

APPENDIX D:

Agency and Other Correspondence Regarding the Mansfield Hollow Area

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Friends of Mansfield Hollow
5 C Sycamore Drive
Storrs, CT 06268
August 30, 2008

Matthew Hart, Town Manager
Town of Mansfield
S. Eagleville Road, Storrs, CT

Dear Mr. Hart

We, the members of the Executive Board of Friends of Mansfield Hollow have reviewed the proposal for increased construction in our area by the CL&P. We considered the overwhelmingly negative effects such a proposal would have to the entire flood control acreage in our town. The acreage includes a large area set aside as a State Park, and an even larger area designated a Wildlife Management Area.

We therefore wish to convey to you our opposition to routing the project through Mansfield Hollow;

First, there is the impact that the actual construction would have upon both wildlife and recreational activities in our "big back yard"

Second, raising the towers to the projected height of 200 additional feet would require drastic widening of the right of way; this would take away much scenic beauty, adversely affect the environment, and result in a significantly negative impact on the recreational activities in the entire area. Many trails pass under these lines, and the vibration is often felt by hikers below!

Thank you for your consideration.

Betty Robinson, President, FMH

From: meleap@nu.com
Sent: Tuesday, September 09, 2008 1:12 PM
To: Eckenroth, Lorraine
Cc: galliml@nu.com
Subject: Fw: Lake rd transmission line

Lorraine,

Here's the email string that I discussed at today's meeting (for inclusion into Expe

Thanks.

Tony Mele
Project Manager, New England East-West Solution Northeast Utilities
107 Selden Street
Berlin, CT 06037

860-665-4722 (office)
860-305-8560 (cell)
meleap@nu.com

----- Forwarded by Anthony P. Mele/NUS on 09/09/2008 01:11 PM -----

Carolyn Stearns
<cstearns07@hotmail.com>

Anthony P. Mele/NUS@NU

To

cc

09/08/2008 09:34
PM

Subject

RE: Lake rd transmission line

Thank you for the update. I still would like to walk the line area with you. Right I have also put the meeting date on my calendar and appreciate the notice for it. I

> Subject: RE: Lake rd transmission line
> To: cstearns07@hotmail.com
> From: meleap@nu.com
> Date: Mon, 8 Sep 2008 18:21:27 -0400

>
>
> Ms. Stearns:

> I just wanted to give you an update on the Interstate Reliability Project.
> We filed our Municipal Consultation Filing ("MCF") on August 19th,
> delivering the it to Elizabeth Paterson, Matt Hart and the Town Library.
> We have schedule an open house for Mansfield on October 22 at the Mansfield
> Community Center between 5:30 and 7:30 pm. Our plan is to file our

> production, amount of area disturbed through the line upgrade, and if there
> will be any compensation for the lost production. It is our hope that
> the continuance of this beneficial dialog will help to secure a
> viable transmission line for the state energy program with as little
> loss or disruption as possible to those impacted by the project.
> Together we can hopefully find understanding and solutions.
> I will also just offer a note of thanks for your kindness in regards
> to my father sitting in. Caring for someone with Alzheimers can be
> challenging and I appreciated your flexibility in the emergency
situation.
> Carolyn Stearns 860-690-4292 or cstearns07@hotmail.com
>
> > Subject: Re: Lake rd transmission line
> > To: hbull39@hotmail.com
> > CC: cstearns07@hotmail.com; denise.merrill@cga.ct.gov;
> > sheaka@nu.com;
> mortoml@nu.com; dorsetd@nu.com
> > From: meleap@nu.com
> > Date: Tue, 24 Jun 2008 21:22:56 -0400
> >
> >
> > Mr. Bullard,
> >
> > Thanks for taking the time to meet with us last week. Our discussion
> > provided the kind of feedback the Company is looking for as part of
> > its siting process.
> >
> > I was planning on walking part of the ROW along with other
> > Interstate project team members on Tuesday, July 1st. Please let me
> > know if that
day
> > works for you.
> > We're willing to meet you and Ms. Stearns at each of your
> > properties,
if
> > that's convenient.
> >
> > Our initial plan was to begin the walkdown between 11 and 12.
> >
> > I'll give you a call to firm up plans later in the week.
> >
> > Ms. Stearns, how may I contact you?
> >
> >
> > Regards,
> >
> > Tony Mele
> > Project Manager, New England East-West Solution Northeast Utilities
> > 107 Selden Street
> > Berlin, CT 06037
> >
> > 860-665-4722 (office)
> > 860-305-8560 (cell)
> > meleap@nu.com
> >
> >
> >
> > Hill Bullard
> > <hbull39@hotmail.

> > com> To
 > > Anthony P. Mele/NUS@NU
 > > cc
 > > 06/20/2008 09:41 carolyn stearns
 > > AM <cstearns07@hotmail.com>, Thomas D.
 > > Dorsey/NUS@NU, Kathleen A.
 > > Shea/NUS@NU, Margaret L.
 > > Morton/NUS@NU, denise merrill
 > > <denise.merrill@cga.ct.gov>
 > > Subject
 > > Lake rd transmission line
 > >
 > >
 > >
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 > >
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 > >
 > >
 > >
 > >
 > > Tony,
 > >
 > > It was nice to meet you at long last. As can see, agricultural lands
 > > require a little more care during construction so that damage to the
 > > land
 > > is minimized and crop loss is recognized.
 > >
 > > For our situation off Shuba Lane in Chaplin, we think the standard H
 > > frame
 > > structures would be best.
 > >
 > > Looking forward to our walk in a couple of weeks.
 > >
 > > Hill
 > >
 > > Need to know now? Get instant answers with Windows Live Messenger.
 > > IM
 > > on
 > > your terms.
 > >
 > > -----
 > > *****
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 > >
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125 A Bassetts Bridge Road
Mansfield Center, CT 06250
February 17, 2010

Pamela Bradstreet
Realty Specialist
Real Estate Divison
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742

Dear Ms Bradstreet:

I have been given your name by Suzanne M. Barkyoub of the CT State DEP. I am enclosing information on underground superconductors that I would like you to consider.

I am a property owner, adjacent to the Mansfield Hollow State Park, on the route of the proposed high tension line improvement through Mansfield. I am a member of a group called "Friends of Mansfield Hollow. As a committee we are concerned about the high tension wires that go through the park. The park, owned by the Army Corps of Engineers, is used as a family recreation area and a site of Governor Rell's program "No Child Left Inside."

Friends of Mansfield Hollow, as well as myself personally, are concerned that the increased height and land use being proposed for the transmission wires will require a use of more of the park land. We are also concerned about emission leakage and the possible health risks associated with them.

The enclosed article from the Christian Science Monitor shows a possible new means of transmitting electricity that requires less land usage and is considerably more efficient. I am sending this article to you because I understand that Northeast Utilities is requesting more land from the Army Corps of Engineers. Please consider all possibilities for the most efficient, effective and healthy transmission of electricity before you commit to releasing land for a plan that may become outdated in the near future.

Please contact me regarding your consideration of this new possibility for a technology for transmission that is made in nearby Massachusetts. As I am currently traveling, the most effective way to reach me is by email at donhoyle@aol.com.

Sincerely,



Donald B. Hoyle

ERASING THE LINES

BURIED
SUPER-
COOLED
POWER
LINES MIGHT
TRANSMIT
SOLAR AND
WIND
ENERGY
EFFICIENTLY
OVER LONG
DISTANCES.

BY MARK CLAYTON / STAFF WRITER

A bundant solar and wind power lies across America's vast plains and deserts, but getting that distant renewable energy to cities without wrecking vistas and raising lawsuits over transmission lines is a sizable hurdle for green-leaning utility companies. Thousands of miles of towering electrical lines will be needed before big alternative-energy projects can take hold. Yet such power lines portend years of legal snarls over the not-in-my-backyard problem.

Into this fray comes Phil Harris and his pioneering plan to use underground superconducting cables that will be both hidden from view and more efficient than traditional lines. Mr. Harris wants to build a virtually invisible network that would create a national renewable-energy hub located in the Southwest.

Today, the nation's power grid is in three disconnected pieces - Eastern, Western, and Texas. Harris's project, called Tres Amigas, would use supercon-

ducting cable to provide the first large-scale commercial trading link between those big grids - opening up new markets for renewable wind and solar power in the American East and West.

These superconducting cables contain special materials chilled to superlow temperatures, allowing electricity to flow efficiently, with little resistance. While Harris's "hub" would run in a loop, it would demonstrate the potential for superconducting power lines that could travel long distances and eliminate the 7 percent of electricity wasted by ugly, above-ground transmission lines.

In papers filed in early December with the Federal Energy Regulatory Commission, Tres Amigas outlined its plans for a \$600 million, 15- to 20-mile triangular-shaped hub near Clovis, N.M., constructed using superconducting cable.

Such a trading hub could spur investment in wind and solar power development in many states around the region, say officials with Public Service Company

of New Mexico (PNM). The company is weighing construction of a new "wind collector" transmission line to connect new wind farms in the east-central part of the state with Tres Amigas, if the new transmission hub is built.

Today, PNM has "no significant ability" to move power to the eastern US or to Texas, says Greg Miller, lead engineering and operations director for PNM. While power lines that run west to California remain congested, Tres Amigas would open up the other two markets - allowing development of New Mexico wind power.

"We have very rich potential for renewable-energy development, particularly with wind in the east-central part of our state," Mr. Miller says. With at least 10,000 megawatts of wind power development currently waiting for transmission lines to be built, "we think [the hub] could be the trigger that will allow us to move forward."

The supercooled cables from American Superconductor, the nation's largest maker of superconducting cable, are al-

Continues on next page

125 A Bassetts Bridge Road
Mansfield Center, CT 06250
February 17, 2010

Salvatore Giuliano
Manager
Corporate Property Management
Northeast Utilities System
P.O.Box 270
Hartford, CT 06141-0270

Dear Mr. Giuliano:

I have been given your name by Suzanne M. Barkyoub of the CT State DEP. I am enclosing information on underground superconductors that I would like you to consider.

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"We have very rich potential for renewable-energy development, particularly with wind in the east-central part of our state," Mr. Miller says. With at least 10,000 megawatts of wind power development currently waiting for transmission lines to be built, "we think [the hub] could be the trigger that will allow us to move forward."

The supercooled cables from American Superconductor, the nation's largest maker of superconducting cable, are al-

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**Connecticut
Light & Power**
The Northeast Utilities System



Interstate
Reliability Project

March 22, 2010

Mr. Donald Hoyle
125 A Bassetts Bridge Rd
Mansfield, CT 06250

Dear Mr. Hoyle,

Thank you for your letter dated February 17, 2010 regarding the Interstate Reliability Project (Project). The Interstate Project is a proposed 37-mile-long 345-kV transmission line running from Card Substation in Lebanon to the Rhode Island border in Thompson, and is one of four major transmission projects that make up the New England East-West Solution (NEEWS).

We appreciate your commitment to preserve the Mansfield Hollow area. To help address the questions and concerns you raised in your letter, I would like to provide some background on the Project's siting and permitting efforts. The objective of these efforts is to identify a route for the proposed line that considers and balances system reliability, cost and environmental impacts while adhering to safety and other regulatory standards.

Prior to constructing a new transmission line in Connecticut, the Company must file an application with the Connecticut Siting Council (CSC) for a Certificate of Environmental Compatibility and Public Need. The application will describe the proposed project as well as discuss why the project is needed and the project's impact on the environment. The first step in the application process is to submit a Municipal Consultation Filing (MCF) to communities along the project's proposed route. The MCF provides an overview of the project and a detailed mapping of the proposed line route as well as descriptions of alternative routes and route variations. After the MCF is submitted, public meetings are often held so that the Company may receive feedback on the project from town officials and other concerned residents. This feedback is provided to the CSC when the Company files its application.

Specific to the Interstate project, the Company submitted the MCF in August 2008 and held open houses for the public in Brooklyn, Windham, Mansfield and Danielson during September through November of that same year. The Company is proposing to build the new 345-kV line alongside an existing 345-kV transmission line in an existing right-of-way using transmission structures similar to those used to support the existing line. You can find the MCF at the Mansfield Town Hall and the public library. It is also available online at www.NEEWSprojects.com under "Public Involvement" within the Interstate Reliability Project section of the website.

Our application to the CSC is nearly complete. We are currently working with the independent electric system operator for New England, also known as ISO New England, to re-evaluate exactly when the project needs to be in service. This re-evaluation has delayed the filing of our application, which was originally scheduled for late 2008. Once this evaluation is complete, we will finish our application and file it with the CSC. We hope to file the application near the end of 2010.

Similar to the MCF, the application will describe the proposed line route, along with alternative routes the Company considered for the Project (e.g., alongside existing corridors such as railroads and gas pipelines) and routing variations that were evaluated to bypass certain residential areas, schools and day-



**Connecticut
Light & Power**

The Northeast Utilities System



Interstate
Reliability Project

care facilities. Some of these route variations consider the installation of underground cables in lieu of overhead line.

Now that I've provided some background, let me address some specific concerns you raised your letter.

Height of Proposed Structures

As stated above, the structures for the Project will be similar in appearance to existing line structures through the Mansfield Hollow area, but will range from 5 to 15 feet taller depending on the particular structure location. Cross sections depicting the proposed structures can be found within Section DR.3 of Volume 5 of the MCF (as drawings XS-3 and XS-5 enclosed herein).

Increased Land Use in Mansfield Hollow Required by the Project

As stated in our MCF, CL&P has adequate right-of-way to construct the Project except for two (2) segments running through the Mansfield Hollow area: a 1-mile segment running through Mansfield Hollow State Park in Mansfield and a ½-mile segment running through Mansfield Hollow Wildlife Management Area in Chaplin. In each of the segments, CL&P has a 150-foot wide easement agreement with the U.S. Army Corps of Engineers (USACE). We are requesting a widening of the easement in the 1-mile segment in Mansfield by 55 feet and a widening of the easement in the ½-mile segment in Chaplin by 85 feet. These different additional widths are based on the different line configurations we would propose for those two segments.

CL&P has begun preliminary discussions with the USACE regarding right-of-way expansion through Mansfield Hollow. The USACE requires a detailed environmental assessment of the routing options through Mansfield Hollow prior to making a decision on this matter. This assessment will be included as part of a permit application to the USACE which is required by Section 404 of the Clean Water Act, which regulates the discharge of dredged, excavated, or fill material in wetlands, streams, rivers and other U.S. waters. This permit application will be submitted to the USACE shortly after the CSC application is submitted.

Electric and Magnetic Fields

Our application is required to comply with the CSC's "EMF Best Management Practices for the Construction of Electric Transmission Lines". These Best Management Practices require that we prepare a Field Management Design Plan which will describe alternative line configurations that will reduce magnetic field levels at the edge of the right-of way where the new 345-kV line would be adjacent to certain land uses. Our application will contain such a Plan.

Use of Underground Superconducting Transmission Lines

Your letter referenced the December 20, 2009 Christian Science Monitor article describing the use of underground superconducting cables to transmit electricity. Based on our research, the Company feels that superconducting cable technology is not yet demonstrated or available for the transmission-class needs (voltage and capacity) of the Interstate Project.

The Electric Power Research Institute (EPRI), an organization which helps member utilities to keep abreast of new technology developments, tracks projects using superconducting power cables. According to EPRI, most superconducting cable projects are currently for demonstration purposes and



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Interstate
Reliability Project

very short. Only one such project employs transmission voltage (138 kV) and transmission-class capacity (574 MVA). That project, on Long Island, is 600 meters long, was commissioned in spring 2008 and through summer 2008 cost \$46.9 million.

Volume 3 of the Interstate MCF contains the "Tutorial – Underground Electric Power Transmission Cable Systems", by Cable Consulting International, Ltd (CCI). This report provides additional information regarding superconducting cable technology, as well as other types of underground cables, and is enclosed with this letter. Cross-linked polyethylene (XLPE) is an example of a cable technology discussed in the CCI document which is currently more cost effective and technically feasible compared to superconducting cable for 345-kV applications. However, any underground alternative, regardless of cable technology, would likely have construction costs on the order of ten (10) times more than the equivalent length of the Proposed Route being replaced.

We welcome the opportunity to meet with you and the Friends of Mansfield Hollow as we get closer to filing our siting application. This would be an opportunity to discuss your specific concerns and questions you or other members of your organization may have regarding the Project. We have added you to a list that will receive notification in advance of when the CSC application filing will occur.

In the meantime, should you have any questions, please contact the NEEWS Project Hotline at 1-866-99-NEEWS or contact me directly at the number listed below.

Finally, it is my understanding that you've sent a letter to Ms. Pamela Bradstreet of USACE that is similar to the letter that you sent to Mr. Giuliano. In order that all parties have consistent information, I've carbon-copied Ms. Bradstreet on this letter.

Sincerely,

Tony Mele

Project Manager - Interstate Reliability Project
Northeast Utilities
PO Box 270
Hartford, CT 06141
860-665-4722 (o)

Enclosures (Cross Sections XS-3 and XS-5, and CCI Tutorial)

cc: Pamela Bradstreet, U.S. Army Corps of Engineers, Real Estate Division

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Project Title: Interstate Reliability
Date: Friday, June 25, 2010
Subject: Mansfield - Loxsom
Ball-in-Court:
Status: Closed

From: Mansfield, CT (Abutters)
Fred Loxsom
242 Browns Rd

To: Anthony Mele

Phone:

DESCRIPTION

Issue Type: Project Info

Line List #:

Fred Loxsom
242 Browns Rd
Storrs CT
860-423-7282
860-465-0368 o
860-455-3422 c

6/25/10 - Mr. Loxsom (Professor at Eastern CT State U) called Tony to request a public presentation of the Project in the September / October timeframe focusing on the Project's impact in Mansfield Hollow. Mr. Loxsom explained that he is a member of the Friends of Mansfield Hollow and was following up on the letter NU sent to Mr. Hoyle a few months back. He said he was just getting involved in the issue. See attached phone log from Tony's conversation with Mr. Loxsom.

Action: Tony agreed to contact Mr. Loxsom once the Project has learned of the outcome of ISO's reassessment, probably in the August / September timeframe.

1Q 2011 - Mr. Loxsom and Friends of Mansfield Hollow are on stakeholder list and will receive pre-MCF outreach.

NEEWS

Meeting / Phone Log Summary

Project	Interstate
Town	Mansfield
Meeting or Call	Call
Party	Fred Loxsom - 860-465-0368 o, 860-455-3422 c
Date:	June 25, 2010
Time:	4:30 p
Attendees:	

Mr. Loxsom called me to request a public presentation of the project in the September / October timeframe focusing on the Project's impact in Mansfield Hollow.

Mr. Loxsom explained that he is a member of the Friends of Mansfield Hollow and he was following up on the letter we sent to Mr. Hoyle a few months back. He said he was just getting involved in the issue and admitted he some of the things we discussed he was hearing '3rd hand'. Mr. Loxsom works in the energy field and works at Eastern CT State University (he also said he understands the need for the Project).

Regarding the meeting that Mr. Loxsom requested, I told him that we were waiting for the ISO's reassessment to be completed and when ISO confirmed the need for the Project, the Company would formulate it's plan to file the Project's siting application. At that time we would probably conduct some additional outreach such as open houses or other public meetings ahead of the filing. I suggested that the group could attend and learn more about the Project at this time. He agreed that this was reasonable.

Other issues discussed:

- The main concern of the Friends is the tree clearing in the Hollow. Mr. Loxsom explained that they've spoken to 'park management' and suggested that the line be built underground. 'Park management' (he didn't remember the details of who the person was) suggested that UG construction would have a more adverse impact than an OH line. He was familiar with the increases in ROW we were requesting (55' and 85' in Mansfield and Chaplin) and acknowledged that clearing would actually be beneficial to certain bird habitats.
- He's hearing (again 3rd hand) that our project would cause 'homes and businesses to move'. He referred to Mt. Hope and I confirmed that we are speaking with School, but did not elaborate on the nature of these discussions. I also told him that to the best of my knowledge, no homes or businesses would be required to move as a result of the Project.
- I agreed to contact Mr. Loxsom once we learned of the outcome of ISO's reassessment, probably in the August / September timeframe.

**NEW ENGLAND
EAST  WEST
SOLUTION**

Interstate Reliability Project Update
Friends of Mansfield Hollow
Board Members

August 11, 2011



Agenda



- Connecticut's energy situation
- The transmission grid is operated within a regional and national framework
- The need for the Interstate Reliability Project
- CL&P's proposal for Mansfield Hollow
- Public participation in the siting process

Connecticut's Electric Energy Situation



- The transmission system remains constrained in southern New England, causing Connecticut consumers to pay higher rates due to the use of higher-cost, less-efficient, and environmentally-challenged in-state generation.
- By relieving transmission system constraints in southwest Connecticut, the recently completed Bethel-Norwalk and Middletown-Norwalk Projects have saved Connecticut consumers hundreds of million of dollars in congestion charges and improved system reliability.
- Connecticut can only import about 30% of its peak electricity needs, while other New England states can import 50% - 100% to meet their needs.
- Lack of import capability limits Connecticut's ability to access readily available, less-costly, clean and renewable energy resources outside the State.

Connecticut can address these concerns by modernizing its transmission system to relieve system constraints (“bottlenecks”), thereby expanding access to cleaner, cheaper sources of generation, and enhancing system reliability.



Connecticut Is Not an Energy Island



- At the transmission level, everything east of the Rockies is all interconnected into one power grid,
- Outages on the transmission system can affect a much larger area. (Remember August 2003?)
- Because bottlenecks and weaknesses on the transmission system affect how power can be reliably dispatched, they significantly affect the price consumers pay for power.
- Under the Federal Energy Regulatory Commission's (FERC) jurisdiction, the Independent System Operator for New England, ISO-NE, determines the need for reliability upgrades of the region's transmission system. ISO-NE has recently reassessed existing system conditions and has determined that the need is now for certain transmission projects, including the Interstate Reliability Project.



The New England East-West Solution (NEEWS)



Interstate Reliability Project:

- Corrects regional reliability problems associated with east-west/west-east power flow constraints in southern New England
- Reduces dependence on less-efficient, expensive and “environmentally-challenged” in-state generation
- Allows access to readily available, less-costly and renewable energy resources outside the State
- Ensures against unexpected system events and generator retirements

* Project under construction

Interstate Reliability Project – Overview

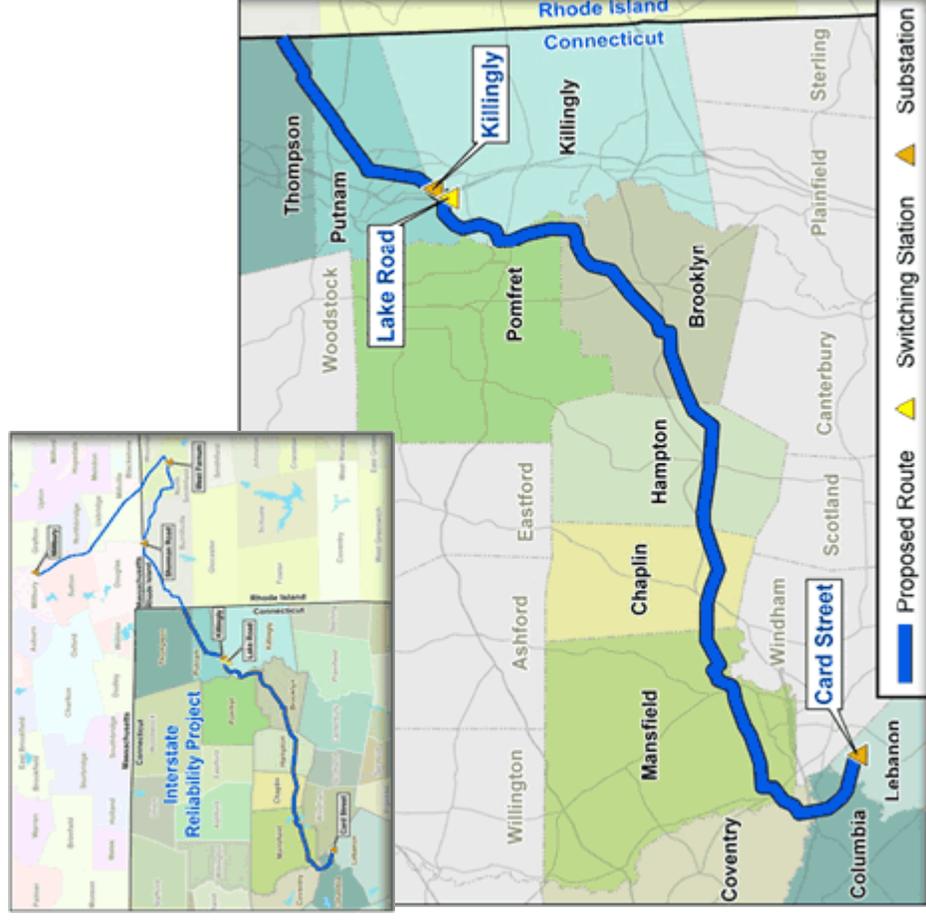


Proposed Project

- Project spans CT (CL&P), RI and MA (National Grid)
- Connecticut portion:
 - ▶ Utilizes existing CL&P right-of-way for the majority of the route
 - ▶ 37 miles of new 345-kV overhead lines from Card Street Substation in Lebanon to Rhode Island border
 - ▶ Station upgrades

Connecticut Municipalities

- Lebanon, Columbia, Coventry, Mansfield, Chaplin, Hampton, Brooklyn, Pomfret, Killingly, Putnam, and Thompson (Windham – alternate route town)



Interstate Reliability Project Estimated Timeline



	2008	2009	2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	2012	2013	2014	2015
Public Open Houses Held											
Municipal Consultation Filing (MCF) Issued to Affected Towns											
Supplemental Municipal Consultation Filing to Towns											
Stakeholder Briefings and Additional Public Open Houses											
Siting Application Filed with the Connecticut Siting Council (CSC)											
CSC Hearings and Siting Decision & Order											
State and Federal Permitting Approvals											
Public Open Houses on Construction Process*											
Development and Management (D&M) Plans and Construction*											
Targeted In-Service Date*											
Community Outreach and Communications											

* Pending siting approval



CL&P Proposed Route in Mansfield Hollow Area



- Existing CL&P transmission line on right-of-way was installed in the early 1970's.
- Each of the two right-of-way segments in Mansfield Hollow has a width of 150 feet; typical utility right-of-way width in the surrounding area is about 300 feet.
- CL&P's proposal utilizes existing ROW in Mansfield Hollow State Park, installing the new line next to the existing line.



Design Options for Mansfield Hollow



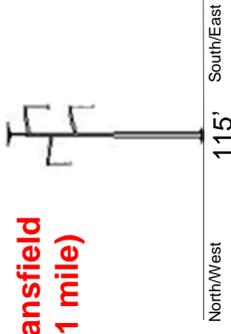
CL&P has developed three design options for building in Mansfield Hollow.

- Proposed design balances reliability needs, environmental impacts and cost, and meets our obligation to propose the lowest reasonable cost option to our regulators.
- All three design options use the existing , approximately 1.5 mile right-of-way. (There is an existing transmission line currently on the right-of-way.)
- Two of the options require easement expansion (widening) on existing ROW; CL&P has initiated discussions with the Army Corps of Engineers (ACOE) to acquire these expansion rights.
- Ultimately, after considering comments received from stakeholders, the environmental agencies and the Connecticut Siting Council will decide on which design is the best suited option.

Design Options for Mansfield Hollow, cont.



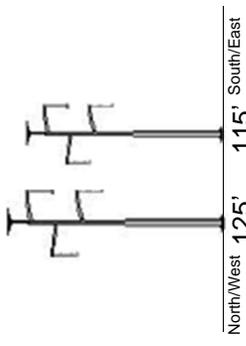
Mansfield (1 mile)



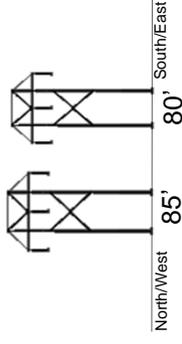
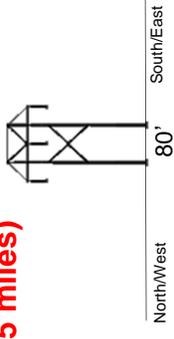
Current Configuration

CL&P's Proposed Design

- Least cost in-ROW design option
- Matches existing structures
- Some ROW expansion needed

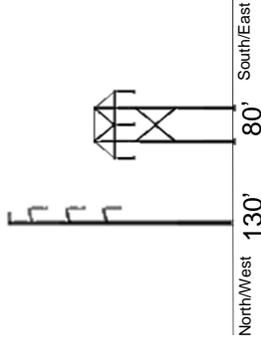
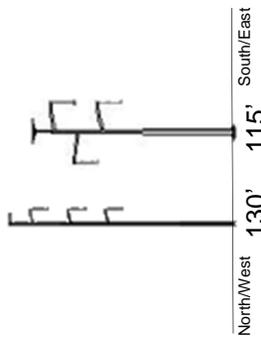


Chaplin (.5 miles)



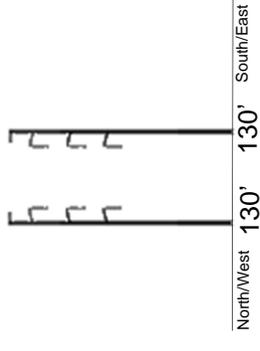
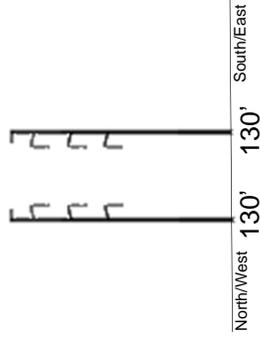
Design Option #1

- Less ROW expansion needed
- Taller new structure



Design Option #2

- Most expensive in-ROW design option
- No ROW expansion needed
- Taller new and replaced structures



Opportunities for Public Participation in the Siting Process



First Step: **CL&P seeks stakeholder input as part of its Municipal Consultation Process**

- ▶ CL&P submits its Municipal Consultation Filing to affected Towns.
- ▶ As part of the MCF process, CL&P holds Public Open Houses, allowing residents and other stakeholders to meet with Project representatives, ask questions, and provide comments.
- ▶ Comments received as part of the MCF process are provided to the CSC.

Second Step: **CL&P files its siting application with the CSC**

- ▶ The CSC conducts public comment hearings.
- ▶ The public, municipal officials and other interested stakeholders are given the opportunity to participate in the public comment hearings.

Third Step: **The CSC issues its Decision**

- ▶ If approved, CL&P develops construction plans, called Development and Management Plans (D&M). The D&M process offers additional opportunity for public input.

How the Public Can Participate in the MCF and Siting Process



- Municipalities, residents and other stakeholders can submit comments to CL&P – at Open Houses, through library comment cards, on-line or in a letter to a town official – all comments received by CL&P will be forwarded to the CT Siting Council.
- Open Houses are scheduled for:

Tuesday, August 23, 2011	Wednesday, September 14, 2011
6:00 p.m. – 8:00 p.m.	6:00 p.m. – 8:00 p.m.
Quinebaug Valley Community College	Mansfield Community Center
742 Upper Maple Street	10 South Eagleville Road
Danielson, CT 06239	Mansfield, CT 06268
- Municipalities, residents and other stakeholders can also learn how to participate in CSC hearings through the CSC website - (www.ct.gov/csc for public participation guidelines)

Proactive Community Outreach



- A comprehensive Project website (www.NEEWSprojects.com)
- A Project Hotline (1-866-99-NEEWS) and email (NEEWS@nu.com) to facilitate inquiries from stakeholders
- A formal Stakeholder Inquiry Process to quickly acknowledge all questions and concerns
- Regular project briefings with local officials
- Project briefings with business, environmental and community-based organizations
- Open houses for the public to learn more about the Project and opportunities to participate in the regulators' consideration of the Project
- Periodic mailings to residents along the Project route
- One-on-one meetings with residents, as appropriate

Contact Us



Municipalities:

Tony Mele
Northeast Utilities, Project Manager
(860) 665-4722
meleap@nu.com

Jeff Buckley
Burns & McDonnell, Project Manager
(203) 949-2359
jbuckley@burnsmcd.com

General Public:

1-866-99-NEEWS (63397)
1-888-773-5384 (Spanish)
NEEWS@nu.com
www.NEEWSprojects.com



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**Friends of Mansfield Hollow
5 Sycamore Drive Apt C
Storrs, CT 06268-2021**

September 27, 2011

Mr. Anthony P. Mele
Transmission Project Manager
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Re: Interstate Reliability Project/Mansfield Hollow State Park and associated public lands

Dear Mr. Mele:

On behalf of the Board of Directors of FMH, thank you for the presentation that you and several of your associates made to us on August 11th. Members of the board who were unable to attend were subsequently provided with copies of the PowerPoint material you furnished at the meeting. So, we believe we are adequately prepared to take a position on the proposed project.

Let me point out that members of FMH and our board, in particular, have varying opinions about the project reflecting their own personal perspectives. So it's important to say in advising you of the FMH board's consensus position that it applies only to what we regard as being in the best interest of Mansfield Hollow State Park and public lands associated with it (wildlife management areas, flood retention areas, etc.). From what is reported below, neither opposition nor endorsement of the project should be inferred regarding judgment about broader community economic, cultural and economic considerations raised by the proposed project.

Among the project options offered, FMH favors "Design Option #2" (monopole design/*no* right-way-expansion) for MHSP and associated public lands. From our understanding of it, this option appears best because: 1) The process of its construction would cause the least disruption of the environment; 2) The permanent facilities to be constructed would be *within the existing right-of-way*; 3) Its visual impact would be less than that of other options of which you informed us; and 4) The construction period is expected to be the shortest.

FMH trusts that construction will be undertaken with maximum regard for the environment, minimum disruption for park users and extra-cautious protection of public safety – matters that FMH intends to monitor closely.

Once again, thank you for your effective efforts to communicate with us. Please keep us informed of developments concerning the project, especially any changes in routing, design and construction plans that may come under consideration.

Very truly yours,

Elizabeth Robinson aka Betty!

Elizabeth Robinson,
President

c: FMH Board members

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**Connecticut
Light & Power**

The Northeast Utilities System



NEEWS
Interstate
Reliability Project

October 25, 2011

Mr. Peter Curry
101 All Hallows Road
Danielson, CT 06239-2017

Subject: Proposed Interstate Reliability Project;
Response to your September 27, 2011 letter regarding design configurations through Mansfield Hollow

Dear Peter,

Thanks for taking the time to speak with me regarding Betty Robinson's letter of September 27. During our discussion, I pointed out to you that there may be a misunderstanding regarding the construction duration to build the so called No Expansion Option (Design Option 1 in the presentation package we provided on August 11). Based on our calculations, the No Expansion option requires 2-3 months more construction time than the other Mansfield Hollow options being considered by NU. This is due to the fact that the existing line would have to be taken down and moved approximately 25 feet to the south within the existing ROW so that the new 345-kV line could be constructed next to this relocated line. We would essentially be building two new lines in the ROW and that would take longer than the other options.

This type of detailed information is provided in Section 10 of the Supplemental MCF that was issued on July 19. The information contained in Section 10 is indicative of the level of analysis that the Company is undertaking in order to evaluate the options for Mansfield Hollow. The discussion of the longer construction duration can be found in Section 10.4.2.

Connecticut Light & Power (CL&P) is very interested in your feedback on our evaluation and plans to include your feedback to the Connecticut Siting Council (CSC) and other state and federal agencies as part of the Project's siting and permitting process. As such, we want to be sure that you are clear about the construction time frames and other relevant information regarding each of the design options through Mansfield Hollow when you are developing your position on our proposed configurations for Mansfield Hollow.

To that end, I'd like to recommend the following:

1. The Company will provide the latest version of Section 10 for your use in evaluating our options
2. Representatives of the Project team will escort any members of the FMH board that can attend the November 3rd Open House at the Mansfield Community Center through the exhibits
3. Representatives of the Project team will attend the December 1st FMH Board meeting, if requested, to answer any questions that may arise



**Connecticut
Light & Power**

The Northeast Utilities System



Interstate
Reliability Project

4. Recognizing that not all board members would be able to attend the Open House, members of the Project team will meet prior to the FMH Board meeting with a smaller group of the board or members to explain how we are evaluating our options. I was thinking that we could meet with you and Fred Loxsom.

I have enclosed 15 copies of Section 10 so that you can distribute to other board members if you so choose. If you have any questions on these materials, please feel free to contact me any time.

Thanks again for your time.

A reminder that a second public Open House will be held on **Thursday, November 3, 6-8 p.m. at the Mansfield Community Center**, 10 South Eagleville Road in Mansfield. I will be there, along with other Project representatives, to share information and to address any specific questions regarding the proposed Project. I hope to see you there.

Sincerely,

Tony Mele
Project Manager – Interstate Reliability Project

Enclosure –Section 10, updated excerpts from Interstate Supplemental Municipal Consultation Filing, dated July 2010.

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NEEWS

Meeting / Phone Log Summary

Project	Interstate
Town	Mansfield
Meeting or Call	Call
Party	Peter Curry
Date:	Oct-17-2011
Time:	Noon
Attendees:	

Peter called in response to my email dated Oct 10 regarding FMH's letter to CL&P dated Sep 27.

That letter is attached.

My email, also attached, noted that there may have been a misunderstanding regarding the length of construction duration for the options the Project team discussed at its presentation to the FMH board on August 11th.

Peter called to get more information about the 'misunderstanding'.

I told Peter that during our presentation, we had pointed out that the duration to build Option 2, No ROW Expansion, would take longer to build than the other options (Proposed Design and Design Option 1, Minimal ROW Expansion) and I wanted to make sure the FMH understood that as they determined which configuration they preferred.

Peter responded that the members of the Board who attended our meeting based their preferred configuration on "materials left behind, not our memories". He did not say how the Board had reached the conclusion that the No Expansion option would have the shortest construction duration.

I explained to Peter that the No Expansion option consisted of tearing down the existing 345-kV line, re-building it on the south side of the ROW and then building the new 345-kV line next to the re-located line. In effect, we would be building two lines in the ROW, not one new line as would be the case with our Proposed Design and Design Option 1. I also told Peter that estimated construction time for the No Expansion option would be between 4-6 months where our Proposed Design would take 2-3 months to build.

I also pointed out to Peter that CL&P would like to include FMH's letter with our siting application and that we'd like FMH to have every

opportunity to base their position on accurate information regarding the options we are evaluating.

Peter asked for something in writing that would help explain the construction durations. I offered to send Peter Section 10 of the Supplemental MCF, which would provide a detailed description of the options we are evaluating for Mansfield Hollow.

Peter said that would be acceptable.

Peter noted that the next FMH Board meeting would be December 1st, so I should try to get that information out ASAP. I said I would send the package to his home address (15 copies) and I offered to be available for that meeting. Peter said that may be good because this issue was important to the FMH and having the correct facts would be very important.

I also pointed out to Peter that the Company was conducting an open house on November 3rd at the Mansfield Community Center and I would be happy to take any member of the Board through the open house if they cared to attend. Peter said he was not aware of the open house date. I told Peter that I sent him a reminder a few weeks ago and would be happy to resend. Peter said that the Board found it challenging finding time for Board meetings so there may not be many attendees at the open house.

He said he would probably be tasked with going (by Betty).

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Bandzes, Patricia

From: anthony.mele@nu.com
Sent: Tuesday, March 13, 2012 3:44 PM
To: anthony.mele@nu.com
Cc: carolyn stearns; Fred Loxsom; Betty Robinson; Peter Curry
Subject: Re: Update on CL&P Interstate Project and Mansfield Hollow

Hi all:

I wanted to provide one more heads up for the FMH.

We'll be conducting some additional cultural resource surveys in Mansfield Hollow State Park and Wildlife Management Area beginning in a few weeks.

Cultural resources are buried sites containing historic artifacts or human remains, Native American ceremonial landscapes, and standing structures that are significant to U.S. history. "Cultural Resource Surveys", are field efforts made by experienced historians and archaeologists to determine where such resources exist. The results of these surveys assist the Company in developing measures to avoid or minimize impacts to such resources, and further assist in the extensive environmental permitting effort for the Project.

The surveys we'll be conducting in the Mansfield Hollow area will involve digging small test pits to determine if such artifacts exist.

The surveys will be conducted in our existing ROW and our proposed expansion areas in Mansfield Hollow as well. Generally the surveyors dig the test pits and back fill them in the same day.

If you have any questions, please give me a call.

Tony Mele
Transmission Project Manager
Northeast Utilities

860-665-4722 (o)
860-305-8560 (c)

From: Anthony P. Mele/NUS
To: Betty Robinson <pbrobinson@snet.net>, Peter Curry <pcurry2@ct.metrocast.net>, Fred Loxsom <floxsom@charter.net>, carolyn stearns <cstearns07@hotmail.com>
Date: 03/06/2012 08:37 PM
Subject: Update on CL&P Interstate Project and Mansfield Hollow

All:

I hope you all are well. I wanted to take a minute to provide a quick update on the Project.

As you know CL&P filed its application with the Connecticut Siting Council (CSC) on December 23rd. This application has been assigned Docket # 424. As part of the siting process, the CSC has scheduled a series of Public Hearings to get feedback from local residents on the proposed Project. The hearings are being held next month at the:

- Lebanon First Safety Complex: Wednesday, April 17 at 7 pm
- Quinebaug Valley Senior Center (Brooklyn), Thursday, April 18 at 7 pm
- Mansfield Middle School, Tuesday, April 24 at 7 pm

In addition to the Public Hearings, the CSC has scheduled a series of field tours of the proposed Project route. The field tour of the proposed route in Mansfield, Coventry, Chaplin and Hampton is scheduled for the afternoon of April 24th. The tour will begin at 2:00 pm at 205 Spring Hill Road in Mansfield and is expected to last 2-3 hours. The public is invited to attend the field tours.

Regarding Mansfield Hollow, members of the Project team met with representatives of the US Army Corps of Engineers (ACOE) last week to review the Project, walk the proposed Project route through Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area (WMA), and discuss potential expansion of the right-of-way (ROW). In preparation for that site walk, stakes were placed along the ROW with different color flags showing the following:

- Red flags to delineate both north and south sides of the existing 150 foot wide ROW where the Company would build the No-ROW Expansion configuration if ordered by the CSC. New clearing would occur from the limits of existing vegetation management to the red stakes shown on both the north and south sides of the ROW.
- Orange flags to delineate the north side of the new ROW if the Company is ordered to build the Minimal Expansion configuration by the CSC. Recall that this configuration, which would also have to be authorized by the ACOE, would expand the existing ROW 25 feet to the north in Mansfield Hollow State Park and 35 feet to the north in the WMA in Chaplin. New tree clearing would occur beyond the limits of existing vegetation management on the north side of the right-of-way only, to the extent of the orange staking. No additional clearing would be required on the south side to the limits of the existing edge of ROW (red staking).
- Blue flags to delineate the new north ROW edge if the Company is ordered to build the Proposed configuration by the CSC. Recall that this configuration, which would also have to be authorized by the ACOE, would expand the existing ROW 55 feet to the north in Mansfield Hollow State Park and 85 feet to the north in the WMA in Chaplin). As described with the Minimal Expansion configuration, new tree clearing would occur beyond the limits of existing vegetation management on the north side of the right-of-way only, to the extent of the blue staking. No additional clearing would be required on the south side to the limits of the existing edge of ROW (red staking).

These flags provide a good visual representation of the existing and potential future ROW sides and can be seen from where the Red Trail crosses the ROW at existing transmission line structure 9083 and structure 9085 (which is pretty close to where the line crosses Mansfield Hollow Lake).

I would be happy to meet you in the ROW to review these flag locations as they relate to the Mansfield Hollow ROW configuration options. I am available to meet you at your convenience. I look forward to speaking with you.

Tony Mele
Transmission Project Manager
Northeast Utilities

860-665-4722 (o)
860-305-8560 (c)

Bandzes, Patricia

From: Bandzes, Patricia
Sent: Friday, May 25, 2012 2:57 PM
To: 'Betty Robinson'; 'Peter Curry'; 'Fred Loxsom'; 'cstearns07@hotmail.com'
Cc: anthony.mele@nu.com
Subject: Interstate Reliability Project Update - Modification to Preferred Design Configuration in Mansfield Hollow

Good afternoon. I work with CL&P on the proposed Interstate Reliability Project. Tony Mele, the Project Manager, asked me to update you on a recent change to our request for Right-of-Way (ROW) expansion in Mansfield Hollow.

Please recall that the Company submitted a request to the U.S. Army Corps of Engineers (USACE) for expanding its existing easement that runs through Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area (WMA). Specifically, we requested easement increases that would expand the width of the existing ROW from 150 feet to 205 feet in the Park (increase of 55 feet) and to 235 feet in the WMA (an increase of 85 feet).

The Company also requested this configuration in its siting application which was filed with the CT Siting Council (CSC) in December 2011. Our application also discussed a 4.8-Acre Minimal ROW Expansion Option and a No ROW Expansion Option.

CL&P's eminent domain powers do not extend to federal land; therefore, any expansion of the ROW in the Mansfield Hollow area can only occur through a voluntary grant by the USACE. USACE will only enable the route and configuration that it determines to be the least environmentally damaging practical alternative. CL&P will then have no choice but to accept the USACE's determination.

In discussions with USACE, they have indicated a preference for the 4.8-Acre Minimal ROW Expansion Option, as described in our siting application. Based on this feedback and the fact that the USACE will ultimately determine which configuration gets built through the Hollow (pending CSC approval of the Project), the Company has decided to change its preferred configuration in Mansfield Hollow to the 4.8-Acre Minimal Expansion ROW Option. This Option would require ROW expansion to 175 feet in the Park (an increase of 25 feet) and 185 feet in the WMA (an increase of 35 feet).

We've informed both the USACE and the CSC of our new preferred configuration.

We would appreciate you sharing this information with other "Friends" members who may be interested. Please do not hesitate to contact me or Tony should you have questions.

Thank you,
Pat

Patricia C. Bandzes
Stakeholder Management Solutions
Community Relations Manager

Burns & McDonnell
Campus at Greenhill
108 Leigus Road
Wallingford, CT 06492



**Connecticut
Light & Power**

The Northeast Utilities System



**Interstate
Reliability Project**

August 15, 2012

Friends of Mansfield Hollow
Ms. Betty Robinson
5 Sycamore Drive Apt. C
Storrs, CT 06268-2012

RE: Interstate Reliability Project: Mansfield Hollow State Park and Wildlife Management Area Update

Dear Ms. Robinson:

I am writing to update the Friends of Mansfield Hollow (FMH) regarding the status of The Connecticut Light and Power Company's (CL&P's) portion of the Interstate Reliability Project (Project) and to provide the FMH with some additional information regarding the proposed configuration for the installation of the Project across the federally-owned lands within Mansfield and Chaplin (i.e., "the Mansfield Hollow area").

As you know, CL&P filed the Project Application with the Connecticut Siting Council in December 2011. Subsequently, the CSC has held both public meetings and evidentiary hearings concerning the Project. In addition to the CSC process, CL&P has been coordinating with both the U.S. Army Corps of Engineers (USACE) as the administrator of the federally-owned lands and the Connecticut Department of Energy and Environmental Protection (CT DEEP), which manages the federally-owned lands as Mansfield Hollow State Park and the Mansfield Hollow Wildlife Management Area.

As part of this coordination, both the USACE and the CT DEEP reviewed the three design configurations that CL&P presented for the new overhead transmission line through the Mansfield Hollow area and identified the "Minimal Right-of-way (ROW) Expansion Option" as preferred. This Minimal ROW Expansion Option will consist of an expansion of CL&P's current easement by a total of approximately 5 acres (including by 25 feet to the north of the existing easement through the state park and WMA in Mansfield ["Segment 1"] and by 35 feet to the north of the existing easement through the WMA in Chaplin ["Segment 2"]).

Given the agencies' preference, CL&P also has endorsed the Minimal ROW Expansion Option, which compared to the other two design options, will minimize environmental disturbance in the Mansfield Hollow area.

Based on a review of these options last year, in correspondence dated September 2011, the FMH expressed a preference for the No ROW Expansion Option. Since that time, CL&P has updated its impact analyses, comparing the No ROW Expansion Option to the preferred Minimal ROW Expansion Option. The attached table, which updates Table 10-6 presented in CL&P's Application to the CSC, provides a comparison of these two options.



As this table shows, compared to the No ROW Expansion Option, the preferred Minimal ROW Expansion Option will require fewer acres of forest vegetation clearing within the Mansfield federal lands (3.7 acres vs. 4.2 acres) and substantially less vegetation disturbance along the federal lands in Mansfield overall (7.5 acres vs. 13.3). Along both segments of federally-owned land, the Minimal ROW Expansion Option will affect 13.1 acres, whereas the No ROW Expansion Option would affect 23.1 acres.

The greater impacts that would be associated with the No ROW Expansion Option are because the entire 150-foot-wide ROW would have to be used to remove and reconstruct the existing 345-kV transmission line and to construct the new 345-kV transmission line. For example, using the No ROW Expansion Option across the state park and WMA in Mansfield (Segment 1), all vegetation within the 150-foot-wide easement would be cleared, including the approximately 25-foot-wide area of trees located to the south of the existing 345-kV transmission line. Using the preferred Minimal ROW Expansion Option, this 25-foot-wide area of forest along the southern edge of the existing ROW would be preserved, and construction activities would require only an approximately 85-foot-wide area to install the new 345-kV transmission line adjacent to the existing line.

The attached cross-sections, which are excerpted from our CSC Application, illustrate the preferred Minimal ROW Expansion and the No ROW Expansion across Segments 1 and 2. There are three cross-sections provided for each option. For the Minimal ROW Expansion option ("MRE"), Mapsheet 1 of 3 MRE applies to Segment 1 and Mapsheet 3 of 3 MRE applies to Segment 2. Mapsheet 2 of 3 MRE applies to privately owned land between Segments 1 and 2. The same convention applies to the cross-sections showing the No ROW Expansion option ("NRE").

Please do not hesitate to contact me at (860) 665-4722 should you have any questions.

Sincerely,

Anthony P. Mele

Project Manager – Interstate Reliability Project

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October 11, 2007

Mr. Michael J. Amaral
Endangered Species Specialist
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

**Re: The Connecticut Light and Power Company
Connecticut Interstate Reliability Project
Brooklyn, Chaplin, Columbia, Coventry, Hampton, Killingly, Lebanon,
Mansfield, Putnam, Pomfret, Thompson & Windham, Connecticut**

Dear Mr. Amaral,

The Connecticut Light and Power Company intends to initiate planning, siting, and permitting tasks required to upgrade and expand its electric transmission facilities in eastern Connecticut. The purpose of these proposed modifications, which will be required along several different electric transmission lines, is to help alleviate numerous thermal and voltage problems on the electric system. The study area includes portions of the municipalities of Brooklyn, Chaplin, Columbia, Coventry, Hampton, Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson and Windham, Connecticut. The attached USGS map set (CT Interstate Reliability Project USGS Map Sheets 1 through 15) show the project location in these areas.

This request specifically addresses the requirement for documented consultation in regard to compliance with the Endangered Species Act (ESA) of 1973 as amended (16 U.S.C. 1531 *et seq.*). We respectfully request correspondence from your office regarding the occurrence of any threatened or endangered species ("T&E") and/or their critical habitats within the 1,000 foot study corridor as depicted on the attached USGS topographic figures. In addition, we've also included a CD with ARC-GIS shapefiles of the proposed project study area to facilitate your review.

Please note that a previous request and determination was made concerning a preliminary portion of this project in July 2004. We are requesting an update to the information previously provided by the USFWS in 2004. Please find correspondence and mapping related to that request included. Also, please note that not all routes referenced in the July 2004 correspondence are being considered for the current project.

Thank you for your assistance. Please forward correspondence to my attention, and, if possible, please forward copies to ENSR at the below noted address. Should you have any questions please contact me at 860-665-6716 or Timothy O'Sullivan (ENSR) at 860-429-5323 (ext. 229).

Sincerely,

A handwritten signature in black ink, appearing to read "Donald D. Biondi", written over a circular stamp or seal.

Donald D. Biondi
Transmission Siting and Permitting

Attachments

Cc: T. O'Sullivan, ENSR, 11 Phelps Way, P.O. Box 506, Willington, CT 06279
J. Durand, ENSR
S. Thornhill, Burns & McDonnell
K. Gerling, Burns & McDonnell



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087



November 21, 2007

Donald D. Biondi
Northeast Utilities Service Company
107 Selden Street
Berlin, CT 06037

Dear Mr. Biondi:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the Connecticut Interstate Reliability Project that will pass through the Towns of Brooklyn, Chaplin, Columbia, Coventry, Hampton, Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson and Windham, Connecticut.

No federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project areas. Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

While there are no known occurrences of federally-listed species in the project area, the New England cottontail (*Sylvilagus transitionalis*) is known to occur in the Town of Lebanon. The New England cottontail is also known to occur in the Towns of Scotland and Eastford, which are in close proximity to the project. The Service announced the New England cottontail as a Candidate Species for listing on September 12, 2006 in the Federal Register (50 CFR part 17). While the New England cottontail remains an official candidate species, there is currently no legal obligation to avoid affecting the habitat of the species.

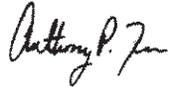
New England cottontails are considered habitat specialists, insofar as they are dependent on early-successional habitats typically described as thickets. In addition to New England cottontails demonstrating a strong affinity for heavy cover, they are also reluctant to stray from it (>5 m). Habitats of this type are typically associated with beaver flowage wetlands, idle agricultural lands, power line corridors, railroad right-of-ways, and patches of regenerating forests. In contrast, eastern cottontails (which can often be found living with New England cottontails) appear to have relatively generalized habitat requirements and can often be found in residential-type habitats, such as private lawns, golf courses, and active agriculture areas.

Vegetation management along utility right-of-ways probably has a significant impact on the New England cottontail. Long-term management that converts scrub-shrub corridors into herbaceous covers serves to eliminate habitat and hinder dispersal while short-term management of shrubs serves as a temporary impact to habitat. These short-term impacts to shrub vegetation are necessary to ensure that successional forces do not proceed to the point where habitat is no longer suitable for the New England cottontail. Given the conservation status of this species, a full federal listing in the future is probable. As such, it may be beneficial to begin a discussion about how your company could manage habitat for this species.

This concludes our review of listed species and critical habitat in the project location and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your coordination. Please contact me at 603-223-2541 if we can be of further assistance or if you would like to initiate a discussion about the New England cottontail.

Sincerely yours,



Anthony P. Tur
Endangered Species Specialist
New England Field Office

CC: ENSR, Willington, CT



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087



January 1, 2008

To Whom It May Concern:

This project was reviewed for federally-listed or proposed threatened or endangered species presence per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website (<http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm>). Based on information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with the Service under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this review, unless additional information on listed or proposed species becomes available.

Thank you for your coordination. Please contact us at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Anthony P. Tur
Endangered Species Specialist
New England Field Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
<http://www.fws.gov/northeast/newenglandfieldoffice>

January 2, 2009

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm>)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office



**Connecticut
Light & Power**

The Northeast Utilities System



Interstate
Reliability Project

March 17, 2009

Mr. Michael J. Amaral
Endangered Species Specialist
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

**Re: The Connecticut Light and Power Company
Interstate Reliability Project (Connecticut)
Located In the Municipalities of Brooklyn, Chaplin, Columbia, Coventry, Hampton,
Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson & Windham, Connecticut**

Dear Mr. Amaral:

The Connecticut Light and Power Company (CL&P) is applying for permits required to upgrade and expand its electric transmission facilities in eastern Connecticut. The purpose of the proposed modifications, which are located along an existing transmission line right-of-way (ROW), is to address numerous reliability problems in the electrical transmission system. The Interstate Reliability Project (Project) consists of the Proposed Route, 310 Line Loop and route variations, that pass through the municipalities of Brooklyn, Chaplin, Columbia, Coventry, Hampton, Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson and Windham, Connecticut. The U.S. Geological Survey (USGS) maps in Attachment A depict the Project areas.

Requests for information regarding the occurrence of threatened and endangered species/critical habitat in the Project areas were submitted to the U.S. Fish & Wildlife Service (US FWS) (to your attention) on October 11, 2007, during the early planning stages of the Project. CL&P received responses from US FWS on November 21, 2007 stating that no federally-listed threatened, endangered species, or critical habitat under the jurisdiction of the US FWS was known to occur in the Project area. However, the US FWS did indicate that the New England cottontail (*Sylvilagus transitionalis*), a candidate species, is known to occur in the Town of Lebanon. This correspondence is provided in Attachment B.

As requested in response letters from US FWS, CL&P consulted the US FWS website to identify updated listed species occurrence information. Based on this review, the small whorled pogonia (*Isotria medeoloides*) and American chaffseed (*Schwalbea Americana*) were identified as federally-listed species known to occur in several of the counties in the Project area. No other species was listed on the US FWS website to occur within the Project area.

Per the requirement for documented consultation in regard to compliance with the Endangered Species Act (ESA) of 1973 as amended (16 U.S.C. 1531 et seq.), we respectfully request updated correspondence from your office regarding the occurrence of any threatened or endangered species and/or their critical habitat within and adjacent to the Project area as it is currently proposed and depicted on the USGS mapping in Attachment A.



**Connecticut
Light & Power**

The Northeast Utilities System



Interstate
Reliability Project

Thank you for your attention to this request. If you have any questions or require further information, please contact me at (860) 665-6716 or Timothy O'Sullivan (AECOM Environment) at (860) 429-5323 ext. 229.

Sincerely,

Donald D. Biondi
Transmission Siting and Permitting

Attachments

Cc: T. Mele, Northeast Utilities System
D. Lukehart, Northeast Utilities System
J. Buckley, Burns & McDonnell
T. O'Sullivan, AECOM Environment
J. Durand, AECOM Environment



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
<http://www.fws.gov/northeast/newenglandfieldoffice>

April 20, 2009

Donald D. Biondi
Northeast Utilities System
P.O. Box 270
Hartford, CT 06141-0270

Dear Mr. Biondi:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the Connecticut Interstate Reliability Project that will pass through the Towns of Brooklyn, Chaplin, Columbia, Coventry, Hampton, Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson and Windham, Connecticut.

No federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project areas. Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

While there are no known occurrences of federally-listed species in the project area, the New England cottontail (*Sylvilagus transitionalis*) is known to occur in the Town of Lebanon. The New England cottontail is also known to occur in the Towns of Scotland and Eastford, which are in close proximity to the project. The Service announced the New England cottontail as a Candidate Species for listing on September 12, 2006 in the Federal Register (50 CFR part 17). While the New England cottontail remains an official candidate species, there is currently no legal obligation to avoid affecting the habitat of the species.

New England cottontails are considered habitat specialists, insofar as they are dependent on early-successional habitats typically described as thickets. In addition to New England cottontails demonstrating a strong affinity for heavy cover, they are also reluctant to stray from it (>5 m). Habitats of this type are typically associated with beaver flowage wetlands, idle agricultural lands, power line corridors, railroad right-of-ways, and patches of regenerating forests. In contrast, eastern cottontails (which can often be found living with New England cottontails) appear to have relatively generalized habitat requirements and can often be found in residential-type habitats, such as private lawns, golf courses, and active agriculture areas.

Vegetation management along utility right-of-ways probably has a significant impact on the New England cottontail. Long-term management that converts scrub-shrub corridors into herbaceous covers serves to eliminate habitat and hinder dispersal while short-term management of shrubs serves as a temporary impact to habitat. These short-term impacts to shrub vegetation are necessary to ensure that successional forces do not proceed to the point where habitat is no longer suitable for the New England cottontail. Given the conservation status of this species, a full federal listing in the future is probable. As such, it may be beneficial to begin a discussion about how your company could manage habitat for this species.

This concludes our review of listed species and critical habitat in the project locations and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

In order to curtail the need to contact this office in the future for updated lists of federally-listed or proposed threatened or endangered species and critical habitats, please visit the Endangered Species Consultation page on the New England Field Office's website:

www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm

In addition, there is a link to procedures that may allow you to conclude if habitat for a listed species is present in the project area. If no habitat exists, then no federally-listed species are present in the project area and there is no need to contact us for further consultation. If the above conclusion cannot be reached, further consultation with this office is advised. Information describing the nature and location of the proposed activity that should be provided to us for further informal consultation can be found at the above-referenced site.

Thank you for your coordination. Please contact Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,



Eric L. Derleth
Acting Supervisor
New England Field Office

Donald Biondi
April 20, 2009

3

cc: Anthony Johnson- NEU
Howard Kilpatrick- CT DEP
Reading file
ES: ATur:4-20-09:603-223-2541



**Connecticut
Light & Power**
The Northeast Utilities System



Interstate
Reliability Project

March 19, 2010

Mr. Anthony Tur
Endangered Species Biologist
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

**Re: The Connecticut Light and Power Company
Interstate Reliability Project (Connecticut)
Located In the Municipalities of Brooklyn, Chaplin, Columbia, Coventry, Hampton,
Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson & Windham, Connecticut**

Dear Mr. Tur:

The Connecticut Light and Power Company (CL&P) is seeking to renew and update, as applicable, its consultations with the United States Fish and Wildlife Service (USFWS). CL&P has previously consulted with the USFWS in regard to the Interstate Reliability Project (Project) which consists of the construction of a new 345-kV transmission line and upgrades to existing transmission facilities in the municipalities of Brooklyn, Chaplin, Columbia, Coventry, Hampton, Killingly, Lebanon, Mansfield, Putnam, Pomfret, Thompson and Windham, Connecticut.

Requests for information regarding the occurrence of threatened and endangered species/critical habitat in the Project areas were submitted to the USFWS on March 17, 2009, during the early planning stages of the project. CL&P received responses from USFWS on April 20, 2009 stating that no federally-listed threatened, endangered species or critical habitat under the jurisdiction of the USFWS was known to occur in the Project area. However, the USFWS did indicate that the New England cottontail (*Sylvilagus transitionalis*), a candidate species, is known to occur in the Town of Lebanon.

As requested in response letters from USFWS, CL&P consulted the USFWS website on February 3, 2010 to identify updated listed species occurrence information. No other species were listed on the USFWS website occurring within the towns in the Project area.

Per the requirement for documented consultation in regard to compliance with the Endangered Species Act (ESA) of 1973 as amended (16 U.S.C. 1531 et seq.), we respectfully request updated correspondence from your office confirming the above information. United States Geological Survey (USGS) mapping depicting the Project area is included in Attachment A.



**Connecticut
Light & Power**
The Northeast Utilities System



Interstate
Reliability Project

Thank you for your attention to this request. If you have any questions or require further information, please contact me at (860) 665-6716 or Timothy O'Sullivan (AECOM Environment) at (860) 429-5323 ext. 229.

Sincerely,

Northeast Utilities Service Company

Donald D. Biondi
Transmission Siting and Permitting

Attachments: USGS Mapping February 2010

Cc: T. Mele, Northeast Utilities System
D. Lukehart, Northeast Utilities System
J. Buckley, Burns & McDonnell
T. O'Sullivan, AECOM Environment
J. Durand, AECOM Environment

Note: This page intentionally left blank

September 14, 2011

Ms. Pamela Bradstreet
Real Estate Project Manager, Real Estate Division
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: *Request for Proposed Electric Transmission Line Utility Easement Expansion
U.S. Army Corps of Engineers Properties
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Ms. Bradstreet:

The Connecticut Light and Power Company (CL&P), a wholly-owned subsidiary of Northeast Utilities (NU), and National Grid USA propose to construct and operate approximately 75 miles of new 345-kilovolt (kV) overhead electric transmission lines and related modifications to existing substations and switching substations, along the existing transmission line rights-of-way (ROW) located in northeastern Connecticut, northwestern Rhode Island, and south-central Massachusetts (referred to as the Interstate Reliability Project). The Interstate Reliability Project will improve the bulk power transmission system in Southern New England and will achieve future compliance with national and regional standards for electrical system reliability.

The Connecticut portion of the Interstate Reliability Project, which CL&P will develop, will include the installation of 36.8 miles of new 345-kV transmission line, extending through 11 towns. The new 345-kV transmission line will be aligned along CL&P's existing ROW. In each of several distinct ROW segments, it will be adjacent to one existing CL&P 345-kV line and in some cases 69- or 115-kV lines as well. The existing 345-kV transmission line on this ROW was installed in the early 1970s and has since been interconnected with a generating station and a substation, both in the Town of Killingly, Connecticut. A map showing the location of the proposed Interstate Reliability Project, including the alignment of the new 345-kV transmission line following CL&P's existing 345-kV transmission line ROW in Connecticut, is attached hereto as Exhibit A.

Along 35.4 miles of the Connecticut portion of the proposed Interstate Reliability Project route, CL&P's existing ROW is wide enough to install a new 345-kV transmission line adjacent to the existing 345-kV line and generally matching the existing transmission line structures in terms of appearance and height. However, 1.4 miles of the proposed route will cross two segments of property owned by the United States of America located in the Towns of Mansfield (Tolland



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The Northeast Utilities System



County) and Chaplin (Windham County) (the “Property”). The attached Exhibit B illustrates the location of these two areas of federally-owned lands (referred to herein as “Segment 1” and “Segment 2”) along CL&P’s existing ROW.

CL&P’s existing easement over the Property is 150 feet wide, with the existing 345-kV transmission line centered in the middle of the ROW. As a result, the existing ROW is not wide enough to allow the installation of the new 345-kV transmission line adjacent to the existing 345-kV transmission line based on national safety regulations.

Therefore, CL&P hereby requests the U.S. Army Corps of Engineers (ACOE), as agent for the Department of the Army, grant CL&P additional easements rights over the Property for the expansion of the existing utility easement. The proposed easement expansion would total 11 acres. Exhibit C includes aerial-photograph-based mapsheets that illustrate the location of the proposed 345-kV transmission line within the proposed expanded easement, in relation to the existing 345-kV transmission line. The maps also show the location of the CL&P ROW and easement expansion in relation to environmental resources.

The following summarizes CL&P’s proposed easement expansion in each of the two Property segments:

- Segment 1: This 0.9-mile segment of CL&P’s existing transmission line ROW traverses a portion of the Property that is leased to the Connecticut Department of Energy and Environmental Protection (CT DEEP). Within Segment 1, the ROW crosses the Mansfield Hollow Dam Levee, Mansfield Hollow State Park, including an approximately 600-foot span of Mansfield Hollow Lake, and a portion of the Mansfield Hollow State Wildlife Management Area (WMA). Segment 1 is located entirely in the Town of Mansfield. To install the new 345-kV transmission line along Segment 1, while matching the existing 345-kV line’s steel-monopole structures in appearance, CL&P requests an additional 55-foot-wide easement expansion along the north side of the ROW. The attached Exhibit D Cross-Section (XS) – 3 illustrates this proposed ROW configuration.
- Segment 2: This 0.5-mile segment of CL&P’s existing transmission line ROW crosses the portion of the Property located in Town of Chaplin. Segment 2 consists of undeveloped lands that are leased to the CT DEEP and also are part of the Mansfield Hollow State WMA. The existing 345-kV transmission line along Segment 2 is installed on wood-pole H-frame structures, which are shorter and wider than the monopoles along Segment 1. To install the new 345-kV transmission line along Segment 2, while matching the existing H-frame structures in general appearance, CL&P requests an additional 85-foot-wide easement expansion along the north side of the ROW. The attached Exhibit D XS-5 depicts the proposed ROW configuration.



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Interstate
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For reference, Exhibit E reproduces copies of the original easements granted to CL&P by the United States of America, acting by and through the Secretary of the Army, across the 1.4 miles of the Property.

CL&P also requests that the Real Estate Branch seek input on our request from other involved ACOE branches, including the Environmental Evaluation Branch, and identify any other information that may be required by these branches to complete the Real Estate review process. It is our understanding that each ACOE branch will provide an assessment of the manpower requirements for their review and the associated cost of such review. Once CL&P receives these assessments, it will provide additional funding to the ACOE, as required. CL&P requests that ACOE provide one cost estimate, encompassing the anticipated costs for each branch involved in the review of this request.

CL&P looks forward to working with your staff to process this request, and stands ready to provide any additional supporting information that you may require.

Sincerely,

Tony Mele

Project Manager

Enclosures:

Exhibit A – Interstate Reliability Project Location Plan

Exhibit B – Location of Existing CL&P ROWs through Mansfield Hollow

Exhibit C – Proposed ROW Easement Expansion through Mansfield Hollow

Exhibit D – Cross Sections

Exhibit E – Existing Easement Agreement



**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Mr. Ed Reiner
U.S. EPA, Wetland Division
5 Post Office Square, Suite 100
Boston, MA 02109-3912

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Mr. Reiner:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

Your agency’s input is an important component of the Environmental Assessment (EA) that is being prepared, pursuant to National Environmental Policy Act requirements, as part of the Corps’ real estate review of CL&P’s request for the Mansfield Hollow easement expansion.¹ This letter supplements our telephone conversation by providing additional information regarding the proposed Interstate Reliability Project and CL&P’s proposed easement expansion and alternatives across the Mansfield Hollow properties. The easement expansion that CL&P proposes balances the need for a reliable transmission system, environmental effects, and costs, and reflects CL&P’s obligation, as a regulated utility, to propose the lowest reasonable cost option.

CL&P welcomes your input to the Mansfield Hollow EA process. We anticipate that the EA will be prepared over the next several months and look forward to including your input as part of the process. We would very much appreciate the receipt of your written input by November 18, 2011, if possible.

¹ Note: The Interstate Reliability Project also will apply to the Corps for a Clean Water Act Section 404 permit. The Corps will conduct a separate environmental review process of this Section 404 permit application.



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Interstate
Reliability Project

October 17, 2011

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Should you have questions or require additional data about the Project in order to provide input as part of the EA process, please do not hesitate to call or e-mail us (refer to contact information, below).

In addition, we would be pleased to meet with you to discuss the Interstate Reliability Project and the Mansfield Hollow options in more detail, should you so desire.

Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments



**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Mr. Tom Chapman, Supervisor
Department of the Interior
U.S. Fish and Wildlife Service
Ecological Services
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Mr. Chapman:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

Your agency’s input is an important component of the Environmental Assessment (EA) that is being prepared, pursuant to National Environmental Policy Act requirements, as part of the Corps’ real estate review of CL&P’s request for the Mansfield Hollow easement expansion.¹ This letter supplements our telephone conversation by providing additional information regarding the proposed Interstate Reliability Project and CL&P’s proposed easement expansion and alternatives across the Mansfield Hollow properties. The easement expansion that CL&P proposes balances the need for a reliable transmission system, environmental effects, and costs, and reflects CL&P’s obligation, as a regulated utility, to propose the lowest reasonable cost option.

CL&P welcomes your input to the Mansfield Hollow EA process. We anticipate that the EA will be prepared over the next several months and look forward to including your input as part of the process. We would very much appreciate the receipt of your written input by November 18, 2011, if possible.

¹ Note: The Interstate Reliability Project also will apply to the Corps for a Clean Water Act Section 404 permit. The Corps will conduct a separate environmental review process of this Section 404 permit application.



**Connecticut
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October 17, 2011

Page 2

Should you have questions or require additional data about the Project in order to provide input as part of the EA process, please do not hesitate to call or e-mail us (refer to contact information, below).

In addition, we would be pleased to meet with you to discuss the Interstate Reliability Project and the Mansfield Hollow options in more detail, should you so desire.

Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments



**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Mr. Michael Salter
Connecticut DEEP, Resource Division
79 Elm Street
Hartford, CT 06106-5127

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Mr. Salter:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

Your agency’s input is an important component of the Environmental Assessment (EA) that is being prepared, pursuant to National Environmental Policy Act requirements, as part of the Corps’ real estate review of CL&P’s request for the Mansfield Hollow easement expansion.¹ This letter supplements our telephone conversation by providing additional information regarding the proposed Interstate Reliability Project and CL&P’s proposed easement expansion and alternatives across the Mansfield Hollow properties. The easement expansion that CL&P proposes balances the need for a reliable transmission system, environmental effects, and costs, and reflects CL&P’s obligation, as a regulated utility, to propose the lowest reasonable cost option.

CL&P welcomes your input to the Mansfield Hollow EA process. We anticipate that the EA will be prepared over the next several months and look forward to including your input as part of the process. We would very much appreciate the receipt of your written input by November 18, 2011, if possible.

¹ Note: The Interstate Reliability Project also will apply to the Corps for a Clean Water Act Section 404 permit. The Corps will conduct a separate environmental review process of this Section 404 permit application.



**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Page 2

Should you have questions or require additional data about the Project in order to provide input as part of the EA process, please do not hesitate to call or e-mail us (refer to contact information, below).

In addition, we would be pleased to meet with you to discuss the Interstate Reliability Project and the Mansfield Hollow options in more detail, should you so desire.

Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments



**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Ms. Jenny Dixon
DEEP, Division of Wildlife
Sessions Woods WMA
P.O. Box 1550
Burlington, CT 06013

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Ms. Dixon:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

Your agency’s input is an important component of the Environmental Assessment (EA) that is being prepared, pursuant to National Environmental Policy Act requirements, as part of the Corps’ real estate review of CL&P’s request for the Mansfield Hollow easement expansion.¹ This letter supplements our telephone conversation by providing additional information regarding the proposed Interstate Reliability Project and CL&P’s proposed easement expansion and alternatives across the Mansfield Hollow properties. The easement expansion that CL&P proposes balances the need for a reliable transmission system, environmental effects, and costs, and reflects CL&P’s obligation, as a regulated utility, to propose the lowest reasonable cost option.

CL&P welcomes your input to the Mansfield Hollow EA process. We anticipate that the EA will be prepared over the next several months and look forward to including your input as part of the process. We would very much appreciate the receipt of your written input by November 18, 2011, if possible.

¹ Note: The Interstate Reliability Project also will apply to the Corps for a Clean Water Act Section 404 permit. The Corps will conduct a separate environmental review process of this Section 404 permit application.



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October 17, 2011

Page 2

Should you have questions or require additional data about the Project in order to provide input as part of the EA process, please do not hesitate to call or e-mail us (refer to contact information, below).

In addition, we would be pleased to meet with you to discuss the Interstate Reliability Project and the Mansfield Hollow options in more detail, should you so desire.

Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments



**Connecticut
Light & Power**

The Northeast Utilities System



October 21, 2011

Mr. Daniel Forrest
State Historic Preservation Office
The Connecticut Trust For Historic Preservation
940 Whitney Avenue
Hamden, CT 06517-4002

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Mr. Forrest:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

Your agency’s input is an important component of the Environmental Assessment (EA) that is being prepared, pursuant to National Environmental Policy Act requirements, as part of the Corps’ real estate review of CL&P’s request for the Mansfield Hollow easement expansion.¹ This letter supplements our telephone conversation by providing additional information regarding the proposed Interstate Reliability Project and CL&P’s proposed easement expansion and alternatives across the Mansfield Hollow properties. The easement expansion that CL&P proposes balances the need for a reliable transmission system, environmental effects, and costs, and reflects CL&P’s obligation, as a regulated utility, to propose the lowest reasonable cost option.

CL&P welcomes your input to the Mansfield Hollow EA process. We anticipate that the EA will be prepared over the next several months and look forward to including your input as part of the process. We would very much appreciate the receipt of your written input by November 18, 2011, if possible.

¹ Note: The Interstate Reliability Project also will apply to the Corps for a Clean Water Act Section 404 permit. The Corps will conduct a separate environmental review process of this Section 404 permit application.



**Connecticut
Light & Power**

The Northeast Utilities System



October 21, 2011

Page 2

Should you have questions or require additional data about the Project in order to provide input as part of the EA process, please do not hesitate to call or e-mail us (refer to contact information, below).

In addition, we would be pleased to meet with you to discuss the Interstate Reliability Project and the Mansfield Hollow options in more detail, should you so desire.

Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments



**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Mr. Brian Murphy
Connecticut DEEP, Resource Division
Fisheries Management Programs
79 Elm Street
Hartford, CT 06106-5127

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Mr. Murphy:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

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**Connecticut
Light & Power**

The Northeast Utilities System



October 17, 2011

Page 2

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Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments



**Connecticut
Light & Power**

The Northeast Utilities System



October 25, 2011

Mr. Tom Tyler
CT DEEP
Director, State Parks and Public Outreach
Bureau of Outdoor Recreation
79 Elm Street, 6th Floor
Hartford, CT 06106-5127

RE: *Request for Input to Environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties
“Mansfield Hollow Area”
Towns of Mansfield (Tolland County) and Chaplin (Windham County), Connecticut*

Dear Mr. Tyler:

The purpose of this letter is to follow-up the telephone conversation regarding the proposed Interstate Reliability Project that a member of our Project team recently had with your office. Specifically, this correspondence provides additional background and maps regarding the proposed Project and solicits your agency’s written comments regarding the “Mansfield Hollow” portion of the Project, which would traverse certain federally-owned properties in the towns of Mansfield and Chaplin, Connecticut. These federally-owned properties are administered by the U.S. Army Corps of Engineers (Corps), from which The Connecticut Light and Power Company (CL&P) is seeking an expansion of its existing utility easement.

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**Connecticut
Light & Power**

The Northeast Utilities System



October 25, 2011

Page 2

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Sincerely,

Tony Mele

Project Manager

CL&P Contact Information:

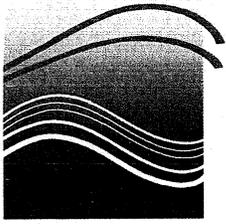
Tony Mele: meleap@nu.com 860-665-4722

Jeff Martin: martijz@nu.com 860-665-5930

Enclosures:

Interstate Reliability Project: Mansfield Hollow Summary Information, with Attachments

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Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

February 27, 2012

Judith L. Johnson
Army Corps of Engineers
Evaluation Branch
696 Virginia Road
Concord, Massachusetts 01742-2751

Re: **Northeast Utilities Service Company**
Mansfield Hollow Environmental Analysis

Dear Ms. Johnson:

This letter concerns the Request for Input regarding the ongoing Environmental Assessment for the Interstate Reliability Project transmission line upgrade being proposed by the Northeast Utilities Service Company. The Environmental Assessment is specific to the Mansfield Hollow Area in the towns of Mansfield and Chaplin, CT. The Departments' Inland Water Resources Division has reviewed the Environmental Assessment and evaluated the proposed environmental impacts.

Project Impacts

The proposed project consists of two separate segments of transmission line right-of-way that cross two sections of the federally owned Mansfield Hollow Wildlife Management Area. Segment 1 is 0.9 miles of transmission line right-of-way that traverses a portion of the Mansfield Hollow Wildlife Management Area leased to the Connecticut Department of Energy and Environmental Protection (CT DEEP). The Northeast Utilities Service Company has proposed to expand their right-of-way through this 0.9 mile segment by 55 feet in order to accommodate construction and operation of a new 345-kV transmission line adjacent to the existing 330 Line. The proposed configuration of the new 345-kv line and expansion of the existing right-of-way through this segment includes 0.1 acres of temporary wetland impacts associated with clearing of forested wetlands.

Segment 2 is 0.5 miles of transmission line right-of-way that traverses a second portion of the Mansfield Hollow Wildlife Management Area. Northeast Utilities has proposed to expand their right-of-way through this 0.5 mile segment by 85 feet in order to accommodate construction and

operation of a new 345-kV transmission line adjacent to the existing 330 Line. The proposed configuration of the new 345-kv line and expansion of the existing right-of-way through this segment includes 0.4 acres of temporary and <0.1 acres of permanent wetland impacts. Additionally, the proposed configuration will require 2.7 acres of forested wetland vegetation removal and 2.3 acres of potential scrub-shrub wetland vegetation impacts.

Alternative Right-of-Way Configurations

The Northeast Utilities Service Company has identified two alternative configurations for the segments of transmission line that traverse the Mansfield Hollow Wildlife Management Area. The first alternative includes utilizing the existing right-of-way with no right-of-way expansion through the two parcels of the wildlife management area. This alternative includes a reduction of environmental impacts and a significant increase of construction costs for the project. The second alternative includes utilizing the existing right-of-way with only minimal right-of-way expansion through the two parcels of the wildlife management area. This alternative would require expansion of the existing right-of-way by 25 feet through Segment 1 and by 35 feet through Segment 2 of the wildlife management area. The minimal right-of-way expansion alternative includes a reduction of environmental impacts and a slight increase of construction costs for the project.

Departments' Recommendations

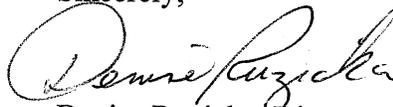
After reviewing the Mansfield Hollow Environmental Assessment the Department has recommendations on the current configuration of the proposed transmission line. The proposed configuration of the transmission line through Segment 1 of the Mansfield Hollow Wildlife Management Area has avoided and minimized wetland and watercourse impacts. The alternative right-of-way configurations presented for Segment 1 would neither decrease nor increase impacts to wetlands and watercourses. The Northeast Utilities Service Company would incur additional construction costs by utilizing either of the alternatives presented for Segment 1 with little environmental benefit. The proposed configuration for Segment 1 appears to be the most practicable alternative.

The proposed configuration of the transmission line through Segment 2 of the Mansfield Hollow Wildlife Management Area includes a significant amount of wetland and watercourse impact. The Minimal Right-of-Way Expansion Alternative for Segment 2 would decrease temporary wetland impacts from 0.4 acres to 0.3 acres and decrease forested wetland vegetation removal from 2.7 acres to 1.5 acres and Northeast Utilities would incur a minimal increase in construction costs. The Department recommends that the Northeast Utilities Service Company construct the proposed transmission line traversing Segment 2 of the Mansfield Hollow Wildlife Management Area by utilizing the Minimal Right-of-Way Expansion Alternative. This alternative appears to

avoid and minimize wetland impacts without imposing a significant increase in construction costs to the Northeast Utilities Service Company.

If you have questions, you may contact Mike Salter at (860) 424-3552, michael.salter@ct.gov. All correspondence regarding the Mansfield Hollow Environmental Assessment should be addressed to Mike Salter, Inland Water Resources Division, Bureau of Water Protection and Land Reuse, Department of Environmental Protection, 79 Elm St., Hartford, CT 06106-5127.

Sincerely,



Denise Ruzicka, Director
Inland Water Resources Division
Bureau of Water Protection & Land Reuse

DR:MS

cc: Michael Marsh, US EPA Region 1
Robert Young, Burns & McDonnell
Anthony Mele, Northeast Utilities Service Company
Jeff Martin, Northeast Utilities Service Company
Bob Gilmore, IWRD

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**State Historic
Preservation Office**



February 10, 2012

Tony Mele, Project Manager
Connecticut Light & Power
Northeast Utilities System
PO Box 270
Hartford, CT 05141-0270

RE: Cultural Assessment for Proposed Electric Transmission Line Utility Easement
Expansion on U.S. Army Corps of Engineers Property
"Mansfield Hollow Area"

Dear Mr. Mele,

The State Historic Preservation Office with the assistance of the Office of State Archaeology has reviewed the *Request for Input to environmental Assessment for Proposed Electric Transmission Line Utility Easement Expansion on U.S. Army Corps of Engineers Properties, "Mansfield Hollow Area", Towns of Mansfield (Tolland County) and Chaplin (Windham county), Connecticut*, prepared by Connecticut Light & Power Company, Northeast Utilities (NU) System, dated 21 October 2011, soliciting our office's comments regarding the portion of the property which would traverse property owned by federal government and under the administrative control of the U.S. Army Corps of Engineers.

The State Historic Preservation Office (SHPO) has reviewed the supplemental documents provided by your office in regard to historic and archaeological resources. Our office understands that Raber Associates, Inc., have conducted Phase 1b archaeological surveys within the transmission corridor and the Public Archaeological Laboratory, Inc. has been contracted for further cultural assessment and Phase II and Date Recovery surveys in the area. In addition, we recognize the consultation of Native American Tribes expressing concern for archaeological sites of their cultural origin has been implemented and is proceeding, including on field "walkdowns" of the proposed power lines and support pods.

Connecticut SHPO concurs that additional archaeological investigations are warranted to evaluate the potential project effects to subsurface resources. It is our opinion that the proposed research design and methods are appropriate. All archaeological studies must be undertaken pursuant to our *Environmental Review Primer for Connecticut's Archaeological Resources*.

These comments are offered in accordance with Section 106 of the National Historic Preservation (16 USC 470f) and the Protection of Historic Properties regulations (36 CFR Part 800). Should you have any questions concerning our agency comments, please contact the Connecticut state archaeologist, Dr. Nicholas F. Bellantoni, at the University of Connecticut. Dr. Bellantoni can be reached at (860) 486-5248 or Nicholas.Bellantoni@Uconn.edu.



**State Historic
Preservation Office**



*Mele - Proposed Electric Transmission Line Utility Easement Expansion at Mansfield Hollow
February 10, 2012*

(Page 2/2)

Sincerely,

A handwritten signature in blue ink that reads "David Bahlman".

David Bahlman

State Historic Preservation Officer

cc: Atwood/ACOE

Bellantoni/OSA

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June 21, 2012

Robert Stein, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: Interstate Reliability Project 345-kV Transmission Line
Connecticut Light and Power Company
Lebanon to Thompson, Connecticut
Docket No. 370

Dear Chairman Stein:

Staff of this department have reviewed the above-referenced application for a Certificate of Environmental Compatibility and Public Need for the proposed 345-kV transmission line from Card Street Substation in Lebanon to the Rhode Island state line at Thompson, traversing the towns of Lebanon, Columbia, Coventry, Mansfield, Chaplin, Hampton, Brooklyn, Pomfret, Killingly, Putnam and Thompson. A field review of the full corridor was conducted. The alternative alignments listed as the Willimantic South Overhead Alternative, the Willimantic South Underground Alternative and the Brooklyn Overhead Alternative were not field reviewed. Based on these efforts, the following comments are offered to the Council for your use in this proceeding.

The Connecticut portion of the proposed line consists of 36.8 miles of 345-kV line to be constructed within existing CL&P right-of-way between Lebanon and Thompson with the possible exception of a 0.9 mile segment of widened ROW corridor crossing Mansfield Hollow State Park in Mansfield and a 0.5 mile segment of corridor crossing Mansfield Hollow Wildlife Management Area in Chaplin, where additional right-of-way width may be acquired from the U.S. Army Corps of Engineers to support the proposed new line. Improvements to support the new 345-kV line would also be made at Card Street Substation in Lebanon and the Lake Road Switching Station in Killingly.

Need for the Interstate Reliability Project

The Interstate Reliability Project is one component of the New England East-West Solution (NEEWS), a series of projects designed to improve system reliability and increase power flows between eastern and western New England, including thermal, voltage, and transfer import capabilities. The Connecticut NEEWS-related upgrades include:

- Greater Springfield Reliability Project, which increases the Connecticut import limit by 100 MW in 2014

- Interstate Reliability Project, which increases the Connecticut import limit by 800 MW in 2016
- Central Connecticut Reliability Project, which increases the Connecticut import limit by 200 MW in 2017

The Interstate Reliability Project will improve the access for generation from the combined cycle generators at Lake Road into the Connecticut electrical grid. These upgrades are planned to be fully online by January 2016. The following comments focus solely on the Interstate Reliability Project portion of the NEEWS Project.

DEEP notes that ISO-New England (ISO-NE) has repeatedly taken the position that NEEWS, which includes the Interstate Reliability Project, is needed to meet regional reliability criteria and to serve load throughout southern and eastern New England. As far back as 2004, ISO-NE began a study of deficiencies and interrelated reliability needs throughout the southern New England electric supply system, and, in 2006, it released a draft report later referred to as the "*Southern New England Transmission Reliability Report (SNETR) - Needs Analysis, January 2008*" (*the 2008 Needs Report*). Specifically, ISO-New England has reported that the Interstate Reliability Project will help to correct regional reliability problems associated with east-west/west-east power flow constraints in southern New England and to provide immediate reliability benefits to Connecticut and additional reliability to plan for any generator retirements or related events. To the extent that the Interstate Reliability Project reduces stress on the system, improves system resiliency, and enables new, renewable generation to replace dirty retiring units, DEEP strongly supports the continued development and progress of this project.

For Connecticut's review, as well as for ISO-NE, the Interstate Reliability Project has been relied upon to ensure that Connecticut, and the region, have sufficient resources to meet reliability requirements. DEEP also notes that as recently as April 2011, with ISO-NE's release of the needs assessment re-analysis of the Interstate Reliability Project, this component of NEEWS has been considered as part of ISO-NE's Regional System Plan. DEEP has also included the project in the "base case" for the 2012 Integrated Resource Plan (IRP). Moreover, the inclusion of Lake Road as a Connecticut resource has been used in IRP's basecase modeling for resource adequacy outlooks since the 2010 IRP.

In conclusion, DEEP supports the need for this project and believes it deserves Siting Council approval. DEEP is mindful that ISO-New England is again currently updating its needs assessment of this project. DEEP will monitor and engage ISO in those efforts and review any study results produced. DEEP's continued support of this project will depend on an analysis of the consequences of further modifications to the status of this project and its impact on reliability and any transmission constraints for the state.

Conversion of Forest Habitat to Open Field Habitat

As a result of increasing the maintained width of the CL&P right-of-way by an average of 90 feet, 273 acres of currently forested habitat will be converted to early successional types of habitat such as open field and shrub/scrub habitat. Up to an additional 11 acres of early successional habitat may be created at Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area if additional Corps of Engineers land at those areas is incorporated into the CL&P right-of-way.

While both the upland forest and old field/early successional environments possess habitat value, the old field and shrubland habitat that will be created within the right-of-way will benefit many of the wildlife species that are declining most rapidly in our state and region, including shrubland bird species. In addition, the early successional vegetative regime also provides excellent butterfly habitat. Much of this habitat type has been lost or is being lost as former agricultural land is being developed or as it reverts to woodland. The old field habitat created in the ROW will be maintained indefinitely in that state, and thus represents early successional habitat that is frozen in time. It will therefore continue to provide habitat value for critical species as long as the corridor is maintained for utility purposes. Also, it should be noted that the additional early successional habitat is created without fragmenting any existing upland forest blocks since the cleared right-of-way is already in existence.

The value of the habitat provided in and along the right-of-way would be maximized if herbicide applications and mechanical clearing activities can be conducted outside of nesting season for the potential resident species. In broadest terms, this would be accomplished by performing vegetative management activities between mid-September and April first. CL&P may contact the DEEP Wildlife Division for consultation on vegetation management in this or any other corridor when necessary. Jenny Dickson may be used as a contact at (860) 675-8130 in this regard. In addition, the Wildlife Management Division is available to consult on beneficial vegetative plantings appropriate to the right-of-way which would enhance habitat value.

CL&P should continue to work with DEEP to provide information and allow us to update the NDDDB with observations and data from this project. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern. Such information is incorporated into the NDDDB as it is made available from projects such as this one.

Comments on Proposed EMF Mitigation and on EMF Literature Review

Though DEEP does not have jurisdiction over 60Hz EMF and has only limited technical expertise in this area, the DEEP Radiation Division conducted a review of sections 7.5 and 7.6 of the application and offers the following comments on the applicant's review of current literature on EMF. This review did not find anything inconsistent with the report's assertion that recent studies do not provide evidence to alter the World Health Organization's 2007 status report on EMF. The literature search did appear to cover the six month gap in information identified in our Docket 370 comments. The recent pooled studies cited in the application continue to support a weak association between elevated electromagnetic field levels and childhood leukemia that is identified in the 2007 World Health Organization report.

Mansfield Hollow State Park and Wildlife Management Area

Connecticut Light and Power sets forth three options for crossing Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area in this application. As the right-of-way easement from the U.S. Army Corps of Engineers to CL&P for transmission line purposes is currently only 150' wide, CL&P developed these three alternatives due to uncertainty about the outcome of obtaining extra right-of-way width from the Corps.

DEEP has reviewed the three options developed by CL&P, namely the No ROW Expansion option which keeps the CL&P corridor at its existing width and requires the use of steel poles with vertically configured conductors for both the new and existing lines, the Minimal ROW Expansion option which increases the width of the right-of-way by 25' thereby allowing the existing line to stay in place and adding

the new circuit with vertically configured conductors, and the initially proposed option which adds 55' of ROW width within Mansfield Hollow State Park and 85' within Mansfield Hollow Wildlife Management Area and allows the new line to match the geometry of the existing line in both units.

DEEP did provide a letter dated February 27, 2012 to Judith L. Johnson of the Corps of Engineers in response to a request to evaluate these three potential options for the line across the DEEP-leased Corps of Engineers property. In that letter, a preference for the Minimal ROW Expansion option was stated. This preference was based solely on an analysis of wetland impacts and did not reflect any coordination with the State Parks or Wildlife Divisions. While our State Parks and Wildlife Divisions have voiced a slight preference for the originally proposed alternative for reasons revolving around aesthetics and habitat types, respectively, DEEP finds either the originally proposed configuration or the Minimal ROW Expansion option to be acceptable. The No ROW Expansion option with both a greater number of taller structures and the additional disturbance of reconstructing the existing line would be the least desirable option.

Permits and Approvals, Natural Diversity Data Base

The list of DEEP permits and approvals for the Interstate Reliability Project as shown on page ES-41 of the application is accurate. Of these, the Section 401 Water Quality Certification is the most significant and comprehensive. Two of the major components of the Section 401 WQC will be wetlands impact mitigation and invasive species control.

Unlike the process which was followed for the Greater Springfield Reliability Project (GSRP), DEEP will want to see at least a framework for the compensatory wetland mitigation plan in the 401 permit application. The lack of a compensatory mitigation framework slowed up the permit process for the GSRP. DEEP will prefer a single large parcel as a mitigation site as opposed to multiple smaller mitigation host sites.

Invasive species control is an important issue both because of the presence of invasive species in the right-of-way now and because the disturbance of the construction activities for the new line will provide additional opportunities for the introduction and spread of invasive species. DEEP envisions the use of a special permit condition for invasive species management as opposed to approving an invasive species control plan. The later approach is more difficult to enforce. Language similar to the following paragraph is likely to be incorporated into the Section 401 Water Quality Certification. This language has been used in two recent permits issued to Northeast Utilities for a switchyard and circuit separation project at Millstone and a structure replacement project on transmission line 1990 in Watertown, Waterbury, Middlebury, Oxford and Monroe.

“The Permittee shall monitor all identified wetland and watercourse units located within the bounds of the project right-of-way (ROW) greater than 0.25 acres for the occurrence of those plant species identified in the list of invasive plants published and updated by the Invasive Plant Council pursuant to section 22a-381b of the General Statutes and which are or come to be present in the project ROW. The monitoring on the project ROW shall be performed at a frequency of not less than once every four years for the duration of the operation of the permitted facilities. Upon completion of a monitoring event, the Permittee shall implement measures to control invasive species within any identified wetland or watercourse unit where the extent of the vegetative cover of invasive species exceeds 25%, unless such measures are impracticable or imprudent due to restrictions or limitations on access or feasible control measures. Also, the implementation of invasive species control measures may be performed with cognizance of any restrictions or limitations

contained within existing easements or covenants applicable to lands within the project ROW provided that the restrictions or limitations are disclosed in writing to the Commissioner. The Permittee shall submit reports to the Commissioner on a four year cycle that summarizes activities conducted during the preceding four year period within the project ROW. The first report shall be submitted no later the four years from the date of issuance herein.”

The listing of the need for a Stream Channel Encroachment Line Permit on page ES-41 stems for the transmission line’s crossing of the Willimantic River. Though the supporting structures on both sides of the river would be outside of the established stream channel encroachment lines, past legal precedent has held that “over is in” and therefore the mere crossing of the designated SCEL zone at the Willimantic River triggers the need for this permit. Given that no structures are actually in the floodway, the review for this permit is very perfunctory and minimal and the application can be combined with that for the Section 401 Water Quality Certification.

Twenty-nine species listed in the DEEP Natural Diversity Data Base have either been identified from the data base itself or have been observed in the field along the proposed transmission line corridor. NDDDB staff biologists have been working closely with CL&P on this project. DEEP has a data sharing agreement with CL&P so that they have access to all NDDDB data as actual point data as opposed to the “blob” data format more generally available to the public. CL&P has been submitting their recommended mitigation measures for each listed species which may be potentially impacted for DEEP review and approval. Coordination between CL&P and NDDDB staff on this project began in 2007, with a substantial update of project data done in 2010.

Though all 29 listed species are fauna, protection of host plants for these species is an important concern.

Overall, there has been a very good record of cooperation with CL&P on this project. Coordination is continuing as specific species mitigation plans continue to be submitted and refined.

Alignment Alternatives

The DEEP field review for this application focused on the proposed alignment which follows the existing transmission line corridor from Card Street Substation in Lebanon to the Rhode Island line at Thompson. The application contains two alternatives for the development of an overhead transmission line replacing the use of the existing right-of-way for portions of the proposed new line. Neither the Willimantic South Overhead Alternative nor the Brooklyn Overhead Alternative alignments were field reviewed by DEEP. While the addition of the proposed new transmission line to the existing corridor will involve a number of incremental impacts along the right-of-way to construct and accommodate the new line, these impacts pale in comparison to those of acquiring and developing a new ‘greenfield’ corridor. The justification for consideration of the Willimantic South Overhead alternative disappeared when it was determined that the transmission line right-of-way through Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area could accommodate the proposed new line even in the absence of additional right-of-way width being granted by the Corps of Engineers. So there was no purpose in considering and reviewing this alternative.

The Brooklyn Overhead Alternative alignment does avoid impacts to residential areas and, based solely on a review of USGS topographical maps, would be a feasible routing to avoid homes in the area of

Church Street. However, the acquisition and clearing of an entirely new section of transmission line corridor and the impacts of construction of a line in a completely new location would greatly exceed those of adding a new line to the existing alignment. Therefore, this alternative was not walked during the field review for this application.

The minor route variation being considered at Hawthorne Lane in Mansfield would reduce aesthetic impacts to homes at 21, 25, 27 and 28 Hawthorne Lane and can be accomplished without any environmental impacts though there are administrative and procedural obstacles to be overcome to effect this short realignment. Testimony submitted by CL&P attaches a cost of \$1.8 million to this route alternative, which translates to \$450,000 per affected home. Nevertheless, this change is probably more effective in providing a meaningful benefit to the proximal homes than are the changes considered in the five focus areas along the corridor.

BMP Focus Areas

The CL&P application evaluates five potential focus areas along the Interstate Reliability Project corridor where alternative conductor configurations on structures other than the baseline H-frame structures have been evaluated for their potential to reduce EMF levels at proximal homes and statutory facilities along the corridor. Though the structure choices and conductor configurations considered or proposed at these five locations were offered with the intent to reduce EMF levels at the edges of the right-of-way by at least 15%, it should be recognized that for all these calculated reductions, there is a non-calculated, very definite increase in the aesthetic impact of the line created because of taller tower structures which are proposed for consideration in the focus areas and the introduction of structures of a different visual nature than those of the existing line, which will increase the incremental visual impact of adding a second circuit above what it would be if matching structures are used. This consideration is mentioned because in terms of actual importance to homeowners and others along the line, the visual impact may likely be the effect of greater concern if the new line is approved and constructed.

Focus Area A is located between existing structures 9028 and 9048 of line 330 in the towns of Coventry and Mansfield. The use of 110' steel poles supporting the conductors in a delta configuration was identified as a potential EMF mitigation measure in this area of the line, which crosses Babcock Hill Road, Flanders River Road, Stafford Road and Highland Road. There is a very small number of homes at these crossings* and no homes in between these roads. According to calculations on pages 52 and 53 of the Direct Testimony of Robert E. Carberry, John C. Case and Anthony P. Mele dated May 21, 2012 (Docket 424 Exhibit 17), the BMP measures for Focus A lower EMF levels on the north edge of the ROW by 28% while increasing them on the south side of the ROW by 12% compared to the base case design. However, these numbers translate to a 2.0 mG decrease at the northern edge and a 2.2 mG increase at the southern edge. Although the new line would be constructed in the northern portion of the ROW, there are at least an equal number of homes at the southern edge if you add up the affected street crossings. Similarly, the calculation on page 53 of Exhibit 17 shows that, at the closest home to the ROW edge, the BMP configuration yields a decrease of 1.8 mG at the closest home to the northern edge of the ROW relative to the baseline H-frame design but increases EMF levels by 2.1 mG for the nearest home on the south side of the ROW relative to the use of H-frame structures. These mixed results in combination with the greater visual impact of the taller steel poles and the increase in cost of the BMP design point to the need for the Council to carefully weigh these aspects before making a decision on employing the BMP option in this area.

(* At Babcock Hill Road, there are two homes, only one of which is significantly proximal to the transmission line corridor. That closer home is to the south of the right-of-way, while the closest home to the north is well off the right-of-way. There is only one home at Flanders River Road (#199), just north of the right-of-way on the east side of the road. At Route 32, there are two homes immediately south of the right-of-way, one of which is currently vacant and being gutted and remodeled, and two homes just to the north, one on each side of Route 32. The home on the east side of 170 Stafford Road would lose most or all of its visual screening with the clearing for the new line. There are no homes immediately adjacent to the corridor at Highland Road. In total, at the four road crossings in Focus Area A, there are three immediately proximal homes to the north of the line and three to the south.)

Focus Area B, in the area of Mansfield from Route 195 to Bassett Bridge Road, has also been evaluated by the applicant for the use of 110" steel poles and delta configuration conductors as opposed to the baseline H-frame structures in order to lower EMF levels. Three statutory facilities as defined by Connecticut General Statutes section 16-50p are located in this segment of the line: the Come Play With Me daycare facility, the Mount Hope Montessori School and the Green Dragon daycare facility. Testimony on page 53 of Exhibit 17 indicates that the Come Play with Me daycare facility may no longer be in operation. As noted later in the description of the DEEP field review, a conversation yesterday (June 20) with the homeowner at the hosting residence confirmed that the daycare center is no longer in operation. The Montessori School is located closest to existing structure 9076 and proposed new structure 77. Field review at this location showed that there is sufficient intervening distance between the new line location and the school to accommodate another building lot. The Green Dragon daycare center is fairly well removed from the proposed line, over 400' away at the closest point, and on the opposite side of the ROW from the new line. The benefits of using the taller steel poles in this area are also called into question if the EMF calculations on page 54 of Exhibit 17 are accurate in that they indicate lower magnetic field strength at these two facilities with the use of H-frame structures as compared to steel pole-supported delta configuration conductor.

Focus Area C corresponds to the Hawthorne Lane neighborhood discussed earlier. Changes in this area, if any, from the baseline design and existing alignment would be made for aesthetic reasons. The use of steel poles supporting the conductors in a delta configuration is reasonable in this area, especially if the alignment shift proposed by the homeowners on Hawthorne Lane is not implemented.

Focus Area D runs from existing structures 9210 to 9219 in the northeastern corner of Brooklyn. Homes east of Church Street, and to a lesser extent along Darby Road, would be the beneficiaries of any EMF reduction efforts in this area. As was the case in Focus Area A, the BMP option using 110' steel poles yields a 28% reduction in EMF levels on the northern edge of the right-of-way and a 12% increase to the south of the right-of-way. But the closest homes are along the northern edge of the corridor.

Two daycare centers were identified in the application as being in this focus area. One of these is not particularly close to the ROW and is identified on page 56 of Exhibit 17 as being 497' from the edge of the ROW and experiencing magnetic field levels below 0.5 mG. The other facility is immediately adjacent to the ROW on the north side and east of Church Street. The home hosting this daycare center, at 350 Church Street, was advertised as being for sale as of the date of DEEP's field visit to this area on April 9, 2012. Therefore, this daycare center, if it is still in operation, may cease to be operating if the home is sold to new owners.

Other than the house at 350 Church Street, the closest homes to the line in this area are those at the end of Meadowbrook Drive, a cul-de-sac extending eastward from Church Street and then southward toward the transmission right-of-way. In a discussion with the owner of the closest of these homes, he expressed a preference for the selection of the Brooklyn Overhead Alternative but, failing this, he said he did not want to see the steel poles used in this area. Specific comments and recommendations on lessening impact in this area are included later in these comments in the observations and recommendations from the field review.

The final focus area is the Elvira Heights area of Putnam which is just east of US-44 and south of the CL&P right-of-way. In this area, an option of removing the existing H-frame structures and placing both the existing and new 345-kV lines on steel poles with the conductors in delta configuration was evaluated. For the Elvira Heights area, there is no development along the northern side of the right-of-way, the side on which the new line would be added. From the homes along Elvira Heights, the existing H-frame-based line is well screened by forest vegetation, even under leaf-off conditions, except perhaps for the single home at 32 Elvira Heights Road. The taller steel poles would likely be seen above the tree line from Elvira Heights. In return for the increased visibility and for the increased construction impacts of rebuilding the existing line, a magnetic field reduction of less than 1.0 mG is achieved at the nearest home on Elvira Heights (Exhibit 17, p. 58). The aesthetic impacts of the BMP option in this area appear to be more significant than the very limited reduction in EMF levels.

DEEP believes that the lack of significant resource concerns identified for the construction of the new 345-kV transmission line attests to the proposed route being a logical and prudent solution for addressing the identified capacity and reliability issues which have been identified by ISO-New England and the utilities. The following discussion of conditions observed along the corridor contains some recommendations for impact mitigation at specific sites along it.

Field Review of the Interstate Reliability Project

The DEEP field review for the Docket 424 application occurred on nine days: March 23, 26, 27, and 30 and April 3, 9, 10, 13 and 16, 2012. In addition, a number of locations in the western end of the corridor were spot checked yesterday, June 20, to verify conditions in specific locations. The entire corridor was walked, progressing from its western end to the Rhode Island state line. Fourteen of the 337 structure locations were not accessed during the field review due to emergent wetlands, standing water, or lack of non-private land access. The non-accessed structures, based on structure numbers for the existing 330 line, were #9095 at the Natchaug River, #s 9202-9210 in Brooklyn (corresponding to new structures 203-211), and #s9316 and 9317 in Thompson (corresponding to new structures 320 and 321) just west of Quaddick Town Farm Road.

Three general observations concerning the 36.8-mile corridor are the surprisingly low level of residential or other development along such a long corridor, the prevalence of stone walls in or across the right-of-way, and the extent to which CL&P has been able to shift the locations of proposed new structures to avoid wetlands. These general observations (especially the stone walls) will be borne out repeatedly in the following site-specific comments on the corridor. The following summary of the proposed corridor, broken down by nine segments corresponding to the nine field days, is offered to the Council for the purpose of providing additional detail and understanding of the corridor, with apologies in advance for the length of this section of the comments.

Card Street Substation to the Willimantic River (March 23)

Card Street Substation in Lebanon is located in a sparsely developed area with little residential development and only one semi-adjacent home at 133 Card Street located east of the substation driveway. From the substation, which will not be expanded in footprint, the proposed line proceeds westward for a very short distance before leaving Lebanon. The existing 330 circuit, together with a 69-kV line and the proposed new line proceed downslope from the substation crossing the Airline Trail and descending to the Tenmile River, crossing a stone wall, a skunk cabbage swamp and a small pasture as the right-of-way makes its approach to the river.

Crossing the Tenmile into Columbia, there are new homes south of the ROW at structures 9007 and 9008 which are accessed by a shared driveway which crosses the ROW from Baker Hill Road. The home at structure 9007 has no vegetative screening between it and the transmission line corridor. On Baker Hill Road to the north, the home at 1 Baker Hill Road is also unscreened from the corridor but is across Baker Hill Road from the line and on the opposite side of the ROW from where the new line will be constructed. Other homes along this section of Baker Hill Road benefit from some degree of screening.

Proceeding westward, the home at the corner of Scalise Drive and Cards Mill Road maintains a portion of the ROW under the 69-kV line as lawn. A home north of the line at structure 9011 is screened by large trees. Three fully developed frogs were seen in a pool of standing water located at approximately 9014 ½ (midway between structures 9014 and 9015) which was surprising given the early March 23 date of this portion of the field review.

After the corridor crosses Old Willimantic Road near structure 9017, there is a shared driveway serving homes at 133 and 135 Old Willimantic Road which runs right under the new line. Indeed, a spray paint marking right on the centerline of the driveway indicates the proposed location of one of the poles for new structure 19. Immediately north from here, the home east of the line at 9013 ½ has very little screening and thus a direct view of the existing line and corridor.

From structure 9020, the corridor looks down to Route 66, the Hop River and the Route 6 bypass. North of Route 66 (Willimantic Road) is a large wetland system. New structure 23 would be located on an east-west ridge extending between wetlands 20-23 and 20-24. The corridor then crosses the Hop River and the Hop River Trail and then the very wide median between the eastbound and westbound barrels of US Route 6. Construction of the new line should have no permanent impact on the Hop River Trail, the Airline Trail, the Nipmuck Trail or any of the other smaller trails it crosses.

Shortly after traversing Route 6, the corridor reaches Babcock Hill Junction, where the 69-kV line leaves the project corridor. The ROW accesses and crosses between two wetlands just east of structure 9027, then heads out to Babcock Hill Road. There is much juniper in the ROW at structure 9028. Only one stake each marking the locations of structures 29 and 30 were found, presumably reflecting the proposed use of steel poles in the area which is part of BMP Focus Area A. There is one home on the east side of Babcock Hill Road north of the ROW and one home on the west side to the south of the corridor. East of Babcock Hill Road, an area of dense juniper and blackberry thicket occupies the ROW after structure 9031. The existing line, and the proposed new line, then drops down a huge slope to structure 9032 at Flanders Hill Road. At Flanders Hill Road, there is one home north of the right-of-way on the east side. Dirt bike use of the ROW is in evidence between Flanders Hill Road and structure 9033. The ROW is then maintained as lawn between structures 9033 and 9034 by the homeowner to the north. The ROW then

enters the floodplain of the Willimantic River. Structure 9034 is in the Willimantic River floodplain but is on high, dry ground under normal conditions. The new structure 35 would be located across (east of) the Willimantic River on high ground beyond the New England Central Railroad right-of-way and thus well out of the floodplain. The proposed new line would span the Willimantic River and its floodplain between structures 34 and 35. However, for purposes of the Stream Channel Encroachment Line (SCEL) program, "over is in"; thus the listing of this permit on page ES-41 of the application is appropriate.

Willimantic River to Mansfield Hollow State Park (March 26)

East of the Willimantic River the ROW crosses the New England Central Railroad tracks and an unofficial dirt bike area below and east of the tracks. Proceeding toward Stafford Road, a small dairy cattle pasture and an enclosure housing the largest pig this reviewer has ever seen are crossed. The corridor then crosses Stafford Road (Route 32) and enters the Highland Ridge Driving Range. Three structures (9037-9039) support line 330 across the driving range, and three new structures would similarly be sited on the driving range. A small wetland is located under the existing line at structure 9039 where the corridor transitions from the driving range to a small pasture. Another wetland occurs approaching structure 9041, an angle structure where the corridor takes a 90° turn to the east. Phragmites and spicebush in the corridor just after 9041 transition to autumn olive and juniper as the right-of-way ascends a hill up to structure 9042. From structure 9042 at the top of the hill, the right-of-way offers a nice agricultural view looking back to the west. Also from 9042, some homes are visible through the forest to the north.

Highland Road crosses the right-of-way just before structure 9043. Wetland 20-43, west of structure 9046, supports Phragmites, spicebush and alder. An access road crosses wetland 20-44 on an embankment. This embankment is in good condition but may need widening to be used for construction purposes. Two tires are laying at the edge of the access road at the east side of this wetland.

There is a small hillside seep wetland at structure 9052 and a more significant wetland of skunk cabbage and multiflora rose just west of structure 9054 before the corridor crosses a farmstead and reaches Mansfield City Road. All the wetlands mentioned above will be spanned by the new line from structures located outside their limits.

The home on the east side of Mansfield City Road maintains the right-of-way as part of its yard. The corridor leaves this yard and climbs a wall of large boulders to reach structure 9056. Aside for the two homes at Mansfield City Road, there is no development near the right-of-way after Highland Road.

On the day of the DEEP field review for this section, March 26, there was a Komatsu excavator on the north side of the right-of-way between structures 9058 and 9059 excavating rock that appeared to be within the right-of-way.

From structure 9060, there is a broad view to the east to structure 9067. The right-of-way crosses Nipmuck Trail at structure 9064. Wetland delineation ribbons in this area extend well up the hillside from wetland 20-56 with no sign that this hillside is a wetland from its vegetation or drainage.

The corridor offers its first view of Mansfield Hollow at structure 9068 with a clearer view by structure 9069. A new home north of the right-of-way at 9071 ½ is well off the right-of-way but will lose most of its screening when the new line is constructed.

The corridor descends from #9069 to Route 195. The Come Play With Me daycare facility is located at 385 Storrs Road (Route 195) south of the ROW on the west side of the road, across the street from another home at 388 Storrs Road. The new line would be constructed on the opposite (northern) half of the right-of-way. Testimony in Exhibit 17 called into question whether the Come Play With Me daycare facility was still in business. A visit to the hosting home at 385 Storrs Road yesterday and a conversation with the homeowner confirmed that the daycare center is no longer in operation.

Two more homes are located to the north of the right-of-way at Storrs Road. On the east side, a home at 408 Storrs Road is about 200' north of the right-of-way, while another home on the west side is just slightly farther north and is very well screened from the right-of-way.

Once across Storrs Road and the associated homes and yards, the right-of-way cuts across a cow pasture, up a berm, across another enclosed pasture, then across an open grassed field. The corridor passes the Mount Hope Montessori School just to the west, crosses Bassett Bridge Road, and passes the Green Dragon daycare to the east and town-owned open space to the west. The corridor then turns westward, crossing a field of 4' tall dead goldenrod stalks and then passing continuous white pine to the north before coming out into the Hawthorne Lane neighborhood. Multiple stakes labeled 'STR 80 ALT' appear to show CL&P was looking for the best location for placement of structure 80 to avoid a small slope and wetland. The line then crosses the driveways for the homes at 21, 25, 27 and 28 Hawthorne Lane, homes which would lose much of their existing vegetative screening to the new line. The line then enters Mansfield Hollow State Park, first crossing a dike, then an open field, and then running through a white pine forest until it reaches Mansfield Hollow Lake.

Mansfield Hollow State Park to the Fin, Fur and Feather Club, Chaplin (March 27)

Shortly after crossing Mansfield Hollow Lake, the ROW crosses the Nipmuck Trail which enters it from the north and runs within the ROW for a short distance before departing it southward at structure 9087. The ROW ascends a steep slope from Bassett Bridge Road to structure 9088, passing some homes to the north which are well off into the forest. Another home to the north at 9088 ¾ has a satellite dish at the edge of the right-of-way with the home maybe 50 yards into the woods. A dense stand of autumn olive occupies the right-of-way from South Bedlam Road to structure 9090, the last structure in Mansfield.

Five homes are visible at a distance off into the woods north of the right-of-way at structure 9091 in Chaplin.

Contrary to the indication on Map 10 of 40 in Volume 9 of the application, there is no access road from South Bedlam Road to structure 9091. The ROW crosses an agricultural field from just after structure 9091 to just after structure 9092. The access road resumes at structure 9093. Between structures 9091 and 9092, the existing 330 line crosses a wetland, but the new line will not. The corridor enters Mansfield Hollow Wildlife Management Area at structure 9094. Structure 9095, near the western bank of the Natchaug River, could not be accessed for this review.

The east bank of the Natchaug River is reached after a steep descent from structure 9096 to the east. A hemlock forest stretches along the east bank both north and south of the ROW, with the river sitting well below the east bank. Clearing of the trees immediately adjacent to the Natchaug River should be avoided in order to preserve shading for the river. The new line should be able to span over the existing trees from the high ground at structure 9096, as the existing line does.

A small stream running parallel to the power line within the northern half of the right-of-way between structures 9096 and 9097 would be spanned by the new line between structures 97 and 98. Between structures 9097 and 9098, the existing access road crosses an embankment through a Phragmites wetland. New structure 99 would not be in the wetland.

The south pole of structure 100 would be in a wetland. A 6' shift northward would get the southern pole out of the wetland and is recommended if possible.

After crossing Route 6, the right-of-way passes a greenhouse to the north. A wetland in the right-of-way on the access road just east of structure 9102 supported a large tadpole population on March 27. A 60' long pool of standing water in the access road between structures 9104 and 9105 similarly supported many tadpoles. These two pools are a function of the access road itself, resulting from depressions created by the road collecting and ponding water.

New structure 106 is offset east of existing structure 9105 to avoid placement in wetland 20-84. The right-of-way crosses property of the Fin, Fur and Feather Club between structures 9103 and Chewink Road. The right-of-way crosses a pond on the club's property between structures 9108 and 9109. Additional clearing for the new line should avoid removing the cedars wherever possible, such as in the area of structure 9109 east of this pond.

Eastern Chaplin to Eastern Hampton (March 30)

From structure 9112 on the eastern edge of a large pond (wetland 20-86), one can see across to the Fin, Fur and Feather Club to the west and hear target practice going on at the club. A stone wall crosses the ROW immediately west of structure 9113 but should not be impacted by the placement of new structure 114 or, hopefully, by the construction of the line.

Dirt bike usage is in evidence at structure 9116 with a circular loop track there and tracks continuing to the west. Another very large open water wetland (20-91) is spanned between structures 9119 and 9120 with one of the longer spans of the line. A beaver lodge is seen in the pond just north of the right-of-way. The stakes for the location of structure 120 on the west side of the pond show that approximately 1 foot of elevation could be picked up by moving just 10' to the west from its current location virtually at pond level. Recognizing that this is a very long span, a similar suggestion on the east side of the pond for structure 121 will be withheld. Westward movement of structure 120 is more beneficial than the eastward shift of structure 121 to higher ground. Continuing to the east, a garden occupies part of the corridor between structures 9122 and 9123, complete with Halloween masks and a fake owl to scare birds away. The stakes for new structure 122 are offset from structure 9121 in a favorable placement to avoid a wetland and small watercourse. An enclosure on the north edge of the ROW at structure 9123 houses several pigs.

The corridor then crosses South Brook Street and almost immediately crosses the Airline Trail for the second time. Two walls of huge boulders from the rock cut in which the former railroad sat line the banks of the trail as it crosses the right-of-way.

A collection of camouflage National Guard type vehicles and storage units are found on both sides of the right-of-way at structure 9125. Also in this collection are a small service van, a dump truck body, stacks of tires and several non-military derelict vehicles.

A pool supporting tadpoles is located at 9131 $\frac{3}{4}$ in the access road.

A small beaver dam adjacent to structure 9135 has created a pond on the right-of-way and mucky conditions in the access road. Tadpoles are found in an adjacent smaller but similar pond.

Only one stake for structure 136 was seen and it was in the middle of a pond 10' wide by 20' long formed by another beaver dam of leaves and brush. Yet another beaver dam sits below the one at the stake for structure 136, in the northern portion of the right-of-way.

Movement of structure 136 to the east or west would not avoid the beaver wetland. If possible, a 10' northward shift would remove at least the pole represented by this stake out of the beaver pond.

The corridor crosses Route 97 where a thicket of roses and briars makes access to structure 9140 very difficult. CL&P has wisely put the new structure 141 near to the road instead of directly adjacent to existing structure 9140.

Crossing South Bigelow Road into the Bigelow Howard Valley Fish and Game Club, the corridor crosses a large field on the east side which has been the site of a controlled burn. Moving across Cedar Swamp Brook to another field, no stakes were found for new structure 145 but it would be in the field next to structure 9144 at a stone wall. There is a nice 33" dbh hickory tree at the stone wall but its location looks like it may be difficult to avoid removing that hickory for the new line.

After structure 9146, the Little River was crossed via a footbridge just downstream from the right-of-way. Proceeding east, structures 152 and 154 were both nicely offset from the existing structures to avoid wetland impacts.

Brooklyn from Hampton Line to Pomfret Road, Route 169 (April 3)

Structure 161, the easternmost new structure in Hampton, is located in wetland 20-120. There is no option to remove it from this wetland with an eastward or westward shift. Such was not the case for structure 162 which was offset eastward from line 330 structure 9161 to stay out of wetland 20-120.

A small southward flowing watercourse and associated Phragmites wetland are located just east of structure 9163, which is an angle structure. Two of the three poles of the new angle structure 164 have been successfully kept out of wetland 20-122, based on stake locations, but the northernmost pole would be in the wetland. As this is an angle structure, there is less flexibility to move its location and there does not appear to be any option to remove structure 164 completely from the wetland.

New structure 165 is offset from structure 9164 to avoid a wetland under the new line. A small watercourse crosses the access road just west of structure 9164, with standing water in the access road and an emergent wetland just to the north.

The right-of-way then crosses Stetson Road to new structure 167 which straddles a stone wall. The northern pole of structure 167 is in a nursery of small (3') Frazier firs and the structure will also encompass a large white pine. Although the white pine would require removal under any scenario, perhaps the stone wall could be saved, either in place or with a small shift of structure 167.

Another larger stone wall crosses the right-of-way just east of structure 9166, then angles off to the southeast edge of the right-of-way. It is under the existing line but not under the new one.

A logging or brush removal business is located to the north of the right-of-way at structure 9167. A home is visible to the north but is well off the right-of-way. An old dump truck is in the right-of-way under the new line with its tires embedded into the ground.

Another home on the north side of the right-of-way is seen at 9167 ½ but is well into the woods.

Structures 9168 and 9169 are at the top of a broad hill with an expansive 5-mile view to the east available from structure 9169.

A non-electrified electric fence crosses the right-of-way at 9169 ½.

The corridor takes a large drop in elevation after structure 9170 with access being maintained off the cleared portion of the corridor to get around this cliff. There is a very long span to transmission line from 9170 to 9171. A yellow home is seen to the north at structure 9172 but it is well off the right-of-way. A small stone wall crosses the right-of-way at 9172 ½. Another house, located north of the right-of-way at structure 9174, will lose about half of its screening with the clearing for the new line. Two more homes are north of the corridor at structure 9175.

Another older house north of the right-of-way at structure 9176 will lose much of its screening when the new line is added. Much of the area between this house and the edge of the right-of-way has recently been cleared. A slight shift, perhaps 40', of structure 177 to move it east of structure 9176 would make the new structure less conspicuous from this home. Structure 178 is in a wetland north of a stone wall separating the forested wetland from the residential yard which hosts structure 9177. While a westward shift of structure 178 by maybe 30' would again shorten the 177-178 span affected by the previous move, it would pick up a small amount of elevation and take structure 178 from being in the wetland to being at the edge of it.

The right-of-way corridor then crosses Windham Road and passes a collection of very antique (rusted) tractors at new structure 179 on a grassed area next to Windham Road and just off a residential yard by existing structure 9178. More old equipment is seen in the backyard of this same home. One structure later, at 9179, the right-of-way takes a 90° turn to the north, proceeding to and crossing Route 6 for the last time.

After the right-of-way takes an abrupt eastward turn at 9182, it passes a house just south of the corridor at structure 9183. Structure 9184 is mis-numbered as 9284 in the field, but nonetheless offers a view of a church spire and town hall tower in downtown Brooklyn. After a struggle to get through a winged euonymus stand at 9184 and another dense thicket at 9185, the corridor crosses Laurel Hill Road. No stakes were seen for structure 188 but it would be in the dense shrubs at this location and not in any wetland.

Structure 191, immediately east of Wolf Den Road, butts up directly against a stone wall. A shift of a couple of feet would avoid impacts to this wall.

Despite what is indicated on Map 21 of 40 in Volume 9, there is no access road, functional or otherwise, from Costello Road to structure 9193, a span which ascends a very steep, overgrown slope. Yet another stone wall crosses the right-of-way between structures 9196 and 9197. No stakes were found for the location of structure 199 but it would be in a good location in the area of 9198. The line then passes a home to the north of the right-of-way at 9198 and drops steeply to Pomfret Road (Route 169). Structure 200 is at the edge of an area of lawn on the east side of Pomfret Road but not close to any associated home.

Structures 201 and 202 were not accessed until April 16 as they required a difficult traverse across multifloral roses and swamp. There are no issues with the location of these two structures but it was noted that both existing structures 9200 and 9201 are labeled as 9200.

Church Street, Brooklyn to Lake Road, Killingly (April 9)

Beginning from Church Street in Brooklyn and moving first to the west, structure 215 is in a field used mostly for the storage of farm equipment, while structure 214 is adjacent to an area maintained as the backyard of a home to the north on Darby Road. By the point of new structure 213, the line is well offset from Darby Road. Structure 212 is closer to a home to the north than is 213. There are four foundations built between this home and the CL&P corridor, all of which have been there for some time and do not appear to be part of any active construction project. West of structure 9211, there is no access road as the right-of-way descends into the expansive wetland system 20-157. Map 24 of 40 in Volume 9 indicates an access road here but none was to be found. Two attempts to get through or around this wetland were unsuccessful. Therefore, existing structures 9210 back to 9202 were not accessed.

From Church Street heading east, a large yellow home shown in the application as hosting a residential day care center is immediately north of the corridor. As mentioned earlier, real estate signs indicated this house at 350 Church Street was for sale as of April 9.

No stakes for structures 216 or 217 were located in the field but the application shows them as directly adjacent to structures 9215 and 9216, respectively. Based on an assumed location for structure 217 directly adjacent to 9216, a shift of structure 217 to the east of the stone wall and out of the yard and direct view of the yellow home (350 Church Street) is recommended. This would accomplish two things. First, only the actual transmission lines but no structures would be in the front yard of 350 Church Street. Second, from the closest home on Meadowbrook Drive (#33), moving structure 217 to the east would give that home a more oblique, less direct viewing angle to it.

No stakes were found for structure 218 but it is not in a sensitive location.

Existing structure 9219 and new structure 220 are at Day Street Junction in a cornfield which the corridor entered at 9218. From Day Street Junction northward, the new line would run between the existing 345-kV line 330 to the west and two 115-kV lines on H-frames to the east. At structure 9220, the corridor descends from the top of a big bank upon which the structure rests into a dense vegetative tangle.

The corridor enters Pomfret at structure 9223 and enters the first of several cornfields at 9225. This section of right-of-way is generally well drained and devoid of wetlands. The agricultural use of the right-of-way extends northward to structure 9235, simplifying both the field review and ultimately the construction of the proposed line.

The right-of-way descends into wetland 20-162 after structure 9235. This is a large wetland adjacent to the Quinebaug River. Proposed structure 237 initially looked to be inaccessible but is sited on a peninsula which extends southward into the wetland from higher ground off Route 101. Signs of beaver activity in this area include several trees with chew marks. Although the proposed site of structure 237 is offset northward from corresponding structure 9236, it is still in a low-lying wetland location. Any additional northward shift would be beneficial. A shift of 100', though still leaving structure 237 in the wetland, would put it on noticeably higher grade. Structure 238, just south of Route 101, is on a bank above the wetland and river.

Structure 239, the last structure in Pomfret, sits just north of Route 101 in a stand of white pine.

Structure 240, which was accessed from Lake Road as it is across the Quinebaug River from structure 239, sits in the middle of a large wetland but is actually on a high, dry site, though not an easily accessed one. The right-of-way ascends a steep slope up to the location of structure 241, an angle structure at which the corridor turns eastward.

Curiously, there is no structure 242, either in the application (Volume 9, Map 28 of 40) or in the field.

The right-of-way crosses Lake Road just before structure 9242 and then angles north at structure 9243. A stone wall crosses the right-of-way 50' north of structure 9245. Structure 248 is offset from structure 9146 to avoid a wetland. Structure 249 sits just at the edge of a wetland, with its western pole right on the edge. At first glance, it did not appear that a small shift could remedy this but there is a subtle east-west ridge 30' north of structure 249 that is probably worth pursuing as a structure site.

After structures 250 and 9248, the corridor reaches its second crossing of Lake Road.

Lake Road Crossing #2 to Route 12, Putnam (April 10)

From Lake Road to the Quinebaug River, the new line would continue to run between the existing 345-kV line to the west and the two 115-kV lines to the east. Other than one home on the north side of Lake Road to the west of the right-of-way, there is no development on either side of the corridor between Lake Road and the Quinebaug River crossing that occurs after structure 9253. New structures 251-255 in this segment have no wetland impacts.

The corridor enters Putnam upon crossing the Quinebaug River. This Putnam section of the right-of-way is accessed from River Road in Putnam. New structures 256, 257 and 258 are in a cornfield above the Quinebaug River. The right-of-way then passes the Putnam ash landfill which towers over it. The line then passes by a sand stockpile and a sand excavation area at new structures 260 and 261 before descending back to the Quinebaug River and recrossing it into Killingly.

Back on the Killingly side of the river, structure 9260 (labeled in the field as 9260A) appears to be on the edge of the Quinebaug River floodplain though mapped as being in it. New structure 262 is 5' lower in elevation than 9260 and is obviously in the floodplain. Based on the stakes, a 20' eastward shift of structure 262 would move one of the two poles of 262 up 5' in elevation, and a 40' eastward shift would get both poles of this structure up 5', above the area which, based on visual appearance, functions as the floodplain.

The corridor continues eastward ascending from the river to the Lake Road Switching Station, which is located just south of the right-of-way. The line continues eastward crossing Interstate 395 and then the Providence and Worcester Railroad right-of-way. New structure 270, immediately west of the Providence and Worcester tracks, is in a stand of Phragmites but not in a wetland. The right-of-way then passes the impressively large Staples warehouse to the south before reaching the Killingly Substation. The stakes for structure 271 say 171 on them but the location is fine, in a thin corridor of 8" dbh white pine located between the 115-kV and 345-kV lines.

After crossing Park Road on the Killingly-Putnam town line, the corridor continues to ascend. A collection of painting-related debris is on the corridor at structures 274/9270 and a makeshift camp/campfire area, complete with folding tables and chairs and tiki lamps, is in the northern edge of the right-of-way at 9270 ½. Structure 281 is offset from structure 9277 to successfully avoid wetland impacts. The right-of-way is otherwise unremarkable as it continues on to Route 12 in Putnam.

Route 12 to Elvira Heights, Putnam (April 13)

A single distribution line runs on the north side of the corridor, as it has beginning from Killingly Substation. No stakes were found to mark the location of structure 283 but it would be in a grassed field. Several turkeys were observed crossing the right-of-way at 9279 ½. A stone wall crosses the right-of-way diagonally at 9279 ¾ separating the agricultural field from an impenetrable thicket. Stakes were also missing for structure 287 but its location would not offer any issues. Heritage Road is crossed just after structure 9285. Structure 290 is well placed, just beyond the edge of a wetland at the north side of Heritage Road. Structure 291 is an angle structure located in a red maple swamp. Due to its function as an angle structure and being on the outside of the existing line at this abrupt eastward turn, there is no good option to relocate it out of the swamp.

The corridor then crosses Tourtellotte Road, traversing a small cornfield and then a forested wetland. Structure 294 is in a large wetland extending to structure location 295. If structure 294 was moved 15-20' to the west, though still in the wetland, it would be on slightly higher ground, but the 294-295 span is already a long one and the improvement in location would be minimal. After exiting the right-of-way to get around this large wetland via Pitkin Road and Route 21, the location of structure 295 was reached. No stakes were found there but the location is fine. After passing structures 9292 and 9293 between Route 21 and Aldrich Road, the corridor again becomes impassible due to wetland 20-190.

The next section of the right-of-way was accessed from Fox Road. Again contrary to what is shown on Map 35 of 40 in Volume 9, there is no access road remaining to structure 9294 and new structure 298, though a very much overgrown embankment which was probably the old access road was located. Although no stakes for structure 298 were found, this structure would be in wetland 20-190/191 with no apparent option to do otherwise. The stakes for structure 299 are offset well to the north of existing structure 9295 to avoid siting it in wetland 20-191. Structure 300 would be next to the Putnam Department of Public Works storage yard. At structure 301 on the southwest side of Fox Road, a home to the north will lose about half of its existing screening, perhaps 60' of the existing 120', to the new line.

After the corridor crosses Fox Road, a stone wall crosses the right-of-way at 9298 ¼. Structure 306 would be in wetland 20-195, which cannot be avoided. Continuing eastward, this wetland reaches to structure 307, which would be located just outside of it. Orange plastic fencing installed by CL&P to

control access to the wetland crosses the right-of-way at this point. A home in the woods northwest of structure 9304 will retain about $\frac{3}{4}$ of its forest screening after the new line is built.

The right-of-way crosses US-44 with homes semi-adjacent to the corridor in the northwest and southeast quadrants of the intersection of the powerline corridor and the highway. A Phragmites wetland was skirted to reach structure 310, which is right at the edge of wetland 20-197. The eastern pole of structure 310 is in the wetland by about 7' with a shift perpendicular to the right-of-way needed to remove it. A similar situation exists at structure 311 but a larger shift, probably impractical, would be required here since the western pole of the new structure is at the wetland edge, thereby necessitating a perpendicular shift by the complete width of the structure.

A wooden footbridge across the stream labeled as S20-62 in Volume 9 provided access toward structure 312, which, like the following four structures, is outside of any wetland. A home seen to the east of structure 9309 is well screened. The fact that this home was noted points to the lack of visibility of the other homes along Elvira Heights Road from the location of the proposed new line.

A stone wall crosses the right-of-way at structure 9310 and another one does so at 9311. A third stone wall crosses just after structure 9312.

Though this stretch east of US-44 along Elvira Heights Road is BMP Focus Area E, two stakes were in place for new structures 309 through 314, indicating H-frame structures in this segment. Only one stake was seen for structure 315. As noted in the earlier discussion of Focus Area E, a walk along Elvira Heights Road showed the existing 345-kV line, which is closer to these homes than the new one would be, is only marginally visible even under leaf-off conditions. Only from the home at 32 Elvira Heights Road was an H-frame structure clearly visible.

Five Mile River to Rhode Island State Line (April 16)

An extremely large wetland system (wetland 20-203) stretches from the Putnam-Thompson town line to structure 9318. New structure 322 sits just at the eastern edge of this wetland. Attempts to access structures 320 and 321 during the field review were unsuccessful due to a lack of any way to cross this wetland. The great blue heron rookery mentioned in the application is within this wetland with herons observed on nests, on branches and in flight on April 16. Structure sites 318 and 319 were accessed via residential driveways and yards off Munyan Road and do not have any wetlands involvement. The crossing of wetland 20-203 to reach structure site 321 may present some constructability difficulties.

At Quaddick Town Farm Road, a small home north of the line on the west side of that road is maybe 40 yards off the right-of-way and is only partially screened. Structure 324 is currently sited at the edge of a residential yard on the eastern side of Quaddick Town Farm Road but it is my understanding that this structure may be relocated to the west side of that road. There are no resource implications to such a relocation, which would benefit the home east of Quaddick Town Farm Road but increase the visibility of this structure for the home on the west side of the road.

After structure 324/ 9320, the corridor ascends a small hill to angle structures 325 and 9321. From here to the Rhode Island line, the right-of-way is generally well drained and all proposed new structure locations are in upland sites. The first existing structure in Rhode Island, labeled as 9334 on Map 40 of 40 in Volume 9, is labeled as structure 1A on its northern pole and as 01 on its southern pole, but not as 9334.

Miscellaneous Application Commentary

CL&P mentions (p. 6-62) that work within the Mansfield Hollow Wildlife Management Area may necessitate the temporary suspension of hunting activities or that there may be a need for temporary trail closures in Mansfield Hollow State Park. Should the former situation develop or appear likely, CL&P should contact Rick Jacobson, Director of the Wildlife Division, at (860) 424-3482 to discuss and coordinate a suspension of hunting including methods to best notify the public. Impacts to Mansfield Hollow State Park should be coordinated through Tom Tyler, Director of the State Parks Division, at (860) 424-3099.

Graphics in pp. 3A-2, 3A-4, 3A 6-10 and 3A 13-15 show the H-frames supporting the new transmission line as uniformly 5' taller than those of the existing line (85' vs. 80'), and for Mansfield Hollow State Park, p. 3A-5 shows the proposed steel poles as 10' taller (125' vs. 115') than those for the existing line. Has there been a change in industry standards since the time the existing line was constructed? If not, what is the reason for this minor but consistent variance in structure height for lines of matching design?

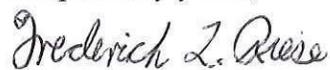
On page 6-26, line 3, it appears that the word 'not' was omitted from a sentence which reads "The excavations required for the installation of the overhead transmission line structures are expected to be above any aquifers used for potable water supply."

The three charts on page 7B-18 show lower magnetic field strengths on the north ROW edge for the Alt. 2 delta configuration than for the delta + 20' configuration of Alt. 3. If this is due to enhanced cancellation effects with the existing line when the new line is at a lower height, why is this same effect not seen for the vertical configuration (Alt. 4) as compared to the vertical+20' configuration (Alt. 5)?

Lastly, comparing Tables 15 and 16 on pages 7B-24 and 7B-25, why is the magnetic field strength lower at the nearest home with Alternative 9 as compared to Alternative 8 (Table 16) when it is higher at the nearest edge of the right-of-way for Alternative 9 as compared to Alternative 8?

Thank you for the opportunity to review this application and to submit these comments to the Council. Should you, other Council members or Council staff have any questions, please feel free to me at (860) 424-4110.

Respectfully yours,



Frederick L. Riese
Senior Environmental Analyst

cc: Commissioner Daniel C. Esty

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June 21, 2012

Robert Stein, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: Interstate Reliability Project 345-kV Transmission Line
Connecticut Light and Power Company
Lebanon to Thompson, Connecticut
Docket No. 370

Dear Chairman Stein:

Staff of this department have reviewed the above-referenced application for a Certificate of Environmental Compatibility and Public Need for the proposed 345-kV transmission line from Card Street Substation in Lebanon to the Rhode Island state line at Thompson, traversing the towns of Lebanon, Columbia, Coventry, Mansfield, Chaplin, Hampton, Brooklyn, Pomfret, Killingly, Putnam and Thompson. A field review of the full corridor was conducted. The alternative alignments listed as the Willimantic South Overhead Alternative, the Willimantic South Underground Alternative and the Brooklyn Overhead Alternative were not field reviewed. Based on these efforts, the following comments are offered to the Council for your use in this proceeding.

The Connecticut portion of the proposed line consists of 36.8 miles of 345-kV line to be constructed within existing CL&P right-of-way between Lebanon and Thompson with the possible exception of a 0.9 mile segment of widened ROW corridor crossing Mansfield Hollow State Park in Mansfield and a 0.5 mile segment of corridor crossing Mansfield Hollow Wildlife Management Area in Chaplin, where additional right-of-way width may be acquired from the U.S. Army Corps of Engineers to support the proposed new line. Improvements to support the new 345-kV line would also be made at Card Street Substation in Lebanon and the Lake Road Switching Station in Killingly.

Need for the Interstate Reliability Project

The Interstate Reliability Project is one component of the New England East-West Solution (NEEWS), a series of projects designed to improve system reliability and increase power flows between eastern and western New England, including thermal, voltage, and transfer import capabilities. The Connecticut NEEWS-related upgrades include:

- Greater Springfield Reliability Project, which increases the Connecticut import limit by 100 MW in 2014

- Interstate Reliability Project, which increases the Connecticut import limit by 800 MW in 2016
- Central Connecticut Reliability Project, which increases the Connecticut import limit by 200 MW in 2017

The Interstate Reliability Project will improve the access for generation from the combined cycle generators at Lake Road into the Connecticut electrical grid. These upgrades are planned to be fully online by January 2016. The following comments focus solely on the Interstate Reliability Project portion of the NEEWS Project.

DEEP notes that ISO-New England (ISO-NE) has repeatedly taken the position that NEEWS, which includes the Interstate Reliability Project, is needed to meet regional reliability criteria and to serve load throughout southern and eastern New England. As far back as 2004, ISO-NE began a study of deficiencies and interrelated reliability needs throughout the southern New England electric supply system, and, in 2006, it released a draft report later referred to as the "*Southern New England Transmission Reliability Report (SNETR) - Needs Analysis, January 2008*" (*the 2008 Needs Report*). Specifically, ISO-New England has reported that the Interstate Reliability Project will help to correct regional reliability problems associated with east-west/west-east power flow constraints in southern New England and to provide immediate reliability benefits to Connecticut and additional reliability to plan for any generator retirements or related events. To the extent that the Interstate Reliability Project reduces stress on the system, improves system resiliency, and enables new, renewable generation to replace dirty retiring units, DEEP strongly supports the continued development and progress of this project.

For Connecticut's review, as well as for ISO-NE, the Interstate Reliability Project has been relied upon to ensure that Connecticut, and the region, have sufficient resources to meet reliability requirements. DEEP also notes that as recently as April 2011, with ISO-NE's release of the needs assessment re-analysis of the Interstate Reliability Project, this component of NEEWS has been considered as part of ISO-NE's Regional System Plan. DEEP has also included the project in the "base case" for the 2012 Integrated Resource Plan (IRP). Moreover, the inclusion of Lake Road as a Connecticut resource has been used in IRP's basecase modeling for resource adequacy outlooks since the 2010 IRP.

In conclusion, DEEP supports the need for this project and believes it deserves Siting Council approval. DEEP is mindful that ISO-New England is again currently updating its needs assessment of this project. DEEP will monitor and engage ISO in those efforts and review any study results produced. DEEP's continued support of this project will depend on an analysis of the consequences of further modifications to the status of this project and its impact on reliability and any transmission constraints for the state.

Conversion of Forest Habitat to Open Field Habitat

As a result of increasing the maintained width of the CL&P right-of-way by an average of 90 feet, 273 acres of currently forested habitat will be converted to early successional types of habitat such as open field and shrub/scrub habitat. Up to an additional 11 acres of early successional habitat may be created at Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area if additional Corps of Engineers land at those areas is incorporated into the CL&P right-of-way.

While both the upland forest and old field/early successional environments possess habitat value, the old field and shrubland habitat that will be created within the right-of-way will benefit many of the wildlife species that are declining most rapidly in our state and region, including shrubland bird species. In addition, the early successional vegetative regime also provides excellent butterfly habitat. Much of this habitat type has been lost or is being lost as former agricultural land is being developed or as it reverts to woodland. The old field habitat created in the ROW will be maintained indefinitely in that state, and thus represents early successional habitat that is frozen in time. It will therefore continue to provide habitat value for critical species as long as the corridor is maintained for utility purposes. Also, it should be noted that the additional early successional habitat is created without fragmenting any existing upland forest blocks since the cleared right-of-way is already in existence.

The value of the habitat provided in and along the right-of-way would be maximized if herbicide applications and mechanical clearing activities can be conducted outside of nesting season for the potential resident species. In broadest terms, this would be accomplished by performing vegetative management activities between mid-September and April first. CL&P may contact the DEEP Wildlife Division for consultation on vegetation management in this or any other corridor when necessary. Jenny Dickson may be used as a contact at (860) 675-8130 in this regard. In addition, the Wildlife Management Division is available to consult on beneficial vegetative plantings appropriate to the right-of-way which would enhance habitat value.

CL&P should continue to work with DEEP to provide information and allow us to update the NDDDB with observations and data from this project. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern. Such information is incorporated into the NDDDB as it is made available from projects such as this one.

Comments on Proposed EMF Mitigation and on EMF Literature Review

Though DEEP does not have jurisdiction over 60Hz EMF and has only limited technical expertise in this area, the DEEP Radiation Division conducted a review of sections 7.5 and 7.6 of the application and offers the following comments on the applicant's review of current literature on EMF. This review did not find anything inconsistent with the report's assertion that recent studies do not provide evidence to alter the World Health Organization's 2007 status report on EMF. The literature search did appear to cover the six month gap in information identified in our Docket 370 comments. The recent pooled studies cited in the application continue to support a weak association between elevated electromagnetic field levels and childhood leukemia that is identified in the 2007 World Health Organization report.

Mansfield Hollow State Park and Wildlife Management Area

Connecticut Light and Power sets forth three options for crossing Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area in this application. As the right-of-way easement from the U.S. Army Corps of Engineers to CL&P for transmission line purposes is currently only 150' wide, CL&P developed these three alternatives due to uncertainty about the outcome of obtaining extra right-of-way width from the Corps.

DEEP has reviewed the three options developed by CL&P, namely the No ROW Expansion option which keeps the CL&P corridor at its existing width and requires the use of steel poles with vertically configured conductors for both the new and existing lines, the Minimal ROW Expansion option which increases the width of the right-of-way by 25' thereby allowing the existing line to stay in place and adding

Comment [CL&P1]: The MRE expansion is 25 feet in segment 1 and 35 feet in segment 2.

the new circuit with vertically configured conductors, and the initially proposed option which adds 55' of ROW width within Mansfield Hollow State Park and 85' within Mansfield Hollow Wildlife Management Area and allows the new line to match the geometry of the existing line in both units.

DEEP did provide a letter dated February 27, 2012 to Judith L. Johnson of the Corps of Engineers in response to a request to evaluate these three potential options for the line across the DEEP-leased Corps of Engineers property. In that letter, a preference for the Minimal ROW Expansion option was stated. This preference was based solely on an analysis of wetland impacts and did not reflect any coordination with the State Parks or Wildlife Divisions. While our State Parks and Wildlife Divisions have voiced a slight preference for the originally proposed alternative for reasons revolving around aesthetics and habitat types, respectively, DEEP finds either the originally proposed configuration or the Minimal ROW Expansion option to be acceptable. The No ROW Expansion option with both a greater number of taller structures and the additional disturbance of reconstructing the existing line would be the least desirable option.

Comment [CL&P2]: Specifically from the DEEP IWRD.

Permits and Approvals. Natural Diversity Data Base

The list of DEEP permits and approvals for the Interstate Reliability Project as shown on page ES-41 of the application is accurate. Of these, the Section 401 Water Quality Certification is the most significant and comprehensive. Two of the major components of the Section 401 WQC will be wetlands impact mitigation and invasive species control.

Unlike the process which was followed for the Greater Springfield Reliability Project (GSRP), DEEP will want to see at least a framework for the compensatory wetland mitigation plan in the 401 permit application. The lack of a compensatory mitigation framework slowed up the permit process for the GSRP. DEEP will prefer a single large parcel as a mitigation site as opposed to multiple smaller mitigation host sites.

Comment [CL&P3]: The 401 Water Quality Certification application, which CL&P expects to submit to DEEP at the end of July 2012, will include details regarding the proposed compensatory mitigation site to offset the Project's water resource impacts.

Invasive species control is an important issue both because of the presence of invasive species in the right-of-way now and because the disturbance of the construction activities for the new line will provide additional opportunities for the introduction and spread of invasive species. DEEP envisions the use of a special permit condition for invasive species management as opposed to approving an invasive species control plan. The later approach is more difficult to enforce. Language similar to the following paragraph is likely to be incorporated into the Section 401 Water Quality Certification. This language has been used in two recent permits issued to Northeast Utilities for a switchyard and circuit separation project at Millstone and a structure replacement project on transmission line 1990 in Watertown, Waterbury, Middlebury, Oxford and Monroe.

"The Permittee shall monitor all identified wetland and watercourse units located within the bounds of the project right-of-way (ROW) greater than 0.25 acres for the occurrence of those plant species identified in the list of invasive plants published and updated by the Invasive Plant Council pursuant to section 22a-381b of the General Statutes and which are or come to be present in the project ROW. The monitoring on the project ROW shall be performed at a frequency of not less than once every four years for the duration of the operation of the permitted facilities. Upon completion of a monitoring event, the Permittee shall implement measures to control invasive species within any identified wetland or watercourse unit where the extent of the vegetative cover of invasive species exceeds 25%, unless such measures are impracticable or imprudent due to restrictions or limitations on access or feasible control measures. Also, the implementation of invasive species control measures may be performed with cognizance of any restrictions or limitations

contained within existing easements or covenants applicable to lands within the project ROW provided that the restrictions or limitations are disclosed in writing to the Commissioner. The Permittee shall submit reports to the Commissioner on a four year cycle that summarizes activities conducted during the preceding four year period within the project ROW. The first report shall be submitted no later the four years from the date of issuance herein.”

The listing of the need for a Stream Channel Encroachment Line Permit on page ES-41 stems for the transmission line’s crossing of the Willimantic River. Though the supporting structures on both sides of the river would be outside of the established stream channel encroachment lines, past legal precedent has held that “over is in” and therefore the mere crossing of the designated SCEL zone at the Willimantic River triggers the need for this permit. Given that no structures are actually in the floodway, the review for this permit is very perfunctory and minimal and the application can be combined with that for the Section 401 Water Quality Certification.

Comment [CL&P4]: The 401 Water Quality Certification application will include information about the location of the Project in relation to the Willimantic River SCEL. No structures will be located within the SCEL.

Twenty-nine species listed in the DEEP Natural Diversity Data Base have either been identified from the data base itself or have been observed in the field along the proposed transmission line corridor. NDDB staff biologists have been working closely with CL&P on this project. DEEP has a data sharing agreement with CL&P so that they have access to all NDDB data as actual point data as opposed to the “blob” data format more generally available to the public. CL&P has been submitting their recommended mitigation measures for each listed species which may be potentially impacted for DEEP review and approval. Coordination between CL&P and NDDB staff on this project began in 2007, with a substantial update of project data done in 2010.

Though all 29 listed species are fauna, protection of host plants for these species is an important concern.

Overall, there has been a very good record of cooperation with CL&P on this project. Coordination is continuing as specific species mitigation plans continue to be submitted and refined.

Comment [CL&P5]: CL&P will include additional information regarding state-listed species in the 401 Water Quality Certification application. CL&P also will continue to coordinate with DEEP regarding species-specific impact avoidance, minimization, or mitigation strategies.

Alignment Alternatives

The DEEP field review for this application focused on the proposed alignment which follows the existing transmission line corridor from Card Street Substation in Lebanon to the Rhode Island line at Thompson. The application contains two alternatives for the development of an overhead transmission line replacing the use of the existing right-of-way for portions of the proposed new line. Neither the Willimantic South Overhead Alternative nor the Brooklyn Overhead Alternative alignments were field reviewed by DEEP. While the addition of the proposed new transmission line to the existing corridor will involve a number of incremental impacts along the right-of-way to construct and accommodate the new line, these impacts pale in comparison to those of acquiring and developing a new ‘greenfield’ corridor. The justification for consideration of the Willimantic South Overhead alternative disappeared when it was determined that the transmission line right-of-way through Mansfield Hollow State Park and Mansfield Hollow Wildlife Management Area could accommodate the proposed new line even in the absence of additional right-of-way width being granted by the Corps of Engineers. So there was no purpose in considering and reviewing this alternative.

The Brooklyn Overhead Alternative alignment does avoid impacts to residential areas and, based solely on a review of USGS topographical maps, would be a feasible routing to avoid homes in the area of

Church Street. However, the acquisition and clearing of an entirely new section of transmission line corridor and the impacts of construction of a line in a completely new location would greatly exceed those of adding a new line to the existing alignment. Therefore, this alternative was not walked during the field review for this application.

The minor route variation being considered at Hawthorne Lane in Mansfield would reduce aesthetic impacts to homes at 21, 25, 27 and 28 Hawthorne Lane and can be accomplished without any environmental impacts though there are administrative and procedural obstacles to be overcome to effect this short realignment. Testimony submitted by CL&P attaches a cost of \$1.8 million to this route alternative, which translates to \$450,000 per affected home. Nevertheless, this change is probably more effective in providing a meaningful benefit to the proximal homes than are the changes considered in the five focus areas along the corridor.

BMP Focus Areas

The CL&P application evaluates five potential focus areas along the Interstate Reliability Project corridor where alternative conductor configurations on structures other than the baseline H-frame structures have been evaluated for their potential to reduce EMF levels at proximal homes and statutory facilities along the corridor. Though the structure choices and conductor configurations considered or proposed at these five locations were offered with the intent to reduce EMF levels at the edges of the right-of-way by at least 15%, it should be recognized that for all these calculated reductions, there is a non-calculated, very definite increase in the aesthetic impact of the line created because of taller tower structures which are proposed for consideration in the focus areas and the introduction of structures of a different visual nature than those of the existing line, which will increase the incremental visual impact of adding a second circuit above what it would be if matching structures are used. This consideration is mentioned because in terms of actual importance to homeowners and others along the line, the visual impact may likely be the effect of greater concern if the new line is approved and constructed.

Focus Area A is located between existing structures 9028 and 9048 of line 330 in the towns of Coventry and Mansfield. The use of 110' steel poles supporting the conductors in a delta configuration was identified as a potential EMF mitigation measure in this area of the line, which crosses Babcock Hill Road, Flanders River Road, Stafford Road and Highland Road. There is a very small number of homes at these crossings* and no homes in between these roads. According to calculations on pages 52 and 53 of the Direct Testimony of Robert E. Carberry, John C. Case and Anthony P. Mele dated May 21, 2012 (Docket 424 Exhibit 17), the BMP measures for Focus A lower EMF levels on the north edge of the ROW by 28% while increasing them on the south side of the ROW by 12% compared to the base case design. However, these numbers translate to a 2.0 mG decrease at the northern edge and a 2.2 mG increase at the southern edge. Although the new line would be constructed in the northern portion of the ROW, there are at least an equal number of homes at the southern edge if you add up the affected street crossings. Similarly, the calculation on page 53 of Exhibit 17 shows that, at the closest home to the ROW edge, the BMP configuration yields a decrease of 1.8 mG at the closest home to the northern edge of the ROW relative to the baseline H-frame design but increases EMF levels by 2.1 mG for the nearest home on the south side of the ROW relative to the use of H-frame structures. These mixed results in combination with the greater visual impact of the taller steel poles and the increase in cost of the BMP design point to the need for the Council to carefully weigh these aspects before making a decision on employing the BMP option in this area.

Comment [CL&P6]: CL&P agrees. Pursuant to the BMP's, the Council will select a final configuration in the BMP areas after balancing this incremental visual impact against the EMF reduction achieved by taller/different towers in the BMP focus areas.

Comment [CL&P7]: This is a "typical" pole height for a delta line configuration. Individual poles in such a line will be taller and shorter than 110 feet.

Comment [CL&P8]: Percentage changes are with regard to the base-case H-frame line and not the pre-Project levels. The increase on the south side is to a level that is still lower than the pre-Project level.

Comment [CL&P9]: CL&P agrees. See CL&P Exhibit 17, page 53.

(* At Babcock Hill Road, there are two homes, only one of which is significantly proximal to the transmission line corridor. That closer home is to the south of the right-of-way, while the closest home to the north is well off the right-of-way. There is only one home at Flanders River Road (#199), just north of the right-of-way on the east side of the road. At Route 32, there are two homes immediately south of the right-of-way, one of which is currently vacant and being gutted and remodeled, and two homes just to the north, one on each side of Route 32. The home on the east side of 170 Stafford Road would lose most or all of its visual screening with the clearing for the new line. There are no homes immediately adjacent to the corridor at Highland Road. In total, at the four road crossings in Focus Area A, there are three immediately proximal homes to the north of the line and three to the south.)

Comment [CL&P10]: The home to the north is as close to the proposed line as the home to the south is to the existing line.

Comment [CL&P11]: There are two homes on Highland Road immediately north of the ROW and two others on Stone Ridge Lane immediately south of the ROW near Highland Road. (See CL&P Application Volume 9, Exhibit 2, Mapsheet 6 of 40.)

Comment [CL&P12]: five

Comment [CL&P13]: five

Comment [CL&P14]: Symbol should be for feet, not inches. This is a "typical" pole height for a delta line configuration. Individual poles in such a line will be taller and shorter than 110 feet.

Comment [CL&P15]: Delta was one of several configurations that CL&P evaluated for this location in its Field Management Design Plan. CL&P did not recommend a delta line in Focus Area B. See CL&P Exhibit 17, page 36.

Focus Area B, in the area of Mansfield from Route 195 to Bassett Bridge Road, has also been evaluated by the applicant for the use of 110" steel poles and delta configuration conductors as opposed to the baseline H-frame structures in order to lower EMF levels. Three statutory facilities as defined by Connecticut General Statutes section 16-50p are located in this segment of the line: the Come Play With Me daycare facility, the Mount Hope Montessori School and the Green Dragon daycare facility. Testimony on page 53 of Exhibit 17 indicates that the Come Play with Me daycare facility may no longer be in operation. As noted later in the description of the DEEP field review, a conversation yesterday (June 20) with the homeowner at the hosting residence confirmed that the daycare center is no longer in operation. The Montessori School is located closest to existing structure 9076 and proposed new structure 77. Field review at this location showed that there is sufficient intervening distance between the new line location and the school to accommodate another building lot. The Green Dragon daycare center is fairly well removed from the proposed line, over 400' away at the closest point, and on the opposite side of the ROW from the new line. The benefits of using the taller steel poles in this area are also called into question if the EMF calculations on page 54 of Exhibit 17 are accurate in that they indicate lower magnetic field strength at these two facilities with the use of H-frame structures as compared to steel pole-supported delta configuration conductor.

Comment [CL&P16]: The nearest point of the daycare home is approximately 365 feet from the center of the proposed H-frame line.

Focus Area C corresponds to the Hawthorne Lane neighborhood discussed earlier. Changes in this area, if any, from the baseline design and existing alignment would be made for aesthetic reasons. The use of steel poles supporting the conductors in a delta configuration is reasonable in this area, especially if the alignment shift proposed by the homeowners on Hawthorne Lane is not implemented.

Comment [CL&P17]: CL&P agrees and considers that a vertical configuration is also reasonable in this area.

Focus Area D runs from existing structures 9210 to 9219 in the northeastern corner of Brooklyn. Homes east of Church Street, and to a lesser extent along Darby Road, would be the beneficiaries of any EMF reduction efforts in this area. As was the case in Focus Area A, the BMP option using 110" steel poles yields a 28% reduction in EMF levels on the northern edge of the right-of-way and a 12% increase to the south of the right-of-way. But the closest homes are along the northern edge of the corridor.

Comment [CL&P18]: This is a "typical" pole height for a delta line configuration. Individual poles in such a line will be taller and shorter than 110 feet.

Two daycare centers were identified in the application as being in this focus area. One of these is not particularly close to the ROW and is identified on page 56 of Exhibit 17 as being 497' from the edge of the ROW and experiencing magnetic field levels below 0.5 mG. The other facility is immediately adjacent to the ROW on the north side and east of Church Street. The home hosting this daycare center, at 350 Church Street, was advertised as being for sale as of the date of DEEP's field visit to this area on April 9, 2012. Therefore, this daycare center, if it is still in operation, may cease to be operating if the home is sold to new owners.

Other than the house at 350 Church Street, the closest homes to the line in this area are those at the end of Meadowbrook Drive, a cul-de-sac extending eastward from Church Street and then southward toward the transmission right-of-way. In a discussion with the owner of the closest of these homes, he expressed a preference for the selection of the Brooklyn Overhead Alternative but, failing this, he said he did not want to see the steel poles used in this area. Specific comments and recommendations on lessening impact in this area are included later in these comments in the observations and recommendations from the field review.

Comment [CL&P19]: DEEP has orally confirmed to CL&P that this statement means the landowner does not prefer a delta steel-pole line. (The poles of an H-frame line could also be steel poles.)

The final focus area is the Elvira Heights area of Putnam which is just east of US-44 and south of the CL&P right-of-way. In this area, an option of removing the existing H-frame structures and placing both the existing and new 345-kV lines on steel poles with the conductors in delta configuration was evaluated. For the Elvira Heights area, there is no development along the northern side of the right-of-way, the side on which the new line would be added. From the homes along Elvira Heights, the existing H-frame-based line is well screened by forest vegetation, even under leaf-off conditions, except perhaps for the single home at 32 Elvira Heights Road. The taller steel poles would likely be seen above the tree line from Elvira Heights. In return for the increased visibility and for the increased construction impacts of rebuilding the existing line, a magnetic field reduction of less than 1.0 mG is achieved at the nearest home on Elvira Heights (Exhibit 17, p. 58). The aesthetic impacts of the BMP option in this area appear to be more significant than the very limited reduction in EMF levels.

Comment [CL&P20]: CL&P also notes that rebuilding the existing line in the Elvira Heights Focus Area will result in greater impacts to water resources because two of the existing transmission line structures that would have to be removed and rebuilt in their existing locations (9306 and 9307) are located in wetland W20-197. See CL&P Exhibit 17, page 59.

DEEP believes that the lack of significant resource concerns identified for the construction of the new 345-kV transmission line attests to the proposed route being a logical and prudent solution for addressing the identified capacity and reliability issues which have been identified by ISO-New England and the utilities. The following discussion of conditions observed along the corridor contains some recommendations for impact mitigation at specific sites along it.

Field Review of the Interstate Reliability Project

The DEEP field review for the Docket 424 application occurred on nine days: March 23, 26, 27, and 30 and April 3, 9, 10, 13 and 16, 2012. In addition, a number of locations in the western end of the corridor were spot checked yesterday, June 20, to verify conditions in specific locations. The entire corridor was walked, progressing from its western end to the Rhode Island state line. Fourteen of the 337 structure locations were not accessed during the field review due to emergent wetlands, standing water, or lack of non-private land access. The non-accessed structures, based on structure numbers for the existing 330 line, were #9095 at the Natchaug River, #s 9202-9210 in Brooklyn (corresponding to new structures 203-211), and #s9316 and 9317 in Thompson (corresponding to new structures 320 and 321) just west of Quaddick Town Farm Road.

Three general observations concerning the 36.8-mile corridor are the surprisingly low level of residential or other development along such a long corridor, the prevalence of stone walls in or across the right-of-way, and the extent to which CL&P has been able to shift the locations of proposed new structures to avoid wetlands. These general observations (especially the stone walls) will be borne out repeatedly in the following site-specific comments on the corridor. The following summary of the proposed corridor, broken down by nine segments corresponding to the nine field days, is offered to the Council for the purpose of providing additional detail and understanding of the corridor, with apologies in advance for the length of this section of the comments.

Card Street Substation to the Willimantic River (March 23)

Card Street Substation in Lebanon is located in a sparsely developed area with little residential development and only one semi-adjacent home at 133 Card Street located east of the substation driveway. From the substation, which will not be expanded in footprint, the proposed line proceeds westward for a very short distance before leaving Lebanon. The existing 330 circuit, together with a 69-kV line and the proposed new line proceed downslope from the substation crossing the Airline Trail and descending to the Tenmile River, crossing a stone wall, a skunk cabbage swamp and a small pasture as the right-of-way makes its approach to the river.

Crossing the Tenmile into Columbia, there are new homes south of the ROW at structures 9007 and 9008 which are accessed by a shared driveway which crosses the ROW from Baker Hill Road. The home at structure 9007 has no vegetative screening between it and the transmission line corridor. On Baker Hill Road to the north, the home at 1 Baker Hill Road is also unscreened from the corridor but is across Baker Hill Road from the line and on the opposite side of the ROW from where the new line will be constructed. Other homes along this section of Baker Hill Road benefit from some degree of screening.

Proceeding westward, the home at the corner of Scalise Drive and Cards Mill Road maintains a portion of the ROW under the 69-kV line as lawn. A home north of the line at structure 9011 is screened by large trees. Three fully developed frogs were seen in a pool of standing water located at approximately 9014 ½ (midway between structures 9014 and 9015) which was surprising given the early March 23 date of this portion of the field review.

After the corridor crosses Old Willimantic Road near structure 9017, there is a shared driveway serving homes at 133 and 135 Old Willimantic Road which runs right under the new line. Indeed, a spray paint marking right on the centerline of the driveway indicates the proposed location of one of the poles for new structure 19. Immediately north from here, the home east of the line at 9013 ½ has very little screening and thus a direct view of the existing line and corridor.

From structure 9020, the corridor looks down to Route 66, the Hop River and the Route 6 bypass. North of Route 66 (Willimantic Road) is a large wetland system. New structure 23 would be located on an east-west ridge extending between wetlands 20-23 and 20-24. The corridor then crosses the Hop River and the Hop River Trail and then the very wide median between the eastbound and westbound barrels of US Route 6. Construction of the new line should have no permanent impact on the Hop River Trail, the Airline Trail, the Nipmuck Trail or any of the other smaller trails it crosses.

Shortly after traversing Route 6, the corridor reaches Babcock Hill Junction, where the 69-kV line leaves the project corridor. The ROW accesses and crosses between two wetlands just east of structure 9027, then heads out to Babcock Hill Road. There is much juniper in the ROW at structure 9028. Only one stake each marking the locations of structures 29 and 30 were found, presumably reflecting the proposed use of steel poles in the area which is part of BMP Focus Area A. There is one home on the east side of Babcock Hill Road north of the ROW and one home on the west side to the south of the corridor. East of Babcock Hill Road, an area of dense juniper and blackberry thicket occupies the ROW after structure 9031. The existing line, and the proposed new line, then drops down a huge slope to structure 9032 at Flanders Hill Road. At Flanders Hill Road, there is one home north of the right-of-way on the east side. Dirt bike use of the ROW is in evidence between Flanders Hill Road and structure 9033. The ROW is then maintained as lawn between structures 9033 and 9034 by the homeowner to the north. The ROW then

enters the floodplain of the Willimantic River. Structure 9034 is in the Willimantic River floodplain but is on high, dry ground under normal conditions. The new structure 35 would be located across (east of) the Willimantic River on high ground beyond the New England Central Railroad right-of-way and thus well out of the floodplain. The proposed new line would span the Willimantic River and its floodplain between structures 34 and 35. However, for purposes of the Stream Channel Encroachment Line (SCEL) program, "over is in"; thus the listing of this permit on page ES-41 of the application is appropriate.

Willimantic River to Mansfield Hollow State Park (March 26)

East of the Willimantic River the ROW crosses the New England Central Railroad tracks and an unofficial dirt bike area below and east of the tracks. Proceeding toward Stafford Road, a small dairy cattle pasture and an enclosure housing the largest pig this reviewer has ever seen are crossed. The corridor then crosses Stafford Road (Route 32) and enters the Highland Ridge Driving Range. Three structures (9037-9039) support line 330 across the driving range, and three new structures would similarly be sited on the driving range. A small wetland is located under the existing line at structure 9039 where the corridor transitions from the driving range to a small pasture. Another wetland occurs approaching structure 9041, an angle structure where the corridor takes a 90° turn to the east. Phragmites and spicebush in the corridor just after 9041 transition to autumn olive and juniper as the right-of-way ascends a hill up to structure 9042. From structure 9042 at the top of the hill, the right-of-way offers a nice agricultural view looking back to the west. Also from 9042, some homes are visible through the forest to the north.

Highland Road crosses the right-of-way just before structure 9043. Wetland 20-43, west of structure 9046, supports Phragmites, spicebush and alder. An access road crosses wetland 20-44 on an embankment. This embankment is in good condition but may need widening to be used for construction purposes. Two tires are laying at the edge of the access road at the east side of this wetland.

There is a small hillside seep wetland at structure 9052 and a more significant wetland of skunk cabbage and multifloral rose just west of structure 9054 before the corridor crosses a farmstead and reaches Mansfield City Road. All the wetlands mentioned above will be spanned by the new line from structures located outside their limits.

The home on the east side of Mansfield City Road maintains the right-of-way as part of its yard. The corridor leaves this yard and climbs a wall of large boulders to reach structure 9056. Aside for the two homes at Mansfield City Road, there is no development near the right-of-way after Highland Road.

On the day of the DEEP field review for this section, March 26, there was a Komatsu excavator on the north side of the right-of-way between structures 9058 and 9059 excavating rock that appeared to be within the right-of-way.

Comment [CL&P21]: This is not CL&P contractor equipment. CL&P is investigating this observation to confirm that the equipment and activity is authorized by the landowner and to evaluate if the activity is allowed by CL&P's easement.

From structure 9060, there is a broad view to the east to structure 9067. The right-of-way crosses Nipmuck Trail at structure 9064. Wetland delineation ribbons in this area extend well up the hillside from wetland 20-56 with no sign that this hillside is a wetland from its vegetation or drainage.

Comment [CL&P22]: Wetland W20-56 borders Sawmill Brook, whereas several other wetlands (W20-57, W20-58, and W20-59) were identified as extending across the ROW to the east. CL&P will verify the boundaries of these wetlands during constructability reviews.

The corridor offers its first view of Mansfield Hollow at structure 9068 with a clearer view by structure 9069. A new home north of the right-of-way at 9071 ½ is well off the right-of-way but will lose most of its screening when the new line is constructed.

The corridor descends from #9069 to Route 195. The Come Play With Me daycare facility is located at 385 Storrs Road (Route 195) south of the ROW on the west side of the road, across the street from another home at 388 Storrs Road. The new line would be constructed on the opposite (northern) half of the right-of-way. Testimony in Exhibit 17 called into question whether the Come Play With Me daycare facility was still in business. A visit to the hosting home at 385 Storrs Road yesterday and a conversation with the homeowner confirmed that the daycare center is no longer in operation.

Two more homes are located to the north of the right-of-way at Storrs Road. On the east side, a home at 408 Storrs Road is about 200' north of the right-of-way, while another home on the west side is just slightly farther north and is very well screened from the right-of-way.

Once across Storrs Road and the associated homes and yards, the right-of-way cuts across a cow pasture, up a berm, across another enclosed pasture, then across an open grassed field. The corridor passes the Mount Hope Montessori School just to the west, crosses Bassett Bridge Road, and passes the Green Dragon daycare to the east and town-owned open space to the west. The corridor then turns westward, crossing a field of 4' tall dead goldenrod stalks and then passing continuous white pine to the north before coming out into the Hawthorne Lane neighborhood. Multiple stakes labeled 'STR 80 ALT' appear to show CL&P was looking for the best location for placement of structure 80 to avoid a small slope and wetland. The line then crosses the driveways for the homes at 21, 25, 27 and 28 Hawthorne Lane, homes which would lose much of their existing vegetative screening to the new line. The line then enters Mansfield Hollow State Park, first crossing a dike, then an open field, and then running through a white pine forest until it reaches Mansfield Hollow Lake.

Mansfield Hollow State Park to the Fin, Fur and Feather Club, Chaplin (March 27)

Shortly after crossing Mansfield Hollow Lake, the ROW crosses the Nipmuck Trail which enters it from the north and runs within the ROW for a short distance before departing it southward at structure 9087. The ROW ascends a steep slope from Bassett Bridge Road to structure 9088, passing some homes to the north which are well off into the forest. Another home to the north at 9088 $\frac{3}{4}$ has a satellite dish at the edge of the right-of-way with the home maybe 50 yards into the woods. A dense stand of autumn olive occupies the right-of-way from South Bedlam Road to structure 9090, the last structure in Mansfield.

Five homes are visible at a distance off into the woods north of the right-of-way at structure 9091 in Chaplin.

Contrary to the indication on Map 10 of 40 in Volume 9 of the application, there is no access road from South Bedlam Road to structure 9091. The ROW crosses an agricultural field from just after structure 9091 to just after structure 9092. The access road resumes at structure 9093. Between structures 9091 and 9092, the existing 330 line crosses a wetland, but the new line will not. The corridor enters Mansfield Hollow Wildlife Management Area at structure 9094. Structure 9095, near the western bank of the Natchaug River, could not be accessed for this review.

The east bank of the Natchaug River is reached after a steep descent from structure 9096 to the east. A hemlock forest stretches along the east bank both north and south of the ROW, with the river sitting well below the east bank. Clearing of the trees immediately adjacent to the Natchaug River should be avoided in order to preserve shading for the river. The new line should be able to span over the existing trees from the high ground at structure 9096, as the existing line does.

Comment [CL&P23]: CL&P concurs. The maps in Volume 2A of the Project's Section 404 Permit Application to the U.S. Army Corps of Engineers identify a proposed access road in this area. Similarly, the maps that will be submitted with the 401 Water Quality Certification application will correctly identify the proposed access road in this area.

Comment [CL&P24]: The new line would also cross over a small wetland (W20-69) that extends linearly along stream S20-21.

Comment [CL&P25]: CL&P anticipates that the trees in this area can be spanned, as they are by the existing 330 Line conductors. However, some trees may have to be topped to provide acceptable clearances to conductors.

A small stream running parallel to the power line within the northern half of the right-of-way between structures 9096 and 9097 would be spanned by the new line between structures 97 and 98. Between structures 9097 and 9098, the existing access road crosses an embankment through a Phragmites wetland. New structure 99 would not be in the wetland.

Comment [CL&P26]: Current constructability and engineering plans indicate that Structure 99 will have to be located in wetland W20-76.

The south pole of structure 100 would be in a wetland. A 6' shift northward would get the southern pole out of the wetland and is recommended if possible.

Comment [CL&P27]: It may be possible to shift the structure some additional distance to get it out of the wetland. With the MRE option, this structure would have only one pole and would most likely be located outside of the wetland, pending final survey, without shifting its location.

After crossing Route 6, the right-of-way passes a greenhouse to the north. A wetland in the right-of-way on the access road just east of structure 9102 supported a large tadpole population on March 27. A 60' long pool of standing water in the access road between structures 9104 and 9105 similarly supported many tadpoles. These two pools are a function of the access road itself, resulting from depressions created by the road collecting and ponding water.

Comment [CL&P28]: CL&P's field reviews also identified amphibians in these areas, which are designated as vernal pools CH-7-VP, CH-8-VP, CH-9-VP, and CH-10-VP.

New structure 106 is offset east of existing structure 9105 to avoid placement in wetland 20-84. The right-of-way crosses property of the Fin, Fur and Feather Club between structures 9103 and Chewink Road. The right-of-way crosses a pond on the club's property between structures 9108 and 9109. Additional clearing for the new line should avoid removing the cedars wherever possible, such as in the area of structure 9109 east of this pond.

Comment [CL&P29]: Cedars in this area will be reviewed. Those that will interfere with the construction efforts (access or work-pad areas) will be removed, as will any with heights approaching too close to the line conductors. Other cedar trees will remain. Based on their growth, some may need to be removed or topped during future ROW maintenance.

Eastern Chaplin to Eastern Hampton (March 30)

From structure 9112 on the eastern edge of a large pond (wetland 20-86), one can see across to the Fin, Fur and Feather Club to the west and hear target practice going on at the club. A stone wall crosses the ROW immediately west of structure 9113 but should not be impacted by the placement of new structure 114 or, hopefully, by the construction of the line.

Comment [CL&P30]: The existing access road crosses through a gap in this wall; however, this road and the gap will have to be widened for construction. Further, a corner of the construction work pad for Structure 114 may impact this wall. It may be possible to avoid this impact by moving Structure 114 further to the east or by clipping the corner of the construction work pad. CL&P will evaluate these options and provide the results in its draft D&M Plan.

Dirt bike usage is in evidence at structure 9116 with a circular loop track there and tracks continuing to the west. Another very large open water wetland (20-91) is spanned between structures 9119 and 9120 with one of the longer spans of the line. A beaver lodge is seen in the pond just north of the right-of-way. The stakes for the location of structure 120 on the west side of the pond show that approximately 1 foot of elevation could be picked up by moving just 10' to the west from its current location virtually at pond level. Recognizing that this is a very long span, a similar suggestion on the east side of the pond for structure 121 will be withheld. Westward movement of structure 120 is more beneficial than the eastward shift of structure 121 to higher ground. Continuing to the east, a garden occupies part of the corridor between structures 9122 and 9123, complete with Halloween masks and a fake owl to scare birds away. The stakes for new structure 122 are offset from structure 9121 in a favorable placement to avoid a wetland and small watercourse. An enclosure on the north edge of the ROW at structure 9123 houses several pigs.

Comment [CL&P31]: CL&P is evaluating relocating proposed Structure 120 to the west, as suggested, and will provide the results in its draft D&M Plan.

The corridor then crosses South Brook Street and almost immediately crosses the Airline Trail for the second time. Two walls of huge boulders from the rock cut in which the former railroad sat line the banks of the trail as it crosses the right-of-way.

A collection of camouflage National Guard type vehicles and storage units are found on both sides of the right-of-way at structure 9125. Also in this collection are a small service van, a dump truck body, stacks of tires and several non-military derelict vehicles.

A pool supporting tadpoles is located at 9131 ¾ in the access road.

Comment [CL&P32]: CL&P proposes to use this existing access road during construction. The road does extend through amphibian habitat (designated as HA-2-VP).

A small beaver dam adjacent to structure 9135 has created a pond on the right-of-way and mucky conditions in the access road. Tadpoles are found in an adjacent smaller but similar pond.

Only one stake for structure 136 was seen and it was in the middle of a pond 10' wide by 20' long formed by another beaver dam of leaves and brush. Yet another beaver dam sits below the one at the stake for structure 136, in the northern portion of the right-of-way.

Movement of structure 136 to the east or west would not avoid the beaver wetland. If possible, a 10' northward shift would remove at least the pole represented by this stake out of the beaver pond.

Comment [CL&P33]: This structure has already been located to minimize impacts. The principal wetland impact of this structure will be from the placement of a construction work pad. That impact would not be avoided by moving the structure 10 feet northward. However, moving the structure to the north would create three angles in the line and would impinge on an area of the ROW that should be reserved for a future line.

The corridor crosses Route 97 where a thicket of roses and briars makes access to structure 9140 very difficult. CL&P has wisely put the new structure 141 near to the road instead of directly adjacent to existing structure 9140.

Crossing South Bigelow Road into the Bigelow Howard Valley Fish and Game Club, the corridor crosses a large field on the east side which has been the site of a controlled burn. Moving across Cedar Swamp Brook to another field, no stakes were found for new structure 145 but it would be in the field next to structure 9144 at a stone wall. There is a nice 33" dbh hickory tree at the stone wall but its location looks like it may be difficult to avoid removing that hickory for the new line.

After structure 9146, the Little River was crossed via a footbridge just downstream from the right-of-way. Proceeding east, structures 152 and 154 were both nicely offset from the existing structures to avoid wetland impacts.

Brooklyn from Hampton Line to Pomfret Road, Route 169 (April 3)

Structure 161, the easternmost new structure in Hampton, is located in wetland 20-120. There is no option to remove it from this wetland with an eastward or westward shift. Such was not the case for structure 162 which was offset eastward from line 330 structure 9161 to stay out of wetland 20-120.

A small southward flowing watercourse and associated Phragmites wetland are located just east of structure 9163, which is an angle structure. Two of the three poles of the new angle structure 164 have been successfully kept out of wetland 20-122, based on stake locations, but the northernmost pole would be in the wetland. As this is an angle structure, there is less flexibility to move its location and there does not appear to be any option to remove structure 164 completely from the wetland.

New structure 165 is offset from structure 9164 to avoid a wetland under the new line. A small watercourse crosses the access road just west of structure 9164, with standing water in the access road and an emergent wetland just to the north.

The right-of-way then crosses Stetson Road to new structure 167 which straddles a stone wall. The northern pole of structure 167 is in a nursery of small (3') Frazier firs and the structure will also encompass a large white pine. Although the white pine would require removal under any scenario, perhaps the stone wall could be saved, either in place or with a small shift of structure 167.

Comment [CL&P34]: As part of ongoing constructability reviews, CL&P is evaluating this structure shift. Avoiding the stone wall would require an approximate 100-foot shift in the structure location to the east and modification of its construction pad. This option would probably entail an increased structure height. CL&P will evaluate this option and provide the results in a draft D&M plan.

Another larger stone wall crosses the right-of-way just east of structure 9166, then angles off to the southeast edge of the right-of-way. It is under the existing line but not under the new one.

A logging or brush removal business is located to the north of the right-of-way at structure 9167. A home is visible to the north but is well off the right-of-way. An old dump truck is in the right-of-way under the new line with its tires embedded into the ground.

Another home on the north side of the right-of-way is seen at 9167 ½ but is well into the woods.

Structures 9168 and 9169 are at the top of a broad hill with an expansive 5-mile view to the east available from structure 9169.

A non-electrified electric fence crosses the right-of-way at 9169 ½.

The corridor takes a large drop in elevation after structure 9170 with access being maintained off the cleared portion of the corridor to get around this cliff. There is a very long span to transmission line from 9170 to 9171. A yellow home is seen to the north at structure 9172 but it is well off the right-of-way. A small stone wall crosses the right-of-way at 9172 ½. Another house, located north of the right-of-way at structure 9174, will lose about half of its screening with the clearing for the new line. Two more homes are north of the corridor at structure 9175.

Another older house north of the right-of-way at structure 9176 will lose much of its screening when the new line is added. Much of the area between this house and the edge of the right-of-way has recently been cleared. A slight shift, perhaps 40', of structure 177 to move it east of structure 9176 would make the new structure less conspicuous from this home. Structure 178 is in a wetland north of a stone wall separating the forested wetland from the residential yard which hosts structure 9177. While a westward shift of structure 178 by maybe 30' would again shorten the 177-178 span affected by the previous move, it would pick up a small amount of elevation and take structure 178 from being in the wetland to being at the edge of it.

The right-of-way corridor then crosses Windham Road and passes a collection of very antique (rusty) tractors at new structure 179 on a grassed area next to Windham Road and just off a residential yard by existing structure 9178. More old equipment is seen in the backyard of this same home. One structure later, at 9179, the right-of-way takes a 90° turn to the north, proceeding to and crossing Route 6 for the last time.

After the right-of-way takes an abrupt eastward turn at 9182, it passes a house just south of the corridor at structure 9183. Structure 9184 is mis-numbered as 9284 in the field, but nonetheless offers a view of a church spire and town hall tower in downtown Brooklyn. After a struggle to get through a winged euonymus stand at 9184 and another dense thicket at 9185, the corridor crosses Laurel Hill Road. No stakes were seen for structure 188 but it would be in the dense shrubs at this location and not in any wetland.

Structure 191, immediately east of Wolf Den Road, butts up directly against a stone wall. A shift of a couple of feet would avoid impacts to this wall.

Comment [CL&P35]: The recent clearing was not by CL&P, and CL&P has concluded that the current structure location should be maintained. Structure 177 was located west of structure 9176 to avoid a wetland. The suggested shift of the structure back east would cause impacts to the wetland. To reduce the visibility of structure 177 from the house, and also avoid impacts to the wetland, the structure would have to be moved at least 100 feet east into an open field where it would be visible to a development to the south.

Comment [CL&P36]: CL&P's current plans indicate that Structure 178 is located in upland, slightly west of wetland W20-132.

Comment [CL&P37]: CL&P is evaluating a structure move of approximately 25 feet to the northeast in this area. However, given the presence of the relatively steep, rocky, slope, it is unlikely that all impacts to the stone wall can be avoided. CL&P will provide the results of this evaluation in its draft D&M Plan.

Despite what is indicated on Map 21 of 40 in Volume 9, there is no access road, functional or otherwise, from Costello Road to structure 9193, a span which ascends a very steep, overgrown slope. Yet another stone wall crosses the right-of-way between structures 9196 and 9197. No stakes were found for the location of structure 199 but it would be in a good location in the area of 9198. The line then passes a home to the north of the right-of-way at 9198 and drops steeply to Pomfret Road (Route 169). Structure 200 is at the edge of an area of lawn on the east side of Pomfret Road but not close to any associated home.

Structures 201 and 202 were not accessed until April 16 as they required a difficult traverse across multifloral roses and swamp. There are no issues with the location of these two structures but it was noted that both existing structures 9200 and 9201 are labeled as 9200.

Church Street, Brooklyn to Lake Road, Killingly (April 9)

Beginning from Church Street in Brooklyn and moving first to the west, structure 215 is in a field used mostly for the storage of farm equipment, while structure 214 is adjacent to an area maintained as the backyard of a home to the north on Darby Road. By the point of new structure 213, the line is well offset from Darby Road. Structure 212 is closer to a home to the north than is 213. There are four foundations built between this home and the CL&P corridor, all of which have been there for some time and do not appear to be part of any active construction project. West of structure 9211, there is no access road as the right-of-way descends into the expansive wetland system 20-157. Map 24 of 40 in Volume 9 indicates an access road here but none was to be found. Two attempts to get through or around this wetland were unsuccessful. Therefore, existing structures 9210 back to 9202 were not accessed.

Comment [CL&P38]: CL&P's current plans indicate that a new access road is needed in this area.

From Church Street heading east, a large yellow home shown in the application as hosting a residential day care center is immediately north of the corridor. As mentioned earlier, real estate signs indicated this house at 350 Church Street was for sale as of April 9.

No stakes for structures 216 or 217 were located in the field but the application shows them as directly adjacent to structures 9215 and 9216, respectively. Based on an assumed location for structure 217 directly adjacent to 9216, a shift of structure 217 to the east of the stone wall and out of the yard and direct view of the yellow home (350 Church Street) is recommended. This would accomplish two things. First, only the actual transmission lines but no structures would be in the front yard of 350 Church Street. Second, from the closest home on Meadowbrook Drive (#33), moving structure 217 to the east would give that home a more oblique, less direct viewing angle to it.

Comment [CL&P39]: This structure is at a ROW angle location. Moving it would affect next structure designs, would reduce the remaining unused ROW width here and would increase MF levels at the nearest homes.

No stakes were found for structure 218 but it is not in a sensitive location.

Existing structure 9219 and new structure 220 are at Day Street Junction in a cornfield which the corridor entered at 9218. From Day Street Junction northward, the new line would run between the existing 345-kV line 330 to the west and two 115-kV lines on H-frames to the east. At structure 9220, the corridor descends from the top of a big bank upon which the structure rests into a dense vegetative tangle.

The corridor enters Pomfret at structure 9223 and enters the first of several cornfields at 9225. This section of right-of-way is generally well drained and devoid of wetlands. The agricultural use of the right-of-way extends northward to structure 9235, simplifying both the field review and ultimately the construction of the proposed line.

The right-of-way descends into wetland 20-162 after structure 9235. This is a large wetland adjacent to the Quinebaug River. Proposed structure 237 initially looked to be inaccessible but is sited on a peninsula which extends southward into the wetland from higher ground off Route 101. Signs of beaver activity in this area include several trees with chew marks. Although the proposed site of structure 237 is offset northward from corresponding structure 9236, it is still in a low-lying wetland location. Any additional northward shift would be beneficial. A shift of 100', though still leaving structure 237 in the wetland, would put it on noticeably higher grade. Structure 238, just south of Route 101, is on a bank above the wetland and river.

Comment [CL&P40]: CL&P will evaluate a northward shift of 50 to 100 feet to obtain the additional height afforded by a small knoll. CL&P will provide the results of this evaluation in its draft D&M Plan.

Structure 239, the last structure in Pomfret, sits just north of Route 101 in a stand of white pine.

Structure 240, which was accessed from Lake Road as it is across the Quinebaug River from structure 239, sits in the middle of a large wetland but is actually on a high, dry site, though not an easily accessed one. The right-of-way ascends a steep slope up to the location of structure 241, an angle structure at which the corridor turns eastward.

Curiously, there is no structure 242, either in the application (Volume 9, Map 28 of 40) or in the field.

Comment [CL&P41]: Structure 242 was a proposed structure in the preliminary Project design. Additional engineering analyses revealed that Structure 242 was not needed and so it was eliminated. By the time that Structure 242 was eliminated, however, various Project data had been keyed to the proposed structure numbers such that renumbering the new structures to the east could have caused confusion.

The right-of-way crosses Lake Road just before structure 9242 and then angles north at structure 9243. A stone wall crosses the right-of-way 50' north of structure 9245. Structure 248 is offset from structure 9146 to avoid a wetland. Structure 249 sits just at the edge of a wetland, with its western pole right on the edge. At first glance, it did not appear that a small shift could remedy this but there is a subtle east-west ridge 30' north of structure 249 that is probably worth pursuing as a structure site.

Comment [CL&P42]: CL&P will evaluate a small shift in location for structure 249 to further reduce wetland impacts. CL&P will provide the results of this evaluation in its draft D&M Plan.

After structures 250 and 9248, the corridor reaches its second crossing of Lake Road.

Lake Road Crossing #2 to Route 12, Putnam (April 10)

From Lake Road to the Quinebaug River, the new line would continue to run between the existing 345-kV line to the west and the two 115-kV lines to the east. Other than one home on the north side of Lake Road to the west of the right-of-way, there is no development on either side of the corridor between Lake Road and the Quinebaug River crossing that occurs after structure 9253. New structures 251-255 in this segment have no wetland impacts.

The corridor enters Putnam upon crossing the Quinebaug River. This Putnam section of the right-of-way is accessed from River Road in Putnam. New structures 256, 257 and 258 are in a cornfield above the Quinebaug River. The right-of-way then passes the Putnam ash landfill which towers over it. The line then passes by a sand stockpile and a sand excavation area at new structures 260 and 261 before descending back to the Quinebaug River and recrossing it into Killingly.

Back on the Killingly side of the river, structure 9260 (labeled in the field as 9260A) appears to be on the edge of the Quinebaug River floodplain though mapped as being in it. New structure 262 is 5' lower in elevation than 9260 and is obviously in the floodplain. Based on the stakes, a 20' eastward shift of structure 262 would move one of the two poles of 262 up 5' in elevation, and a 40' eastward shift would get both poles of this structure up 5', above the area which, based on visual appearance, functions as the floodplain.

Comment [CL&P43]: A slight shift of structure 262 is being evaluated by CL&P, as well as its construction work pad configuration, to minimize wetland impacts. CL&P will provide the results of this evaluation in its draft D&M Plan.

The corridor continues eastward ascending from the river to the Lake Road Switching Station, which is located just south of the right-of-way. The line continues eastward crossing Interstate 395 and then the Providence and Worcester Railroad right-of-way. New structure 270, immediately west of the Providence and Worcester tracks, is in a stand of Phragmites but not in a wetland. The right-of-way then passes the impressively large Staples warehouse to the south before reaching the Killingly Substation. The stakes for structure 271 say 171 on them but the location is fine, in a thin corridor of 8" dbh white pine located between the 115-kV and 345-kV lines.

After crossing Park Road on the Killingly-Putnam town line, the corridor continues to ascend. A collection of painting-related debris is on the corridor at structures 274/9270 and a makeshift camp/campfire area, complete with folding tables and chairs and tiki lamps, is in the northern edge of the right-of-way at 9270 ½. Structure 281 is offset from structure 9277 to successfully avoid wetland impacts. The right-of-way is otherwise unremarkable as it continues on to Route 12 in Putnam.

Route 12 to Elvira Heights, Putnam (April 13)

A single distribution line runs on the north side of the corridor, as it has beginning from Killingly Substation. No stakes were found to mark the location of structure 283 but it would be in a grassed field. Several turkeys were observed crossing the right-of-way at 9279 ½. A stone wall crosses the right-of-way diagonally at 9279 ¾ separating the agricultural field from an impenetrable thicket. Stakes were also missing for structure 287 but its location would not offer any issues. Heritage Road is crossed just after structure 9285. Structure 290 is well placed, just beyond the edge of a wetland at the north side of Heritage Road. Structure 291 is an angle structure located in a red maple swamp. Due to its function as an angle structure and being on the outside of the existing line at this abrupt eastward turn, there is no good option to relocate it out of the swamp.

Comment [CL&P44]: The distribution line is a 23-kV double-circuit line that begins from Tracy Substation. Tracy Substation is located just to the north of Killingly Substation.

The corridor then crosses Tourtellotte Road, traversing a small cornfield and then a forested wetland. Structure 294 is in a large wetland extending to structure location 295. If structure 294 was moved 15-20' to the west, though still in the wetland, it would be on slightly higher ground, but the 294-295 span is already a long one and the improvement in location would be minimal. After exiting the right-of-way to get around this large wetland via Pitkin Road and Route 21, the location of structure 295 was reached. No stakes were found there but the location is fine. After passing structures 9292 and 9293 between Route 21 and Aldrich Road, the corridor again becomes impassible due to wetland 20-190.

The next section of the right-of-way was accessed from Fox Road. Again contrary to what is shown on Map 35 of 40 in Volume 9, there is no access road remaining to structure 9294 and new structure 298, though a very much overgrown embankment which was probably the old access road was located. Although no stakes for structure 298 were found, this structure would be in wetland 20-190/191 with no apparent option to do otherwise. The stakes for structure 299 are offset well to the north of existing structure 9295 to avoid siting it in wetland 20-191. Structure 300 would be next to the Putnam Department of Public Works storage yard. At structure 301 on the southwest side of Fox Road, a home to the north will lose about half of its existing screening, perhaps 60' of the existing 120', to the new line.

Comment [CL&P45]: CL&P's updated mapping (for the Section 404 Permit and 401 Water Quality Certification applications) identifies new access roads as needed to reach Structure 298 via the ROW from Fox Road.

After the corridor crosses Fox Road, a stone wall crosses the right-of-way at 9298 ¼. Structure 306 would be in wetland 20-195, which cannot be avoided. Continuing eastward, this wetland reaches to structure 307, which would be located just outside of it. Orange plastic fencing installed by CL&P to

Comment [CL&P46]: Structure 307 is a three-pole angle structure; two of the poles would be located in wetland W20-195.

control access to the wetland crosses the right-of-way at this point. A home in the woods northwest of structure 9304 will retain about $\frac{3}{4}$ of its forest screening after the new line is built.

The right-of-way crosses US-44 with homes semi-adjacent to the corridor in the northwest and southeast quadrants of the intersection of the powerline corridor and the highway. A Phragmites wetland was skirted to reach structure 310, which is right at the edge of wetland 20-197. The eastern pole of structure 310 is in the wetland by about 7' with a shift perpendicular to the right-of-way needed to remove it. A similar situation exists at structure 311 but a larger shift, probably impractical, would be required here since the western pole of the new structure is at the wetland edge, thereby necessitating a perpendicular shift by the complete width of the structure.

A wooden footbridge across the stream labeled as S20-62 in Volume 9 provided access toward structure 312, which, like the following four structures, is outside of any wetland. A home seen to the east of structure 9309 is well screened. The fact that this home was noted points to the lack of visibility of the other homes along Elvira Heights Road from the location of the proposed new line.

A stone wall crosses the right-of-way at structure 9310 and another one does so at 9311. A third stone wall crosses just after structure 9312.

Though this stretch east of US-44 along Elvira Heights Road is BMP Focus Area E, two stakes were in place for new structures 309 through 314, indicating H-frame structures in this segment. Only one stake was seen for structure 315. As noted in the earlier discussion of Focus Area E, a walk along Elvira Heights Road showed the existing 345-kV line, which is closer to these homes than the new one would be, is only marginally visible even under leaf-off conditions. Only from the home at 32 Elvira Heights Road was an H-frame structure clearly visible.

Five Mile River to Rhode Island State Line (April 16)

An extremely large wetland system (wetland 20-203) stretches from the Putnam-Thompson town line to structure 9318. New structure 322 sits just at the eastern edge of this wetland. Attempts to access structures 320 and 321 during the field review were unsuccessful due to a lack of any way to cross this wetland. The great blue heron rookery mentioned in the application is within this wetland with herons observed on nests, on branches and in flight on April 16. Structure sites 318 and 319 were accessed via residential driveways and yards off Munyan Road and do not have any wetlands involvement. The crossing of wetland 20-203 to reach structure site 321 may present some constructability difficulties.

At Quaddick Town Farm Road, a small home north of the line on the west side of that road is maybe 40 yards off the right-of-way and is only partially screened. Structure 324 is currently sited at the edge of a residential yard on the eastern side of Quaddick Town Farm Road but it is my understanding that this structure may be relocated to the west side of that road. There are no resource implications to such a relocation, which would benefit the home east of Quaddick Town Farm Road but increase the visibility of this structure for the home on the west side of the road.

After structure 324/ 9320, the corridor ascends a small hill to angle structures 325 and 9321. From here to the Rhode Island line, the right-of-way is generally well drained and all proposed new structure locations are in upland sites. The first existing structure in Rhode Island, labeled as 9334 on Map 40 of 40 in Volume 9, is labeled as structure 1A on its northern pole and as 01 on its southern pole, but not as 9334.

Comment [CL&P47]: The structure stakes at these two locations reflect H-frame structures which would be built if the Council chose the baseline design at this location rather than the EMF BMP proposal that employs delta steel monopoles for the existing and new lines. (See Comment CL&P 20 on page 8.) Recognizing the need for construction work pads and the large extent of the wetlands on the ROW, the suggested structure shifts are unlikely to significantly reduce wetland impacts. They would create new angle points in the line and increase clearing.

Miscellaneous Application Commentary

CL&P mentions (p. 6-62) that work within the Mansfield Hollow Wildlife Management Area may necessitate the temporary suspension of hunting activities or that there may be a need for temporary trail closures in Mansfield Hollow State Park. Should the former situation develop or appear likely, CL&P should contact Rick Jacobson, Director of the Wildlife Division, at (860) 424-3482 to discuss and coordinate a suspension of hunting including methods to best notify the public. Impacts to Mansfield Hollow State Park should be coordinated through Tom Tyler, Director of the State Parks Division, at (860) 424-3099.

Graphics in pp. 3A-2, 3A-4, 3A 6-10 and 3A 13-15 show the H-frames supporting the new transmission line as uniformly 5' taller than those of the existing line (85' vs. 80'), and for Mansfield Hollow State Park, p. 3A-5 shows the proposed steel poles as 10' taller (125' vs. 115') than those for the existing line. Has there been a change in industry standards since the time the existing line was constructed? If not, what is the reason for this minor but consistent variance in structure height for lines of matching design?

On page 6-26, line 3, it appears that the word 'not' was omitted from a sentence which reads "The excavations required for the installation of the overhead transmission line structures are expected to be above any aquifers used for potable water supply."

The three charts on page 7B-18 show lower magnetic field strengths on the north ROW edge for the Alt. 2 delta configuration than for the delta + 20' configuration of Alt. 3. If this is due to enhanced cancellation effects with the existing line when the new line is at a lower height, why is this same effect not seen for the vertical configuration (Alt. 4) as compared to the vertical+20' configuration (Alt. 5)?

Lastly, comparing Tables 15 and 16 on pages 7B-24 and 7B-25, why is the magnetic field strength lower at the nearest home with Alternative 9 as compared to Alternative 8 (Table 16) when it is higher at the nearest edge of the right-of-way for Alternative 9 as compared to Alternative 8?

Thank you for the opportunity to review this application and to submit these comments to the Council. Should you, other Council members or Council staff have any questions, please feel free to me at (860) 424-4110.

Respectfully yours,

Frederick L. Riese
Senior Environmental Analyst

cc: Commissioner Daniel C. Esty

Comment [CL&P48]: CL&P will coordinate with the DEEP Wildlife and State Parks Division, as well as with the U.S. Army Corps of Engineers, regarding the construction schedule in Mansfield Hollow State Park and WMA. To the extent practicable, efforts will be made to schedule construction to minimize impacts to recreational activities in these areas.

Comment [CL&P49]: As explained at the June 26 hearing, although a larger and different type of conductor will be used on the new line (with a different tension), and although some clearance requirements have increased since 1970, CL&P expects that the increase in average pole heights will be less than 5 feet, perhaps even 0 feet, in the final design. Because some new structures will be taller than the adjacent line structures, and these representations are shared with the public, CL&P opted to show the 5-foot average difference in order to avoid under-representing the height of any new structure.

Comment [CL&P50]: This error has been corrected by virtue of a revised page 6-26, which was submitted to the Council on June 26, 2012.

Comment [CL&P51]: The nearest line to the north ROW edge in these two alternatives is centered at 140 feet from the edge when delta and 155 feet from the edge when vertical. This difference alone for just the new line would lead to a vertical line having slightly lower MFs at and beyond the north ROW edge than a delta line. At these distances from the new line to the ROW edge, an extra 20 feet of conductor height in either type of line would cause only a very small MF reduction by itself. To the extent that the results on these charts on page 7B-18 (and the associated curves in Figure 6 on page 7B-17) reflect small differences from these expected results, those differences are entirely attributable to the relative effectiveness of MF cancellation with the existing line. The exact positioning of the new line's conductors in relation to those of the existing line, and their phasing, controls the effectiveness of cancellation.

Comment [CL&P52]: Alternative 8 models both circuits in vertical configurations, and Alternative 9 models both circuits in delta configurations, in each case with the same centerline-to-centerline circuit separation. The MF profiles for these two alternatives on page 7B-23 are practically right on top of one another at all points east of the ROW. The small differences at the ROW edge and at the nearest homes, each rounded up to 0.1 mG, are attributable to changes in cancellation effectiveness with increasing distance.

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**Connecticut
Light & Power**

The Northeast Utilities System



107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(860) 665-2036

September 18, 2012

Ms. Deborah Surabian, CPSS
MLRA Soil Survey Office 12-6 Leader
CT FWPM
USDA Natural Resources Conservation Service
344 Merrow Road, Suite A
Tolland, CT 06084-3917

RE: Farmland Protection Policy Act Coordination regarding The Connecticut Light and Power Company's Request for an Expansion of an Existing Transmission Line Easement Across Federal Lands in the Mansfield Hollow Area (Town of Mansfield, Tolland County and Town of Chaplin, Windham County)

Dear. Ms. Surabian:

To follow-up on consultations conducted with your office via e-mail and telephone in late August, The Connecticut Light and Power Company (CL&P) proposes to construct, operate, and maintain new 345-kilovolt (kV) overhead transmission lines in northeastern Connecticut, including across approximately 1.4 miles of Federal lands in the towns of Mansfield and Chaplin. These Federal lands are leased to the Connecticut Department of Energy and Environmental Protection, are largely undeveloped, and are used predominantly for recreational purposes (i.e., Mansfield Hollow State Park, Mansfield Hollow Lake, Mansfield Hollow Wildlife Management Area).

To construct, operate, and maintain the new 345-kV transmission line across the federal lands, CL&P has submitted a request to the U.S. Army Corps of Engineers New England District (USACE) for a grant of approximately 5 acres of additional easement, adjacent to CL&P's existing easement. Attachment A provides background information regarding CL&P's request to the USACE and summarizes the prime farmland and statewide important farmland soils within the ROW and proposed easement expansion areas. Attachment A also includes a map of the general location of CL&P's existing easement and proposed easement expansion areas (Figure 1), as well as maps of the existing CL&P ROW and proposed ROW expansion areas in relation to these soils resources and depicting existing and proposed 345-kV structure locations (refer to Attachment B).

Because the easement expansion area encompasses prime farmland and statewide important farmland soils, the USACE has asked CL&P to coordinate with your agency to review the consistency of the easement expansion with the provision of the Farmland Policy Protection Act (FPPA) and to complete Form NRCS-CPA-106, the Farmland Conversion Impact Rating for Corridor Type Projects.

Attachment C includes Form NRCS-CPA-106, with Parts I, III, VI, and VII completed by CL&P as directed by the USACE.

Ms. Surabian
September 18, 2012
Page 2

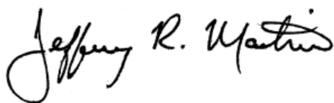
As summarized in Attachment A, CL&P's transmission line will directly affect only 0.01 acre of prime farmland or statewide important farmland soils within an area that is presently dedicated to recreational uses. Further, CL&P's expanded transmission line ROW would not preclude or interfere with agricultural use should the Federal government determine at some point in the future that such use is desirable. In fact, CL&P has established practices for working with landowners to protect farmland (refer to CL&P's "Transmission Right-of-Way Activities in Agricultural Lands", which can be found at <http://www.transmission-nu.com/residential/RightsOfWay.asp>).

We look forward to working with your office to complete the remainder of Form NRCS-CPA-106. In that endeavor, please coordinate directly with Louise Mango of Phenix Environmental, Inc. (203-770-3774 (cell) or 203.270-9057 (office) or phenixsh@aol.com), with whom you previously have corresponded regarding this matter. Ms. Mango will contact you to follow-up on this correspondence and to discuss the best approach for completing the review of the proposed easement expansion pursuant to the FPPA.

Should you have any questions for the USACE, our point-of-contact for the environmental review of the proposed easement expansion in the Mansfield Hollow area is Ms. Judith Johnson of the USACE's Evaluation Branch (978-318-8138; judith.l.johnson@usace.army.mil).

Thank you in advance for your attention to this matter. Should you have any questions, please feel free to call me at 860.665.5930 or to e-mail me (jeffrey.martin@nu.com).

Sincerely,



Jeffrey Martin, PMP
Lead Project Manager
Permitting and Compliance, NEEW Program

Attachments

United States Department of Agriculture



Natural Resources Conservation Service
344 Merrow Road, Suite A
Tolland, CT 06084
(860)871-4040

September 20, 2012

Jeffrey R. Martin, PMP
Lead Project Manager, NEEWS
Northeast Utilities, Transmission
107 Selden Street
Berlin, CT 06037

RE: Farmland Protection Policy Act for CL&P Corridor

Dear Mr. Martin:

Enclosed please find one copy of the completed form NRCS-CPA-106 in accordance with the Farmland Protection Policy Act (FPPA). We have completed Parts II, IV, and V of the form. Based on our assessment of the area we have arrived at a total score of 86 for the site. As explained in 7 CFR 658.4, sites receiving scores totaling less than 160 need not be given further consideration for protection.

We appreciate your assistance in our review of this project. Feel free to contact me should you have any questions or need further information.

Sincerely,

A handwritten signature in purple ink, appearing to read "Deborah Surabian".

Deborah Surabian
State Soil Scientist CT/RI

Attachments

Helping People Help the Land

An Equal Opportunity Provider and Employer



**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)	3. Date of Land Evaluation Request	4. Sheet 1 of _____
---	------------------------------------	---------------------

1. Name of Project	5. Federal Agency Involved
--------------------	----------------------------

2. Type of Project	6. County and State
--------------------	---------------------

PART II (To be completed by NRCS)	1. Date Request Received by NRCS	2. Person Completing Form
--	----------------------------------	---------------------------

3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>	4. Acres Irrigated Average Farm Size
---	--

5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: _____ %	7. Amount of Farmland As Defined in FPPA Acres: _____ %
------------------	---	--

8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS
--	---	---

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
---	---	--	--	--

	Corridor A	Corridor B	Corridor C	Corridor D
--	------------	------------	------------	------------

A. Total Acres To Be Converted Directly				
---	--	--	--	--

B. Total Acres To Be Converted Indirectly, Or To Receive Services				
---	--	--	--	--

C. Total Acres In Corridor				
----------------------------	--	--	--	--

PART IV (To be completed by NRCS) Land Evaluation Information				
--	--	--	--	--

A. Total Acres Prime And Unique Farmland				
--	--	--	--	--

B. Total Acres Statewide And Local Important Farmland				
---	--	--	--	--

C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
---	--	--	--	--

D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
--	--	--	--	--

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)				
--	--	--	--	--

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points			
--	-----------------------	--	--	--

1. Area in Nonurban Use	15			
-------------------------	----	--	--	--

2. Perimeter in Nonurban Use	10			
------------------------------	----	--	--	--

3. Percent Of Corridor Being Farmed	20			
-------------------------------------	----	--	--	--

4. Protection Provided By State And Local Government	20			
--	----	--	--	--

5. Size of Present Farm Unit Compared To Average	10			
--	----	--	--	--

6. Creation Of Nonfarmable Farmland	25			
-------------------------------------	----	--	--	--

7. Availability Of Farm Support Services	5			
--	---	--	--	--

8. On-Farm Investments	20			
------------------------	----	--	--	--

9. Effects Of Conversion On Farm Support Services	25			
---	----	--	--	--

10. Compatibility With Existing Agricultural Use	10			
--	----	--	--	--

TOTAL CORRIDOR ASSESSMENT POINTS	160			
----------------------------------	-----	--	--	--

PART VII (To be completed by Federal Agency)				
---	--	--	--	--

Relative Value Of Farmland (From Part V)	100			
--	-----	--	--	--

Total Corridor Assessment (From Part VI above or a local site assessment)	160			
---	-----	--	--	--

TOTAL POINTS (Total of above 2 lines)	260			
--	------------	--	--	--

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part:	DATE
---	------

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?

(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points
