TOWN OF LEDYARD
CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, Connecticut 06339

Inland Wetland and Water Courses Commission

~ AMENDED AGENDA ~

Chairman
Justin DeBrodt

Regular Meeting

Tuesday, December 2, 2025 **7:00 PM** **Council Chambers -Hybrid Format**

REMOTE MEETING INFORMATION

Join Zoom Meeting
https://ledyardct.zoom.us/j/84203019637?pwd=a92RHYlRAtL1IP3raePcNUNsuUO8fb.1

Meeting ID: 842 0301 9637 Passcode: 160425

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL AND APPOINTMENT OF ALTERNATES

IV. APPROVAL OF ADDITIONS TO AND/OR CHANGES TO THE ORDER OF THE AGENDA

V. CITIZENS PETITIONS (NON-AGENDA ITEMS ONLY)

VI. PRE APPLICATION DISCUSSION AND/OR WORKSHOP

None.

VII. PUBLIC HEARINGS/APPLICATIONS

A. Public Hearing: IWWC#25-19SITE - Lambtown Rd Extension, Ledyard, CT - Applicant/Agent, Town of Ledyard for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within town right of way. (Submitted 9/9/25, Date of Receipt 10/7/25, PH scheduled 11/18/25, PH opened 11/18/25, Site Walk conducted 11/22/25, PH cont. 12/2/25, PH must close by 12/23/25, DRD 35 days from close of PH).

Attachments: EX#1 IWWC#25-19SITE - Application Rec090925
EX#2 IWWC#25-19SITE SitePlan&BuildingPlan Rec090925
EX#3 IWWC#2519SITE - TransmittalLttr Rec093025
EX#4 IWWC#25-19SITE WEOComments Rec100725
EX#5 IWWC#25-19SITE NoticePH Rec101625
EX#6 IWWC#25-19SITE ConfirmationTheDayLegalsPublication Rec101625
EX#7-1 IWWC#25-19SITE BobAskinsPublicCommentEmail Rec111325
EX#7-2 IWWC#25-19SITE BobAskinsPublicCommentLetter Rec11325
EX#8 IWWC#25-19SITE MultipleSignedPetitions PublicComment Rec111825
EX#9 IWWC#25-19SITE WeberForsberg PublicComment Rec111825
EX#10 IWWC#25-19SITE JamesCLambFamilyTrustPresentationSlides PublicComment Rec111825
EX#11 IWWC#25-19SITE LambFamilyTrustKaren&EdLamb PublicComment Rec111825
EX#12 IWWC#19SITE - H&HEngineeringAssociatesReport PublicComment Rec111825
EX#13 PZ#IWWC#25-19SITE PublicWorksDirectorRequestContinuance Rec111825
EX#14-2 IWWC#25-19SITE VerifiedPetitionIntervention Carmody Rec118125
EX#14-1 IWWC#25-19SITE EmailWithVerifiedInterventionPetition REc118125
EX#15 IWWC#25-19SITE EmailAttyWillis-AttyBleasedaleRePH 111825
EX#16 IWWC#25-19SITE-Lambtown Rd Ext. WEOComments 111825Meeting 111825
EX#17 IWWC#25-19SITE GrotonOpenSpaceAssociationLttrSupportApp Rec111925
EX#18 IWWC#25-19SITE Intervenor REMAEcologicalServicesLLCReport Rec112525
EX#19 IWWC#25-19SITE PublicWorksDirectorComments Rec120125

B. Discussion & Decision: IWWC#25-19SITE - Lambtown Rd Extension, Ledyard, CT - Applicant/Agent, Town of Ledyard for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within town right of way. (Submitted 9/9/25, Date of Receipt 10/7/25, PH scheduled 11/18/25, PH opened 11/18/25, Site Walk conducted 11/22/25, PH cont. 12/2/25, PH must close by 12/23/25, DRD 35 days from close of PH).

VIII. OLD BUSINESS

None.

IX. NEW BUSINESS

A. IWWC#25-27AR- 25 Harvard Terrace (MAP ID: 9/910/25) & 39 Military Highway (MAP ID: 92/1590/39), Gales Ferry CT - Applicant/Agent, Town of Ledyard, - Property Owners, Avalonia Land Conservancy Inc. & C.R Klewin LLC, for an after-the fact, as of right determination per IWWC Regulations Sec. 4.2.f (Uses of Right) for emergent work conducted on 7/24/25 to cut a trench into an existing berm topped with a beaver dam on the boundary between of 39 Military Highway and 25 Harvard Terrace to immediately alleviate flooding along CT Route 12 & Christy Hill Rd. (Submitted 11/26/25, Date of Receipt 12/2/25, DRD 2/4/25).

Attachments: FD#1 IWWC#25-27AR IWWCApplication Rec120125
FD#2 IWWC#25-27AR AuthorizationEmail Rec120125
FD#3 IWWC#25-27AR EmailChainPublicWorksDirecto&MobbyLarson Rec120125
FD#4 IWWC#25-27AR EmailBrianSmith&CRKlewinAuthorization Rec120125

B. IWWC#25-25AR - Founders Preserve, 334 Colonel Ledyard Highway (MAP ID: 191/530/334), Ledyard, CT - Applicant/Owner Avalonia Land Conservancy, Inc. for as of right determination to clear invasive species along existing woods roadway in the area of West Branch watercourse southerly of adjacent Tribrook Pond. (Submitted 11/24/25, Date of Receipt 12/2/25, DRD 2/4/25).

Attachments: FD#1 IWWC#25-25-AR ApplicationForm Rec112425
FD#2 IWWC#25-25AR SitePlan Rec112525

C. IWWC#25-26AR - Pike Marshall Preserve, 104 Gallup Hill Road (MAP ID: 85-810-104), Ledyard, CT - Applicant/Owner, Avalonia Land Conservancy, Inc. for as of right determination to clear invasive species across an existing causeway located on Pike-Marshall Preserve southeasterly of Morgan-Billings cemetery. (Submitted 11/24/25, Date of Receipt 12/2/25, DRD 2/4/25).

Attachments: FD#1 IWWC#25-26AR ApplicationForm Rec112425
FD#2 IWWC#25-26AR ProposedTrails&ClearingInvasives Rec112525
FD#3 IWWC#25-26AR InvasiveClearing Rec112525

X. APPROVAL OF THE MINUTES OF PREVIOUS MEETINGS

IWWC Regular Meeting Minutes of November 18, 2025

IWWC Special Meeting Site Walk Minutes of November 22, 2025

XI. CORRESPONDENCE

XII. REPORTS

A. Wetlands Staff Report of December 2, 2025

XIII. ADJOURNMENT

DISCLAIMER: Although we try to be timely and accurate these are not official records of the Town.

File #: 25-2492 **Agenda Date:** 10/7/2025 **Agenda #:** A.

LAND USE APPLICATION

Subject/Application:
Public Hearing: IWWC#25-19SITE - Lambtown Rd Extension, Ledyard, CT - Applicant/Agent, Town of Ledyard for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within town right of way. (Submitted 9/9/25, Date of Receipt 10/7/25, PH scheduled 11/18/25, PH opened 11/18/25, Site Walk conducted 11/22/25, PH cont. 12/2/25, PH must close by 12/23/25, DRD 35 days from close of PH).

Background:
(type text here)

Land Use Director/Town Planner:
(type text here)

IWWC#25-19SITE RECEIVED

Street No./ Name:

SEP 09 2025

Land Use Department

TOWN OF LEDYARD
INLAND WETLANDS AND WATERCOURSES COMMISSION (IWWC)
APPLICATION FOR PERMIT (Or Commission ruling that a permit is not needed)

Application No. IWWC#25-19

Receipt Date

Date Submitted 9/9/25

Applicant/Agent Town of Ledyard

Owner (if different)

Address 741 Colonel Ledyard Highway, Ledyard, CT 06339

Address of Owner

Phones 860-464-3238 / cell

Phone

- **I have received information on the Army Corps of Engineers permit procedure.**
- **I have read and have included all the application and site plan requirements in Section 7 of the IWWC Regulations**

Signature of Applicant/ Agent

Location of Property Lambtown Road Extension

Tax Assessor's Map No. 140

Zoning District R60

Written Description of Proposed Activity Replacement of failed culvert (temporarily patched) under the road. Includes new custom inlet control structure at Ed Lamb Brook pond.

Proposed Erosion/ Sediment Control Measures: Not anticipated to be req'd. Install as necessary during construction.

Total Area of Site 800 sq ft

Total Area of Wetlands per Official Inventory Map 0

Amount of Fill, in Cubic Yards 0

Disturbed Area, in Square Feet 0 or in Acres

Area Increase/Decrease in Wetlands 0 (For Map Amendment Only*)

Soil Types from USDA Soil Survey n/a

General Description of Vegetative Cover Roadbed with scrub growth along shoulders.

Name and Address of Adjacent Property Owners

46 & 59 Lambtown Rd Ext; Groton Open Space Association

40 & 60 Lambtown Rd; Lamb Family Trust

Anticipated Start Date 7/26 Completion Date 10/26

List previous IWWC application #'s

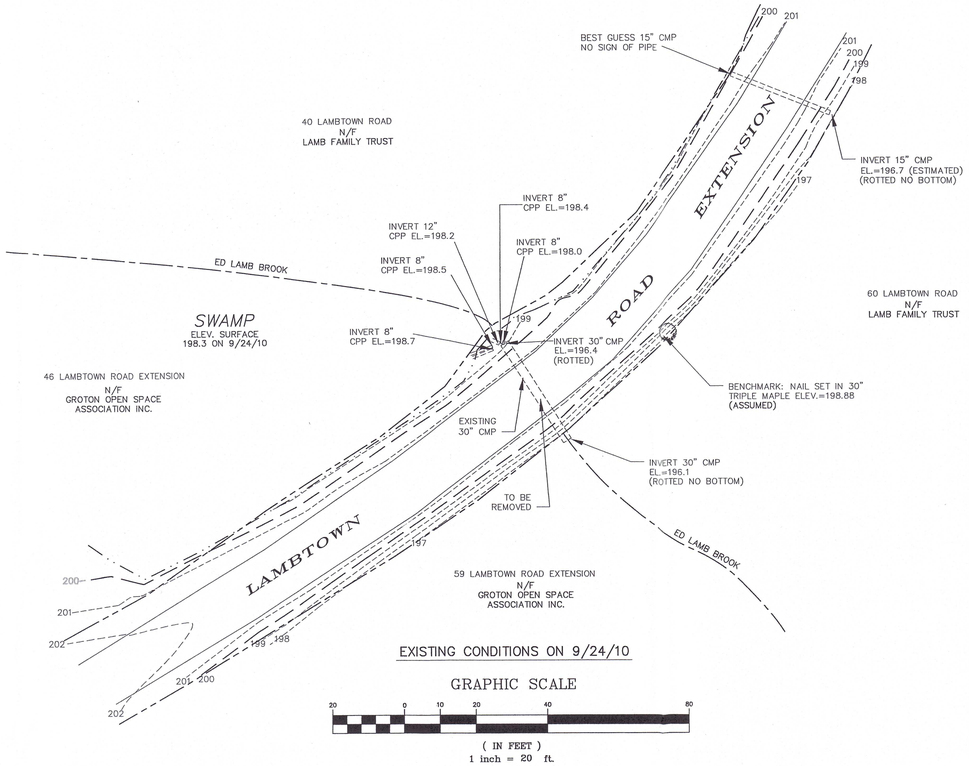
IWW Commission Disposition: IWWC Regulations; Section Classification

Signature of Chair

FEE: + **$60.00 State Fee =** **DATE PAID** **RECEIPT #**

P:\Zoning\W_Application_7-1-13.doc

6

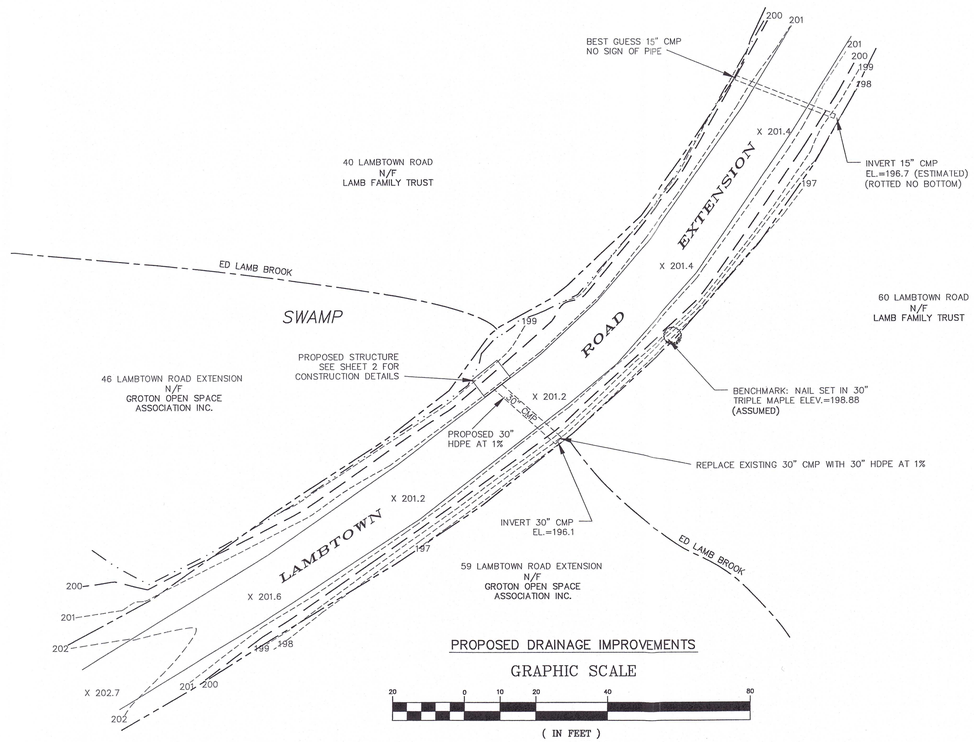


EXISTING CONDITIONS ON 9/24/10

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



PROPOSED DRAINAGE IMPROVEMENTS

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND

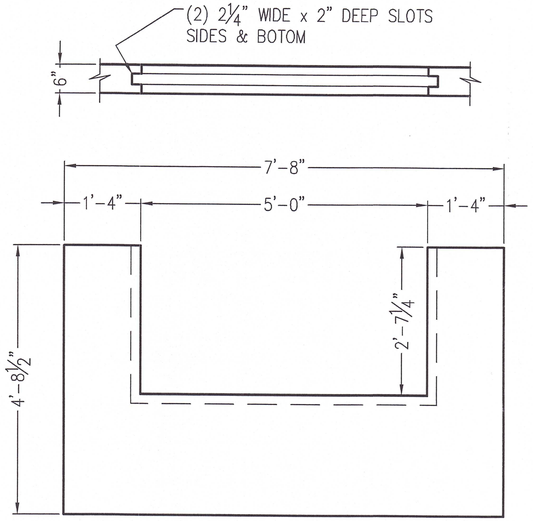
- EXISTING CONTOUR
- X 201.0 EXISTING SPOT GRADE
- STREET LINE
- PROPERTY LINE

NOTE: STREET LINE AND PROPERTY LINE PER LEDYARD ASSOSSOR'S MAPS

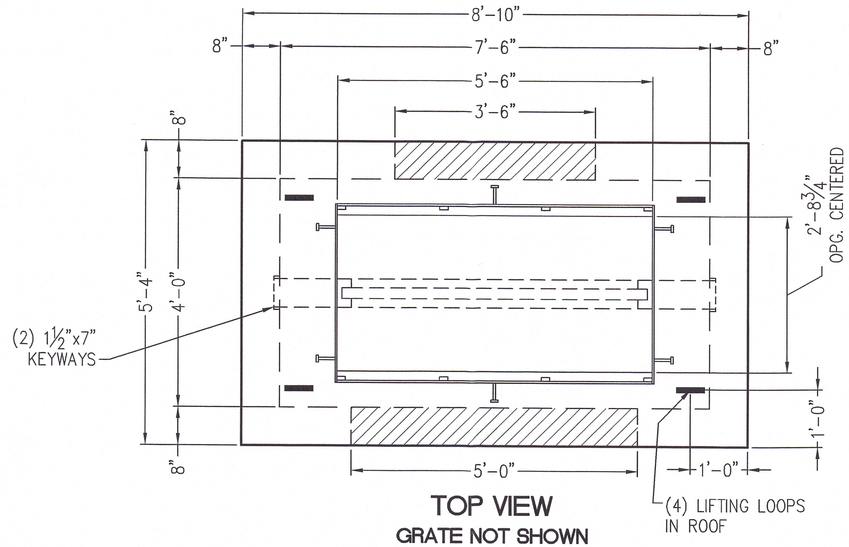
- EDGE OF SWAMP ON 9/24/2010

PLAN SHOWING
EXISTING DRAINAGE CONDITIONS
PROPOSED DRAINAGE IMPROVEMENTS
PREPARED FOR
THE TOWN OF LEDYARD
LAMBTOWN ROAD EXTENSION
LEDYARD, CONNECTICUT
SCALE: 1"=20'
MAY 2025

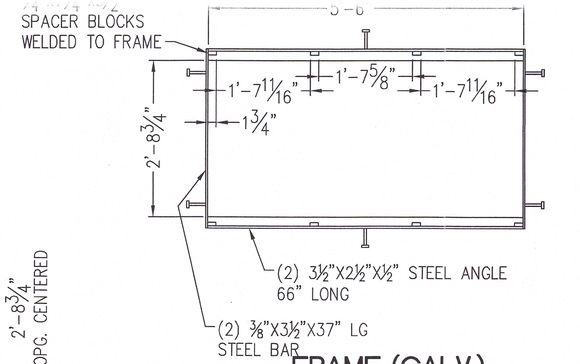
JOB# 10-047



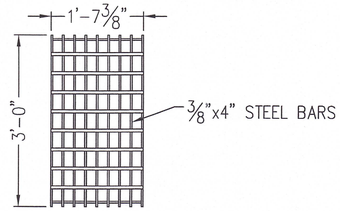
BAFFLE



TOP VIEW
GRATE NOT SHOWN



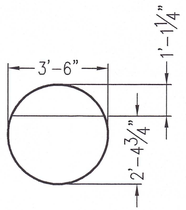
FRAME (GALV.)

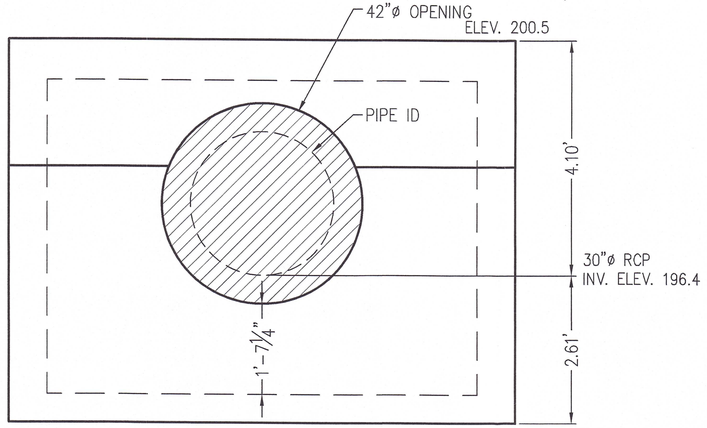


(3) GRATES (GALV.)

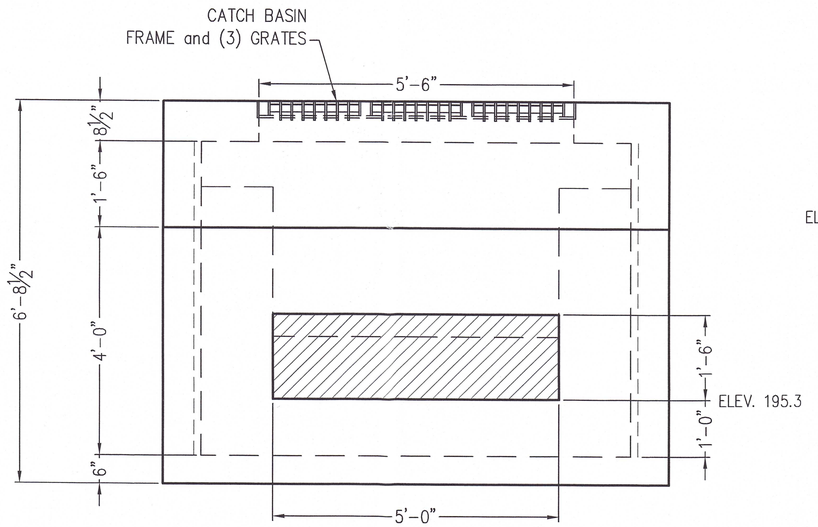
NOTES:
1. JOINT SEALANT IS BUTYL RUBBER MASTIC TYPE SEAL THAT CONFORMS TO LATEST AASHTO SPEC. M-198.
2. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPEC. A706, GRADE 60, COVER AS NOTED BELOW.
3. CONCRETE COMPRESSIVE STRENGTH - 5,000 PSI AT 28 DAYS SELF COMPACTING CONCRETE MIX.
4. METHOD OF MANUFACTURE: WET CAST.
5. BOTTOM SECTION IS MONOLITHIC.
6. ALL PIPING PROVIDED AND INSTALLED BY CONTRACTOR.
7. LIFTING - LIFTING LOOPS IN ROOF SLING LIFTING NOTCHED IN BASE SECTION

APPROX. WEIGHT:
ROOF SLAB - 5,700 LBS
BASE SECT. - 13,500 LBS

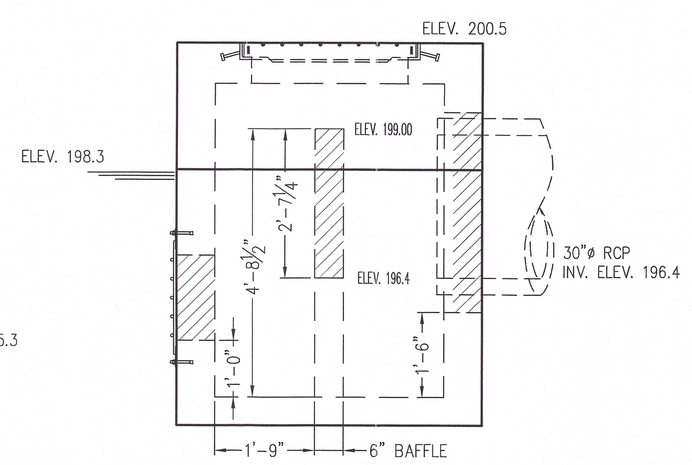




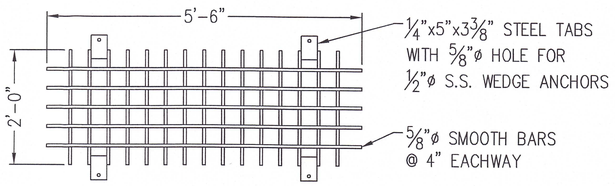
ELEV. VIEW
(BACK FACE)



ELEV. VIEW
(FRONT FACE)



SIDE VIEW



TRASH RACK (GALV.)

PRELIMINARY DRAWING

REVISIONS:			

UNITED
CONCRETE PRODUCTS INC.
173 CHURCH STREET
YALESVILLE, CT 06492
TEL: (203)-269-3119
FAX: (203)-265-4941

PRECAST CONCRETE BEAVER CONTROL STRUCTURE		PROJECT #XXX
CUSTOMER		SCALE NONE
JOB		DATE 5/14/25
LOCATION		DRW DH
		CHK JLT

SHEET 2 OF 2

LETTER OF TRANSMITTAL

Town of Ledyard Land Use Department

741 Colonel Ledyard Highway, Ledyard, CT 06339
Telephone: (860) 464-3216
Email: zoning.official@ledyardct.org

DATE: October 1, 2025

TO:	☐ **Town Engineer**	☐ **Groton Public Utilities**	☒ **Building Dept.**	☐ **Assessor**
	☐ **Town Attorney**	☐ **SCWA**	☒ **Fire Marshal**	☐ **Police**
	☐ **Ledge Light Health**	☐ **Mayor**	☐ **DOT**	☐ **CAM**
	☐ **WPCA**	☐ **Public Works**	☐ **DEEP**	☐ **Other**

Project Name: IWWC#25-19SITE
Project Location: Lambtown Rd Extension

The following items have been transmitted:
☒ Application Plans and/or Supporting Documents via Hand Delivered
☐ Regulations
☐ Other

Description
Please review & comment on application.

Transmitted as checked below. Please submit comments on or before:

☐ For approval ☐ For your use ☐ As requested ☒ **For your review and comment**

Note: Please return comments to Zoning.official@Ledyardct.org

Remarks: If you are unable to submit written comments on or before October 7, 2025, please contact me by phone at the Land Use Department at (860) 464-3216. Thank you.

Signed: *Hannah Gienau*
Zoning & Wetlands Official/Blight Enforcement Officer

Reviewing Agency:

Review Date:
Reviewed By:

Project Name:
Project Location:

Comments:

Electronic Signature: _____

TOWN OF LEDYARD

Department of Land Use and Planning

Hannah Gienau, Zoning and Wetlands Official

741 Colonel Ledyard Highway, Ledyard, CT 06339
Telephone: (860) 464-3216, Fax: (860) 464-0098
Email: Zoning.Official@LedyardCT.org

MEMORANDUM FOR THE RECORD
APPLICATION #IWWC25-19SITE
REGULAR MEETING – TUESDAY, October 7, 2025

Prepared by Hannah Gienau, Zoning and Wetlands Official on 9/30/25

Applicant(s):	Town of Ledyard
Property Owner(s):	Town of Ledyard, 741 Colonel Ledyard HWY, Ledyard CT 06339
Project Address:	Lambtown Road Extension, Ledyard CT, 06339
Meeting Date:	October 7, 2025
Date Received by IWWC:	October 7, 2025

Applicant/Owner Requests: Proposed regulated activities associated with the replacement of a failed culvert with a new custom inlet control structure located at Ed Lamb Brook.

Property Info:
Zone District: R60
Total-Area: 800 SF in the Town Right-of-Way, Lambtown Rd. Ext.

Regulated Activity Description:

Wetland Disturbance Area	**0 SF**
Watercourse/Waterbody Disturbance Area	**800 SF**
Upland Review Disturbance Area	**0 SF**

Staff Comments:

Please be advised of the following comments with regard to my review of the application, supporting documents and a plan set entitled "Plan showing existing drainage improvements prepared for Town of Ledyard, Lambtown Road Extension, Ledyard, Connecticut, dated May 2025."

- Regulated Activities (Watercourse/Waterbody): Within the watercourse, the regulated activities will involve maintenance work to an existing drainage structure. This includes the replacement of a failed culvert that is currently temporarily patched. The new culvert will feature a custom inlet design. The work is proposed to be conducted within the town right-of-way, however, there may be some work to be conducted from on 46 Lambtown Rd Ext. (Map ID: 193/1200/46) and/or 59 Lambtown Rd Ext. (MAP ID: 193/1200/59) both owned by the Groton Open Space Association Inc. (GOSA). The Public Works Director has addressed this possibility with GOSA ahead of this permit application and the Town will notify it in advance.

- Soil Erosion and Sediment controls: According to the Applicant, Soil Erosion & Sediment Controls (SESC) are not anticipated to be necessary for the culvert replacement. However, SESC controls will be installed as needed during construction to ensure proper site management. The Applicant has indicated that the work is scheduled for the spring of 2026 and will be conducted under dry conditions.

Commission Actions: The Commission will need to:

1. Make a finding as to whether or not the proposed activities are significant impact activities Class "B" (not significant impact) or "C" (significant impact) as defined by the Regulations (*see definition of Significant Impact Activity below*);
2. Table the application to the next regular meeting of the Commission on November 4, 2025 if it is found to be a Class "B" not significant impact activity or, in the alternative, set a public hearing for the application if it is found to be a Class "C" significant impact activity.

Staff recommends the Commission make a finding of whether the proposed regulated activities meet the definition of a significant impact activity, per *IWWC Regs Section 2 (Terms and Definitions)* as follows:

"*Significant impact"* means any activity, including, but not limited to, the following activities which may have a major effect as determined by the IWWC.

1. Any activity involving deposition or removal of material which will or may have a substantial effect on the wetland or water course or on wetlands or water courses outside the area for which the activity is proposed.

2. Any activity which substantially changes the natural channel or may inhibit the natural dynamics of a water course system.

3. Any activity which substantially diminishes the natural capacity of an inland wetland or water course to: support aquatic, plant or animal life and habitats; prevent flooding; supply water; assimilate waste; facilitate drainage; provide recreation or open space; or perform other functions.

4. Any activity which is likely to cause or has the potential to cause substantial turbidity, siltation or sedimentation in a wetland or water course.

5. Any activity which causes substantial diminution of flow of a natural water course or groundwater levels of the wetland or water course.

6. Any activity which is likely to cause or has the potential to cause pollution of a wetland or water course.

7. Any activity which damages or destroys unique wetland or water course areas or such areas having demonstrable scientific or educational value.

CONSIDERATIONS FOR ACTION:

1. If the Commission believes the proposed regulated activities *do not meet the criteria of significant impact*, the following Motion is suggested:

MOTION #1 (Finding that the proposed activities are not Significant Impact Activities)

- I make a MOTION that the Commission find that the proposed regulated activities within the watercourse/waterbody as submitted in the Application #IWWC25-19, plans and all supporting documents, do not meet any of the criteria of significant impact activities as defined the Town of Ledyard Inland Wetlands & Watercourses Regulations per IWWC Regs Section 2 and therefore are Class "B" activities.

OR

2. If the Commission believes the proposed regulated activities *meet the criteria of significant impact*, the following Motion is suggested:

MOTION #2 (Finding that the Proposed activities are Significant Impact Activities)

- I make a MOTION that the Commission find that the proposed regulated activities within the watercourse/waterbody as submitted in Application #IWWC25-19, its plans and all supporting documents, meet the criteria of significant impact activities as defined the Town of Ledyard Inland Wetlands & Watercourses Regulations per IWWC Regs Section 2 (Terms and Definitions)as follows:

LIST CRITERIA HERE:

LEGAL NOTICE
LEDYARD INLAND WETLANDS & WATERCOURSES COMMISSION
NOTICE OF PUBLIC HEARINGS

The Ledyard IWWC, on 11/18/25 at 7pm at The Ledyard Town Hall Annex, 741 Colonel Ledyard Highway, Ledyard, CT, will hold a Public Hearing on the following application: IWWC#25-19SITE for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within town right of way.

****

Attn: legal@theday.com
Please publish twice in The Day legals on Friday, November 7, 2025 and Friday, November 14, 2025.

Anna Wynn

From: legal <legal@theday.com>
Sent: Thursday, October 16, 2025 4:10 PM
To: Anna Wynn
Cc: Elizabeth Burdick; Hannah Gienau
Subject: Re: IWWC#25-19SITE: Notice of Public Hearing
Attachments: Order Invoice(10).pdf

Your proof is below and invoice attached. Thank you.

d01106163

LEGAL NOTICE
LEDYARD INLAND WETLANDS AND
WATERCOURSES COMMISSION
NOTICE OF PUBLIC HEARINGS

The Ledyard IWWC, on 11/18/25 at 7pm at The Ledyard Town Hall Annex, 741 Colonel Ledyard Highway, Ledyard, CT, will hold a Public Hearing on the following application: IWWC#25-19SITE for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within town right of way.

Kristen Lennon
Legal notices
Office hours are 8 a.m. to 4 p.m.
The Day and Shore Publishing
200 State Street
New London, CT 06321
Legal Line: 860-701-4410
Direct Line: 860-701-4287

From: Anna Wynn <land.use.asst@ledyardct.org>
Sent: Thursday, October 16, 2025 4:00 PM
To: legal <legal@theday.com>
Cc: Elizabeth Burdick <planner@ledyardct.org>; Hannah Gienau <zoning.official@ledyardct.org>
Subject: IWWC#25-19SITE: Notice of Public Hearing

Good Afternoon Kelly,

Please see attached notice of public hearing for application IWWC#25-19SITE – Lambtown Ext. Road. Please publish the notice twice in The Day Legals on Friday, November 7, 2025 and Friday, November 14, 2025. Note that the last line of the attachment contains the same instructions. Reach out with any questions or concerns, thank you so much!

Anna Wynn

From: Hannah Gienau
Sent: Thursday, November 13, 2025 11:42 AM
To: Anna Wynn
Cc: Elizabeth Burdick
Subject: FW:
Attachments: Letter concerning Lambtown Road Extension R. Askins.docx

Anna, please enter this as EX#7 email and Ex#8 the letter for public comment to post on the website.

Thank you,

Hannah Gienau

Zoning and Wetlands Official
Phone 860-464-3216 Web www.ledyardct.org
Town Hall Hours: Mon-Thurs 7:30-4:45 CLOSED FRIDAYS
741 Col Ledyard Highway, Ledyard CT 06339

From: Robert Askins <raask@conncoll.edu>
Sent: Thursday, November 13, 2025 11:38 AM
To: Hannah Gienau <zoning.official@ledyardct.org>
Subject:

To: Hannah Gienau, Zoning and Wetlands Enforcement Official

From: Robert Askins

Dear Ms. Gienau,

I've attached a statement regarding the proposed project to improve drainage from the pond/marsh on Lambtown Extension. Please add this letter to the official record.

Please let me know if you have any questions.

Thanks.

Sincerely,

Bob Askins

Robert A. Askins
Katharine Blunt Professor Emeritus of Biology
Department of Biology
Connecticut College

New London, CT 06320

E-mail: raask@conncoll.edu

Please add this letter to the official record for the November 18, 2025 public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook).

I'm concerned about the environmental and scenic impact of the proposed culvert replacement project on Lambtown Road Extension. I appreciate that the culvert needs to be replaced for improved drainage and stability, but it's important to maintain the current average water level in the pond and marshes on the upstream side of the road. The road has been converted into a pedestrian trail that is heavily used by walkers and bicyclists, and the pond is the central attraction of the site. Lambtown Extension is tied into a much larger trail system in the Avery Farm Nature Preserve, and the trail system will soon be extended south into the new Center Groton Preserve.

Currently the 38-acre pond is characterized by a diverse mix of emergent marsh grasses and shrubs, shallow open water and mudflats. If the level of the pond is substantially lowered, then it will become a densely vegetated marsh or wet meadow. The small patches of invasive reed (*Phragmites*) that now occur along the shore would probably spread across the entire drained pond, reducing the biological diversity of the area and eliminating the view of open water with its reflected forest backdrop. The value of the site as a natural area would be substantially degraded.

I visit the Lambtown Extension pond three or four times each month to watch birds and I covered this area for the recent statewide breeding bird atlas. I record the birds I see during each visit and submit a checklist to Cornell University's eBird program. Other birders also visit the site and submit checklists, so we have an exceptionally good record of which species use the site at different times of year. The records from 729 visits to the site are summarized in a graph on the eBird website (https://ebird.org/barchart?r=L416508). The graph shows that the pond and marshes have an exceptionally high diversity of ducks and other waterbirds. During the summer, wood ducks and mallards are common nesting species. They are joined by small groups of Green-winged Teal and large flocks of American black ducks during the fall and spring migrations. During winter American black ducks, ring-necked ducks and hooded mergansers are present and actively feeding whenever the pond has open water. Shorebirds are also attracted to the pond, where they probe for insects on mudflats and the edge of small islands. Killdeers and Wilson's snipes visit in surprisingly large numbers during migration. Sometimes several dozen snipes or killdeers may be present feeding alongside solitary sandpipers, greater yellowlegs and other species of sandpipers. This is one of the few freshwater sites in the region where these species can stop to rest and feed before continuing on their long migratory journeys. Great blue herons and great egrets are regular visitors during summer, and during the last three years great blue herons nested in trees bordering the southern end of the pond. The pond also supports other birds that thrive in areas with open water such as belted kingfishers, eastern kingbirds, tree swallows and red-winged blackbirds. In addition, river otters, beavers, spotted and painted turtles, and northern water snakes occur regularly in the pond. It is one of most interesting natural areas in southeastern Connecticut, and is a perfect

destination for class field trips. Before I retired it was one of the destinations for my class in ornithology. If the open water is drained out of this system, it will no longer support this kind of diversity. Both the beautiful view and the conservation value of the site will be lost. The engineering plan should address the impact of the project on the water level in the pond and adjacent marshes.

Robert Askins
Professor Emeritus of Biology, Connecticut College
103 Mathewson Mill Road
Ledyard, CT 06339

EX# 8

Please add this petition to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook")."

November 7, 2025

Inland Wetlands and Watercourses Commission
c/o Elizabeth Burdick, Director of Planning
c/o Hannah Gienau, Zoning and Wetlands Enforcement Official
Town of Ledyard, 741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19 ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

Dear Commission Members:

We value the marsh and wetlands on Lambtown Road Extension. It is an important ecological resource for the town and state. It is also an important recreational and educational resource for the people of Ledyard and the state. We are concerned with how this project could impact the marsh and wetlands, especially if the water level is lowered significantly. We need more information in the application to understand the impacts of this project.

Whether you are enjoying the multitude of bird, plant and animal species, walking your dog, running or biking, this pristine and beautiful area is one of the few in the state with such depth and breadth of diversity.

Thank you.

	Signature	Print Name	Address
1.	J B	Destinee Bradford	90 Church St Bradford, CT
2.	Rosemary Teeven	Rosemary Teeven	31 Soundview Rd Groton CT
3	K Oleir	Kayla O'Clair	Chesterfield Road East Lyme CT
4.	Gina Bowman	Gina Bowman	38 Ocean View Ave. Mystic, CT.
5.	Donna Gomes	DONNA GOMES	7 Pennicott Rd., Quaker Hill, CT
6.	Denise Lamphere	Denise Lamphere	46A Street Groton, CT
7	Wayne Forsberg	Wayne Forsberg	57 Lambtown Rd ext Ledyard
8.	K	Karen Lamb	34 Lambtown Rd Ledyard CT
9.			
10.			

Please add this petition to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook")."

November 7, 2025

Inland Wetlands and Watercourses Commission
c/o Elizabeth Burdick, Director of Planning
c/o Hannah Gienau, Zoning and Wetlands Enforcement Official
Town of Ledyard, 741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19 ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

Dear Commission Members:

We value the marsh and wetlands on Lambtown Road Extension. It is an important ecological resource for the town and state. It is also an important recreational and educational resource for the people of Ledyard and the state. We are concerned with how this project could impact the marsh and wetlands, especially if the water level is lowered significantly. We need more information in the application to understand the impacts of this project.

Whether you are enjoying the multitude of bird, plant and animal species, walking your dog, running or biking, this pristine and beautiful area is one of the few in the state with such depth and breadth of diversity.

Thank you.

	Signature	Print Name	Address
1.	Judith A. Hesp	JUDITH HESP	23 Chesbro Avenue Groton
2.	Marlaine Bernier	MARLAINE BERNIER	47 LAMBTOWN RD. LEDYARD
3.	Adam Tansky	ADAM TANSKY	241 GALLUP HILL LEDYARD
4.	H. Gray Park IV	H. GRAY PARK IV	424 pumpkin hill Rd Ledyard
5.	Tina DuBosque	Tina DuBosque	45 Wintergreen Dr. Quaker Hill
6.	Katherine A. Wright	Katherine A. Wright	60 Mansfield Rd New London
7.	Sarah Park	SARAH PARK	424 PUMPKIN HILL RD LEDYARD
8.			
9.			
10.			

Please add this petition to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook")."

November 7, 2025

Inland Wetlands and Watercourses Commission
c/o Elizabeth Burdick, Director of Planning
c/o Hannah Gienau, Zoning and Wetlands Enforcement Official
Town of Ledyard, 741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19 ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

Dear Commission Members:

We value the marsh and wetlands on Lambtown Road Extension. It is an important ecological resource for the town and state. It is also an important recreational and educational resource for the people of Ledyard and the state. We are concerned with how this project could impact the marsh and wetlands, especially if the water level is lowered significantly. We need more information in the application to understand the impacts of this project.

Whether you are enjoying the multitude of bird, plant and animal species, walking your dog, running or biking, this pristine and beautiful area is one of the few in the state with such depth and breadth of diversity.

Thank you.

	Signature	Print Name	Address
1.	Ed Lamb	ED LAMB	47 Lamb Town, Ledyard CT
2.	Craig Nelson	CRAIG NELSON	149 Whalehead Rd, Gales Ferry CT
3		DAVID P LAMB	14 LAMBTOWN, LEDYARD, CT
4		Eric Lamb	36 Leonard Bridge Rd Lebanon, CT
5		Sarah Sullivan	36 Leonard Bridge Rd Lebanon, CT
6		Hallie Axtell	43 ROUND HILL RD GROTON CT 06340
7			
8		Diane Lamb	41 mountain Rd Barkhamsted CT
9			
10			

EX# 9

23

Please add this letter to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook")."

November 10, 2025

RECEIVED
NOV 18 2025
Land Use Department

Inland Wetlands and Watercourses Commission
c/o Elizabeth Burdick, Director of Planning
c/o Hannah Gienau, Zoning and Wetlands Enforcement Official
Town of Ledyard, 741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19 ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

Dear Commission Members:

We live at 57 Lambtown Road Extension. Our house is downstream from the marsh. This project will drain water from the marsh and discharge it onto wetlands and into Ed Lamb Brook. We are concerned that this project will lower the marsh water level and flood our property.

For many decades and long before beavers arrived here, the marsh has had a huge open water area. The open water area provides habitats for birds and wildlife. For decades, people used the open area every winter for ice skating and hockey. The water is available for the Ledyard Fire Department to fight fires.

We value the marsh and wetlands on Lambtown Road Extension. It is an important ecological resource for the town and state. It is also an important recreational and educational resource for the people of Ledyard and the state. We are concerned with how this project could impact the marsh and wetlands. The application has not provided enough information to judge the impacts of the project.

Thank you.

Susan Weber

Susan Weber

Julia Weber (SPW)

Julia Weber

Wayne Forsberg

Wayne Forsberg

57 Lambtown Road Extension

Ledyard, CT 06339

EX#10

Please add this document to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

November 12, 2025

To: Inland Wetlands and Watercourses Commission
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19SITE ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

For all of the reasons discussed herein, we urge the Commission to deny this application.

Thank you for your consideration.

Sincerely,

James C. Lamb Family Trust

By: Edmund Lamb
Edmund Lamb, co-trustee
47 Lambtown Road, Ledyard, CT 06339

By: _____
Karen Lamb, co-trustee
34 Lambtown Road, Ledyard, CT 06339

Lamb Trust and Avery Nature Preserve Marsh and Bog

Critical Points:

- Must Maintain Water Levels Before, During, and After Culvert Replacement
- 38 Acres of Wetlands/Watercourses Directly at Risk

Significant Negative Project Impacts to Wetlands/Watercourses

- Will permanently lower water level in Marsh Complex by approximately 3 feet. (Proposed new culvert invert (floor) is 3 feet lower than open water surface level of Marsh.)
- Decreasing water elevation by only 0.5 feet will cause current water surface area of Marsh Complex to decrease from 21.0 acres to 11.5 acres. (LiDAR study)
- During construction Marsh water level will drain to bottom if coffer dam not used.
- Marsh bottom contours, bottom elevations, and flow rate information (not provided by applicant) are required to determine impacts of project on Marsh.

(Source: H+H Engineering Associates)

Environmental Value

- 38-acre Marsh Complex (open water, aquatic beds, vernal pools, emergent marsh, and bog) and associated wetlands
- Marshes of this size and character are less common and increasingly rare in CT.
- Pristine area with very limited invasive plants – very unusual in CT in this type of habitat.
- One of the most biologically diverse and valuable sites for conservation in eastern Connecticut.
- The Marsh area has numerous rare species
- Identified in the CT DEEP Natural Diversity Database

Environmental Value (con't)

- The connected 15-acre bog is a CT Critical Habitat ("twenty-five rare and specialized wildlife habitats in the state"). Requires the Marsh to have a minimum water level.
- 15 vernal pools at risk interconnected with the marsh along the perimeter
- Water level key to protect overwintering species
- Wintering birds require a large open water marsh
- Scenic value imperiled as the marsh is the key water feature along the Ledyard scenic road and a regional treasure

Environmental Value (con't)

- Marsh Complex has had huge open water area for many decades.
- Decades before beavers populated the area, water level was regulated by Avery and Lamb families, with agreement by then town selectmen. (one example: a wooden structure with slot in front where boards could be removed or added)
- For many decades water level has been feet higher than culvert floor level.
- Keeping a large open area of water in the marsh provided: habitat for birds and other animals, irrigation for farmland, water during droughts, and use for fire department.

Marsh Complex Documented Species

More than 168 bird species,19 on CT list of endangered, threatened, or special concern species.

Shorebirds: Endangered: Pied-billed Grebe. Threatened: Great Egret, Snowy Egret. Special Concern: Little Blue Heron, Glossy Ibis, Common Loon. Other: Osprey, Great Blue and Green Heron, Kingfisher.

Wintering Birds: Bufflehead, Common Merganser, Red breasted Merganser.

Other Key Birds Benefitting from Marsh Complex:

Birds: Endangered: Blue-winged Warbler, Sedge Wren, American Bittern, Northern Harrier, Sharp-Shinned Hawk, Common Nighthawk, Yellow-breasted Chat. Threatened: American Kestrel, Peregrine Falcon. Special Concern: Bobolink, Brown Thrasher, Whippoorwill, Eastern Meadowlark, Broad-Winged Hawk

Birds in Greatest Conservation Need Documented in Marsh Area

American Woodcock, Black-billed Cuckoo, Canada Warbler, Chestnut-sided Warbler, Eastern Kingbird, Eastern Towhee, Field Sparrow, Gray Catbird, Indigo Bunting, Magnolia Warbler, Northern Bobwhite, Orchard Oriole, Prairie Warbler, Veery, White-eyed Vireo, Willow Flycatcher, Yellow-billed Cuckoo

Turtles in Marsh Complex

- Box turtle – CT DEEP Species of Special Concern
- Spotted turtle – rare species
- Painted turtle
- Snapping turtle

Note: CT DEEP says the biggest threat to turtles is loss or damage of their habitat

Spotted and painted turtles hibernate through the winter underwater in the Marsh

Gives protection from predators

Critical to maintain water level

Fish and Amphibians in the Marsh Area

Fish: Banded Sunfish (CT Special Concern), American Eel, Chain and Redfin Pickerel, Common & Golden Shiner, Creek Chubsucker, Pumpkinseed.

Amphibians: Yellow-spotted Salamander, Wood Frog, Pickerel Frog, Green Frog, American Toad

Critical to maintain water level

Permits Required

- CT DEEP review – dam
- CT DEEP review – conservation easement
- CT DEEP and US review – vernal pools
- US Fish and Wildlife review – North American Wetlands Conservation Act conservation easement
- IWWC permit
- Ledyard Planning Commission – scenic road ordinance
- Landowner (Lamb Trust and GOSA) consent

Other Considerations

Studies required:

- Water and stream inflow/outflow rates and volumes
- Marsh bottom elevations, bottom contours
- Correct height, depth, placement of pipe
- Placement of pipe height key to ensure Marsh Complex is not drained and water levels remain the same
- Coffer dam placement
- Erosion control
- Soil types

EX# 11

Please add this letter to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook")."

November 14, 2025

Inland Wetlands and Watercourses Commission
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19SITE ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

Dear Commission Members:

We oppose this application and urge you to DENY this permit application (IWWC#25-19SITE) for the reasons explained below.

The James C. Lamb Family Trust (Lamb Trust) owns 40 and 60 Lambtown Road, properties that are adjacent to Lambtown Road Extension (the Road), a colonial-era dirt road which runs through wetlands at the application's proposed work area. The town proposed project will (1) insert a new, additional drainage device into the open water of 40 Lambtown Road's 38-acre watercourse, (2) excavate an 800 SF area, depth unspecified, hole into an earthen dam and wetlands, and (3) drain and discharge large quantities of water from this watercourse onto 60 Lambtown Road wetlands and into Ed Lamb Brook. Part of the 38-acre Marsh Complex (i.e., open water, aquatic beds, vernal pools, emergent marsh, and bog (a CT Critical Habitat, "twenty-five rare and specialized wildlife habitats in the state")) and the wetlands complex are owned by Lamb Trust, with the Avery Farm Nature Preserve portion owned by Groton Open Space Association (GOSA). We are not merely adjacent landowners. We are the landowners from whose land this project is designed to drain water and onto whose land this project is designed to discharge water. Since at least the 1950's, and decades before beavers populated the area, (1) the Marsh Complex has had a huge open water area, and (2) water levels in the Marsh Complex have been feet higher than the level of the existing culvert invert (floor) – in order to provide habitats for birds and wildlife. For decades, local residents used the open water area every winter for ice skating and hockey. Water has been available for the Ledyard Fire Department to fight fires. Water has also been used for farm irrigation.

The application is incomplete and inaccurate. It fails to include required critical information about the risks and significant negative impacts to a privately-owned 38-acre Marsh Complex and associated wetlands.

IWWC Regulations require the IWWC to take into consideration all relevant facts and circumstances including the **environmental impact of the proposed regulated activity on wetlands or water courses**; the applicant's **purpose for the proposed regulated activity**; the **maintenance and enhancement of long-term productivity** of such wetlands or water courses; **irreversible and irretrievable loss of wetland or water course resources** caused by the proposed regulated activity, and **mitigation measures for impacts of the proposed regulated activity on wetlands or water courses outside the area for which the activity is proposed**, the possibility of further **avoiding reduction of the wetland's or water course's natural capacity to support desirable biological life**, measures which would mitigate the impact of any aspect of the proposed regulated activity include, but are not limited to, actions which would avoid adverse impacts or lessen impacts to wetlands and water courses and which could be feasibly carried out by the applicant and would **protect or enhance the wetland's or water course's natural capacity to support fish and wildlife**. (IWWC Regulations section 10.2). Watercourses include brooks, marshes, bogs, vernal pools, and ponds (IWWC regulations section 2.1).

The IWWC can **deny** an application for a regulated activity in an area outside wetlands or water courses on the basis of an impact or effect on aquatic, plant, or animal life if such activity will likely impact or affect the physical characteristics of such wetlands or water courses (IWWC Regulations section 10.5). This project will likely affect the physical characteristics of the 38-acre Marsh Complex and associated wetlands.

A licensed civil engineering firm has determined that the proposed project will drain water from and permanently lower the water level in the 38-acre Marsh Complex on our property by as much as 3 feet. Using LiDAR (Light Detection and Ranging) technology, the civil engineers estimate that dropping the water level by only 0.5 feet will decrease the surface water area of the Marsh Complex from the current approximately 21.0 acres (17 acres of open water, plus 4 acres of standing water on adjacent watercourses/wetlands) to 11.5 acres (a 45% decrease). The application fails to state that the purpose of this project is to drain water from the 38-acre Marsh Complex on our property and discharge the water into wetlands on our property. The application does not include water surface elevations before, during, and after the project. A licensed civil engineering firm, H+H Engineering Associates (Mystic, CT) (HHEA), reviewed the application and conducted a site visit. They determined that the current surface elevation of the Marsh Complex water (199.5 feet) is approximately 3 feet above the invert (floor) of the proposed pipe (196.4 feet) and above the invert of the existing culvert pipe (196.4 feet). The town's claim that this project will not affect water levels in the Marsh Complex is not

credible. The town's claim appears to be based on the plans showing the proposed discharge culvert as having a size, pitch, and elevation equal to the existing culvert. However, as discussed above, the town's failure to include surface water elevation data causes the application to be seriously misleading.

The amount of water that the town plans to drain from and discharge onto our property may be staggering. HHEA estimated the current water surface area in the Marsh Complex using LiDAR map technology. Their estimate of the current surface water elevation in the marsh is 199.5 feet, with an estimated 21.0 acres of water surface area (17 acres of open water plus 4 acres of standing water on adjacent wetlands/watercourses). By decreasing the current water elevation by only 0.5 feet to 199.0 elevation feet, the estimated water surface area would drop by 9.5 acres, from 21.0 acres to 11.5 acres – a 45% decrease! (9.5 acres of water dropping by one-half foot results in 1,547,794 gallons drained and released!) The town's application would cause a drop in surface water elevation of approximately 3 feet, to 196.4 feet (level of new culvert invert (floor)). The civil engineers cannot estimate how much, if any, open water surface would exist at 196.4 feet because the application does not include marsh bottom elevations or bottom contours. The engineers cannot determine the volume of water that would be drained and discharged because the application does not include enough information. However, it appears likely from the information that we do have that much more than 1.5 million gallons of water would be drained and discharged by this project. Therefore, the proposed project will cause a significant impact on the Marsh Complex and associated wetlands by permanently lowering the water level by approximately 3 feet, and severely decreasing, if not eliminating altogether, the open water area.

Because the application does not provide for coffer dams, the water levels will be lowered significantly more during construction. The engineers concluded that unless a coffer dam is installed to minimize seepage and maintain marsh water, the construction will result in the temporary lowering of the marsh water surface elevation to the marsh bottom. This water will be drained from the Marsh Complex on our property and discharged onto wetlands on our property.

The application does not include marsh bottom elevations, bottom contours, and flow rates. Because of this lack of information, HHEA was not able to determine the volume of water to be drained and discharged during construction. However, because the application does not include this information and does not include plans for coffer dams to protect water levels during construction, water levels would drain to the marsh bottom, which would drain and discharge huge volumes of water. Would this drain and discharge 1.5 million gallons, 10 million gallons? More? The application does not provide the critical information needed to know. While the application's failure to include critical information prevents the engineers from determining

exact amounts, it is clear that the amount of water drained and discharged will be staggeringly large. The town's claim that the project will not result in changes in water levels, water drainage, or water discharge is not credible. The surface water area of the Marsh Complex could be decimated and decreased from its current 21 acres to perhaps as little as zero (and marsh bottom during construction). The risks to the Marsh Complex and effects of the project cannot be determined and properly evaluated because the applicant has not provided the required information necessary.

A large release of water from the Marsh Complex may cause flooding of downstream properties. Houses at 57 Lambtown Road Extension (Ledyard) and 50 Quaker Farm Road (Groton) appear to be at highest risk. Our property at 60 Lambtown Road will flood. Even if the project relocates Ed Lamb Brook to discharge water onto GOSA-owned property, the water will flow the few feet downhill onto our property.

A licensed civil engineering firm (HHEA) determined that the proposed project will impact a significantly larger area of wetlands and watercourse than stated in the application. The application does not include soil samples to show whether wetland soils exist in the excavation area. The application does not include a complete rendering of the proposed device and ancillary structures to be installed. The application contains only a drawing of certain disassembled concrete pieces to be manufactured by a concrete company. The application does not include information about ancillary structures and devices, does not contain sufficient information to view the device and ancillary structure as a whole to determine how the watercourse and wetlands will be affected. For example, HHEA has determined that excavation upstream, structure wing walls, channel excavation into the marsh, and reconfiguring of the discharge area may be required. The application does not include information about these issues. HHEA also determined that erosion control measures are warranted. The application does not include erosion control measures, saying none are necessary. The application does not state what will happen to the existing 30-inch culvert after the project is completed (remain in place causing two 30-inch drainage pipes – doubling the existing drainage – or be removed, causing more work to occur in wetlands and watercourses). Because the application fails to contain sufficient information on these critical issues, the risk to and impact on watercourses and wetlands cannot be determined. More research and information from the applicant are needed to provide a complete and accurate application and to allow the IWWC to make the required "best possible fair and informed determination."

Summary of issues identified by licensed civil engineering firm (HHEA) in its letter and in discussions:

1. Application does not contain current surface water elevations, which show that the existing water level is approximately 3 feet above the proposed pipe invert (floor).

Device will cause the surface water elevation in the Marsh to decrease by approximately 3 feet.

2. LiDAR study shows that even a decrease of 0.5 feet from the current water surface elevation will cause the Marsh's water surface area to decrease from its current approximate 21.0 acres to 11.5 acres – a 45% decrease.
3. Application does not include an engineering report, calculations, or a wetlands impact report.
4. Application does not contain determination of flood water surface elevation, through hydrologic and hydraulic analysis of the watershed and hydraulic structures (culvert, etc.), which are typically completed to size the structures for a selected design storm.
5. Application does not contain coffer dam required to retain the marsh from draining to the marsh bottom and to minimize seepage into excavation.
6. Application does not state that Lambtown Road Extension acts as a dam. The application does not state that project seeks to install a water drainage device within a dam.
7. Application does not contain suitable discharge location and erosion control measures for dewatering of excavation, which will most likely be required.
8. Application does not contain information regarding base (e.g., crushed stone) for this structure, which will add an additional 0.5-1.0 feet of excavation depth.
9. Application does not contain outlet protection in accordance with CTDOT standards. The plan shows a different location from the existing culvert for the new discharge location, which implies that reconfiguration of the outlet area is required. This resulting earthwork warrants erosion control measures.
10. Plan does not identify the engineering firm or individual that designed the drainage project.
11. Plans are not signed or stamped by a licensed professional engineer.
12. Plan contains out-of-date information (from 2010).

This application seeks permission:

- to install a partially described, incomplete drawing of an unspecified and undetailed device,
- in a location to be determined (we have been told that Steve Masalin has said that he may move the device to a different location than shown on the application),
- to figure out what will be needed for the project after it is underway, in a manner to be determined (Steve Masalin has stated that he doesn't know what soils are in the location, so he will determine that and what support materials/structures are required after the project is underway),
- at a depth to be determined (no information given in application),

- with associated structures to be determined (the application does not show a completed device, only pieces to be manufactured by a concrete company),
- with a base depth and construction material and methods to be determined,
- with construction dewatering location and erosion control and discharge locations to be determined,
- with the project's effects on the water levels and water flow in the Marsh Complex, amount of water drained from and discharged onto our private property to be determined after project completion,
- without a method for establishing a solid foundation to prevent sinking of the nearly 10-ton structure into the wetlands and Marsh Complex edge, e.g., will town use fill, structural support, pilings? It is our understanding that the applicant has stated that he will devise a plan for the base after the project begins.
- with whether the project will be installed in wetlands soil to be determined,
- with the size of the project disturbance area to be determined,
- with whether this is a "replacement" of the existing culvert or an addition to the existing culvert (doubling the size from one 30-inch pipe to two 30-inch pipes) to be determined.

The application needs to include water level and flow rate studies to prove that the Marsh Complex will not suffer significant irreparable harm or be destroyed by draining large quantities of water from the Marsh Complex both permanently and during construction. We are not aware of any law or regulation that would allow the IWWC to accept an unsupported statement from an applicant to satisfy the requirement of showing no significant impact. It is important to note that, as with any IWWC application, the applicant cannot also serve as an expert to the Commission. This would be a conflict of interest (for example, see the Town Charter). An independent wetlands expert must be consulted by the Commission.

The Road is a dam as defined by Connecticut law. The Road is therefore subject to exclusive DEEP jurisdiction, and a DEEP permit application must be filed. The application does not state whether a DEEP permit application has been filed. The application does not state what measures will be necessary to protect the dam's structural integrity when a very large excavation into the side and base of the dam occurs. (Conn. General Statutes section 22a-401: "All dams, dikes, reservoirs and other similar structures, with their appurtenances, without exception and without further definition... which, by breaking away or otherwise, might endanger life or property shall be subject to the jurisdiction of [DEEP]..." The proposed device is a weir (small dam or water regulation device). The application proposes to install this weir inside the existing dam. CGS sec. 22a-403(a) requires that "Before any person constructs, alters, rebuilds, substantially repairs, adds to, replaces or removes any such structure, such person shall apply to the [DEEP] commissioner for a permit to undertake such work." DEEP

environmental permitting fact sheet webpage states "Any person or agency proposing to construct a dam, dike, reservoir or similar structure, or to repair, alter or remove an existing dam, dike reservoir or similar structure, must first obtain either a permit from the commissioner or a determination that such permit is not required. A permit is required if the structure, by breaking away or otherwise might endanger life or property. **Additionally, any other work that may affect the integrity of such a structure, such as excavation adjacent to the dam, may require a dam construction permit.**"

The Road is a colonial-era road created by dumping fill into wetlands. The USDA and CT DEEP soil maps show inland wetlands soils in the entire construction area of the proposed project. Because the application does not include soil types, it must be assumed that wetlands lie under the surface of the Road and will be disturbed by this project.

The proposed project area on Lambtown Road Extension runs through and acts as the edge of a 38-acre Marsh Complex (i.e., open water, aquatic beds, vernal pools, emergent marsh, and bog) on the west side and a large wetlands complex on the east side. The Road envelops and contains Ed Lamb Brook, which runs through the existing culvert at the proposed site. This project will drain water from the Marsh Complex watercourse, discharge a very large quantity of water onto adjoining wetlands, and change the course of Ed Lamb Brook watercourse. The project is scheduled from July to October. A registered soil scientist and ecologist has stated that "Summer draining is very disruptive. It allows colonization by woody plants of facultative wetlands, including red maple, whose shade will completely alter unique open bog communities. Impacts to fauna are also manifold."

The application does not meet the requirements of the IWWC Regulations:

- The application does not contain information necessary for a fair and informed determination by the IWWC (IWWC Regulations section 7.3)(see discussion herein).
- The application does not include the impacts of draining a 38-acre watercourse and discharging the water onto wetlands. The IWWC must consider the "impacts of the proposed regulated activity on wetlands or watercourses outside the area for which the activity is proposed" (IWWC regulations, section 10.2). Therefore, even if the IWWC accepts the town's claim that all work is to be within the town right-of-way, the IWWC is required to consider the negative impacts of draining water from a 38-acre Marsh Complex and discharging the water onto wetlands.
- Regardless of where the proposed device is located, its purpose and function are to drain water from Lamb Trust 40 Lambtown Road watercourses and discharge water onto 60 Lambtown Road Lamb Trust wetlands. Water does not observe property lines or road right-of-way lines created by humans. The town's claim that no wetlands or watercourses will be affected by this proposed project is not credible (application states

zero feet of wetlands or watercourses will be affected). The town's claim that this proposed project will only impact the town road right-of-way is not credible.

- The application does not include all property owners' names (IWWC Regulations section 7.3.4). The proposed project and its significant impacts will occur on land not owned by the applicant. The project and/or its impacts will extend well beyond any town road right-of-way. Therefore, Lamb Trust and GOSA should have been notified of this application and have been allowed to submit materials and speak to the application. They are not simply adjacent landowners.
- The application lacks written consent of the landowners and conservation easement holders on which the activities are proposed (IWWC regulations, section 7.3.5). The Lamb Trust does not consent to any actions which would result in the temporary or permanent lowering of the water level in the Marsh Complex. The application does not include consent from DEEP and the United States, holders of conservation easements.
- The application does not include area in acres or square feet of the wetlands or watercourses to be disturbed (IWWC Regulations section 7.3.8(b)). As discussed above, the project will drain water from a 38-acre Marsh Complex, with 21 acres of open water. The project will discharge water onto private wetlands. The application states that 0 feet of wetlands, 0 feet of wetlands decrease, and 0 feet of disturbed area will be altered. This seems impossible since the Road is IN the Wetlands and IS the edge of the Marsh Complex (see Exhibit D, photo) and the Road surrounds Ed Lamb Brook at the culvert. The application claims seem impossible – given the large scope of the proposed project. In fact, at least 38 acres of wetlands/watercourses and Ed Lamb Brook could be altered by this proposed project.
- The application does not list soil types. (IWWC Regulations section7.3.8(c)). See discussion above.
- The application does not include the functional purpose of the proposed activity (IWWC Regulations section 7.3.8(e)), which is to drain water from a 38-acre Marsh Complex and discharge it onto wetlands.
- The application does not include wetland vegetation (IWWC Regulations section 7.3.8(d)) that will be negatively impacted by draining the Marsh Complex and flooding wetlands.
- The application does not include proposed erosion and sedimentation controls (IWWC Regulations section 7.3.8(f). HHEA has determined that erosion control measures are warranted and should be included.
- The application does not include a site plan showing activities associated with, or reasonably related to, the proposed regulated activity which may have an impact on wetlands or watercourses. (IWWC Regulations section 7.3.9(b)). The application does not show the planned permanent draining of water from a 38-acre Marsh Complex and the discharge of large amounts of water onto wetlands.
- The application does not include a completed DEEP reporting form (IWWC Regulations section 7.3.13).

- The application does not request permit approval to drain water from a 38-acre watercourse (the Marsh Complex) owned by Lamb Trust and GOSA.
- The application does not request permit approval for discharging quantities of water onto land owned by Lamb Trust and GOSA.
- The application does not request permit approval to change the current flow of a watercourse, i.e., Ed Lamb Brook, which runs through the road via the current culvert.
- The application does not address how the town will prevent this project from draining the 38-acre Marsh Complex watercourse, discharging a very large quantity of water onto adjoining wetlands, and changing the course of Ed Lamb Brook watercourse. (See Exhibit A, photo of Marsh Complex and Exhibit B, wetlands map.)
- The application erroneously describes the area on the west side of the Road in the proposed project area as a "pond" (plan submitted with application). In fact, that area consists of a Marsh Complex with areas of open water, aquatic beds (see Exhibit C, photo of aquatic beds), emergent marsh, bog, and vernal pools. (The vernal pools are located on the western edge and are not visible from the Road.) (See definitions in IWWC regulations section 2.1) This type of marsh complex is increasingly rare in CT and should be protected.
- The application does not to state whether the existing culvert and beaver deceivers installed by the town will be left in place or removed. (Remain in place causing two 30-inch drainage pipes – doubling the existing drainage – or be removed, causing more work to occur in wetlands and watercourses).
- The application does not identify a method for establishing a solid foundation to prevent sinking of the nearly 10-ton structure into the wetlands and Marsh Complex edge, e.g., will town use fill, structural support, pilings?
- DEEP, US Fish and Wildlife (NAWCA), and Army Corps of Engineers permits may be required for the proposed project. NAWCA easements protect wetlands from negative impacts and degradation. The town's proposal may cause negative impacts to the wetlands and watercourses that may violate this federal law. Federal law supersedes both state and local law. These permits should be applied for and approved before the IWWC considers the application in order to provide the IWWC significant and necessary information on which to base its deliberations and decision.
- The application does not specify what actions will be taken to minimize and mitigate environmental damage during the proposed project.
- The application does not include the number of gallons of water that the applicant proposes to drain, the rate at which the drainage would occur, and how long it would take for the Marsh Complex to refill (based on the flow rate and capacity of the tiny Ed Lamb Brook). This information is necessary to determine environmental impacts of the proposed project.

- The application does not contain sufficient detail to determine what the stream stabilization (shore stabilization) activities would include and how dirt roadside and native vegetation would be impacted and restored.
- It is important to note that the existing culvert has not "failed" as stated in the Oct. 7, 2025 IWWC meeting. It carried water from the 38-acre Marsh Complex and discharged it into the wetlands before, during and after the minor repair mentioned by the town. It continues to function now.

We submit that the proposal meets the criteria for "significant impact" (IWWC Regulations section 2.1).

We urge the Commission to deny this application because it lacks critical information required for a "fair and informed determination" by the Commission (IWWC Regulations, section 7.3). If complete and accurate information had been provided, it would be evident that this project:

1. Involves depositing or removing material which will or may have a substantial effect on the wetland or water course or on wetlands or water courses outside the area for which the activity is proposed. The HHEA findings clearly show that the planned excavation and installation will cause a devastating drop in watercourse size and depth, plus a huge discharge of water from a watercourse onto a wetland.
2. Will change the natural channel of Ed Lamb Brook.
3. Will substantially diminish the natural capacity of an inland wetland or water course to: support aquatic, plant or animal life and habitats; or perform other functions. See HHEA findings. The Ledyard Fire Department can use water in the March Complex to fight fires. This ability will be diminished or destroyed with less or no water in the marsh.
4. Will likely cause substantial diminution of groundwater levels of the wetland or water course. See HHEA discussion.
5. Is likely to cause or has the potential to cause pollution of a wetland or watercourse because erosion controls are not included. See HHEA discussion.
6. Will damage or destroy unique wetland or watercourse areas or such areas having demonstrable scientific or educational value. This project will significantly lower the existing water level in the Marsh Complex permanently by approximately 3 feet, and down to Marsh bottom during construction. It will decrease the water surface area by more than 45%, the open water area perhaps down to zero. It will cause the discharge of huge quantities of water from watercourses onto wetlands.

These are all significant negative impacts to the Marsh Complex and wetlands located on our property. It is clear from the information provided by licensed civil engineers and wetland scientists that the proposed project will have a significant negative impact on wetlands and watercourses. The applicant's failure to provide relevant information resulted in a finding of no

significant impact by the IWWC. For that reason, we submit that the application should now be denied.

There are feasible alternatives to this project, e.g., use the culvert design used by DEEP in other watercourses in the state that have beavers; hire a civil engineer and wetlands scientist to conduct the required research necessary to determine the appropriate design, depth, grade, placement, pipe invert, installation, and water flow measures to replace the existing culvert while protecting the Marsh Complex, water levels, and associated wetlands; using coffer dams during construction.

The Marsh Complex and associated wetlands are ecologically valuable, unique, and support abundant species and numbers of birds, turtles, amphibians, animals and plants. Every day, many people from Ledyard, the region, and beyond enjoy the environmental, recreational, and educational value of this increasingly rare type of area. Protecting these wetlands and watercourses is supported by:

- **The state of CT**, which gave GOSA a $611,000 grant to buy the Avery Farm Nature Preserve protecting it forever, and placed a permanent conservation easement on the property.
- **CT's Natural Diversity Database** (which shows "locations of endangered, threatened, and special concern species and significant natural communities in CT") covers the Road and surrounding areas of Marsh Complex, wetlands, and bog (see Exhibit E, Diversity Database map).
- **The United States**, which through its Fish and Wildlife Service's North American Wetlands Conservation Act (dedicated to the conservation of wetland habitats for migratory birds), gave GOSA a grant to buy the Avery Farm Nature Preserve protecting it forever, and placed a permanent conservation easement on the property to protect the wetlands and watercourses forever. "Projects made possible through the North American Wetlands Conservation Act will protect, restore and enhance wetlands, providing habitat for migratory birds and many other species of wildlife, improving water quality and providing recreational opportunities for all." (8-4-2025 Dept. of Interior press release)
- **The Ledyard IWWC Regulations**, which state "... the purpose of these regulations [is] to protect the citizens of the state by ... preventing loss of fish and other beneficial aquatic organisms, wildlife and vegetation and the destruction of the natural habitats thereof; ... protecting the quality of wetlands and water courses for their conservation, economic, aesthetic, recreational and other public and private uses and values; ... in order to forever guarantee to the people of the state, the safety of such natural resources for

their benefit and enjoyment and for the benefit and enjoyment of generations yet unborn." (section 1.1)

- **Open Space Conservation Plan** for the Town of Groton CT (revised June 2024) states that local and state agencies have been advised to ensure that Haley Brook Watershed (which covers the Marsh Complex, Ed Lamb Brook, and associated wetlands) receive protection status.
- **Town of Ledyard Plan of Conservation & Development,** (approved by the Ledyard Planning & Zoning Commission on 2/13/2020; Effective Date: 2/27/2020). The presence of wetlands ... contributes to a rural characteristic that **residents express a desire to protect and preserve** (p. 11); protect high value open space to protect and sustain habitats, natural resources, and recreation areas; encourage passive recreation areas, and wildlife corridors; **protect watercourses, wetlands and vernal pools**, which benefits both natural habitat as well as critical water supplies; **Vernal pools and their surrounding habitat are key to maintaining biodiversity.** Flood plains are integral in conveying water during times of heavy rain and depletion of their flood conveyance capacity will have a negative impact on downstream properties. Landowners and developers **should be encouraged to protect these areas** as much as possible. (p.55). Preserve streams, ponds, and other wetland areas to perform natural functions of conveying, storing and filtering stormwater as a natural stormwater management system. The health of surface waters is affected by water diversions and wetlands alterations. (p.59)
- **CT Audubon Society's 2024 CT State of the Birds,** which states that: Habitat Loss and Degradation: Land development and wetland destruction and damage result in an untold number of bird deaths and cause lasting changes to bird habitat. Scientists have identified that habitat loss is the biggest overall driver of bird declines, according to the American Bird Conservancy. (p. 5)
- **The Ledyard Conservation Commission** advocates protecting the high-quality wildlife habitat in this general area under all circumstances by providing adequate water levels. (May 24, 2011 letter to Steve Masalin from Conservation Commission)

Area Background and Wetlands Information

Lambtown Road Extension is a valuable and unique resource for Ledyard, the state, and the US. It truly is a Scenic Road, so designated by the Planning Commission in 1984. The habitat on each side of the road, the Marsh Complex, and the wetlands create a remarkable, diverse, and sensitive wildlife, bird, and plant habitat. The Marsh Complex is part of the Haley Brook Watershed (flows into Long Island Sound).

Since at least the 1950's the Marsh Complex has been managed by the Avery and Lamb families to maintain high quality wetlands and watercourses to benefit the many people who enjoy the Marsh Complex area and the many birds, animals, and plants that depend on it for survival. The water levels were regulated to maintain levels higher than the invert (floor) of the existing culvert – in order to provide maximum habitat for birds and wildlife.

The value in protecting the Marsh Complex and its water levels for human recreation is evidenced by the many people who use the Road daily, the area's inclusion as a hot spot on Cornell University's National Birding Hotspots Website, and inclusion of the Road in the national hiking website AllTrails.

The wetlands (through which the Road runs) and the Marsh Complex (adjacent to a portion of the Road) have unique wildlife value. For example, more than 168 bird species have been identified, 19 of which are on the state list of endangered, threatened, or special concern species. Numerous turtles, beavers, local and migratory birds, ducks, amphibians, fish, vernal pool species, reptiles, insects and other mammals depend on this wetland, and would be harmed if the 38-acre Marsh Complex is drained.

Numerous vernal pools, sensitive to any decreases in marsh water levels, occur near the Marsh Complex. The CT DEEP and the US Army Corps of Engineers consider vernal pools a "high conservation concern," a special and sensitive wetland type that requires extra protection. A series of vernal pools occur along the fringe of the Marsh Complex as well as in the adjacent areas abutting the northwesterly boundary of the Marsh Complex. These vernal pools were confirmed breeding sites for obligate vernal pool amphibians including the Spotted Salamander and Wood Frog. "These pools are hydrologically connected via surface water and groundwater to the overall marsh system surrounding Ed Lamb Brook. ... [A] marsh [water] drawdown has the potential to decrease the vernal pool hydroperiod (i.e., depth and duration of standing water). A prolonged and annually consistent hydroperiod is critical to the development and survival of vernal pool amphibian larvae. If the hydroperiod is shortened, the vernal pool may dry too early in the season, before amphibian larvae can fully develop. This can result in extirpation of individual breeding pools over time." Water drawdowns also negatively affect aquatic vegetation and may cause outbreaks of invasive plants. Consequently, for any project involving lowering water levels in the Marsh Complex, an impact analysis should be conducted to assess impacts to wildlife, plants, and habitat from this proposed project. Such an analysis cannot be conducted without a detailed site plan illustrating clearing limits, wetland impacts and existing and proposed water surface elevations.

The Marsh Complex contains five habitat types: open water, aquatic beds (e.g., pond lilies and other hydrophytic vegetation), vernal pools, bog, and emergent marsh. Marshes of this size and character are "less common and increasingly rare" in CT. This is a pristine area with very limited

invasive plants and no purple loosestrife – very unusual in CT in this type of habitat. Dr. Robert Askins, Katherine Blunt Professor of Biology (retired), Connecticut College has stated "Based on my experience, I judge the site in and around [the proposed project area], with its extensive marsh system and mosaic of upland forests, fields, and wooded wetlands, to be one of the most biologically diverse and valuable sites for conservation in eastern Connecticut."

The Ed Lamb Brook, which feeds this large wetland/watercourse system, is a tiny stream. Consequently, the recovery of such a large 38-acre Marsh Complex and wetland would take months or years – if they ever recovered. Many animals that cannot walk or fly away would likely die – either from killing by predators that would no longer be stopped by the water, or from freezing due to removal of the protective layer of water that keeps them and the mud from freezing.

It is important to note that Lambtown Road Extension is a Town Scenic Road, and any alterations must be approved by the Planning Commission (see Ledyard Scenic Road Ordinance). In a 2012 Planning Commission public hearing regarding the road, almost all of the nearly 100 people and organizations that commented requested that the water level in the Marsh Complex be maintained.

We could support the idea of replacing the existing culvert, BUT ONLY IF the new culvert and associated structures appropriately maintain the levels of water in the Marsh Complex and wetlands (during construction and permanently) evidenced over recent years, do not cause additional water to be drained from the Marsh Complex, do not cause additional water to be discharged onto wetlands, contain appropriate protections for the Marsh Complex, wetlands, and Ed Lamb Brook, and comply with IWWC Regulations and all other applicable laws.

For all of the reasons discussed above, we urge the Commission to deny this application.

Thank you for your consideration.

Sincerely,

James C. Lamb Family Trust

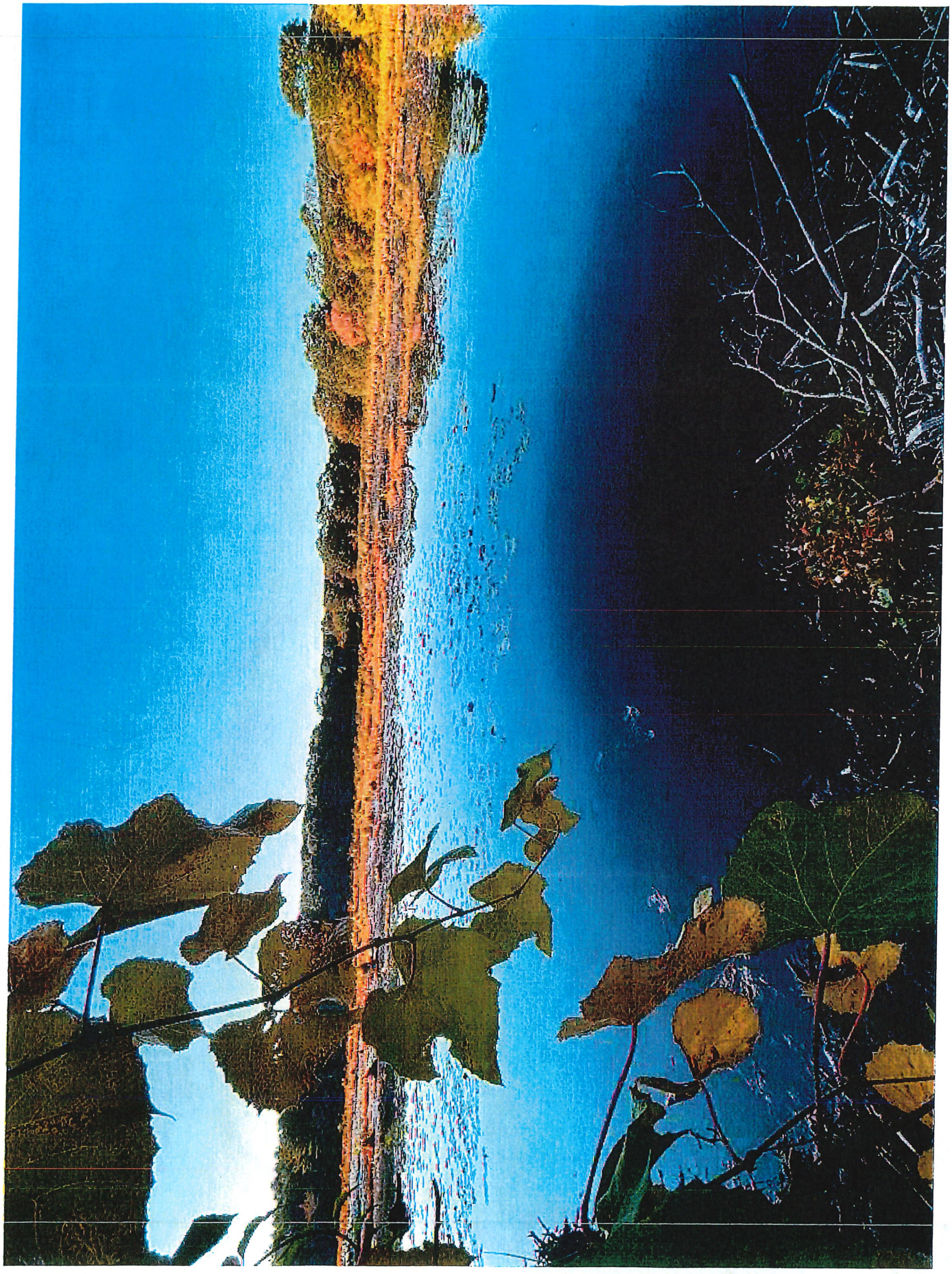
By: Edmund Lamb

Edmund Lamb, co-trustee
47 Lambtown Road, Ledyard, CT 06339

By: _____

Karen Lamb, co-trustee
34 Lambtown Road, Ledyard, CT 06339

Exhibit A : 38-acre Marsh Complex (partial view)



Ledyard, CT

October 7, 2025

1 inch = 283 Feet

0 283 566 849

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Exhibit B: Wetlands Map

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Exhibit C: Water lilies growing in 38-acre marsh complex

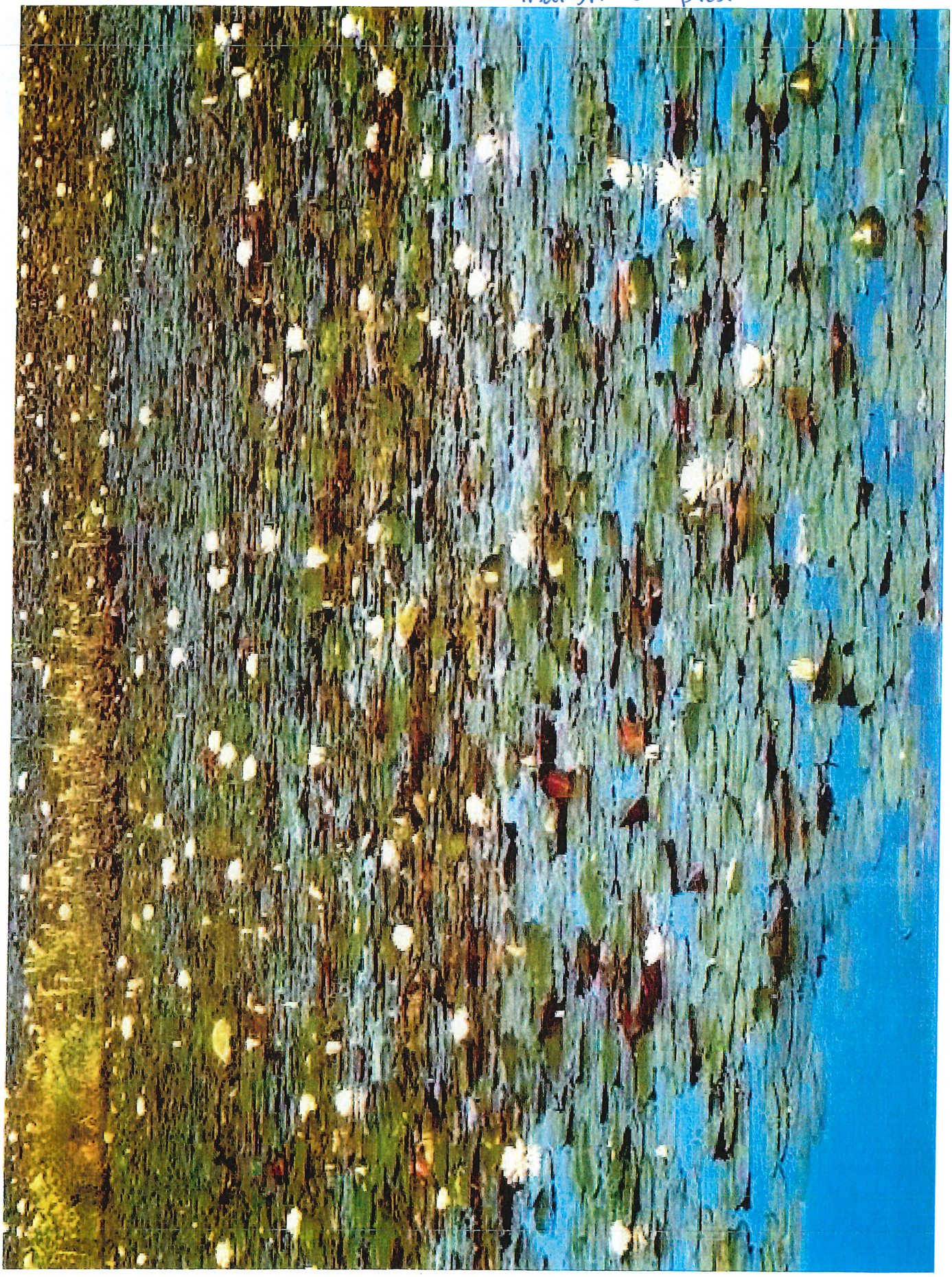

Exhibit D : Edge of 38 acre Marsh Complex abuts Lambtown Road Extension (dirt road)

Ledyard, CT

1 inch = 283 Feet

0 283 566 849

= area included in CT Natural Diversity Database

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Precision Mapping. Geospatial Solutions.
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October 7, 2025

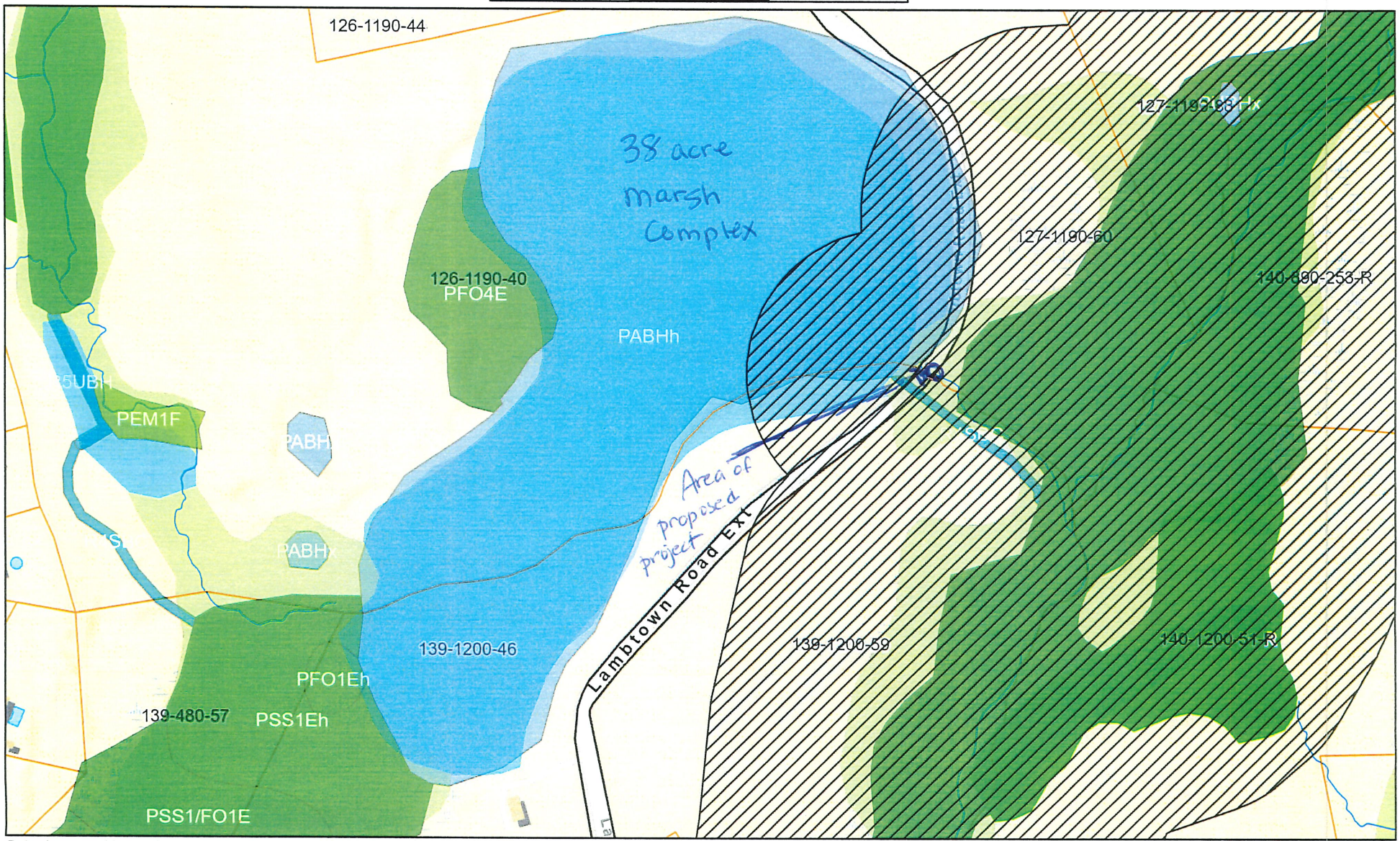

Exhibit E: CT Natural Diversity Database Map

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EX#12

58

November 17, 2025

Please add this letter from H&H Engineering Associates, licensed civil engineers, to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

The most relevant points from the attached letter follow:

It is H+H's opinion that the project will require removal of an existing beaver dam at the existing culvert inlet and that the new culvert and beaver control structure will result in the **lowering of the open water created by the dam by approximately 3'.**

The lowering of the open water elevation will also result in **a reduction of open water surface area. From LiDAR topographic data a 0.5' lowering will reduce the surface area from approximately 17.0 acres to 11.5 acres and will cause a reduction of the depth of standing water in over 4.0 acres of adjacent emergent marsh, bogs, and pool areas.**

It is H+H's opinion that dewatering and/or by-pass pumping is required for the installation of the project under dry conditions. If it is necessary to maintain the existing open water elevation to protect wetland functions and habitat during construction, then **a coffer dam will be required. Otherwise, the dewatering will likely result in the temporary lowering of the open water to its bottom elevation.**

The submitted plans do not depict any construction erosion and sedimentation control measures. To minimize the potential for erosion at the dewatering pipe outlet it is H+H' opinion **that a dewatering pipe outlet location should be identified, and erosion control measures specified.**

The plans depict a shift in the culvert inlet and outlet locations that will require a minor relocation of Ed Lamb Brook. To minimize erosion, it is H+H's opinion **that erosion measures should be specified.**

The plans do not identify the engineering firm or individual that designed the drainage improvements. And the plans are not stamped and signed by a licensed professional engineer. Also, the IWWC submission d**oes not include an engineering report, calculations or a wetland impact report.**

Determination of flood **WSEs require a hydrologic & hydraulic analysis of the watershed and hydraulic** structures (culvert, etc.) which are typically completed to siz the structures for a selected design storm.

As the 2010 existing conditions map does not show open water (pond) bottom contours or spot elevations it is not possible to determine if the trash rack opening is at or below the bottom**. If the bottom elevation is above the inlet invert it will be necessary to excavate a channel into the pond…..**

Installation of the beaver control structure requires excavation into the upstream roadway embankment. Depending on the embankment topography (not shown of the existing condition map) and soil type, it is H+H's opinion that **the excavation may need to be supported or laid back for slope stability. Further, structure wing walls may be required to retain embankment grades adjacent to the structure. The installation of these structures would result in significant earthwork along the edge of pond.**

It is H+H's opinion that dewatering and/or by-pass pumping is required for the installation of the project under dry conditions and, if it is necessary to maintain the existing open water elevation to protect wetland functions and habitat during construction, then a coffer dam will be required**. If a coffer dam is not installed the dewatering will likely result in the temporary lowering of the open water to its bottom elevation.** Either way, to minimize the potential for erosion it is H+H's opinion that the dewatering pipe outlet location should be identified, and erosion control measures specified. Further, this type of concrete structure would typically require a crushed stone base which would add an additional 0.5' - 1.0' of excavation depth.

Typically, **culvert installations require outlet protection in accordance CTDOT standards**. Also, as noted above, the new culvert outlet location is different than the original culvert outlet which implies that reconfiguration of the outlet area is necessary**. The resulting earthwork warrants erosion control measures.**

Sincerely,

James C. Lamb Family Trust

By: _____

Edmund Lamb, co-trustee
47 Lambtown Road, Ledyard, CT 06339

By: _____

Karen Lamb, co-trustee
34 Lambtown Road, Ledyard, CT 06339

H+H ENGINEERING ASSOCIATES

H+H Engineering Associates, LLC
232 Greenmanville Avenue, Suite 201
Mystic, Connecticut 06355
860-980-8008
www.hh-engineers.com

Via E-mail

November 17, 2025

James C. Lamb Family Trust
c/o Edmund Lamb and Karen Lamb, co-trustees
34 Lambtown Road
Ledyard, CT 06339

RE: Engineering Review
Culvert Replacement Project
Lambtown Road Extension, Ledyard, CT

Dear Edmund Lamb and Karen Lamb,

At your request, H+H Engineering Associates, LLC (H+H) has completed an engineering evaluation of the Town of Ledyard (Town), CT Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) and the submitted design plans. The application is for the replacement of an existing culvert at the Ed Lamb Brook crossing of Lambtown Road Extension and the installation of a concrete beaver control structure. The purpose of the evaluation was to assess potential temporary and permanent hydrologic impacts to a marsh complex (open water, bog, emergent marsh, aquatic beds, and vernal pools) at the site.

This letter report presents the results of our evaluation.

Summary of Project Impacts:

1. It is H+H's opinion that the project will require removal of an existing beaver dam at the existing culvert inlet and that the new culvert and beaver control structure will result in the lowering of the open water created by the dam by approximately 3'.
2. The lowering of the open water elevation will also result in a reduction of open water surface area. From LiDAR topographic data a 0.5' lowering will reduce the surface area from approximately 17.0 acres to 11.5 acres and will cause a reduction of the depth of standing water in over 4.0 acres of adjacent emergent marsh, bogs, and pool areas.
3. It is H+H's opinion that dewatering and/or by-pass pumping is required for the installation of the project under dry conditions. If it is necessary to maintain the existing open water elevation to protect wetland functions and habitat during construction, then a coffer dam will be required. Otherwise, the dewatering will likely result in the temporary lowering of the open water to its bottom elevation.
4. The submitted plans do not depict any construction erosion and sedimentation control measures. To minimize the potential for erosion at the dewatering pipe outlet it is H+H's opinion that a dewatering pipe outlet location should be identified, and erosion control measures specified.

H+H ENGINEERING ASSOCIATES

5. The plans depict a shift in the culvert inlet and outlet locations that will require a minor relocation of Ed Lamb Brook. To minimize erosion, it is H+H's opinion that erosion measures should be specified.

Basis of Evaluation:

H+H's evaluation is based on a review of plans submitted with the permit application entitled:

> "PLANS SHOWING EXISTING DRAINAGE CONDITIONS, PROPOSED DRAINAGE IMPROVEMENTS, PREPARED FOR THE TOWN OF LEDYARD LAMBTOWN ROAD EXTENSION LEDYARD, CONNECTICUT SCALE: 1" = 20' May 2025"

We also conducted field inspections of the site, a review of the October 7, 2025 IWWC meeting minutes, and a review of information provided by the Lamb Family Trust concerning the marsh complex (open water, bog, emergent marsh, aquatic beds and vernal pools) at the project site.

The plans do not identify the engineering firm or individual that designed the drainage improvements. And the plans are not stamped and signed by a licensed professional engineer. Also, the IWWC submission does not include an engineering report, calculations, or a wetland impact report.

Based on the information provided, our evaluation is as follows:

Existing Conditions

1. From a field inspection conducted on October 29, 2025, H+H observed flow from Ed Lamb Brook and the marsh complex into the existing 30" CMP culvert via what appears to be outlet pipes from five beaver deceiver structures. The pipes are supported by a sill located a few feet upstream of the culvert inlet and, at the time of inspection, most flow was from an 8" CPP with an outlet invert elevation of 198.0'. It is presumed that the top elevation of the sill is approximately the same elevation as the CPP invert (198.0').
2. A beaver dam located immediately upstream and adjacent to the sill impounds the marsh complex to an elevation approximately 1.5' - 2' above the sill (estimated from observation) resulting in a water surface elevation of approximately 199.5'+. This is 1.2' higher than the 198.3' water surface elevation (WSE) shown on the 2010 existing conditions map.

Proposed Drainage Improvements

1. The project involves the replacement of the existing culvert with a new 30" HDPE culvert and beaver control structure. It is H+H's opinion that the construction will require removal of the beaver dam and excavation dewatering to enable construction under dry conditions.
2. The location of the beaver control structure and new culvert appears to be a few feet west of the existing culvert inlet and the new culvert outlet appears to be just west and adjacent to the existing culvert outlet. The new culvert inlet and outlet invert elevations are the same as existing.

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Operation characteristics of the beaver control structure follow:

1. The structure is presumably intended to prevent beavers from building a dam at the culvert inlet. Research suggests that beavers build dams at culverts because they are attracted to rapid flow and noise similar to that at a culvert inlet. When blocked, a deep, calm pool is created that provides a safe habitat.
2. H+H assumes that the structure's submerged trash rack inlet shown on the control structure detail sheet is intended to minimize the entrance flow velocity and noise thereby minimizing beaver attraction. However, we have not researched this type of structure and cannot comment on its effectiveness.
3. The structure has two chambers (inlet and outlet) separated by a baffle/weir. The inlet chamber encompasses the area between the trash rack opening and the baffle and the outlet chamber encompasses the area between the baffle and the 30" culvert. Initially, water enters the chamber via the trash rack opening (inlet elevation of 195.3),' ponds behind the baffle to elevation 196.4' (which coincides with the culvert inlet elevation) and then flows over the baffle weir crest into the outlet chamber. Water will then permanently pond in the structure to the culvert inlet elevation (196.4') plus the headwater depth required for the culvert to convey normal brook discharges.
4. As the effective flow area of the trash rack opening (area between the crest of the weir and the top of the rack) is approximately the same as the 30" culvert, depending on its hydraulic characteristics, the trash rack should have similar flow capacity as the culvert and should prevent debris (and beavers) from entering the inlet chamber. The intended purpose of the baffle is uncertain, however; it should settle suspended solids within the chamber.
5. During flood conditions water may enter the grate inlet at the top of the structure (elevation 200.5'). Depending on the flow rate and hydraulic capacity of the beaver control structure, the top grate inlet and the culvert, severe floods may also overtop the road. Determination of flood WSEs require a hydrologic & hydraulic analysis of the watershed and hydraulic structures (culvert, etc.) which are typically completed to size the structures for a selected design storm.

Potential Project Impacts

1. If the beaver dam is removed, the WSE throughout much of the marsh complex would be approximately 196.4'+ (culvert inlet invert elevation) which is approximately 2' lower than that shown on the existing condition survey (198.3') and approximately 3'+/- lower than the estimated 199.5' WSE caused by the beaver dam (observed on October 29, 2025).
2. As the 2010 existing conditions map does not show open water (pond) bottom contours or spot elevations it is not possible to determine if the trash rack opening is at or below the bottom. If the bottom elevation is above the inlet invert it will be necessary to excavate a channel into the pond to a location where the bottom is at or below the opening elevation (195.3').

H+H ENGINEERING ASSOCIATES

3. Installation of the beaver control structure requires excavation into the upstream roadway embankment. Depending on the embankment topography (not shown of the existing condition map) and soil type, it is H+H's opinion that the excavation may need to be supported or laid back for slope stability. Further, structure wing walls may be required to retain embankment grades adjacent to the structure. The installation of these structures would result in significant earthwork along the edge of pond.
4. Per the plans, the bottom of the beaver control structure is at elevation 193.8' which is approximately 4.5' below the 2010 198.3' WSE and approximately 6+ feet below the top of road. It is H+H's opinion that dewatering and/or by-pass pumping is required for the installation of the project under dry conditions and, if it is necessary to maintain the existing open water elevation to protect wetland functions and habitat during construction, then a coffer dam will be required. If a coffer dam is not installed the dewatering will likely result in the temporary lowering of the open water to its bottom elevation. Either way, to minimize the potential for erosion it is H+H's opinion that the dewatering pipe outlet location should be identified, and erosion control measures specified. Further, this type of concrete structure would typically require a crushed stone base which would add an additional 0.5' - 1.0' of excavation depth.
5. Typically, culvert installations require outlet protection in accordance with CTDOT standards. Also, as noted above, the new culvert outlet location is different than the original culvert outlet which implies that reconfiguration of the outlet area is necessary. The resulting earthwork warrants erosion control measures.

We trust that this report is satisfactorily for its intended use. If you have any questions, please contact us at 860-980-4488.

Sincerely,

H+H Engineering Associates, LLC

Seamus Moran, P.E.
Principal

11/17/2025
Date

H+H Engineering Associates, LLC
232 Greenmanville Avenue, Suite 201
Mystic, Connecticut 06355
860-980-8008 (Office)
www.hh-engineers.com

Ex#13

RECEIVED
NOV 18 2025
Land Use Department

TOWN OF LEDYARD
CONNECTICUT
PUBLIC WORKS DEPARTMENT

741 Colonel Ledyard Highway
Ledyard, CT 06339
(860) 464-3238
(860) 464-1126 fax
pwd@ledyardct.org

November 18, 2025

Justin DeBrodt, Chairman
Ledyard Inland Wetlands and Watercourses Commission
741 Colonel Ledyard Highway
Ledyard, CT 06339

RE: IWWC #25-19SITE – Lambtown Road Extension - Proposed regulated activities associated with the replacement of a failed culvert with a new custom inlet control structure located at Ed Lamb Brook.

Dear Chairman DeBrodt,

I am writing to request the public hearing for the above-referenced application of the Town of Ledyard be opened and continued to the December 2, 2025 regular meeting of the Commission due to the fact that multiple exhibits (#8-#12) were submitted today at about 10:45 am and staff will not have adequate time to review the materials. Thank you.

Sincerely,

Steven Masalin, P.E.
Public Works Director

EX#14-2

CARMODY
TORRANCE | SANDAK | HENNESSEY LLP

In the Matter Of: IWWC#25-19SITE – "Lambtown Rd. Extension, Ledyard, CT – Applicant/Agent, Town of Ledyard for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within the Town right of way."

VERIFIED PETITION TO INTERVENE
PURSUANT TO GENERAL STATUTES § 22A-19
BY THE JAMES C. LAMB FAMILY TRUST

1. The James C. Lamb Family Trust (the "Lamb Trust") is the owner of land immediately adjacent to and abutting the site of the construction work proposed by the pending application IWWC#25-19SITE (the "Application") of the Town of Ledyard.

2. The Ledyard Inland Wetlands and Watercourses Commission (the "IWWC") is the agency of the Town of Ledyard that is authorized to review and act upon applications concerning regulated activities affecting inland wetlands and watercourses pursuant to General Statutes §§ 22a-36 to 22a-45, inclusive, and Section 1.5 of the Inland Wetlands and Water Courses Regulations of the Town of Ledyard.

3. The Town of Ledyard, acting by and through its agent Steve Masalin, (the "Applicant") filed the pending application IWWC#25-19SITE (the "Application") on September 9, 2025, proposing to conduct work in and affecting inland wetlands and watercourses.

4. This document is a verified petition to intervene in these proceedings as a party pursuant to General Statutes § 22a-19. A copy of the statute is attached.

5. The IWWC is **required** by General Statutes § 22a-19 (b) to:

    a. Consider and address the unreasonable impairment and/or destruction of the public trust in the water and other natural resources of the state raised by this verified petition; and

b. Deny the Application if there are feasible and prudent alternatives or if the Applicant has failed to provide credible information to the IWWC regarding feasible and prudent alternatives.

6. There are significant and material omissions from the Application which render it incomplete and insufficient for purpose of the IWWC's legal obligation to consider the unreasonable impairment and/or destruction of the public trust in the water and other natural resources of the state, and to consider whether there are feasible and prudent alternatives. Such significant and material omissions include but are not limited to:

    a. Failure to have the proposal reviewed and approved by a licensed professional engineer willing to stamp and sign the plans;

    b. Failure to include an engineering report;

    c. Failure to include a wetland impacts report;

    d. Failure to provide calculations by a licensed professional engineer to support the Applicant's claim that the proposal will not have an impact on the wetlands complex or an effect on water levels;

    e. Failure to include contour lines or other key elevation information on the plans, including pond/marsh bottom contours or spot elevations;

    f. Failure to provide for a coffer dam during construction;

    g. Failure to acknowledge that the Application will require a relocation of Ed Lamb Brook, which flows through the existing culvert; and

    h. Failure to provide information regarding current conditions on site and inappropriate reliance on 15-year-old "existing conditions" survey from September 24, 2010.

7. The Application involves activities that will have or are reasonably likely to have the effect of unreasonably impairing and/or destroying the public trust in the water and other natural resources of the state:

    a. Significant reduction in water levels through the marsh complex;

b. Significant reduction in the local ground water table, which currently matches the water level in the marsh complex's open water feature;

c. Reduction in the recharging of the local ground water table from the marsh complex;

d. Significant reduction in water and moisture in land adjacent to the marsh complex, including wetland fringe habitat and vernal pools;

e. Significant reduction in soil moisture in the Lamb family's hayfield to the northeast of the marsh complex;

f. Projected water loss in the marsh complex will have cascading adverse effects for plant and wildlife biological diversity, including but not limited to:

   i. Loss of invertebrates and aquatic plants that depend on current water levels for this area to be viable habitat;

   ii. Loss of fish habitat and reduction in habitability for fish as reduced water levels will lead to warmer temperatures;

   iii. Loss of diversity of bird species, mammals, and reptiles which are attracted to the marsh complex to feed on fish and invertebrates; and,

   iv. Impairment of aquatic or wetland plant reproduction, many species of which depend on waterborne seed dispersal.

g. Elevated water temperatures are anticipated to harmfully increase the nutrient levels in the water of the marsh complex and secondarily to harmfully flush those increased nutrients downstream and into Long Island Sound.

8. The likely unreasonable impairment and/or destruction of the public trust in the water and other natural resources of the state identified above in Paragraph 7 are within the jurisdiction of the IWWC pursuant to General Statutes §§ 22a-36 to 22a-45, inclusive, because all such harms constitute significant adverse impacts on inland wetlands and watercourses within the Town of Ledyard and all such harms arise from activities that are proposed to be conducted in and affecting inland wetlands and watercourses within the Town of Ledyard. Further, all harms

cited in Paragraph 7 involving harms to plant life and wildlife arise from the likely physical alteration of the inland wetlands and watercourses at issue in this matter and are therefore also within the jurisdiction of the IWWC.

9. The Applicant has failed to submit any information concerning feasible and prudent alternatives to its proposal and it is therefore not possible to determine that there is no feasible and prudent alternative to the proposal.

10. The IWWC must deny the Application for any and all of the above-stated reasons.

WHEREFORE, the Lamb Trust hereby intervenes in these proceedings as a party pursuant to General Statutes § 22a-19 and respectfully submits that the IWWC must deny the Application for any and all of the above-stated reasons.

THE LAMB TRUST
INTERVENOR,

By _____
Timothy D. Bleasdale, of
Carmody, Torrance, Sandak &
Hennessey, LLP
52 Eugene O'Neill Dr.
New London, CT 06320

VERIFICATION

I have read the foregoing petition to intervene in the above-referenced proceedings pursuant to General Statutes § 22a-19. The contents of the petition are true and accurate to the best of my knowledge, information, and belief.

Edmund Lamb, Co-Trustee
James C. Lamb Family Trust

Karen Lamb, Co-Trustee
James C. Lamb Family Trust

STATE OF CONNECTICUT)
) ss. New London November 18, 2025
COUNTY OF NEW LONDON)

Personally appeared before me the undersigned Commissioner of the Superior Court the co-trustees of the James C. Lamb Family Trust, Karen Lamb and Edmund Lamb, and made oath to the truth of the matters contained in the foregoing petition to the best of their knowledge, information, and belief.

Timothy D. Bleasdale
Commissioner of the Superior Court

KeyCite Yellow Flag
Proposed Legislation

Connecticut General Statutes Annotated
Title 22a. Environmental Protection (Refs & Annos)
Chapter 439. Department of Energy and Environmental Protection. State Policy (Refs & Annos)
Part II. General Provisions

C.G.S.A. § 22a-19

§ 22a-19. Administrative proceedings

Currentness

(a) (1) In any administrative, licensing or other proceeding, and in any judicial review thereof made available by law, the Attorney General, any political subdivision of the state, any instrumentality or agency of the state or of a political subdivision thereof, any person, partnership, corporation, association, organization or other legal entity may intervene as a party on the filing of a verified pleading asserting that the proceeding or action for judicial review involves conduct which has, or which is reasonably likely to have, the effect of unreasonably polluting, impairing or destroying the public trust in the air, water or other natural resources of the state.

(2) The verified pleading shall contain specific factual allegations setting forth the nature of the alleged unreasonable pollution, impairment or destruction of the public trust in air, water or other natural resources of the state and should be sufficient to allow the reviewing authority to determine from the verified pleading whether the intervention implicates an issue within the reviewing authority's jurisdiction. For purposes of this section, "reviewing authority" means the board, commission or other decision-making authority in any administrative, licensing or other proceeding or the court in any judicial review.

(b) In any administrative, licensing or other proceeding, the agency shall consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state and no conduct shall be authorized or approved which does, or is reasonably likely to, have such effect as long as, considering all relevant surrounding circumstances and factors, there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare.

Credits
(1971, P.A. 96, § 6; 2006, P.A. 06-196, § 256, eff. June 7, 2006; 2013, P.A. 13-186, § 1.)

Notes of Decisions (94)

C. G. S. A. § 22a-19, CT ST § 22a-19
The statutes and Constitution are current with all enactments of the 2025 Regular Session.

End of Document

EX#14-1

71

Anna Wynn

RECEIVED
NOV 18 2025
Land Use Department

From: Timothy D. Bleasdale <TBleasdale@carmodylaw.com>
Sent: Tuesday, November 18, 2025 1:06 PM
To: Hannah Gienau; Elizabeth Burdick
Cc: Anna Wynn
Subject: GS 22a-19 Intervention in application IWWC#25-19SITE
Attachments: Verified Petition to Intervene per GS 22a-19 (00810664xD3DC6).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Ms. Burdick and Ms. Gienau,

Attached to this email is a verified petition to intervene in the proceedings before the Inland Wetland and Watercourses Commission concerning the pending application IWWC#25-19SITE. This petition is being filed on behalf of the James C. Lamb Family Trust pursuant to General Statutes § 22a-19. A copy of the statute is attached to our petition for your ease of reference. Please add this petition to the record of the Commission for the public hearing this evening.

Please note that the filing of this petition has immediate legal implications for the Commission. First, filing this petition grants the James C. Lamb Family Trust party standing in this matter and entitles it to make a presentation to the Commission, including presenting testimony and evidence. This means that the participation of the Trust going forward is as a party to the proceedings and not merely a member of the public commenting at the public hearing. We intend to attend the public hearing this evening and make a presentation including comments from myself as the Trust's attorney, a professional wetland scientist/ecologist/soil scientist, an independent civil engineering firm, and a personal representative of the Trust.

Second, as noted in our petition, the filing of this petition changes the legal standard the Commission faces in these proceedings. General Statutes § 22a-19 (b) restricts the discretion of the Commission and directs that where the proposed conduct of the applicant is likely to cause unreasonable impairment or destruction of the public trust in water and other natural resources that **"no conduct shall be authorized or approved which does, or is reasonably likely to, have such effect as long as, considering all relevant surrounding circumstances and factors, there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare."** Under the statute, the Commission also cannot grant the application if the applicant has failed to make a credible and thorough attempt to address feasible and prudent alternatives. This morning the Commission received a copy of a letter from H+H Engineering Associates, LLC which makes clear that the activity proposed by application IWWC#25-19SITE is likely to have significant adverse impacts on the marsh complex at issue and that these impacts will have the effect of impairing or destroying the public trust in water and other natural resources. We will be presenting additional information and a report from REMA Ecological Services, LLC concerning the extensive and serious nature of these impacts and harms.

Please let me know if you have any questions or difficulty with the attachment.

Best regards,
Tim Bleasdale

Timothy D. Bleasdale | Bio
Carmody Torrance Sandak & Hennessey LLP
52 Eugene O'Neill Drive | New London, CT 06320
Office: 860-442-0367 | Fax: 860-447-9915

TBleasdale@carmodylaw.com | www.carmodylaw.com

From:	Matthew J. Willis
To:	Elizabeth Burdick; Hannah Gienau; Anna Wynn
Cc:	tbleasdale@carmodylaw.com
Subject:	RE: IWWC#25-19
Date:	Tuesday, November 18, 2025 2:52:37 PM
Attachments:	image002.png

Tim:

As we discussed, the wetlands meeting tonight will be opened and continued to December 2, 2025 at 7pm, Town Hall Annex with no testimony tonight.
A site walk be will scheduled for November 29, 2025 on a Saturday or other date that Commissioners are available.
I've copied the Planner and her staff.

Matt

HALLORAN SAGE

Matthew J. Willis, Esq.
Halloran & Sage LLP
One Goodwin Square, 225 Asylum Street
Hartford, CT 06103-4303

E willis@halloransage.com
D 860.241.4074
F 860.548.0006
www.halloransage.com

immediately by telephone.

TOWN OF LEDYARD

Department of Land Use and Planning

Hannah Gienau, Zoning and Wetlands Official

741 Colonel Ledyard Highway, Ledyard, CT 06339
Telephone: (860) 464-3216, Fax: (860) 464-0098
Email: Zoning.Official@LedyardCT.org

MEMORANDUM FOR THE RECORD
APPLICATION #IWWC25-19SITE
REGULAR MEETING – TUESDAY, November 18, 2025

Prepared by Hannah Gienau, Zoning and Wetlands Official on 11/18/25

Applicant(s): Town of Ledyard
Property Owner(s): Town of Ledyard, 741 Colonel Ledyard HWY, Ledyard CT 06339
Project Address: Lambtown Road Extension, Ledyard CT, 06339
Meeting Date: November 18, 2025
Legal: Submitted 9/9/25, Date of Receipt 10/7/25, Public Hearing Set for 11/18/25, PH Must Close By 12/22/25, DRD 35-days from close PH.

Applicant/Owner Requests: Proposed regulated activities associated with the replacement of a failed culvert with a new custom inlet control structure located at Ed Lamb Brook.

Property Info:
Zone District: R60
Total-Area: About 800 SF in the Town Right-of-Way, Lambtown Rd. Ext.
Public Water Supply Watershed: No.
Flood Hazard Zone: Zone A. FIRM ID #0911C0369G.

Referrals:
Town Planner: No comments to date.
Fire Marshal: Referred 10/01/25. No comments received to date.
Building Official: Referred 10/01/25. No comments received to date.

Regulated Activity Description:

Wetland Disturbance Area	**0 SF**
Watercourse/Waterbody Disturbance Area	**About 800 SF**
Upland Review Disturbance Area	**0 SF**

Staff Comments:

Please be advised of the following comments with regard to my review of the application, supporting documents and a plan set entitled "Plan Showing Existing Drainage Conditions, Proposed Drainage Improvements, Prepared for Town of Ledyard, Lambtown Road Extension, Ledyard, Connecticut, by Peter Gardner, LS, dated May 2025."

- **Regulated Activities (Watercourse/Waterbody):** Within the watercourse, the regulated activities will involve maintenance work to an existing drainage structure. This includes the replacement of a failed culvert that is currently temporarily patched. The new culvert will

feature a custom inlet design. The work is proposed to be conducted within the town right-of-way, however, there may be some work to be conducted from 46 Lambtown Rd Ext. (Map ID: 193/1200/46) and/or 59 Lambtown Rd Ext. (MAP ID: 193/1200/59) both owned by the Groton Open Space Association Inc. (GOSA). The Public Works Director has addressed this possibility with GOSA ahead of this permit application and the Town will notify them in advance. According to the Applicant the work will be conducted in the shoulder shown on as shown on EX#2 (Site Plan & "Precast Concrete Beaver Control Structure" Drawing).

- **Culvert Design:**
  The Applicant has stated, "In the past two years, the town has removed over thirty beavers from different locations that have presented a problem to road infrastructure." It should be noted that the failed culvert and beaver activity in the area have contributed to the road infrastructure becoming compromised. This is not an active town road; however, it is the fastest route for emergency vehicles to reach several residential homes in the area. According to the Applicant, if there is a major storm or flooding event, the road could wash out and present a safety concern for emergency access. "

  The culvert design has been created in tandem with several engineers to use the same mechanisms as several beaver deceivers in the area. The piping for the culvert inlet is submerged, and the weir has an adjustable elevation that will be calibrated to be the same elevation as the pond level during normal conditions. The Applicant has stated they have data from previous elevation surveys of the pond to ensure the weir placement maintains existing surface water elevations. The exterior of the culvert will have a grate installed to prevent debris build up or beaver activity. The culvert will also be monitored and cleared of debris by Public Works staff for routine maintenance.

- **Soil Erosion and Sediment controls:** According to the Applicant, Soil Erosion & Sediment Controls (SESC) are not anticipated to be necessary for the culvert replacement. However, SESC controls will be installed as needed during construction to ensure proper site management. The Applicant has indicated that the work is scheduled for the spring of 2026 and will be conducted under dry conditions to mitigate disturbance and siltation. No dewatering activities are anticipated at this time depending on site conditions during the work.

  As stated by the Applicant at the October 7th IWWC Regular Meeting, once the culvert has been properly installed, the remaining materials in front of the culvert will be removed and allow water to flow through the pipe under the road to discharge. There may be temporary siltation once the culvert has been opened up to the pond initially.

- **Referrals.** The application was referred to the Fire Marshal and Building Official for review and comments. No comments regarding the IWWC application have been returned to date.

- **Determination of Significant Impact Activity.** The IWWC, at its October 7, 2025 meeting, determined the proposed regulated activities are not significant impact activities; however, the Commission, did, per Section 9.1.3 of the Inland Wetlands Regulations, schedule a public hearing for the application, in that such application would be in the public interest.

- **Request to Open & Continue the Public Hearing.** The Applicant/Town of Ledyard, in response to the late submittal of various Exhibits #8-#12 has requested the public hearing be opened and continued to the December 2, 2025 meeting of the Commission to allow time for a thorough review of the materials. Land Use Dept. staff will also need time to review said exhibits.

- **Commission Special Meeting/Site Walk**: Staff recommends the IWWC conduct a special meeting/site walk before the public hearing is re-opened on 11/29/25 (or other date depending on Commissioner availability). An agenda will be posted in the Town Clerk's office and on the Town website for said special meeting/site walk.

- **Verified Notice of Intervention**: A "Verified Petition to Intervene Pursuant to General Statutes §22A-19 by the James C. Lamb Family Trust"(Petition) was submitted by its attorney Timothy D. Bleasdale this afternoon, 11/18/25. The Petition was forwarded promptly to Town Attorney Matthew Willis who reviewed it and advised the Petition "is good." A copy of the email & Petition have been posted on the Town website.

Staff Recommended Commission Actions:

1. Open the public hearing for the application.
2. Read Exhibits into the Record.
3. Consider Applicant's request to continue the hearing to the 12/2/25 IWWC meeting.
4. Consider setting a date & time for a special meeting/site walk (11/29/25 recommended).
5. Motion to Continue the Public Hearing for the Application to 12/2/25 IWWC Regular Meeting and set a Special Meeting/Site Walk for 11/29/25 at TIME TBD.

STAFF RECOMMENDATION: Reserved until close of public hearing.

EX#17

Groton Open Space Association, Inc.

P.O. Box 9187, Groton, CT 06340-9187

www.GOSAonline.org

GOSA

To: Town of Ledyard Inland Wetlands and Watercourses Commission (IWWC)
From: Groton Open Space Association, Inc.
Subject: IWWC Permit Application #25-19 Site, Lambtown Road Extension (LRE) culvert replacement with new custom inlet control structure following Ed Lamb Brook
Date: November 18, 2025

Groton Open Space Association (GOSA) is a land trust owner of the southern portion of the 38-acre pond and upland properties abutting the proposed LRE culvert replacement project site.

GOSA wholeheartedly supports this permit application by the Town of Ledyard Public Works Department. GOSA representatives have discussed the plans with project engineers and are satisfied that the current water levels, critical to the preservation of this unique and sensitive ecosystem, will be maintained throughout and after the construction period.

Replacement of the failing culvert is necessary for maintenance of the road, its embankments and the pond's water levels. The pond and marsh will continue to support migratory and resident waterfowl, turtles, fish, amphibians, mammals and rare plants well into the future. Maintenance of the road will continue to provide public access benefits to this very popular nature preserve.

Sincerely,

Joan H. Smith

Joan Smith, Vice President
Groton Open Space Association
gosamail@gmail.com

Ex# 18

Please add the attached letter from Rema Ecological Services LLC to the official record for the public hearing on Ledyard Inland Wetlands and Watercourses Commission permit application (IWWC#25-19SITE) ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook")."

November 20, 2025

To: Inland Wetlands and Watercourses Commission
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #25-19SITE ("Lambtown Road Ext. culvert replacement with new custom inlet control structure at Ed Lamb Brook").

Dear Commission Members:

Please see the attached ecological review of the environmental impacts.

Sincerely,

Karen Lamb, co-trustee

James C. Lamb Family Trust

Edmund Lamb, co-trustee

James C. Lamb Family Trust

REMA

• Soil & Wetland Studies
• Ecology • Application Reviews
• Listed Species Surveys • GPS
• Environmental Planning & Management
• Ecological Restoration & Habitat Mitigation
• Expert Testimony • Permitting

November 20, 2025

VIA E-MAIL

James C. Lamb Family Trust
c/o Edmund Lamb and Karen Lamb, co-trustees
34 Lambtown Road
Ledyard, CT 06339

RE: ECOLOGICAL REVIEW
Culvert Replacement Project
Lambtown Road Extension, Ledyard, CT

REMA Job No.: 25-2848-LED6

Dear Karen Lamb and Edmund Lamb:

At the request of the James C. Lamb Family Trust, REMA Ecological Services, LLC (REMA) was retained to evaluate the potential ecological impacts associated with the proposed culvert replacement and the existing earthen and debris accumulation ("residual beaver dam") located at the upstream face of the current culvert structure (see attached annotated Photo Log).

According to the intervenor's consulting engineer, Seamus Moran, P.E., removal of the this "dam" and installation of the replacement culvert is expected to lower the upstream water surface elevation by approximately three feet. This anticipated drawdown represents a *substantial hydrologic alteration* to the adjacent wetland system and therefore warrants careful assessment of potential effects on wetland hydrology, vegetation communities, wildlife habitat, and overall wetland functions and values.

1.0 SITE OVERVIEW

The ecological resource potentially affected by the proposed hydrologic alteration is a high-value, approximately 38-acre wetland complex composed of open water, emergent marsh, and extensive shrub swamp. The watershed is minimally developed, and water quality within the system is exceptionally high, characterized by very low nutrient concentrations. These oligotrophic conditions support a **poor fen**, recognized by CT DEEP as a **Critical Habitat**, with floating peat "islands" dispersed throughout the open-water portions of the wetland.

The southern segment of the complex is permanently protected as open space under the stewardship of the Groton Open Space Association (GOSA). This portion of the wetland—including what was historically referred to as the **"Candlewood Tract"**—was studied in detail in 2012 to support GOSA's successful OSWA open-space grant application.

Water-quality data collected during the 2012 investigations corroborate the system's low-nutrient status. The southern fen community support a suite of characteristic oligotrophic plant species, including woolly sedge (*Carex lasiocarpa*), spoon-leaved sundew (*Drosera intermedia*), large cranberry (*Vaccinium macrocarpon*), sooty beak-rush (*Rhynchospora fusca*), and water bulrush (*Schoenoplectus subterminalis*). Fen-associated shrubs—such as leatherleaf (*Chamaedaphne calyculata*), sheep laurel (*Kalmia angustifolia*), and maleberry (*Lyonia ligustrina*)—are also well-represented, along with more common wetland shrubs including winterberry (*Ilex verticillata*) and sweet pepperbush (*Clethra alnifolia*).

Faunal observations documented by GOSA include the full suite of vernal-pool-breeding amphibians, as well as **four-toed salamanders** and **spotted turtles**—the latter is now designated as a Connecticut Special Concern species. A letter submitted by Dr. Robert Askins, Professor Emeritus at Connecticut College, further highlights the exceptional bird diversity and abundance associated with this wetland complex, noting both the ecological and educational significance of the area. GOSA's 2012 spotted turtle observations should be updated and formally submitted to the CT DEEP Natural Diversity Database (NDDB).

The Lambtown Road Extension corridor, which borders the scenic pond on the eastern margin of the complex, now functions as a heavily used community walking trail and a popular destination for birdwatchers, further illustrating the natural, recreational, and educational importance of this intact wetland system.

2.0 ANTICIPATED IMPACTS

REMA independently reviewed and corroborated the hydrologic analysis prepared by the intervenor's engineer. On November 15, 2025, REMA scientists George Logan and Sigrun Gadwa conducted an on-site inspection of the culvert system and the associated wetland complex. Based on field observations, plan review, and a conservative estimate of the current water-surface elevation at approximately 199.0 feet, REMA calculates an anticipated water-level reduction of roughly **2.6 feet**. Although slightly less than the intervenor's engineer's projected drawdown of about three feet, REMA's estimate is broadly consistent with their overall assessment.

This estimate incorporates the proposed beaver-management structure, including the planned baffle elevation of 196.4 feet within the concrete weir—equivalent to the invert elevation of the culvert inlet. The submitted engineering plans also show that the previously installed 12-inch corrugated plastic pipe (CPP), part of an earlier "beaver-deceiver" system, had an invert elevation of 196.2 feet. At the time of REMA's field inspection, the measured difference between the observed water surface (~199.0 feet) and the invert of the existing 30-inch CMP culvert was approximately 2.6 feet, confirming that the proposed configuration would result in a substantial lowering of pond and marsh water levels. It should be noted that the water level was somewhat higher at the time of the engineer's earlier analysis—around 3.5 feet above the relevant invert elevations—hence their slightly higher predicted drawdown.

During the November 15 in-field assessment, REMA also documented that the top of the sill supporting the five existing beaver-deceiver intake hoses was roughly level with the then-current water surface. The vertical distance from the sill to the water surface was slightly less than three feet. The sill structure appears to rest on a compacted accumulation of organic, soil-like material with interwoven woody debris, likely representing the remaining core of an older beaver dam. As expected in these systems, seasonal and climatic variation will influence surface-water elevations, with natural declines occurring during summer months and during periods of reduced hydrologic input.

Reduced Productivity

A sustained drop in water level of this magnitude will markedly reduce the aerial extent of shallow-water zones and seasonally saturated mudflats during the summer months. These habitats currently support high densities of aquatic macroinvertebrates and submerged or emergent vegetation, forming the energetic foundation for a highly productive wildlife community. As noted in the letter submitted by Dr. Robert Askins, Professor Emeritus of

Ornithology at Connecticut College, the site presently exhibits unusually high wildlife productivity—likely attributable to the abundance and accessibility of these food resources.

A reduction in shallow-water habitat will disproportionately affect waterfowl and shorebirds that rely on these foraging zones. Dabbling and diving ducks that feed on a combination of aquatic vegetation and invertebrates—including **American black duck, mallard, ring-necked duck, and green-winged teal**—would experience diminished foraging opportunities. Likewise, waterbirds and migratory shorebirds that probe saturated mud and shallow water for invertebrates—such as **Wilson's snipe, solitary sandpiper, and sanderling**—would be adversely affected by the loss of mudflat habitat.

Overall, the anticipated hydrologic drawdown would significantly reduce primary and secondary productivity within the wetland complex, with cascading effects on multiple wildlife guilds.

Inferior fish habitat

If the pond's water level is lowered by more than two feet, overall water depth will be substantially reduced. Shallower conditions will lead to increased water temperatures, reduced thermal refugia, and loss of deeper-water habitat zones. Collectively, these changes will make the pond markedly less suitable for sustaining fish populations.

Fish-eating bird species that are regularly observed within this wetland complex—including **hooded merganser, American black duck, great egret, and belted kingfisher**—would experience diminished prey availability and reduced foraging efficiency under these altered conditions. The pond also supports **river otters** and **northern water snakes**, both of which rely heavily on fish or other aquatic prey and therefore depend on maintaining adequate fish habitat.

Adequate water depth is also critical for maintaining **beaver** occupancy. Beaver lodges require submerged entrances both for predator protection and for winter survival, including under-ice movement between the lodge and food caches. A multi-foot reduction in water level risks exposing lodge entrances, impairing under-ice access, and potentially rendering the site unsuitable for continued beaver use.

More Nutrient Export

Elevated water temperatures resulting from a significant reduction in pond depth will also increase the likelihood of nutrient export to downstream waters, ultimately contributing to nutrient loading in receiving systems, including Long Island Sound. Warmer conditions accelerate the die-off of aquatic vegetation in shallow zones, promoting periods of low dissolved oxygen and causing stress or mortality among benthic invertebrate communities.

As plant and invertebrate biomass decomposes, the resulting nutrient-rich detritus becomes mobilized and is more readily transported downstream during flow events. This accelerated export of organic material and nutrients represents a degradation of current water-quality conditions and could adversely affect downstream aquatic ecosystems.

Secondary Nutrient Impacts

Increases in nitrate and phosphorus concentrations—even if episodic or short-lived—can fertilize wetland soils and stimulate vigorous growth of invasive emergent species such as **Phragmites australis** (common reed), as well as highly competitive native species like **cattail** (*Typha* spp.). Expansion of these species is likely both within the wetland complex itself and in downgradient marsh habitats. Several uncommon or rare plant species associated with the brackish-estuarine transition zone are particularly vulnerable to displacement or shading by the accelerated, taller growth of **Phragmites**.

Elevated nutrient levels also pose a direct threat to the low-nutrient fen habitats within this system, including the floating peat islands. In oligotrophic wetlands, the fibric peat matrix is typically firm and slow to decompose. However, nutrient enrichment destabilizes this condition: nutrients previously sequestered within peat fibers become mobilized, accelerating microbial activity and decomposition. As fibric peat transitions toward nutrient-enriched **sapric muck**, it loses structural integrity and can no longer support Sphagnum mosses or the suite of other characteristic fen species. This represents a fundamental and potentially irreversible alteration of the wetland's ecological character.

A substantial water drop will also diminish the extent of denitrification, a key process by which microbes in wetland soil attenuate nitrogen levels, which requires sol saturation and ample organic matter.

Alteration of wetland plant distributions

Hydrologic conditions are the primary ecological driver governing wetland plant distribution, structure, and long-term community composition. It is well established in wetland science and regulation that significant alterations to a wetland's hydrology will, in turn, significantly alter its vegetation. Such changes are classified as **adverse physical impacts** and are to be avoided or minimized under standard regulatory frameworks.

In an open-water–marsh–shrub-swamp complex, a sustained water-level reduction of more than two feet will trigger pronounced changes in vegetative zonation. Hydrology encompasses not only water depth, but also the amplitude, frequency, and seasonal timing of water-level fluctuations. The hydrologic tolerances of wetland plants vary widely. For example, many native pondweeds (*Potamogeton* spp.) occupy a very narrow band within the littoral zone—often no more than one to two meters wide—because they require specific combinations of depth, light availability, and substrate stability.

While many species can physiologically survive across a broad range of water depths, they can only compete successfully within a much narrower hydrologic window. For instance, floating-leaved species such as water lilies (*Nymphaea* and *Nuphar* spp.) may survive in as little as 6 inches of water, but they are quickly outcompeted if summer water depths drop below approximately 15–18 inches. Under such conditions, emergent taxa such as bur-reeds (*Sparganium* spp.) and rice cutgrass (*Leersia oryzoides*) tend to replace the lilies.

As water levels fall, the pond becomes increasingly vulnerable to **competitive exclusion** by aggressive species with broad hydrologic tolerances—most notably Phragmites australis and reed canary grass (*Phalaris arundinacea*). These invasive species thrive in shallow water and on exposed mudflats, enabling rapid colonization and expansion that can dramatically alter habitat structure and reduce biodiversity.

Woody species' rooting depths develop in response to the hydrology where they became established, which will be unsuitable if there is a substantial, sudden hydrologic change; poor growth and dieback allows establishment of invasives needing ample light.

Missing Information

A critical gap in the available information for evaluating impacts at this site is the lack of **pond-bottom bathymetry,** particularly in the vicinity of the proposed culvert replacement.

Current water depths within areas supporting floating-leaved vegetation—such as water lilies—are unknown. The ecological consequences of a 2.6-foot (or greater) water-level reduction would vary significantly depending on existing depths. A decline of this magnitude would be far more damaging in zones currently only 1–2 feet deep than in areas averaging 3–4 feet. Without bathymetric measurements, the magnitude and spatial extent of hydrologic and vegetation changes cannot be reliably quantified.

Similarly, **the absence of pond-bottom slope information represents another key missing parameter for conducting an accurate impact assessment.** In ponds with steep bathymetric gradients, the littoral zone supporting submerged vegetation (e.g., *Potamogeton* spp.) is typically very narrow. When water levels drop sharply or shorelines retreat substantially, these communities can be eliminated altogether because their suitable hydrologic niche disappears abruptly.

In contrast, ponds with more gradual bottom slopes support broader littoral zones, larger aquatic-plant populations, and a wider hydrologic gradient. Such communities tend to be more resilient, producing more propagules and possessing a greater capacity to recolonize newly exposed substrate. Under declining water levels, species in gently sloped systems are more likely to migrate into the remaining deeper portions of the pond where water depths remain adequate. Without quantitative data on pond depth and slope, it is not possible to determine which of these ecological scenarios is most applicable to the wetland system under review.

Less water for Adjacent Habitats and Vernal Pools

Along its southwestern margin, this flooded open-water wetland is bordered not by a raised roadway embankment used by hikers, but by a **natural wetland fringe** characterized by deep organic soils and several productive **vernal pools**, as mapped by USDA soils data. When the pond's water surface is high—near the elevation of the adjacent bank—substantial lateral seepage infiltrates into these organic soils. This groundwater recharge is critical for maintaining adequate hydroperiods within the vernal pools, allowing obligate amphibians, particularly **Ambystomatid salamanders**, to complete larval development and reach metamorphosis.

These organic soils remain moist even during dry periods and support robust wetland plant communities. To the west of the pond, the soils map indicates permeable, gravelly deposits with irregular pit-and-mound microtopography, associated with historical gravel extraction.

Soil permeability is high enough in this area that the local groundwater table closely tracks the pond's water level. Under current, high-water conditions, this hydrologic connection sustains several viable vernal pools and supports deep-rooted woody vegetation. Functionally, the pond acts as an irrigation trench, maintaining elevated groundwater levels and hydrologic support for adjacent wetlands to the west and southwest.

On the eastern side, pond water likewise infiltrates the wooded buffer, providing a steady source of moisture. This fringe community is presently healthy and diverse. Within the 25-foot area proposed for disturbance, woody species observed include speckled alder (*Alnus incana*), maleberry (*Lyonia ligustrina*), fox grape (*Vitis labrusca*), and buttonbush (*Cephalanthus occidentalis*). Additional species along the nearby bank crest include red maple (*Acer rubrum*), bayberry (*Morella pensylvanica*), and multiflora rose. A substantial lowering of the water table along the shoreline would reduce soil moisture, stressing these hydrophytic species and likely diminishing both vigor and diversity.

Soil-moisture reductions are also expected northeast of the pond in the Lamb family hayfield, which is mapped as Haven silt loam. In fine-textured silty soils, capillary rise transports moisture many feet upward; thus, a lowered pond level and reduced groundwater gradient will result in measurably drier soil conditions within this hayfield.

Plant Diversity losses due to Impeded Plant Seed Dispersal

Waterborne seed dispersal plays a key role in maintaining plant diversity within this wetland system. Many wetland species— including wind-dispersed taxa such as asters—release seeds that settle onto the water surface and are transported to new microsites along the pond margin. Periodic high-water events naturally deposit these seeds on the shoreline, creating a dynamic zone of elevated plant diversity.

Small-scale wind scour along exposed pond edges also generates patches of bare or lightly disturbed substrate, which serve as ideal germination sites for pioneer species dispersed by water. The importance of this process is well documented; in fact, pond shore colonization by waterborne plant propagules was the focus of Sigrun Gadwa's Master's research.

If water levels are significantly reduced, the frequency and extent of these dispersal and deposition processes will decline. Simultaneously, species unable to tolerate the altered hydrologic regime will be lost from the community. Together, these changes will result in a

measurable reduction in overall plant diversity and ecological resilience along the pond shore.

3.0 CONCLUSION

Based on REMA's field observations, review of submitted plans and available data, and ecological analysis, it is clear that a 2–3 foot reduction in water level during the high-water season would produce multiple, cascading, and adverse ecological impacts across this wetland complex—including the GOSA-owned habitats. The affected system is a rare low-nutrient (oligotrophic) wetland supporting a poor fen, floating peat islands, productive vernal pools, extensive shrub swamp, and unusually high wildlife diversity. ***Its ecological integrity is fundamentally tied to its existing hydrology***.

A sustained drop of this magnitude would:

- **Eliminate or severely contract shallow-water and mudflat habitats**, reducing macroinvertebrate and aquatic-plant biomass and diminishing foraging resources for waterfowl, shorebirds, amphibians, reptiles, and mammals.
- **Increase water temperatures** and reduce deeper-water refugia, degrading habitat suitability for fish, fish-eating birds, river otter, water snakes, and beaver (whose lodge entrances require submergence).
- **Accelerate nutrient release and downstream export**, driving die-offs of aquatic vegetation, creating anoxic conditions, and introducing nutrient-rich detritus into downstream waters, ultimately contributing to degradation toward Long Island Sound.
- **Stimulate invasive and aggressive vegetation**, including *Phragmites australis* and cattails, while degrading oligotrophic peat and transforming firm fibric peat into sapric muck—an irreversible loss of fen habitat.
- **Alter shoreline and groundwater hydrology**, reducing soil moisture in vernal pools, wooded fringes, and adjacent uplands and hayfield soils, compromising amphibian breeding success and stressing hydrophytic vegetation.
- **Disrupt natural seed-dispersal and recruitment processes**, diminishing pond shore plant diversity and eliminating species unable to tolerate the new hydrologic regime.

Given these impacts, the wetland would lose many of its defining ecological functions, values, and low-nutrient characteristics—changes that are **substantial, adverse, and likely permanent** without intervention.

Importantly, **feasible and prudent alternatives** that would avoid or greatly reduce these impacts **have not yet been evaluated**, as required under the Town's Inland Wetlands and Watercourses Regulations. Because this road is closed to vehicular traffic, there appears to be no functional requirement to lower water levels below their current elevation. A culvert and beaver-management design that maintains the present high-water surface elevation of approximately 199 feet during "full pond" conditions should be explored. Such an approach would protect the ecological integrity of this regionally significant wetland complex while still addressing infrastructure and flow-management needs.

Finally, it is important to note that the watercourse associated with this wetland complex is perennial, and the proposed project entails both direct (primary) impacts and indirect (secondary) impacts, including substantial hydrologic modification. Consequently, the activity falls under the jurisdiction of Sections 404 and 401 of the U.S. Clean Water Act. Therefore, review and authorization are required from both the U.S. Army Corps of Engineers (USACE) and the Connecticut Department of Energy and Environmental Protection (CT DEEP).

Please feel free to contact us if you have any questions.

Respectfully submitted,

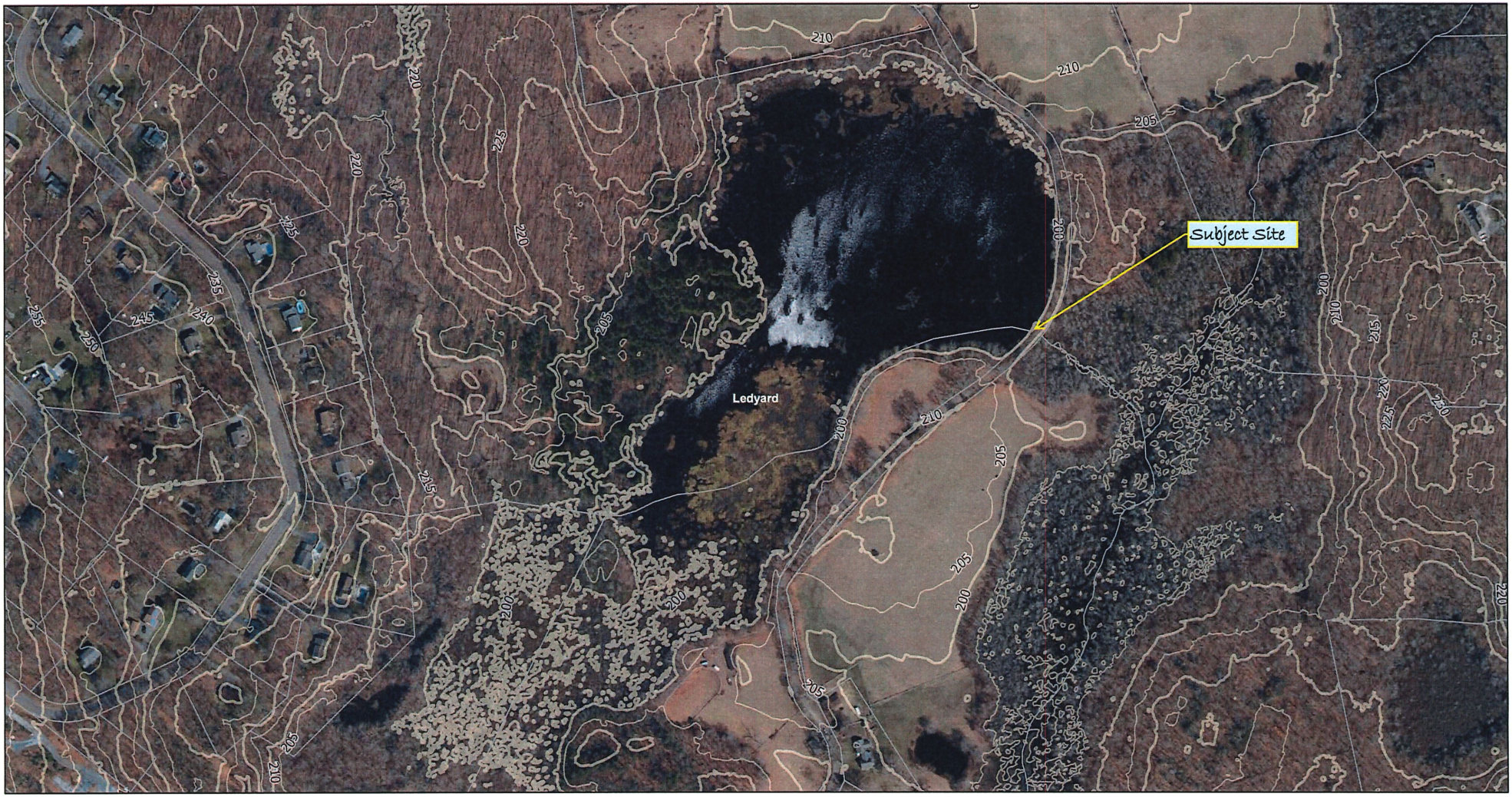
REMA ECOLOGICAL SERVICES, LLC

George T. Logan, MS, PWS, CSE
Professional Wetland Scientist
Registered Soil Scientist, Certified Senior Ecologist

Sigrun N. Gadwa, MS, PWS
Ecologist, Registered Soil Scientist
Professional Wetland Scientist

Attachments: Figures 1 to 3, USDA-NRCS Web Soil Survey soils map, Photolog (1 and 2), Professional Resumes, photos of fen from 2012 OSWA grant application

FIGURE 1: LOCUS; CULVERT REPLACEMENT PROJECT
LAMBTOWN ROAD EXT., LEDYARD, CT



ANNOTATED BY: REMA ECOLOGICAL SERVICES, LLC
DATE: 11/24/2025
BASE MAPPING: 2023 AERIAL WITH 2023 TOPOGRAPHY

1:4,200

0 215 430 860 ft
0 65 130 260 m

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland,

Map created with the CT ECO Advanced Viewer. Visit CT ECO at

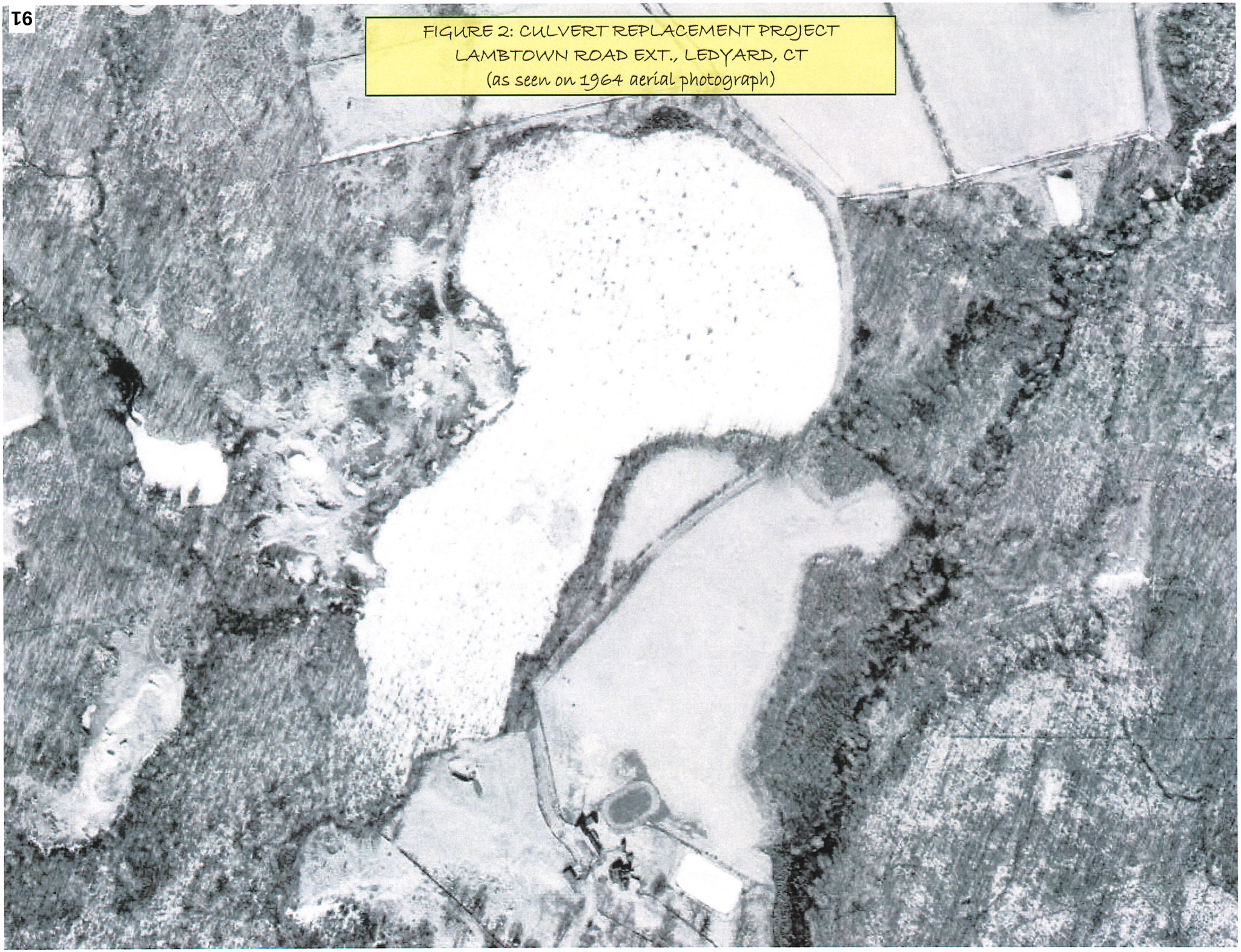
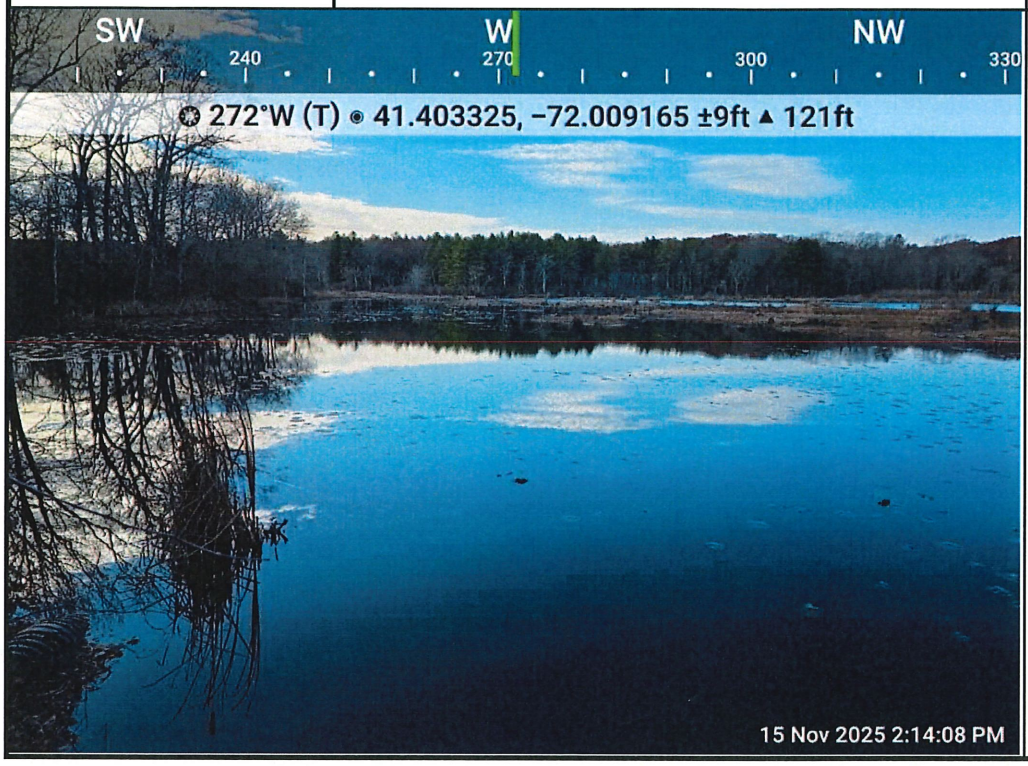


FIGURE 2: CULVERT REPLACEMENT PROJECT
LAMBTOWN ROAD EXT., LEDYARD, CT
(as seen on 1964 aerial photograph)

FIGURE 3: CULVERT REPLACEMENT PROJECT
LAMBTOWN ROAD EXT., LEDYARD, CT
(as seen on 1934 aerial photograph)

REMA	SITE/LOCATION:	Proposed Culvert Replacement Lambtown Road Ext. Ledyard, CT	REMA JOB NO.: 24-2848-LED6	ANNOTATED PHOTO LOG
	INVESTIGATOR(S):	G.T. Logan, MS; S.N. Gadwa, MS		

DATE: November 15, 2025	FACING: (see photo)	1

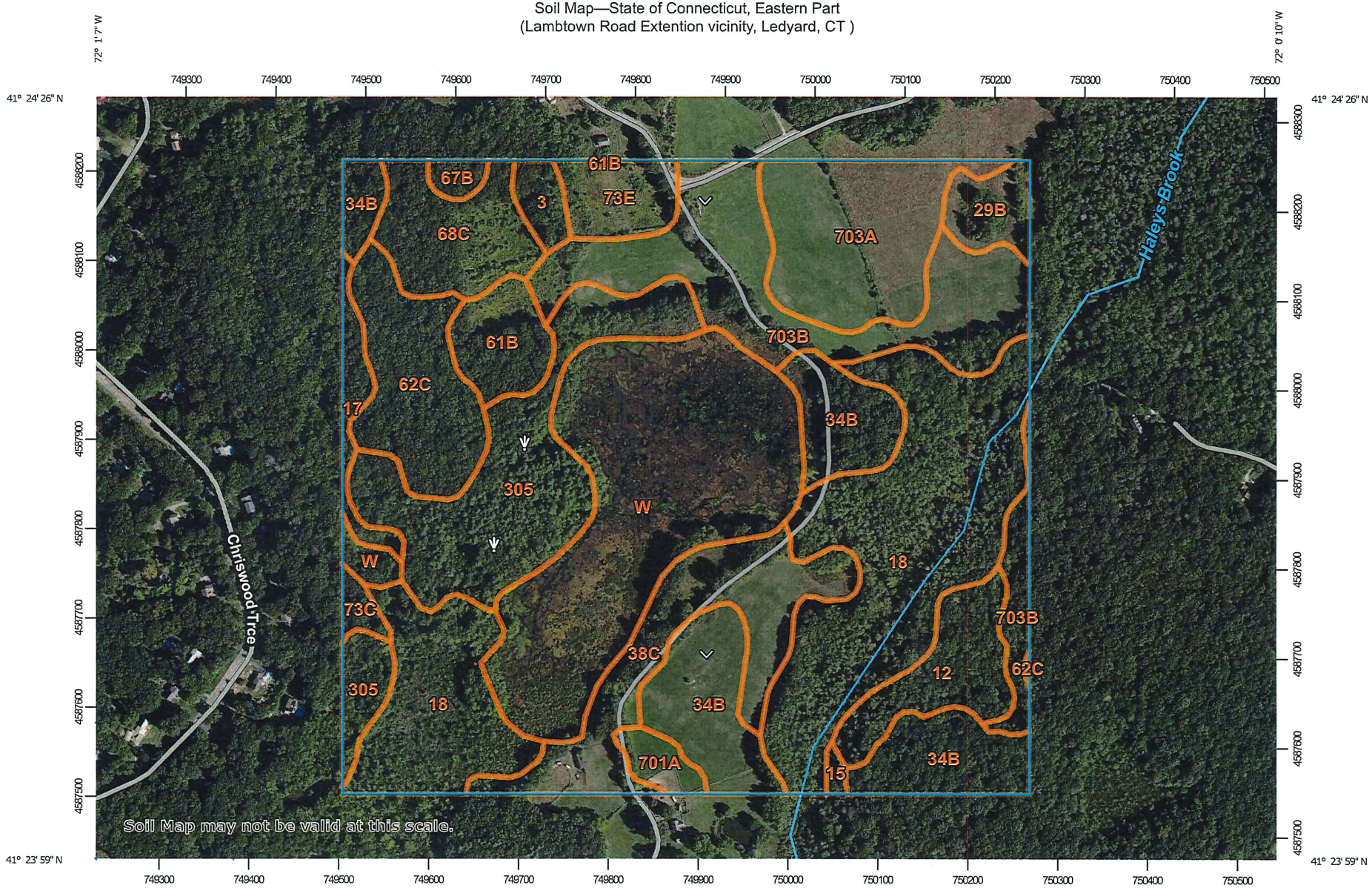


Comments: *View across wetland from culvert replacement site showing floating fen islands in distance.*

DATE: November 15, 2025	FACING: (see photo)	PHOTO NO.: 2

Comments: *View of conditions in front of the culvert to be replaced. The pond water level is that of the sill (+/- 199.0'). Culvert opening is hidden, and several feet lower down. This appears to be a residual portion of a former beaver dam, perhaps reinforced with soil when the black, corrugated beaver deceiver hoses were installed.*

Soil Map—State of Connecticut, Eastern Part
(Lambtown Road Extention vicinity, Ledyard, CT)



Map Scale: 1:6,010 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Soil Map—State of Connecticut, Eastern Part
(Lambtown Road Extention vicinity, Ledyard, CT)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Eastern Part
Survey Area Data: Version 6, Sep 16, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	1.2	0.9%
12	Raypol silt loam, 0 to 3 percent slopes	4.4	3.3%
15	Scarboro muck, 0 to 3 percent slopes	0.3	0.2%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	1.6	1.2%
18	Catden and Freetown soils, 0 to 2 percent slopes	25.9	19.3%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	2.0	1.5%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	13.0	9.6%
38C	Hinckley loamy sand, 3 to 15 percent slopes	8.8	6.5%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	3.0	2.2%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	6.8	5.0%
67B	Narragansett silt loam, 3 to 8 percent slopes, very stony	0.6	0.4%
68C	Narragansett silt loam, 3 to 15 percent slopes, extremely stony	5.1	3.8%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	0.6	0.5%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	2.6	1.9%
305	Udorthents-Pits complex, gravelly	13.1	9.8%
701A	Ninigret fine sandy loam, 0 to 3 percent slopes	1.1	0.9%
703A	Haven silt loam, 0 to 3 percent slopes	8.7	6.5%
703B	Haven silt loam, 3 to 8 percent slopes	14.1	10.5%
W	Water	21.6	16.1%
Totals for Area of Interest		**134.5**	**100.0%**

Set 3: Open Tussock Sedge Peatland, Lambtown Rd, Groton; by Carya Ecological Services, LLC, Spring, 2012

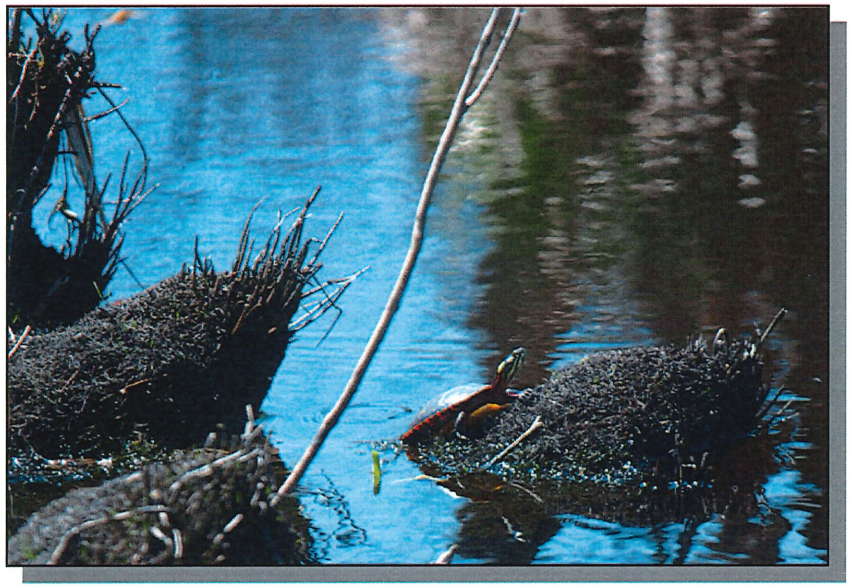


Photo 1. Painted turtle basking on a dead tussock mound in a deep water area. This wetland supports a very large population.

Photo 2. Close-up of channel and graminaceous vegetation. Ditches were dug in this former commercial cranberry bog.

Photo 3. Northeasterly view from beaver dam of large tussock sedge peatland. Water level dropped >1' foot after beavers fixed dam in May. Periodic flooding kills saplings, prevents succession to wooded swamp.

Photo 4. Spotted turtles were observed several times in the tussock peatland, and also use vernal pools at the base of the ridge.

Photo 1. Exploring and botanizing by kayak; wild bean vine approaching the fen perimeter. Poor fen is a CT DEEP critical habitat.

Photo 2. Westerly view down Lambtown Brook; tussock sedge clumps show a current water level about 14 inches lower than in the past.

Photo 3. Sheep laurel is in bloom on the banks of the brook. A characteristic ericaceous species of poor fens.

Photo 4. Lichens on a snag.

Set 4: Lambtown Road, Groton, Fen Along Lambtown Brook; by Carya Ecological Services, LLC, 6-15-12

Photo 5: Lyonia ligustrina or maleberry, in bud along the southern edge of the meadow. This species is often found in glacial outwash soils with a sandy substratum.

Photo 6: Wet habitat dominated by a fine-bladed rhizomotous sedge. Westerly view, showing the broad extent of the community. Red maple saplings in this area die naturally due to the high water table.

Photo 7: Shimmering in wind; fen's aesthetic value would be rated very high in a formal functions and values assessment. Buttonbush, an aquatic shrub, is scattered in the fen.

Photo 8: Wet meadow with firm, deep peat abuts a zone of tall shrubs and then bottomland deciduous forest, with sandy outwash soils. Dominant sedge is a sterile close of wooly sedge, *carex lasiocarpa.*

Set 4: Lambtown Road, Groton, Fen Along Lambtown Brook; by Carya Ecological Services, LLC, 6-15-12

Photo 9: Nuphar (yellow pond lily) on mud in low water conditions.

Photo 10: Close-up of brookside vegetation: large cranberry and a flowering nightshade vine.

Photo 11: The brook flowing through fen; southwesterly view. Of grave concern is a small new patch of invasive Phragmites, which GOSA will control with CT DEEP permit before in spreads across the fen.

Photo 12: Leatherleaf shrub. GOSA botanist Whitney Adams is examining the scales on the underside of the leaf.

CARYA ECOLOGICAL SERVICES, LLC, 183 GUINEVERE RIDGE, CHESHIRE, CONNECTICUT, 06410
& 164 EAST CENTER STREET, SUITE 9, MANCHESTER, CT 06040 • 203 537.1869
SIGRUN.N.GADWA@GMAIL.COM WWW.CARYAECOLOGICAL.COM

Curriculum vitae

Sigrun N. Gadwa, MS, PWS
Ecologist/Botanist/Wetland Scientist

EDUCATION:

M.S., Plant Ecology, University of Connecticut, Storrs, CT, 1997.

B.A., Biology, Brown University, Providence, R.I., 1975.

Continuing Education

16 credit hours in Soil Science and Geology, 1993 – 2001
University of Connecticut, Storrs
Five Plant Pathology courses, Cook College, Rutgers University, New Brunswick, N. J. 1978 - 1979
Graduate Phycology course. Pan American U. Brownsville, Texas, 1982
Arboriculture course, Quinnipiac College, Hamden, CT, 1984
CT DEEP training workshop Series: Rapid Bioassessment Techniques, & Stream Ecology Workshops. Bethany.1996 & 7.
Marking, Measuring & Planning Turtle Surveys. H. Gruner, CT Science Museum, workshop for QRWA Turtle Crossing Program. 1998.
Riparian Buffer Function, Performance & Limitations. Urban Riparian Buffers Conference & Technical Training Session. April 1999.
Sedimentation and Erosion Control Review Session. USDA Natural Resource Conservation Service and CPESC (Certified Professionals in Erosion Control), Concord, NH, September, 2001.
Freshwater Mussel Workshop. New Hampshire Department of Environmental Conservation. August 2004.
Moss Identification & Ecology,1-week course; Eagle Hill Institute. 2019

CERTIFICATIONS:

Registered Soil Scientist,
Society of Soil Scientists of Southern New England
Certified Professional Wetland Scientist
Society of Wetland Scientists
Organic land care professional. NOFA (NE Organic Farming Assoc)

EXPERIENCE:

As a plant ecologist Ms. Gadwa inventories, assesses, photographs, and monitors ecological communities, often in support of open space acquisition initiatives. She plans & guides control programs for invasive plants, and searches for listed plant and turtle populations and assesses their habitat. Botanical specialties include vascular plant identification and winter botany. She is experienced with third party reviews of development projects, assessments of functions & values, delineation of wetland and watercourse jurisdictional boundaries (CT and U.S. Army Corps of Engineers), planning wetland mitigation and restoration, vernal pools studies, water quality testing and data analysis, and in-stream bio-assessments.

Curriculum vitae: *(continued)*

Sigrun N. Gadwa, MS, PWS
Ecologist/Botanist/Wetland Scientist

EMPLOYMENT HISTORY:

1999 to present	**Carya Ecological Services, LLC, Principal** Ecological and wetland assessments, botany & habitat inventories, Vegetation planning. CTDEEP surveys for rare plants and turtles. Recent **Carya** clients include the Berlin Land Trust, Hamden Land Conservation Trust, Avalonia Land Conservancy, East Lyme Land Trust, Brookfield North, LLC, Black & Veatch for the Town of West Haven, Mumford Cove Association, Town of Colebrook, SCS-Bethmour Rd., and private landowners.
1999 to present	**Carya Ecological Services, LLC, Principal,** *subcontractor* to **Rema Ecological Services**, LLC, Vernon, CT, an environmental science collaborative; Ecological fieldwork, planning, and reporting.
2015 to 2022	**Post University, Waterbury Campus** Adjunct Professor of Botany & Ecology.
2013 to 2018	**K & W Construction,** Southbury, CT, *subcontractor* Erosion & Sediment Control Inspections, Turbidity testing for CT DEEP
2014 to 2019	**South Central CT Regional Water Authority**, New Haven, CT Responsible for long term vegetation monitoring each fall, and reporting for compliance with CT DEEP Wellfield Diversion Permit.
2001 to 2004	**CT DEEP Wildlife Division,** *subcontractor* Vegetation and wetland inventories & mapping of large Wildlife Management Areas (WMAs).
2003 to May 2016	**Ships' Hole Farm Partnership,** Smithtown, Long Island, NY Responsible for vegetation management & invasive control; growing seed of native species on family farm, advised turtle monitors.
1995 to 2000	**Quinnipiac River Watershed Association Meriden, CT** Executive Director/Staff Scientist Led botany hikes and a volunteer monitoring program, including stream bio-assessments, turbidity testing, and bird/turtle surveys; site plan reviews of projects impacting the watershed; wrote testimony, grants, publicity, and educational materials; liaison with officials. Chair of Habitat Work Group of the **Watershed Partnership**, which identified and documented Quinnipiac watershed habitats in need of protection or restoration until 2003.

Curriculum vitae: *(continued)*

Sigrun N. Gadwa, MS, PWS
Ecologist/Botanist/Wetland Scientist

EMPLOYMENT HISTORY:
(continued)

Coordinator for **QRWA Turtle Crossing** monitoring program for Eastern box & wood turtles, which continued until 2018. Instructed citizens on preparing detailed accurate record forms for the Natural Diversity Database. Outreach on turtle behavior through the seasons, habitat usage, & conservation needs. > 50 records.

1991 to 1995 — **De Leuw-Cather, Inc.,** East Hartford, CT
Environmental Planner/Field Ecologist
Field data collection, analysis, and report preparation, mostly for high-way projects; specialties included listed plant searches, assessment of wetland functions, mitigation design, & wetland delineation (ACOE method).

1987 to 1991 — **Univ. of Connecticut Department of Civil Engineering,** Storrs, CT
Wetlands Researcher
Part of an interdisciplinary team, studying man-made replication wetlands and natural reference wetlands. Took part in research design; collected vegetation, soils, & hydrologic data; literature searches; data analysis. Research used for wetlands mitigation-related manual for the Connecticut Department of Transportation and for master's thesis.

1974 to 1975 — **Brown University,** Providence, RI
Teaching Assistant, Plant Systematics

1968 to 1975 — **Long Island Nature Conservancy,** Stewardship Volunteer
Nature trail development & maintenance, botanical inventories, wrote preserve descriptions & self-guided nature trail brochures.

Carya E.S. clients have included Berlin Land Trust, Avalonia Land

PROFESSIONAL AFFILIATIONS:

Connecticut Botanical Soc. (Board Member, Chair of Ecology & Conservation Committee)
Connecticut Invasive Plant Working Group (CIPWG)
Connecticut Association of Wetland Scientists
Society of Soil Scientists of Southern New England
Connecticut Ornithological Society
Connecticut Entomological Society
Ecological Society of America
Native Plant Trust (PCV - Plant Conservation Volunteer Program)

Curriculum vitae: *(continued)*

Sigrun N. Gadwa, MS, PWS
Ecologist/Botanist/Wetland Scientist

PUBLICATIONS:

Lefor, M.W. Barklay, J.S. Cooke, R.S. Craig, S.N. Gadwa, T.S. Murray, April 1990. *Annotated Bibliography for Wetland Mitigation.*

August 1990. *Patterns of Herb Layer Species Association.* In Lefor, M.W. et al *Wetland Mitigation: Interim Report* No. CT-RD-JHR-90-8, The Transportation Institute, Storrs, Conn. 97 pp.

1994. *Forests.* In Chesanow et al. *Trails.* The Cheshire Land Trust and the Cheshire Environment Commission, Cheshire, CT 96 pp.

May 1995. *Wetland Mitigation: Botany.* Volume 1 of 6. Lefor, M.W. and S.N. Gadwa. Report No. JR95-241. Dept. Civil Engineering, Joint Highway Research Council, Transportation Institute, Storrs, Conn. 259 pp.

December 1997. *Plant Colonization Processes and Patterns along Shorelines of Man-made Mitigation Basins in Relation to Reproductive and Life History Traits.* MS Thesis. Dept. Ecology & Evolutionary Biology. Univ. of Connecticut, Storrs, CT. 181 pp.

River Resources Education Series, Quinnipiac River Watershed Association, Meriden, CT. May 1995 *New Haven Oysters;* June 1996 *What Good are Streamside Woods?* August 1996 *Taking a Close Look at Streamside Woods;* June 1997 *Foraging in the Quinnipiac Estuary;* March 1998 *Stream Biosurveys* (G.T. Logan & S. Gadwa) ; September 2000 *Muddy Waters.*

Logan, G.T. & S.N. Gadwa. *Quinnipiac River Watershed Assoc. Stream Study.* Water Quality in the Quinnipiac River. Proceedings of a Symposium on the Impact of Nonpoint Source Pollution in the Quinnipiac River Watershed, pp. 66-70.

October 2000. *A Report on the Water Quality of the Quinnipiac River.* M. Tyrell, C. Cappannari, D. Galt, S. Gadwa, L. MacMillan, R. Walters. Report to the Steering Committee of the Quinnipiac River Watershed Partnership. Q.R.W.P. Water Quality Workgroup, New Haven, CT. 19 pp.

Winter 2003. *Management of Invasive Plants: On-Site Open Space Management.* The Habitat 15(2):3-4 Connecticut Association of Conservation and Inland Wetland Commissions, Inc.

Spring 2003. *Management of Invasive Plants: Protecting Open Space and Wetlands, Tools for Land Use Boards and Town Staff.* The Habitat 15(3):4-5. Connecticut Association of Conservation and Inland Wetland Commissions, Inc.

July 2003. Interpreting Quinnipiac Songbird Surveys: Effects of Landscape Setting on Avian Community Composition. *The Connecticut Warbler.* 23(3): 81-114.

Curriculum vitae: *(continued)*

Sigrun N. Gadwa, MS, PWS
Ecologist/Botanist/Wetland Scientist

PUBLICATIONS, cont. :

June 2004. *Connecticut Turtles of Special Concern.* Quinnipiac River Watershed Association. 4 page pamphlet. (illustrations by Tony Ianello)
Fall 2005. S. N. Gadwa. *Preliminary Assessment of the Habitat & Historic Resources in North Cheshire, West of Route 10 & Recommended Protection Measures.* Cheshire Land Trust & Quinnipiac Watershed Partnership.

October 2011 S. N. Gadwa & G.T. Logan. *The Scientific Basis for Wetland & Watercourse Buffer Zones*. 23 pp. White Paper. Rema Ecological Services, LLC.

Spring 2014. Sigrun N. Gadwa. *The Invasive Threat to Connecticut's Upland Critical Habitats*. 3pp. Connecticut Botanical Society Newsletter 41: 1.

Spring 2020. Sigrun N. Gadwa. *Gabbro Habitats in Southeastern Connecticut.* Connecticut Botanical Society Newsletter 47: 1.

Fall 2020. Connecticut Botanical Society Ecology and Conservation Committee. *Recommendations for Electrical Utility Right-of-Way Vegetation Management* . See also website: www.caryaecological.com

WORKSHOPS & CONFERENCES

SA Mid-Atlantic Chapter Symposium, Blacksburg Virginia
Lessons for Mitigation Design from Shoreline Seedling Colonization ***(selected):***
Patterns April 12-14. 2012. *(Poster presentation based on MS thesis)*

New England Invasive Plant Summit, Framingham Massachusetts: Wetlands permitting – a potentially powerful tool to control invasive plants. September 19-20. 2003. (*Poster Presentation)*.

Environmentally Sensitive Development along the Ten Mile River. Riverside Landscaping Conference. June 1998. Rivers Alliance of CT. (*Guest Lecturer*)

Water Quality in the Quinnipiac River: A Symposium on the Impact of Non-Point Source Pollution in the Quinnipiac River Watershed. Nov. 1998. *(Presenter)*

October, 2014. Documenting and Conserving Eastern Box Turtles in Central Connecticut: 19 years of Citizen Monitoring. Berlin Land Trust and Nature Center. Evening Membership Program. (*Guest Lecturer)*

2011 to 2119. For CT Botanical Society, have led 1-3 guided botany field trips and/or field botany workshops each year.

October 2016 Sigrun Gadwa, MS & Todd Mervosch, PHD. Connecticut Invasive Plant Working Group (CIPWG) Symposium, UConn College of Agriculture, Health, & Natural Resources. *Artemisia vulgaris (Mugwort): Overlooked Infiltrator of Meadow Habitats. (Poster Presentation).*

PROFESSIONAL RESUME

George T. Logan, MS, PWS, CSE

Principal Environmental Scientist/Senior Ecologist

EDUCATION:

M.S. Natural Resources, *Wildlife Management & Conservation Biology,* University of Rhode Island, Kingston, R.I., 1989.

B.S. Natural Resources, *Wildlife Management & Wetlands Ecology,* University of Rhode Island, Kingston, R.I., 1986.

Continuing Education

The Transportation Project Development Process: Training in the PennDOT Environmental Impact Statement Handbook, Harrisburg, PA, January 1994

Rapid Bioassessment Protocols of Aquatic Systems (EPA Protocols), Wetland Training Institute, Williamsport, PA, August 3-6, 1993

CERTIFICICATIONS:

Certified Senior Ecologist *(2005, 2014)* - Ecological Society of America

Certified Professional Wetland Scientist (No. 581) *(1994)* - Society of Wetland Scientists

Registered Soil Scientist *(1989)* - Society of Soil Scientists of Southern New England

Certified Associate Wildlife Biologist *(1989)* – The Wildlife Society

EXPERIENCE:

Mr. Logan is the Co-Owner, *Principal Environmental Scientist,* and *Senior Ecologist* for Rema Ecological Services, LLC. He specializes in tidal and inland wetland delineations and evaluation, permitting, wetland mitigation design, implementation and monitoring, and the preparation of environmental compliance documents in accordance with national (NEPA), state (e.g., CEPA, MEPA), and local criteria and guidelines. He also provides design, construction supervision and implementation for a wide variety of habitat restoration and enhancement projects and performs watershed-wide and surface water quality evaluations and provides guidance in the design of stormwater Best Management Practices (BMPs), including stormwater wetlands and bioretention basins, as well as for LID (low impact development) practices.

Mr. Logan has over 37 years of experience as a wildlife biologist/ecologist conducting wildlife habitat evaluations and focused avian, mammalian, invertebrate, and herpetofaunal surveys using both active and passive methods. He frequently conducts targeted surveys for sensitive, rare, and "listed" species (i.e., endangered, threatened, special concern), and aquatic biosurveys to assess the biodiversity and biotic health of ponds, lakes, vernal pools, rivers, and streams. Mr. Logan has extensive experience in performing herpetological surveys, including nearly 300 vernal pool surveys and evaluations.

Mr. Logan provides 3rd party reviews for municipal land use boards and has participated in nearly 3,400 individual projects in New England and the Mid-Atlantic States and in 164 of 169 municipalities in Connecticut.

REMA
ECOLOGICAL SERVICES, LLC, 43 BLUE RIDGE DRIVE, VERNON, CT 06066 • 860.649.7362 • 860.883.8690

Professional Resume: *(continued)*

George T. Logan, MS, PWS, CSE

PROFESSIONAL AFFILIATIONS:

Society of Soil Scientists of Southern New England
Society of Wetland Scientists
Ecological Society of America
The American Birding Association
The Wildlife Society
Soil & Water Conservation Society
Connecticut Association of Wetland Scientists (CAWS) *(Past-President, Charter member)*

PUBLICATIONS: *(selected)*

Logan, G.T. & S.N. Gadwa. 1999. Quinnipiac River Watershed Association Stream Study. Water Quality in the Quinnipiac River. Proceedings of a Symposium on the Impact of Nonpoint Source Pollution in the Quinnipiac River Watershed, pp. 66-70.

Logan, G.T. & S.N. Gadwa. 1998. Stream Biosurveys: *A Primer.* Quinnipiac River Watershed Association Educational Series for the Adopt-the-River Programs.

Pawlak, E.M. & G.T. Logan. 1996. Town of Cromwell Wetland Evaluation Project. Connecticut Association of Conservation and Inland Wetlands Commissions. The Habitat, Vol. 10:1

Logan, G.T., F.B. Titlow & D.G. Schall. 1995. The Scientific Basis for Protecting Buffer Zones. Proceedings of the 16th Annual Meeting of the Society of Wetland Scientists.

Pawlak, E.M. & G.T. Logan. 1995. Town of Cromwell Wetland Buffer Zone Designation Methodology. Proceedings of the 16th Annual Meeting of the Society of Wetland Scientists.

Logan, G.T., J.H. Brown, Jr., T.P. Husband & M.C. Nicholson. 1994. Conservation Biology of the Cretan Agrimi (*Capra aegagrus cretensis*). Biologia Gallo-Hellenica, Vol. 21, pp. 51-57.

Nicholson, M.C., T.P. Husband, J.H. Brown, Jr. and G.T. Logan. 1994. Implications of behavior on the management of the Cretan Agrimi (*Capra aegagrus cretensis*). Biologia Gallo-Hellenica, Vol. 21, pp. 45-50.

WORKSHOPS & CONFERENCES: *(selected)*

Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. Corps Training Workshop. May 2011. *(sponsor & participant)*

Vernal Pools: *The Jewels of the Forest.* Technical Workshop for the Town of Southwick Conservation Commission. January 2005. *(Guest Lecturer)*

Professional Resume: *(continued)*

George T. Logan, MS, PWS, CSE

WORKSHOPS & CONFERENCES: *(selected)*

The Importance of Habitat Edges. Riverside Landscaping Conference. The Rivers Alliance of Connecticut. June 1998. (*Guest Lecturer*)

Riparian Buffer Function, Performance & Limitations. Urban Riparian Buffers Conference & Technical Training Session. April 1999. *(Guest Lecturer)*

Sedimentation and Erosion Control Review Session. USDA. Natural Resource Conservation Service and CPESC (Certified Professionals in Erosion Control), Concord, NH. September 2001.

Buffer Strips as Storm Water Quality Controls. EnviroExpo, Boston. May 1999. *(Guest Speaker)*

Identifying Wetland Soils, Fauna and Flora. Municipal Inland Wetland Staff Technical Workshops. June 1999. *(Guest Speaker)*

Water Quality in the Quinnipiac River: A Symposium on the Impact of Non Point Source Pollution in the Quinnipiac River Watershed. November 1998. *(Presenter)*

Our Hidden Wetlands: Vernal Pools in Connecticut. Co-sponsored by CT DEP and the Center for Coastal and Watershed Systems. November 1997 and January 1998 *(Workshop Leader)*

Aquatic Invertebrate & Stream Ecology Workshop. Quinnipiac River Watershed Association Workshop Series. September 1997, May 1998, June 1999, January 2000 (*Workshop Leader*)

The Massachusetts Association of Conservation Commissions Third Annual Conference: Wetland Buffer Zones, March 1996 (*Guest Lecturer*)

16th Annual Conference of the Society of Wetland Scientists: Wetland Understanding, Wetland Education, May 1995 (*Presenter*)

Quinnipiac River Watershed Association Forum on Non-Point Pollution: Significance of Wetlands and Wetland Buffers, October 1992 (*Guest Lecturer*)

The Massachusetts Association of Conservation Commissions Second Annual Conference, April 1995 (*Guest Lecturer*)

The Society of Soil Scientists of Southern New England Riparian Buffer Zone Conference, November 1994 (*Presenter*)

Professional Resume: *(continued)*

George T. Logan, MS, PWS, CSE

SUPPLEMENTARY INFORMATION:

1996 to present

Rema Ecological Services, LLC
Principal Environmental Scientist/Ecologist, Co-Owner

- Founded the company to provide natural resources management, environmental planning, compliance and permitting services, and client advocacy throughout the Northeast.
- Has participated in nearly 2,900 individual projects since the company's inception, including six gas-fired, combined-cycle power plant projects, 18 utility-scale solar projects, over 100 bridge projects, numerous municipal projects, including over 30 school projects, several higher education projects, numerous wetland replacement projects, several new golf courses, and many large residential, industrial and commercial endeavors, including several distribution centers.
- Was the Interim Environmental Planner/Wetlands Agent for the Town of Waterford, Connecticut, during a ten-month tenure. Responsibilities included providing procedural and technical support to the town's Conservation Commission (a.k.a. Inland Wetlands and Watercourses Agency) and working closely with Planning Department staff.

1994 to 1996

Fugro East, Inc. *(Currently AECOM)*
Senior Project Manager/Environmental Scientist

- Office Manager for the firm's Connecticut office, responsible for day-to-day operations, marketing, and business development.
- Wetland delineations in accordance with state and federal criteria.
- Natural resource inventories of upland, wetland and aquatic ecosystems, specializing in wildlife habitat assessments.
- Preparation of environmental compliance documentation for over 100 projects including large-scale commercial development.

1993 to 1994

A.D. Marble & Company, Inc.
Senior Environmental Planner/Wildlife Biologist

- Participated in the management of major transportation improvement projects and in the preparation of environmental documents in accordance with the National Environmental Policy Act (NEPA) while continuing involvement in the collection of baseline field data.
- Application of the Pennsylvania Department of Environmental Resources (PADER) hierarchical methodology for the selection of suitable wetland replacement sites.
- Field verification of Threatened, Endangered or Special Concern species listed by the Pennsylvania Game Commission.
- Wetland boundary identification in accordance with the unified PADER and U.S. Army Corps of Engineers (USACOE) methodology.
- Participated in nearly 30 projects, mostly for major transportation corridors, such as the rehabilitation of the I-95 corridor in PA.

Professional Resume: *(continued)*

George T. Logan, MS, PWS, CSE

SUPPLEMENTARY INFORMATION *(continued)*:

1989 to 1993

Soil Science & Environmental Services, Inc.
Wildlife Biologist-Ecologist & Soil Scientist

- Project Manager responsible for field operations and report preparation for nearly 300 individual projects in over 75 towns in New England, including one town-wide wetland mapping, inventory and evaluation project (Town of Cromwell).
- Wetland boundary delineation according to state and federal criteria (e.g., Connecticut and Massachusetts Statutes, U.S. Army Corps of Engineers methodologies).
- Ecosystem analyses and biological inventories of upland areas, tidal and inland wetlands, estuaries, streams, rivers, ponds and lakes.
- Environmental impact evaluations, including site plan review, analyses of proposed impacts and design of mitigation strategies.
- Local, state and federal permitting for impacts to natural resources, including wetlands.
- Implementation of water quality monitoring programs for streams and rivers.
- Design, construction supervision, and monitoring of wetland enhancement, restoration and creation.
- Aquatic biosurveys of streams and rivers utilizing standardized methods (e.g., EPA Rapid Bioassessment Protocols).
- Detailed faunal surveys and censuses using both active and passive methods (e.g., direct and indirect observation, live-trapping, point count avian censuses, pellet counts, etc.).
- Expert witness testimony for court and administrative proceedings.

1988 to 1989

Independent Contracts
Soil & Wetland Scientist

- *Summer of 1988*: Was hired by the Town of Canton, CT, to identify, inventory, and evaluate wetlands and watercourses within the entire municipality. Was responsible for amending the municipality's *Official Wetland and Watercourses Map*.
- *Spring of 1988*: Was hired by the Connecticut Chapter of the Nature Conservancy to determine and report on the historic expansion of invasive plants (*Phragmites australis, Lythrum salicaria*) on eight TNC preserves. Scope included site visits, remote sensing using archived aerial photographs, and report.

TECHNICAL REPORTS:

Mr. Logan has completed over seventeen hundred comprehensive studies (e.g., Wetlands Assessments, Ecological Evaluations, Environmental Impact Analyses/Statements, Vernal Pool Investigations, Listed-Species Surveys & Management Plans, Aquatic Vegetation Surveys), and a variety of other specialized studies. A representative list, or examples of these technical reports can be provided upon request.

EX# 19

TOWN OF LEDYARD
CONNECTICUT
PUBLIC WORKS DEPARTMENT

741 Colonel Ledyard Highway
Ledyard, CT 06339
((860) 464-3238
pwd@ledyardct.org

November 26, 2025

Lambtown Road Ext Drainage Improvements (IWWC#25-19SITE)

Introduction:

As the Commission is aware, this work is situated in a sensitive spot. It has the potential of affecting an important environmental asset that not only bears aesthetic value but serves as a vital habitat for many types of animals, on permanent and seasonal bases. Central to this is the marsh complex formed many years ago by the damming up of Ed Lamb Brook.

This lengthy causeway serves also as the base for Lambtown Rd Extension, the right-of-way for which is under Town ownership. The Town is before you again seeking a permit for remediation of an inadequate and further failing discharge culvert and pipe under this causeway.

I'm aware that many residents are familiar with this road and have personally enjoyed its scenic and wildlife features. I have similar experiences, as well. I have directed family and others to this spot for its recreational value, and when I used to exercise regularly, living just around the corner, I chose Lambtown Rd Ext as part of my route.

I say this to dispel any notion that the Town would seek to detract in any way from the full health and wellbeing of this natural asset. Our intention to the contrary is to implement measures that would best ensure its security. Our goal, through years of standing by and fine-tuning our approach, is to even minimize any impacts during construction.

Background:

The discharge inlet structure at Lambtown Rd Ext for the marsh pond in the Ed Lamb Brook watershed was ill-designed and has been inadequate ever since installed. The Town has sought to appropriately manage and improve this situation.

Attached is summary package of information that shows that the Town has demonstrated proactivity about this, and that we have attempted to do this in good faith in meeting fundamental maintenance obligations. You will also see how we have been very accommodating in seeking to accomplish this.

By way of more specific history, here is a summary:

- In late 2001, I became aware of beaver activity at this discharge that only further aggravated matters there. I reached out to the adjacent property owner who was unwilling to allow removal of the beavers in accordance with existing environmental policies, which is the typical and most effective way of managing flooding threats to infrastructure and adjacent property.

In deferring to the property owner's refusal, I agreed to, and secured wetlands permit for, installation of beaver activity mitigation measures. These proved to be wholly inadequate as an intermediate, much less long-term, solution to the problem.

This was only compounded by iterative rounds of installation of the same measure. The non-functioning remnants of these remain as a monument to futility. Just as a note, at this time Lambtown Road Ext was open to and maintained year-round for vehicular traffic.

- As the failure of the flow leveling devices became evident over time and became unmaintainable, I addressed the matter to the Mayor in April 2008, with copies to the Wetlands and Conservation Commissions.
- March 2010 Flood: In mid-March of 2010, SE CT was hit with the worst flood in many years, with more than 7 inches of rain falling in a short span. The widespread damage was so great that associated repairs qualified for FEMA funds. You may recall that one of the biggest regional impacts was the washing out of the bridge over the Mystic River at Rt 184.

  In Ledyard, there were numerous locations that required repair, including a modest stretch of Lambtown Rd Ext that was damaged by overtopping due to the inadequacies of the drainage situation at the discharge of the marsh pond. The cost was several thousand dollars, but we were actually fortunate that the damage was leveled out and not concentrated in a narrow trench at the culvert, which would have drained the pond.

  Subsequently, the Town pursued a more robust option for dealing with the hydraulic needs at this culvert. Plans were developed in October 2010 that were rejected as an acceptable option and thus never formed the basis of a further remediation initiative.
- July 2013 IWWC Application: After further deliberation, the Town again approached the IWWC with an application for dealing with the inlet vulnerabilities to beaver activity. This involved a solution by Beaver Deceivers International that had been successfully applied in many locations. This initiative was withdrawn under opposition from the James Lamb Family Trust and others due to certain logistical concerns and a number of administrative technicalities.
- Private Maintenance: As part of the broader context, as far as the Town knows (through observation and hearsay), any maintenance being applied to the inlet (i.e., clearing of flow-way) has been on the part of private parties.

  Most recently, between November 14, 2025 and November 22, 2025 (the day of the field walk) someone other than Town forces altered the inlet area to the discharge drop inlet allowing freer flows. This dropped the water elevation by at least 6 inches amounting to a reduction in volume in my estimation of more than 3 million gallons. The Town received no complaints about this development.

Though I can't speak to the implications of this activity from a wetland's authorization standpoint, the Public Works Department finds this more ironic than problematic. We have verified that this has restored the water surface elevation to the original and appropriate baseline relative to the present outlet that has served as a benchmark for the present proposal.

Road Closure:

In parallel with seeking appropriate improvements to the pond discharge, the Town initiated dialogue concerning closure and possible abandonment of the road itself. This resulted in first the seasonal closure of the road to vehicular traffic, and then, by Town Council resolution, the permanent closure of the road to vehicular traffic as of March 26, 2014.

It presently remains open only to the infrequent use of Public Works vehicles and equipment and the rare occasion of emergency vehicles. Thus, there no longer remains any exposure to vehicular traffic of a routine, general public nature.

Present Circumstances:

At the end of February of this year, we were notified of an open hole located at the centerline of the road at the pond discharge culvert location. The corrugated metal pipe had partially failed and collapsed. Public Works mobilized and temporarily repaired the problem in the best way we could to allow structural integrity to be restored. It has held since then, and recent inspection indicated no signs of shifting.

However, this is simply an indicator that this pipe, as typical of so many older corrugated drainage pipes, is beyond the end of its useful life. The fact that this failure has occurred in one spot means that there could be other spots, as well. And the effected repair is only of a temporary patching nature. The pipe was not replaced in the area of failure, anticipating a comprehensive replacement.

This simply adds an additional vulnerability of this crossing to failure. The inlet remains inadequate and hampered by ongoing beaver activity. The proposal is intended to rectify both.

Proposal:

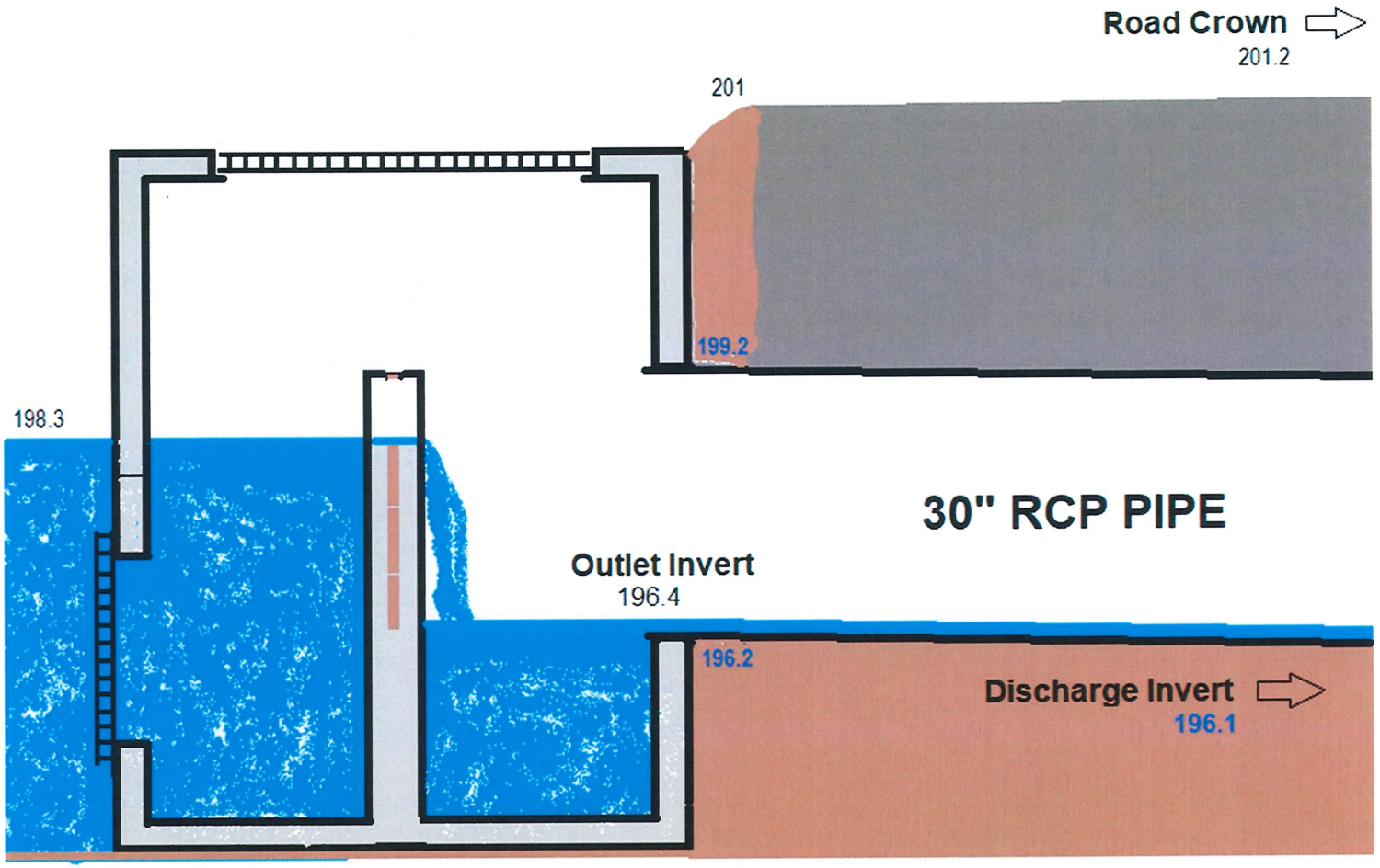
The proposed remediation was presented to the Commission on October 7th and classified as a class "B" activity. As I had explained, we would target execution of the project in the dry season. Also, as I explained, the design of the outlet structure was carefully derived in consultation with a concrete structure fabricator to meet existing hydraulic features while incorporating hydraulic principles that would accommodate beaver activity and maintain the baseline water level (see attached diagram), which neither the Trust nor the consulting firms it hired seem to understand.

Also, with the closure of the road to vehicular traffic, there is now more flexibility in locating the outlet structure closer to the centerline of the road and away from the pond itself. This affords the opportunity to install it dry, using the embankment as de facto sheeting, so to speak.

The intent is to install the entire assembly of structure and new pipe with the existing one running and then excavate the embankment sufficiently to expose the outlet structure to a full depth necessary for proper function. The weir boards, that are designed to be the pond elevation control feature, could be adjusted as necessary to meet the precise desired pond elevation.

For an in-house, non-bid, project, there is sufficient detail to accomplish this under proper oversight. As with many projects, there are potentialities that would have to be managed as they emerge (within the overarching intent to preserve pond conditions).

Steven E. Masalin, P.E.
Public Works Director



IWWC#25-19SITE Notional Functional Diagram of Proposed Inlet Structure

Lambtown Road Extension Marsh Outlet Drainage Infrastructure Background Info

TOWN OF LEDYARD
CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740
(Fax) (860) 464-1126

December 18, 2001

Mr. Edmund Lamb
47 Lambtown Road
Ledyard, CT 06339

Dear Mr. Lamb:

This is a follow-up to conversations we've had about the nuisance beaver situation at the discharge culvert of the marsh pond above Lambtown Road Extension.

The reason for the concern, and the basis for action on the part of the Town, is the threat to the road, specifically the potential of overtopping and/or breaching in the event of a heavy storm. The pond, the section of the road that serves essentially as a dam for the pond and areas downstream of the discharge from the pond are officially within flood zone, and thus are already susceptible to particular impacts from heavy rains. The Town must act in keeping with its fundamental responsibility to road and resident safety.

In light of the situation, in late October I met on site with a biologist from the CT Department of Environmental Protection. He assessed the situation and gave me information on beavers and options of dealing with nuisance problems. I have attached a copy of the package he left with me for your review. It includes information on the various options available.

As conveyed to you, the Town's position and desire is that the beavers be removed from the area. This is based on what would be reasonable to the taxpayers and would also be the most effective way of restoring the discharge culvert to its previous function and of ensuring proper long-term maintenance. Accordingly, if any measure short of removal of the beavers were to be pursued, those interested would be responsible to bear the full installation cost and long-term maintenance burden and costs. This position has been confirmed with the Mayor.

I have also attached a copy of an application for a wetlands permit. I verified with the Wetlands Official that if a special drainage measure were to be installed at the outlet, a permit for the installation activity would be required. You would have to submit your plans to the Wetlands Commission for review and approval.

I have also contacted the Town Attorney to address liability issues relative to the costs of road damage or repair related to inadequacies at the pond discharge related to beaver activity, whether presently in the partially clogged condition or in the future in the event of failure, improper maintenance, or inadequacy of a special drainage measure installed. I will convey this information to you when I receive it.

Sincerely:

Steve Masalin
Public Works Director

cc: Mayor (w/o attachments)

TOWN OF LEDYARD
CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740
(Fax) (860) 464-1126

December 19, 2001

Mr. Edmund Lamb
47 Lambtown Road
Ledyard, CT 06339

Dear Mr. Lamb:

I had an opportunity to talk to the Town Attorney yesterday concerning the liability issue relative to road damage or repair attributable to inadequacies at the pond discharge related to beaver activity. The Town bears fundamental liability for everything in, on, or under right-of-ways for accepted Town roads. In order for any portion of the liability burden to be shifted to another entity, a contract or agreement, explicitly describing the details of the transfer, would have to be executed. Short of pursuing its desire to completely eliminate the source of the present threat, the Town would tenaciously seek through the terms of the agreement to preserve road and public safety and limit taxpayer liability.

Sincerely:

Steve Masalin
Public Works Director

cc: Mayor

TOWN OF LEDYARD
CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740
(Fax) (860) 464-1126

January 9, 2002

Mr. Edmund Lamb
47 Lambtown Road
Ledyard, CT 06339

Dear Mr. Lamb:

This is a follow-up to the nuisance beaver situation at Lambtown Road Extension, with respect to the information I had previously provided. I hope you found it adequate in further evaluating options in seeking a solution to the present unsatisfactory condition that exists at the affected culvert. I would like to move forward with a plan for acceptable resolution soon. Please contact me by Friday, January 18, 2002, to discuss your desires and intentions.

Sincerely:

Steve Masalin
Public Works Director

cc: Mayor

TOWN OF LEDYARD
CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740
(Fax) (860) 464-1126

January 31, 2002

Mr. Edmund Lamb
47 Lambtown Road
Ledyard, CT 06339

Dear Mr. Lamb:

Thanks for getting back to me the week of January 14; I'm sorry I missed your call so we could have directly discussed plans for resolution of the beaver activity issue. As I mentioned in my follow-up phone message, the solution you expressed will not satisfy the Town's requirements. For purposes of reiteration and clarification, the Town is seeking resolution of the problem through one of two alternatives: 1) removal of the beavers (preferred), or 2) installation and maintenance of a preengineered drainage measure of a nature described in, and in keeping with, previous correspondence.

Though there seems to be some stability in the situation at this point, this is appears to be due to the limitations on beaver movement due to winter. However, spring will arrive soon, and aggressive beaver activity will resume. Additionally, the present condition of the drainage structure at the culvert under Lambtown Extension needs attention, even apart from the present beaver activity.

Nothing has changed; the present method of addressing the problem is inadequate, and no acceptable alternative to removing the beavers has been presented to the Town. I am particularly concerned about the potential for an unusually heavy storm rainfall as soon as this spring, in light of the large deficit in rainfall we have seen locally over the last year. Action must be planned soon.

Sincerely:

Steve Masalin
Public Works Director

cc: Mayor
Tom Wilson, Esq., Town Attorney
Mrs. Weber

March 13, 2002

Steve Masalin
Public Works Director
Town of Ledyard
741 Colonel Ledyard Hwy.
Ledyard, CT 06339

Dear Mr. Masalin,

Thank you for requesting a consultation on how the latest technology in water flow control devices can provide long-term solutions to flooding caused by beavers.

The *Beaver Remedies* program was developed because of complaints from town highway department staff, wetlands agents and homeowners about beaver impacts such as flooding and feeding on trees. We understand how road crews have difficulty fulfilling their responsibilities because of the manpower required to maintain water flow through culverts in active beaver habitat areas. In addition to labor costs, your budget also may be negatively impacted by equipment costs from continually lifting grates and removing debris.

Trapping does not provide a long-term solution because beaver from the surrounding area soon move into vacated habitat. In contrast, the water flow control device **does** provide a long term solution by controlling the water level which prevents flooding, prevents damage to the infrastructure, while allowing the beavers to stay in the habitat. The technology works by tricking the beavers' natural instincts to plug holes where they hear and feel the flow of water.

Skip tells me that your area contains a culvert blocked off in front by a dam. We understand that you would like to install a water flow control device to manage the water level and allow the beavers to stay in the surrounding area. *Beaver Remedies* is confident we can offer you a solution to the problem of the blocked culvert.

We recommend the installation of a flex pipe through the culvert. The culvert will be fenced off and the inlet ends of the pipes will be protected by a large basket made of concrete reinforcement wire.

In order to provide you with details for budgeting, I have broken the costs down in several ways:

1. Assembly and Installation of one water flow control device in the culvert (fee includes materials)	**$375.00**

2. If the **Town provides the materials,** we can provide an itemized list. You can then deduct this amount from the total.	($150.00)

The installation also includes two follow-up site inspections during the first year to ensure that it is working properly.

The Town will be responsible for obtaining permission to cross any adjacent private property and to get any permits, if applicable, from the Wetlands Commission.

The Town must agree, in writing, to indemnify the Fund and hold it harmless from any claims, damages, and expenses, including reasonable attorney's fees, that may be incurred on account of any claim based on or arising out of the performance of the work or the installation of equipment described herein. Alternatively, the Association may arrange for The Fund for Animals to be named as an Additional Insured on any new or existing liability policy broad enough to cover the project.

We will inspect the site once during the first year to ensure that the device is working properly, however we cannot be held responsible for vandalism and catastrophic natural events. Spring run-off may result in periodic flooding that would normally occur. Please notify us immediately if you have any problems with the device.

Minimal routine maintenance will be required to keep the water flow device clear of normal debris, especially after spring run-off and fall leaves. We will expect your staff to do this minimal maintenance unless you would like a maintenance agreement with The Fund For Animals.

We would also like to suggest using signage to educate the community about the projects. People sometimes mistake the water flow devices for "beaver traps" and vandalize them. We can provide you with sample wording for such signage if you desire.

If you should have any further questions or need further information, please feel free to contact me at (203) 389-4411.

Sincerely,

Becca DeWeerdt

Becca DeWeerdt
Urban Wildlife Program Assistant

TOWN OF LEDYARD
INLAND WETLANDS AND WATERCOURSES COMMISSION (IWWC)
APPLICATION FOR PERMIT (Or Commission ruling that a permit is not needed)

Application No. 6-02

Receipt Date 3-26-02

123

Date Submitted _____

Applicant/ Agent STEVEN E. MASALIN

Owner (if different) TOWN OF LEDYARD, CT

Address 741 COL LEDYARD HWY, LEDYARD, CT

Address of Owner _____

Telephone 464-3255

Telephone _____

- **I have received information on the Army Corps of Engineers permit procedure.**
- **I have read and have included all the application and site plan requirements in Section 8.0 of the IWWC Regulations**
- **I have read the attached "Notice to all Applicants" and understand my responsibilities relative to timely submittals of information.**

Steven E Masalin Wesley A. Johnson, Sr.

Signature of Applicant/Agent

****

Location of Property Lambtown Road Extension Right-of-Way

Tax Assessor's Map No. 140

Zoning District R-60

Written Description of Proposed Activity Installation of a flow-control measure at the culvert that serves as the discharge of the marsh pond fed by Ed Lamb brook. This is to deal with nuisance beaver activity.

Total Area of Site _____

Total Area of Wetlands per Official Inventory Map _____

Amount of Fill, in Cubic Yards None

Disturbed Area, in Square Feet 25 or in Acres _____

Area Increase/Decrease in Wetlands _____ (For Map Amendment Only*)

Soil Types from USDA Soil Survey _____

General Description of Vegetative Cover Roadside vegetation/shoreline

FOR CLASSIFICATION PURPOSES:
1. Attach sketch map showing property and area of proposed activity.

***REQUIRED PLOT PLAN INFORMATION:**
1. Flagged Wetlands Signed by Soil Scientist.
2. Signature of Surveyor, and Dated.

****

Name and Address of Adjacent Property Owners

JULIA A. WEBER 46,57 LAMBTOWN RD EXT

LAMB FAMILY TRUST 40,60 LAMBTOWN RD

Anticipated Start Date 4/02 Completion Date 5/02

List previous IWW application #'s _____

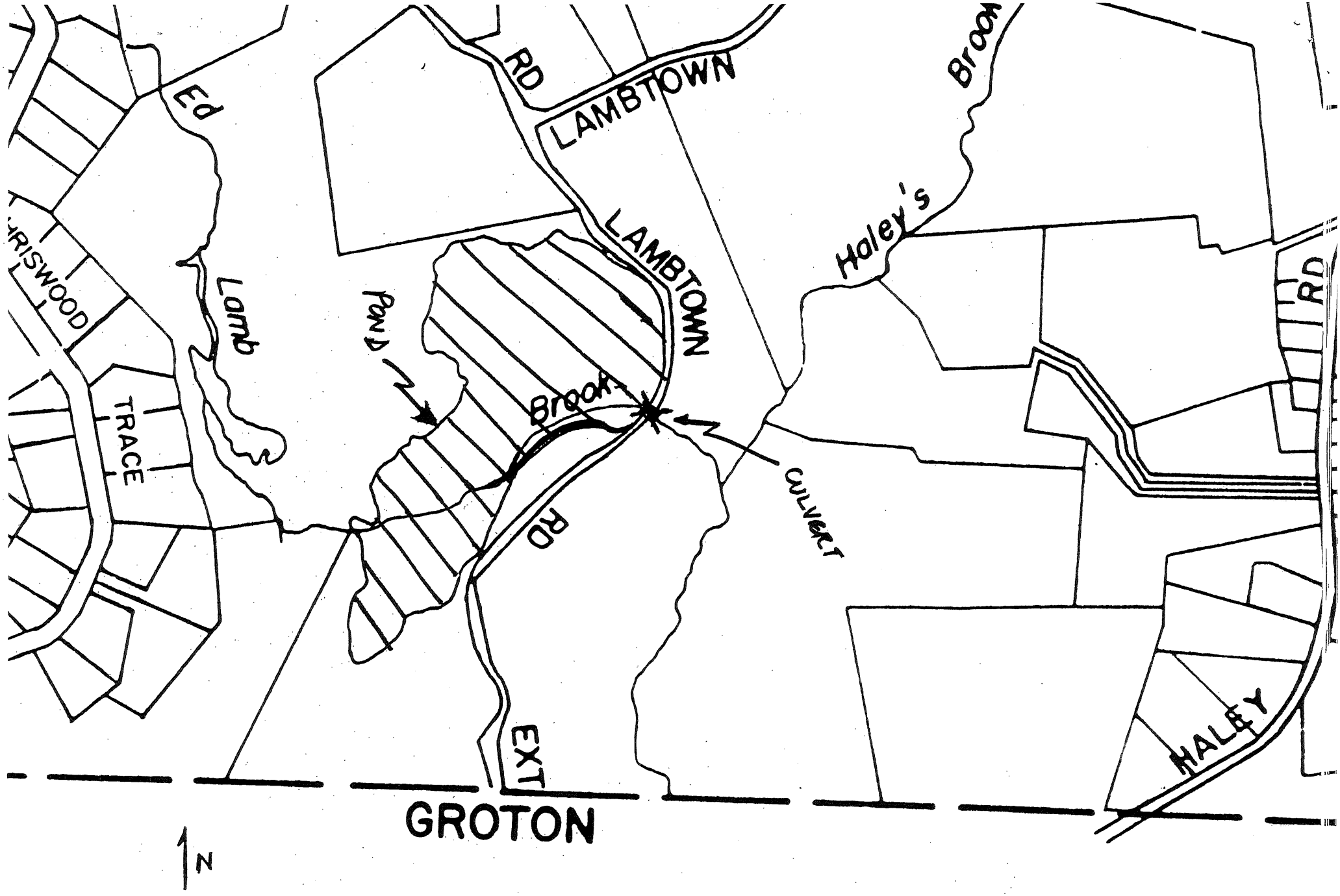
IWW Commission Disposition: IWWC Regulations; Section _____ Classification _____

_____

_____ _____

Signature of Chair

FEE: _____ + $10.00 State Fee = _____ **DATE PAID** _____ **RECEIPT #** _____ 12/12/01

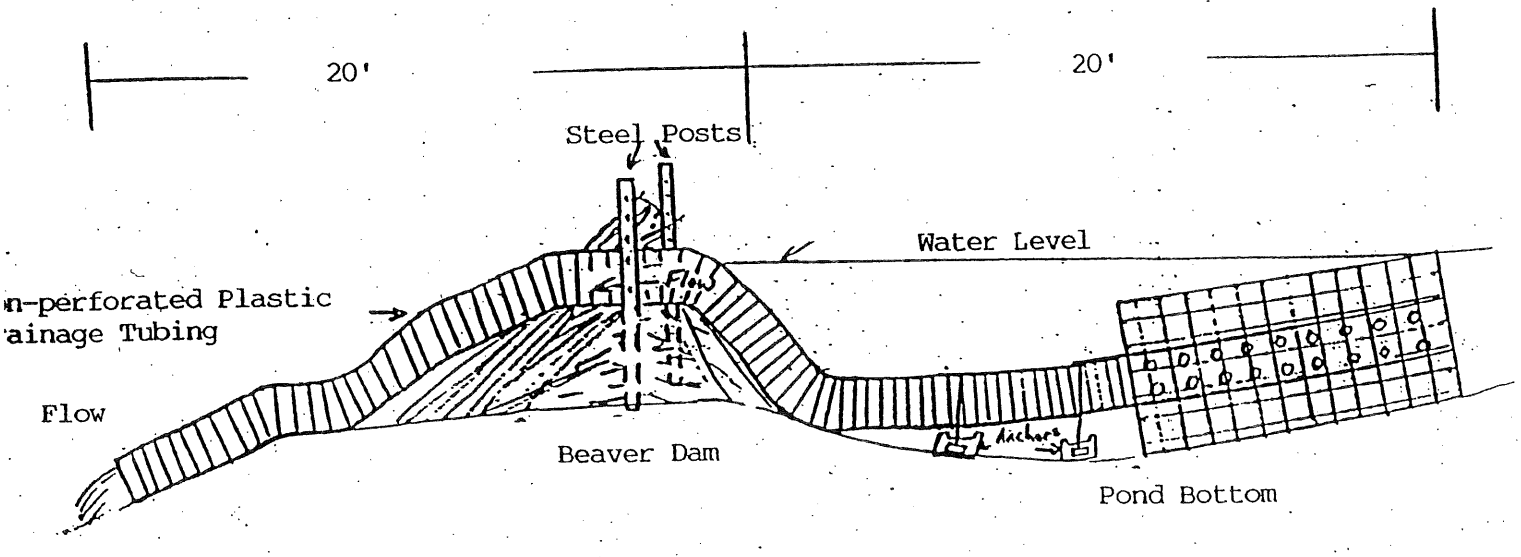

Ed
RD
LAMBTOWN
Brook
Haley's
LAMBTOWN
RD
Lamb
Pond
Brook
TRACE
RD
CULVERT
EXT
HALEY
GROTON
N

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Chris Thurlow, *Manager*

Central District Beaver Pond Leveler



Central Wildlife District
Temple Street, West Boylston, Massachusetts 01583 (508) 835-3607
An Agency of the Department of Fisheries, Wildlife & Environmental Law Enforcement

TOWN OF LEDYARD

Inland Wetlands and Watercourses Commission
Ledyard, Connecticut

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740 (Ext. 216 or 240)
(860) 464-1126 (Fax)

To: Planning Commission

From: Lee Treadway, IWWC Official

Re: IWWC Application #6-02, Steve Masalin, Town Engineer/Director of Public Works (agent/applicant), Town of Ledyard (property owner), Lambtown Road Extension Right-of-Way, Flow control measure at existing culvert relative to nuisance beaver activity.

Date: April 10, 2002

Wetlands application #6-02 was classified "B" and approved by the commission at there regularly scheduled meeting on April 2, 2002.

cc: File #6-02
Steve Masalin, Town Engineer/Director of Public Works

TOWN OF LEDYARD

Inland Wetlands and Watercourses Commission
Ledyard, Connecticut

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740 (Ext. 216 or 240)
(860) 464-1126 (Fax)

LEGAL NOTICE
INLAND WETLANDS AND WATERCOURSES COMMISSION
NOTICE OF DECISION

At their regularly scheduled meeting of April 2, 2002, the Ledyard Inland Wetlands and Watercourses Commission rendered the following decision:

Application #6-02, Steve Masalin, Town Engineer/Director of Public Works (agent/applicant), Town of Ledyard (property owner), Lambtown Road Extension Right-of-Way, Flow control measure at existing culvert relative to nuisance beaver activity. **APPROVED.**

Copies of the application and decision are available for inspection in the Zoning and Wetlands Office, Ledyard Town Hall, 741 Colonel Ledyard Highway, Ledyard, CT.

FOR THE COMMISSION,

Lynmarie Thompson/L.G.

Lynmarie Thompson, Chair

RECEIVED FOR RECORD
AT LEDYARD, CT.
02 APR 10 AM 11:32
Patricia L Kellam

PLEASE PUBLISH IN THE "THE DAY"
FRIDAY, APRIL 12, 2002

TOWN OF LEDYARD
CONNECTICUT

741 Colonel Ledyard Highway
Ledyard, CT 06339-1541
(860) 464-8740
(Fax) (860) 464-1126

April 15, 2002

Ms. Becca DeWeerdt
The Fund for Animals, Inc.
P.O. Box 3665, Amity Station
New Haven, CT 06525

Re: Flow Control Device Installation

Dear Ms. DeWeerdt:

I have collected all the requisite approvals and documentation to proceed with the installation of the proposed flow control device at Lambtown Road Extension. I have enclosed a purchase order for the work, as proposed, and copies of other relevant documentation. I have reviewed the paperwork you sent me on suggested signs. At this time we will hold off, but will probably discuss the matter further at the point of installation. Please contact me to coordinate scheduling. You may reach me at 860-464-3255. Thanks.

Sincerely,

Steve Masalin
Public Works Director

cc: Mayor
Inland Wetlands & Watercourses Commission
Ed Lamb

The Fund for Animals
we speak for those who can't

Urban Wildlife Office PO Box 3665 Amity Station, New Haven, CT 06525
T 203 393 1050 | T 203 389 4411 | F 203 389 5544
www.fund.org

Founder
Cleveland Amory

President
Marian Probst

Urban Wildlife Director
Laura Simon

Wildlife Program Assistant
Becca DeWeerdt

June 23, 2003

Mr. Steve Masalin
Public Works Director
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Dear Mr. Masalin,

We are pleased to be able to further assist you in solving your beaver problems. Skip tells me that the water level has risen a few inches at your site, and we need to add another flex pipe in order to increase the water flow.

The estimated cost of installation is as follows:

1. Assembly and Installation of water flow device (fee includes materials)	**$218.20**

If the Town would like to supply the materials, the total cost of the installation would be **$140.60**, and the following materials would be required:

- One and a half (1 1/2) 20-foot sections of 8" single wall perforated flex pipes
- 3 sheets of concrete reinforcement wire
- One (1) street sign post

Please understand that this figure is an estimate, and the actual price may vary somewhat depending on the materials used, logistical complications, or any additional time needed for installation. The installation also includes one follow-up site inspection during the first year to ensure that it is working properly.

The Town will be responsible for obtaining permission to cross any adjacent private property and to get any permits, if applicable, from the Wetlands Commission.

The Town must agree, in writing, to indemnify the Fund and hold it harmless from any claims, damages, and expenses, including reasonable attorney's fees, that may be incurred on account of any claim based on or arising out of the performance of the work or the installation of equipment described herein. Alternatively, the Town may arrange for The Fund for Animals to be named as an Additional Insured on any new or existing liability policy broad enough to cover the project. I have included a sample letter of

indemnification should the Town wish to sign that. **The Fund For Animals must receive either document *before* the scheduled date of installation.**

We will inspect the site once during the first year to ensure that the device is working properly, however we cannot be held responsible for vandalism and catastrophic natural events. Spring run-off may result in periodic flooding that would normally occur. Please notify us immediately if you have any problems with the device.

Minimal routine maintenance will be required to keep the water flow device clear of normal debris, especially after spring run-off and fall leaves. We will expect your staff to do this minimal maintenance unless you would like a maintenance agreement with The Fund For Animals.

If you should have any further questions or need further information, please feel free to contact me at (203) 389-4411.

Sincerely,

Becca DeWeerdt
Wildlife Program Assistant

THE HUMANE SOCIETY OF THE UNITED STATES®

June 1, 2007

Mr. Steve Masalin
Public Works Director
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Dear Mr. Masalin,

As you know, Skip Hilliker was out at your problem beaver site last month and did determine that the device he installed several years ago needs to be replaced. I know Skip does not intend to install the new device for a few months, but I wanted to go ahead provide you with the written estimate now.

Skip recommends removing the existing device, fencing off the culvert, and inserting one 8"-diameter pipe and one 12"-diameter pipe through the fencing and into the culvert.

The estimated cost of installation of the water flow control device is **$286.90**. Please understand that this figure is an estimate, and the actual price may vary somewhat depending on the materials used, logistical complications, or any additional time needed for installation.

We ask that you be responsible for obtaining permission to cross any adjacent private property, as well as any permits deemed applicable by your town's Wetlands Commission.

We also require an agreement in writing that indemnifies The Humane Society of the United States and holds it harmless from any claims, damages, and expenses, including reasonable attorney's fees, that may be incurred on account of any claim based on or arising out of the performance of the work or the installation of equipment described herein. Alternatively, you may arrange for The Humane Society of the United States to be named as an Additional Insured on any new or existing liability policy broad enough to cover the project. For your convenience, I have enclosed a general liability waiver that many towns and homeowners have elected to use in the past. Please note that The Humane Society of the United States must receive either document *before* the scheduled date of installation.

We will inspect the site once during the first year to ensure that the device is working properly, however we cannot be held responsible for vandalism, modifications made by outside parties, and catastrophic natural events. Spring run-off may result in periodic flooding that would normally occur.

Minimal routine maintenance will be required to keep the water flow device clear of normal debris, especially after spring run-off and fall leaves. We will expect you to do this minimal maintenance unless you would like a maintenance agreement with The Humane Society of the United States.

The HSUS offers yearly maintenance contracts for our water flow control devices at a cost of $175/year. Under a maintenance agreement, the HSUS will periodically monitor the device to make sure it has not been damaged, and clear any debris that has accumulated around the device.

The HSUS will guarantee the water flow control device for one year *provided that the HSUS performs the maintenance on the device.* If for any reason the device is damaged or does not meet your satisfaction, we will either fix the device at no cost to you, or refund you the initial cost of labor for the installation of the device.

Please let us know if you have any questions. You can reach us at 203-389-4411.

Sincerely,

Becca DeWeerdt

LIABILITY WAIVER

I, Steven E. Mashlin, STEVEN E. MASHLIN LEDYARD PUBLIC WORKS DIRECTOR, agree to indemnify The Humane Society of the United States and hold it harmless from any claims, damages, and expenses including reasonable attorney's fees that may be incurred on account of any claim based on or arising out of the performance of the work or the installation of equipment described in the letter from The Humane Society of the United States dated June 1, 2007. In addition, The Humane Society of the United States cannot be held responsible for vandalism, modifications made by outside parties, catastrophic natural events, or periodic flooding that would naturally occur as the result of spring run-off.

TOWN OF LEDYARD

Memorandum:

To: Fred B. Allyn, Jr., Mayor

From: Steve Masalin, Public Works Director SM

Date: April 8, 2008

Re: Lambtown Road Extension Predicament

cc: Inland Wetlands & Watercourses Commission, Conservation Commission

---

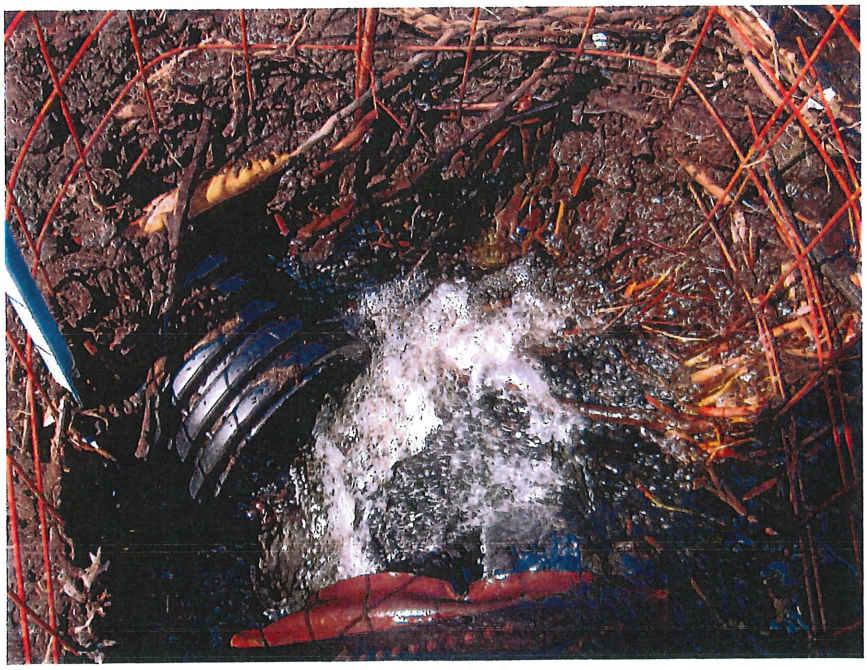
The purpose of this memo is to bring your attention to the ongoing impacts of beaver activity at the discharge culvert of the marsh pond at Lambtown Road Extension, including the imminent threats to public access, the water bodies themselves, and the watershed. I have attached some of the prior paper trail addressing this matter to provide context.

As you see from the attached documentation, this issue became prominent in 2001. It became evident sometime in mid-2001 that the existing rudimentary wooden control structure at the inlet of the discharge culvert was being compromised by beaver activity in a way that needed consistent, ongoing maintenance. At the time, this maintenance activity was being undertaken by the property owner, Mr. Edmund Lamb. I entered into a dialog with Mr. Lamb as an advocate for the Town's and taxpayers' legitimate interests relative to road safety/access and flooding.

Mr. Lamb was averse to removal of the beavers, so we agreed to implement measures that would allegedly preserve adequate discharge flow capacity in spite of beaver presence and activity. I acquired a wetlands permit for the measures, and Mr. Skip Hilliker, acting as an agent of The Fund for Animals at the time, installed them at Town expense. Mr. Hilliker is still the liaison for ongoing maintenance of the measures, though these efforts now fall under the cognizance of The Humane Society of the United States.

Since the original installation of the flow control devices several years ago, progressive deterioration of the effectiveness and capacity has resulted in a greater threat condition today than originally. Over time, the original installation silted in and had to be replaced with a new, lower capacity arrangement of piping. Additionally, the absolute area of the opening at the discharge culvert inlet is severely reduced. I am not engaging in hyperbole when I say that a catastrophic washout of the roadway at the discharge culvert is likely only one big storm away. Less than a year ago, the runoff of only a modest storm event caused a significant washout that breached about seven feet of the road. Efforts of the property owner to stabilize the situation were followed up by an overtime effort by Town forces using heavy equipment to restore the road and discharge area.

The following photographs taken April 7, 2008 should help give a visual impression of the current situation; a site walk would be most effective.



The black plastic pipes and the mesh fencing visible in the pictures constitute the device. In combination, they are intended to ensure a certain residual amount of flow capacity even in the presence of beaver activity. The mesh keeps the beavers away from the discharge pipe inlet and the black flex pipe allows continuous flow from the pond to the discharge inlet. The capacity of the flow device is dictated by the combined capacities of the black pipes and the degree to which the black pipes are free of silt and other obstructions. In the event of excessive flows, the pond level would rise to the point of overflowing directly into the mesh area. This overflow level depends on the height of obstructions (beaver berm) around the mesh area. A careful examination of the pictures shows that pond water is discharging via a low spot in the berm close to the road. What one cannot see is that the large black pipe is plugged and only the two small pipes parallel to the road are conveying any water. The pictures also show the placement of hay bales to stabilize an area that had started washing out again during a recent storm event. They were placed by a resident who has also been periodically clearing some of the daily debris packed against the structure by beavers.

Coupled with the risk to the road imposed by the activity is the potential for substantial wetlands and watercourse damage that a road washout would cause. If the road failed, the pond would almost fully drain, exposing downstream properties to flooding, and filling the immediate discharge stream and wetlands areas with the gravel tailings. Displaced stone and gravel from the most recent partial washout are evident in the pipe discharge area.

Particularly in light of the Town's liability in this matter, I recommend that this situation be addressed comprehensively at this point. A meeting of appropriate parties should be convened very soon to seek a consensus on a plan of action that more effectively addresses this predicament, in light of the threat and the complexity. I see at least three possibilities:

1. Replace the existing culvert and outflow device with one of more robust construction, and remove the beavers.
2. Replace the existing culvert and outflow device with one of more robust construction that can better withstand beaver activity, and which can be more readily and permanently maintained. This option may involve a legal agreement over liability with the property owner.

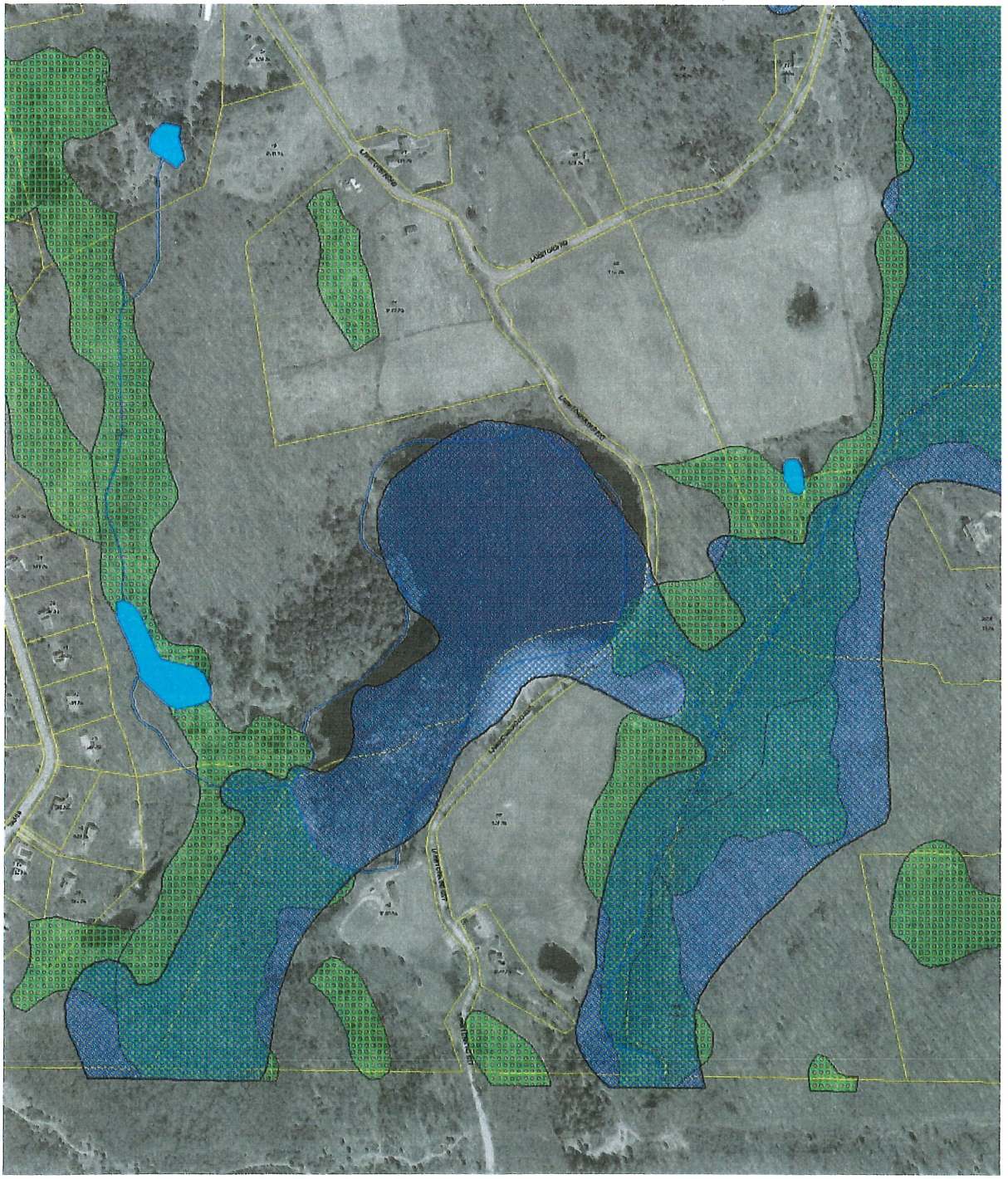
   The material cost of each of the above alternatives is likely to be at least modest.
3. Return Lambtown Road Extension to private ownership. The Town originally took public ownership of the road in 1858 (see Land Records, Vol. 3, pg. 171). This would strictly address the Town road liability issue, and leave it to the property owners to address the practicalities of beaver activity to their satisfaction (within the context of wetlands commission oversight).

Beyond the immediate threat relative to Lambtown Road Extension, the problem will likely spread to other areas of the Haley's Brook watershed. On this point, I believe that the Town of Groton has already had to deal with the impacts of beaver activity downstream of the pond at culverts for Haley's Brook under Quaker Farm Road. In the Town of Ledyard there are two upstream culvert crossings under Lambtown Road associated with Haley's Brook that could be affected by beaver activity in the watershed.

Town of Ledyard

Geographic Information System (GIS)

Date Printed: 09-Apr-2008



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Ledyard and its mapping contractors assume no legal responsibility for the information contained herein.

Scale 1 inch = 537 feet

N
W E
S

138

Town of Ledyard

Geographic Information System (GIS)

Date Printed: 09-Apr-2008

MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Ledyard and its mapping contractors assume no legal responsibility for the information contained herein.

Scale 1 inch = 511 feet

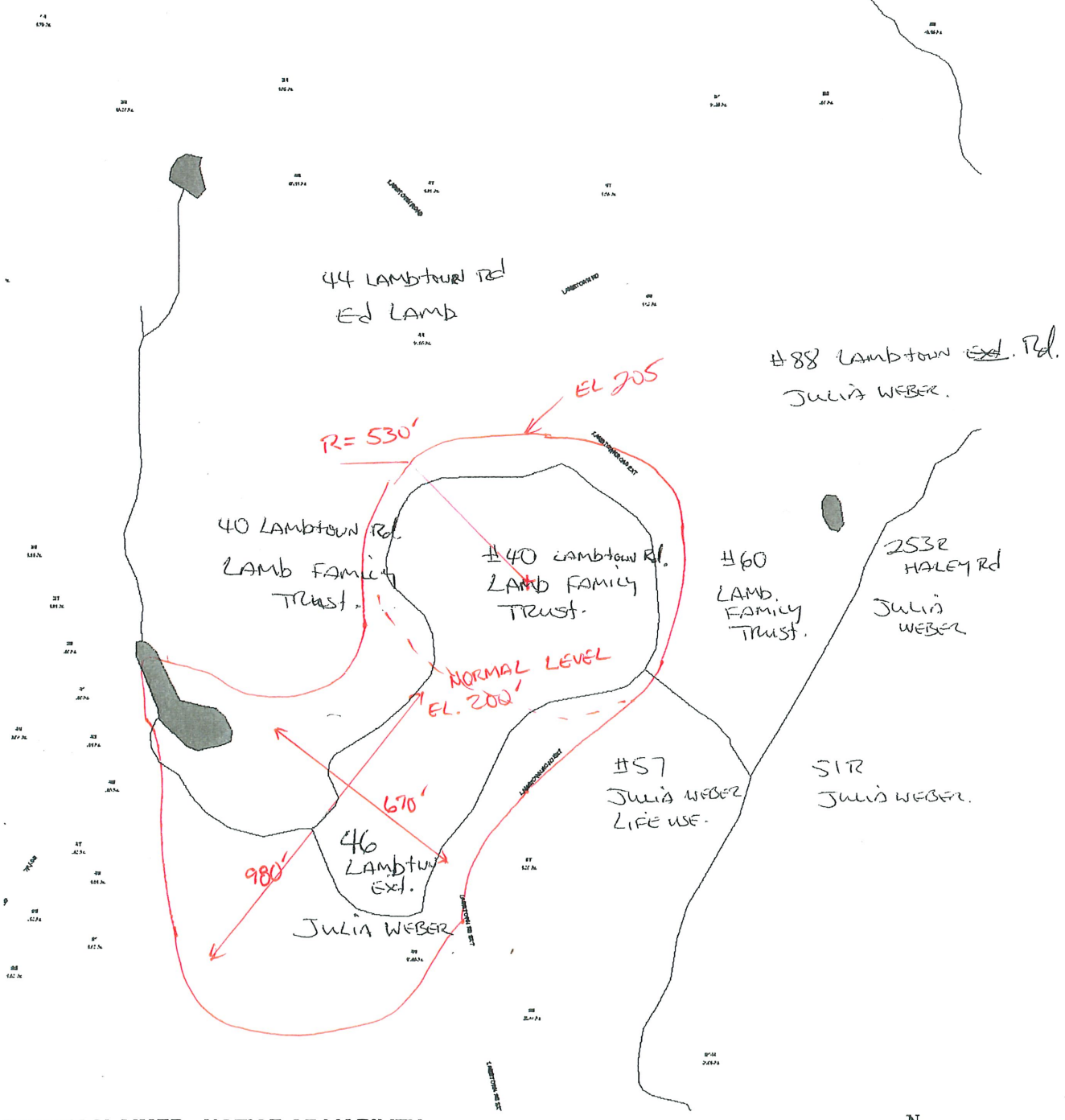
N
W E
S

139

Town of Ledyard

Geographic Information System (GIS)

Date Printed: 09-Apr-2008



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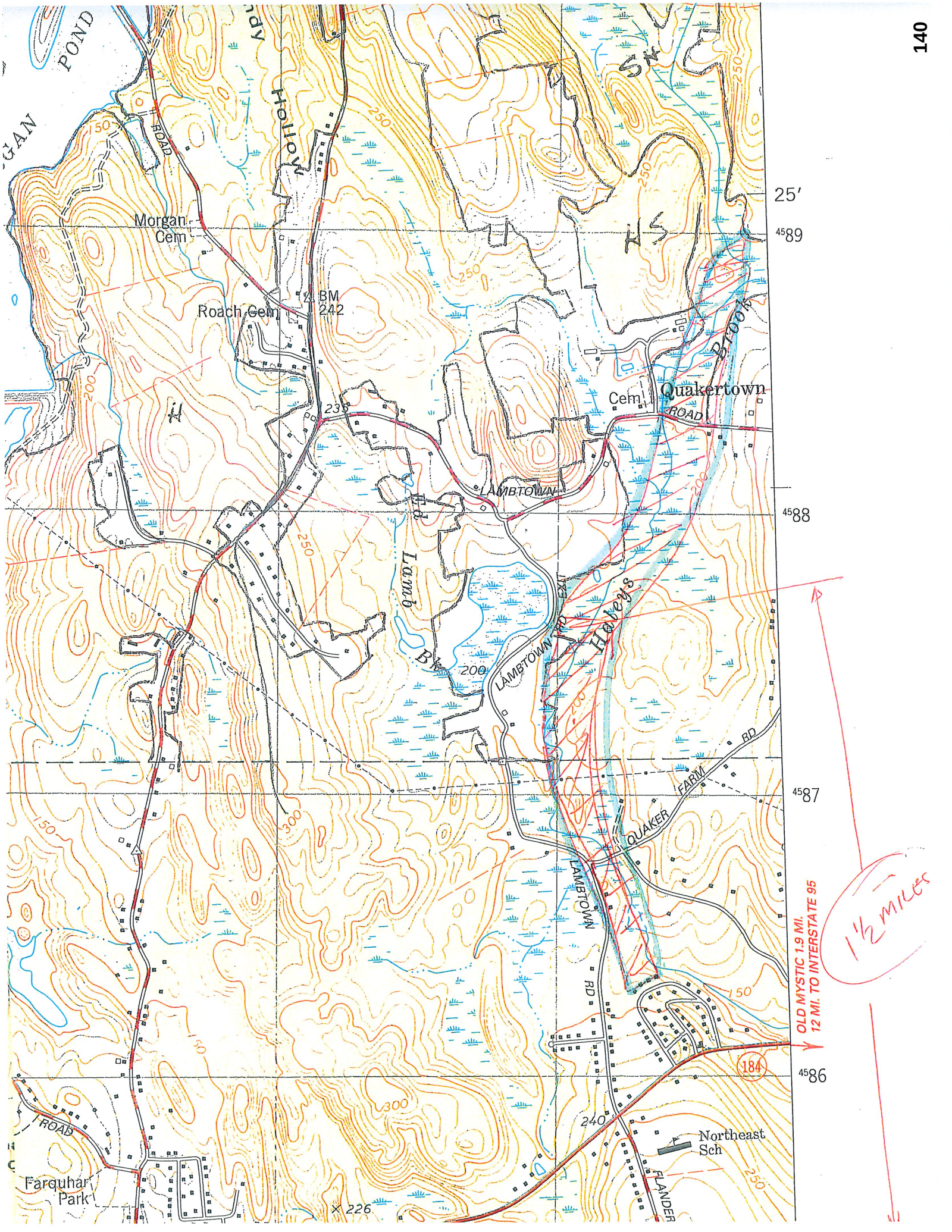
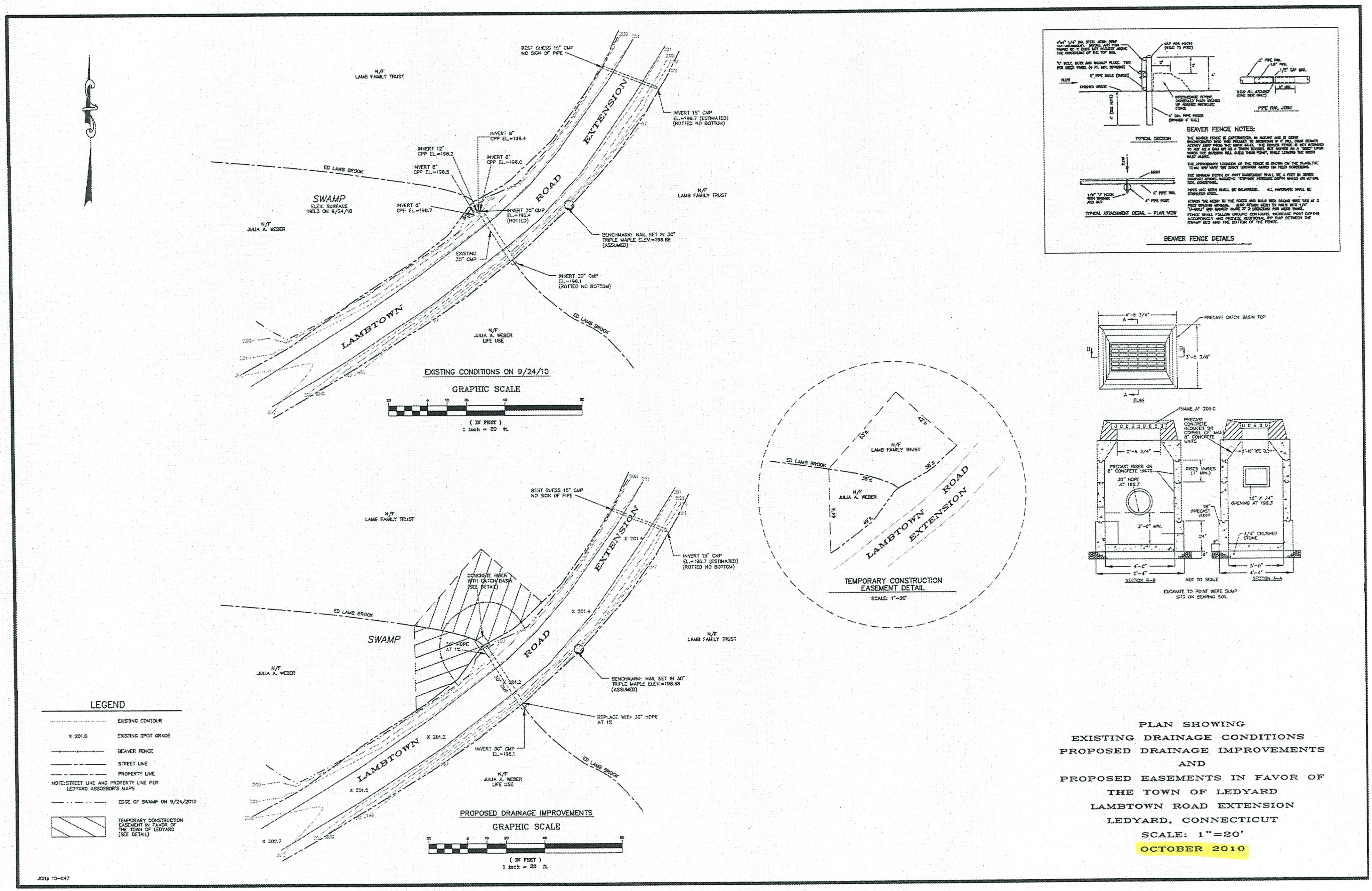
Scale 1 inch = 511 feet

N
W E
S


25'
4589
4588
4587
4586
Morgan Cem
Roach Cem
BM 242
Quakertown Cem
Quakertown ROAD
LAMBTOWN
LAMBTOWN RD
Haleys
Lamb Br
Brooks
QUAKER FARM RD
LAMBTOWN RD
FLANDER
Northeast Sch
Farquhar Park
ROAD
Hollow
POND
OLD MYSTIC 1.9 MI.
12 MI. TO INTERSTATE 95
1½ MILES

Photos of March 2010 Flooding Event


N/F LAMB FAMILY TRUST
BEST GUESS 15" CMP NO SIGN OF PIPE
EXTENSION
ROAD
LAMBTOWN
INVERT 15" CMP EL.=196.7 (ESTIMATED) (ROTTED NO BOTTOM)
INVERT 8" CPP EL.=198.4
INVERT 12" CPP EL.=198.2
INVERT 8" CPP EL.=198.0
INVERT 8" CPP EL.=198.5
INVERT 8" CPP EL.=198.7
INVERT 30" CMP EL.=196.4 (ROTTED)
ED LAMB BROOK
SWAMP
ELEV. SURFACE 195.3 ON 9/24/10
N/F JULIA A. WEBER
EXISTING 30" CMP
BENCHMARK: NAIL SET IN 30" TRIPLE MAPLE ELEV.=198.68 (ASSUMED)
INVERT 30" CMP EL.=196.1 (ROTTED NO BOTTOM)
N/F JULIA A. WEBER LIFE USE
EXISTING CONDITIONS ON 9/24/10
GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.
CONCRETE RISER WITH CATCH BASIN (SEE DETAIL)
30" HDPE AT 1%
REPLACE WITH 30" HDPE AT 1%
INVERT 30" CMP EL.=196.1
PROPOSED DRAINAGE IMPROVEMENTS
TEMPORARY CONSTRUCTION EASEMENT DETAIL
SCALE: 1"=20'
BEAVER FENCE NOTES:
TYPICAL SECTION
TYPICAL ATTACHMENT DETAIL – PLAN VIEW
PIPE RAIL JOINT
BEAVER FENCE DETAILS
PRECAST CATCH BASIN TOP
FRAME AT 200.0
PRECAST RISER OR 8" CONCRETE UNITS
30" HDPE AT 195.7
15" PRECAST SUMP
15" X 24" OPENING AT 195.3
3/4" CRUSHED STONE
SECTION B–B
SECTION A–A
NOT TO SCALE
EXCAVATE TO POINT WERE SUMP SITS ON BEARING SOIL
LEGEND
EXISTING CONTOUR
x 201.0 EXISTING SPOT GRADE
BEAVER FENCE
STREET LINE
PROPERTY LINE
NOTE: STREET LINE AND PROPERTY LINE PER LEDYARD ASSESSOR'S MAPS
EDGE OF SWAMP ON 9/24/2010
TEMPORARY CONSTRUCTION EASEMENT IN FAVOR OF THE TOWN OF LEDYARD (SEE DETAIL)
JOB# 10-047
PLAN SHOWING
EXISTING DRAINAGE CONDITIONS
PROPOSED DRAINAGE IMPROVEMENTS
AND
PROPOSED EASEMENTS IN FAVOR OF
THE TOWN OF LEDYARD
LAMBTOWN ROAD EXTENSION
LEDYARD, CONNECTICUT
SCALE: 1"=20'
OCTOBER 2010

TOWN OF LEDYARD
CONNECTICUT
CONSERVATION COMMISSION

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3203
FAX (860) 464-1485
E-Mail Address:
council@town.ledyard.ct.us

May 24, 2011

Mr. Steve Masalin, Director
Town of Ledyard
Public Works Department
741 Colonel Ledyard Highway
Ledyard, Connecticut 06339

Re: Beaver Issue on Lamb property

Dear Mr. Masalin:

The Conservation Commission is aware of the beaver issue on the Lamb property. We have discussed the current situation with Mr. Lamb and observed the draft plans that were proposed to rectify the situation. We have a couple of comments.

- We would like to review the detailed plans for rectifying the beaver issue
- We need to keep high quality bird habitat
- Any solution should be reasonably priced, aesthetically acceptable and provide adequate water levels to preserve high quality bird habitat.

Thank you for your consideration.

For the Commission,

Kenneth Norris
Interim Chairman
Conservation Commission

cc. Planning Commission
IWWC

KN/rm

Implication:
"Beaver Deceiver"
device no longer being
maintained by installing
agent/expert.

December 1, 2011

Steve Masonlin
Ledyard Public Works
889R Col Ledyard Highway
Ledyard, CT 06339

Dear Steve,

This letter is to inform you that I am not taking on new or renewing maintenance agreements at this time due to health reasons.

Thank you!

Sincerely,

Skip Hilliker
Beaver Remedies Program

TOWN OF LEDYARD

Memorandum:

To: John Rodolico, Mayor

From: Steve Masalin, Public Works Director SM

Date: January 6, 2012

Re: Lambtown Road Extension History

With the advent in 2001 of beaver activity at the marsh pond which outlets through a culvert under Lambtown Rd Extension, the maintenance burden of this culvert increased dramatically. We have been nursing a marginal "beaver-deceiver" provision at the outlet which has proven to be an inadequate solution and an untenable long-term mechanism. To only aggravate matters further, the individual who has been maintaining this provision under an annual contract is no longer able to provide this service.

Rather than rehash this any further, I have attached for your review a representative package of correspondence (in reverse chronological order). The adjoining property owners have more recently augmented the scope of their concerns to include the general way the Town has maintained this road with complaints about violation of scenic road policy. I have attached a copy of the Scenic Road Ordinance as well.

I look forward to discussing this matter with you on the 25th, and especially to a long-term solution to a matter that has languished too long.

IW-22-13
Application No. _____

TOWN OF LEDYARD
INLAND WETLANDS AND WATERCOURSES COMMISSION (IWWC)
APPLICATION FOR PERMIT (Or Commission ruling that a permit is not needed)

Receipt Date _____

Date Submitted 7-22-13

Applicant/Agent TOWN OF LEDYARD
Address 741 COLONEL LEDYARD HIGHWAY
Telephone 860-464-1100

Owner (if different) _____
Address of Owner _____
Telephone _____

- I have received information on the Army Corps of Engineers permit procedure.
- I have read and have included all the application and site plan requirements in Section 8.0 of the IWWC Regulations

Signature of Applicant/Agent

Location of Property 40 LAMBTOWN ROAD (AT LAMBTOWN RD EXT), LAMBTOWN RD EXT RIGHT-OF-WAY

Tax Assessor's Map No. 140

Zoning District R60

Written Description of Proposed Activity Replacement of existing culvert under Lambtown Road Ext. Replacement of "beaver-deceiver" flow control device with a substantially improved version.

Total Area of Site _____

Total Area of Wetlands per Official Inventory Map _____

Amount of Fill, in Cubic Yards 0

Disturbed Area, in Square Feet _____ or in Acres _____

Area Increase/Decrease in Wetlands 0 (For Map Amendment Only*)

Soil Types from USDA Soil Survey _____

General Description of Vegetative Cover Road side vegetation/shoreline

FOR CLASSIFICATION PURPOSES:
1. Attach sketch map showing property and area of proposed activity.

***REQUIRED PLOT PLAN INFORMATION:**
1. Flagged Wetlands Signed by Soil Scientist.
2. Signature of Surveyor, and Dated.

****

Name and Address of Adjacent Property Owners
JULIA A. WEBER 46,57 LAMBTOWN RD EXT
LAMB FAMILY TRUST 60 LAMBTOWN RD

Anticipated Start Date 9/13 Completion Date 10/13

List previous IWW application #'s 6-02

IWW Commission Disposition: IWWC Regulations; Section _____ Classification _____

_____

_____ _____
Signature of Chair

FEE: N/A + $60.00 State Fee = _____ **DATE PAID** N/A **RECEIPT #** N/A 9/24/10

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

GIS CODE #: ____ ____ ____ ____ ____ ____ ____ ____ ____ ____
For DEEP Use Only

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions on pages 2 and 3 to:
Wetlands Management Section, Inland Water Resources Division, CT DEEP, 79 Elm Street – 3rd Floor, Hartford, CT 06106

PART I: To Be Completed By the Municipal Inland Wetlands Agency Only

1. DATE ACTION WAS TAKEN: Year **Click Here for Year** Month **Click Here for Month**
2. ACTION TAKEN: **Click Here to Choose a Code**
3. WAS A PUBLIC HEARING HELD (check one)? Yes ☐ No ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

   (type name) _____ (signature) _____

PART II: To Be Completed By the Municipal Inland Wetlands Agency or the Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING (type name): **Ledyard**

   Does this project cross municipal boundaries (check one)? Yes ☐ No ☒

   If Yes, list the other town(s) in which the action is occurring (type name(s)): _____, _____,
6. LOCATION (click on hyperlinks for information): USGS Quad Map Name: **Uncasville** or Quad Number: _____

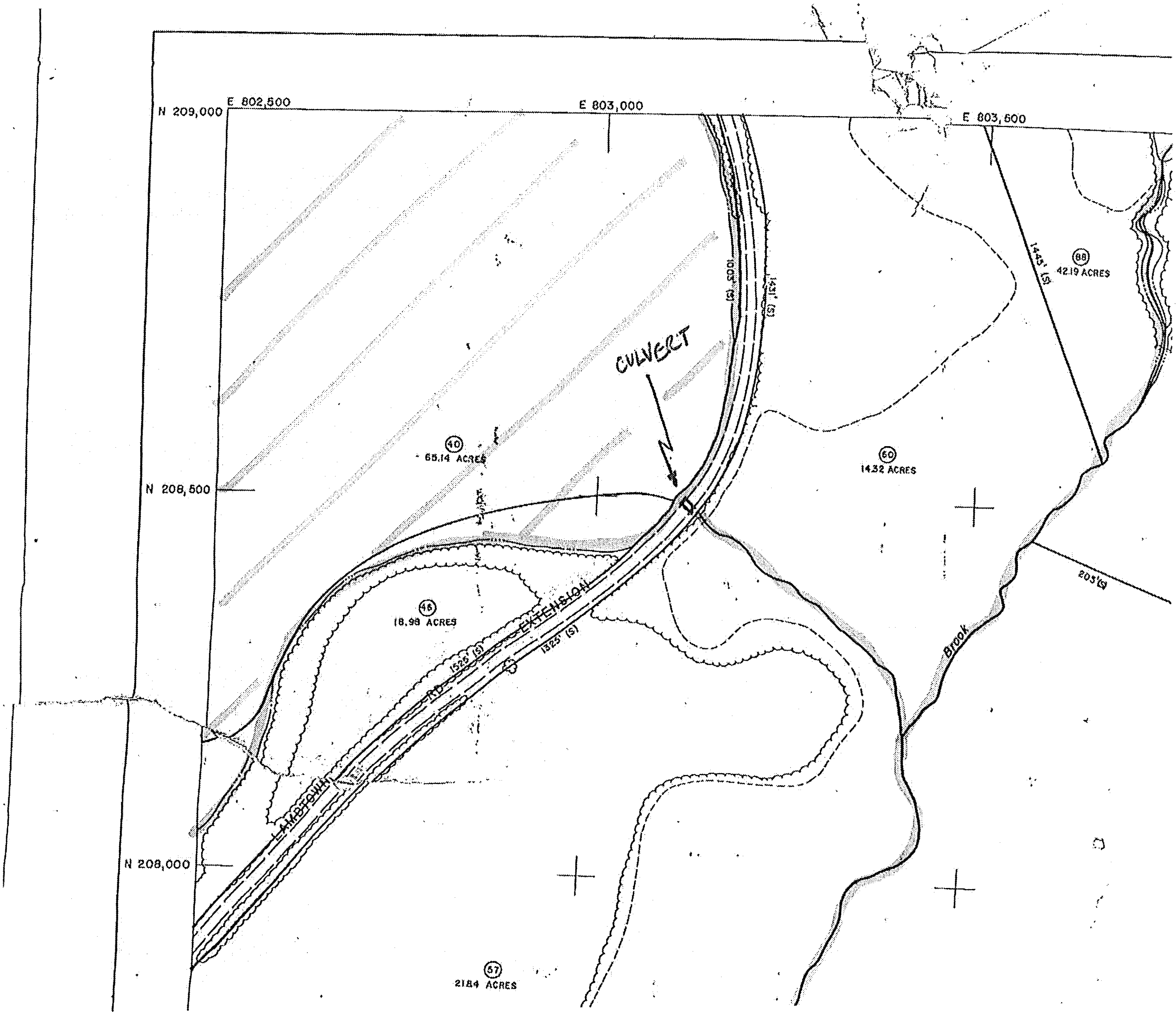
   Subregional Drainage Basin Number: **2105**
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): **Town of Ledyard**
8. NAME & ADDRESS/LOCATION OF PROJECT SITE (type information): **40 Lambtown Rd, Ledyard, CT 06339**

   Briefly describe the action/project/activity (check and type information): Temporary ☐ Permanent ☒ Description: **Culvert replacement with improved beaver deceiver device.**
9. ACTIVITY *PURPOSE* CODE: **I**
10. ACTIVITY *TYPE* CODE(S): **10, 5, 2, NA**
11. WETLAND / WATERCOURSE AREA ALTERED (type in acres or linear feet as indicated):

    Wetlands: _____ acres Open Water Body: **0.01** acres Stream: _____ linear feet
12. UPLAND AREA ALTERED (type in acres as indicated): _____ acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type in acres as indicated): _____ acres

DATE RECEIVED: **PART III: To Be Completed By the DEEP** DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO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CULVERT
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65.14 ACRES
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88
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1443' (S)
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1525' (S)
1325' (S)
205'(S)
EXTENSION
RD
Brook

Beaver Deceivers International

protecting properties, improving habitats

Proposal

May 30, 2013

To: Town of Ledyard, CT

For: Construction of new flow device, a Beaver Deceiver Deluxe™ (BDD), on the culvert on Lambtown Road Extension.

A BDD has two basic components. The first is a rugged, well-made, wooden-frame fence to protect the culvert from being directly clogged. It will be approximately 8' to 10' long on each side. The frame is comprised of 2" x 4" pressure treated posts, diagonal braces on the posts, and horizontal stringers along the top of the fence. The posts and braces will be driven into the bottom as far as possible using a sledgehammer. The fencing material will be 6-gauge, epoxy-coated steel mesh in a 4" x 4" pattern. The epoxy protects the steel, which would otherwise quickly dissolve in the acidic water.

The fence alone is not enough; a huge dam would ultimately surround it. Therefore, the second component is a pipe system that essentially sneaks water away from beavers. It extends from the initial, "receiver" fence well out into the wetland. There are two primary variables that make a pipe system robust: its length and the size and quality of the filter that prevents beavers from damming its intake. A long, solid pipe creates a permanent "leak" far away from where beavers expect leaks to occur: at the dam. We propose to use a 12"-diameter, double-walled polyethylene pipe that will be a "robust" 40' long. However, good dam-filter separation alone is inadequate.

The filter will be both large and technologically sophisticated. It will be a Square Fence™ 5' x 10' x 2.5' high. It will have a simple wooden frame and be sheathed on all sides in 4-gauge, epoxy-coated mesh in a 6" pattern. It will have a Whirlpool Break™ and a Misery Multiplier™ to, respectively, deaden a potential damming stimulus and prevent small beavers from pulling debris through the 6" holes and into the pipe.

It is expected that, over time, a beaver dam will form around the receiver fence. Ultimately, therefore, the average level of the wetland will be largely

controlled by the height of the pipe where it enters the receiver fence. However, there will be some water-level dynamism. The reservoir will also be held up during higher flow periods when the inflow exceeds the pipe's capacity. At these times, the water would be expected to flow to the road culvert over the top of the receiver fence as well.

Water-level dynamism is what makes beaver flowages, or to put it another way, wetlands in beaver damming habitat (low-gradient areas on small streams), particularly productive and unique. With the comings and goings of beavers over the decades and centuries, dams are continually built, abandoned to decay, and then renovated.

Therefore, a temporary drop in water levels until beavers dam around the receiver fence would not trouble me. Nevertheless, I understand there is some concern about this. It can be addressed in two basic ways: we can temporarily place a piece of plywood over the culvert or we can build a manmade beaver dam of mud and vegetation against the receiver fence.

Cost of BDD at this site: $3900

Beaver Deceivers

protecting properties, improving habitats

Skip Lisle (left), President of Beaver Deceivers International™, giving a training workshop in New Mexico, USA.

Simple, elegant, and durable, this trapezoidal Beaver Deceiver™ protects an irrigation weir in Colorado, USA.

- **Property defense**
- **Workshops**
- **Presentations**
- **Habitat improvement**

Beaver Deceivers International™ (BDI) is a company that specializes in protecting properties from beavers in a reliable, long-lasting, non-lethal manner. This is most often accomplished with flow devices, which we design and construct to essentially sneak water away from beavers, thereby controlling damming behavior and water levels.

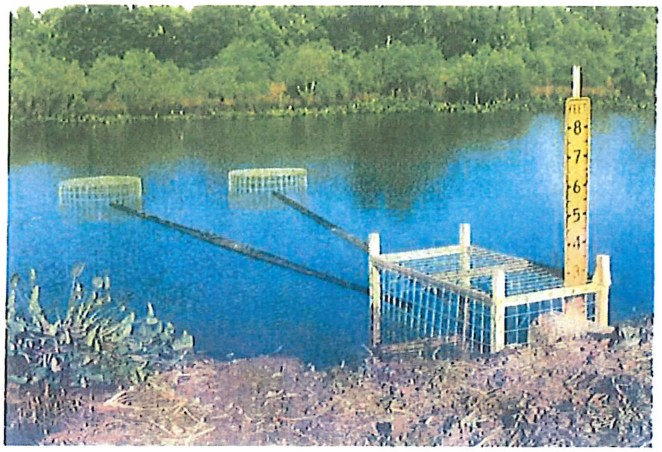
We have also given dozens of training seminars so others can employ our effective, money-saving, and ecosystem-improving techniques themselves. These often include talks on beaver and wetland ecology and history.

We offer our services throughout North America and Eurasia.

Over the past fifteen years, our president, Skip Lisle, MS Wildlife Conservation, has compiled an unparalleled record of innovation and success in this field. He has invented all of the products he uses, as well as numerous construction techniques. In addition, he has pioneered the use of Turtle Doors™ to allow wildlife passage through flow devices placed on road culverts, and mini fish ladders on pipes that go through beaver dams.

Because every conflict site is unique, experience, judgment, and knowledge are crucial ingredients in a winning strategy. To be successful, one must know exactly what to do, and where. We combine decades of beaver and wetland study, and flow device research and

Beaver Deceivers International, LLC • 1187 Cabell Rd. • Grafton, VT 05146 • 802-843-1017 • skiplisle@vermontel.net



A Double Filter System™ in Virginia, USA. The Beaver Deceiver™ is the first filter and the two Round Fences represent the second filter. The black, plastic pipes in between create dam-leak separation, a powerful concept in thwarting an animal programmed to look for dam leaks in dams.

A Double Filter System™ composed of two Beaver Deceivers™. The initial fence has a Turtle Door™ (also used by other animals) on the left side (see photo below). The low, arced fence in the middle guides animals to the hole. The stones at the top prevent beavers from floating debris through the hole and into the culvert.

A "topless" Round Fence™ in shallow water. Penobscot Indian Nation, Maine, USA.

This photo and the photo above were taken on land of the Houlton Band of Maliseets, Maine, USA.

development, with an uncompromising commitment to high-quality workmanship. The outcome is a long-lasting, effective, low-maintenance product that represents the best possible investment for our customers. By not extirpating this important keystone species, by always trying to protect and enhance wetlands to the greatest extent possible, and by protecting animal movement along streams, we also deliver vibrant, healthy ecosystems.

Skip's success at hundreds of diverse sites throughout North America can be measured by the fact that he has yet to come across a conflict site he could not solve, and he has never had to kill, or recommend killing, a single beaver.

Beaver Deceivers

protecting properties, improving habitats

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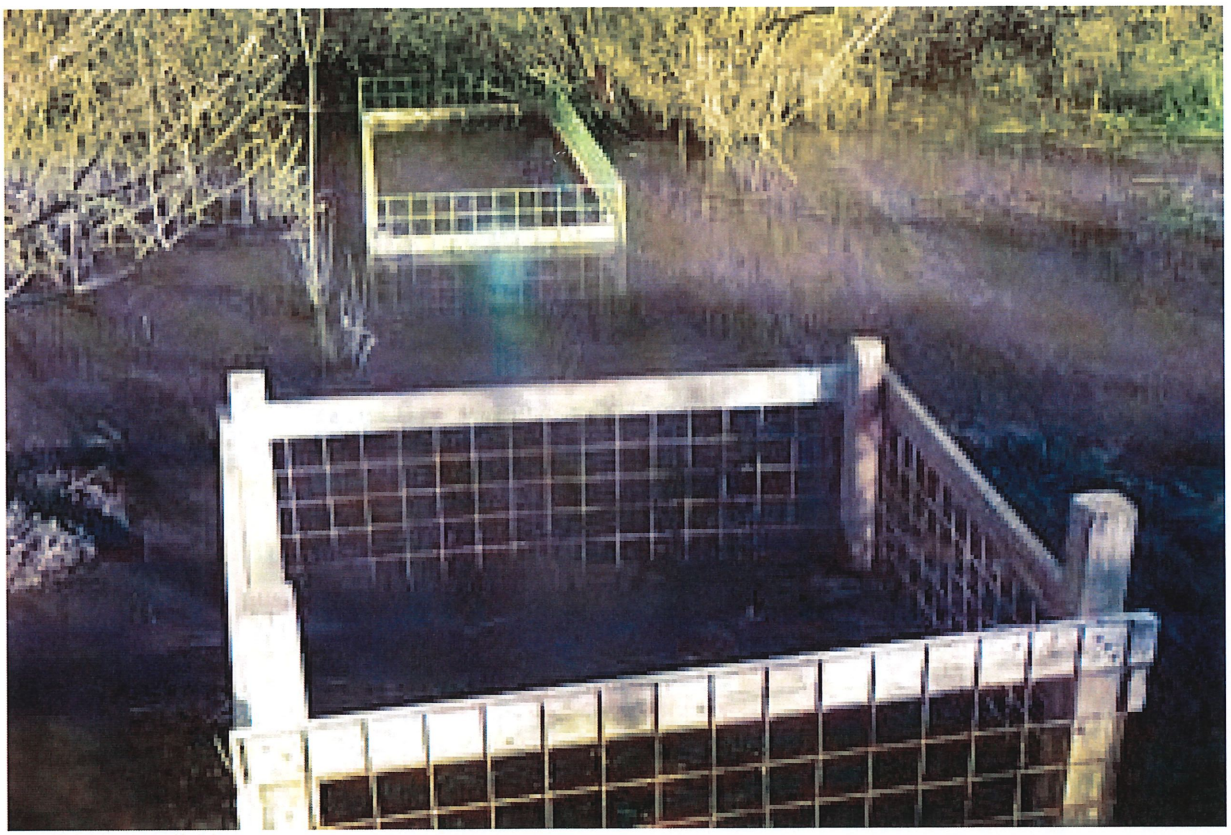
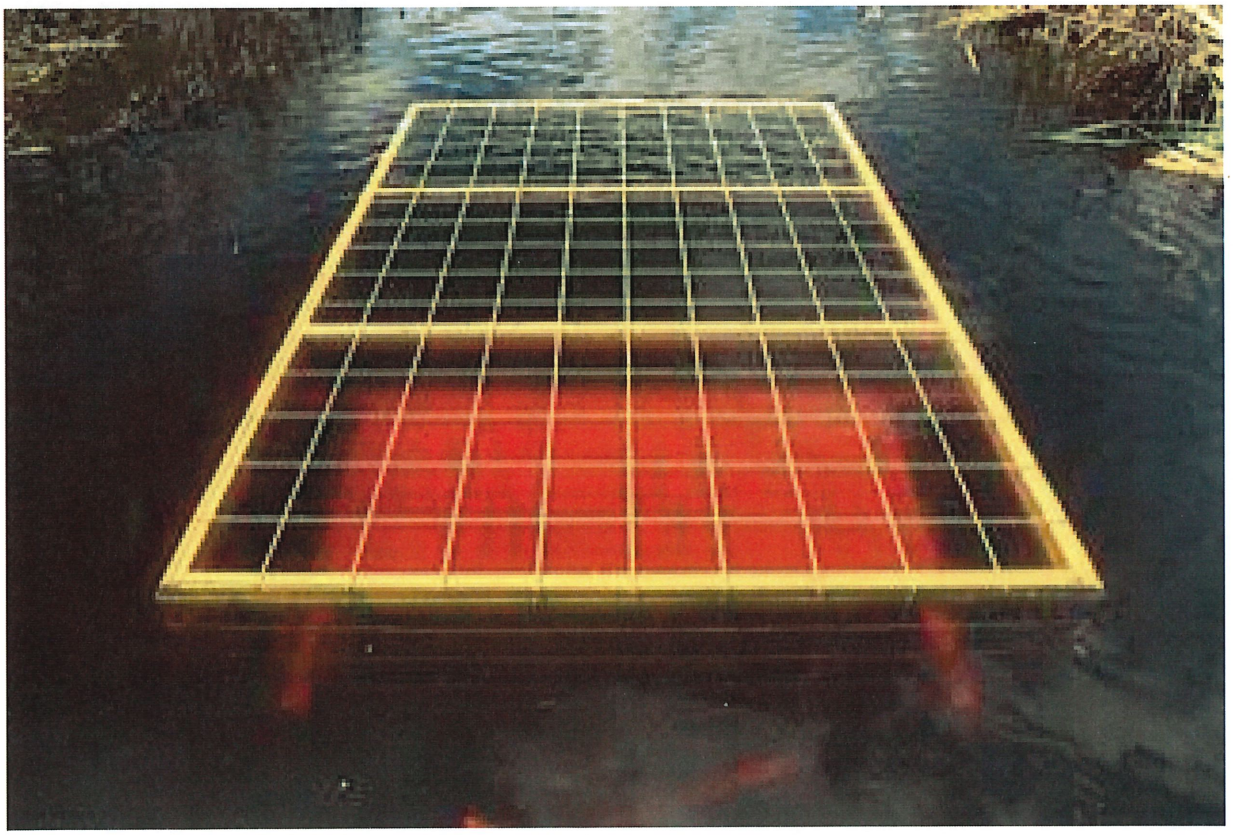




Testimonials for Beaver Deceivers International and its president, Skip Lisle

In 25 years as a beaver manager and researcher I have seen hundreds of attempted solutions to beaver-human conflicts. In quality and value, none compare to Skip Lisle's elegant, original flow device designs. Highly effective, durable, and sensitive to the many ecological considerations involved, they are a reflection of his broad knowledge of construction, beavers, and wetland ecosystems. They are pure landscape art!

Dr. Andrzej Czech
Owner, Natural Systems, Inc.
Lesko, Poland

Before Skip arrived, I watched fish swimming over the town road by my house.

Skip is one of those rare people with both a fine mechanical imagination and a profound understanding of animals, particularly beavers. He is totally devoted to doing the best possible job, and is tireless in his attention to detail. Each flow device he builds is tailored to perfectly match the unique characteristics of a given site. His devotion to high-quality workmanship is a pleasure to observe.

The road will never be fish habitat again.

Elizabeth Nields
Pottersville, New York USA

It has been my pleasure to know and work with Skip Lisle for nearly twenty years. Skip created many of the innovative technologies used today to humanely resolve conflicts with beavers. He continues to take his designs to creative new heights based on his intimate knowledge of beavers and the wetlands they create. He is an environmental entrepreneur providing long-lasting remedies for flooding and other conflicts, which save money well beyond the costs of alternative, short-term responses such as killing and dam removal. Skip has long been a leader in educating the public and advocating for the beneficial environmental services provided by live beavers. He is truly one of the founders of the humane approach to living with wildlife that strives to make the world a better place for people and wild animals.

Dr. John Hadidian
Senior Scientist, Humane Society of the United States
Gaithersburg, Maryland USA

Skip Lisle offers that rare combination of "can-do" competence, creativity, and courtesy. He ably tamed our beavers with promptness and professionalism. Our California town, Martinez, still fondly remembers the man from Vermont, and his solution to save our Downtown!

Mark Ross
Vice Mayor
Martinez, California USA

Historically, a trapping-based "defense" of Elbow Pond Road has periodically eliminated resident beavers, and associated ecological values, but not property damage. Newly arriving beavers have ensured that many yards of gravel—and thousands of tax dollars—have washed away into downstream wetlands, closing the road for months. When the road was re-built, at great cost, the expensive new culverts were also immediately clogged. The obvious inefficiency of this approach forced us to look at other options.

It's a big deal to find a solution to constantly blocked culverts. Thanks to Skip Lisle, we have done just that at a small fraction of the money we have previously poured into road repairs (and what cost would the future have brought?). We are delighted to now have healthy, beaver-created wetland ecosystems and a long-lasting system in place that reliably prevents damage to the road and the town budget.

Victoria Mishcon
Select Board Chair
Andover, New Hampshire USA

The Beaver Deceiver Skip Lisle engineered and installed for our wildlife impoundment is working well. After 20 years of beaver problems, less than satisfactory solutions, and much backhoe work, we've finally been given a break. Thank you, Skip!

Peter Winne
The Mount Tom Land Trust
Exeter, Rhode Island USA

I first met Skip in his capacity as a wildlife/wetlands biologist for the Penobscot Indian Nation in the 1990s. I was immediately impressed by the depth of his knowledge of beaver ecology, his passion for the work, and his enthusiasm and willingness to help a sister tribe protect our roads from flooding while keeping our beaver populations and beaver flowages intact. Wetlands and, in particular, culturally significant wetland plants such as muskrat root and sweet grass, are a very important tribal resource. Skip's skills have been invaluable in protecting these values. He's the best at what he does! I highly recommend his services.

Sharri Venno

Environmental Planner

Houlton Band of Maliseet Indians

Houlton, Maine USA

Skip has all of the qualities one looks for in an individual and a contractor. His integrity and incredible knowledge base allow him to solve beaver management issues in a very professional manner.

Jack Gleason, Conservation Commissioner
Amherst, New Hampshire USA

Skip's devices and designs are great resources for our town. It is the best of both worlds for animals and humans. This is the solution for providing habitat for wildlife and protecting roads at the same time.

Tim Higgins
Road Foreman
Sharon, Vermont USA

Skip has taken an important and effective management tool and rolled it out in a big way. Because of his dedication to the proper management of wetlands and beaver, many thousands of wetland acres have been protected with untold benefits to all the species that use these areas. His work is inspirational!!

John Banks
Director of Natural Resources
Penobscot Indian Nation
Indian Island, Maine USA

Skip is the creative mind behind the best and most cost-effective solutions to managing beaver impacts where they conflict with human interests.

Dr. Duncan Halley
Norwegian Institute of Nature Research
Trondheim, Norway

Skip, thank you for your follow-up. I've grown unaccustomed to people who stand by their work. What a refreshing change of pace.

Dr. Lance Hellman
Antler Lake, New York USA

An engineering firm estimated that it would cost $125,000 for us to drain our pond (while killing the fish) to install a water-level-control device. Luckily, we found Skip Lisle who came and delivered: he solved our beaver issue for about 1/100th the cost without draining the pond. When, after seven years, there was a minor problem, Skip responded within two hours and was at our house the next day to fix it. Passionate and ingenious, Skip solves problems without hurting the environment, or breaking the budget.

Christopher Vroom
Red Hook, New York USA

Skip Lisle is the leader in non-lethal beaver management techniques. We called upon him to lead our workshops on flow device construction because his structures are the best and most cost-effective available. His detailed hands-on approach kept the audience engaged and gave us a clear idea of what is involved in this work. We received very positive feedback from participants.

Amy Chadwick
Wetlands Scientist
Missoula, Montana USA

There is a reason that Skip has never had to kill, or otherwise remove, a single beaver in order to solve hundreds of conflicts around the world. His skill, knowledge, and commitment level is off-the-charts. For us, that has saved our road and translated into a far richer, more interesting, animal-filled wetland. It has a spectacular beaver lodge as a centerpiece, and is dissected with beaver trails that spread like veins across the aquatic vegetation. In its isolated, seacoast locale, it likely has an even greater ecological importance than average wetlands. The abundance of wildlife in the pond also provides entertainment for the numerous people who stop and look while using the abutting town road as a walking path.

In addition to providing an incomparable economic and ecological service, Skip is a great pleasure to work with and to learn from. Take advantage of this opportunity!

Dr. Carol Richards
Stonington, Maine USA

Working with Skip on our flow device project became a memorable community event. It attracted many curious visitors, including school groups. Thanks to his broad knowledge, and generous sharing of it, everyone went away with a better understanding of wetland ecology and the nature of thoughtful, effective problem solving. In addition, an expensive conflict was ended and, with the need to kill the beavers eliminated, a rich ecosystem (and beaver-viewing opportunity) was preserved.

Dianne Rochford
Newport, New Hampshire USA

After reading about his beaver work in Northern Woodlands magazine a few years ago, I contacted Skip about a possible guest visit to my 7th grade science classroom. He gladly accepted the invitation and has been an annual speaker ever since. My students always love his visit. They anxiously await his arrival with great anticipation after watching the Animal Planet episode, "Leave it to the Real Beavers," that features Skip. His classroom presentation captivates them with his dynamic style, unsurpassed knowledge of beaver history and ecology, true-life stories of beaver encounters, and photos of flow devices that he has invented and installed all around the world. Of all the guest speakers I've had in 31 years of teaching, Skip Lisle is at the top of the list.

Pete LaFlamme
Bennington, Vermont USA

It takes a creative and dedicated natural scientist/engineer to successfully deceive beavers as they alter the landscape by cutting trees, building damns, and creating ponds. Skip Lisle has a passion for, and depth of knowledge of, beaver ecology, a strong desire for beavers and humans to coexist peacefully, and an exceptional knack for underwater engineering.

For many years, Skip has volunteered a day of lecture and field experience for our Wetland Ecology and Conservation class at the University of Maine. His enthusiasm is contagious and students are captivated by the site-specific modifications that are made to each Beaver Deceiver in order for beavers to maintain residency in close proximity to fully functioning culverts, roads, and other human infrastructure. After spending a day with Skip, our students have a newfound respect for both beavers and a human who would do so much creative work to ensure their conservation. He is a hero to the wetland ecology community.

Dr. Aram Calhoun, Director, Ecology and Environmental Sciences Program
Dawn Morgan, M.S., Research Associate
The University of Maine, Orono, Maine USA

Your Town:
Ledyard, Preston & Gales Ferry

August 5, 2013

Inland Wetlands and WaterCourses Commission
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: IWWC Application #2288 ("Lambtown Road Ext. culvert replacement with beaver deceiver upgrade"). IWWC 8-6-2013 regular meeting agenda item #IV.1.

Dear Commission Members:

We are writing to request that the Commission require that the applicant in IWWC Application #2288 ("culvert replacement with beaver deceiver upgrade"):

1. Maintain the current level of water in the 38-acre Avery/Lamb marsh and bog (a CT critical habitat) during any activities associated with replacing the road culvert and installing a new beaver deceiver. This can easily be accomplished by the use of sandbags around the work area (suggested by a DEEP official), the use of a temporary mud and vegetation dam (suggested by the beaver deceiver expert designer/installer), or a device such as a coffer dam.

2. Ensure that the current level of water in the 38-acre Avery/Lamb marsh and bog will be maintained after completion of replacing the road culvert and installing a new beaver deceiver. This can be accomplished by installing the culvert at an appropriate elevation and grade and by installing the beaver deceiver at an appropriate elevation and grade. The use of sandbags, a temporary mud and vegetation dam, or a device such as a coffer dam will facilitate proper installation, elevation and grade of the culvert and beaver deceiver.

3. Hire an independent wetlands expert to determine the appropriate elevations and grades at which to install the culvert and beaver deceiver – in order to ensure that the current water level is maintained permanently and to avoid conflicts of interest.

We understand that the Town wishes to replace the existing culvert and beaver deceiver. We think that Skip Lisle of Beaver Deceivers International, the proposed beaver deceiver designer and installer, has appropriate expertise in beaver water flow control devices. However, this application, as written, contains certain inaccuracies and is incomplete. Consequently, the application fails to contain "such information as is necessary for a fair and informed determination" (IWWC Regulations, section 7.4).

One critical issue is that the application fails to provide sufficient information regarding what exactly is proposed for "draining of the pond to an elevation necessary to replace the culvert dry and replace the 'beaver deceiver' devices." In addition, the application

fails to describe the wetlands impacts of the proposed project. Does the applicant propose to sandbag or coffer dam around the relatively small culvert/beaver deceiver work area and maintain the current level of water in the rest of the 38-acre marsh and bog? Or does the applicant seek to remove the existing culvert and beaver deceiver without sandbagging or coffer damming – which would cause the marsh and bog to suddenly drain and the water levels to drop significantly, creating in effect a mud flat and causing significant environmental damage on private property. This letter and attached materials will provide additional information that is necessary for a fair and informed decision by the Commission, as required by IWWC Regulations.

If the applicant does not plan to use sandbags or a coffer dam, the following facts are important for Commission consideration. The 38-acre Avery/Lamb marsh and bog that the applicant proposes to drain are **not** owned by the applicant. Furthermore, the land on which these significant amounts of drained water would be discharged is **not** owned by the applicant. These lands are owned by Julia Weber and the James Lamb Family Trust. These landowners were not notified of this application or this hearing. It was the understanding of these owners and other interested parties, based on conversations with the applicant and the beaver deceiver expert installer, that there was agreement that the current marsh water level would be maintained during and after this project. It was quite surprising to discover this permit application which seeks permission to "drain the pond." The critical importance of maintaining the water level, both during construction and permanently, in order to avoid severe environmental damage, is described below and in the attached materials. We request that the Commission reject any application that does not require the applicant to maintain current water levels in the marsh and bog both during and after the proposed project.

Area Background and Wetlands Information

Lambtown Road Extension is a valuable and unique resource for the Town of Ledyard. It truly is a Scenic Road, so designated by the Planning Commission in 1984. The habitat on each side of the road, the marsh, and the wetlands create a remarkable, diverse, and sensitive wildlife and bird habitat. CT's Natural Diversity Database (which shows "locations of endangered, threatened, and special concern species and significant natural communities in CT") covers the road and surrounding areas of marsh and bog. The Avery/Lamb marsh is part of the Haley Brook Watershed (flows into Long Island Sound).

The wetlands (through which the road runs) and the marsh (adjacent to a portion of the road) have unique wildlife value. For example, more than 168 bird species have been identified, 19 of which are on the state list of endangered, threatened, or special concern species. Numerous turtles, beavers, local and migratory birds, ducks, amphibians, fish, vernal pool species, reptiles, insects and other mammals depend on this wetland, and would be harmed if the 38-acre wetland was drained. The Ledyard Conservation Commission advocates protecting the high quality wildlife habitat in this general area under all circumstances by providing adequate water levels. (May 24, 2011 letter to Steve Maslin from Conservation Commission)

Numerous vernal pools, sensitive to any decreases in marsh water levels, occur near the marsh. The CT DEEP and the US Army Corps of Engineers consider vernal pools a "high conservation concern," a special and sensitive wetland type that requires extra protection. A series of vernal pools occur along the fringe of the marsh as well as in the adjacent areas abutting the northwesterly boundary of the marsh. These pools were confirmed breeding sites for obligate vernal pool amphibians including the Spotted Salamander and Wood Frog. "These pools are hydrologically connected via surface water and groundwater to the overall marsh system surrounding Ed Lamb Brook. ... [A] marsh [water] drawdown has the potential to decrease the vernal pool hydroperiod (i.e., depth and duration of standing water). A prolonged and annually consistent hydroperiod is critical to the development and survival of vernal pool amphibian larvae. If the hydroperiod is shortened, the vernal pool may dry too early in the season, before amphibian larvae can fully develop. This can result in extirpation of individual breeding pools over time." Water drawdowns also negatively affect aquatic vegetation and may cause outbreaks of invasive plants. Consequently, for any project involving lowering water levels in the marsh, an impact analysis should be conducted to assess impacts to wildlife, plants, and habitat from this proposed project. Such an analysis cannot be conducted without a detailed site plan illustrating clearing limits, wetland impacts and existing and proposed water surface elevations.

The marsh contains three habitat types: open water, aquatic beds (e.g., pond lilies and other hydrophytic vegetation), and emergent marsh. Marshes of this size and character are "less common and increasingly rare" in CT. This is a pristine area with very limited invasive plants and no purple loosestrife – very unusual in CT in this type of habitat.

The Ed Lamb Brook, which feeds this large wetland system, is a tiny stream. Consequently, the recovery of such a large 38-acre wetland would take months – if it ever recovered. Many animals that can not walk or fly away would likely die – either from killing by predators that would no longer be stopped by the water, or from freezing due to removal of the protective layer of water that keeps them and the mud from freezing.

Application # 2288 Is Incomplete and Contains Inaccuracies.
The application lacks the information required for a "fair and informed determination" by the Commission (IWWC Regulations, section 7.4). Important information and impacts of the proposed project are not included in the application. Examples include:

- The application fails to state that some of the proposed work would be done on land not owned by the applicant. The work proposed would extend approximately 50 feet from the center of the road – well beyond any Town road right-of-way.
- The application lacks written consent of the landowners (required where the applicant is not the owner of the land upon which the subject activity is proposed; IWWC Regulations, section 7.4.5). The application proposes draining a privately owned 38-acre marsh and bog, discharging the water over private land, and installing a beaver deceiver, at least part of which will be located on private land.

While a portion of the work may be done in the Town road right-of-way, some of the work and large wetlands impacts from the proposed work would occur on private land. The landowners do not consent to the applicant draining the 38-acre marsh and bog or taking any actions which would result in the temporary or permanent lowering of the water level in the marsh or bog.

- The application fails to list soil types, wetlands vegetation, proposed erosion and sediment control, management practices and mitigation measures to prevent environmental damage and maintain or enhance existing environmental quality (section 7.4.8).
- The application fails to list areas in square feet of wetlands to be disturbed (section 7.4.8b). The application states that 0 feet of wetlands, 0.01 acres of open water body, and 0 acres of stream will be altered. In fact, at least 38 acres of wetlands and all of Ed Lamb Brook downstream of the culvert would be altered if the draining of the wetlands proposed by the applicant were to occur. In addition, we request that the applicant clarify and provide specific details for the culvert and beaver deceiver installation plans. The culvert is approximately 30 feet long and the proposed beaver deceiver pipe is 40 feet long. The work area listed in the application is 0.01 acres (435.6 square feet). With 70 feet in length, the allowable work area would be only approximately 6 feet in width. This seems impossible – given the large scope of the proposed project.
- The application fails to specify the location of proposed wetland excavation, the amount of material to be excavated, where the excavated material will be placed, or what actions will be taken to minimize and mitigate environmental damage during wetland excavation.
- The application fails to include the number of gallons of water that the applicant proposes to drain, the rate at which the drainage would occur, and how long it would take for the marsh to refill (based on the flow rate and capacity of the tiny Ed Lamb Brook). This information is necessary to determine environmental impacts of the proposed project.
- The application fails to state that other municipalities will be impacted by the proposed work. If the proposed draining of the 38-acre wetland were to occur, the water flow would impact Groton.
- The application fails to state the total area of site, total area of wetlands, disturbed area in square feet, or soil types.
- The application does not contain sufficient detail to understand what the stream stabilization (shore stabilization) activities would include and how dirt roadside and native vegetation would be impacted and restored.
- The application fails to state the correct property owners' and adjacent property owners' names and mailing addresses. The application does not state that the applicant does not own all the land and wetlands that would be worked on and impacted. The mailing address for the Lamb Family Trust is incorrect.
- The application does not state what additional federal and state permits may be required if the 38-acre wetland is drained.

It is important to note that, as with any IWWC application, the applicant cannot also serve as an expert to the Commission. This would be a conflict of interest (for example,

see the Town Charter). An independent wetlands expert must be consulted by the Commission.

It is also important to note that Lambtown Road Extension is a Town Scenic Road, and any alterations must be approved by the Planning Commission (see Ledyard Scenic Road Ordinance). In a 2012 Planning Commission public hearing regarding the road, almost all of the nearly 100 people and organizations that commented requested that the water level in the marsh be maintained.

We invite you to join us for a site visit walk on this unique and environmentally sensitive area to view the large areas that would be adversely impacted (including the tiny Ed Lamb Brook) if the water level is not maintained both temporarily during the proposed project (by means of a coffer dam or sandbags) and permanently (by correct placement and height of the proposed beaver deceiver and culvert). We believe that a site walk is the best way for Commission members to obtain sufficient knowledge on which to base the best possible decision.

Thank you for your consideration.

Sincerely,

The Landowners of the Avery/Lamb Marsh (c/o 47 Lambtown Rd., Ledyard, CT 06339)

Edmund Lamb, Co-trustee, James Lamb Family Trust

Karen Lamb, Co-trustee, James Lamb Family Trust

Julia Weber

cc: Ledyard Conservation Commission

Groton Open Space Association, Inc.
P.O. Box 9187, Groton, CT 06340-9187
www.GOSAonline.org

GOSA

To: Town of Ledyard Inland Wetlands and Watercourses Commission
From: Groton Open Space Association, Inc. (GOSA)
Subject: Culvert Project on Lambtown Road
Date: August 6, 2013

GOSA is a 501©3 organization, with a mission of environmental protection. To that end, GOSA purchased the 91-acre Candlewood Ridge, a property directly abutting the Avery/Weber farm. We chose the site is for its high watershed and wildlife habitat value, associated with the even larger and more varied ecosystems on both the Weber and Lamb family farms. The Weber and Lamb families have cared for and share ownership of an extensive marsh, pond and wetlands that is slated to be drained as part of the proposed culvert replacement project on Lambtown Road. This marsh is an extraordinary natural resource, teeming with birds, amphibians, reptiles, pollinating insects and rare plants. The wetlands include rare bogs, a stream, marsh and vernal pools.

While GOSA supports the replacement of the culvert under Lambtown Road, we recommend that impacts to the wetlands be limited to the .01 acre stated in the application. A simple barrier made of vegetation, sand bags or a cofferdam would assure that only .01 acre would be disturbed, as stated, and would not drain and negatively impact 38 acres of wetlands, marsh, pond and vernal pools, as proposed.

As presented, the application is incomplete: it omits providing the required measurement of wetlands that would be drained, and it omits a study of the potential impact to this highly valuable watershed and wildlife habitat.

We recommend a higher level of review, and a complete application, in order for this project to go forward. At a minimum, a plan to maintain a viable water level would be necessary to assure that the proposed wetland disturbance will be truly limited to.01 acres of wetlands.

Sincerely,

Joan H. Smith

Joan H. Smith, GOSA President
58 Mohegan Rd.
Groton, CT 06340

Lambtown Road Extension

Road Closure

Background Info

TOWN OF LEDYARD

Memorandum:

To: Fred B. Allyn, Jr., Mayor

From: Steve Masalin, Public Works Director SM

Date: July 8, 2008

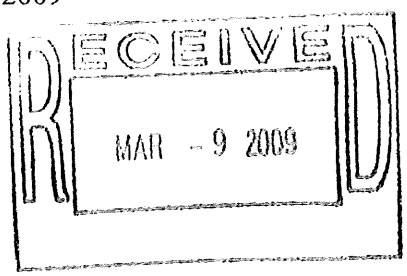
Re: Lambtown Road Extension Abandonment

As a follow-through on my memo to you of 3 months ago, I talked to certain key individuals about the possibility of abandoning Town ownership of Lambtown Road Ext. I found that both adjacent property owners expressed clear support for this. I also found through a discussion with a cognizant representative from the CT DOT that the process is a local matter subject to our own procedures. Abandonment of a road is simply something we would notify the State of when it had been officially consummated.

Accordingly, I recommend this approach as a means to resolve the beaver activity liability predicament, and concurrently resolve the vehicular traffic issues that have been a chronic concern to the adjacent landowners. I think this may just require a Town meeting. Exact terms of the abandonment could be worked out with the two adjacent property owners.

Also by way of follow-up, I noted that the potential for the expansion of beaver activity to other areas of the Haley's Brook watershed is now reality. I personally observed a kit beaver in the stream near the culvert at 81 Lambtown Road. I also observed an accumulation of debris that someone is apparently clearing from the culvert to keep it open.

March 5, 2009



RE: Lambtown Road Extension

Fred B. Allyn, Jr., Mayor
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339-1511

Dear Mayor Allyn:

We are writing to follow up on a letter to you dated September 22, 2008 from the seven landowners of land on Lambtown Road Extension (the "Road"). In that letter the landowners expressed willingness to explore the concept of closing the Road. The letter also stated that, of course, agreement to any specific plan would be subject to developing a plan that is satisfactory both to the Town and to all of the landowners.

During the time since the landowners sent that letter, we have had the opportunity to discuss with a number of individuals various scenarios for closing the Road. It is our understanding that the Town has also been exploring some scenarios, e.g., closing the Road to motorized traffic only (keeping the Road open for non-motorized traffic) and creating a turnaround on the Road's Groton end.

We are writing today in order to clarify a point of possible confusion. It appears that the Town may desire either to retain some of its current rights to the Road (e.g., keep it open to non-motorized traffic only) or to establish new rights to the Road (e.g., create a new public easement for non-motorized traffic). If the Town desires to retain current rights or to create new rights to the Road, we would be unable to support any Road closure plan that would result in a decrease of the Town's responsibility and/or liability for maintaining the Road or that would shift any such responsibility/liability to the landowners.

We appreciate the Town's efforts to continue to maintain this beautiful scenic road in a manner that is safe for the Road's users and neighbors, as well as for the wildlife that flourishes in the area. We look forward to working with the Town to create a plan for the Road that is mutually agreeable to the Town and all of the landowners.

Sincerely,

Edmund H. Lamb

Edmund H. Lamb, 47 Lambtown Road

James C. Lamb Family Trust

Edmund H. Lamb Karen Lamb

Edmund H. Lamb and Karen Lamb, co-trustees, c/o 47 Lambtown Road

cc: Marlaine Bernier, 47 Lambtown Road
Susan Weber and Wayne Forsberg, 57 Lambtown Road Extension
Julia Weber, 57 Lambtown Road Extension

TOWN OF LEDYARD

Memorandum:

To: Fred B. Allyn, Jr., Mayor

From: Steve Masalin, Public Works Director SM

Date: March 18, 2009

Re: Lambtown Road Extension

cc: Town Council Land Use, Planning & Public Works Committee

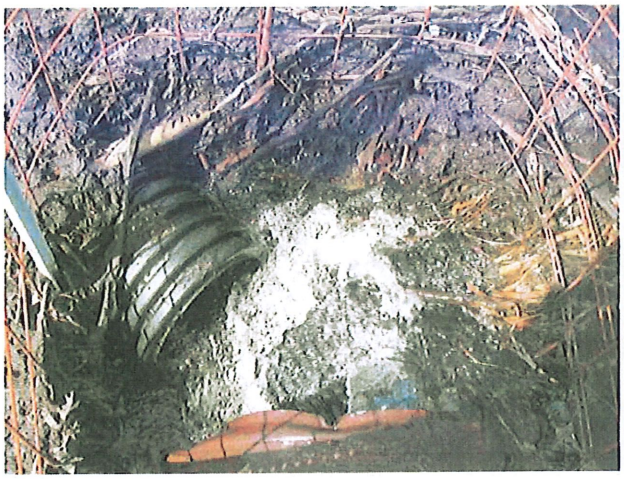
I have received and read the letter from Ed Lamb essentially withdrawing the support of several Lambtown Road Extension landowners for a plan that includes perpetual non-motorized traffic access. I was dismayed by this, and feel I should apologize for initiating the transfer process without more fully exploring potential terms of transfer with the landowners. Perhaps it was natural to assume that an arrangement involving a continuation of some level of access for non-motorized traffic would have been a welcome allowance by the landowners for the benefits they would have derived through the elimination of motorized access—benefits that are consistent with previous explicit requests to the Town from the landowners for actions that would provide relief from the effects of traffic (particularly large vehicles).

That said, we are still mutually faced with the present inadequate condition of the marsh pond outlet. I will take this opportunity to provide you an update on the matter, particularly with respect to the ongoing and increasing beaver activity in the area. The beaver activity is the fundamental issue in terms of present and unrelenting threat to infrastructure stability and security through culvert failure. Ironically, inherent in this threat is the potential devastation of the beavers' own habitat. This certainly is not the desire of any party to this predicament, but it may help with overall perspective in continuing to seek a suitable solution.

Because of the landowners' expressed desire to preserve the local beaver population in the marsh pond, the Town of Ledyard has been denied access to manage the impacts to the discharge culvert through trapping. In lieu of trapping, the Town has worked with an independent agent of the Humane Society to establish and maintain a nuisance beaver flow device. This has been undertaken at Town expense, which has included material and installation costs, as well as a nominal annual maintenance fee. The first flow device was installed in the spring of 2002. Because of the nature of the device, and particularly the nature of the outlet area, the device gradually became silted-in and ultimately became inoperative by spring of 2007. A second, less effective, installation was completed in late spring of 2007, and remains minimally-functional at this time. The following pictures will give you an impression of both the present and previous conditions of the device at the outlet.

04/07/08

03/17/09



04/07/08

03/17/09

Since 4/7/08, the only activity of the Town at this culvert has been to remove the hay bale (that was temporary stabilization for a modest washout), and restore the road shoulder. It may be observed from these pictures that the beaver activity has progressively established solid mud and stick pack along two sides of the cage. What is not apparent from the pictures alone is that someone has been voluntarily maintaining an opening for water flow into the pipe. It appears that recent efforts have been focused on keeping the side of the cage facing the pond clear.

It is apparent that the flex pipes are not functioning adequately by themselves to provide steady discharge control. It is likely that siltation is again responsible for the decline in pipe capacity. To take nothing away from the intent and efforts of the Humane Society and its agent, this type of device is simply overmatched by the nature and scope of the need at this location. A few important points: 1) by design, the nuisance device should be maintenance-free, in the sense that beaver activity alone will not neutralize it, 2) this has obviously not been the case, and if not for the unsolicited, voluntary efforts to keep it clear, the discharge would likely be entirely obstructed at this point; 3) it would not be reasonable to devote daily Public Works attention to maintenance of this device in terms of an efficient, effective use of tax dollars.

Even without a detailed watershed hydraulic analysis, it is evident that the discharge culvert in its current state is inadequate to meet the drainage demands of a relatively high-frequency storm (e.g., 2-year). Substantial scouring at the discharge has occurred during a lesser storm event; it wouldn't take much more of an event for a complete washout to occur once scouring begins.

Projecting current circumstances into the future, if adequate flow capacity is to be provided, it is evident that the present installation needs to be replaced by an appropriately-designed inlet structure, possibly with overflow protection. This will represent a substantial increase in complexity and associated cost. Or, in light of present financial constraints, we could go with the status quo and attend to the situation on a repair basis, if culvert failure were to occur. It appears that the process of deliberation over this matter has been reset to consideration of these types of options.

ROBINSON & COLE LLP

TIMOTHY D. BATES

75 Eugene O'Neill Drive
New London, CT 06320
Main (860) 437-5000
Fax (860) 437-5099
tbates@rc.com
Direct (860) 437-5021

April 4, 2011

Fred B. Allyn, Jr., Mayor
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: **James C. Lamb Family Trust, et al.**

Dear Mr. Allyn:

Please be advised that we have been retained to represent the James C. Lamb Family Trust, Edmund H. Lamb and Karen Lamb, Trustees, Susan Weber, Wayne Forsburg, and Julia Weber, all of Ledyard, Connecticut, in connection with concern over Town maintenance activities on Lambtown Road Extension, a scenic road. Our clients state that the Town of Ledyard has conducted numerous activities on and alongside said road without approval of the Zoning and Wetlands Commission, which has jurisdiction over the adjacent pond and stream, as well as the setbacks around those resources, and the Planning Commission, which has jurisdiction over scenic roads in the Town of Ledyard.

We are in the process of evaluating the activities of the Town in connection with the road and the pond with the hope of developing procedures and objectives which can guide the future preservation of the road and the natural resources surrounding it. We would hope to submit to you our observations and recommendations within the next sixty days.

In the meantime, we would respectfully request that the Town not take any unilateral action that affects the wetlands surrounding the road or the appearance of the road in any way. We are simultaneously submitting a request to the Zoning and Wetlands Commission and the Planning Commission on behalf of our clients to provide notice to us of all agendas on the assumption that the Town, if it is to take any such actions, will, as required by law, file applications with those Commissions.

If the Town does take any unilateral actions, such as those described above, please be advised that we reserve the right to enforce the Scenic Road Ordinance and the Inland

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Wetlands Act in Court and, specifically, to seek injunctive and remedial relief pursuant to Connecticut General Statutes Section 22a-16.

Thank you for your attention to this matter.

Very truly yours,

Timothy D. Bates

TDB:db

Copy to: Clients

ROBINSON & COLE LLP

TIMOTHY D. BATES
75 Eugene O'Neill Drive
New London, CT 06320
Main (860) 437-5000
Fax (860) 437-5099
tbates@rc.com
Direct (860) 437-5021

Via Facsimile and First Class Mail

April 18, 2011

Ledyard Public Works Department
741 Colonel Ledyard Highway
Ledyard, CT 06339-1511
Attn: Records Clerk

Re: **Freedom of Information Act Request**
Ledyard Tree Warden
Removal of Trees on Lambtown Road and Lambtown Road Extension

Dear Sir or Madam:

This is a request under the Connecticut Freedom of Information Act (Connecticut General Statutes § 1-210 *et seq*).

We respectfully request any and all records, files, and reports from the Ledyard Tree Warden (whom we understand is the Director of Public Works, as provided in the Charter of the Town of Ledyard), including but not limited to any notices, hearings, meeting minutes, photographs, documents and transcripts pertaining to the removal of trees on Lambtown Road and Lambtown Road Extension during the past ten (10) years.

I recognize that you may charge a reasonable cost for photographs, computer disks, or personal time to comply with this request. If you expect charges to exceed $25.00, please contact me regarding this request.

If all or any part of this request is denied, please list the specific exemptions under which the information is being withheld. As provided in the Freedom of Information Act, please reply within 10 business days.

Thank you in advance.

Sincerely,

Timothy D. Bates

Copy to: Karen Lamb (via electronic mail)

11007224-v1

TOWN OF LEDYARD
CONNECTICUT
PUBLIC WORKS DEPARTMENT

741 Colonel Ledyard Highway
Ledyard, CT 06339
(860) 464-1100
(860) 464-1126 fax
smasa@town.ledyard.ct.us

April 25, 2011

Timothy D. Bates
75 Eugene O'Neill Drive
New London, CT 06320

Subj: Freedom of Information Request dated April 18, 2011

Dear Mr. Bates:

Attached you will find the only known records in the form of daily assignment logs regarding work that involved removal of trees with respect to the subject FOI request from your office. The few trees removed were of a relatively small caliper and taken down in the context of minor road right-of-way clearing to eliminate vegetative growth infringing on the travel portion of the roadway.

This work is identified variously on the attached work assignment records as "Brush - Lambtown Ext", "Cut Back - Lambtown Ext", "Cut Brush Lambtown Ext", "Brush Cutting Lambtown Ext", "Brush Cutting Lambtown", and "Brush Clearing Lambtown." The omission of "Ext" in the last two references was inadvertent, as the work was conducted on Lambtown Road Ext and not Lambtown Road.

Sincerely:

Steven E. Masalin
Public Works Director

cc: Mayor

TOWN OF LEDYARD

Memorandum:

To: Linda Davis, Chairman, Land Use/Planning/Public Works Committee

From: Steve Masalin, Public Works Director SM

Date: June 10, 2011

Re: Lambtown Road Extension Abandonment

cc: Mayor

The prospects for relieving the real and potential impacts to Lambtown Road Extension due to beaver activity have not improved. At the same time, the demands and expectations of the adjacent property owners and others (see the attached letter from the Conservation Commission) relative to the Town's maintenance activity have seemingly increased. Efforts to coexist with the beavers and adequately maintain flows from the marsh pond under the road have presently led to an unsightly tangle of "beaver-deceiver" flex pipes and metal cages and fencing. To adequately restore necessary flow capacity that is resistive to beaver activity would be very costly at this point and would require further cooperation from adjacent property owners relative to greater encroachment and perpetual easements.

Though the previous attempt to abandon this road to private ownership through mutual consent with the property owners fell through, I would like to explore the possibility of unilateral abandonment. It appears that of the options facing the Town, this may be best and may have the collateral benefit of eliminating the type of vehicular traffic that has been an increasing source of complaint from the owners of property along Lambtown Road Extension. Please add this to your agenda for discussion. Thank you.

ROBINSON & COLE LLP

TIMOTHY D. BATES

75 Eugene O'Neill Drive
New London, CT 06320
Main (860) 437-5000
Fax (860) 437-5099
tbates@rc.com
Direct (860) 437-5021

June 28, 2011

Fred B. Allyn, Jr., Mayor
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Steven E. Masalin, Public Works Director
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: **James C. Lamb Family Trust. Edmund H. Lamb and Karen Lamb, Trustees, Susan Weber, Wayne Forsburg, and Julia Weber/Protection of Lambtown Road Extension as Scenic Road**

Dear Mayor Allyn and Mr. Masalin:

We represent the above-referenced Trust and individuals, who own property adjacent to Lambtown Road Extension. We understand that the Town may be considering unilaterally abandoning this section of Lambtown Road, and we are writing to request a meeting with Town representatives before such a step is seriously considered.

Several years ago, the Town raised the possibility of abandonment, and several abutters to the road expressed interest in such action. That interest was in large part based on the neighbors' desire to have the road maintained as a scenic roadway and/or walkway.

However, not all abutters necessarily favor abandonment as a means of accomplishing this objective. It would appear possible to maintain the existing road as a scenic road, pursuant to ordinance, without abandoning it. My clients are sensitive to the possibility that the road may be part of a dam pursuant to State statutes and regulations, and, further, that the road serves a number of property owners who abut the road in both Ledyard and Groton. The Town is in a better position than the abutters to assure that the road fulfills these purposes, and the abutters appreciate the opportunity to meet with Town officials to discuss how these purposes could be achieved, without negatively affecting the scenic qualities of the road and associated fields, ponds, and wetlands.

Accordingly, we are respectfully requesting a meeting with you to discuss the future of the road and its protection as a scenic asset for the Town. Specifically, these issues

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include, but are not necessarily limited to, (1) who could pass and re-pass over the road, if abandoned – just the abutters to the abandoned section of the road or all landowners on Lambtown Road (Ledyard and Groton), (2) who will maintain any dam and how it will be maintained if the road were abandoned, (3) what is the current structural integrity of the road and what impact, if any, have recent maintenance activities had on that integrity, (4) would recreational use be allowed if the road were abandoned, (5) how would emergency vehicle access to the abutting homeowners be affected if the road were abandoned, and (6) can speedbumps be installed to protect homeowners whose dwelling are located close to the road if the road were not abandoned?

As you can see from these issues, the abandonment and/or non-abandonment of the road pose a series of concerns to the abutters of the extension, and it would be helpful to get together, identify those issues, and understand their implications before moving ahead in any particular direction.

I look forward to hearing from you.

Very truly yours,

Timothy D. Bates

TDB:db

TOWN OF LEDYARD
CONNECTICUT
TOWN COUNCIL

Chairman Terry Jones

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3203
FAX (860) 464-1485
E-Mail Address:
council@town.ledyard.ct.us

July 13, 2011

Mayor Fred Allyn, Jr.
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, Connecticut 06339

Dear Mayor Allyn:

During the past few years the Land Use/Planning/Public Works Committee has participated in discussions concerning the impact of the beaver activity to Lambtown Road Extension.

Recently the Committee received a copy of Robinson & Cole's letter dated June 28, 2011 in which they requested a meeting with you on behalf of their clients James C. Lamb Family Trust; Edmund H. Lamb and Karen Lamb, Trustees Susan Weber, Wayne Forsburg and Julia Weber/Protection of Lambtown Road Extension as a Scenic Road.

While the LUPPW Committee appreciates the property abutters' desire to maintain the scenic roadway designation, we also understand the town's position relative to the cost and on-going efforts to maintain the water flows and the marsh under the road. Facilitating a dialogue will provide reasonable options for consideration.

The Committee encourages your office to accommodate Attorney Bates' request and to schedule a meeting to discuss the future of Lambtown Road Extension. Members of the LUPPW Committee can attend a meeting on Tuesday, August 9, 2011 at 5:00 p.m. and are very interested in our continued participation in this matter.

It is our hope that a concerted effort between the town and the abutting property owners will provide solutions that will satisfy the concerns of the parties involved, while continuing to preserve and maintain the beauty of Ledyard's rural community.

The LUPPW Committee looks forward to meeting with you, Attorney Bates and the representatives from the Lambtown Trust. Please advise when a meeting date has been confirmed.

Thank you.

Sincerely,

Linda C Davis

Linda C. Davis
Committee Chairman
Land Use/Planning/Public Works

cc: Public Works Director/Town Engineer Steve Masalin

ROBINSON & COLE LLP

TIMOTHY D. BATES

75 Eugene O'Neill Drive
New London, CT 06320
Main (860) 437-5000
Fax (860) 437-5099
tbates@rc.com
Direct (860) 437-5021

December 16, 2011

John A. Rodolico., Mayor
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: **James C. Lamb Family Trust, et al.**

Dear Mayor Rodolico:

As I informed you in our telephone conference on December 16, 2011, we represent an entity and a group of individuals, including the James C. Lamb Trust, Edmund H. Lamb and Karen Lamb, Trustees, Susan Weber, Wayne Forsburg, and Julia Weber, all owning property on Lambtown Road Extension.

Last year, we sent Mayor Allyn the enclosed two letters raising concerns about the Town's maintenance of and plans for the road. Lambton Road Extension has been designated a Scenic Road within the Town, and it is my clients' position that it is not being maintained in accordance with that designation. They would appreciate an opportunity to meet with you and whatever staff you believe appropriate to discuss the future of the road and its protection as a scenic asset for the Town. We were to meet with your predecessor in September, but the hurricane intervened, and the meeting could not be rescheduled before the election.

Given the number of clients I represent, it would be useful if you could suggest a couple of dates two or three weeks ahead when we could meet, and I will then determine my clients' availability. We understand that the Town may be considering unilaterally abandoning this section of Lambtown Road, and we are writing to request a meeting with Town representatives before such a step is seriously considered.

11443223-v1

I will stop by M.D Jan '12

ROBINSON & COLE LLP

I look forward to meeting with you.

Very truly yours,

Timothy D. Bates

TDB:db

Copy to: Clients

TOWN OF LEDYARD
CONNECTICUT
OFFICE OF THE MAYOR

John A. Rodolico
Mayor

Mark J. Bancroft
Mayoral Assistant

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3221
FAX (860) 464-8455

March 5, 2012

Attorney Timothy D. Bates
75 Eugene O'Neill Drive
New London, Connecticut 06320

Dear Attorney Bates:

This letter is written to clarify the Town's position relative to the Lambtown Road Extension issues raised in your December 16, 2011 letter and during our meeting on January 27th. The hope is to reach a consensus and to proceed with a plan that preserves the attributes of the scenic road, provides the required maintenance, and accomplishes these goals at a reasonable cost to the town.

Roadside Maintenance – the town's systematic program for roadside mowing and brush removal is detailed on the town's web site. While recognizing the unique nature of this road and the requirements of State statutes it is the town's intention to limit maintenance, including roadside mowing, to that needed to allow safe transit for non-commercial vehicles.

Beaver Impacts – the town will continue to monitor beaver activity and make a reasonable attempt to limit adverse effects of the beaver activity. The work performed by Mr. Hilliker has been a valuable asset in this effort. While the surrounding property owners acknowledged a willingness to allow actions to control the beaver population, the town has no intention of taking such action at this time.

Long-Term Road Integrity – the town is concerned about the long-term effects of the beaver activity and the integrity of the road acting as a dam between Ed Lamb Brook Pond and Haleys Brook. It is evident that the measures implemented to mitigate beaver activity, though suitable for normal conditions, are not adequate for severe storm events. Also, the present measures have become progressively less effective and, coupled with the natural deterioration of the primitive drop culvert, will require more than the annual maintenance performed in the last ten years. It is estimated that replacement of the dam portion of the road, including the culvert and

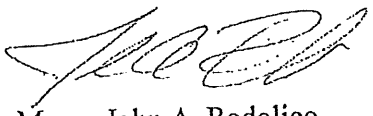
beaver deceiver, would be a significant expense and must be weighed against other planned town infrastructure projects.

Seasonal Closing – Attorney Bates introduced the possibility of seasonal closing of the road. This option would be less complicated than permanent road closure and would significantly reduce road maintenance requirements. The town considers this option to be worth studying. Details would need to be worked out, but must include continuous access for emergency vehicles and pedestrians.

Truck and Bus Restrictions – the town has had a conversation with School Superintendent Mike Graner concerning limiting the use of this road by school busses and is willing to consider a recommendation to the Town Council to place truck restrictions on this road.

Please consider the above and feel free to contact my office should you wish to further discuss this issue.

Regards



Mayor John A. Rodolico

cc: Town Council
Public Works Director
School Superintendent

ORDINANCE: 29

AN ORDINANCE CONCERNING THE DESIGNATION OF SCENIC ROADS

Be it ordained by the Town Council of the Town of Ledyard

Section 1.

Pursuant to the Provisions of Section 7-149a of the Connecticut General Statutes (P.A. 81-401), the Planning Commission may designate town highways or portions of highways as scenic roads. No state highway or portion thereof may be designated as a scenic road under this Ordinance.

Section 2.

The Planning Commission shall consider designating as a scenic road only those Town roads which are free of intensive commercial development and intensive vehicular traffic and meet at least one of the following criteria:

1. it is unpaved
2. it is bordered by mature trees or stone walls
3. the traveled portion is no more that twenty feet in width
4. it offers scenic views
5. it blends naturally into the surrounding terrain, or
6. it parallels or crosses over brooks, streams, lakes or ponds.

Section 3.

a. When a highway is to be considered for designation as a scenic road, the Planning Commission shall schedule a Public Hearing on the proposal. Hearing notices and deadlines shall be in accordance with the provisions of Sections 8-26d and 8-26e of the Connecticut General Statutes. The Planning Commission shall notify the Town Council, the Public Works Director and owners of lot frontage abutting the highway or portion of a highway of the proposed designation and scheduled public hearing.

b. Following the Public Hearing, the Planning Commission shall vote on the proposed designation. No highway or portion of a highway may be designated as a scenic road under this

section unless the owners of a majority of lot frontage abutting the highway or portion of the highway agree to the designation by filing a written statement of approval with the Town Clerk of the Town of Ledyard. The designation shall become effective upon such date as the Planning Commission shall establish.

c. The scenic road designation may be rescinded by the Planning Commission, using the same procedures and having the written concurrence of the owners of a majority of lot frontage abutting the highway.

d. Any person aggrieved by a designation of a highway or portion of a highway as scenic road pursuant to this section by the Planning Commission may appeal such designation in the manner and utilizing the same standards of review provided for appeals from the decisions of Planning Commissions under section 8-28.

Section 4.

a. No road which has been designated as a scenic road under this Ordinance shall be altered or improved, including but not limited to, widening of the right-of-way or of the traveled portion of the highway, paving, changes of grade, straightening, removal of stone walls and removal of mature trees, except for good cause determined by the Planning Commission. The Planning Commission shall state the reasons for such future alterations and improvements in its minutes.

b. Any highway or portion of any highway designated as a scenic road shall be maintained by the town, in good and sufficient repair and in passable condition. Nothing in this section shall be deemed to prohibit a person owning or occupying land abutting a scenic road from maintaining and repairing the land which abuts the scenic road if the maintenance or repair occurs on land not within the right-of-way, paved or unpaved, of the scenic road.

Adopted: May 9, 1984.

Effective: July 5, 1984.

TOWN OF LEDYARD
CONNECTICUT

OFFICE OF THE MAYOR

John A. Rodolico
Mayor

Mark J. Bancroft
Mayoral Assistant

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3221
FAX (860) 464-8455

October 3, 2012

To: Ledyard Planning Commission

From: John A. Rodolico, Mayor

RE: Public Hearing on the Potential Seasonal Closure of Scenic Road Lambtown Road Extension

Lambtown Road Extension is designated as a scenic road in accordance with Ledyard Ordinance #29 – An Ordinance Concerning the Designation of Scenic Roads. This ordinance provides the criteria, process and maintenance of scenic roads. Due to the nature of this unpaved road, which borders a pond and acts as a dam for Haley's Brook, maintenance of this road has been costly in terms of manpower and material required and the need to balance road upkeep while maintaining the natural character of the road.

As Lambtown Road Extention is unpaved, a significant issue in road maintenance is the inability to construct a graded road surface to expedite drainage. If such a road were constructed, during snow plowing the crown of the road would be removed, resulting in the need to reconstruct the road each spring and also contributing to the inadvertent widening of the road. For this reason it has not been cost-effective to properly grade this road, resulting in severe damage to the roadbed each winter.

The Mayor's office has facilitated several meetings between Lambtown Road and Lambtown Road Extension property owners, Attorney Tim Bates, who represents some of these property owners, Ledyard Public Works and the Town Engineer to discuss issues related to maintenance and the long-term welfare of this road. One of the joint recommendations resulting from these discussions was seasonal closing. This option has several positive aspects:

1. Seasonal closure would significantly reduce road maintenance requirements. This road is unpaved and must be refilled and graded each spring due to damage from snow plowing.

2. Access for pedestrians will not be restricted.

3. Access for emergency vehicles and residents will be provided through the southern end of the road through an unlocked access gate. This road is not used by school busses in transporting students.

4. Access for adjoining property owners to farmland will not be restricted.

5. Seasonal closure would be less complicated than permanent road closure.

Preliminary plans for seasonal closure include installing gates at the north and south end of the road. The north gate will be locked, and the south gate will be closed but unlocked. The single residence on the south end of the road has been consulted and will be able to obtain necessary access and services with this closure.

TOWN OF LEDYARD
CONNECTICUT
TOWN COUNCIL

741 Colonel Ledyard Highway
Ledyard, Connecticut 06339-1551
(860) 464-3203
FAX (860) 464-1485
council@ledyardct.org

Chairman Linda C. Davis

RESOLUTION
AUTHORIZING THE PERMANENT CLOSURE
OF LAMBTOWN ROAD EXTENSION

WHEREAS: the seasonal closure of Lambtown Road Extension is now in its second year of such closure without substantive complaint, but with widespread public support;

WHEREAS: the adjacent property owners of Lambtown Road Extension are in unanimous support of extending such closure to one of a permanent basis;

WHEREAS: the Town of Ledyard would save further costs associated with road maintenance required for public vehicular traffic; and

WHEREAS: Lambtown Road Extension would remain under Town of Ledyard ownership and maintenance authority, supporting perpetual pedestrian use and emergency vehicle access;

NOW, THEREFORE, BE IT RESOLVED: that the Town of Ledyard authorizes the permanent closure of Lambtown Road Extension.

AND FINALLY, BE IT RESOLVED: that in keeping with the provisions of Ordinance #29, (An Ordinance Concerning the Designation of Scenic Roads), Lambtown Road Extension "*shall be maintained by the town, in good and sufficient repair and in passable condition,*" according to the needs associated with its new level of use.

Adopted by the Ledyard Town Council on: March 26, 2014

Linda C Davis
Linda C. Davis, Chairman

IN WITNESS HEREOF, I, Patricia Riley, the duly qualified and acting Clerk of the Town of Ledyard, Connecticut, do hereby certify that the above resolution was adopted at a regular meeting of the Town of Ledyard, held on March 26, 2014, and is on file of record, and that said resolution has not been altered, amended or revoked and is in full force and effect.

(seal)

Patricia A. Riley
Town Clerk

RECEIVED FOR RECORD
2014 AUG 14 AM 9:41
LEDYARD TOWN CLERK

File #: 25-2703 **Agenda Date:** 11/18/2025 **Agenda #:** B.

LAND USE APPLICATION

Subject/Application:
Discussion & Decision: IWWC#25-19SITE - Lambtown Rd Extension, Ledyard, CT - Applicant/Agent, Town of Ledyard for a permit to replace a failed culvert with new custom inlet control. Proposed work to be conducted within town right of way. (Submitted 9/9/25, Date of Receipt 10/7/25, PH scheduled 11/18/25, PH opened 11/18/25, Site Walk conducted 11/22/25, PH cont. 12/2/25, PH must close by 12/23/25, DRD 35 days from close of PH).

Background:
(type text here)

Land Use Director/Town Planner:
(type text here)

File #: 25-2921 **Agenda Date:** 1/6/2026 **Agenda #:** A.

LAND USE APPLICATION

Subject/Application:
IWWC#25-27AR- 25 Harvard Terrace (MAP ID: 9/910/25) & 39 Military Highway (MAP ID: 92/1590/39), Gales Ferry CT - Applicant/Agent, Town of Ledyard, - Property Owners, Avalonia Land Conservancy Inc. & C.R Klewin LLC, for an after-the fact, as of right determination per IWWC Regulations Sec. 4.2.f (Uses of Right) for emergent work conducted on 7/24/25 to cut a trench into an existing berm topped with a beaver dam on the boundary between of 39 Military Highway and 25 Harvard Terrace to immediately alleviate flooding along CT Route 12 & Christy Hill Rd. (Submitted 11/26/25, Date of Receipt 12/2/25, DRD 2/4/25).

Background:
(type text here)

Land Use Director/Town Planner:
(type text here)

FDH1

TOWN OF LEDYARD
INLAND WETLANDS AND WATERCOURSES COMMISSION (IWWC)
APPLICATION FOR PERMIT (Or Commission ruling that a permit is not needed)

Application No. IWWCH25-27
Receipt Date 12/2/25

Date Submitted _____

Applicant/Agent Town of

Address 741 Colonel Ledyard Hwy, Ledyard, CT

Phones 860-464- / 860-912- cell

Owner (if different) C.R Klewin LLC & Avalonia Land Conservancy
3 Johnny Cake Hill Rd, Old Lyme CT, 06371
/ 756 Colonel Ledyard HWY, Ledyard CT 06339

Address of Owner

Phone

RECEIVED
DEC 01 2025
Land Use Department

[ ] **I have received information on the Army Corps of Engineers permit procedure.**
[ ] **I have read and have included all the application and site plan requirements in Section 7 of the IWWC**

Dan Klewin, Avalonia Land Conserv, Inc. 12/1/2025
SIGNATURE OF OWNER

Signature of Applicant/ Agent

Location of Property 39 Military Hwy/25 Harvard Terrace

Tax Assessor's Map No. 091

Zoning District R20/GFD

Written Description of Proposed Activity Emergency Excavation to Relieve Flooding.

Town crews cut two trenches through an earthen berm that because of a beaver dam that is blocking the main Pine Swamp Brook waterway at the inlet to the pond above Harvard

Proposed Erosion/ Sediment Control Measures: n/a

Total Area of Site _____ Total Area of Wetlands per Official Inventory Map

Amount of Fill, in Cubic Yards n/a Disturbed Area, in Square Feet 20 or in Acres _____

Area Increase/Decrease in Wetlands 0 (For Map Amendment Only*)

Soil Types from USDA Soil Survey _____ _____

General Description of Vegetative Cover

Name and Address of Adjacent Property Owners

_____

_____ _____

_____

Anticipated Start Date 7/24/2 Completion Date 7/24/2

List previous IWWC application #'s

IWW Commission Disposition: IWWC Regulations; Section _____ Classification

_____

_____

Signature of

FEE: _____ + **$60.00 State Fee =** _____ **DATE PAID** _____ **#** _____

P:\Zoning\W_Application_7-1-13.doc

194

Anna Wynn

From: Hannah Gienau
Sent: Monday, December 1, 2025 7:35 AM
To: Anna Wynn
Subject: FW: Emergency Work Application

Please print out and put with the application. I think we should put this as FD#3 I believe.

Thanks,

Hannah Gienau

Zoning and Wetlands Official
Phone 860-464-3216 Web www.ledyardct.org
Town Hall Hours: Mon-Thurs 7:30-4:45 CLOSED FRIDAYS
741 Col Ledyard Highway, Ledyard CT 06339

From: DENNIS MAIN <dennis.main@snet.net>
Sent: Thursday, November 27, 2025 8:56 AM
To: Elizabeth Burdick <planner@ledyardct.org>; Hannah Gienau <zoning.official@ledyardct.org>
Cc: Tobias Glaza <tglaza@avalonialc.org>; Neil (cell 7061) & Barbara Duncan <jneilduncan@gmail.com>
Subject: Re: Emergency Work Application

Thank you, Liz.

Here is the email authorizing the application. I will stop by the office Monday when we get back from Boston to sign the application for the Tuesday IWCC meeting.

Dennis S. Main, President
Avalonia Land Conservancy, Inc.
860-823-MAIN

> On Nov 27, 2025, at 6:00 AM, Elizabeth Burdick <planner@ledyardct.org> wrote:
>
> Good morning, Dennis & Toby, The Public Works Director is filing an after the fact permit for emergent work this past spring/summer to relieve flooding by cutting a small trench in a berm with beaver dam between your property and Klewin's. Would you kindly send an email authorizing the application. I can be reached only on my cell at 860-861-4069 with questions as I'm out of the office. Thanks.
>
> *Liz Burdick*, Director of Land Use & Planning
> Town of Ledyard
> 741 Colonel Ledyard Highway, Ledyard, CT 06339
> Telephone: (860) 464-3215
> Email: planner@ledyardct.org

From: Hannah Gienau <zoning.official@ledyardct.org>
Sent: Wednesday, November 26, 2025 10:42 AM
To: Elizabeth Burdick <planner@ledyardct.org>
Subject: RE: Emergency Work Application

Here is the updated version with correct addresses we have on file. Also I converted the pdf to word using this link Stirling PDF that Kirk gave me just to let you know. It is super helpful.

Hannah Gienau

Zoning and Wetlands Official
Phone 860-464-3216 Web www.ledyardct.org
Town Hall Hours: Mon-Thurs 7:30-4:45 CLOSED FRIDAYS
741 Col Ledyard Highway, Ledyard CT 06339

From: Elizabeth Burdick <planner@ledyardct.org>
Sent: Wednesday, November 26, 2025 9:58 AM
To: Hannah Gienau <zoning.official@ledyardct.org>
Subject: FW: Emergency Work Application

Liz Burdick, Director of Land Use & Planning
Town of Ledyard
741 Colonel Ledyard Highway, Ledyard, CT 06339
Telephone: (860) 464-3215
Email: planner@ledyardct.org

From: Steve Masalin <pwd@ledyardct.org>
Sent: Tuesday, November 18, 2025 8:34 AM
To: Elizabeth Burdick <planner@ledyardct.org>; Hannah Gienau <zoning.official@ledyardct.org>
Subject: Emergency Work Application

See attached.

Steven E. Masalin, P.E.
<image001.png>
Public Works Director, Town of Ledyard
741 Colonel Ledyard Hwy.
Ledyard, CT 06339
(860) 464-3238
www.ledyardct.org

<IWWC#25-27SITE- APPLICATION.docx>

FD#3

198

RECEIVED
DEC 01 2025
Land Use Department

From: Steve Masalin
To: Elizabeth Burdick
Cc: Hannah Gienau
Subject: FW: photos of Cranberry pond
Date: Monday, December 1, 2025 3:32:58 PM
Attachments: flooded road.docx
image001.png
image002.png

FYI

Steven E. Masalin, P.E.

Public Works Director, Town of Ledyard
741 Colonel Ledyard Hwy.
Ledyard, CT 06339
(860) 464-3238
www.ledyardct.org

From: Steve Masalin
Sent: Wednesday, October 15, 2025 4:29 PM
To: mobbylarson@gmail.com
Cc: Fred Allyn, III <mayor@ledyardct.org>; Elizabeth Burdick <planner@ledyardct.org>; Tobias Glaza <tglaza@avalonialc.org>; Joseph Tillman <hwy.supt@ledyardct.org>; galesferrydistrict@gmail.com
Subject: FW: photos of Cranberry pond

Good Afternoon Ms. Larson,

I am happy to provide some clarification.

I've included the email you had sent to Highway Superintendent Joe Tillman (see below) which is a good starting point for context. Thank you also for the photos you included as part of this. Your email shows you have a good understanding of some of the issues we are facing in this watershed, including flooding risks at Harvard Terrace and beaver activity impounding water above the berm due to blockage of the primary waterway.

As you know, I was at the last IWWC meeting where you shared comments about the activity at the berm. I have also been apprised of comments you made at the Gales Ferry Fire District Semi-Annual meeting last night.

The information I share with you should help clarify the Town's objectives in the watershed consistent with our obligations to address structural and flooding issues that we face all the way from Christy Hill Rd through the dam at Harvard Terrace. And it will dispel some of the

misinformation that has apparently overtaken this in the absence of certain facts. This information will be further fleshed out through formal reports that have been undertaken, as well as the results of a professional hydraulic study presently underway at the cost of nearly $15,000 to the Town.

In December 2024, the Town engaged professional engineering services for an updated report on the condition of Pine Swamp Brook Dam (CT Dam ID#7212), i.e., the dam at Harvard Terrace. The dam unsurprisingly received a "fair" rating, which appreciably coincided with the assessment rendered by a 2023 Save the Sound study. Thus, there are a number of structural issues that will need to be addressed.

More recently, beaver activity in the Pine Swamp Brook watershed below Route 12 to Harvard Terrace has, as you are well aware, altered the hydraulics of the watershed above the berm. More specifically, the beaver dam raised the water level above the berm by at least 18 inches, perhaps closer to 2 feet. This backed water up to and through the culvert under Route 12, severely reducing the flow capacity at that crossing and further affecting areas to and beyond Christy Hill Road. The culverts at the intersection of Christy Hill Road and Route 12 have been overtopping in even higher frequency storm events, and one property toward Crestview Drive was being flooded. This situation needed immediate attention.

To this end, the Town secured a permit from the State to trap the beavers, and permission was received from the owner at 39 Military Highway to do so. That was the first step. Subsequent to beaver removal, Town forces sought to remove the beaver dam to alleviate the flooding and restore the watershed to its baseline, historic condition in that area. In addition to the main dam at the brook, we found two locations of beaver activity along the berm. After removing the beaver debris and due to lack of immediate access to the main dam (which will require equipment for removal) I directed cutting through the berm at the two locations of beaver activity to provide immediate relief of the flooding, which has been a pressing need. By simply restoring the conditions to the historic norm, this action did not, nor could it, alter the wetlands designation/nature of the affected area. And there was no collaboration with the owner of 39 Military Highway in this beyond permission for beaver removal.

This action had no bearing on the pond level, which is controlled by outlet structures at Harvard Terrace. First, the primary cause of the recent low pond level has been the relative drought we've experienced. Access to the primary drop inlet had been impeded, historically by an ill-placed berm and more recently by a homemade wooden cover. When the Town attended to the drop inlet and replaced the wooden cover with a more appropriate grate, we also removed a log that traversed a break in the berm enhancing flows to the structure. Subsequently, illicit activity plugging this gap more directly has prevented flows, virtually isolating the structure from the pond and preventing it from performing its intended function. There is some seepage getting through the berm that is still evident at the outlet.

But notwithstanding this, the separate metal culvert that also traverses the road (dam) outside of the bermed-in area receives water in an uninhibited fashion. Thus, the pond is free to drain completely to this pipe's inlet invert level, which is what has happened with the lack of rainfall. That is the primary basis of the low pond level, not anything conspiratorial or

intentional through any actions that have been taken to date. It's simple hydraulics.

The Town is in the process of preparing for an IWWC application to attend to the comprehensive needs of the watershed, from structural to hydraulic (including flooding prevention). The aforementioned hydraulic study is an important part of this preparation. Since you have made this a matter of public record, as cited above, I am copying in several key parties that have been/will be involved, or otherwise interested, in this matter as it continues to advance.

Regards,

Steve

Steven E. Masalin, P.E.

Public Works Director, Town of Ledyard
741 Colonel Ledyard Hwy.
Ledyard, CT 06339
(860) 464-3238
www.ledyardct.org

From: Mobby Larson <mobbylarson@gmail.com>
Sent: Wednesday, October 15, 2025 11:46 AM
To: Steve Masalin <pwd@ledyardct.org>
Subject: Cranberry Pond

Steve,
I am trying to clear up a question about the cut that was made through the berm at the north end of Cranberry Pond, severing the border between the pond (Avalonia property) and the wetlands on the Sweet Hill property.
There is an obviously man-made cut about 2' wide and 3' high, right through the middle of the land spit. I can send a picture, looking north from the pond towards the wetlands, if that would help identify it.
Someone said that Public Works had done this, and I am trying to check on that. If you could please let me know, that would give us some clarity to work with.

Thank you--and thank you for all you do for the town, especially during these storms!

Mobby Larson

53 Harvard Ter.

From: Joseph Tillman <hwy.supt@ledyardct.org>
Sent: Tuesday, July 01, 2025 6:34 AM
To: Steve Masalin <pwd@ledyardct.org>
Subject: FW: photos of Cranberry pond

Thank You
Joe Tillman

Public Works Superintendent
860-464-9060 Ext.1
hwy.supt@ledyardct.org

From: Mobby Larson <mobbylarson@gmail.com>
Sent: Wednesday, June 25, 2025 12:53 PM
To: Joseph Tillman <hwy.supt@ledyardct.org>
Subject: photos of Cranberry pond

Joe, it was nice to meet you and chat this morning. And thank you for all you and your crews are doing!

I promised to send you some pictures:
One is the beaver dam on Pine Swamp Brook, taken from our canoe facing north. The blue barrel on the right is on the NW corner of 57 Harvard Ter
One shows flooding over the spit of land where Avalonia borders the farmland, looking north into the wetlands on the farm (since the beaver dam is blocking the brook)
Another page with 2 photos shows a couple of times the pond overflowed Harvard Terrace

Thanks for your concerns and help.
Mobby Larson
53 Harvard Terrace

FD#4

Elizabeth Burdick

From: Elizabeth Burdick
Sent: Monday, December 1, 2025 4:15 PM
To: Anna Wynn
Subject: FW: Emergency Work Application

Anna, Please add the below email as FD#4 for IWWC#25-27AR. Thank you.

Liz Burdick, Director of Land Use & Planning
Town of Ledyard
741 Colonel Ledyard Highway, Ledyard, CT 06339
Telephone: (860) 464-3215
Email: planner@ledyardct.org

From: Smith, Brian R. <BSMITH@RC.com>
Sent: Wednesday, November 26, 2025 10:12 PM
To: Elizabeth Burdick <planner@ledyardct.org>
Subject: Fw: Emergency Work Application

Dear Ms. Burdick,

On behalf of C.R. Klewin LLC the Public Works Director is authorized to submit the after-the-fact wetland permit application that was attached to your e-mail.

Happy Thanksgiving,

Brian R. Smith
Robinson & Cole LLP
One State Street
Hartford, CT 06103
Direct 860.275.8224 | Fax 860.275.8299
bsmith@rc.com | Bio | V-Card

File #: 25-2888 **Agenda Date:** 12/2/2025 **Agenda #:** B.

LAND USE APPLICATION

Subject/Application:
IWWC#25-25AR - Founders Preserve, 334 Colonel Ledyard Highway (MAP ID: 191/530/334), Ledyard, CT - Applicant/Owner Avalonia Land Conservancy, Inc. for as of right determination to clear invasive species along existing woods roadway in the area of West Branch watercourse southerly of adjacent Tribrook Pond. (Submitted 11/24/25, Date of Receipt 12/2/25, DRD 2/4/25).

Background:
(type text here)

Land Use Director/Town Planner:
(type text here)

IWWC#25-25AR

FD#1

TOWN OF LEDYARD
CONNECTICUT
Inland Wetlands and Watercourses Commission

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3216
FAX (860) 464-0098
www.ledyard.town.ct.us

RECEIVED
NOV 24 2025
Land Use Department

AS OF RIGHT/NON-REGULATED ACTIVITIES

DETERMINATION REQUEST

Applicant: Avalonia Land Conservancy, Inc Owner (if different): —

Address: 756 Colonel Ledyard Hwy, Ledyard 06339 Owner Address: —

Phone #: 860-884-3500 Phone #: —

- I have received a copy of Section 4 *Permitted Uses as of Right & Non-regulated Uses*

Location of Property: 334 Colonel Ledyard Highway, Ledyard CT.

Tax Assessor's Map #: _____ Zone District: _____

Total regulated area disturbed: _____ sq. ft./_____ ac.

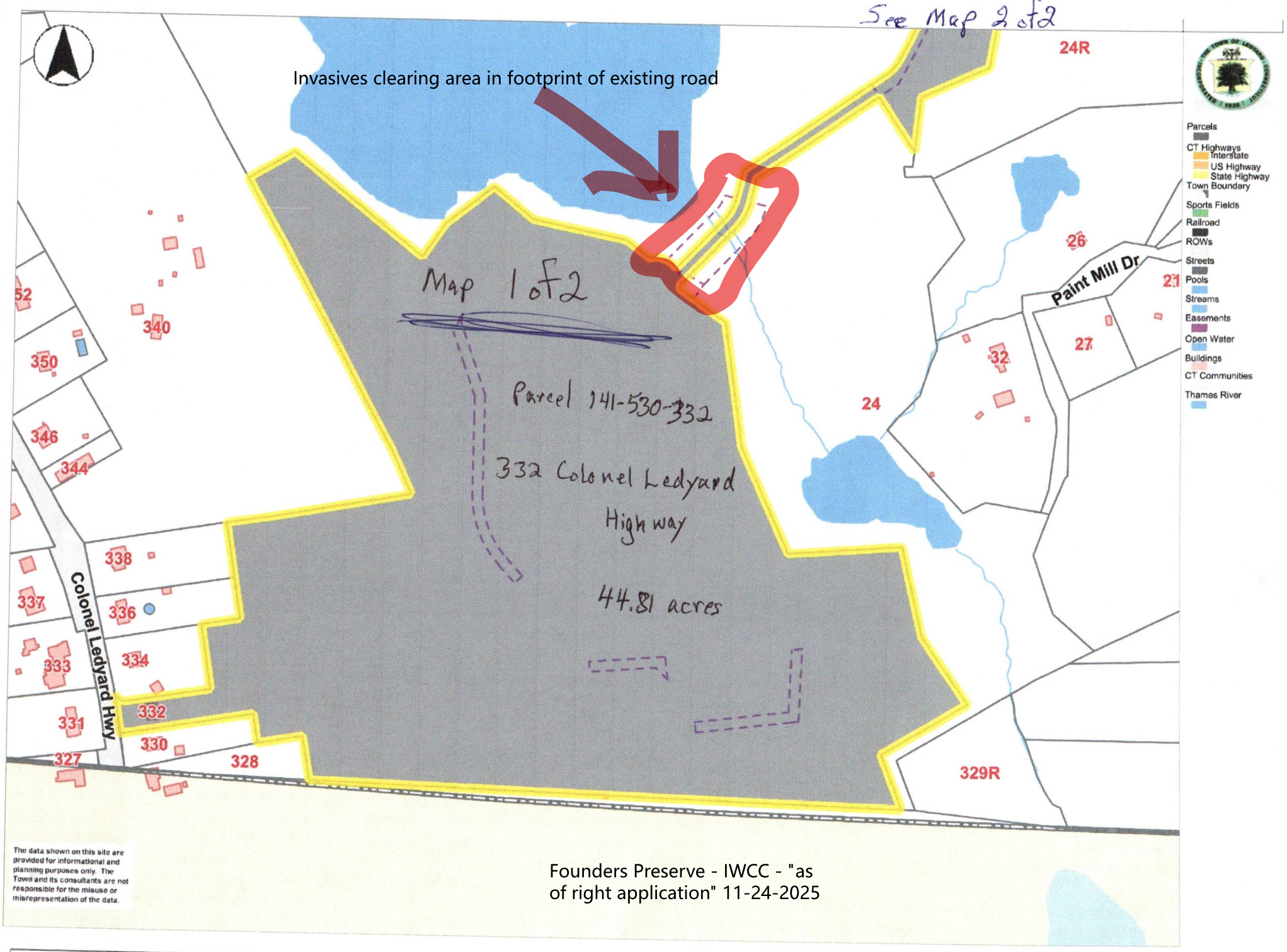
Detailed description of how the proposed activity meets Section 4 of the IWWC Regulations:

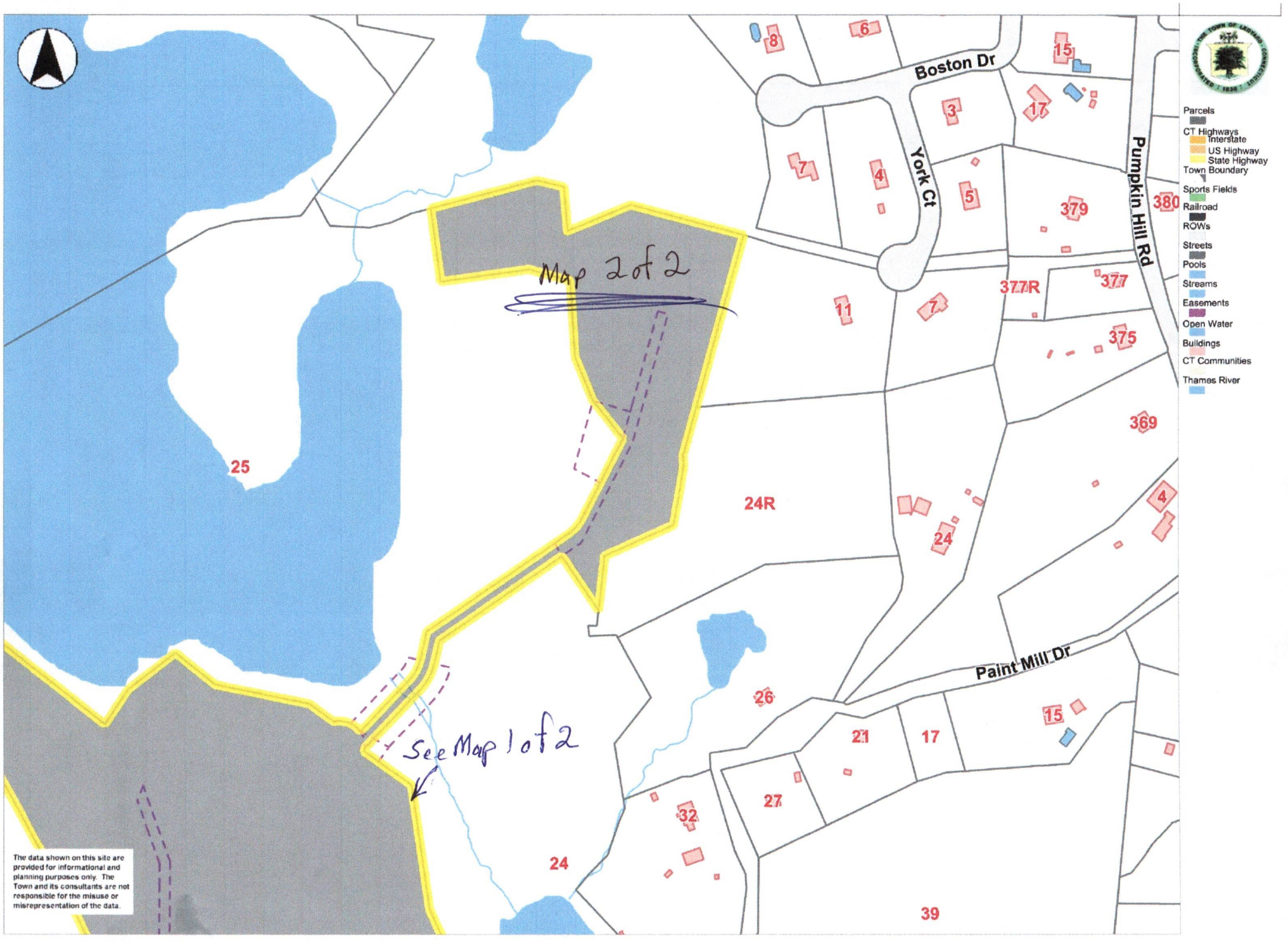
Clear invasives @ Dam Location (Fribrook Pond) at road bridge crossing (preexisting roadway)

IWW Commission Disposition: Per Section _____, the proposed activity is classified as Class _____, and it is determined that:

No permit is required - As of Right/Non-Regulated_____ Permit Required: _____

AS OF RIGHT DETERMINATION REQUEST – *NO FEE*


See Map 2 of 2
Invasives clearing area in footprint of existing road
Map 1 of 2
Parcel 141-530-332
332 Colonel Ledyard Highway
44.81 acres
Colonel Ledyard Hwy
Paint Mill Dr
24R
26
21
27
32
24
329R
52
340
350
346
344
338
337
336
334
333
332
331
330
327
328
Parcels
CT Highways
Interstate
US Highway
State Highway
Town Boundary
Sports Fields
Railroad
ROWs
Streets
Pools
Streams
Easements
Open Water
Buildings
CT Communities
Thames River
The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.
Founders Preserve - IWCC - "as of right application" 11-24-2025
0
400
800 ft
Printed on 03/29/2023 at 10:43 AM
Ledyard, CT MapsOnline



0 400 800 ft

Printed on 03/29/2023 at 10:45 AM

Ledyard, CT MapsOnline

File #: 25-2889 **Agenda Date:** 12/2/2025 **Agenda #:** C.

LAND USE APPLICATION

Subject/Application:
IWWC#25-26AR - Pike Marshall Preserve, 104 Gallup Hill Road (MAP ID: 85-810-104), Ledyard, CT - Applicant/Owner, Avalonia Land Conservancy, Inc. for as of right determination to clear invasive species across an existing causeway located on Pike-Marshall Preserve southeasterly of Morgan-Billings cemetery. (Submitted 11/24/25, Date of Receipt 12/2/25, DRD 2/4/25).

Background:
(type text here)

Land Use Director/Town Planner:
(type text here)

IWWC#25-26AR

FDH1

TOWN OF LEDYARD
CONNECTICUT
Inland Wetlands and Watercourses Commission

741 Colonel Ledyard Highway
Ledyard, CT 06339-1551
(860) 464-3216
FAX (860) 464-0098
www.ledyard.town.ct.us

AS OF RIGHT/NON-REGULATED ACTIVITIES

DETERMINATION REQUEST

Applicant: Avalonia Land Conservancy Inc Owner (if different): —

Address: 756 Colonel Ledyard Hwy, Ledyard CT Owner Address: —

Phone #: 860-884-3500 Phone #: —

- I have received a copy of Section 4 *Permitted Uses as of Right & Non-regulated Uses*

Location of Property: 199-200 Lambstown Road, Ledyard CT

Tax Assessor's Map #: _____ Zone District: _____

Total regulated area disturbed: _____ sq. ft./_____ ac.

Detailed description of how the proposed activity meets Section 4 of the IWWC Regulations:

Clearing Causeway across Pond on Pike-Marshall past Morgan-Billings cemetery

IWW Commission Disposition: Per Section _____, the proposed activity is classified as Class _____, and it is determined that:

No permit is required - As of Right/Non-Regulated_____ Permit Required: _____

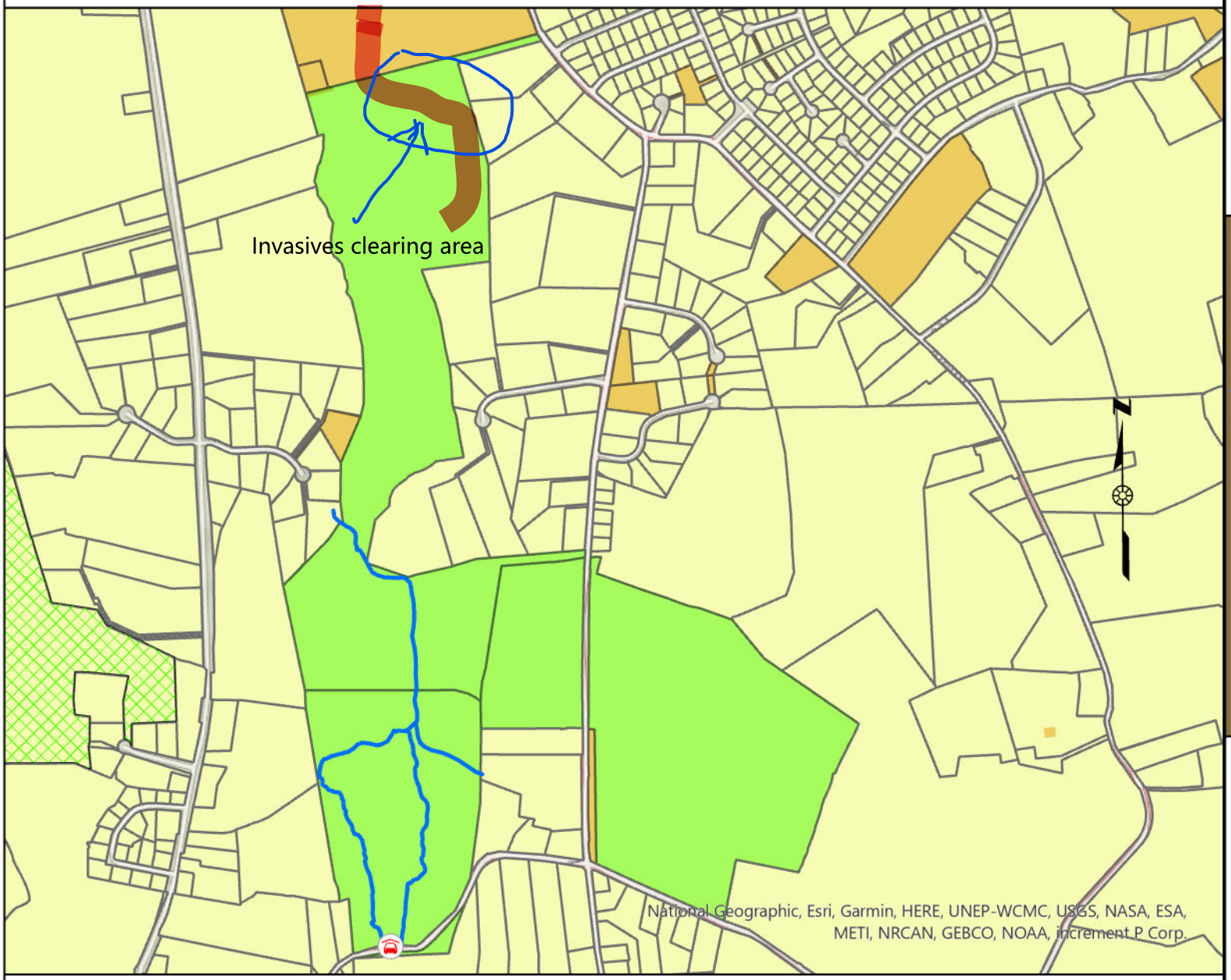
AS OF RIGHT DETERMINATION REQUEST – *NO FEE*


allup Hill Rd
Colonel Ledyard Hwy
Gallup Hill Rd
Greystone Ct
Gallup Hill
Baptist Church
Colonel Ledyard Hwy
Gallup Hill Rd
Pennywise Ln
Carriage Trl
1
2
3
210

Avalonia Land Conservancy
P.O. Box 49, Old Mystic, CT 06372
https://avalonia.org

Pike Marshall

272.05 Total Acres

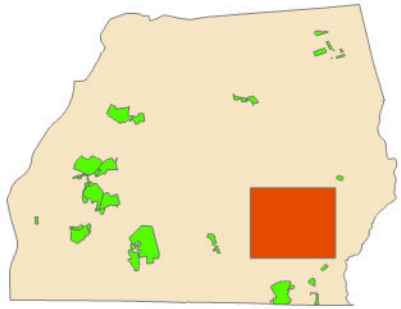


0 0.15 0.3 0.45 0.6 0.75 Miles

Map Date - March 6, 2021

Parking addresses are for navigation use only. Some are private property near parking site. This map is intended for general guidance and recreational use of the property only. Data shown on this map may not be complete or current. Hikers do so at their own risk.

Ledyard



Legend

- Avalonia Properties
- Ledyard municipal property

Trail Blaze

- Blue

Parking

- Street

Notes

Avalonia Land Conservancy properties are open for public access. Dogs must remain on a leash at all times.

Do not disturb stone structures or remove plants or other artifacts from property.

Load free "ArcGIS Explorer" app and search for "Avalonia Online Map" to view our properties and follow trails interactively.

File #: 25-2886 **Agenda Date:** 12/2/2025 **Agenda #:**

MINUTES

Minutes:
IWWC Regular Meeting Minutes of November 18, 2025

File #: 25-2887 **Agenda Date:** 12/2/2025 **Agenda #:**

MINUTES

Minutes:
IWWC Special Meeting Site Walk Minutes of November 22, 2025

File #: 25-2885 **Agenda Date:** 12/2/2025 **Agenda #:** A.

REPORT

Staff/Committee Report:
Wetlands Staff Report of December 2, 2025