this goal:

- Meeting the light levels and uniformity ratios recommended by the Illuminating Engineering Society of North America (IESNA) Recommended Practice Manual: Lighting for Exterior Environments.
- Designing exterior light fixtures with shielding to prevent light spillage to the night sky.

While vehicle light use will be required when traveling on Campus roads after dusk and before dawn, given the type of use for the AHRC, the majority of trips are anticipated to occur during daytime hours. Nighttime traffic will not provide a constant source of illumination and is anticipated to be a relatively minor light source compared to roadway lighting.

Waste Management

Some hazardous and non-hazardous materials will be used within the new facility (e.g., solvents, cleaning solutions, other chemicals, etc.). Solid and liquid hazardous and non-hazardous waste will be generated during daily activities within the proposed AHRC. The USDA will work closely with UConn to establish procedures for compliance with all applicable local, state, and federal laws and regulations for collecting, storing, processing (possible chemical pre-treatment) and disposing of solid and liquid wastes at the AHRC. It is understood that UConn's EH&S will manage all wastes generated at the AHRC under a separate Research Service Agreement. The management and disposal of solid and liquid animal waste materials will require considerable planning and unique design considerations. Animal waste materials will be generated in the Ag Barn, animal holding areas, Necropsy, and laboratories inside the BSL-2. Additionally, animals that are humanely euthanized in the animal holding rooms will require special handling and disposal.

Sustainable Initiatives

The USDA would strive to adhere to UConn's 2008 *Sustainable Office Guidelines*, which promote sustainable practices at work among staff and faculty throughout the University. Several University offices are currently participating in the program. The *UConn Sustainable Office Guidelines* are available on the University's EcoHusky web page (www.ecohusky.uconn.edu/). The guidelines promote waste reduction, recycling and reuse opportunities; energy efficiency and energy reduction; paper and office supply purchasing opportunities; water conservation; and transportation initiatives (e.g. fuel-efficient vehicles, reduced travel, and alternative modes of transportation).

Daily and periodic janitorial cleaning is commonplace at every UConn campus due to the large mass of traffic from the University community. As a result, the University is a large consumer of cleaning products and purchases and uses only green cleaning products that have received the green seal of approval. Public Act No. 07-100 and Public Act No. 08-186 include the following language:

Effective as of October 2007, persons shall use only certified Environmentally Preferable Products (EPP) cleaning products—"Green Seal Certified" or "EcoLogo"—inside state owned and leased facilities. EPP products for State Agency use are approved by the Connecticut Department of Administrative Services (DAS), in consultation with the DEP.

While the DAS currently has contracts with vendors to provide EPP Green Seal Certified or EcoLogo cleaning products as well as disinfectants, disinfecting cleaners, sanitizers, and antimicrobial products sanitizers, UConn instead utilizes its own purchasing department to purchase its cleaning products. To make these purchases, UConn is required to consult Green Seals Products' Institutional and Industrial Cleaning list and EcoLogo's Cleaning and Janitorial Products list.

Public Act 08-186 further requires that when procuring EPP cleaning products, disinfectants, disinfecting cleaners, sanitizers, and antimicrobial products sanitizers, a State agency must take the following steps:

- Items should be purchased for their intended use.
- Follow all manufacturers' instructions when using these products.
- Consult the DAS contracted vendors of EPP cleaning products for information and training on the use of these products (training is highly recommended when using new EPP products).
- Although all products that are certified by Green Seal or EcoLogo have met Green Seal or EcoLogo's environmental standards, not all products are necessarily safe to use in all office environments due to individual sensitivities. Careful review of product Material Safety Data Sheets, usage recommendations, and manufacturer's usage instructions before purchase is always recommended.
- EPP products shall be ordered following standard purchasing procedure for items available on state contract.

The Green Cleaning laws are self-enforcing; the regulations do not require State agencies to officially report their purchases to the DAS or any other State agency. It is advisable, however, to maintain a list of purchases for reference purposes.

UConn will be responsible for cleaning and maintaining the AHRC buildings, either directly or through a third party contract. Therefore, the State's requirements for the purchase and use of green cleaning products will be strictly enforced within the AHRC facility.

1.5 PERMIT AND APPROVAL REQUIREMENTS

One aspect of the development of this EA that helps focus the discussion of impacts and stimulates the involvement of regulatory agencies is the identification of potential environmental permits and approvals applicable to the Proposed Action. Four permitted activities are identified for this proposed project. They include:

- Wetland/Waterway Permits and Water Resource Activities
- Stormwater Management
- Water Discharges
- Air Quality

Each permit/approval is summarized in the following sections and the agency under which each authorization is obtained is identified. In addition, each of the following sections includes a compliance statement that ensures that the project will be constructed and operated in accordance with each of the identified permits and approvals.

1.5.1 Wetland/Waterway Permits & Water Resource Activities

CT DEP's Inland Water Resource Division (IWRD) administers the Inland Wetland and Watercourses program. State agency activities conducting regulated activities must obtain an Inland Wetlands and Watercourses program permit. State agencies obtain permits from IWRD

and not through the local municipality. Any wetlands that are adversely impacted by construction of project components must be restored or mitigated.

The proposed AHRC project (Preferred Alternative) would potentially involve the construction of new sanitary sewer lines through a wetland and stream corridor adjacent to the proposed site in order to tie in with existing sanitary lines. This activity would necessitate the procurement of a *General Permit for Placement of Utilities and Drainage within Inland Wetlands and Stream Channel Encroachment Lines*. This general permit authorizes: placement, repair, or replacement of cables, conduits and pipelines placement, repair, or replacement of a cable, conduit or pipeline that is located on a bridge or located underground provided: 1) the ground surface elevation and hydrology of any wetland, watercourse or floodplain altered or disturbed by such placement is restored to the elevation and condition that existed prior to such placement; 2) proper cover is provided for underground work; and 3) cables, conduits or pipelines are placed above the low chord of a bridge or are relocated to be above the low chord of a bridge. A request for authorization is required to be submitted *and* approved in writing by the Commissioner (as defined by Section 22.a-2(b) of the General Statutes) in order for an activity to be authorized by this general permit.

Additionally, it is anticipated that the proposed project would be required to submit for a *Flood Management Certification* through CT DEP's Bureau of Water Protection and Land Reuse's Inland Water Resources Division. This certification is required for any activity within or affecting a floodplain or that impacts natural or man-made storm drainage facilities. The construction of the new AHRC would add impervious surfaces to the Depot Campus site. The increased impervious surfaces have the potential to increase peak run-off rates. The design will include low-impact-design features such as pervious pavement and bio-infiltration which would mimic pre-existing natural conditions.

1.5.2 Stormwater Management

The 2004 *Connecticut Stormwater Quality Manual* provides guidance on the measures necessary to protect the waters of the State of Connecticut from the adverse impacts of post-construction stormwater runoff. This manual focuses on site planning, source control, and stormwater treatment practices and is intended for use as a planning tool and design guidance document by the regulated and regulatory communities involved in stormwater quality management. The proposed USDA project will be constructed and operated in full compliance with this manual.

In addition, in December 2007, Congress enacted the Energy Independence and Security Act (EISA) of 2007. Under Section 438 of the Act, federal agencies have new requirements to reduce stormwater runoff from federal development and redevelopment projects to protect water resources. Federal agencies can comply using a variety of stormwater management practices, including "green infrastructure" or "low impact development" practices (e.g., reducing impervious surfaces, using vegetative practices, porous pavements, cisterns and green roofs). The provision reads as follows:

"Storm water runoff requirements for federal development projects. The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow."

While the planning, design, and construction of the stormwater runoff devices can vary for each State, the intent of Section 438 of the EISA 2007 remains consistent in that it requires federal agencies to develop and redevelop applicable facilities in a manner that maintains or restores stormwater runoff to the maximum extent technically feasible.

A CT DEP *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities* general permit applies to all discharges of stormwater and dewatering wastewater from construction activities which result in the disturbance of one or more total acres of land area on a site regardless of project phasing. State projects must register and comply with Section 6 of this general permit. The proposed USDA project will be constructed and operated in full compliance with this general permit. For the proposed AHRC project, a *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities* application with a soil erosion and sedimentation control plan (E&S Plan) would be submitted to CT DEP.

The 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control* (CT DEP Bulletin 34) is intended to provide information to government agencies and the public on soil erosion and sediment control. These guidelines fulfill the requirements of Connecticut's Soil Erosion and Sediment Control Act (§§ 22a-325 through 22a-329 of the Connecticut General Statutes). Additionally, as the technical standard, they are required to be complied with in many municipal planning and zoning regulations and in many permits issued by CT DEP associated with land development.

1.5.3 Wastewater Discharges

Any person or municipality that discharges water, substances, or materials into the waters of the state (including all surface and ground waters, and sanitary and storm sewers) is required to obtain a permit prior to commencing the discharge. Proposed sanitary sewer discharges from AHRC would first be reviewed by UConn's Water and Wastewater Advisory Committee and, if approved, regulated directly by the University. Non-domestic wastewater, however, would be permitted and regulated by CT DEP either by General Permit or an individual State Pollutant Discharge Elimination System (SPDES) permit. Prior to the start of construction, final project design technical requirements for water and sewer connections would be reviewed and approved by UConn's Director of Facilities Operations.

A *Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater* general permit applies to wastewater resulting from any of the following processes or activities: air compressor condensate; air compressor blowdown; building maintenance wastewater; contact cooling and heating wastewater; cutting and grinding wastewater; fire sprinkler system test water; non-destruct testing rinse water; and undesignated MISC wastewater. The general permit authorizes discharges to a publicly owned treatment works (POTW) only, either directly via a sanitary sewer or to a holding tank that meets the requirements of the general permit. The water would then be transported from the holding tank to a POTW.

All commercial connections are subject to periodic evaluation of their waste streams for pH, temperature, BOD loadings, hazardous waste content and other criteria pursuant to the University's CT DEP permit. Pretreatment of waste may be needed when the waste exceeds the University's permitted acceptance criteria.

1.5.4 Air Quality

The CT DEP New Source Review permit program, administered by the Engineering and Enforcement Division of the Bureau of Air Management, regulates emissions released to the air from new and modified stationary sources. Examples of such sources include, but are not limited to: boilers; stationary internal combustion engines such as diesels and turbines; incinerators; rock crushing operations; chemical reactors and mixers; paint spray booths; metal degreasers; metal plating and surface treatment operations; printing operations; volatile liquid storage tanks; and many other manufacturing or processing operations.

Prior to beginning the actual construction of any stationary source or modification of any source (to which RCSA Section 22a-174-3a(a)(1) applies), the USDA would be required to:

- apply for and obtain an individual permit; or
- operate the source in accordance with the provisions of RCSA Section 22a-174-3b or -3c.

In making a decision to grant an air permit, CT DEP must determine, at a minimum, that: 1) the proposed activity will incorporate the appropriate control technology and/or operational limitations; 2) the emissions will be in compliance with the state's hazardous air pollutant regulations; and, 3) the proposed activity will not cause any significant deterioration in the air quality.

TABLE 2-1
 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

Area of Effect	Alternative No. 1	Proposed Alternative (Preferred Alternative)	Alternative Site - North Hillside Road	Alternative Site - Horsebarn Hill
Physical Resources (Geology, Topography, Soils)	No impacts to geology, topography, and soils would occur.	Disturbance of soils and topography during earthmoving activities. Balanced cut and fill. Approximately 4 to 5 acres of disturbance for buildings, parking, and utilities. Off-site migration of site soils would be controlled through properly implemented E&S measures.	Disturbance of soils and topography during earthmoving activities. Balanced cut and fill. Off-site migration of site soils would be controlled through properly implemented E&S measures. Minor impacts to site topography expected.	Disturbance of soils and topography during earthmoving activities. Balanced cut and fill. Off-site migration of site soils would be controlled through properly implemented E&S measures.
Water Resources (Surface Water, Wetlands, Floodplains, Groundwater)	No impacts to water resources would occur.	Compliance with CT DEP sediment and erosion control measures during construction. Installation of sewer line is anticipated to be by directional bore beneath unnamed stream and wetland. Permitted activity. No impacts to area groundwater are expected.	Compliance with CT DEP sediment and erosion control measures during construction activities. Presence and locations of streams and wetlands for this alternative are unknown. Proper protection of water resources would be employed.	Compliance with CT DEP sediment and erosion control measures during construction activities. Presence and locations of streams and wetlands for this alternative are unknown. Proper protection of water resources would be employed.
Biological Resources (Vegetation, Wildlife/Aquatic Resource, T&E Species)	No adverse biological impacts would occur.	This alternative would result in approximately 4 to 5 acres of mature tree stand removal. No significant impacts to wildlife (including threatened and endangered species) or aquatic resources are anticipated.	The Southern bog lemming and the Eastern hognose snake may be found within the North Hillside Road Alternative site. Coordination with CT DEP would be conducted prior to construction activities. Impacts to T&E species are possible; however it is likely that any impacts would not be significant. No other significant impacts to wildlife or vegetation are expected at this location.	Historic records indicate the presence of the Eastern hog nose snake in the vicinity of Horsebarn Hill. Implementation of the project in this area may impact this species; however, no significant impacts to wildlife, vegetation or aquatic resources are expected.
Cultural Resources	No cultural resources impacts would occur.	No above-ground or subsurface cultural resources would be affected by construction of the preferred alternative.	No cultural resource impacts are anticipated with this alternative.	A portion of the Horsebarn Hill Road site is within a Historic District. Therefore, there would be impacts to cultural resources.
Noise	No noise impacts would occur.	It is expected that temporary and minor noise impacts would occur from the use of heavy equipment during construction. No additional noise impacts would occur once the facility is completed.	It is expected that temporary and minor noise impacts would occur from the use of heavy equipment during construction. No additional noise impacts would occur once facility is completed.	It is expected that temporary and minor noise impacts would occur from the use of heavy equipment during construction. No additional noise impacts would occur once the facility is completed.
Access/Traffic	No impacts to vehicular access or traffic would occur.	Would result in minor impacts to traffic on Route 44, Weaver Road, and Ahern Lane during construction activities. Following construction, there would be only minor traffic impacts from additional staff accessing the site.	Traffic impacts to the University would be greater than those anticipated for the Preferred Alternative because the construction would occur off of a main campus road.	Traffic impacts to the University would be greater than those anticipated for the Preferred Alternative because the construction would occur off of a main campus road. Also, the BSL-2 and Ag Barn would be separated, resulting in additional traffic and fuel consumption with this alternative.
Utilities	No impacts to utilities would occur.	A review of adjacent utilities indicates there may be upgrades required for this alternative.	A review of onsite rights of way and existing secondary sources indicates that existing utilities are capable of expansion with very minor impacts. Some relocation of underground utilities would be necessary resulting in minor impacts.	A review of onsite rights of way and existing secondary sources indicates that existing utilities are capable of expansion with very minor impacts. Some relocation of underground utilities would be necessary resulting in minor impacts.
Socioeconomic Resources	No impacts to socioeconomic resources would occur.	Based upon the small number of new employees to work in the new facility, no impacts, adverse or beneficial, are anticipated under this scenario.	Based upon the small number of new employees to work in the new facility, no adverse impacts are anticipated under this scenario. The services and supplies purchased by these employees under this scenario would produce an economic benefit to the surrounding community.	Based upon the small number of new employees to work in the new facility, no adverse impacts are anticipated under this scenario. The services and supplies purchased by these employees under this scenario would produce an economic benefit to the surrounding community.
Solid and Hazardous Materials/Waste	No impacts	Operation of the AHRC would result in the generation of a variety of waste materials - animal waste, carcasses, human waste, hazardous waste. All waste materials would be managed and disposed in accordance with all appropriate and applicable local, state, and federal regulations. No significant impacts expected.	Operation of the AHRC would result in the generation of a variety of waste materials - animal waste, carcasses, human waste, hazardous waste. All waste materials would be managed and disposed in accordance with all appropriate and applicable local, state, and federal regulations. No significant impacts expected.	Operation of the AHRC would result in the generation of a variety of waste materials - animal waste, carcasses, human waste, hazardous waste. All waste materials would be managed and disposed in accordance with all appropriate and applicable local, state, and federal regulations. No significant impacts expected.
Air Quality	Air quality would not be impacted.	Construction activities will result in very minor VOC and NO _x emissions - below <i>de minimis</i> levels. Impacts to local air quality would be insignificant during facility operations.	Construction activities will result in very minor VOC and NO _x emissions - below <i>de minimis</i> levels. Impacts to air quality would be insignificant.	Construction activities will result in very minor VOC and NO _x emissions - below <i>de minimis</i> levels. Impacts to air quality would be insignificant.

Gregory J. Padick

From: Arnold Jr, Chester [chester.arnold_jr@uconn.edu]
Sent: Thursday, October 07, 2010 4:00 PM
To: Clausen, John; Eric Thomas; Dennis Schain; Maureen Fitzgerald; Bruce Morton; Betsey Wingfield; Dov Weitman; Kelly Addy; Tom Wagner; Marybeth Hart; Gregory J. Padick; Denise Ruzicka; Bill Hunt; Deguise, Sylvain; Art Gold; Robert Goo; Karen Cappelletta; David M Bjerklie; David Fink; Burr, Bonnie; Hye Yeong Kwon; David Kozak; Lorraine Joubert; Alexandria Roe; John Hudak; Christine Nelson; Stan Zaremba; Melissa Ladd; Brendan Sharkey; Adams Jr, Roger; Willig, Michael; Richard Langan; Rich Claytor; Jana Butts; Kelly Collins; Denise Rep. Merrill; Christopher Malik; Johanna Hunter; Parent, Jason; Darcy Winther; Mel Cote; Rick Lynn; Dolores Leonard; John Mullaney; Mary Ellen Kowalewski; Don Witherill; Weidemann, Gregory; Trish Garrigan; Ferri, Paul; Jamal Kadri; Chris Bellucci; Jennifer Pagach; Margherita Pryor; jbushey@enr.uconn.edu; Steve Winnett; Maryann Nusom Haverstock; Kalle Matso; Karl Wagener; mackaya@enr.uconn.edu; Bauman, David; Lynn Werner; Dan Morley; Amey Marrella; Deb Caraco; Jennifer Zielinski; Balcom, Nancy; Cal Sawyer; Margaret Miner; Lon R. Hultgren; Donald Strait; David LeVasseur; Anne Kitchell; Ted Grabarz; Steve Silva; Curt Johnson; James Houle; Bill Ethier; Warner, Glenn; Westa, Mark; Chris Wood; Don Waye; Paul Stacey; Craig Miner; Rob Hust; Mike Liffman; Berner.Jason@epamail.epa.gov; Jim MacBroom; Shelley Green; Coite, Jason; Mark Tedesco; Chris Obrupta; Alyson McCann; Volin, John
Cc: Dietz, Michael; Richard Miller
Subject: Announcing the Impervious Cover TMDL Project Website

Friends and Collaborators of CLEAR and the NEMO Program,

A new website devoted to the Impervious Cover TMDL project is now online at:
<http://clear.uconn.edu/projects/tmdl/>

The project, funded by CTDEP, UConn and the Town of Mansfield, is developing a response to the first impervious cover TMDL in the country. This precedent-setting "IC-TMDL" is focused on Eagleville Brook, a small watershed that drains much of the UConn main campus. While the project is still ongoing, we feel that there's enough good information on the website to call your attention to it. Much on-the-ground progress has already been made, and we intend to use the website to track progress as it occurs.

As always, questions and comments are welcome

Thanks,

Chet

(for the project team of UConn, CTDEP, the Center for Watershed Protection, and the Horsley Witten Group)

Chester Arnold
Dept. of Extension
Center for Land Use Education and Research University of Connecticut
(860) 345-5230
chester.arnold@uconn.edu



Mansfield Open Space Preservation Committee

Minutes for September 21, 2010

1. Chairman Jim Morrow called the meeting to order at 7:36 PM
 2. Members present: Jim Morrow, Ken Feathers, and Vicky Wetherell Art Kirschenbaum prospective member
 3. Feathers/Wetherell Motion to approve the minutes of July 20, 2010 motion carried unanimously.
 4. Public Comment: No public present.
 5. No Executive Session
 6. Old Business:
Wetherell/Feathers Motion was made to accept the 8/9/10 draft revision "Mansfield Open Space Presentation Committee Charge" and request a meeting with the Committee on Committees to discuss. motion carried unanimously.
 7. New Business

Greg Padick's email "Ossen Parcel Monticello Lane" of Sept 17, 2010 was discussed. The committee concurs with Greg's conclusion about the 2.8 acre parcel.
 8. No reports
 9. No communications
 10. Other
 11. No comment on future agendas
- 1
 2. Adjournment:

Wetherell/Feathers Meeting adjourned at 8:12 PM

Respectfully submitted
James R. Morrow

PAGE
BREAK

MINUTES

MANSFIELD PLANNING AND ZONING COMMISSION

Regular Meeting, Monday, September 20, 2010
Council Chamber, Audrey P. Beck Municipal Building

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

Chairman Favretti called the meeting to order at 7:10 p.m. and appointed Loxsom and Stearns to act in member absence.

Minutes:

9-7-10-Beal MOVED, Ryan seconded, to approve the 9/7/10 minutes as corrected (“majority” was replaced by “two-thirds” in the last sentence of Old Business item 2 on page 3). MOTION PASSED UNANIMOUSLY.

9-16-10 Field Trip- Ryan MOVED, Beal seconded, to approve the 9/16/10 field trip minutes as presented. MOTION PASSED with Rawn, Beal, Ryan, Holt and Favretti in favor and all others disqualified.

Zoning Agent’s Report:

Noted.

Old Business:

1. **Request to authorize overhead utility lines over conservation easement area dedicated in association with the Hawthorne Park Subdivision, PZC File # 1177**

Tabled: awaiting additional information.

2. **Rezoning of Industrial Park Zone and Associated Regulation Revisions, PZC File 907-33**

Ryan and Lewis noted for the record that they listened to the tapes of the June 7th Public Hearing. The chairman noted that because of her absence at the June 7th Public Hearing and subsequent meetings where discussion was held, Stearns has agreed to disqualify herself for this item. Favretti appointed Rawn to act in her place.

Rawn MOVED, Holt seconded, to approve, effective October 15, 2010, the rezoning of the existing areas zoned Industrial Park (IP) located south of Pleasant Valley Road to three (3) separate zone classifications (Pleasant Valley Residence Agriculture, Pleasant Valley Commercial Agriculture and Rural Agricultural Residence-90) and to approve, effective October 15, 2010, related revisions to Articles II, VII, VIII and X, of Mansfield’s Zoning Regulations, as presented in an April 14, 2010 listing of draft revisions with the correction noted below. The subject Zoning Map and Zoning Regulation revisions were presented at a Public Hearing on June 7, 2010 and filed prior to the Public Hearing with the Mansfield Town Clerk.

The approved Zoning Map revisions are as follows:

- A. Rezone areas zoned Industrial Park, located east of a Flood Hazard zone containing Conantville Brook and south of Pleasant Valley Road, to Pleasant Valley Residence/Agriculture (PVRA) zone.
- B. Rezone areas zoned Industrial Park located east of Mansfield Ave, west of a Flood Hazard zone containing Conantville Brook and south of Pleasant Valley Rd to a new Pleasant Valley Commercial/Agriculture (PVCA) zone.
- C. Rezone areas zoned Industrial Park that are west of Mansfield Avenue to a Rural Agriculture Residence-90 zone.

The approved Zoning Regulation revisions, which are attached, shall revise proposed Article VII Section U to change the first sentence of U.2. to reference Sections U.3. and U.4., and not K.3 and K.4. The

revisions include:

1. Revisions to Art. II, VII, VIII, and X. Sec. A. to reference/implement zoning map revisions and to incorporate needed reference and coordination changes. The proposed new PVCA zone will be a Design Development District.
2. A new Art. VII, Sec. U that lists permitted uses in the PVCA zone (including research and certain industrial and repair services uses, communication facilities, automotive garages, offices, commercial recreation, veterinary hospitals and kennels, and agricultural uses).
3. Revisions to Art. VIII, Sec. A including a twenty-five (25) acre minimum lot area for new lots in the proposed PVCA zone.
4. Revisions to Article X, Section A.9 to refine and supplement requirements for the PVRA zone, including provisions for agricultural land preservation and open space/recreation facilities and a new Design Criteria section that has setback requirements from Pleasant Valley Road.
5. A new Article X, Section A.10 to establish special provisions for the PVCA zone, including water and sewer requirements, agricultural land preservation provisions and a Design Criteria section that has setback requirements from Pleasant Valley Road.

In approving the subject zone changes and related zoning regulations, the Planning and Zoning Commission has reviewed and considered all Public Hearing testimony and communications including reports from the WINCOG Regional Planning Commission, Mansfield's Director of Planning and the Mansfield Town Attorney. The zoning map and regulation amendments referenced above are adopted pursuant to the provisions and authority contained in Chapter 124 of the Connecticut General Statutes, including Section 8-2, which grants the Commission the following:

- the authority to regulate the density of population and the location and use of buildings, structures and land for trade, industry, residence or other purposes;
- the authority to divide the municipality into districts of such number, shape and area as may be best suited to carry out the purposes of Chapter 124 of the Connecticut General Statutes; and, within such districts, the authority to regulate the erection, construction, reconstruction, alteration or use of buildings or structures and the use of land;
- the mandate to consider the Plan of Conservation and Development prepared under Section 8-23;
- the mandate to promote health and the general welfare; to prevent the overcrowding of land and to facilitate the adequate provision for transportation, water, sewerage, and other public requirements;
- the mandate to give reasonable consideration as to the character of the district and its peculiar suitability for particular uses and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout such municipality;
- the authority that reasonable consideration be given for the protection of existing and potential public surface and ground drinking water supplies;
- the authority to encourage energy-efficient patterns of development.
- The mandate that zoning regulations shall be made with reasonable consideration for their impact on agriculture.

The subject zoning map revisions and regulation revisions have been adopted because they promote these statutory goals. Furthermore, the Commission has adopted the subject zoning map and regulation revisions for the following reasons:

1. The subject rezonings are consistent with recommendations contained in local, State and regional land use plans. See letter from WINCOG Regional Planning Commission and 6/3/10 report from the Director of Planning. More specifically, these revisions promote all policy goals contained in Mansfield's 2006 Plan of Conservation and Development and, in particular, recommendations associated with Policy Goal 1, objectives 1a, 1b and 1d; and Policy Goal 2, objectives 2a, 2c and 2d. Of particular significance, this zone change will help preserve significant prime agricultural land and important natural and scenic resources. The intent sections of Article VII, Sections K and U provide

more details supporting the subject zone changes to PVRA and PVCA

2. The subject regulation revisions promote goals and objectives contained in Article I of the Zoning Regulations and are consistent with the approval considerations contained in Article XIII, Section D of the Zoning Regulations.
3. The subject regulations revisions are acceptably worded and suitably coordinated with related Zoning provisions. The proposed wording has been found legally acceptable to the Town Attorney.
4. The explanatory notes contained in the 4/14/10 draft zoning and regulation revisions explain and provide additional support for the adopted revisions.
5. Existing permitted use provisions, the schedule of dimensional requirements and a number of additional sections of the regulations needed to be revised to incorporate the establishment of a new PVCA zone. The new design standards and other approval criteria for the PVRA and PVCA zones are necessary and appropriate to ensure the public's health and safety and to promote compatibility between areas to be developed and areas to be preserved for agricultural use and/or conservation.
6. The proposed rezonings and regulation revisions were drafted following previous rezoning public hearings and extensive discussions regarding the subject land south of Pleasant Valley Road. Examples of information considered in association with the subject revisions are cited in the 6/3/10 report from the Director of Planning. Public safety, potential impacts on public infrastructure and public service demands, neighborhood compatibility and property owner rights also have been considered.

The Commission has endeavored to balance reasonable development opportunities (primarily due to the proximity of public sewer and water services) with the protection of the area's special agricultural, natural resource and scenic characteristics. The existing Industrial Park zone and associated regulations have not been significantly revised for over thirty (30) years and are no longer considered consistent with local, regional or State land use plans and other expressions of regulatory intent.

These adopted revisions are considered a significant improvement over the existing zoning provisions for the subject area and this action does not preclude consideration of future revisions.

MOTION PASSED UNANIMOUSLY.

3. **Special Permit Application, Proposed Efficiency Unit Apartment at 147 Stafford Rd., D. Rice o/a, PZC File #1293**

Tabled- 10/4/10 Public Hearing Scheduled.

New Business: (at this time Stearns assumed her seat as alternate and Rawn stopped acting in her stead)

1. **Special Permit Renewal Request for the Use of Live Music in Conjunction with the Following Restaurants: Huskies, King Hill Rd; Stonewall Tavern, Rt. 32; & Ted's Restaurant, King Hill Rd.;** Plante MOVED, Holt seconded, to receive the Special Permit application renewals (file # 895) for the Renewal of Live Music Permits and to refer to the staff for review and comments and to set a Public Hearing for 10/4/10. MOTION PASSED UNANIMOUSLY.
2. **August 2010 Final Draft Environmental Assessment Re: Planned Animal Health Research Center at UConn Depot Campus**
The Draft Environmental Assessment report was discussed. Padick related that he expects to receive notice of a 30-day review period for the Animal Research Center, and that this item will be included on the agenda for the next meeting.

Reports of Officers and Committees:

Chairman Favretti noted a PZC vacancy on the Transportation Advisory Committee, and Ryan noted that she cannot attend Sustainability Committee meetings and will need to be replaced. Favretti asked members to consider volunteering for these committees. Beal stated that the next Regulatory Review Committee meeting is on 9/29/10 at 1pm.

Communications and Bills:

Noted.

Adjournment:

Chairman Favretti declared the meeting adjourned at 7:47 p.m.

Respectfully submitted,

Katherine Holt, Secretary

DRAFT MINUTES

MANSFIELD PLANNING AND ZONING COMMISSION

Regular Meeting, Monday, October 4, 2010

Council Chamber, Audrey P. Beck Municipal Building

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

Chairman Favretti called the meeting to order at 7:32 p.m. and appointed Loxsom and Rawn to act in member absence.

Minutes:

9-20-10-Beal MOVED, Ryan seconded, to approve the 9/20/10 minutes as written. MOTION PASSED with all in favor except Goodwin who disqualified herself.

Public Hearing:

Special Permit Application, Proposed Efficiency Unit Apartment at 147 Stafford Rd.,

D. Rice o/a, PZC File #1293

Chairman Favretti opened the Public Hearing at 7:32 p.m. Members present were Favretti, Beal, Goodwin, Holt, Lewis, Plante, Ryan and alternates Loxsom and Rawn. Favretti appointed Loxsom and Rawn to act. Gregory Padick, Director of Planning read the legal notice as it appeared in the Chronicle on 9/21/10 and 9/29/10 and noted the following communications distributed to all members of the Commission: a 9/29/10 report from G. Padick, Director of Planning; and a 9/20/10 memo and an approved B100A plan from G. Havens, Eastern Highlands Health District.

Daniel Rice, property owner, noted that since reviewing Padick's memo, he has cleared the brush that was obstructing the sightlines.

Favretti noted no public comment and no comments or questions from the Commission. Holt MOVED, Rawn seconded, to close the public hearing at 7:38 p.m. MOTION PASSED UNANIMOUSLY.

Old Business:

3. Special Permit Application, Proposed Efficiency Unit Apartment at 147 Stafford Rd.,

D. Rice o/a, PZC File #1293

Goodwin MOVED, Beal seconded, to approve with conditions the special permit application (file #1293), of D. Rice, for an efficiency apartment on property located at 147 Stafford Road, in an PB-5 zone, as submitted to the Commission and shown on a site plan dated 8/30/10, and other application submissions, and as presented at a Public Hearing on 10/4/10.

This approval is granted because the application, as hereby approved, is considered to be in compliance with Article IX, Section D.3.b, Article X, Section M, Article V, Section B, and other provisions of the Mansfield Zoning Regulations, and is granted with the following conditions:

1. This approval is granted for a one-bedroom efficiency unit in association with an existing single-family home having up to three additional bedrooms. Any increase in the number of bedrooms on this property shall necessitate subsequent review and approval from Eastern Highlands Health District and the Planning and Zoning Commission;
2. This approval is conditioned upon continued compliance with Mansfield's zoning regulations for efficiency units, which include owner-occupancy requirements and limitations on the number of residents in an efficiency unit;

3. Subject to obtaining approval from the abutting property owner to the north of the site, it is recommended that existing vegetation along Stafford Road be removed and/or trimmed to increase sightlines for exiting vehicles.
 4. This special permit shall not become valid until filed upon the Land Records by the applicant.
- MOTION PASSED UNANIMOUSLY.

Zoning Agent's Report:

Hirsch noted that he and the Chairman signed off on modifications for a salt shed at the Town garage and a bus shelter at the Senior Center. Discussion was held about the R. DeBoer property on Storrs Road and it was determined to remove this from the agenda at this time.

Public Hearing:

Special Permit Renewal Request for the Use of Live Music in Conjunction with the Following Restaurants:

Huskies, King Hill Rd; Stonewall Tavern, Rt. 32; and Ted's Restaurant, King Hill Rd.;

Chairman Favretti opened the Public Hearing at 7:50 p.m. Members present were Favretti, Beal, Goodwin, Holt, Lewis, Plante, Ryan and alternates Loxsom and Rawn. Favretti appointed Loxsom and Rawn to act. Gregory Padick, Director of Planning, read the legal notice as it appeared in the Chronicle on 9/21/10 and 9/29/10 and noted the a 9/27/10 memo from C. Hirsch, Zoning Agent.

Favretti noted no public comment and no comments or questions from the Commission. Plante MOVED, Beal seconded, to close the public hearing at 7:53 p.m. MOTION PASSED UNANIMOUSLY.

Other Old Business:

4. **Special Permit Renewal Request for the Use of Live Music in Conjunction with the Following Restaurants:**

Huskies, King Hill Rd; Stonewall Tavern, Rt. 32; and Ted's Restaurant, King Hill Rd.;

Holt MOVED, Loxsom seconded, that the Commission approve the Live Music Permit renewals through November 1, 2011 for the following restaurants: Huskies Restaurant, file # 780-2; The Stonewall Tavern, file # 595; and Ted's Restaurant, file # 1107. These renewals are conditioned upon compliance with the current mandated conditions for each, which shall be attached to this motion. MOTION PASSED UNANIMOUSLY.

1. **August 2010 Final Draft Environmental Assessment Re: Planned Animal Health Research Center at UConn Depot Campus**

Padick noted the Legal Notice that appeared in the Chronicle on 9/18/10 and summarized the report that appeared in the last packet. He noted that the Conservation Commission has not reviewed this item yet and although he does not anticipate any comments from staff upon initial review, he would like to allow adequate time for the C.C. to review and comment, therefore suggested keeping this item on the agenda until the 10/18/10 meeting.

2. **Request to authorize overhead utility lines over conservation easement area dedicated in association with the Hawthorne Park Subdivision, PZC File # 1177**

Item tabled-awaiting additional information.

New Business:

1. **Review of Group Home Use, 153 Hunting Lodge Road, PZC File #1102-2**

Diane Manning, President and CEO of United Services, was present and described the proposed usage of the property. It was determined by the Commission that this use as described is consistent with the "group home" definition in the Zoning Regulations.

Ryan MOVED, Holt seconded, to approve the United Services request to continue the special permit use of 153 Hunting Lodge Road as a group home as described in a 9/30/10 Statement of Use. This approval acknowledges that the proposed use is significantly similar to the 1/3/96 PZC special permit approval and is granted upon the following conditions:

- a. Total occupancy shall be limited to no more than six residents (exclusive of non-resident staff);

- b. Any changes to the group home use as described shall require further review and approval by the PZC.

MOTION PASSED UNANIMOUSLY.

Reports of Officers and Committees:

Chairman Favretti noted that Fred Loxsom has volunteered to be the PZC representative on the Sustainability Committee. Favretti noted that there is still a vacancy on the Transportation Advisory Committee. Beal stated that the next Regulatory Review Committee meeting is on 10/13/10 at 1:15pm.

Communications and Bills:

Noted.

Adjournment:

Chairman Favretti declared the meeting adjourned at 8:10 p.m.

Respectfully submitted,

Katherine Holt, Secretary

PAGE
BREAK

DRAFT MINUTES
MANSFIELD INLAND WETLANDS AGENCY
Regular Meeting
Monday, October 4, 2010
Council Chambers, Audrey P. Beck Municipal Building

Members present: R. Favretti (Chairman), M. Beal, J. Goodwin, K. Holt, G. Lewis (7:05), P. Plante, B. Ryan,
Members absent: R. Hall, B. Pociask
Alternates present: F. Loxsom, K. Rawn
Alternates absent: V. Stearns
Staff present: G. Meitzler (Wetlands Agent)

Chairman Favretti called the meeting to order at 7:01 p.m. and appointed alternates Rawn and Loxsom to act in member absence.

Minutes:

9-7-10 – Beal MOVED, Plante seconded, to approve the 9-7-10 minutes as written. MOTION PASSED UNANIMOUSLY.

9-16-10 Field Trip- Ryan MOVED, Holt seconded, to approve the 9-16-10 field trip minutes as written. MOTION PASSED with Beal, Holt, Favretti, Ryan and Rawn in favor and all others disqualified.

Communications:

The 9-15-10 draft Conservation Commission minutes and the 9-28-10 Wetlands Agent's Monthly Business report were noted. Favretti asked Meitzler for an update on the Mirror Lake Dredging that was scheduled to be completed this summer. Meitzler reported that certain issues related to CT-DEP approval have yet to be resolved; hence the delay.

Holt MOVED, Ryan seconded, to add to the agenda under New Business a new application File W1463, Storrs Agricultural Experiment Station. MOTION PASSED UNANIMOUSLY.

Old Business:

W1462 - Town of Mansfield - Laurel Lane bridge replacement

Holt MOVED, Ryan seconded, to grant an Inland Wetlands License under the Wetlands and Watercourses Regulations of the Town of Mansfield to the Town of Mansfield (file no. W1462), for replacement of the Laurel Lane Bridge over the Mount Hope River, on property owned by the applicant, located approximately 725 feet east of CT Route 89, as shown on a map dated 8/2/10 and as described in other application submissions.

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

1. Appropriate erosion and sedimentation controls (as shown and stated on the plans) shall be in place prior to construction and maintained during construction and removed when disturbed areas are completely stabilized.

This approval is valid for a period of five years (until October 4, 2015), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment. MOTION PASSED UNANIMOUSLY.

New Business:

W1463 - Storrs Agricultural Experiment Station- Schoolhouse Brook Park

John C. Clausen, Natural Resource & Environment Professor at the University of Connecticut, reviewed the proposal to treat nine 20'x 20' plots of phragmites in Schoolhouse Brook Park. The phragmites will be covered with black plastic for various periods of time to determine the most effective length of time for this treatment. Clausen added that the proposal includes involving E.O. Smith Vocational Agriculture students in all steps of this research project. He related that the DEP determined that this is a conservation activity which is exempt from DEP permits and he expects to receive a letter stating so. He also has applied for a parks and recreation permit from Jennifer Kaufman.

Favretti asked Clausen how the covered plots will affect wildlife. Clausen indicated that they expect no impact to larger wildlife, but the smaller amphibians and micro-organisms may be affected.

Beal questioned how long it will take for the phragmites to grown back and if there are any plans to control it beyond the experiment. Clausen stated that tracking re-growth is part of their research.

Loxson confirmed with Clausen that no herbicides will be applied.

Clausen state that 6 millimeter plastic was chosen in response to Holt's question regarding plastic thickness.

Favretti noted no further questions or discussion. Holt MOVED, Ryan seconded, to permit the Storrs Agricultural Experiment Station to proceed with a research program, on the Harrison Property within the Schoolhouse Brook Park (a town-owned property located at the northeast corner of the Clover Mill and Storrs Road intersection) to investigate the control of the invasive species phragmites within wetland areas, as described in information on the planned program submitted for review (dated May 26, 2010).

The Agency finds this work to be consistent with Section 4.2 of the Mansfield Wetlands Regulations that provides for non-regulated status for conservation of vegetation and wildlife, and to encourage wildlife and vegetation management.

This program stands to be of broad benefit to wetlands, and is intended to achieve control of this widespread invasive species without the use of pesticides in a manner that should be useful to individual homeowners.

This approval is valid for a period of five years (until October 4, 2015), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within three years. Any extension of the activity period shall come before this Agency for further review and comment. MOTION PASSED UNANIMOUSLY.

W1414 - RF Crossen Contractors LLC - Storrs Rd - subdivision bond release.

Holt MOVED, Beal seconded, to release the \$5,000.00 bond held by the Town of Mansfield, to R.F. Crossen Contractors, LLC (File W1414) upon the completion of the 6-lot subdivision, Windwood, located on Route 195-Storrs Road.

There is one remaining condition to be addressed before granting the release: all silt fencing shall be removed from throughout the site. MOTION PASSED UNANIMOUSLY.

Other Communications and Bills:

Rawn noted that he has signed up for the DEP Training Segment 3.

Adjournment:

Favretti declared the meeting adjourned at 7:31 p.m.

Respectfully submitted,

Katherine Holt, Secretary

Memorandum:

September 28, 2010

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

WI419 - 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 rye 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.

WI445 - 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.

Mansfield Auto Parts - Route 32

- 6.10.09: Inspection - no vehicles are within 25' of wetlands.
- 7.16.09: Inspection - no vehicles are within 25' of wetlands.
- 8.12.09: Inspection - no vehicles are within 25' of wetlands.
- 9.14.09: Inspection - no vehicles are within 25' of wetlands.
- 10.27.09: Inspection - no vehicles are within 25' of wetlands.
- 11.30.09: Inspection - no vehicles are within 25' of wetlands.
- 12.28.09: There are two cars that need to be moved. Mr. Bednarczyk indicates their payloader is down for repairs and the cars will be moved as soon as it is repaired.
- 1.27.10: No change - the payloader is apart with parts on order to complete repairs. It is of 1986 vantage and finding parts is a major proposition.
- 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.

Memorandum:

October 1, 2010

To: Inland Wetland Agency
From: Grant Meitzler, Inland Wetlands Agent
Re: W1463 - Storrs Agricultural Experiment Station
Phragmites Control Study

This work appears to fit into Section 4.2 A. as a permitted operation without a license requirement. A copy of the Section is attached.

The Experiment Station has a study ready to start looking at control of Phragmites (a classic invasive species) using opaque mulch rather than herbicides. Assuming this study is successful the process planned will offer a safe and relatively easy method for a homeowner to rid his/her property of this otherwise very difficult plant.

Section 4.2 A. provides a broad exemption for conservation efforts. After discussion with Greg Padick, Town Planner, and the "applicants" it is felt that elimination of the Phragmites certainly benefits the broad spectrum of wetland soil, plant and animals otherwise displaced from the invaded areas Phragmites takes over.

A specific study has been outlined in the handout material provided by the Extension Service, which is also attached. For areas are shown in the included aerial photographs on page 5. of the attached report. These are within the Harrison Property section of the Schoolhouse park properties.

The study indicates coordination and involvement with the local high school.

This study stands to be of benefit not just to Schoolhouse Brook Park but to individual properties across the whole region.

The proposed experiment was authorized by the IWA as
a non-regulated use on 10/4/10. 

Mansfield Wetland Regulations

residential home shall be permitted as of right pursuant to this subdivision unless the permit was obtained on or before July 1, 1987;

- C. Boat anchorage or mooring, not to include dredging or dock construction
- D. Uses incidental to the enjoyment and maintenance of residential property, such property defined as equal to or smaller than the largest minimum residential lot site permitted anywhere in the municipality provided that in any town where there are no zoning regulations establishing minimum residential lot sites, the largest minimum lot site shall be two acres. Such incidental uses shall include maintenance of existing structures and landscaping, but shall not include removal or deposition of significant amounts of material from or onto a wetland or watercourse, or diversion or alteration of a watercourse;
- E. Construction and operation, by water companies as defined by Section 16-1 of the Connecticut General Statutes or by municipal water supply systems as provided for in Chapter 102 of the Connecticut General Statutes, of dams, reservoirs and other facilities necessary to the impounding, storage and withdrawal of water in connection with public water supplies except as provided in Sections 22a-401 and 22a-403 of the Connecticut General Statutes and;
- F. Maintenance relating to any drainage pipe which existed before the effective date of any municipal regulations adopted pursuant to Section 22a-42a of the Connecticut General Statutes or July 1, 1974, whichever is earlier, provided such pipe is on property which is zoned as residential but which does not contain hydrophytic vegetation. For purposes of this subdivision, "maintenance" means the removal of accumulated leaves, soil, and other debris whether by hand or machine, while the pipe remains in place.

4.2

The following operations and uses shall be permitted, as non-regulated uses in wetlands and watercourses, provided they do not disturb the natural and indigenous character of the wetland or watercourse by removal or deposition of material, alteration or obstruction of water flow or pollution of the wetland or watercourse:

- A. Conservation of soil, vegetation, water, fish, shellfish and wildlife. Such operation or use may include, but is not limited to, minor work to control erosion or to encourage proper fish, wildlife and forestry management practices.
- B. Outdoor recreation including play and sporting areas, golf courses, field trials, nature study, hiking, horseback riding, swimming, skin diving, camping, boating, water skiing, trapping, hunting, fishing and shell fishing where otherwise legally permitted and regulated.
- C. Testing and monitoring associated with and related to water quality and subsurface drainage and/or sewage disposal systems.

4.3

All activities in wetlands or watercourses and upland review areas involving filling, excavating, dredging, clear cutting, clearing, or grading or any other alteration or use of a wetland or watercourse not specifically permitted by this section and otherwise defined as a regulated activity by these regulations shall require a permit from the Agency in accordance with Section 6 of these regulations, or for certain regulated activities located outside of wetlands and watercourses from the duly authorized agent in accordance with Section 12 of these regulations.

4.4

To carry out the purposes of this section, any person proposing a permitted by right operation and use (see Section 4.1) or a non-regulated operation and use (see Section 4.2) shall, prior to commencement of such operation and use, notify the Agency's Agent, and provide to the Agent sufficient information to enable a determination that the proposed operation and use is a permitted or non-regulated use of a wetland or watercourse. The Agency's Agent, with the concurrence of the Agency Chairman, is authorized to rule that the proposed operation and use or a portion of it is a permitted or non-regulated operation and use or that the proposed operation and use is a regulated activity and a permit is required. Any dispute regarding this determination shall be resolved by the Agency and all determinations made by the Agent and Agency Chairman shall be reported to the Agency.

STORRS AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF NATURAL RESOURCES AND THE ENVIRONMENT
COLLEGE OF AGRICULTURE AND NATURAL RESOURCES
THE UNIVERSITY OF CONNECTICUT

NUMBER:

DATE OF PREPARATION: May 26, 2010

APPROVAL BY DEPARTMENT HEAD: _____

John C. Volin, Head

TITLE: Physiological Responses of *Phragmites australis* to the Timing of Plastic Covering Treatments

BEGINNING AND ENDING DATES: October 1, 2010 – September 30, 2013

PROJECT TYPE: Hatch

STATUS: New

PERSONNEL: Clausen, John C., Leader

COOPERATING DEPARTMENTS:

ABSTRACT:

This research project will investigate an alternative to herbicide control of *Phragmites australis* as an approach more suitable for the small private landowner. *Phragmites* is expanding throughout the Northeast. Most current management guides recommend herbicides as the primary treatment strategy of phragmites. Although not as common, plastic covering has been used as a management option with the preferred treatment period being late summer prior to the return of carbohydrate storage to rhizomes. While eliminating phragmites from a constructed wetland during spring 2006 we observed lethal effects following cutting stems in early March, covering with black plastic and removing the plastic by the end of May. Current studies of plastic treatment of phragmites have either been anecdotal or have only recorded stem heights or density. This study would compare physiological responses of phragmites to three treatments: plastic covering at two different time periods and a control. Rhizome carbohydrate storage, which is important for phragmites regeneration and spring regrowth, will be assessed before and after treatment applications. In addition, to assess the plastic covering lethality through time, rhizome cell viability will be monitored monthly over the course of the treatments. The study will be conducted at an invaded wetland in cooperation with a local High School. Students will actively participate in the research.

OBJECTIVES:

The goal of this research project is to use a science-based IPM approach to reduce phragmites. The study will provide physiologically based evidence for changes observed in phragmites stands to bolster prior anecdotal information. Specific objectives follow:

1. Compare timing and effects of opaque plastic cover for controlling *Phragmites australis* as a small-scale management alternative for private landowners, municipalities and schools.
2. Examine the physiological response of *Phragmites australis* to covering treatments through time.

JUSTIFICATION:

Phragmites australis (Cav.) Trin. ex Steud. (phragmites) is a noxious weed found throughout the United States, excluding only Alaska (USDA, 2009a). It is classified as an invasive in Connecticut, is prohibited in Massachusetts, and is a Class B noxious weed in Vermont. Phragmites is cited to be expanding at exponential rates (Chambers et al., 1999), perhaps due to various landscape alterations that favor its spread (Findlay et al., 2003; Marks et al., 1994). However, others suggest that the expansion is due to the introduction of European genotypes (Blossey, 2003; Saltonstall, 2002). Regardless of the reasons for its expansion, once established within a brackish or freshwater wetland, stream or lake edge, phragmites aggressively spreads resulting in dense monotypic stands, dramatically reducing native biodiversity (Ailstock et al. 2001). Phragmites spread is largely thought to be due to belowground rhizomes and stolons (Hara et al., 1993; Marks et al., 1994; Ailstock et al., 2001), and while it produces seeds, they are thought to be largely non-viable in the northeastern United States (Tucker, 1990). The aboveground stems can reach 4 m (Cross and Fleming, 1989), which dieback each winter relying on belowground rhizome buds every spring for leaf and stem production (Haslam, 1969).

Recommendations for phragmites control include the use of herbicides, cutting (mowing or grazing), disking, flooding, burning, etc. (Cross and Fleming, 1989; Marks et al., 1994; Carlson et al. 2009). The most common approach is herbicide application, which is often done in conjunction with a cutting or controlled-fire maintenance program. Because of regulations, costs and/or environmental concerns, the use of herbicide application and/or prescribed fire is not an option for many small-scale private landowners. Moreover, Relyea (2005) has raised concerns about the lethal impact on aquatic amphibians by such herbicides that are used on phragmites. Our study proposes to test a potential integrated pest management (IPM) alternative that is relatively low-cost and would not require specialized training, equipment or hiring of a licensed herbicide applicator.

PREVIOUS WORK AND PRESENT OUTLOOK:

We propose to compare the timing and effects of opaque plastic covering for controlling phragmites. Prior research has shown that the timing of many treatments is critical in the management success of phragmites control. For instance, previous studies using either mowing or fire have found that a late summer (i.e., August or September) treatment is most effective in

phragmites control and that other times can actually have the opposite result, in other words a more vigorous growth of phragmites (e.g. Cross and Fleming, 1989). Mowing or burning phragmites in the late summer reduces stand vigor because there are few replacement buds, moreover it is thought that the carbohydrate reserves of the rhizomes get depleted with regrowth and thus cannot be used for winter bud production. On the other hand, a late winter or an early spring cut or burn can actually promote the growth and spread of phragmites, because these treatments increase light at the ground level and remove standing dead material. In the case of fire, there is also an initial nutrient pulse. Thus, the timing of these treatment methods is critical to the success of phragmites control and spread. Although not as common, some studies have used plastic as a potential control treatment (e.g. Boone et al., 1987; 1988). It is thought to be effective because it eliminates light at the ground surface and increased soil temperatures below the covering may also have significant detrimental effects on the phragmites rhizomes. Some researchers have found mechanical issues with using plastic at large-scales, such as having to use helicopters to airlift plastic in and difficulties associated with holding it in place with high winds (Boone et al., 1987). To our knowledge, the use of plastic as a management alternative in smaller scale invasions, such as those that can confront private landowners or small municipalities has not been investigated. With this scope, our approach will be to test the timing and effects of opaque plastic covering as a low-cost, effective management alternative in an invaded freshwater wetland in central Connecticut.

In those few cases where plastic covering has been recommended, the preferred treatment period is late summer prior to the return of carbohydrate storage to rhizomes. It has been shown for numerous plant species that carbohydrate storage is particularly important for regeneration after aboveground plant removal (i.e., through grazing or cutting) (Donagy and Fulkerson, 1998; Klimes and Klimesova, 2002,) as well as for spring regrowth (Rease and Decker, 1966; Clevering et al., 1995). Covering rhizomes at critical times of the year provides a barrier for developing shoots and will likely deplete much needed carbohydrate reserves.

In 1994, in collaboration with the USDA-Natural Resources Conservation Service, we established a surface-flow constructed wetland on the University of Connecticut's Storrs campus (Newman and Clausen, 1997; Newman et al., 2000). The constructed wetland consisted of three treatment cells, with the middle cell planted with phragmites. Twelve years after construction, a new study was implemented on the constructed wetland that necessitated removing the phragmites. To accomplish this, we cut the phragmites near ground level and covered with plastic in March 2006, while the wetland was still frozen. In late May we uncovered the cell and hand-pulled the few remaining young phragmites shoots. The phragmites treatment was not the intent of our experiment, it was simply an attempt to remove phragmites quickly without herbicide effects, and at low cost, and thus we did not quantify the success of this treatment. However, anecdotally, the phragmites has not returned to the constructed wetland site three years after treatment. Similarly, other studies of plastic treatment of phragmites have either been anecdotal or have recorded only stem heights or density. This proposed study would compare physiological responses to treatments through time.

RESULTS OF CRIS SEARCH:

There are 21 phragmites related project reported in the CRIS database. Most of these project do not relate to control strategies. Only the projects relevant to phragmites control will be summarized. The following projects are active:

1. Rhizosphere microbial interactions as a key mechanism for the success of invasive species of *Phragmites* in New York State. This is a new project at Cornell lead by J. E. Thies and B.L. Bedford. They intend to survey the distribution of Phragmites in three wetlands and identify members of the rhizosphere microbial community that are related to success of the invasive Phragmites or control of the native Phragmites.
2. Pathogen regulation of invasive plant species: mechanisms and potential for the management of *Phragmites australis*. Another new project at Cornell University is led by E. B. Nelson. This project investigates how susceptible seedlings and rhizomes are to oomycete, fungal, and bacterial communities.

Several Phragmites studies have been terminated since 2003. These projects are summarized below:

1. Weedy invasive species *Phragmites australis* adjacent to agricultural land, response to conservation reserve program (CRP) control methods. This project at the College of William and Mary examined if nutrients in agricultural runoff contributed to invasion expansion of Phragmites. Their results did not confirm this hypothesis.
2. Ecology and integrated pest management of grass weeds in turf. This Virginia Polytechnic Institute project focused on turf grasses but also examined the effect of mowing frequency and Glyphosate applications on Phragmites stems.
3. Biological control of invasive species in Rhode Island. This University of Rhode Island project investigated biological control of Phragmites.
4. Does hybridization of exotic *Phragmites australis* with native Phragmites result in increase hybrid vigor. This project at the University of Rhode Island demonstrated that the two populations could hybridize.

While there has been some research of phragmites, there are no known studies investigating control of phragmites with plastic mulch in the CRIS database. Studies found in the database actually suggest that control is difficult other than using pesticides, which is the justification for this work.

PROCEDURES:

Study Site:

The study will take place in a freshwater wetland at Schoolhouse Brook Park, Mansfield,

Connecticut. This 6.5 ha freshwater wetland is heavily invaded by a monotypic stand of phragmites (Figure 1). The site is readily accessible and is located only 3.0 km from the UConn Storrs and E.O. Smith High School campuses (Figure 2). The soils consist of Catden and Freetown muck (mesic, Typic Haplosaprists). These are very deep, very poorly drained organic soils formed in herbaceous highly-decomposed organic materials in depressions on lake plains and flood plains. Phragmites expansion has been noticeable at this site. From 2004 to 2008, the area covered by phragmites has increased by 68 % based on remote sensing (Figure 1).

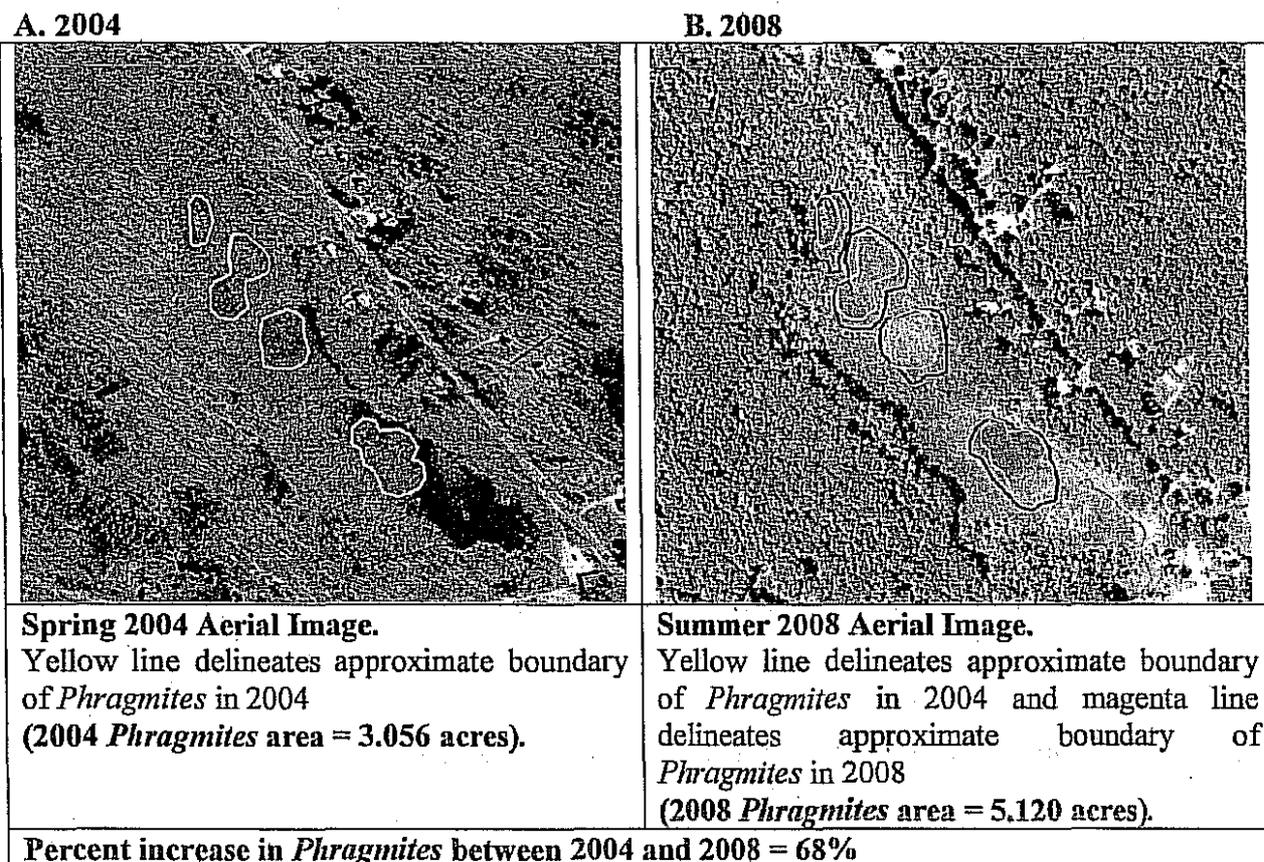


Figure 1. Black and white photograph (A) from 2004 and color photograph (B) from 2008 of Schoolhouse Brook Park wetland showing rapid changes in phragmites distribution.

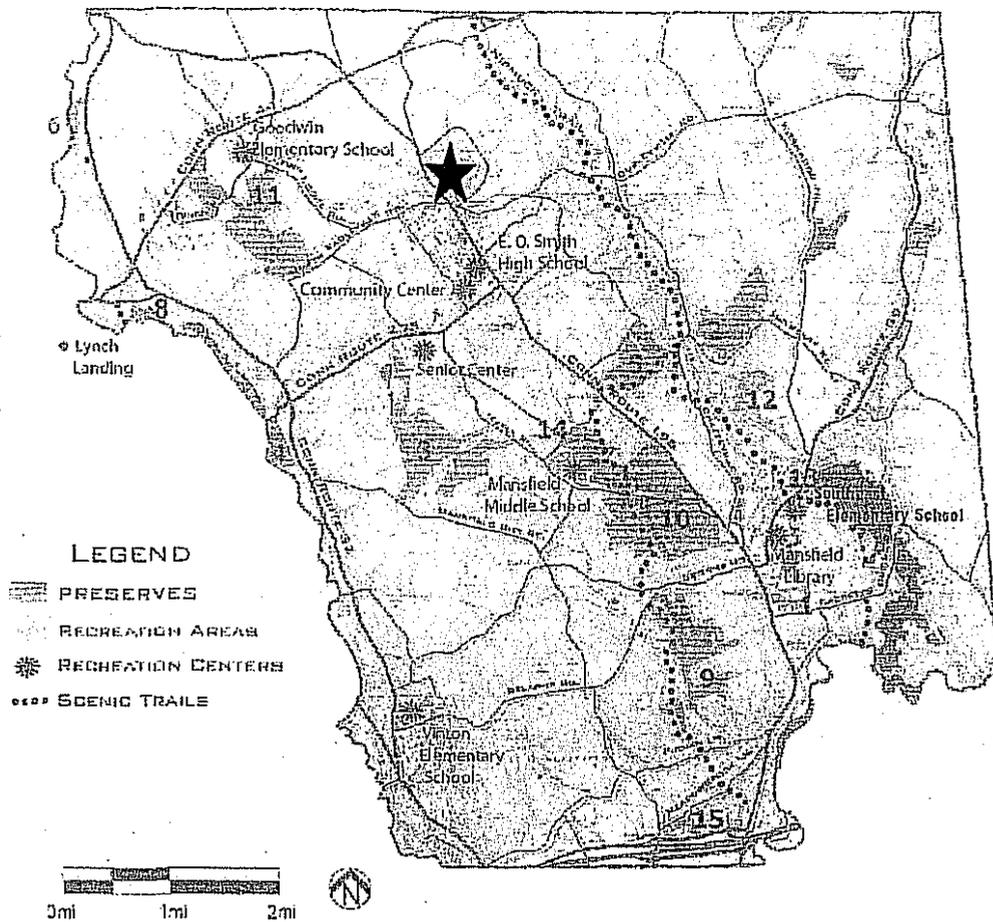


Figure 2. Map of the town of Mansfield, Connecticut showing the location of schools and Schoolhouse Brook Park. The University of Connecticut is shown as a ★.

Experimental Approach:

In the Schoolhouse Brook Park wetland, we will test the effect of treatments on *Phragmites australis* growth and physiology using a completely randomized experimental design. Our replicated design will include plastic treatments (two different time events) and a control. Three plots (6 x 6m) for each treatment, i.e., two different cover times and a control, will be established. Blocking of treatment plots is not anticipated, however, water depth and soils will be sampled prior to the start of the study to determine if this assumption is correct. If we find substantial differences in water depth and/or soil type, we will establish a randomized complete block experimental design.

The first plastic covering event will be implemented in March 2011, while the second will begin the following late August/early September 2011 (Table 1). Both plastic cover treatments will last a minimum of 70 days based on recommendations by Boone et al. (1987). Prior to covering and one-year after, total plant species composition and coverage, including density and height of

phragmites, within three random 0.25x0.25m subplots in each of the 9 plots will be measured. After initial vegetation measurements have been taken, the phragmites within the three covering plots will be hand-cut to soil level. Each plot will be isolated using a trench digger to prevent rhizome spread.

As an assessment of treatment response, we will test carbohydrate reserves in phragmites before and after each covering treatment as well as the control. Specifically, three phragmites rhizomes from separate plants within each of the 9 plots will be sampled for total nonstructural carbohydrate (TNC) analysis. To determine rhizome TNC, similar to Chizkova et al. (1996), we will use the anthrone assay for sugars and an enzymatic digestion (followed by anthrone assay of resulting sugars) for starch. We will also count the number and height of stems from each rhizome, alive and dead rhizome buds on a per unit area basis.

In addition to testing the relative importance of carbohydrate for resprouting ability in phragmites before and after treatments, we will also assess the cell viability in rhizomes over the period of time that they are covered. This latter measurement will provide important information on the duration that plastic treatments are needed at different times of year to be effective in being lethal. To test for this, at monthly intervals, samples of rhizome tissue will be collected from three subsamples within each of the 9 plots. To our knowledge, cell viability in phragmites rhizomes has not been tested, therefore, we will initially use two different methods. Rhizome tissues will be brought back to the laboratory; in the first approach, we will follow the methods of Fischer et al. (1985), where cells will be exposed to various concentrations of Calcofluor white M2R (CFW) stain and observed for those cells that are capable of plasmolysis and deplasmolysis to differentiate between live and dead cells. In the second approach, we will test rhizome cell viability using the fluorescein diacetate (FDA) hydrolysis method of determining cell viability, which is based on measurement of non-specific esterase activity (Steward et al. 1999). The hydrolysis of FDA to fluorescein is more commonly used for testing cell viability, but is also a more laboratory intensive procedure. If the two methods testing for cell viability provide different results, then additional evaluation of methods will occur. The proportion of dead cells will be tested for differences among treatments using repeated measures ANOVA (SAS Institute Inc., 2002).

PROBABLE DURATION & TIMETABLE

Table 1. Timetable for phragmites research project.

Objective	Year	Tasks	Complete by
1. & 2. Compare timing and physiological responses	1	Establish plots	November 2010
		Sample plots	November 2010
		Apply plastic Trt #1	March 2011
		Begin subplot sampling	
		Remove plastic Trt #1	May 2011
		Sample plots	May 2100
		Apply plastic Trt. #2	September 2011
		Begin subplot sampling	
	2	Remove plastic Trt. #2	November 2011
		Sample plots	November 2011
		Re-sample plots	May 2012
		Re-sample plots	July August 2012
	3	Re-sample plots	May 2013
Re-sample plots		July August 2013	
Final statistical analysis		September 2010	
Reporting	1	Submit annual CRIS report	As requested
	2	Submit annual CRIS report	As requested
	3	Submit summary CRIS report	As requested

UNIVERSITY OF CONNECTICUT UNITS INVOLVED:

Department of Natural Resources and the Environment – The department will be primarily responsible for the conduct of the research. Faculty and students in the department will lead the field work, sampling, and analysis.

There is no coordinating committee for the project.

EQUIPMENT AND FACILITIES AVAILABLE:

Analysis of samples will be conducted in the 600 ft² water quality laboratory located in the Merle Klinck building, operated by the principal investigator. Major pieces of equipment that will be used to complete the project include:

- | | |
|-----------------------------|-------------|
| vacuum filtration apparatus | scales |
| fume hoods | microscopes |
| vortexers | incubators |

autoclave
centrifuges
refrigerators

spectrophotometers
fluorometer
freezers

COOPERATION:

For our proposed study, we will partner with a local high school, which has an Agricultural Education Department and is located adjacent to the University of Connecticut campus. High school faculty and students will collaborate in all stages of the research. In addition, the research site will be made available to the University's Department of Extension and the New England Invasive Plant Center (housed at UConn), as a demonstration site for landowners and land managers within the region.

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Connecticut Association of Conservation and Inland Wetlands Commissions, Inc.

deKoven House Community Center
27 Washington Street
Middletown, CT 06457
860 344-8321
www.caciwc.org

CACIWC Annual Recognition Awards 2010 Nomination Form

A. Award Category: *Please select the category of your nomination.*

1. Wetlands Commission of the Year ____
2. Conservation Commission of the Year ____
3. Wetlands Commissioner of the Year ____
4. Conservation Commissioner of the Year ____
5. Commission Agent or Staff of the Year ____
6. Lifetime Achievement ____

B. Nominee Information: *Please provide the name and title of your nominee along with his or her contact information (address, telephone number and email address) below. Please note that the CACIWC Annual Meeting Committee will not contact the nominee and will maintain confidentiality of this nomination throughout the review process.*

C. Contact Person Information: *Please provide your contact information (address, telephone number and email address) below. Members of the CACIWC Annual Meeting Committee will contact you upon receipt of this nomination form and periodically during the review process.*

D. Nominee Description: *Please provide below a description of why the nominee should be considered for a 2010 CACIWC Annual Recognition Award. Please limit your description to 500 words of text.*

E. Nominee Background: *Please provide below a brief (100 words or less) description of the nominee's background for possible use in news releases.*

Please email completed nomination forms by October 25, 2010 to the CACIWC Annual Meeting Committee at: AnnualMtg@caciwc.org

All awards will be given during the 33rd Annual Meeting and Environmental Conference scheduled for Saturday, November 13, 2010 at MountainRidge in Wallingford, CT.

Connecticut Association of Conservation & Inland Wetlands Commissions
33rd Annual Meeting & Environmental Conference
Celebrating Four Decades of Environmental Conservation
and Habitat Protection
Saturday November 13, 2010
MountainRidge High Hill Road, Wallingford, CT

Registration Form

Name: _____
Town: _____
Commission name: _____
Phone: _____ Phone: _____

Workshop cost is \$40 and includes continental breakfast, hot buffet lunch, three workshops, and all gratuities.

- Enclosed is my check for \$40 (registration postmarked by October 28, 2010)
 - Enclosed is my check for \$50 (registration postmarked after October 28, 2010)
 - My town will submit payment prior to event.
- No refunds allowed after November 5, 2010.

Questions? Please contact us at: AnnualMtg@caciwc.org

Please make checks payable to CACIWC. Return forms by October 31, 2010 to
CACIWC
deKoven House Community Center
27 Washington Street
Middletown, CT 06457

I will attend the following workshops: (Please check one workshop per session)

Session 1 9:30 AM

- A1. "Promoting Connecticut Greenways & Trails"
- B1. "Wetlands Law in 2010: Case Law, Legislative & Regulatory Update"
- C1. "Invasive Plant Update"
- D1. "Working with the CT Siting Council"

Session 2 10:45 AM

- A2. "PA 490: CT Current Use Tax for Farmland, Forest Land and Open Space Land"
- B2. "Wetlands Law: Questions & Answers"
- C2. "Stopping the Emerald Ash Borer & Asian Longhorned Beetles and Other Threats"
- D2. "Riparian Corridors: New Research, Restoration and Protection Initiatives"

Session 3 2:15 AM

- A3. "The Use of GPS Technology in Rare Species Surveys"
- B3. "Working with Your Local P&Z"
- C3. "Fishers & Moose in CT: Changing Mammal Population Dynamics"
- D3. "Pesticides, Wetlands & Watercourses"

Yes, I will be a Sponsor for CACIWC's 2010 Environmental Conference.
\$_____ Tax Deductible Contribution (as allowed by law), see categories



**Town of Mansfield
Agenda Item Summary**

To: Town Council
From: Matt Hart, Town Manager
CC: Maria Capriola, Assistant to Town Manager
Date: September 27, 2010
Re: Status Report re: Mansfield 2020: A Unified Vision

Subject Matter/Background

Attached please find a status report regarding the implementation of Mansfield 2020: A Unified Vision. The status report includes an update for all ten vision points on which good progress has been made.

No action by the Council is required at this time. Staff will be available to answer any questions Council may have at Monday's meeting.

Attachments

- 1) Status Update on Action Items for Mansfield 2020: A Unified Vision

Mansfield 2020: A Unified Vision
Town Government

Vision Point: Town Government *NEW*				
Current				
Action Item	Town Government - Engage and lead Mansfield's management team to ensure that Town staffing, organizational and financial structure is appropriate to meet present and future challenges, and take advantage of opportunities presented by digital technology. Serve as effective and responsible steward of municipal finances and assets. Promote public participation and efficiency in town government and the public education of town residents.			
No.	Task	Objective	Assigned Staff/Other	Status
1	Ethics Ordinance	Assist Ethics Board and Town Council with any desired amendments to Ethics Ordinance. Submit recommendation to Council by May 2010.	M. Capriola/ Ethics Board	Ethics board has presented draft to Personnel Committee. Personnel committee has submitted draft to Town Attorney for review. Town Atty to complete review by 10/15/10.
2	Ordinance Regarding Financial Management Practices and Policies	Prepare proposed ordinance concerning financial management practices and policies	D. O'Brien	Complete
3	Ordinance Regarding Human Resource Management Practices and Policies	Prepare proposed ordinance concerning various human resource management practices and policies	M. Hart/D. O'Brien	Drafting phase. Target submission to council by 10/31/10.
4	Personnel Rules and Policies	Complete revision to Personnel Rules; make substantial progress with update to personnel policies	M. Capriola /Labor Counsel	Legal counsel has prepared draft amendments to personnel rules; Personnel Committee review in process. Personnel Com to complete review by 11/30/10.
5	Town Council Media Project	Complete project	J. Russell	Complete
6	Town Council Orientation	Complete orientation for new Council	M. Capriola/SA Chaine	Complete
7	Website Upgrade	Complete project	J. Russell	Complete

Mansfield 2020: A Unified Vision
K-12

Vision Point: K-12 Education and Early Childhood				
Current				
<i>Action Item</i>	<i>Infrastructure - Maintain and enhance infrastructure designed to promote sustainability and holistic education.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
8	Four Schools Renovation Project *NEW*	As member of school building committee, develop proposed school renovation project for submission to Town Council and Board of Education	Project Architect/School Building Committee	SBC presented recommendation to MBOE and Town Council in early March. MBOE presented recommendation to council in May 2010. Council to complete its review by March 2011.
<i>Action Item</i>	<i>Promote healthy lifestyles.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
9	Promote healthy lifestyles for young children	Improve health, nutrition and physical activity for children 0-8	K. Grunwald	Dept. of Human services has been awarded a \$50,000 grant from the Graustein Foundation to implement Mansfield's Plan for Young Children. The plan includes a focus on health, nutrition and physical activity for children 0-8. Three sub-groups have been established to implement the plan: health; successful learners; community connectedness. Each team is actively working on separate initiatives in their respective areas.
Future Action Items				
	<i>Expand youth services.</i>			
	<i>Provide affordable early care and education for children from birth through kindergarten.</i>			
	<i>Focus on holistic education.</i>			
	<i>Improve coordination of curricula, administration, and transportation among Region 19 towns.</i>			

Mansfield 2020: A Unified Vision
Historic Rural Character

Vision Point: Historic and Rural Character, Open Space and Working Farms				
Current				
Action Item	Preservation - Preserve existing farms and open space in Mansfield while increasing the number of farms and farming opportunities.			
No.	Task	Objective	Assigned Staff/Other	Status
10	Farmland and Open Space Preservation	Develop land management plans for key open space parcels; submit application to state's AGvocate program	J. Kaufman/Open Space Preservation Committee	After review of the program, the Agriculture Committee, in consultation with Staff, agreed not to apply for the Agvocate Grant. The Agvocate program has been geared towards communities in eastern CT without an agriculture committee/commission. Staff and the Parks Advisory Committee have been updating the land management plans for existing properties. Management plans for the Dorwart and Moss Sanctuary properties are being developed.
11	Agriculture Regulations	Revise regulations to promote small local agriculture and sustainable farming operations in manner that is cognizant of neighborhood impact	OSPC/PZC	The Planning and Zoning Commission has agreed to work with the Agriculture Committee to draft comprehensive revisions to Mansfield's Zoning Regulations on agricultural uses. Similar efforts are underway in many CT Municipalities and J. Kaufman and G. Padick are in the process of reviewing recently updated regulations and draft proposals from other Towns. A fall public hearing is anticipated.
12	Bond Issue	Prepare proposed bond issue for Nov 2010 referendum	Finance/OSPC	As part of FY 10/11 CIP, Council has endorsed proposed bond issue of \$1 million for open space and has placed on ballot for Nov 2010 referendum.

Mansfield 2020: A Unified Vision
 Historic Rural Character

Vision Point: Historic and Rural Character, Open Space and Working Farms					
Current					
Action Item	Protect and maintain Mansfield's cultural history, including its historic structures and villages, scenic roads and views, stonewalls, and burial grounds				
No.	Task	Objective	Assigned Staff/Other	Status	
13	Successfully integrate acquired burial grounds into Town practices & procedures.	Integrate administration and operation of Riverside Burying Ground into Town practices & procedures.	M. Stanton	Riverside Burying Ground has successfully been transferred to the Town. The new cremation burying and scattering grounds have been approved by the Cemetery Committee and the fees endorsed by the Town Council. The necessary forms are available and the Cemetery Regulations have been updated and reprinted. Completed objective.	

Mansfield 2020: A Unified Vision
Housing

Vision Point: Housing				
Current				
Action Item	<i>Promoting neighborhood cohesion; preventing blight problems; and reduction in property maintenance problems.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
14	Committee on Community Quality of Life	Support and facilitate work of committee, including the development of an ordinance regulating residential rental parking and a tenant registration ordinance, and creating a new student use category for land use and housing regulations.	M. Ninteau/G. Padick/Advisory committee(s)	Town Council has adopted of ordinance regulating off-street parking for residential rental properties. PZC has revised definition of "family," which includes a reduction in the number of unrelated persons (from 4 to 3) that can occupy a single-family home (existing uses may qualify as a non-conforming use). At this time, advisory committee does not appear to support tenant registration ordinance. Completed objective.
15	Nuisance House Ordinance	Develop proposed ordinance for Council's consideration.	M. Ninteau/G. Padick/Advisory committee(s)	Quality of Life Committee is in the process of reviewing multiple drafts.
16	Assembly Permit Ordinance	Develop proposed ordinance for Council's consideration.	M. Ninteau/G. Padick/Advisory committee(s)	Staff and town atty review in process.
17	Encourage affordable, accessible housing.	Convene an affordable housing summit for policy leaders.	K. Grunwald	Staff plans to convene a summit on affordable housing for local policy leaders in March 2011.
18	Encourage affordable, accessible housing.	Acquire additional units of affordable housing for the Housing Authority.	M. Capriola/Hsg. Authority	The Housing Authority has recently submitted a bid in an attempt to acquire additional affordable housing units for the community.
Future Action Items				
	<i>Encourage Uconn to provide more housing, particularly for graduate students and staff, and to upgrade the quality of existing graduate student housing.</i>			

Mansfield 2020: A Unified Vision
Public Safety

Vision Point: Public Safety					
Current					
Action Item	<i>Police - Ensure efficient and effective deployment of resources to meet community demands and needs: Commission study during FY 2009/10 to review police service delivery system</i>				
No.	Task	Objective	Assigned Staff/Other	Status	
19	Police Study	Review and analyze police services, with respect to present and future needs, resource allocation and potential partnerships.	M. Capriola	Town has retained Management Partners working in consultation with PERF. Kickoff meetings and initial interviews scheduled for 9/22/10. Tentative completion date of 3/31/11.	
Future Action Items					
	<i>Protect and enhance quality of life in neighborhoods and villages throughout Town.</i>				
	<i>Be prepared to effectively respond to natural and manmade disaster (disaster preparedness).</i>				
	<i>Ensure efficient and effective deployment of resources to meet community demands and needs: Evaluate Fire and EMS Capital Infrastructure and Response Profile</i>				

Mansfield 2020: A Unified Vision
Recreation, Health Wellness

Vision Point: Recreation, Health and Wellness				
Current				
Action Item	<i>Community Center - Ensure the development and maintenance of activities, programs and facilities designed to foster healthy recreational activity. *NEW*</i>			
No.	Task	Objective	Assigned Staff/Other	Status
20	Mansfield Community Center *NEW*	Continue oversight of center operations, with a particular focus on membership recruitment and retention; complete consolidation of maintenance function with Department of Facilities Management	MCC Mgmt Team	Consolidation of maintenance function is complete. Membership recruitment and retention efforts have proven successful. Staff provided annual update to council in September 2010. Achieved objective.
21	RHW Needs Assessment	Conduct a needs assessment of RHW including facilities (indoor and outdoor), programs and the use of technology.	Curt Vincente/Jay O'Keefe	Staff is researching options for conducting an initial review of playing fields and playgrounds.
22	Employee Wellness	Provide for employee wellness opportunities and encourage employees to engage in healthy behaviors.	Maria Capriola/Ande Bloom	Numerous initiatives are underway such as a fitness program, healthy eating program, yoga, etc.
Future/Action Items				
	<i>Educate public (employers, individuals, Town Council) about the benefits of recreation, health and wellness.</i>			
	<i>Continue to ensure adequate financial support for recreation, health and wellness.</i>			

Mansfield 2020: A Unified Vision
Regionalism

Vision Point: Regionalism				
Current				
Action Item	<i>Economic Development - Create a structure to support regional development efforts.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
23	Investigate value of a regional school system (pre K - 12)	Serve as member of ad hoc regionalization committee to analyze feasibility of providing certain preK-8 services (e.g. transportation) on regional basis	M. Paquette	Unclear whether Ashford and Willington plan to continue to participate while programs could be enhanced costs would likely increase. Initiative may be dead. Explore feasibility of Mansfield preK-8 joining the Region (former Hampton model).
24	Natchaug River Basin Community Action Planning *NEW*	Participate as key stakeholder in community action planning process	G. Padick/M. Capriola	Work of subcommittees continues.
25	Encourage town government to work with colleges and universities to develop regional initiatives	Facilitate work of council regionalism committee to examine feasibility of additional shared service options and opportunities for regional service delivery		Town manager serves as member of Commissioner's Council on Local Public Health Regionalization and as member of town functions subcommittee for Speaker Donovan's MORE commission. Team of UConn MPA students will research viability of establishing regional collaborative for shared services.
26	WINCOG Regional Economic Development Program *NEW*	Establish economic development program working in partnership with Mansfield Downtown Partnership and Windham Region Council of Governments	WINCOG/MDP	WINCOG has adopted regional economic development plan, and is pursuing funding options to facilitate implementation of the plan. Priority recommendation of the plan is to establish regional economic development organization. Funding is an issue and action on this item is moving slowly.
27	Create a structure to support regional water development efforts.	Regionalize water rights.	G. Padick/L. Hulgren	Initiate conversations with stakeholders involved in Mansfield water supply planning.
Future Action Items				
	<i>Transportation- Create a structure to support regional development efforts.</i>			
	<i>Housing- Create a structure to support regional development efforts.</i>			

Mansfield 2020: A Unified Vision
Senior Services

Vision Point: Senior Services				
Current				
Action Item	Assisted/Independent Living Project - Promote the development of an assisted/independent living facility to meet the needs of Mansfield seniors. *NEW*			
No.	Task	Objective	Assigned Staff/Other	Status
28	Assisted/Independent Living Project	Provide consultation and advice to Council's preferred developer	K. Grunwald	Masonicare has extended their option to purchase property on Maple Rd; Masonicare board to vote on budget for Mansfield project on 9/22/10.
29	Volunteer Transportation Program *NEW*	Work with advisory committees to develop recommendation for Town Council consideration	K. Grunwald	A sub-committee of the Senior Center Assoc. has been working on a plan to implement a volunteer driving program. Staff conducting recruitment for PT transportation coordinator position. Program to be operational in Oct 2010.
30	Wellness Program *NEW*	Work with advisory committees to examine feasibility of enhanced services	K. Grunwald	The Senior Center Association's geriatric sub-committee conducted a study in 2007 on the need for additional geriatric services. The results of the study will be reviewed and updated by staff in consultation with the Commission on Aging and the Association.
Future Action Items				
	We now have a new centrally located Senior Center for the mature segments of our population.			
	A Board of Senior Citizens to oversee and coordinate senior affairs, ie. Assisted living.			
	Human Services maintains, updates and distributes a listing of agencies that provide home care and health services to seniors who choose to remain in their homes.			
	Mansfield has a town-wide coordinated transportation system which benefits all levels of our population.			
	Study the implications of tax relief for residents who are 70 years and older.			
	Encourage area businesses to provide part or full-time employment opportunities for seniors.			
	Explore possibility of hosting senior summer Olympics in conjunction with UConn.			

Mansfield 2020: A Unified Vision
Sustainability Planning

Vision Point: Sustainability and Planning				
Current				
<i>Action Item</i>	<i>Economic Development - Create and implement policies and programs for economic development that are consistent with Mansfield's plan of conservation and development and environmental sustainability policy.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
31	Economic Development Program *NEW*	Work with MDP, WINCOG, Town Council and other stakeholders to begin development of economic development program with focus on business development and retention	MDP/WINCOG/ G. Padick	Staff has enhanced economic & community development page on Town's website and established informal business visitation program. Staff to develop brochure by 10/31/10. Provide council with status report in Oct/Nov 2010.
32	Mansfield Downtown Partnership - Storrs Center	Work with project team to prepare business plan for Phase I of project; assist Town Council with negotiation of potential development agreement with LeylandAlliance; oversee streetscape enhancement components of project	Downtown Partnership/ Financial Advisor/Legal Counsel	Storrs Road improvements in design phase. Town has executed urban action grant assistance agreement with DECD and issued RFP to select designers for garage and intermodal facility. Town negotiating development agreement with developer, to be approved by council by 11/8/10. Project update to community tentatively scheduled for 10/6/10.
<i>Action Item</i>	<i>Environmental - Incorporate principles of sustainability into Mansfield's identity by creating and implementing policies, practices and programs.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
33	Four Schools Renovations Project *NEW*	Work to ensure application of alternate and clean energy sources as part of Four Schools project	School Building Committee	Any new construction or "build to new" options to comply with minimum of LEED silver standards.
34	Mansfield Middle School Fuel Conversion Project *NEW*	Complete project	W. Hammon	Base project and alternates complete; resolving punch-list items. Project is substantially complete.
35	Sustainability Advisory Committee	Assist committee with its formation and development of a work plan; conduct inventory of municipal greenhouse gas emissions and begin to develop plan to achieve reductions	Public Works/ Sustainability Committee	New advisory committee continues to meet regularly and has developed draft inventory of greenhouse gas emissions. Committee has developed school siting criteria, to be presented to council in Oct 2010. Conduct energy star analysis after data gathering phase is complete.

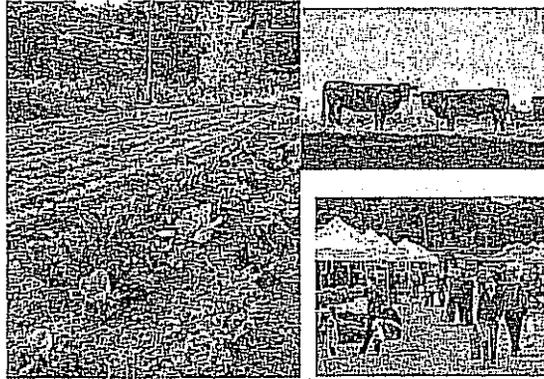
Mansfield 2020: A Unified Vision
Sustainability Planning

Vision Point: Sustainability and Planning				
Current				
<i>Action Item</i>				
	<i>Sewer/Water - Establish and implement a comprehensive policy for sustainable water and sewer service that address Mansfield's short term and long term needs.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
36	Four Corners Water and Sewer Project	Work with advisory committee and staff to develop proposed engineering and financing plan for Four Corners water and sewer project	L. Hultgren/Four Corners Sewer Advisory Committee	Engineering design of sewer and water pipes in progress. Grant applications filed with Federal legislators. Advisory committee in process of selecting engineering firm to complete water source study.
37	Windham WPCA	Resolve arbitration with Windham WPCA	L. Hultgren	Mansfield WPCA has approved new agreement to resolve dispute and to govern future relationship. Windham WPCA to act on proposed agreement in late September 2010.
<i>Action Item</i>				
	<i>Transportation - Create/implement sustainable transportation systems.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
38	Storrs Center Intermodal Facility	Support and facilitate work of parking advisory committee and staff to develop parking management plan for Storrs Center	C. van Zelm/Parking Consultant/Advisory Committee	Steering committee developing proposed parking management plan for project.
39	Review, Refine, and Revise Land Use Policies and Regulations	Review, refine and revise land use policies and regulations to reflect environmental, sustainability and economic development policies.	G. Padick/IWA	Staff is currently working with PZC regulatory Review Committee to comprehensively update subdivision regulations and refine, certain zoning regulations. A fall 2010 public hearing is planned for initial revisions.
Future Action Items				
	<i>Promote public participation and efficiency in town government and the public education of town residents.</i>			
	<i>Research feasibility of sharing a sustainability coordinator with UCONN.</i>			

Mansfield 2020: A Shared Vision
Town-University Relations

Vision Point: Town/University Relations				
Current				
Action Item	<i>Community/Campus Relations - Improve relations between students and town residents.</i>			
No.	Task	Objective	Assigned Staff/Other	Status
40	Spring Weekend *NEW*	Facilitate Town-Univ Relations Committee review of Spring Weekend activities; work with State Police and other key stakeholders to implement additional public safety measures	J. Jackman/D. Dagon/J. Kodzis	Committee issued first after-action report for spring weekend 2009. Progress on 2010 report has been slowed with departure of key university point-person; target 11/9/10 for submission to committee. Mayor and Town Manager have appointed to UConn spring weekend task force.
41	Encourage students to participate in greater community.	Utilizing the work study program, increase the number of students working in Town government.	M. Capriola/M. Stanton	In its second year, the number of work study students working in Town government is between 10-13 for the fall semester; this is at no direct cost to the Town. This number does not include UCONN students working with the Town that are paid through Town funds.
Future Action Items				
	<i>Strengthen existing town/university partnerships.</i>			
	<i>Create and support opportunities for diversity in town.</i>			
	<i>Strengthen interaction between university and local agriculture/business.</i>			

PAGE
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Agriculture in Mansfield
A Presentation to the Town Council
September 27, 2010

Town of Mansfield Agriculture Committee

Town of Mansfield Agriculture Committee (6 members and 4 alternates)

- Al Cyr (Chair), Breezy Acres Percherons
- Charles Galgowski, Round the Bend Farm and USDA NRCS
- Larry Lombard, Pleasant Valley Harvest
- Bill Palmer, Breezy Heights Farms
- Kathleen Paterson, Storrs Farmers Market
- Carolyn Stearns, Mountain Dairy
- Edward Wazer, Shundahal Farm
- Vicky Wetherell (Open Space Preservation Committee Liaison and Secretary)

Consultants

- Chrissie and John Dittrich, Connecticut Country Store
- Jean and Wesley Bell, Gardens at Bassetts Bridge Farm
- Meredith Poehlitz, M.S., R.D., Master Gardener
- Raluca Mocanu, Shundahal Farm

Staff Liaison—Jennifer Kaufman, Town of Mansfield Parks Coordinator

Town Commitment to Agriculture

The Town of Mansfield is committed to promoting agriculture:

- 2006 Plan of Conservation and Development
- Mansfield Strategic Plan



The Commonfields-Town-owned Agricultural Land

Mansfield POCD

Policy Goal #2

To conserve and preserve Mansfield's natural, historic, agricultural and scenic resources with emphasis on protecting surface and groundwater quality, important greenways, agricultural and interior forest areas, undeveloped hilltops and ridges, scenic roadways and historic village areas

C: Objective

To protect agricultural and forestry resources and to encourage retention and expansion of agricultural/forestry uses by refining Zoning Map and land use regulations and considering other actions.

Mansfield's Strategic Plan (Mansfield 2020) refers to "Historic and Rural Character, Open Space and Working Farms" as a priority vision point.

"Mansfield's cultural history together with its woodlands, open fields, and working farmlands, remain an integral part of the Town's character providing locally produced food, abundant wildlife habitat, scenic views, and recreational opportunities. Through collaboration with the University of Ct and the Department of Agriculture, Mansfield is known as an incubator site for a growing number of entrepreneurial farms and farmers.

Agriculture Today in Mansfield

- Commercial Agriculture
 - Many different products
 - 34 retail outlets
 - Businesses supporting agricultural operations

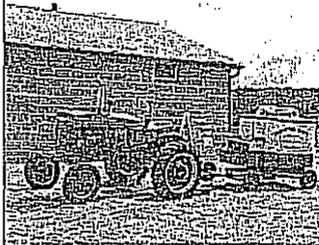


Please see "Mansfield Grown: Agricultural Products and Services," a brochure produced by the Agriculture Committee for detailed listings of the many agriculture-based retail outlets in Town.

Agriculture Today in Mansfield

□ Agricultural Products

- Dairy
- Livestock
- Hay



Mountain Dairy



Windhover Farm

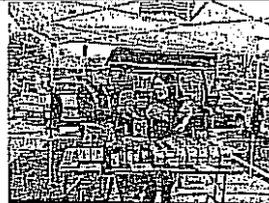
Twin Ponds Farm

Mansfield has 3 dairy farms owning or leasing over 1,800 acres of land, 5 livestock farms using approximately 625 acres of land, and approximately 175 acres in hay production.

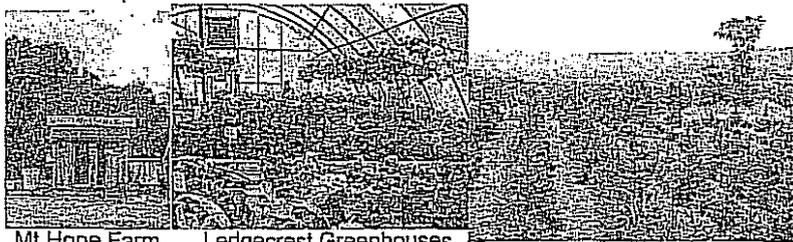
Agriculture Today in Mansfield

□ Agricultural Products

- Fruits and vegetables
- Maple Syrup
- Christmas trees
- Nursery stock



Bailey's Maple Syrup and Honey



Mt Hope Farm

Ledgecrest Greenhouses

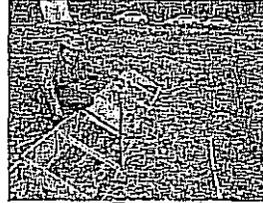
Cedar Ledge Tree Farm

- Fruits and vegetables-8 fruits and vegetable producers, which includes pumpkins
- Maple Syrup-2 maple syrup producers
- Christmas Tree Farm-3 Christmas tree farms
- Nursery Stock-5 nurseries

All of these farms are using less than 50 acres each. Some are farming on as little as five acres.

Agriculture Today in Mansfield

- Agricultural Retail Outlets
 - Farmers Market
 - Farm stands
 - CSAs (Community Supported Agriculture)
 - Nurseries



Eco Garden CSA



Storrs Farmers Market



Farm Stand at River Rd



UConn Floraculture

Farmstands-10 (includes maple syrup)

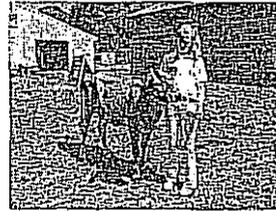
CSAs-2

Nurseries-5

Storrs Farmers Market has been serving the greater Mansfield community for 16 years. It is the only farmers market open year-round in Northeastern Connecticut. The Market serves hundreds of Mansfield residents and residents from neighboring towns. Demand for locally-grown foods continues to increase. In 2010, Storrs Farmers Market opened its Midweek Mini Market, open Wednesdays from 3-6:00 pm, July – Sept., to better serve Mansfield residents.

Agriculture Today in Mansfield

- Private Agriculture
- Thriving Agriculture Education Program for All Ages



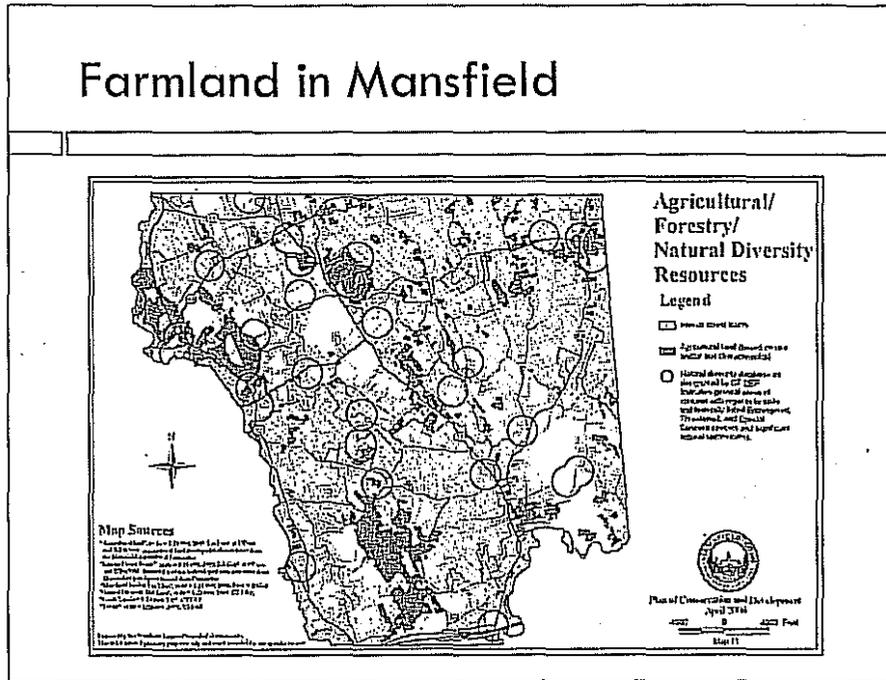
Private Agriculture

Home gardens, community garden, honey, sheep, cattle, poultry, horses, rabbits, llamas, and alpacas

Thriving Agriculture Education Program for All Ages

- 4-H
- Storrs Regional Future Farmers of America (High School Student Organization)
- EO Smith High School Agriculture Education Program
- UConn College of Agriculture and Natural Resources

Farmland in Mansfield



Dark areas indicate farmland on Agricultural/Forestry Natural Diversity Resources Map above

Productive Land

Cropland land—696 acres

Pastureland—852 acres

Forestland—1,387

Orchard—10 acres

Publicly owned farmland

Town—Approximately 70 acres

UConn—895 acres of farmland of which 237 acres is cropland. In addition, UConn maintains approximately 1700 acres of forest used for extension and outreach.

Federal—32 acres

Preserved Farmland- easement that restricts use to agriculture

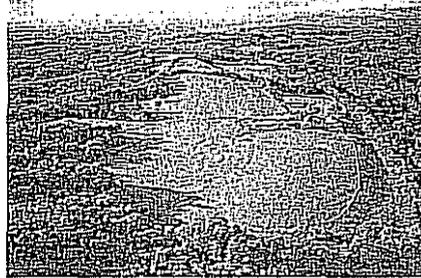
State Purchase of Development Rights(PDR)- 300 acres.

Town PDR-12 acres.

Acreeage of Farmland in the Public Act 490 Program (Ct's land use assessment law for farmland, forestland, and open space land)- 3,199

Agriculture Today in the Region

- The Last Green Valley National Heritage Corridor is located within two hours of **11 million consumers**
- Development pressure
- Land use conflicts



In a recent survey conducted by TLGV, Mansfield ranked number 12 out of 26 towns in the TLGV heritage corridor in the number of farms

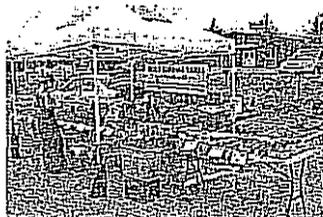
According to a report developed by the Rural Sustainability Report prepared in February 2009, The Last Green Valley (TLGV) (<http://www.tlgv.org/uploads/Publications/Reports/Rural%20Sustainability%20Region,%20022509.pdf>), eleven (11) million people live in the states of Connecticut, Massachusetts and Rhode Island, no more than 2 hours from TLGV.

The region known as the Last Green Valley remains 78% forest and farmland in the midst of the most densely developed area of the east coast. This is both a blessing and a curse.

- The proximity of the Last Green Valley's Agricultural community to a densely populated area provides tremendous market and food distribution possibilities.
- An abundance of land, the relatively low price of land, the lowest mortgage rates in decades, and the location of the Last Green Valley within a one-hour commute to three of the four largest urban centers in New England has created tremendous development pressure.
- Residents of the Last Green Valley value the rural heritage of agriculture but few people understand the business of farming. Occasional noise, traffic, and smell are part of a farming operation. Without viable farm businesses, farmland will not and cannot be preserved.

Changing Agriculture in the Region

- 1991-2008: www.agcensus.gov
- Average size of farm in CT has decreased
- Number of farms has increased
- 10 New Farms in Mansfield since 2000



Ag Census information for Tolland County is attached.

Average size of farm in CT has decreased from 87 to 82 acres

Number of farms has increased from 4,250 to 4,900

1,232....<10 acres

1,894....10-49

*AG Census defines farm as any place producing \$1,000 worth of agricultural product in one calendar year

Changing Agriculture in the Region

- Farm families have off-farm jobs
- Direct farm sales increasing
- Seasons are extended
- Diversified farms
 - ▣ High end/specialty products
 - ▣ Agritourism
 - ▣ Community supported agriculture (CSA)



The Gardens at Bassetts Bridge Farm

Majority of farm families have off-farm jobs

Direct marketing is increasing

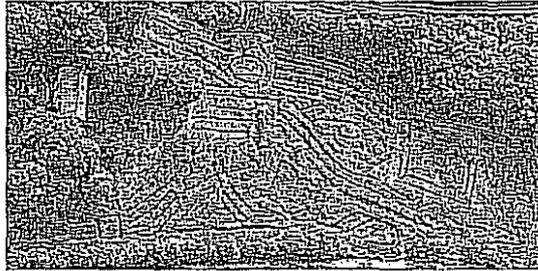
- Farmers Market-2009 there were 123 farmers markets in CT
- Community Supported Agriculture is on the rise-Two in Mansfield (EcoGarden and Shundahal farm).

There is more diversity in agriculture using less acreage and producing higher end products

- Hydroponics-not much acreage needed but can produce much revenue
- Unusual livestock
 - Alpacas
 - Cashmere goats
- Extended growing season through the use of green houses
- Thriving nursery industry

Benefits of Agriculture in Mansfield

□ Quality of Life



Corn Maze at Merrow Farm

- Mansfield's rural character is valued by citizens as demonstrated by our Plan of Conservation and Development (POCD) and Strategic Plan.
- Recreation benefits-corn maze, pick your own, hayrides, etc.
- Scenic vistas
- Many people say that Mansfield's rural character is why they live here
- People value knowing where their food is grown, tastes better, more nutritious, better for the environment
- Eastern Highlands Health District is promoting Healthy Eating and Active Living to create a healthier community through the ACHIEVE initiative

Benefits of Agriculture in Mansfield

□ Environmental



Crane Hill Field-Town owned Agricultural Land

Agriculture provides many environmental benefits. Some of these benefits include:

- Maintaining or increasing biodiversity
- Improving surface and water quality by filtering water
- Reducing flooding by slowing runoff and providing recharge areas
- Improving air quality by filtering air and producing oxygen
- Reducing carbon emissions by reducing reliance on foods, feeds, and horticulture products that need to be shipped from long distances
- Retaining soil for plant growth
- Absorbing and sequestering carbon

Connecticut's 357,154 acres of farmland and woodland provided an estimated \$442.7 million annually in non-market environmental services-such as maintaining habitat, filtering water, reducing flooding, and sequestering carbon.

(Massachusetts Audubon used 42 studies to create a conservative estimate of the non-market economic value of different land uses. Research suggests that cropland and pastureland provide non-market environmental services of valued at \$1331/acre. Forestland services are valued at \$984/acre/year).

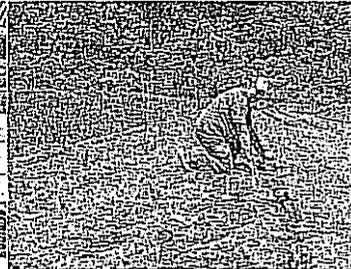
From Planning for Agriculture: A Guide for Connecticut Municipalities A Publication of American Farmland Trust and Connecticut Conference of Municipalities.

Benefits of Agriculture in Mansfield

□ Economic



Breezy Acres Percherons



Vegetable Production at Breezy Heights Farm

According to a 2010 publication by UConn's College of Agriculture and Natural Resources, The agriculture industry in Ct has a \$3.5 billion economic impact on the state economy and has an employment impact of approximately 20,00 jobs. It is estimated that agriculture in Mansfield provides jobs for upwards of 200 people. Farming brings in more revenue than it uses in services, Mansfield's farm businesses are local businesses with a high local multiplier effect (hire local workers, buy local supplies, use local services). Supporting agriculture is supporting smart economic development.

Converting farmland to housing raises property taxes. Cost of Community Services Studies (COCS) use municipal data to determine the fiscal contribution of various local land uses. Over 20 years of COCS from around the country have shown that farmland and other open space generate more public revenue than they require in services. Even when farmland, for example, is assessed at its current agricultural use value under Public Act 490, farmland generates a surplus to offset the shortfall created by residential demand for public services.

A review of COCS research in eight CT Towns shows that for each dollar of property tax revenue generated by working farmland and open space land, on average, only \$0.31 is required in municipal services. Whereas, on average, \$1.11 is required in municipal services by residential land uses. A summary of COCS data is attached.

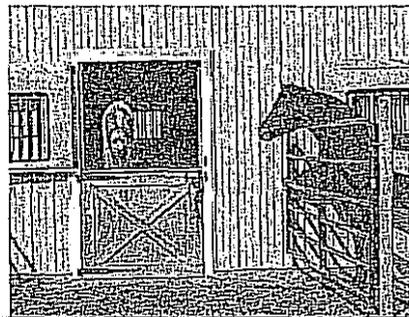
Challenges

- Farming offers low income and hard physical work.
- Average age of farmer is 58.3 years
- High land prices and taxes
- Declining profitability of dairy industry
- General public lacks understanding of realities of farming
- Land use regulations
- Potential for land use conflicts
- Farmland lost to residential development

How Can Mansfield Support Agriculture?

- Plan of Conservation and Development (POCD)
- Zoning Regulations
- Subdivision Regulations
- Right-to-Farm Ordinances
- Tax Reduction Programs
- Encourage consumption of locally grown products

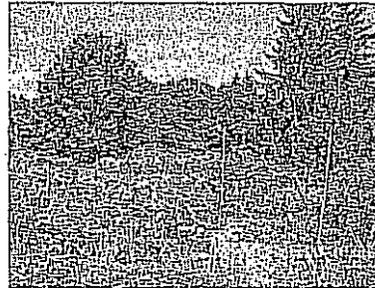
Foxfire Stables, LLC



- Include agricultural goals in POCD
- Formulate Zoning Regulations that support agricultural businesses
- Ensuring subdivision regulations that minimize effect of development on local farms
- CT General Statutes sec. 19a-341 declares that “no agricultural or farming operation, place, establishment or facility, or any of its appurtenances, or the operation thereof, shall be deemed to constitute a nuisance” provided that the operation is following generally accepted agricultural practices.” Generally accepted practices are determined by the Commissioner of Agriculture. Local Right-to-Farm ordinances are a policy statement emphasizing a Town’s support of agriculture.
- Implement local tax reduction programs to assist in retaining farms and farmland

How Can Mansfield Support Agriculture?

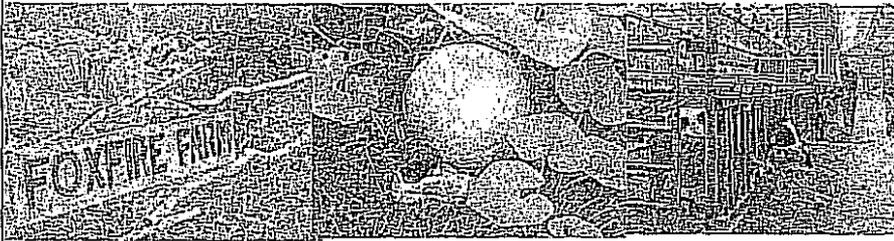
- Support Farmland Preservation
 - Fee Simple Purchase
 - Purchase of Development Rights
 - Agricultural Easements
- Encourage Agricultural Use of Town-Owned Farmland



Mansfield Community Garden

Mansfield Agriculture Committee

- Advisory to the Town Council and Town Officials
- Voice of agriculture in Mansfield



Mansfield Agriculture Committee Goals:

- Promote agricultural viability and preservation
- Promote healthy environment.
- Represent agricultural community before land use and other commissions.
- To be a resource of agricultural information.
- Support a balance between agriculture, preservation, and other land uses

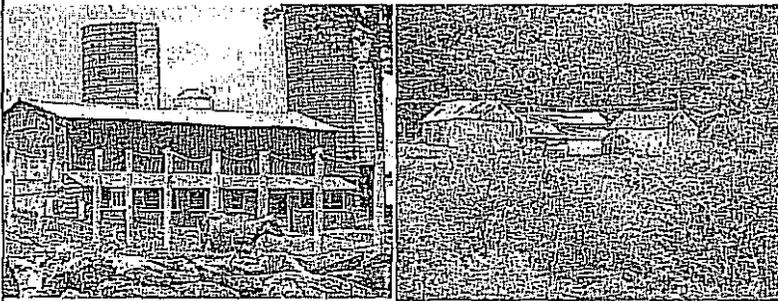
The newly adopted charge is attached.

Agriculture Committee: On-going Efforts

- Provide input to PZC about:
 - POCD
 - Zoning Regulations to Advocate on behalf of Mansfield's farm families
 - Development proposals on or adjacent to prime farmland
- Prepare an analysis of Tax Reduction Programs to the Town Council
- Monitor farm-use agreements on Town land
- Prepare annual Agricultural Products and Services Brochure

Agriculture Committee: On-going Efforts

- Increase visibility of agriculture in Town
- Educate residents about active, working farms



Future Actions

- Promote understanding of and support for local farming
- Pursue farmland preservation
- Promote zoning that supports farm operations
- Promote youth agriculture programs



-Promote understand and support for local farming

-Ag Committee: Continue outreach efforts to Mansfield farms; Continue outreach and education efforts to general public; Provide advice to Town Council as needed

-Town Council: Support initiatives to ease burden on farmers; Support continued efforts to preserve active farmlands; Be vocal advocates for farming within Town

-Pursue farmland preservation

-Promote zoning that supports farm operations

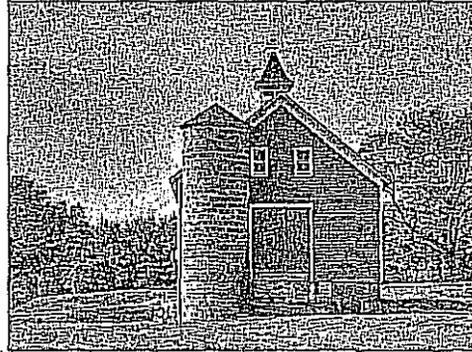
-Promote youth agriculture programs

-Storrs Regional FFA

-4-H

Future Actions

- Workshops for farmers
- Resources for farmers
- Regional initiatives
- TLGV Foodshed Plan



Farwell Barn UConn

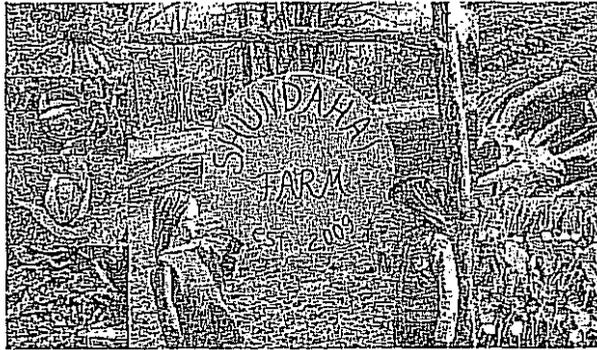
LGV Foodshed plan

Goals

- Land that is currently farmed, or identified as valuable for farming because of its soils or other characteristics, is protected and its use for agricultural uses is maximized
- Large blocks of unfragmented forest land is protected, forestry management is implemented in appropriate areas
- Farmers have the knowledge, tools and infrastructure to ensure their business is successful
- Expanded markets, products and processing are available to farmers
- Local restaurants, grocery stores and institutions, including schools and hospitals, use local food whenever possible.
- All residents of the TLGV and the surrounding region understand the value of local foods and have easy access to them.
- Municipalities support agricultural operations through their land use regulations and otherwise
- Renewable energy sources are an integral part of agricultural operations,
- Agricultural operations implement practices that are compatible with the environment
- New agriculture operations are started with a new generation of farmers eager to farm

Agricultural Viability in Mansfield

- To preserve farmland we must preserve FARMING
- A Shared Responsibility



Thank you for your support of our efforts. We look forward to working together to support agricultural viability in Mansfield.

Definition of Agriculture: CGS § 1-1(q) § 1-1. Words and phrases. (q)

Except as otherwise specifically defined, the words "agriculture" and "farming" shall include cultivation of the soil, dairying, forestry, raising or harvesting any agricultural or horticultural commodity, including the raising, shearing, feeding, caring for, training and management of livestock, including horses, bees, poultry, fur-bearing animals and wildlife, and the raising or harvesting of oysters, clams, mussels, other molluscan shellfish or fish; the operation, management, conservation, improvement or maintenance of a farm and its buildings, tools and equipment, or salvaging timber or cleared land of brush or other debris left by a storm, as an incident to such farming operations; the production or harvesting of maple syrup or maple sugar, or any agricultural commodity, including lumber, as an incident to ordinary farming operations or the harvesting of mushrooms, the hatching of poultry, or the construction, operation or maintenance of ditches, canals, reservoirs or waterways used exclusively for farming purposes; handling, planting, drying, packing, packaging, processing, freezing, grading, storing or delivering to storage or to market, or to a carrier for transportation to market, or for direct sale any agricultural or horticultural commodity as an incident to ordinary farming operations, or, in the case of fruits and vegetables, as an incident to the preparation of such fruits or vegetables for market or for direct sale. The term "farm" includes farm buildings, and accessory buildings thereto, nurseries, orchards, ranges, greenhouses, hoop houses and other temporary structures or other structures used primarily for the raising and, as an incident to ordinary farming operations, the sale of agricultural or horticultural commodities. The term "aquaculture" means the farming of the waters of the state and tidal wetlands and the production of protein food, including fish, oysters, clams, mussels and other molluscan shellfish, on leased, franchised and public underwater farm lands. Nothing herein shall restrict the power of a local zoning authority under chapter 124.

Cost to Provide Community Services per Dollar of Revenue Raised*			
Town (year of study)	Residential	Commercial and Industrial	Working and Open Land
Bolton (1998)	1.05	0.23	0.5
Brooklyn (2002)	1.09	0.17	0.3
Durham (1995)	1.07	0.27	0.23
Farmington (1995)	1.33	0.32	0.31
Lebanon (2007)	1.12	0.16	0.17
Litchfield (1995)	1.11	0.34	0.34
Pomfret (1995)	1.06	0.27	0.86
Windham (2002)	1.15	0.24	0.19
Median	1.11	0.26	0.31
US Median	1.19	0.29	0.37

Farmland helps to stabilize municipal budgets. Cost of Community Services Studies (COCS) use municipal data to determine the fiscal contribution of various local land uses. Over 20 years of COCS from around the country have shown that farmland and other open space generate more public revenue than they require in services. Even when farmland, for example, is assessed at its current agricultural use value under Public Act 490, farmland generates a surplus to offset the shortfall created by residential demand for public services.

A review of COCS research in eight CT Towns shows that for each dollar of property tax revenue generated by working and open space land, on average, only \$0.31 is required in municipal services. Whereas, on average, \$1.11 is required in municipal services for residential land.

Mansfield Agriculture Committee Charge

CHARGE/DUTIES: The Agriculture Committee shall be an advisory board to the Town Council and other Town officials with the following charges and duties:

General

- a. To foster agricultural viability and preservation of agricultural land in Mansfield.
- b. To foster a healthy environment.
- c. To serve as a conduit between local farmers and non-profit agencies, civic organizations, municipal boards and commissions, elected officials, and non-farm residents.
- d. To advocate for agriculture before land use and other commissions.
- e. To act as a resource for agricultural information.
- f. To chart land use in Mansfield to support a balance between agriculture, preservation, and other land uses.
- g. To promote keeping Town-owned farmland in agricultural production. In addition, to ensure the responsible use of Town-owned farmland by monitoring use agreements between the Town and local farmers.

Education and Outreach

- a. To increase awareness of agricultural enterprises in the community.
- b. To promote the value of viable agriculture to the Town in the areas of employment, property taxes, environment and farmland preservation.
- c. To provide information and guidance on agriculture-related issues-such as zoning, inland wetland, public works and others - to town departments and other boards and commissions and residents as necessary.
- d. To support young farmers by supporting local, regional, and state vocational agricultural education, and 4-H programs.
- e. To recognize and support new farming operations.
- f. To act as a sounding board and provide review to town departments, boards and commissions concerning the impact of proposed town policies on agricultural activities.

Economic Opportunities

- a. To identify opportunities to preserve and expand agriculture in Mansfield.
- b. To promote opportunities for residents and local businesses to support agriculture.
- c. To provide information regarding available financial support related to agricultural viability.

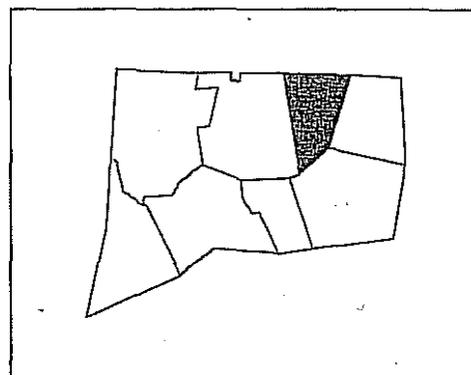
MEMBERSHIP: The Agriculture Committee will consist of 6 regular voting members and 4 alternates appointed by the Town Council in accordance with A§192 of the Mansfield Code. Insofar as practical, members appointed shall be representative of all groups interested in the management, protection and regulation of agriculture as defined by Connecticut General Statutes 1-1q, particularly those directly involved in agriculture. A chairman, vice chairman and a secretary will be elected and will serve for a term of one year.

LENGTH OF TERM: The appointments will be for three year terms.

Adopted August 9, 2010

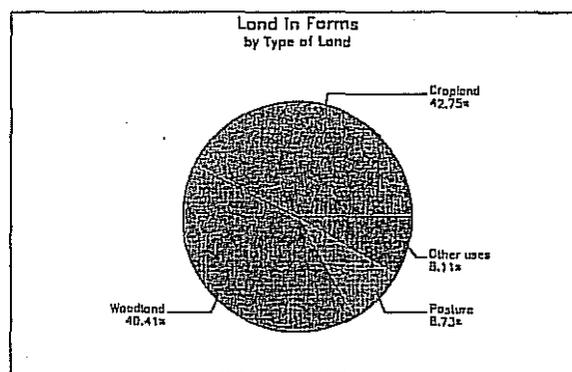
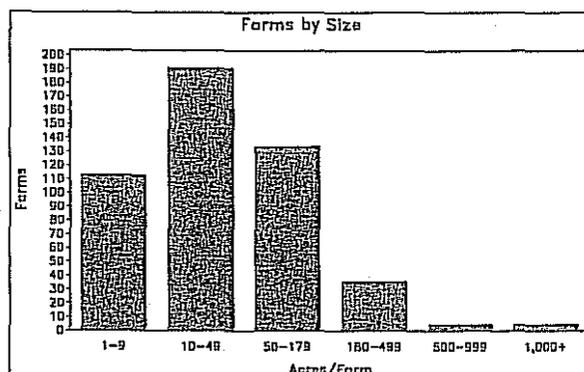
2007 CENSUS OF AGRICULTURE

County Profile



Tolland County Connecticut

	2007	2002	% change
Number of Farms	484	398	+ 22
Land in Farms	39,334 acres	36,782 acres	+ 7
Average Size of Farm	81 acres	92 acres	- 12
Market Value of Products Sold	\$37,573,000	\$28,157,000	+ 33
Crop Sales \$20,054,000 (53 percent)			
Livestock Sales \$17,519,000 (47 percent)			
Average Per Farm	\$77,630	\$70,747	+ 10
Government Payments	\$318,000	\$571,000	- 44
Average Per Farm Receiving Payments	\$10,978	\$24,829	- 56



2007 CENSUS OF AGRICULTURE

County Profile

Tolland County – Connecticut

Ranked items among the 8 state counties and 3,079 U.S. counties, 2007

Item	Quantity	State Rank	Universe ¹	U.S. Rank	Universe ¹
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)					
Total value of agricultural products sold	37,573	7	8	1,804	3,076
Value of crops including nursery and greenhouse	20,054	7	8	1,455	3,072
Value of livestock, poultry, and their products	17,519	4	8	1,620	3,069
VALUE OF SALES BY COMMODITY GROUP (\$1,000)					
Grains, oilseeds, dry beans, and dry peas	278	5	8	2,272	2,933
Tobacco	(D)	2	3	(D)	437
Cotton and cottonseed	-	-	-	-	626
Vegetables, melons, potatoes, and sweet potatoes	2,291	5	8	536	2,796
Fruits, tree nuts, and berries	2,272	4	8	278	2,659
Nursery, greenhouse, floriculture, and sod	12,303	7	8	249	2,703
Cut Christmas trees and short rotation woody crops	(D)	(D)	8	(D)	1,710
Other crops and hay	857	6	8	1,679	3,054
Poultry and eggs	173	6	8	1,291	3,020
Cattle and calves	1,956	3	8	2,312	3,054
Milk and other dairy products from cows	14,614	4	8	378	2,493
Hogs and pigs	66	5	8	1,507	2,922
Sheep, goats, and their products	108	4	8	1,046	2,998
Horses, ponies, mules, burros, and donkeys	452	5	8	536	3,024
Aquaculture	-	-	7	-	1,498
Other animals and other animal products	140	5	8	842	2,875
TOP CROP ITEMS (acres)					
Forage - land used for all hay and haylage, grass silage, and greenchop	7,335	5	8	1,997	3,060
Corn for silage	5,032	3	8	308	2,283
Vegetables harvested for sale	1,080	3	8	500	2,794
Sweet corn	571	2	8	168	2,384
Corn for grain	311	4	7	2,141	2,634
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	10,457	3	8	1,953	3,060
Layers	5,753	4	8	769	3,024
Pullets for laying flock replacement	4,395	3	8	481	2,627
Horses and ponies	1,153	6	8	1,209	3,066
Sheep and lambs	926	3	8	967	2,891

Other County Highlights

Economic Characteristics	Quantity	Operator Characteristics	Quantity
Farms by value of sales:			
Less than \$1,000	141	Principal operators by primary occupation:	
\$1,000 to \$2,499	58	Farming	221
\$2,500 to \$4,999	85	Other	263
\$5,000 to \$9,999	49	Principal operators by sex:	
\$10,000 to \$19,999	58	Male	377
\$20,000 to \$24,999	13	Female	107
\$25,000 to \$39,999	21	Average age of principal operator (years)	
\$40,000 to \$49,999	8		58.3
\$50,000 to \$99,999	16	All operators by race ² :	
\$100,000 to \$249,999	13	American Indian or Alaska Native	5
\$250,000 to \$499,999	7	Asian	4
\$500,000 or more	15	Black or African American	-
Total farm production expenses (\$1,000)	32,466	Native Hawaiian or Other Pacific Islander	-
Average per farm (\$)	67,079	White	746
Net cash farm income of operation (\$1,000)	7,409	More than one race	8
Average per farm (\$)	15,307	All operators of Spanish, Hispanic, or Latino Origin ²	9

See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes, explanations, definitions, and methodology.

(D) Cannot be disclosed. (Z) Less than half of the unit shown.

¹ Universe is number of counties in state or U.S. with item. ² Data were collected for a maximum of three operators per farm.

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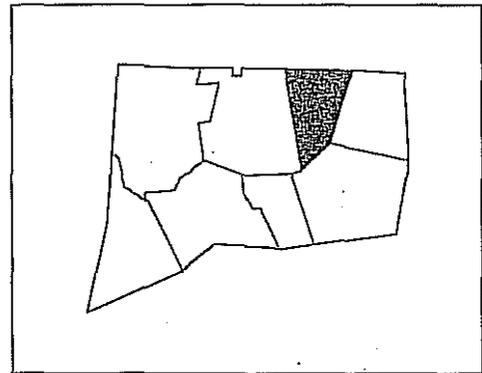
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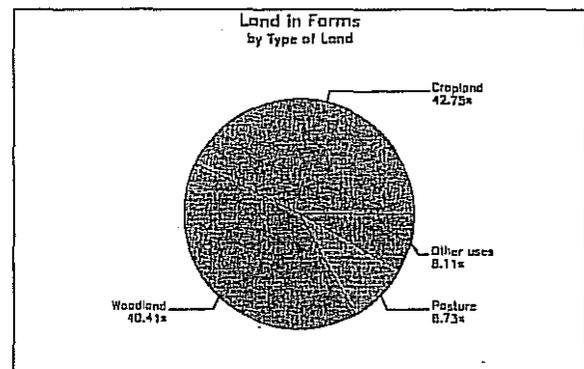
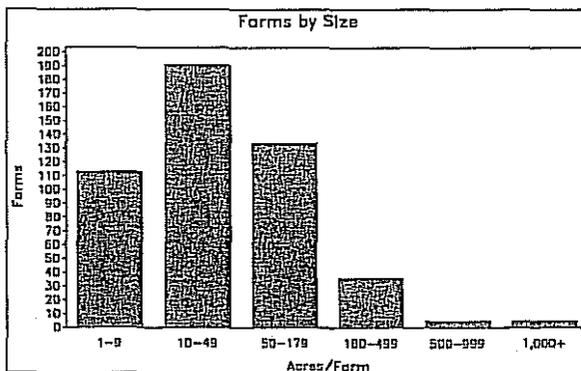
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Average Per Farm	\$77,630	\$70,747	+ 10
Government Payments	\$318,000	\$571,000	- 44
Average Per Farm Receiving Payments	\$10,978	\$24,829	- 56



United States Department of Agriculture
National Agricultural Statistics Service

www.agcensus.usda.gov

2007-2008 REPORT

By Rigoberto Lopez and Christopher Jeffords
Department of Agricultural and Resource Economics

In Memory of
Dr. William "Al" Allen Cowan
 (October 4, 1920-April 4, 2009)
Professor Emeritus,
Department of Animal Science

In addition to shedding light on agriculture in Connecticut, we hope that this newsletter lives up to the high standards set by Dr. Cowan's original series of twenty seven years.



Connecticut Agriculture is Alive and Well!

In his last *Agriculture in Connecticut* 2006 report, Al Cowan noted that "Most citizens and even many in agriculture, are not aware of agriculture's diversity, scope and importance" in New England. As this report goes to press, what Al wrote then is still true: "It is dynamic, still evolving and changing...and continuing to make significant contributions to the life of Connecticut citizens."

An important aspect of this contribution is agriculture's economic impact. In 2007, without accounting for differences in the number of farms or land in farms, Connecticut ranks third in New England at \$551,553,000 in total market value of agricultural products sold. Number one is Vermont, Maine is number two. However, Connecticut ranks first in terms of market value per farm and per acre, as the following table illustrates:

Table 1 – 2007 Market Value of Agricultural Products Sold: Rankings per Acre and per Farm

State	Total Market Value (\$1,000)	Land in Farms (Acres)	Value Per Acre	Rank	Number of Farms	Value Per Farm	Rank
Vermont	\$673,713	1,233,313	\$546	4	6,984	\$96,465	2
Maine	617,190	1,347,566	458	5	8,136	75,859	3
Connecticut	551,553	405,616	1,360	1	4,916	112,195	1
Massachusetts	489,820	517,879	946	3	7,691	63,687	4
New Hampshire	199,051	471,911	422	6	4,166	47,780	6
Rhode Island	65,908	67,819	972	2	1,219	54,067	5

Data for 2008 preserves the number three spot for Connecticut in terms of agricultural products sold at \$600,589,000—an increase of \$49,036,000 or 8.9%. Unfortunately, data for land in farms and number of farms were not yet available for 2008. However, it is interesting to note that between 2006 and 2007, land in farms in Connecticut actually increased by more than 5,000 acres and the total number of farms by over 700, with the average farm size remaining at approximately 82 acres—by far consisting of small and medium size family farm operations.

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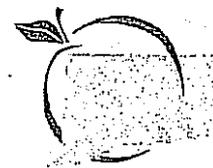
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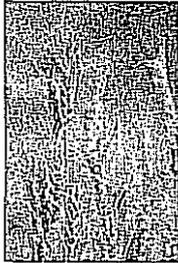
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As Table 2 illustrates, between 2007 and 2008, Connecticut has seen its net farm income increase by close to 25% - pushing it into the number two spot in New England in terms of ranking based on these statistics. Attesting to the continuing diversity of Connecticut agriculture, the contribution of crops, animals, and services and forestry to final agricultural output have remained consistent across 2007 and 2008 at 58%, 26%, and 18% respectively.

Table 2 – 2007 and 2008 Farm Income and Value Added Data

Net Farm Income Rank	State	Net Farm Income (\$1,000)	Final Agricultural Sector Output (\$1,000)	From Crops (\$1,000)	From Animals (\$1,000)	From Services & Forestry (\$1,000)
2007						
1	Vermont	\$225,136	\$774,970	\$110,130	\$597,706	\$67,134
2	Maine	179,748	732,922	351,473	298,606	82,843
3	Connecticut	139,490	680,031	394,246	179,984	105,801
4	Massachusetts	108,100	647,727	372,854	121,339	153,435
5	New Hampshire	37,600	251,673	108,987	94,283	48,502
6	Rhode Island	20,112	82,483	55,765	10,103	16,614
2008						
1	Massachusetts	\$178,653	\$728,588	\$451,406	\$112,785	\$164,397
2	Connecticut	176,978	728,223	419,996	190,327	117,901
3	Maine	167,230	743,916	325,547	335,208	83,160
4	Vermont	164,743	754,533	112,498	570,061	71,975
5	New Hampshire	46,083	269,799	119,754	97,280	52,765
6	Rhode Island	16,553	86,744	57,357	10,549	18,839

CONNECTICUT HAS SUBSTANTIALLY HIGHER PER-ACRE AND PER-FARM MARKET VALUES AND RANKS FIRST OUT OF THE SIX NEW ENGLAND STATES IN SALES PER ACRE AND PER FARM.

Zooming in on Connecticut, Table 3 further illustrates the diversity of Connecticut agriculture, ranging from nursery, greenhouse, turfgrass, dairy cows and goat operations to tobacco leaf, fruit and vegetables, aquaculture, cattle, and horse farms.

Table 3 – 2007 Market Value by Commodity Groups

Agricultural Commodity Group	Value (\$1,000)	% of Total
Crops		
Nursery, greenhouse, floriculture, and sod	\$269,221	48.8%
Tobacco	58,976	10.3%
Vegetables, melons, potatoes, and sweet potatoes	30,230	5.6%
Fruits, tree nuts, and berries	28,641	5.2%
Other crops and hay	12,464	2.3%
Cut Christmas trees and short rotation woody crops	3,840	0.7%
Livestock		
Milk and other dairy products from cows	\$72,338	13.1%
Poultry and eggs	45,274	8.2%
Aquaculture	15,142	2.7%
Cattle and calves	9,405	1.7%
Horses, ponies, mules, burros, and donkeys	4,868	0.9%
Other animals and other animal products	3,154	0.6%
All Commodities	\$551,553	100%

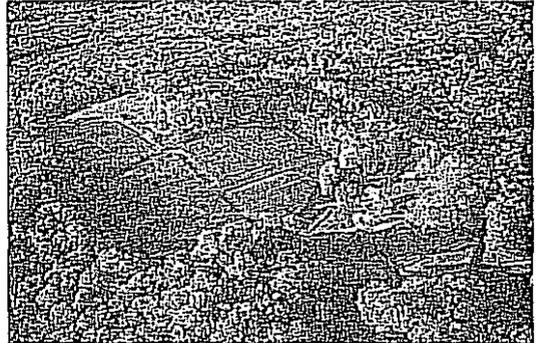


Sales of crops and livestock accounted for approximately 73% and 27% of total sales respectively, the largest commodity sectors being the "green" industries (nursery, greenhouse, floriculture, and sod), the dairy industry, and tobacco. Honorable mentions of Connecticut's position in New England for selected agricultural commodities are given on the next page.

Connecticut Rankings in New England

First in:

- Pear production
- Broadleaf and shade grown tobacco
 - Production and value of production
 - Acres harvested and yield per acre
- Market value of nursery, greenhouse, and floriculture sales
- Market value of cut Christmas trees and short-rotation woody crops sold
- Final agricultural sector output from crops (\$394 million)
- Horses per square mile (3rd in the U.S.)



Second in:

- Total value of milk produced per square mile
- Net farm income (2008)
- Total eggs produced and value of egg production
- Corn silage production
- Total value of trout sales
- Number of farms per square mile
- Acres of sweet corn planted per square mile
- Total value of milk produced per cow
- Peach Production

CONNECTICUT RANKS FIRST IN NEW ENGLAND IN NURSERY AND GREENHOUSE SALES AND HORSE DENSITY AND SECOND IN NET FARM INCOME AND NUMBER OF FARMS PER SQUARE MILE.

BY ANY MEASURE, CONNECTICUT AGRICULTURE CONTINUES TO THRIVE!

Third in:

- Total milk production and value of milk produced
- Horses per capita

As of July 2007, there were over 3.5 million people living in Connecticut, roughly 25% of the total population of New England. For being the second most populous yet second geographically smallest state in New England, Connecticut's agriculture is doing exceedingly well, as illustrated by the following per capita statistics for Connecticut in 2007:

- | | |
|---|---|
| • 1 head of cattle for every 67 people | • 1 acre of woodland for every 28 people |
| • 1 milk cow for every 184 people | • \$4.32 of aquaculture products sold per person (based on USDA data) |
| • 1 hog for every 875 people | • \$76.87 of nursery, greenhouse, floriculture, and sod sold per person |
| • Slightly less than 1 chicken per person | • \$20.65 of milk and other dairy products from cows sold per person |
| • Around 6 pounds of apples per person | |
| • 1 acre of farmland for every 9 people | |

The contribution of agriculture goes beyond the farm gate, as illustrated for the dairy industry on page 4, and it also plays an important non-pecuniary role in preserving open space and the quality of life. 'In a nutshell, "agriculture is not dead in Connecticut" (Cowan, *Connecticut Agriculture 2006*). Relying on high value added operations and small and medium family farms, overall, by any measure, agriculture in Connecticut continues to thrive!

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The Dairy Industry in Connecticut

According to a 2007 report by two state agencies and The University of Connecticut:

Connecticut's dairy industry (including processing) generated an estimated \$1 billion in statewide sales and accounted for approximately 3,500 jobs taking into account effects on related businesses

- Dairy processing establishments had direct sales of nearly \$500 million, with about half of that being sales of cheese and yogurt, and the remaining in fluid milk, ice cream and frozen desserts, and manufacturing.
- 25 dairy processing establishments including 11 milk bottlers and 4 cheese manufacturers

Additional Dairy Farming Statistics for 2007:

- 159 dairy farms located in 75 CT towns
- CT dairy farms operated 72,000 acres of land accounting for 20% of the state's land in farms
- In 2007, CT dairy farms had direct sales of \$76 million
- 19,000 milk cows produced 355 million pounds of milk or 18,684 pounds per cow

Report Data Sources

Cowan, W.A., *Agriculture in Connecticut 2006*, (publication date unknown), Department of Animal Science, Storrs, CT

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UConn report: Agriculture plays significant role in state's economy

Agriculture's role in state economy a significant one, says new report

UConn study: \$3.5B, 22,000 jobs are harvested annually

By LEE HOWARD
Day Staff Writer

Adrienne Severance of Chester, clutching a dried cornstalk and contemplating her fall decorating scheme, sees a silver lining in the current economic woes as she shops at Scott's Yankee Farmer in East Lyme.

"Maybe the recession has been good because the builders are not tearing down as much land," she said.

Severance was referring to her support for Connecticut's agricultural economy and places like Scott's, a family-owned business that has 130 acres under production as well as a popular farmstand.

"I support them 100 percent," said another customer, Jill Henderson of East Lyme, who shops at Scott's regularly during its April-to-December season. "They've been here a long, long time, and hopefully that will

SEE UCONN PAGE A7

FROM A1
continue."

The idea of continuing the state's farm traditions got a boost Monday with the release of a University of Connecticut report showing that agriculture in Connecticut contributes up to \$3.5 billion annually and 22,000 jobs to the state economy.

Other "value-added" impacts of agriculture — money that circulates back to other individuals and businesses in the state — bring as much as an additional \$1.7 billion in economic value, said the study, which is based on 2007 numbers and is considered the first of its kind.

"These estimated output impacts are significantly higher than the \$2 billion figure used in political circles in the Connecticut Legislature," according to the report, titled Economic Impacts of Connecticut's Agriculture Industry. "On a per capita basis, the agricultural industry generates approximately \$1,000 in sales per Connecticut resident."

In New London County alone, according to figures, the agricultural output was \$290 million.

Karen Scott, co-owner of Scott's with husband Tom and one of five family members who regularly works on the East Lyme farm, said it's nice that agriculture's contribution to the Connecticut economy and lifestyle is finally being acknowledged.

"People want us to stay here; they want us to succeed," Scott said. "Over the last couple years ... more people are buying local."

All those local buyers add up to agriculture accounting for about 1.65 percent of Connecticut's \$212 billion economy, according to the UConn study, which excluded such areas as landscaping and food

AGRICULTURE ASSETS

Greenhouses and nurseries are the largest agricultural sector statewide, accounting for nearly half of the state's product sales.

Fairfield County leads the state in agricultural production, with annual output topping \$1 billion. Second and third are New Haven and Hartford counties, with output of \$897 million and \$866 million respectively.

New London's agricultural production is nearly \$300 million.

Farmland in Connecticut makes up 405,616 acres, or about 13 percent of the state's landmass. The state's farms rank first in New England for their market value per farm and per acre.

Source: Economic Impacts of Connecticut's Agriculture Industry

occurred in the past. The reality is, Connecticut agriculture is evolving and growing."

Reviczky said agricultural interests are looking for legislators and local officials to give farms the flexibility to change with the times as they grapple with how to remain profitable in a challenging economy.

Last year's so-called Pickle Bill gave farmers the chance to bottle their own relishes and salsa, among other products. Previously, the legislature had OK'd farms' right to produce jellies and jams.

Scott, who already has various pick-your-own offerings, a cider mill, doughnut shop and corn maze, says she will begin making jams and jellies in November, taking advantage of relaxed regulations to boost sales.

Yet, while the direct effect of increased sales at farmstands is easy to measure, such intangibles as farms' relationship to the tourism industry, the social benefits of rural living and the positive effects of agriculture on the ecosystem are harder to pinpoint. For UConn's Lopez, though, there's little doubt that businesses benefit from the spinoff effects of maintaining a rural landscape.

"Farmers markets, farmstands and farm-to-table events can boost sales for area businesses," he said in a statement.

And, unlike in major agricultural states, most of Connecticut's agricultural output is consumed locally.

"Consumers really want to know where their food is coming from," Reviczky said. "They're demanding locally grown."

l.howard@theday.com

9/28/2010
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BREAK

PAGE

Blues For A Green Cause



Peter Tork Concert Will Benefit Trust

Peter Tork will bring his band Suede Shoe Blues to Knowlton Memorial Hall in Ashford for a benefit concert on October 15.

His past performances for Joshua's Trust have been sold out and greatly enjoyed by enthusiastic audiences.

Wine and refreshments will be served starting at 7:30 p.m. and the concert will begin at 8:30 p.m. Reservations are \$30 in advance; admission at the door will be \$35. The performance hall is located on Route 44, west of Route 89.

Having gained fame as one of the Monkees, Peter has continued to expand his musical horizons. The Mansfield resident's creativity and musicianship have earned praise from music critics, while his warmth and humor have attracted loyal fans. Two CDs have been released by his band, "Saved by the Blues" and "Cambira Hotel."

Arrangements for the event are being made by Isabelle Atwood (860-429-9671) and the Special Events Committee. (See reservation form on back page.)

A New Look For The Mason Mill Site

The Mason Mill Site on Old Turnpike Road in Mansfield has a new look!

Tom Bloom, one of the stewards, has been hand-clearing the site of barberry for more than a year. After consultation with local landscape historian Rudy Favretti, the site has been cleared of many of the large trees that were threatening the stone walls of the former mill and sluiceway.

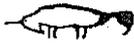
Now that the lay of the land can be appreciated, a fiberglass-embedded sign has been erected that interprets the history of the site.

Tom spent much of the past winter gathering information and photos to create an attractive and informative display so visitors can appreciate the long history of this mill site.

Thank you, Tom!



Steward Tom Bloom (left) and Trail Crew Leader Gary Griffin with the newly installed sign at historic Mason Mill Site.



Joshua's Tract Conservation And Historic Trust, Inc.

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www.joshuaslandtrust.org

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Joshua's Tract Conservation and Historic Trust was formed in 1966 to receive gifts of money and land, or to buy land of historic, aesthetic, or scientific value, for the benefit of future generations.

It is designed to supplement the open space efforts of federal, state and local governments. The Trust protects over 4,000 acres in the region, maintains trails which are open to the public, and publishes *The Joshua's Tract Walk Book*.

The office is located in the historic Eagleville Schoolhouse, South Eagleville Rd., in Mansfield.

Office hours: Thurs. 1:30-3:30 pm.
Phone: 860-429-9023

Forty-Four Busy Years Later...

By ALLISON BURCHELL-ROBINSON
Joshua's Trust President

Shortly after becoming Joshua's Trust president, I had the opportunity to talk with Trudy Lamb about the Trust's early days and how and why it came into existence. She was the first chairperson and had a great deal of information to share. She mentioned how busy the founders were, and I assured her that nothing has changed and we are now in our 44th year! Thank you, Trudy, for spending that afternoon with me.



Trudy Lamb, left, with Allison Burchell-Robinson

Forty-four years after those founding days, we now have 4,000 acres of land under our protection. That is a sizeable responsibility and not one that I or the Board of Trustees take lightly. One of my goals while President is to ensure that we have the resources necessary to preserve and protect our properties in perpetuity and to take care of the land as promised. This fall we will develop a five-year plan for raising the funds

needed to cover both easements and owned land as suggested by the Land Trust Alliance.

We are still in the process of applying for accreditation and it has been a positive learning experience. It is becoming clear that the IRS is casting a longer and more discerning eye on land donations. One of the aims of the LTA is to ensure that your policies and procedures are finely crafted and carefully honed to ensure that your land trust is in complete compliance with the IRS regulations.

On a lighter note as we begin to think ahead to our 50th year celebration, I am calling on all former Presidents to come forward. We are creating a President's Wall. Roseanne Gottier, a multi-talented member of Joshua's Trust, has agreed to take your picture. Please get in touch with me as to your availability this fall. You can email me at allwall5@aol.com or leave a message at the trust office 860-429-9023.

Calling For JT Memorabilia

The year 2016 will be the 50th anniversary of the formation of the Trust. The anniversary committee is gathering material for a history to be part of the celebration. We are asking members to send photos, clippings or other information to the trust office in care of the anniversary committee. We can copy and return material if you wish. We will also be interviewing people with stories to tell about the Trust. Contact Mona Anderson at monaanderson@gmail.com or 860-487-1381 with questions or suggestions.

'Walktober' Sites On The Trust Calendar

The Trust will once again host walks on several of its properties during Walktober, the month-long extravaganza organized by The Last Green Valley. For the full schedule, go to www.tlgv.org or pick up a printed schedule. Copies of the *Walk Book* are available at the Trust office, the UConn Coop, and several local merchants; or can be ordered by downloading the form at our website.

Alanach-Wolf Woods Dedicated In Windham

President Allison Burchell-Robinson welcomed close to 100 guests for the dedication of the Alanach-Wolf Woodlands on May 23.

The 102-acre property bequeathed by Ada Wolf underwent considerable work, including the removal of two small dwellings, repair of the dam, and environmental clean-up before it was accepted by Joshua's Trust.

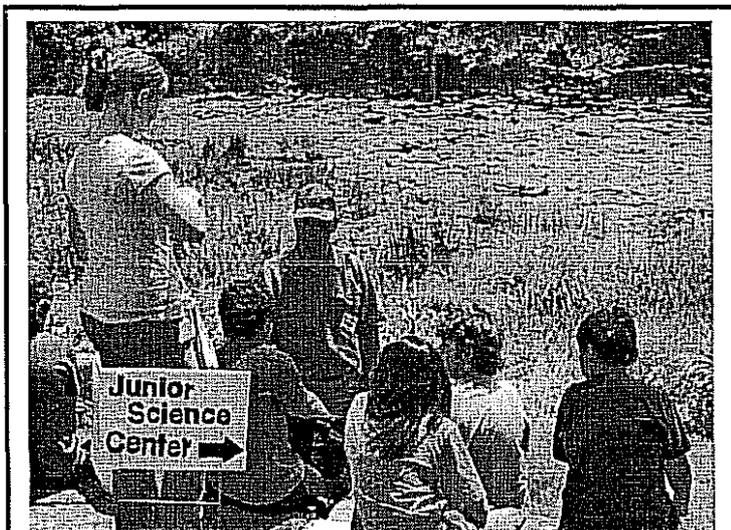
Savings Institute officer Bruce Hodgins, who had acted as the bank liaison during the long process, was thanked by Allison during her remarks. Willimantic Mayor Ernie Eldridge expressed his gratitude to the Trust for its accomplishments, and Dr. Carl Lindquist, who had introduced Ada Wolf to the Trust, spoke of his satisfaction in seeing Mrs. Wolf's wishes so completely fulfilled.

Several members of Windham's town commissions mingled with neighbors, some of whom had not yet been on the property, making the dedication a successful step



Trust President Allison Burchell-Robinson, far left, addresses guests attending the dedication of the 102-acre Alanach-Wolf Woodlands.

toward making the Wolf property the nucleus of a greenway in the Windham Center area. The event was co-sponsored with the Windham Conservation Commission, chaired by Patty Szczys, who also serves as a trustee for Joshua's Trust.



BioBlitz Success

Dr. Chuck Booth, ECSU professor of biology, facing camera, orients students about to take part in the Church Farm BioBlitz. Jointly sponsored by EASTCONN, Joshua's Trust, and ECSU, the event involved high school students on June 4 and the public on June 5. Joan Hill, organizer of the event, reported that of the total 541 species identified at the Farm, 107 were identified by the students.

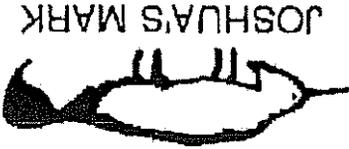
Wine Tasting And Art Show Fun And A Great Boost For The Trust

Last spring's wine tasting was a great success, thanks to Charles McCaughtry, who opened his home and donated a percentage of art sales; Corine Norgaard and her committee, who knocked themselves out in the kitchen; the Ashford Spirit Shop, which arranged for distributors to bring a fine selection of wines; and to the other merchants who contributed: BJ's in Willimantic, Big Y, Highland Park Market, Willimantic Food Coop. Please support these merchants and express your appreciation.



Charles McCaughtry and Arts Exclusive Gallery donated 20 percent of the sales at the fundraiser and have offered to extend their support of Joshua's Trust. A piece of fine art makes a memorable gift for a very special occasion. You can look at the great range of art that is available at the Gallery by going to the web site: www.arts-exclusive.com.

To view more paintings by Charles McCaughtry, go to www.mccaughtryart.com.



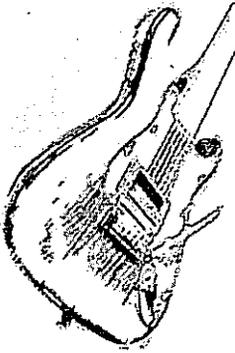
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Peter Tork's Blues Are For A Green Cause

Advance the cause of conservation while enjoying a night of the blues performed by former Monkee Peter Tork and his band, Shoe Suede Blues.

Oct. 15 at Ashford's Knowlton Memorial Hall

Wine and refreshments 7:30 p.m.; performance 8:30 p.m.

\$30 per person. \$35 at the door. For more info, call 860-429-9671

Peter Tork and Shoe Suede Blues Benefit Concert reservation form Please submit by Oct. 14.

Name _____

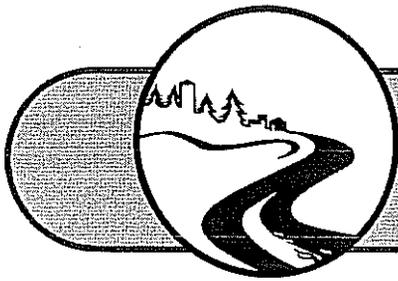
Telephone _____ E-mail address _____

Please make reservations for _____ people @ \$30 each. \$ _____ enclosed

I cannot attend, but would like to contribute \$ _____ .

Make check payable to: Joshua's Trust

Mail to: Joshua's Trust, P.O. Box 4, Mansfield Center, CT 06250-0004.



Willimantic River Review

Fall 2010

Water Trail Update

The Willimantic River Water Trail project is rolling along. For the past year, the Water Trail Committee has worked with John Monroe of the National Park Service. Launch sites were evaluated and meetings with town officials addressed the Committee's recommended improvements. With input from the Committee, John created the *Willimantic River Paddling Guide* that describes launch sites and river features. Maps and photos illustrate this appealing and useful guide. The Alliance is updating our website's Paddling Page with revised launch sites and new maps geared to paddling difficulty. John's guide has been added to the site as a pdf document so it can be viewed or printed.

What's next? The Committee is now planning signs and kiosks for the launch sites and for river landmarks. Members will continue to work with towns and the DEP on launch site improvements. The Willimantic River project is a "pioneer" effort that will guide John and The Last Green Valley staff/volunteers as they develop water trails on the Quinebaug and Five Mile rivers. It is expected that next fall, the Willimantic River and these rivers will be nominated for designation as National Recreation Trails by the National Park Service.

Well Water Woes

Low rainfall since June is affecting stream flow in the river as well as groundwater levels in aquifers under riverside wells. In Storrs, UConn has depended on the Willimantic River well field since wells next to the Fenton River were shut down in late June. Both well fields now have guidelines for water withdrawals based on the amount of water flowing past a water gauge upstream of these wells.

Since late July, low flow in the Willimantic River has triggered water conservation advisories (first voluntary, now mandatory). These restrictions affect

UConn, as well as homes, schools and businesses in Storrs that use UConn water. Current restrictions (Stage 3 drought advisory) allow various uses, such as limited lawn watering. A Stage 3 alert is triggered by stream flow at 12 cfs (cubic feet per second) or less for two weeks at the Merrow stream gauge. As the drought continues into September, the river's flow is dropping further (now averaging 8 cfs). The Alliance is advocating for additional measures to address this continuing drought condition.

Hope the October rains come early this year!

Get involved!

Time to get involved! The Alliance is looking for additional representatives for its Board of Directors, especially from the lower river area. We meet eight times a year to discuss river-related issues, and plan the Alliance's advocacy actions, workshops and recreational events. We welcome your input whether or not you wish to join the board. Our meetings are at the Tolland Town Hall at 7:00 p.m. on the fourth Wednesday. Call 860-455-0532 to confirm the meeting date.

Riverwatch

The drought highlights a need to plan carefully for withdrawals from well fields. Potential increases in water use are now being considered in the watershed. **Tolland** has applied for permits to double its wells' withdrawals from a riverside aquifer to 511,000 gallons per day. The increase for the Tolland wells would provide water for additional development in Tolland near the Route 195/Interstate 84 interchange and possibly in South Willington by Route 32.

Riverwatch *continued*

The Four Corners area at the junction of Routes 195 and 44 in Storrs needs a new water source to promote commercial development and to replace contaminated wells. Options include a well next to Cedar Swamp Brook (a river tributary), a new well by the Willimantic River, or water from Shenipsit Lake on the west side of Tolland.

Meanwhile, UConn is preparing its 2010-2014 Water Supply Plan outlining projected water needs and how they will be met. Because there have been three water conservation alerts in recent years (2005, 2007, 2010), it is important for the Plan to address seasonal low water levels in late summer. The Alliance recommends that the Plan include additional mandatory conservation measures for a Stage Three drought alert to insure reliable water supply being available during the low-flow period. The Plan also needs to include specific conservation actions for a Stage Four drought alert to maintain adequate stream flow during a long-term drought. This will provide for better protection of the river during future seasonal droughts.

Additional water withdrawals and more frequent droughts could have a combined negative impact on the waterways in the river's watershed. A **coordinated regional approach** to address these issues is needed to insure the health of the river and a dependable water source for institutions, companies and residents.

In **Willington**, a travel service center was proposed for Exit 71 on I-84. This large area of impermeable surface would be in the immediate watershed of Roaring Brook, a Class 3 Wild Trout Management Area. The brook empties into the Willimantic River at the top of the Cole Wilde Trout Management Area, a popular year-round fishing area. The Alliance shares a concern with other conservation groups about the potential for pollution and erosion in these premier waterways,

especially since there are already two large paved facilities at this exit creating runoff into Roaring Brook tributaries. The Willington Inland Wetland and Watercourse Commission denied the application in September.

River Heroes

In July, several trash bags and other items were dumped into the river in **Willimantic**. Fortunately, the water was low enough so it did not wash the trash downstream. When Jean de Smet heard about it, she called on family and friends to help clean it up. Because the trash was at the bottom of a 20-foot-high wall, this project required strength and ingenuity. They climbed down to the river, filled buckets with trash, then hauled up the buckets with ropes. Thanks to Jean and company for helping to keep the river clean!

Get outside!

It's time to enjoy the great outdoors! Visit the Willimantic River Greenway Parks and Trails Guide at www.willimanticriver.org to discover 25 public access sites along the river. Or visit the website's Paddling page for detailed information about the river's Water Trail for canoes and kayaks.

Calendar

The Alliance is now posting events on its **blog**. You can link to it from our website's Events page and find the latest posting.

Walktober 2010

Explore along the Willimantic River during Walktober, a month-long series of walks and other outings sponsored by The Last Green Valley. Walks along the river are listed below. For the other events, visit www.thelastgreenvalley.org.

Sunday, October 10

Run of the Mill Walk the mill site of the Willimantic Thread Company where the textile industry thrived for 130 years. Mile-long walk passes by mill housing and views of the Willimantic River. Meet at 2:00 p.m. at the Windham Textile and History Museum, 411 Main St. in Willimantic, two blocks from the Frog Bridge. Visit the museum afterward. Sponsored by the museum. Information: 860-456-2178

Saturday, October 16

Visit the HEEP! Tour UConn's Hillside Environmental Park (HEEP) with Ray Frigon of Ct. DEP. At a scenic lookout learn about the former landfill's remediation, then tour wetlands (with dry feet) to discover park trails and views. Meet at 10:00 a.m. for 2-mile walk on hilly terrain. Directions: In Storrs at Rt. 44 junction, go south on Rt. 195 for 1.5 miles. Turn right at traffic light onto N. Eagleville Rd. and travel 0.5 miles to second traffic light. Turn right on N. Hillside Road and follow signs to parking lot. Sponsored by the Alliance, Ct. DEP and UConn Office of Environmental Policy. Information: 860-429-7174.

Friday, October 29

Growing the Greenway Explore the growing connections of the Willimantic River Greenway. A 1.2-mile walk on the Midriver Trail passes through Joshua's Trust's Taylor Preserve, rambles down Coventry's Riverview Trail, continues on scenic Riverview Drive, and ends in Tolland's King Conservation Area. Speakers will highlight special features along the way. Carpool to return to start. Registration at least one week ahead is required by calling 860-930-7515. Directions: In Mansfield at junction with Rt. 195, go south on Rt. 32 for 0.8 miles. Turn right onto Merrow Road, cross RR tracks and bridge, then turn right onto Riverview Drive. Park on right. Sponsored by the Alliance, Joshua's Trust, and towns of Coventry and Tolland.

Many Thanks!

To **John Monroe** of the Rivers and Parks Program at the National Park Service, who has facilitated the Water Trail project with expertise and enthusiasm. We could not have done it without him!

To the **Water Trail Committee** members, who are working through the many stages of this project with good heart and good humor: Larry Diamond, Jim Hayes, Cynthia MacDonald, Paul Pribula, Meg Reich, Betty Robinson, Vicky Wetherell.
To Lois Bruinooge and Bill Reid at **The Last Green Valley** for their support.

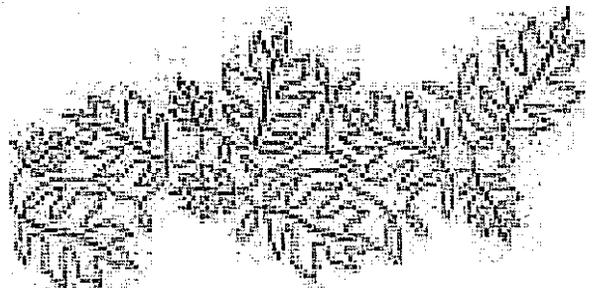
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Inquiries or submissions for the Spring 2011 Edition may be submitted to:

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or info@willimanticriver.org

View previous newsletters at
www.willimanticriver.org



Willimantic River Alliance – Membership Form

Name _____
 Address _____
 Town _____ State _____ Zip _____
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Contact me about volunteer opportunities for the WRA

Mail completed form and check to:

WRA at P.O. Box 9193, Bolton CT 06043-9193

Thank you for joining the Alliance! Your membership dues may be tax deductible.

Memberships	Annual Dues
Senior/Student	\$ 5.00
Individual	\$10.00
Family	\$15.00
River Steward	\$ 50.00
Patron	\$ 250.00
	(Lifetime Member)

Willimantic River Alliance

Founded in 1996, the Alliance has a mission “to protect and preserve the Willimantic River through cooperative and educational activities that promote regional awareness, stewardship, and enjoyment of the river and its watershed.” As a coalition of citizens, officials and local agencies, the Alliance sponsors events such as regional forums and outings and publications, including a newsletter and website www.willimanticriver.org. Our email address is info@willimanticriver.org.

Willimantic River Alliance, Inc. is a nonprofit 501 (c) (3) tax-exempt corporation. The Alliance promotes development of the Willimantic River Greenway, an official state greenway along the river's 25 miles from Stafford Springs to Willimantic. This regional project aims to connect recreational, historical and natural resource features along the river. These connections are being created by the nine riverside towns through natural resource preservation and recreation projects, such as linking trails and improving access to the river.

The river's watershed includes seventeen towns: (in Ct.) Andover, Ashford, Bolton, Columbia, Coventry, Ellington, Hebron, Lebanon, Mansfield, Stafford, Union, Tolland, Vernon, Willington, Windham, and (in Mass.) Monson, Wales.

Fall 2010

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