

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

RE: APPLICATION BY T-MOBILE
NORTHEAST, LLC FOR A
CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED
FOR A TELECOMMUNICATIONS FACILITY
AT 232 SHORE ROAD IN THE TOWN
OF OLD LYME, CONNECTICUT

DOCKET NO. 391

Date: April 8, 2010

SUPPLEMENTAL PRE-FILED TESTIMONY OF MICHAEL P. LIBERTINE

The following pre-filed testimony supplements my pre-filed testimony filed on January 28, 2010, in connection with the above-captioned Application for a Certificate of Environmental Compatibility and Public Need for a telecommunications facility ("Facility") at 232 Shore Road, Old Lyme, Connecticut ("Property") submitted by T-Mobile Northeast LLC ("T-Mobile").

Q12. Did Vanasse Hangen Brustlin, Inc. ("VHB") perform additional visual analysis regarding the Facility at the request of the Council?

A12. Yes. VHB conducted several predictive computer models of the proposed Facility at various heights and locations, as discussed during the hearing. The viewsheds demonstrate the views of the Facility within a two mile radius (8,042 acres) of the proposed Facility ("Study Area"). VHB did the following:

(1) Performed a predictive computer modeling of the proposed Facility at the original proposed location ("Original Location") at 110 and 180 feet above ground level ("AGL"). The viewshed of the proposed Facility at each of these heights is appended hereto as Attachment A.

(2) Performed a predictive computer modeling of the proposed Facility at a location in the northwest corner of the Property ("NW Location"), which is in close proximity of the currently proposed location for the Facility, at 110 and 180 feet AGL. Please see the NW Location alternative site layout submitted by All-Points Technology Corporation ("All-Points").

(3) Performed a predictive computer modeling of the proposed Facility at a location in the northeast corner of the Property ("NE Location") at 100, 110 and 180 feet AGL. The viewsheds are appended hereto as Attachment B. Please see the NE Location alternative site layout submitted by All-Points.

(4) Performed a comparative predictive computer modeling of the proposed Facility at the Original Location and the NE Location at the proposed height of 100 feet AGL. The comparative viewshed is appended hereto as Attachment C.

Q13. Why did VHB not produce a viewshed of the Facility at the NW Location?

A13. VHB did not produce a viewshed of the Facility at the NW Location because the views from the NW Location would be substantially similar to the views of the Facility from the Original Location. Please see Attachment A to my pre-filed testimony filed on January 28, 2010, and Attachment A to this supplemental pre-filed testimony regarding the views of the Facility from the Original Location.

Q14. Please describe the views of the proposed Facility at the Original Location at heights of 100, 110 and 180 feet AGL?

A14. The views of the proposed Facility would not change significantly if the height of the Facility is increased from 100 to 110 feet AGL at the Original Location. At either height, the views would be limited to the upper part of the Facility and primarily within close proximity to the Property or distant views from portions of Long Island Sound.

The Facility at 100 feet AGL would be visible from approximately 1,817 acres of the Study Area. The Facility at 110 feet AGL would be visible from approximately 1,876 acres of the Study Area. As discussed in my previous pre-filed testimony, and during the hearing, most of the views would be open water views on the Long Island Sound. At 100 feet AGL, approximately 97 percent of this area (1,773 acres) consists of open

water on the Long Island Sound. Aside from these more distant, open water views, some areas within 0.25 mile of the Facility would have year round partial views.

The views of the Facility at 110 feet AGL would be similar to the Facility at 100 feet AGL, with approximately 97 percent of the views (1,826 acres) consisting of distant, open water views along the Long Island Sound. Similarly, the Facility at 110 feet AGL would also be visible from select areas within 0.25 miles of the Facility. The views of the Facility from these areas would also be limited to the upper portion of the Facility.

The views of the Facility at 180 feet AGL would be more pronounced. The Facility would be visible year round from approximately 2,128 acres, although 95 percent of these views (or 2017 acres) would consist of distant, open water views on the Long Island Sound. Areas where a shorter Facility might be visible would be expected to view a larger portion of the monopole above the tree canopy. In addition, developed areas to the south/southeast, particularly in the Sound View and Old Lyme Shores neighborhoods, would experience an increase in visibility.

Q15. Please describe the views of the proposed Facility at the NE Location at heights of 100, 110 and 180 feet AGL?

A15. The views of the proposed Facility at the NE Location differ somewhat from the views of the Facility at the Original Location and the NW Location. At 100 feet AGL, the Facility would be visible from approximately 1,899 acres within the Study Area, which is eighty-six more acres of views than the Facility at the Original Location and the NW Location. The additional visibility would include a slight expansion of select areas to the east and southeast of the Property. Similar to the Original Location, these views would be within 0.25 mile of the Facility and would be limited to the upper portions of the

Facility. Perhaps of most significance, shifting the Facility to the NE Location would result in an increased viewshed on the elementary school property to the northeast.

At 110 feet AGL, the NE Location would be visible from 1,953 acres in the Study Area. These views would not differ dramatically from the views of the Facility at 100 feet AGL. Most of the views would be distant, open water views on the Long Island Sound. At 110 feet AGL, approximately 97 percent of this area (1,892 acres) would consist of open water views on the Long Island Sound. There would be additional views from select areas to the northeast, east and southeast of the Property. These views would be of the upper portions of the Facility.

Like the other locations on the Property, the views of the Facility at 180 feet AGL would be more pronounced at the NE Location. The Facility would be visible year round from approximately 2,270 acres, although 94 percent of these views (or 2,138 acres) would consist of distant, open water views on the Long Island Sound. A tower at this height would substantially expand areas of year-round visibility, particularly in those neighborhoods to the south/southeast. Also, as described previously with respect to the Original Location, more of the tower would be visible above the tree canopy in those areas where a 100- or 110-foot tall Facility would be seen.

Q16. Did VHB conduct a balloon float at 110 feet AGL at the Original Location?

A16. Yes. On Thursday, February 4, 2010, VHB conducted a balloon float at 100 and 110 feet AGL. Please see the Affidavit Regarding Balloon Float During Field Review appended hereto as Attachment D.


Michael P. Libertine

Sworn and subscribed to before me this
8th day of April, 2010.



Notary Public
My Commission expires

MOLLY T. OTERO
NOTARY PUBLIC
MY COMMISSION EXPIRES JAN. 31, 2014

ATTACHMENT A

Viewshed Analysis Conducted At 110 Feet AGL
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL803
232 Shore Road
Old Lyme, Connecticut

NOTE:

- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Tower height analyzed is 110 feet AGL.
- Existing tree canopy height estimated at 60 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

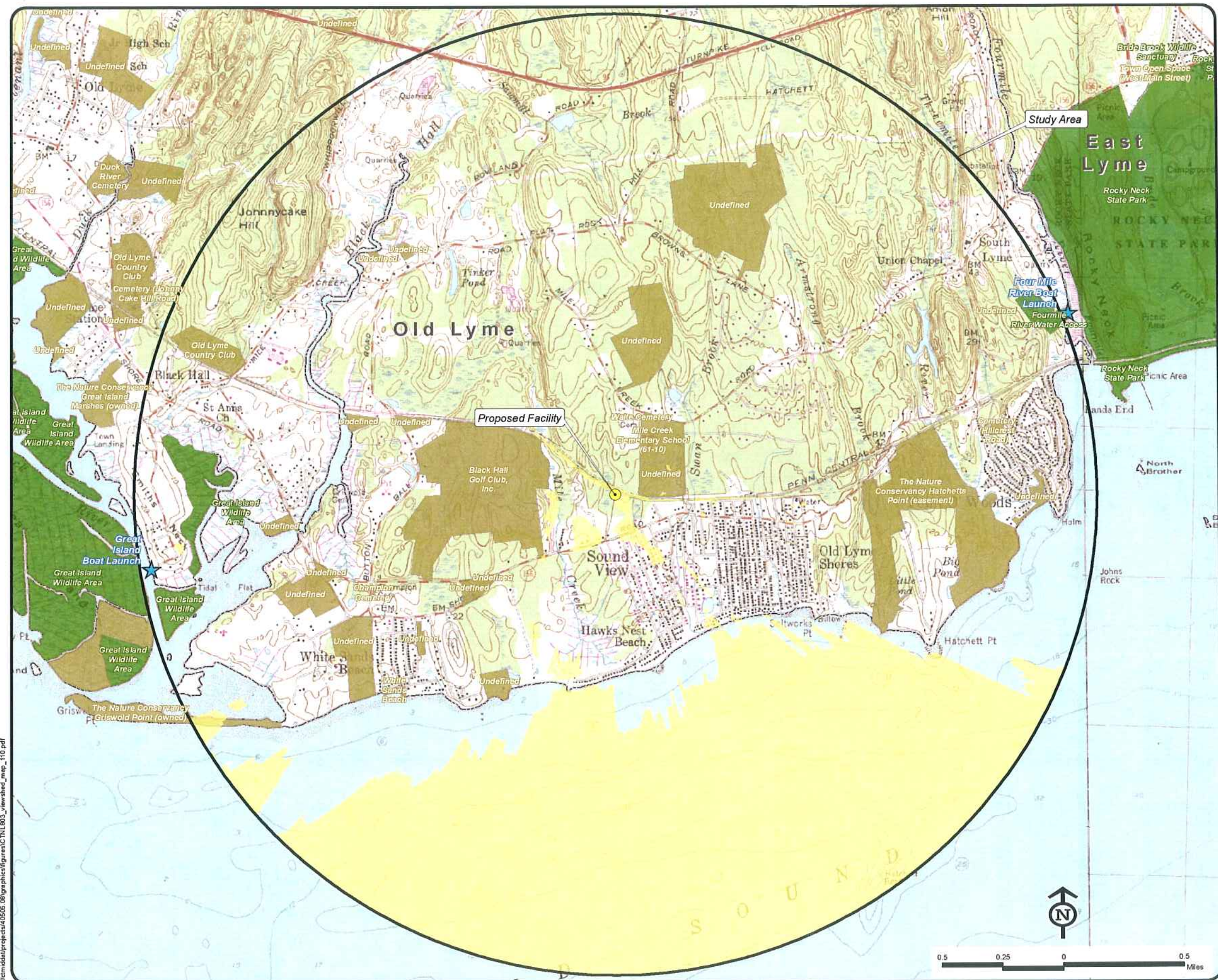
DATA SOURCES:

- Digital elevation model (DEM) derived from Connecticut LIDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
- Base map comprised of Old Lyme (1970) and Niantic (1983) USGS Quadrangle Maps
- Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
- Protected CT DEP properties data layer provided by CTDEP, May 2007
- CT DEP boat launches data layer provided by CT DEP, 1994
- Scenic Roads layer derived from available State and Local listings.

Map Compiled February, 2010

Legend

- Tower Location
- Year-Round Visibility At 110 Feet AGL (Approximately 1,876 acres)
- Protected Municipal and Private Open Space Properties (1997)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized
- CT DEP Protected Properties (2007)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary
- Federal Protected Properties (1997)
- CT DEP Boat Launches (1994)
- Scenic Road (State and Local)
- Town Line



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Viewshed Analysis Conducted At 180 Feet AGL

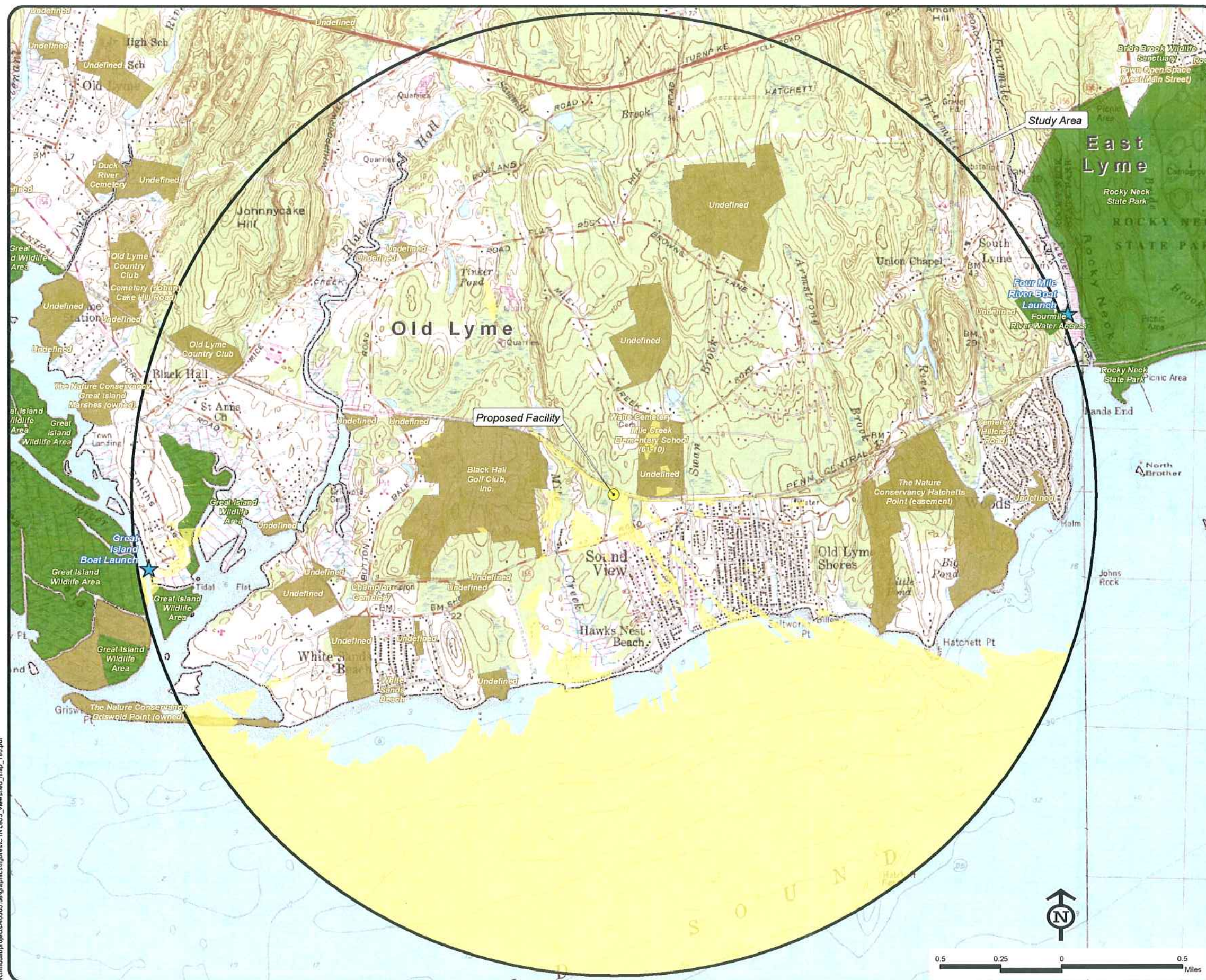
Proposed T-Mobile Wireless

Telecommunications Facility

CTNL803

232 Shore Road

Old Lyme, Connecticut



NOTE:

- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Tower height analyzed is 180 feet AGL.
- Existing tree canopy height estimated at 60 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

DATA SOURCES:

- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
- Base map comprised of Old Lyme (1970) and Niantic (1983) USGS Quadrangle Maps
- Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
- Protected CT DEP properties data layer provided by CTDEP, May 2007
- CT DEP boat launches data layer provided by CT DEP, 1994
- Scenic Roads layer derived from available State and Local listings.

Map Compiled February, 2010

Legend

- | | |
|---|-------------------------------------|
| Tower Location | CT DEP Protected Properties (2007) |
| Year-Round Visibility At 180 Feet AGL (Approximately 2,128 acres) | State Forest |
| Protected Municipal and Private Open Space Properties (1997) | State Park |
| Cemetery | DEP Owned Waterbody |
| Preservation | State Park Scenic Reserve |
| Conservation | Historic Preserve |
| Existing Preserved Open Space | Natural Area Preserve |
| Recreation | Fish Hatchery |
| General Recreation | Flood Control |
| School | Other |
| Uncategorized | State Park Trail |
| | Water Access |
| | Wildlife Area |
| | Wildlife Sanctuary |
| | Federal Protected Properties (1997) |
| | CT DEP Boat Launches (1994) |
| | Scenic Road (State and Local) |
| | Town Line |

**Inset Map
Town of Old Lyme**



ATTACHMENT B

Viewshed Analysis
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL803 - Potential Alternate Site
232 Shore Road
Old Lyme, Connecticut

NOTE:












- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 100 feet.
- Existing tree canopy height estimated at 50 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.
- Results not field verified by balloon float.

DATA SOURCES:

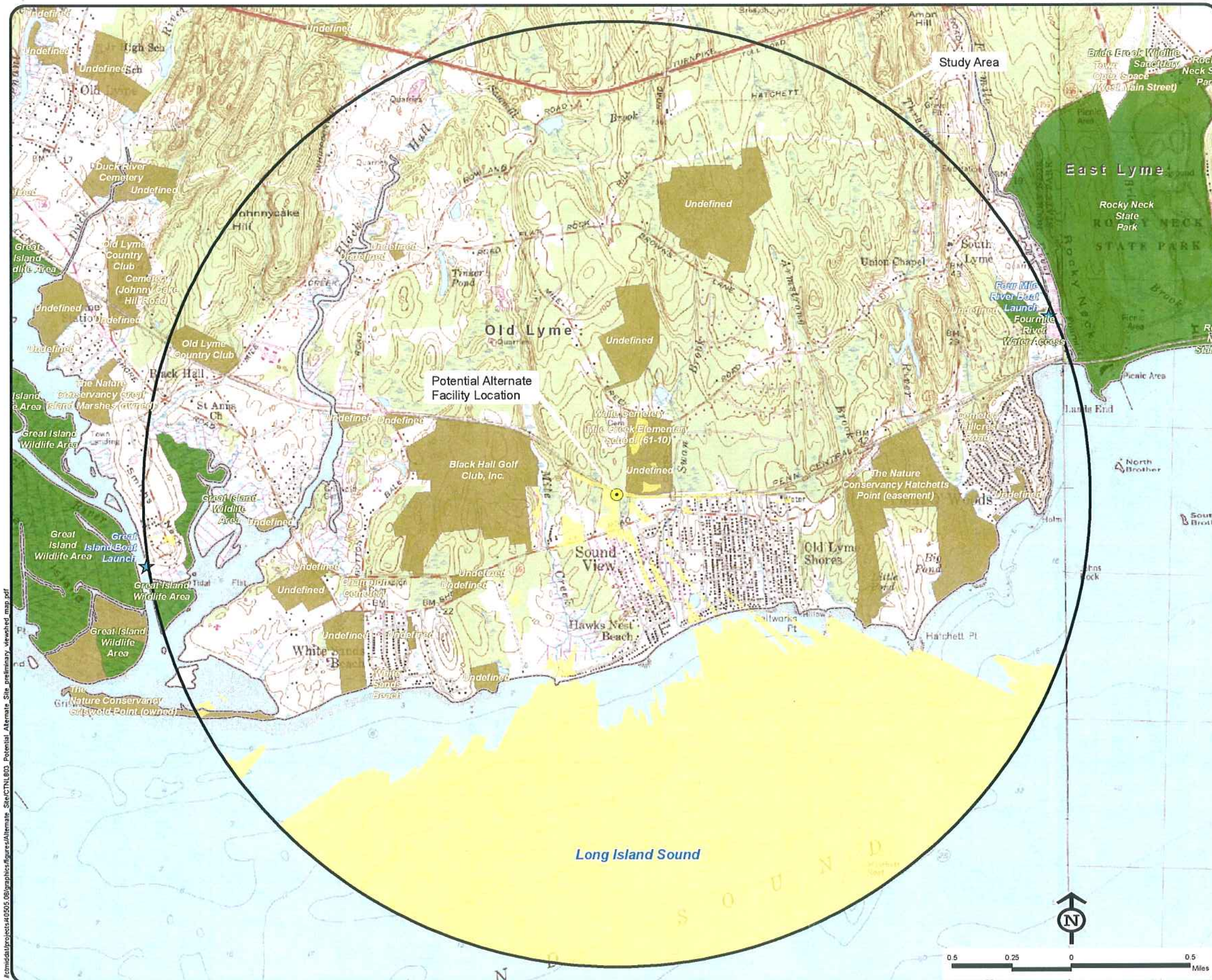
- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2010
- Base map comprised of Old Lyme (1970) and Niantic (1983) USGS Quadrangle Maps
- Municipal and Private Open Space data layer provided by CT DEP, 1997
- Federal Open Space data layer provided by CT DEP, 2004
- CT DEP Property data layer provided by CT DEP, Dec 2009
- CT DEP boat launches data layer provided by CT DEP, Dec 2009
- Scenic Roads layer derived from available State and Local listings

Map Compiled April, 2010

Legend

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| <ul style="list-style-type: none">  Tower Location (Includes select areas of visibility approximately 500 feet around facility)  Year-Round Visibility (Approximately 1899 acres)  Protected Municipal and Private Open Space (CT DEP, 1997)  Cemetery  Preservation  Conservation  Existing Preserved Open Space  Recreation  General Recreation  School  Uncategorized | <ul style="list-style-type: none">  CT DEP Property (CT DEP, Dec 2009)  State Forest  State Park  DEP Owned Waterbody  State Park Scenic Reserve  Historic Preserve  Natural Area Preserve  Fish Hatchery  Flood Control  Other  State Park Trail  Water Access  Wildlife Area  Wildlife Sanctuary  Federal Open Space (CT DEP, 2004)  Boat Launches (CT DEP, Dec 2009)  Scenic Road (State and Local)  Town Line |
|--|--|

Inset Map
Town of Old Lyme



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Viewshed Analysis
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL803 - Potential Alternate Site
232 Shore Road
Old Lyme, Connecticut

NOTE:






























- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 110 feet.
- Existing tree canopy height estimated at 50 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.
- Results not field verified by balloon float.

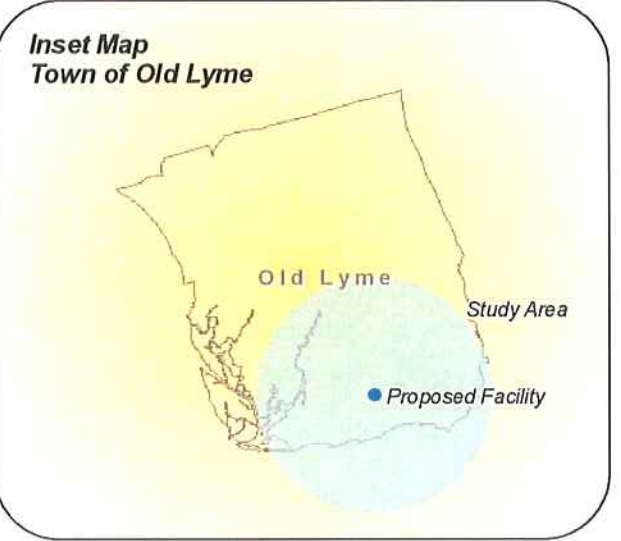
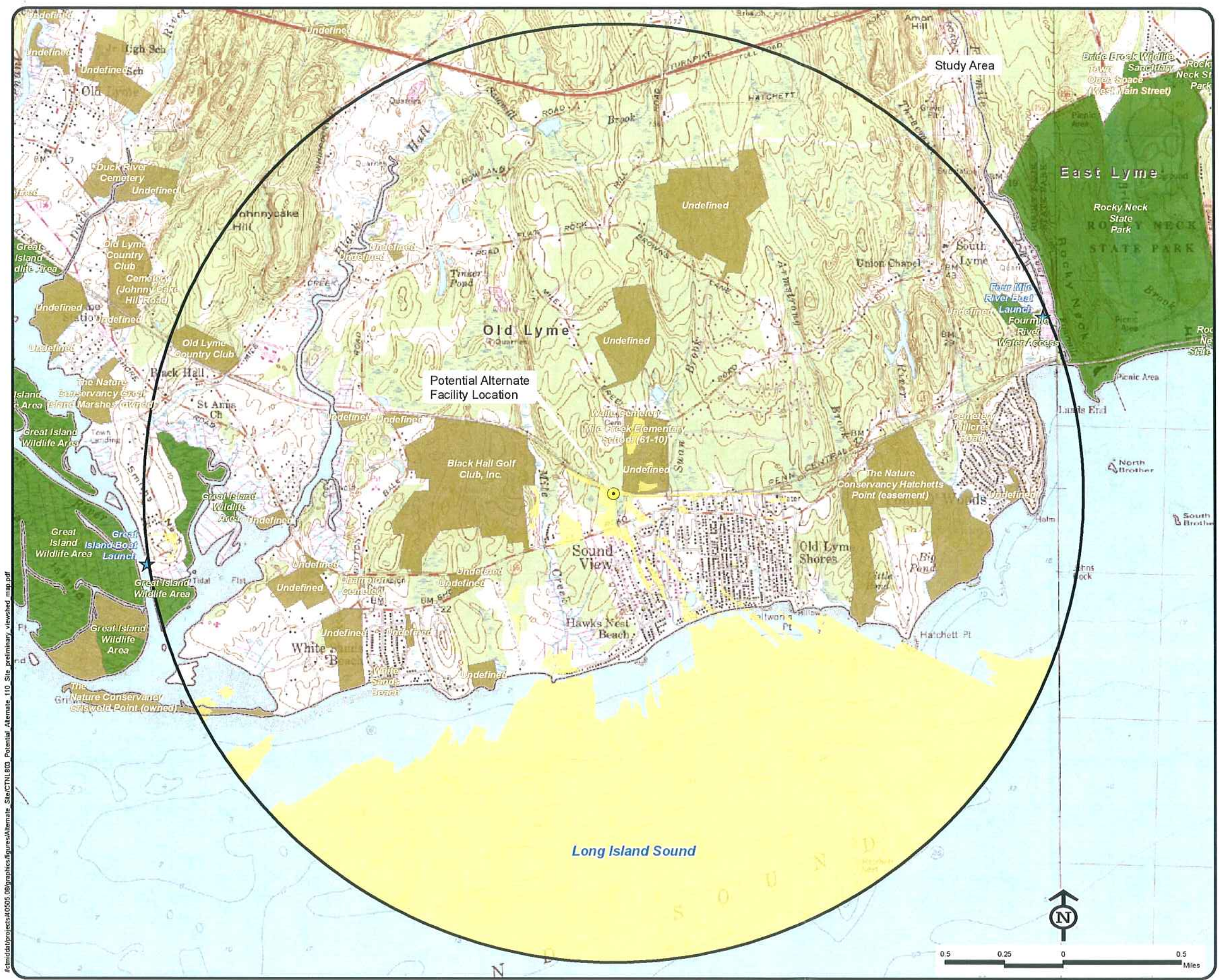
DATA SOURCES:

- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2010
- Base map comprised of Old Lyme (1970) and Niantic (1983) USGS Quadrangle Maps
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- CT DEP Property data layer provided by CT DEP, Dec 2009
- CT DEP boat launches data layer provided by CT DEP, Dec 2009
- Scenic Roads layer derived from available State and Local listings

Map Compiled April, 2010

Legend

- | | |
|--|--|
| <ul style="list-style-type: none">  Tower Location (Includes select areas of visibility approximately 500 feet around facility)  Year-Round Visibility (Approximately 1953 acres)  Protected Municipal and Private Open Space (CT DEP, 1997)  Cemetery  Preservation  Conservation  Existing Preserved Open Space  Recreation  General Recreation  School  Uncategorized | <ul style="list-style-type: none">  CT DEP Property (CT DEP, Dec 2009)  State Forest  State Park  DEP Owned Waterbody  State Park Scenic Reserve  Historic Preserve  Natural Area Preserve  Fish Hatchery  Flood Control  Other  State Park Trail  Water Access  Wildlife Area  Wildlife Sanctuary  Federal Open Space (CT DEP, 2004)  Boat Launches (CT DEP, Dec 2009)  Scenic Road (State and Local)  Town Line |
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ATTACHMENT C

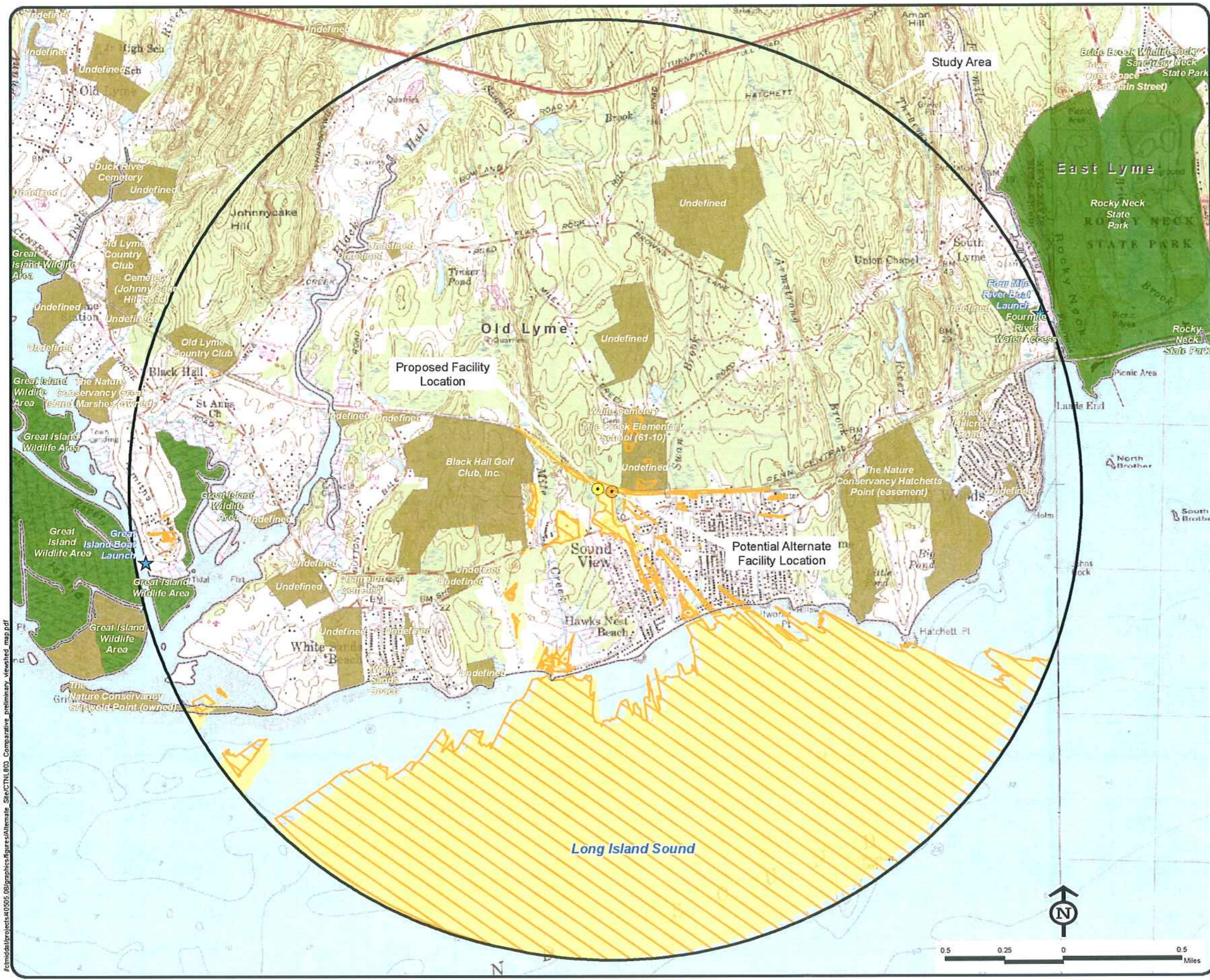
*Comparative Viewshed Analysis
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL803 - Proposed & Potential Facility Locations*

*232 Shore Road
Old Lyme, Connecticut*

- NOTE:**
- Viewshed analysis conducted using ESRI's Spatial Analyst.
 - Proposed Facility height is 100 feet.
 - Existing tree canopy height estimated at 50 feet.
 - Study Area is comprised of a two-mile radius surrounding the proposed facilities and includes 8,190 acres of land.
 - Results not field verified by balloon float.
- DATA SOURCES:**
- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
 - Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2010
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 - CT DEP Property data layer provided by CT DEP, Dec 2009
 - CT DEP boat launches data layer provided by CT DEP, Dec 2009
 - Scenic Roads layer derived from available State and Local listings

Map Compiled April, 2010

- Legend**
- | | | | |
|--|--|--|------------------------------------|
| | Proposed Tower Location
(Includes select areas of visibility approximately 500 feet around facility) | | CT DEP Property (CT DEP, Dec 2009) |
| | Potential Alternate Tower Location
(Includes select areas of visibility approximately 500 feet around facility) | | State Forest |
| | Year-Round Visibility
(Approximately 1813 acres) | | State Park |
| | Year-Round Visibility
(Approximately 1899 acres) | | DEP Owned Waterbody |
| | Protected Municipal and Private Open Space (CT DEP, 1997) | | State Park Scenic Reserve |
| | Cemetery | | Historic Preserve |
| | Preservation | | Natural Area Preserve |
| | Conservation | | Fish Hatchery |
| | Existing Preserved Open Space | | Flood Control |
| | Recreation | | Other |
| | General Recreation | | State Park Trail |
| | School | | Water Access |
| | Uncategorized | | Wildlife Area |
| | | | Wildlife Sanctuary |
| | | | Federal Open Space (CT DEP, 2004) |
| | | | Boat Launches (CT DEP, Dec 2009) |
| | | | Scenic Road (State and Local) |
| | | | Town Line |



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ATTACHMENT D

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

RE: APPLICATION BY T-MOBILE
NORTHEAST, LLC FOR A
CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED
FOR A TELECOMMUNICATIONS FACILITY
AT 232 SHORE ROAD IN THE TOWN
OF OLD LYME, CONNECTICUT

DOCKET NO. 391

Date: March 29, 2010

AFFIDAVIT REGARDING BALLOON FLOAT DURING FIELD REVIEW


I, Michael P. Libertine, do hereby declare and state:

1. I am over the age of 18 years, and believe in the obligation of an oath.
2. I am the Director of Environmental Services for Vanasse Hangen Brustlin, Inc. ("VHB").
3. I have personal knowledge of the above-captioned application for a certificate of environmental compatibility and public need, filed with the Connecticut Siting Council ("Application") by T-Mobile Northeast LLC ("T-Mobile"), as well as the specific events attested to in this affidavit.
4. This affidavit supplements the affidavit regarding balloon float during field review, I executed on or about February 22, 2010.
5. T-Mobile retained VHB to provide a Visual Resource Evaluation Report, a wetlands compliance analysis and a coastal consistency analysis for the proposed telecommunications facility at 232 Shore Road, Old Lyme, Connecticut ("Facility").
6. On Thursday, February 4, 2010, from 7:00 a.m. until 10 a.m. and from 1:00 p.m. until 2:20 p.m., I oversaw and/or supervised a balloon float at the site of the Facility, the purpose of which was to demonstrate the height of the tower proposed by

T-Mobile in the Application. VHB was approached by an AMTRAK representative at approximately 2:15 p.m. and was required to terminate the balloon float due to safety concerns.

7. VHB tethered the balloon to a height of 110 feet at the site of the proposed Facility for the duration of the 7:00-10:00a.m. time frame. Subsequently, VHB tethered the balloon to a height of 100 feet at the site of the proposed Facility from 1 p.m. until approximately 2:15 p.m., at which time an AMTRAK representative required VHB to terminate the balloon float. Periodic gusty winds during the balloon float created somewhat unfavorable conditions, resulting in an inability to sustain the balloon at the two heights.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 29th day of March, 2010.


Michael P. Libertine

Sworn and subscribed to before me this
29th day of March, 2010.



Notary Public
My Commission expires

KRISTINE M. PAUL
NOTARY PUBLIC
MY COMMISSION EXPIRES JAN. 31, 2014