

JESSE A. LANGER

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May 12, 2010

**VIA FEDERAL EXPRESS and ELECTRONIC MAIL**

Mr. S. Derek Phelps  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

***Re: Docket No. 399 – Application of T-Mobile Northeast LLC,  
For a Certificate of Environmental Compatibility and Public  
Need for the Construction, Maintenance and Operation of a  
Telecommunications Facility at 166 Pawcatuck Avenue in  
the Town of Stonington, Connecticut***

Dear Mr. Phelps:

Enclosed herein please find an original and twenty (20) copies of the following documents and information in connection with the hearing before the Connecticut Siting Council ("Council") on April 13, 2010, concerning the proposed telecommunications facility ("Facility") at 166 Pawcatuck Avenue, Stonington, Connecticut ("Property").

1. The NEPA wetlands analysis. During the hearing, both EBI and VHB confirmed that there were no wetland systems within 100 feet of the Facility compound. There is a wetland system seventy-five feet from the proposed gravel access to the Facility compound area. VHB conducted an analysis beyond a 100 foot radius. Both EBI and VHB used the National Resources Conservation Service for their wetland analysis. Appended hereto as Attachment A is EBI's soil survey for the proposed Facility.

2. Natural Diversity Data Base (NDDDB). EBI did not submit an environmental review request form to the NDDDB because the proposed Facility did not fall within an "area of interest." During the hearing, the Council asked about endangered or threatened species in Stonington. Appended hereto as Attachment B is a listing of all endangered or threatened species in New London County.

Mr. S. Derek Phelps  
Connecticut Siting Council  
May 12, 2010  
Page 2

3. Distance from the Facility to 138 Pawcatuck Avenue. The distance from the Facility to 138 Pawcatuck Avenue is approximately 418 feet ±.

4. Design strength of Amtrak catenaries. Unfortunately, T-Mobile was unable to ascertain this information.

5. Other rail line carriers and freight companies. T-Mobile is not aware of any other passenger lines that use the rail way passing through Stonington. However, there are at least two freight companies that use the rail line: Providence & Worcester Rail Road and CSX Transportation.

6. Important bird areas. The Property is not located in or near an "important bird area" as designated by the Audubon Society. Appended hereto as Attachment C is a list of "important bird areas" designated by the Audubon Society. No State or federal entity has designated the Property as an "important bird area" or a "critical habitat." Appended hereto as Attachment D is a land and historic resources map demonstrating that the State and federal governments have not identified the Property as a "critical habitat."

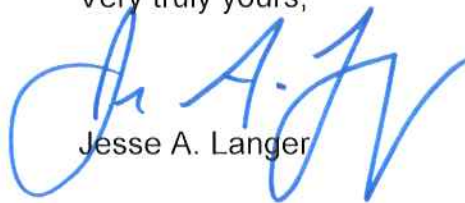
7. Migratory bird "flyways." Connecticut is located in a "flyway."

8. Documented studies regarding telecommunications facilities and "bird strikes." There are known pending studies regarding "bird strikes" in Western New York and Michigan. However, there are no known reports on these studies at this time. The United States Fish & Wildlife Service has published interim guidelines to minimize the potential impacts of telecommunications facilities on migratory birds ("Interim Guidelines"). Most notably, the Interim Guidelines suggest that telecommunications facilities be constructed at a height less than 200 feet and without guy wires. The proposed Facility would adhere to these suggestions contained in the Interim Guidelines. A copy of the Interim Guidelines is appended hereto as Attachment E.

Mr. S. Derek Phelps  
Connecticut Siting Council  
May 12, 2010  
Page 3

9. Studies regarding parakeet colonies along the Connecticut coastline. There are no formal studies regarding the presence of parakeet colonies along the Connecticut coastline. There are, however, some references to the presence of parakeet colonies. A copy of an Audubon Society submission is appended hereto as Attachment F.

Very truly yours,



Jesse A. Langer

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Enclosures

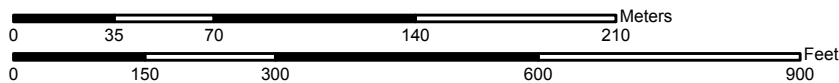
cc: Service List (*Via Electronic Mail & First Class U.S. Mail*)

# **ATTACHMENT A**

Soil Map—State of Connecticut




Map Scale: 1:2,730 if printed on A size (8.5" x 11") sheet.





## MAP LEGEND






















### Area of Interest (AOI)


 Area of Interest (AOI)

### Soils

 Soil Map Units

### Special Point Features




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

 Very Stony Spot

 Wet Spot

 Other



### Special Line Features

-  Gully
-  Short Steep Slope
-  Other






### Political Features

 Cities

### Water Features

-  Oceans
-  Streams and Canals

### Transportation

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

## MAP INFORMATION

Map Scale: 1:2,730 if printed on A size (8.5" × 11") sheet.

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

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

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: UTM Zone 19N NAD83

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

Soil Survey Area: State of Connecticut  
 Survey Area Data: Version 7, Dec 3, 2009

Date(s) aerial images were photographed: 8/16/2006

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

## Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, extremely stony	8.1	24.2%
17	Timakwa and Natchaug soils	0.6	1.9%
43B	Rainbow silt loam, 3 to 8 percent slopes	3.6	10.8%
47C	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony	3.7	11.1%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	3.8	11.4%
61B	Canton and Charlton soils, 3 to 8 percent slopes, very stony	3.3	9.9%
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	0.5	1.4%
74C	Narragansett-Hollis complex, 3 to 15 percent slopes, very rocky	1.9	5.6%
82B	Broadbrook silt loam, 3 to 8 percent slopes	0.4	1.3%
85B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes, very stony	7.6	22.5%
<b>Totals for Area of Interest</b>		<b>33.6</b>	<b>100.0%</b>

# **ATTACHMENT B**





*A County Report of  
Connecticut's Endangered, Threatened and Special Concern Species*

**New London County**

**Amphibians**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Ambystoma laterale</i>	Blue-spotted Salamander	T/SC
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	E

**Birds**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Ammodramus caudacutus</i>	Saltmarsh Sharp-tailed Sparrow	SC
<i>Ammodramus henslowii</i>	Henslow's Sparrow	SC*
<i>Ammodramus maritimus</i>	Seaside Sparrow	SC
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	E
<i>Anas discors</i>	Blue-winged Teal	T
<i>Ardea alba</i>	Great Egret	T
<i>Asio flammeus</i>	Short-eared Owl	T
<i>Bartramia longicauda</i>	Upland Sandpiper	E
<i>Botaurus lentiginosus</i>	American Bittern	E
<i>Caprimulgus vociferus</i>	Whip-poor-will	SC
<i>Charadrius melodus</i>	Piping Plover	T
<i>Circus cyaneus</i>	Northern Harrier	E
<i>Cistothorus platensis</i>	Sedge Wren	E
<i>Corvus corax</i>	Common Raven	SC
<i>Dolichonyx oryzivorus</i>	Bobolink	SC
<i>Egretta caerulea</i>	Little Blue Heron	SC
<i>Egretta thula</i>	Snowy Egret	T
<i>Empidonax alnorum</i>	Alder Flycatcher	SC
<i>Eremophila alpestris</i>	Horned Lark	E
<i>Falco peregrinus</i>	Peregrine Falcon	E

**New London County****Birds**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Gallinula chloropus</i>	Common Moorhen	E
<i>Gavia immer</i>	Common Loon	SC
<i>Haematopus palliatus</i>	American Oystercatcher	SC
<i>Haliaeetus leucocephalus</i>	Bald Eagle	E
<i>Icteria virens</i>	Yellow-breasted Chat	E
<i>Ixobrychus exilis</i>	Least Bittern	T
<i>Laterallus jamaicensis</i>	Black Rail	E
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	E
<i>Parula americana</i>	Northern Parula	SC
<i>Passerculus sandwichensis</i>	Savannah Sparrow	SC
<i>Passerculus sandwichensis princeps</i>	Ipswich Sparrow	SC
<i>Plegadis falcinellus</i>	Glossy Ibis	SC
<i>Podilymbus podiceps</i>	Pied-billed Grebe	E
<i>Progne subis</i>	Purple Martin	T
<i>Rallus elegans</i>	King Rail	E
<i>Sterna antillarum</i>	Least Tern	T
<i>Sterna dougallii</i>	Roseate Tern	E
<i>Sterna hirundo</i>	Common Tern	SC
<i>Sturnella magna</i>	Eastern Meadowlark	SC
<i>Toxostoma rufum</i>	Brown Thrasher	SC
<i>Tyto alba</i>	Barn Owl	E

**Fish**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	E
<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	T
<i>Enneacanthus obesus</i>	Banded Sunfish	SC

<b>New London County</b>
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### Invertebrates

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Abagrotis nefascia benjamini</i>	Coastal Heathland Cutworm	T
<i>Alasmidonta varicosa</i>	Brook Floater	E
<i>Apamea burgessi</i>	A Noctuid Moth	SC
<i>Brachinus patruelis</i>	A Ground Beetle	SC
<i>Callophrys henrici</i>	Henry's Elfin	SC
<i>Callophrys irus</i>	Frosted Elfin	T
<i>Calopteryx dimidiata</i>	Sparkling Jewelwing	SC
<i>Catocala pretiosa</i>	Precious Underwing Moth	SC*
<i>Chaetagnela cerata</i>	A Noctuid Moth	SC*
<i>Cicindela formosa generosa</i>	Pine Barrens Tiger Beetle	SC
<i>Cicindela hirticollis</i>	Beach-dune Tiger Beetle	SC
<i>Cicindela marginata</i>	A Tiger Beetle	SC
<i>Cicindela tranquebarica</i>	Dark Bellied Tiger Beetle	SC
<i>Citheronia regalis</i>	Regal Moth	SC*
<i>Cordulegaster erronea</i>	Tiger Spiketail	T
<i>Eacles imperialis imperialis</i>	Imperial Moth	SC*
<i>Enallagma doubledayi</i>	Atlantic Bluet	SC
<i>Enallagma minusculum</i>	Little Bluet	SC
<i>Enallagma pictum</i>	Scarlet Bluet	SC
<i>Erynnis brizo</i>	Sleepy Duskywing	T
<i>Erynnis horatius</i>	Horace's Duskywing	SC
<i>Erynnis persius persius</i>	Persius Duskywing	E
<i>Exyra rolandiana</i>	Pitcher Plant Moth	SC
<i>Faronta rubripennis</i>	The Pink Streak	T
<i>Fossaria rustica</i>	Lymnaeid Snail	SC
<i>Grammia phyllira</i>	Phyllira Tiger Moth	SC*
<i>Hybomitra frosti</i>	A Horse Fly	T
<i>Hybomitra trepida</i>	A Horse Fly	SC

<b>New London County</b>
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### Invertebrates

Scientific Name	Common Name	Protection Status
<i>Hybomitra typhus</i>	A Horse Fly	SC
<i>Ladona deplanata</i>	Blue Corporal Dragonfly	SC
<i>Lepipolys perscripta</i>	Scribbled Sallow	SC
<i>Leptodea ochracea</i>	Tidewater Mucket	T
<i>Ligumia nasuta</i>	Eastern Pondmussel	SC
<i>Lycaena epixanthe</i>	Bog Copper	SC
<i>Margaritifera margaritifera</i>	Eastern Pearlshell	SC
<i>Merycomyia whitneyi</i>	Tabanid Fly	SC
<i>Mitoura hesseli</i>	Hessel's Hairstreak	E
<i>Papaipema appassionata</i>	Pitcher Plant Borer Moth	E
<i>Papaipema duovata</i>	Seaside Goldenrod Stem Borer	SC
<i>Procambarus acutus</i>	Whiteriver Crayfish	SC
<i>Progomphus obscurus</i>	Common Sanddragon	SC
<i>Psectraglaea carnosa</i>	Pink Sallow	T
<i>Sargus fasciatus</i>	Soldier Fly	SC
<i>Schinia spinosae</i>	A Noctuid Moth	SC
<i>Sphodros niger</i>	Purse-web Spider	SC
<i>Stagnicola catascopium</i>	Woodland Pondsnaail	SC
<i>Tabanus fulvicallus</i>	Horse Fly	SC
<i>Williamsonia lintneri</i>	Banded bog skimmer	E
<i>Zale obliqua</i>	A Noctuid Moth	SC

### Mammals

Scientific Name	Common Name	Protection Status
<i>Lasiurus borealis</i>	Eastern Red Bat	SC
<i>Synaptomys cooperi</i>	Southern Bog Lemming	SC

### Plants

Scientific Name	Common Name	Protection Status
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<b>New London County</b>
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**Plants**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Acalypha virginica</i>	Virginia Copperleaf	SC
<i>Agalinis acuta</i>	Sandplain Gerardia	E
<i>Alopecurus aequalis</i>	Orange Foxtail	T
<i>Amelanchier sanguinea</i>	Roundleaf Shadbush	E
<i>Angelica lucida</i>	Sea-coast Angelica	E
<i>Aplectrum hyemale</i>	Puttyroot	SC*
<i>Arethusa bulbosa</i>	Arethusa	SC*
<i>Aristida longespica</i>	Needlegrass	SC
<i>Aristida purpurascens</i>	Arrowfeather	SC
<i>Aristolochia serpentaria</i>	Virginia Snakeroot	SC
<i>Asclepias purpurascens</i>	Purple Milkweed	SC
<i>Asclepias variegata</i>	White Milkweed	SC*
<i>Asplenium montanum</i>	Mountain Spleenwort	T
<i>Aster nemoralis</i>	Bog Aster	E
<i>Aster prenanthoides</i>	Crooked-stem Aster	SC*
<i>Aster radula</i>	Rough-leaved Aster	E
<i>Aster spectabilis</i>	Showy Aster	T
<i>Aster x blakei</i>	Blake's Aster	E
<i>Aster x herveyi</i>	Hervey's Aster	SC
<i>Atriplex glabriuscula</i>	Orache	SC
<i>Bidens eatonii</i>	Eaton's Beggar-ticks	T
<i>Calystegia spithamea</i>	Low Bindweed	SC*
<i>Carex alata</i>	Broadwing Sedge	E
<i>Carex bushii</i>	Sedge	SC
<i>Carex buxbaumii</i>	Brown Bog Sedge	E
<i>Carex crawfordii</i>	Crawford Sedge	SC*
<i>Carex cumulata</i>	Clustered Sedge	T
<i>Carex davisii</i>	Davis' Sedge	E

<b>New London County</b>
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**Plants**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Carex nigromarginata</i>	Black-edge Sedge	SC*
<i>Carex oligosperma</i>	Few-seeded Sedge	SC*
<i>Carex polymorpha</i>	Variable Sedge	E
<i>Carex sterilis</i>	Dioecious Sedge	SC
<i>Carex tuckermanii</i>	Tuckerman Sedge	SC
<i>Carex typhina</i>	Sedge	SC
<i>Castilleja coccinea</i>	Indian Paintbrush	E
<i>Chenopodium rubrum</i>	Coast Blite	SC*
<i>Chrysopsis falcata</i>	Sickle-leaf Golden-aster	E
<i>Cirsium horridulum</i>	Yellow Thistle	E
<i>Coeloglossum viride var. virescens</i>	Long-bracted Green Orchid	SC
<i>Corallorhiza trifida</i>	Early Coralroot	SC
<i>Crassula aquatica</i>	Pygmyweed	E
<i>Cuphea viscosissima</i>	Blue Waxweed	SC*
<i>Cuscuta coryli</i>	Hazel Dodder	SC*
<i>Cypripedium parviflorum</i>	Yellow Lady's-slipper	SC
<i>Deschampsia caespitosa</i>	Tufted Hairgrass	SC
<i>Desmodium glabellum</i>	Dillen Tick-trefoil	SC
<i>Desmodium humifusum</i>	Trailing Tick-trefoil	SC
<i>Desmodium sessilifolium</i>	Sessile-leaf Tick-trefoil	SC*
<i>Dichanthelium ovale var. addisonii</i>	Panic Grass	SC
<i>Diplachne maritima</i>	Saltpond Grass	E
<i>Draba reptans</i>	Whitlow-grass	SC
<i>Eleocharis equisetoides</i>	Horse-tail Spikerush	E
<i>Eleocharis microcarpa var. filiculmis</i>	Spike-rush	SC*
<i>Eleocharis quadrangulata var. crassior</i>	Spike-rush	E
<i>Equisetum palustre</i>	Marsh Horsetail	SC*

<b>New London County</b>
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**Plants**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Eriocaulon parkeri</i>	Parker's Pipewort	E
<i>Eupatorium album</i>	White Thoroughwort	E
<i>Eupatorium aromaticum</i>	Small White Snakeroot	E
<i>Gaultheria hispidula</i>	Creeping Snowberry	T
<i>Gnaphalium purpureum</i>	Purple Cudweed	SC*
<i>Helianthemum propinquum</i>	Low Frostweed	T
<i>Honckenya peploides</i>	Sea-beach Sandwort	SC
<i>Hottonia inflata</i>	Featherfoil	SC
<i>Houstonia longifolia</i>	Longleaf Bluet	E
<i>Hudsonia ericoides</i>	Golden-heather	E
<i>Hudsonia tomentosa</i>	False Beach-heather	SC
<i>Hydrocotyle umbellata</i>	Water Pennywort	E
<i>Hydrocotyle verticillata</i>	Whorled Pennywort	E
<i>Hypericum adpressum</i>	Creeping St. John's-wort	SC*
<i>Ilex glabra</i>	Ink-berry	T
<i>Isotria medeoloides</i>	Small Whorled Pogonia	E
<i>Juncus debilis</i>	Weak Rush	SC*
<i>Lachnanthes carolina</i>	Carolina Redroot	E
<i>Lespedeza repens</i>	Creeping Bush-clover	SC
<i>Liatris scariosa var. novae-angliae</i>	Blazing-star	SC
<i>Ligusticum scoticum</i>	Scotch Lovage	E
<i>Lilaeopsis chinensis</i>	Lilaeopsis	SC
<i>Limosella subulata</i>	Mudwort	SC
<i>Linnaea borealis var. americana</i>	Twinflower	E
<i>Linum intercursum</i>	Sandplain Flax	SC*
<i>Liparis liliifolia</i>	Lily-leaved Twayblade	E
<i>Liquidambar styraciflua</i>	Sweet Gum	SC
<i>Ludwigia sphaerocarpa</i>	Globe-fruited False-loosestrife	E



<b>New London County</b>
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**Plants**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Lycopus amplexans</i>	Clasping-leaved Water-horehound	SC
<i>Lygodium palmatum</i>	Climbing Fern	SC
<i>Malaxis unifolia</i>	Green Adder's-mouth	E
<i>Megalodonta beckii</i>	Water-marigold	T
<i>Mimulus alatus</i>	Winged Monkey-flower	SC
<i>Moneses uniflora</i>	One-flower Wintergreen	E
<i>Myriophyllum pinnatum</i>	Cutleaf Water-milfoil	E
<i>Nuphar microphylla</i>	Small Yellow Pond Lily	SC
<i>Nymphaea odorata var. tuberosa</i>	Water Lily	SC*
<i>Ophioglossum pusillum</i>	Adder's Tongue	T
<i>Opuntia humifusa</i>	Eastern Prickly-pear	SC
<i>Orontium aquaticum</i>	Golden Club	SC
<i>Oryzopsis pungens</i>	Slender Mountain-ricegrass	SC
<i>Oxalis violacea</i>	Violet Wood-sorrel	SC
<i>Panax quinquefolius</i>	American Ginseng	SC
<i>Panicum amarum</i>	Panic Grass	T
<i>Panicum rigidulum var. elongatum</i>	Tall Flat Panic-grass	SC*
<i>Panicum scabriusculum</i>	Panic Grass	E
<i>Paspalum laeve</i>	Field Paspalum	E
<i>Paspalum setaceum var. psammophilum</i>	Bead Grass	SC*
<i>Pedicularis lanceolata</i>	Swamp Lousewort	T
<i>Phaseolus polystachios var. aquilonius</i>	Wild Kidney Bean	SC*
<i>Plantago virginica</i>	Hoary Plantain	SC
<i>Platanthera ciliaris</i>	Yellow-fringe Orchid	T
<i>Platanthera flava</i>	Pale Green Orchid	SC
<i>Platanthera hookeri</i>	Hooker Orchid	SC*
<i>Platanthera orbiculata</i>	Large Roundleaf Orchid	SC*

<b>New London County</b>
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**Plants**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Podostemum ceratophyllum</i>	Threadfoot	SC
<i>Polygala cruciata</i>	Field Milkwort	SC
<i>Polygala nuttallii</i>	Nuttall's Milkwort	E
<i>Populus heterophylla</i>	Swamp Cottonwood	E
<i>Potamogeton confervoides</i>	Pondweed	SC*
<i>Potamogeton pusillus var. gemmiparus</i>	Capillary Pondweed	E
<i>Potamogeton vaseyi</i>	Vasey's Pondweed	E
<i>Prunus alleghaniensis</i>	Alleghany Plum	SC*
<i>Puccinellia langeana ssp. alaskana</i>	Goose Grass	SC*
<i>Pyrola secunda</i>	One-sided Pyrola	SC*
<i>Ranunculus ambigens</i>	Water-plantain Spearwort	E
<i>Ranunculus cymbalaria</i>	Seaside Crowfoot	SC*
<i>Ranunculus pensylvanicus</i>	Bristly Buttercup	SC*
<i>Ranunculus sceleratus</i>	Cursed Crowfoot	SC
<i>Rhynchospora macrostachya</i>	Beaked Rush	T
<i>Rotala ramosior</i>	Toothcup	T
<i>Rubus cuneifolius</i>	Sand Bramble	SC
<i>Rumex maritimus var. fueginus</i>	Sea-side Dock	SC*
<i>Sabatia stellaris</i>	Marsh Pink	E
<i>Sagittaria subulata</i>	Arrowleaf	SC
<i>Salix exigua</i>	Sandbar Willow	T
<i>Salix petiolaris</i>	Slender Willow	SC*
<i>Saururus cernuus</i>	Lizard's Tail	E
<i>Scheuchzeria palustris</i>	Pod Grass	E
<i>Schwalbea americana</i>	Chaffseed	SC*
<i>Scirpus cylindricus</i>	Salt-marsh Bulrush	SC
<i>Scirpus paludosus var. atlanticus</i>	Bayonet Grass	SC
<i>Scirpus torreyi</i>	Torrey's Bulrush	T

<b>New London County</b>
--------------------------

**Plants**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Scleria pauciflora</i> var. <i>caroliniana</i>	Few-flowered Nutrush	E
<i>Scleria triglomerata</i>	Nutrush	E
<i>Scutellaria integrifolia</i>	Hyssop Skullcap	E
<i>Senna hebecarpa</i>	Wild Senna	SC
<i>Silene stellata</i>	Starry Champion	SC
<i>Solidago elliotii</i>	Elliott Goldenrod	SC
<i>Solidago rugosa</i> var. <i>sphagnophila</i>	Early Wrinkle-leaved Goldenrod	SC*
<i>Spergularia canadensis</i>	Canada Sand-spurry	T
<i>Sporobolus clandestinus</i>	Rough Dropseed	E
<i>Sporobolus neglectus</i>	Small Dropseed	E
<i>Stachys hyssopifolia</i>	Hyssop-leaf Hedge-nettle	E
<i>Stachys tenuifolia</i>	Smooth Hedge-nettle	SC
<i>Triphora trianthophora</i>	Nodding Pogonia	SC*
<i>Utricularia resupinata</i>	Bladderwort	E
<i>Uvularia grandiflora</i>	Large-flowered Bellwort	E
<i>Valerianella radiata</i> var. <i>fernaldii</i>	Beaked Corn-salad	SC*
<i>Verbena simplex</i>	Narrow-leaved Vervain	SC*
<i>Viburnum nudum</i>	Possum Haw	SC*
<i>Vitis novae-angliae</i>	New England Grape	SC
<i>Xyris montana</i>	Northern Yellow-eyed grass	T
<i>Xyris smalliana</i>	Small's Yellow-eyed-grass	E
<i>Zizia aptera</i>	Golden Alexanders	E

**Reptiles**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Caretta caretta</i>	Loggerhead	T
<i>Chelonia mydas</i>	Atlantic Green Turtle	T
<i>Clemmys insculpta</i>	Wood Turtle	SC

**New London County**

**Reptiles**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Protection Status</b>
<i>Crotalus horridus</i>	Timber Rattlesnake	E
<i>Dermochelys coriacea</i>	Leatherback	E
<i>Heterodon platirhinos</i>	Eastern Hognose Snake	SC
<i>Lepidochelys kempii</i>	Kemp's or Atlantic Ridley	E
<i>Terrapene carolina</i>	Eastern Box Turtle	SC
<i>Thamnophis sauritus</i>	Eastern Ribbon Snake	SC

E = Endangered, T = Threatened, SC = Special Concern, \* Believed Extirpated

*State of Connecticut  
Department of Environmental Protection  
Bureau of Natural Resources, Wildlife Division  
79 Elm St., Hartford, CT 06106*

# **ATTACHMENT C**

[IBA Home Page](#)

Bird Conservation > Important Bird Areas > Connecticut >



## CONNECTICUT IMPORTANT BIRD AREAS

The following list may not include all potential, nominated, pending, identified, or recognized IBAs within the state as some IBA information may be unavailable for public viewing.

[What is an IBA?](#)

[IBA Program Status](#)

[IBA Criteria](#)

[How Will IBAs Help Birds?](#)

[IBA Success Stories](#)

[What's Next?](#)

[What You Can Do](#)

[IBA contacts](#)

[Links](#)

#	Name	Status	Priority	Counties
1.	<a href="#">Audubon Center in Greenwich</a>	Recognized State		Fairfield
2.	<a href="#">Bafflin Sanctuary Complex</a>	Recognized State		Windham
3.	<a href="#">Barn Island Wildlife Management Area</a>	Recognized Global		New London
4.	<a href="#">Bent of the River Sanctuary</a>	Recognized State		New Haven
5.	<a href="#">Charles Island and Silver Sands State Park</a>	Recognized State		New Haven
6.	<a href="#">Connecticut College Arboretum</a>	Recognized State		New London
7.	<a href="#">Cove Island Park</a>	Recognized State		Fairfield
8.	<a href="#">East Rock Park</a>	Recognized State		New Haven
9.	<a href="#">Falkner Island Unit of Stewart B. McKinney NWR</a>	Recognized State		New Haven
10.	<a href="#">Good Hill Farm Preserve</a>	Recognized		Litchfield
11.	<a href="#">Great Captains Island</a>	Recognized State		Fairfield
12.	<a href="#">Greenwich Point Park and Nearby Islands</a>	Recognized State		Fairfield
13.	<a href="#">Hammonasset Beach State Park</a>	Recognized Global		New Haven
14.	<a href="#">Lighthouse Point Park</a>	Recognized State		New Haven
15.	<a href="#">Mamacoke Island and Adjacent Coves</a>	Recognized State		New London
16.	<a href="#">Menunketesuck and Duck Islands and surrounding tidal flats</a>	Recognized State		Middlesex
17.	<a href="#">Milford Point/Wheeler Marsh/Mouth of the Housatonic River</a>	Recognized State		New Haven
18.	<a href="#">Naugatuck State Forest</a>	Recognized		New Haven
19.	<a href="#">Northwest Park</a>	Recognized		Hartford
20.	<a href="#">Quinnipiac River Tidal Marsh</a>	Recognized State		New Haven
21.	<a href="#">Salt Meadow Unit of Stewart B. McKinney NWR</a>	Recognized State		Middlesex
22.	<a href="#">Sandy Point</a>	Recognized State		New Haven
23.	<a href="#">Station 43 Marsh/Sanctuary</a>	Recognized State		Hartford
24.	<a href="#">The Nature Conservancy, Devil's Den</a>	Recognized State		Fairfield
25.	<a href="#">Topsmead State Forest</a>	Recognized		Litchfield
26.	<a href="#">White Memorial Foundation</a>	Recognized State		Litchfield

Search IBAs



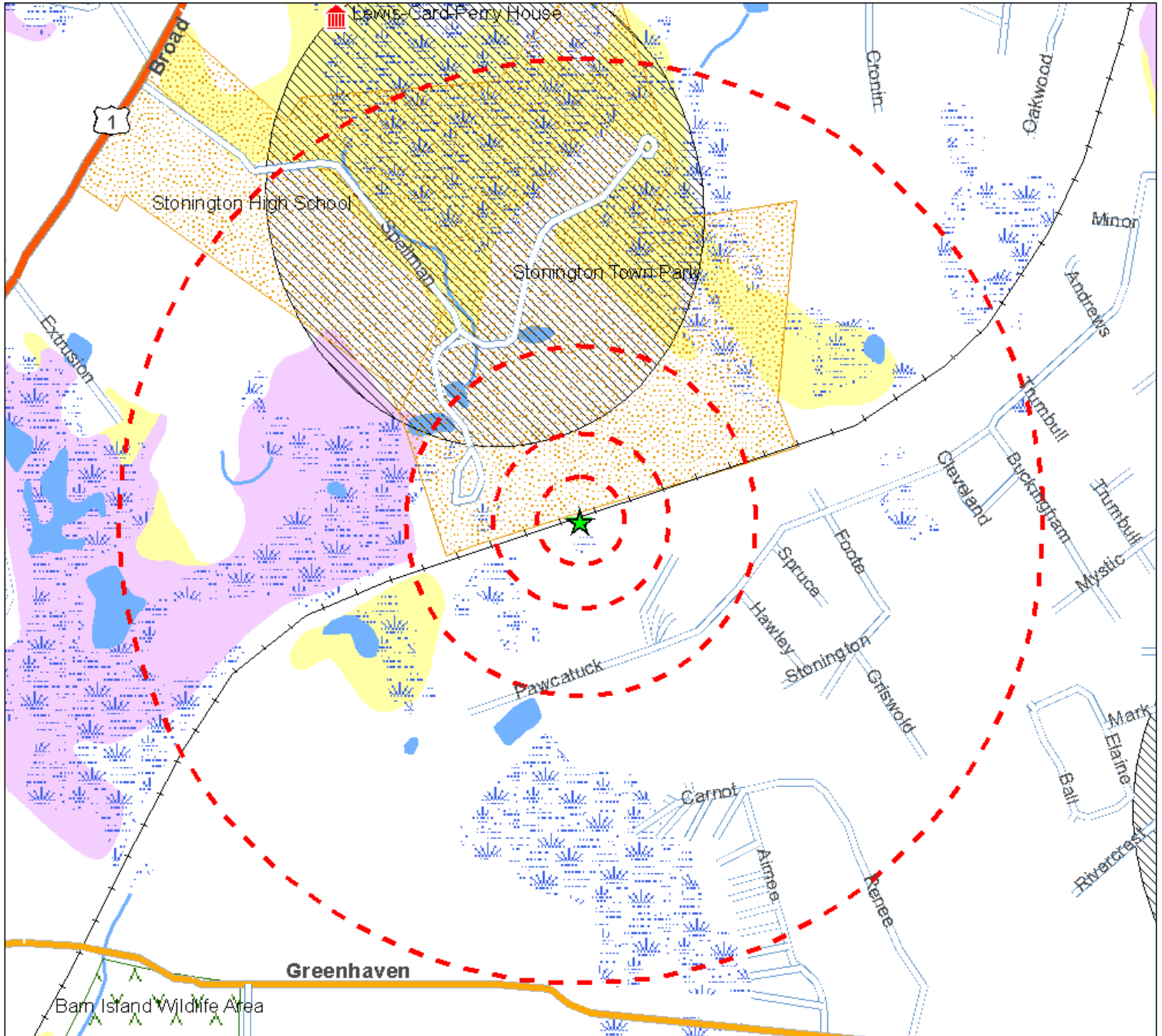
"IBAs have the unique power to unite people, communities, and organizations in proactive bird conservation, one place at a time"

- Frank Gill, Interim President, National Audubon Society



# **ATTACHMENT D**





Legend

- ★ Project Site
- Site Buffer at 250', 500', 1000' and 1/2 mile

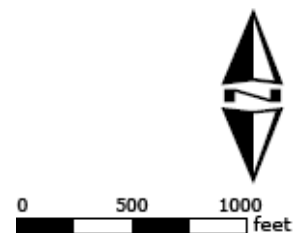
See associated legend for additional map symbology

Source: See associated map legend








Land and Historic Resources Map

CTNL813/Amtrak Stonington 3  
166 Pawcatuck Avenue  
Stonington, CT 06379

PN: 61094546











# National Datalayers Legend\*







-  National Register Historic Site
-  National Register Historic District  
Source: NPS National Register of Historic Places, updated July 2008
-  National Park Service Trail  
Source: U.S. National Parks Service. Various dates. NR/GIS WebSite, U.S. Dept. of the Interior, NPS, Wash., D.C. <http://science.nature.nps.gov/nrdata/index.cfm>.
-  National Scenic Parkway
-  National Wild and Scenic River
-  Federally Owned Land  
Source: National Atlas of the U.S., Reston, VA, 12/05, Federal Land Features of the U.S.  
-Parkways and Scenic Rivers  
-Federal Lands of the United States
-  FWS Critical Habitat  
Source: U.S. Fish and Wildlife Service. Various dates. FWS Critical Habitat for Threatened & Endangered Species website. U.S. Dept. of the Interior, FWS, Wash, D.C. <http://crithab.fws.gov/>.

\*Includes data obtained from federal agencies developed to be consistent throughout the US.

# National Wetlands Inventory









-  Stream or Creek
-  Freshwater Forested/Shrub Wetland
-  Freshwater Emergent Wetland
-  Estuarine & Marine Wetland
-  Unconsolidated Shore
-  Freshwater Lake, Pond, or River
-  Estuarine & Marine Deepwater
-  Open Water  
Source: U.S. Fish and Wildlife Service. Various dates. National Wetlands Inventory website. U.S. Dept. of the Interior, FWS, Wash, D.C. <http://www.fws.gov/nwi/>.

# FEMA Q3 Flood Zone

-  500-year inundation area.
-  100-year inundation area.
-  100-year inundation area with velocity hazard.
-  Area not included on any FIRM publication.
-  Undetermined but possible flood hazard area.
-  Floodway area, including watercourse extent.

 No Flood Data     No Flood Data Available  
Source: FEMA

# Connecticut - State Specific Datalayers Legend

-  CT - Natural Diversity Database Area  
Source: CT DEP  
Data Date: December 2009  
<http://www.ct.gov/dep/gis>
-  CT - DEP Property  
Source: CT DEP  
Data Date: October 2009  
<http://www.ct.gov/dep/gis>
-  CT - DEP Municipal and Open Space  
Source: CT DEP Office of Information Management  
Data Date: 1997  
<http://www.ct.gov/dep/gis>
-  CT - DEP Critical Habitat  
Source: CT DEP  
Data Date: December 2009  
<http://www.ct.gov/dep/gis>
-  CT - Aquifer Protection Area
-  Final  
Source: CT DEP  
Data Date: March 2010  
<http://www.ct.gov/dep/gis>
-  Preliminary
-  CT - DEP Trails  
Source: CT DEP  
Data Date: January 2010  
<http://www.ct.gov/dep/gis>

# Land Based and Historic Resources Legend

# **ATTACHMENT E**



# United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington, D.C. 20240



In Reply Refer To:  
FWSIFHC/DHCIBFA

## Memorandum

To: Regional Directors, Regions 1-7

From: Director **/s/ Jamie Rappaport Clark** SEP 14

Subject: Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers

Construction of communications towers (including radio, television, cellular, and microwave) in the United States has been growing at an exponential rate, increasing at an estimated 6 percent to 8 percent annually. According to the Federal Communication Commission's *2000 Antenna Structure Registry*, the number of lighted towers greater than 199 feet above ground level currently number over 45,000 and the total number of towers over 74,000. By 2003, all television stations must be digital, adding potentially 1,000 new towers exceeding 1,000 feet AGL.

The construction of new towers creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. Communications towers are estimated to kill 4-5 million birds per year, which violates the spirit and the intent of the Migratory Bird Treaty Act and the Code of Federal Regulations at Part 50 designed to implement the MBTA. Some of the species affected are also protected under the Endangered Species Act and Bald and Golden Eagle Act.

Service personnel may become involved in the review of proposed tower sitings and/or in the evaluation of tower impacts on migratory birds through National Environmental Policy Act review; specifically, sections 1501.6, opportunity to be a cooperating agency, and 1503.4, duty to comment on federally-licensed activities for agencies with jurisdiction by law, in this case the MBTA, or because of special expertise. Also, the National Wildlife Refuge System Improvement Act requires that any activity on Refuge lands be determined as compatible with the Refuge system mission and the Refuge purpose(s). In addition, the Service is required by the ESA to assist other Federal agencies in ensuring that any action they authorize, implement, or fund will not jeopardize the continued existence of any federally endangered or threatened species.

**This is your future. Don't leave it blank. - Support the 2000 Census.**

A Communication Tower Working Group composed of government agencies, industry, academic researchers and NGO's has been formed to develop and implement a research protocol to determine the best ways to construct and operate towers to prevent bird strikes. Until the research study is completed, or until research efforts uncover significant new mitigation measures, all Service personnel involved in the review of proposed tower sitings and/or the evaluation of the impacts of towers on migratory birds should use the attached interim guidelines when making recommendations to all companies, license applicants, or licensees proposing new tower sitings. These guidelines were developed by Service personnel from research conducted in several eastern, midwestern, and southern States, and have been refined through Regional review. They are based on the best information available at this time, and are the most prudent and effective measures for avoiding bird strikes at towers. We believe that they will provide significant protection for migratory birds pending completion of the Working Group's recommendations. As new information becomes available, the guidelines will be updated accordingly.

Implementation of these guidelines by the communications industry is voluntary, and our recommendations must be balanced with Federal Aviation Administration requirements and local community concerns where necessary. Field offices have discretion in the use of these guidelines on a case by case basis, and may also have additional recommendations to add which are specific to their geographic area.

Also attached is a [Tower Site Evaluation Form](#) which may prove useful in evaluating proposed towers and in streamlining the evaluation process. Copies may be provided to consultants or tower companies who regularly submit requests for consultation, as well as to those who submit individual requests that do not contain sufficient information to allow adequate evaluation. This form is for discretionary use, and may be modified as necessary.

The Migratory Bird Treaty Act (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing an unauthorized take, it must be recognized that some birds may be killed at structures such as communications towers even if all reasonable measures to avoid it are implemented. The Service's Division of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.

Please ensure that all field personnel involved in review of FCC licensed communications tower proposals receive copies of this memorandum. Questions regarding this issue should be directed to Dr. Benjamin N. Tuggle, Chief, Division of Habitat Conservation, at (703)358-2161, or

Jon Andrew, Chief, Division of Migratory Bird Management, at (703)358-1714. These guidelines will be incorporated in a Director's Order and placed in the Fish and Wildlife Service Manual at a future date.

Attachment

cc: 3012-MIB-FWS/Directorate Reading File  
3012-MIB-FWS/CCU Files  
3245-MIB-FWS/AFHC Reading Files  
840-ARLSQ-FWS/AF Files  
400-ARLSQ-FWS/DHC Files  
400-ARLSQ-FWS/DHC/BFA Files  
400-ARLSQ-FWS/DHC/BFA Staff  
520-ARLSQ-FWS/LE Files  
634-ARLSQ-FWS/MBMO Files (Jon Andrew)

FWS/DHCIBFAJRWillis:bg:08/09/00:(703)358-2183  
S:\DHC\BFA\WILLIS\COMTOW-2.POL

**Service Interim Guidelines For Recommendations On  
Communications Tower Siting, Construction, Operation, and Decommissioning**

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.
2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level, using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.
3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.
4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., State or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.
5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. (For guidance on markers, see *Avian Power Line Interaction Committee (APLIC)*. 1994. *Mitigating Bird Collisions with Power Lines: The State of the Art in 1994*. Edison Electric Institute, Washington, D.C., 78pp, and *Avian Power Line Interaction Committee (APLIC)*. 1996. *Suggested Practices/or Raptor Protection on Power Lines*. Edison Electric Institute/Raptor Research Foundation, Washington, D. C; 128pp. Copies can be obtained via the Internet at <http://www.eei.org/resources/pubcat/enviro/>. or by calling 1-800/334-5453).



7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint." However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.

8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.

9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.

10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.

11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.

12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

In order to obtain information on the extent to which these guidelines are being implemented, and to identify any recurring problems with their implementation which may necessitate modifications, letters provided in response to requests for evaluation of proposed towers should contain the following request:

"In order to obtain information on the usefulness of these guidelines in preventing bird strikes, and to identify any recurring problems with their implementation which may necessitate modifications, please advise us of the final location and specifications of the proposed tower, and which of the measures recommended for the protection of migratory birds were implemented. If any of the recommended measures can not be implemented, please explain why they were not feasible."

# **ATTACHMENT F**


MEMBERSHIP

ABOUT

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EDUCATION

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ADVOCACY



### Monk Parakeets: Why Here?

By Linda Pearson and Alison Olivieri

(*Editor's Note:* This article was published in the December 1995 issue of *Birder's Digest*, authored by two of Connecticut Audubon's most noted birders who conducted extensive research into [monk parakeets](#). The large parrot nest tree featured in this article was destroyed in a storm in June 1993. The birds have dispersed to nest at other nearby sites.)



To stand in a lovely residential neighborhood in coastal Connecticut and be surrounded by scores of chattering, screeching, free-flying wild parrots, is to experience a fantasy. To look up into an immense 75 foot evergreen tree containing over 40 parrot nests and see two adult great horned owls roosting silently among the branches of the tree is to extend the fantasy. But to look closer and see firmly settled on top of one of the parrot nests a fluffy, white, baby great horned owl stretches fantasy to its outermost limit.

### Questions Everywhere

As surreal a situation as it might seem this was the state of reality for a colleague and myself in May 1992. What were these parrots doing here in the middle of this suburban Connecticut neighborhood? Why were there so many nests in this massive, exotic, evergreen tree which marked the property line between two lovely contemporary houses and closely abutted the street? Don't parrots live in the tropics? How could they survive our cold New England winters? Of more pressing interest, what kept the parrots there when the largest avian predators in the Northeast had set up housekeeping in the middle of their colony? Why weren't they in a panic over the new tenants? Weren't they probably the top item on the owl family's grocery list?

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Your Email: Privacy by  SafeSubscribe<sup>SM</sup>

The questions about the presence of the parrots were ones we had been wrestling with for over a year. The unexpected arrival of the owls in the winter of 1992, however, added a whole new concern. Small numbers of these parrots had been seen in New York, Long Island and Connecticut since the early 1970's. The species, known as [monk parakeets](#) (*Myiopsitta monachus*) ordinarily residents of Argentina, Bolivia, Brazil, Paraguay and Uruguay, were imported in large numbers to this country by the pet industry in the late 1960's and early 1970's. Theories as to how they escaped into the wild include broken crates at airports, accidental releases by pet stores and pet owners, intentional releases by overstocked pet stores, and liberation by pet owners unable to stand the birds' screeching and squawking.

### Hearty Survivors

All of these are reasonable explanations and the numbers of [monk parakeets](#) sighted all over the United States would indicate that these birds did not enter the wild through one single event but rather through varied and multiple incidents. Whatever their means of release, once on their own they managed to survive very successfully. Actually, in many parts of their range in South America the temperatures were quite similar to our milder winters. They were certainly thriving here in Connecticut and their numbers were on the increase. At first only a handful of parrots had occupied this particular neighborhood tree. Now this tree held the largest colony of them in Connecticut. Reports of more sightings and more nests up and down the coast were becoming common.

The Connecticut Audubon Society had received so many calls and inquiries about them, that the Director of the Connecticut Audubon Center at Fairfield, Milan Bull, felt it was time to collect some serious information on these birds. As an introduced species it was possible that they were displacing native birds or carrying diseases harmful to native birds. Since they are considered agricultural pests in South America it would be important to know if their dietary habits made them a threat to Connecticut crops and vegetation. Just where were they settling and how fast were they spreading? Therefore, as inveterate bird watchers and long-time bird banders for the Connecticut Audubon Society, we, in an effort to answer some of these questions, volunteered to conduct a study of these

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intriguing but misplaced birds.

### **Revealing Research Begins Revealing Research Begins**

We began the study in January of 1991 and set 5 goals: a census of the birds through the location of nests; a determination of their diet; an estimation of their effect, if any, on native birds; a judgement as to whether they were just a temporary phenomenon or an established species in Connecticut; and, if established, what factors made this possible?

Between the time period of our first observations in January 1991 and May of 1992 we had learned a great deal about these fascinating birds. The [monk parakeet](#) is approximately 12 inches in length, with a bright green body, deep blue primary feathers, yellowish green underparts and a sharply pointed long blue-green tail. The distinguishing markings and the source of its name is the gray forehead, face and breast which give the appearance of a hood, (i.e., a monk's hood). The breast feathers have darker edges giving a scaled impression. Their eyes are brown, their legs are gray and their bills are beige.

### **Unique Nests Are A Key**

A colonial nester, the [monk parakeet](#) is the only parrot of 300 members of the Psittacidae family to build a stick nest. All the other species are cavity nesters. Not only does the [monk parakeet](#) build a stick nest but it builds a very, very big stick nest, mound-like in shape and sometimes over six feet long and three to four feet wide. Each nest can contain multiple, separate nesting chambers each with its own entrance hole located on the underside of the nest.

In South America, these entrances on the bottom of the nest are designed to keep predators (generally snakes and monkeys) from gaining access to the nesting chambers. The strategy works just as well here - cats, opossums and raccoons being the likely predators. The suburban neighborhood tree, site of the largest Connecticut colony, has at least 40 nests structures and each nest houses one to seven pairs of parrots, each living in its own chamber - - rather like a condominium .

The nest is the center of activity for these energetic and sociable birds. They live in it year round and spend all year building, adding, and repairing it. The noise level as they work can be extraordinary - - squawks, rattles, chrrs and screeches at top volume. Their raucous calls in flight make them easily identifiable even at great distances from their nest. They can be seen carrying sticks three times the lengths of their own bodies through the air to the tree where they patiently poke and push and work the stick into the structure. The nests do suffer storm damage and sometimes large chunks or entire nests can be found on the ground beneath the tree.

Year 'round use of the nest means the birds have some protection from bad weather. It would seem reasonable to believe that some warmth is provided when the birds huddle together inside it. We believe the enclosed nest is a factor in the [monk parakeet's](#) ability to survive the colder New England winters.

### **A Growing Population**

Ascertaining facts on the reproductive life of the parrots is another difficulty we've encountered. We know they are reproducing because of the increase of the main colony nests and the increase of nest sites up and down the Connecticut coast. In South America, the [monk parakeets'](#) breeding season is November. In Connecticut, we have observed copulation in late spring and nestlings have been found in July and August. It is hard to ascertain when exactly the young are born. Unlike many birds who can be observed carrying food and are thus feeding young, the [monk parakeets](#) feed their young with a kind of milk produced and regurgitated from their crops. Since we can't see inside the nests or observe the adults carrying food we can only guess at their family status.

By the time the young are fledged they resemble the adults in most respects except for a slightly green wash on their foreheads (hard to see through binoculars) and a tubercle on their beaks up until 2 months and then only a scar until the third month at which time the scar disappears. We have had no reports of young at any other time of the year so we assume that the parrots only have one brood a year in the summertime in New England.

Apparently when nest sites become unavailable in the original tree, due to rising population, pairs move off to other locations and start other small colonies. We discovered during the course of the first year of observation that there were smaller colonies beginning in many new locations from Norwalk to Branford, Connecticut. In the second year of observation we discovered not only completely new nest

sites but that all of the "off-shoot" colonies had an increased number of nests.

We also learned that Rhode Island has a growing population of [monk parakeets](#). The common factor for all these populations is that they are located within approximately 3 miles of the coast. The more moderate temperatures of these coastal areas may be a determining factor in this distribution pattern.

The parrots leave the nest in small foraging parties (of 2 -14) shortly after sunrise. Sometimes they graze on lawns eating blades of grass or dandelion stalks in much the same manner of a person eating spaghetti. Probably, with the grass stalks they are also ingesting grass seeds and small invertebrates. The birds are often seen sitting in the tops of trees eating leaf buds or fruit. They are partial to the leaf buds from birch, ash, and maple, as well as wild cherries, crabapples, pears, apples and mulberries. They have been reported to eat suet, cracked corn, pine seeds, insects and acorns as well.

What has made the parrots particularly noticeable over the past few years is their increasing presence at bird feeders especially where sunflower seeds are offered. The availability of such a high fat food in the winter may also be a prime factor in their ability to survive the cold winters.

Connecticut Audubon has received scattered reports of damage done by the parrots to fruit in season, garden tomatoes and ornamental trees, but we have not been able to verify these claims. We noticed that the maple and ash trees around the main colony appeared ragged in the spring, many of the twigs having been chewed off for nest building. However, by late spring the trees were in full leaf and seemed none the worse for wear. Most of the neighbors around the tree do not seem to feel that the parrots do any appreciable damage.

We also have not observed particularly aggressive behavior by the parrots toward other native birds. At feeders the parrots tend to dominate while feeding but then move on to other locations thus leaving the feeders available for other birds. We observed many passerine birds (i.e., robins, mockingbirds, finches, sparrows, mourning doves, woodpeckers) foraging around the main colony and often landing in the tree itself with no noticeable reaction from the parrots.

### **An Unlikely Companion**

Perhaps the parrots were carrying this behavior to a fault when the great horned owls moved in in 1992. Back in December 1990, birders doing the Christmas Bird Count had been at the "parrot tree" at sundown just as a great horned owl had flown into the tree. The response then had been for the parrots to fly out in a great flock thus conveniently enabling the birders to get a count of approximately 185 birds. Neighbors said they had heard the owls calling in December of 1991 so it would appear that the owls had been reconnoitering the area for some time.

Since great horned owls don't build their own nests but instead take over the abandoned nests of other birds such as red-tailed hawks, eagles, herons, and crows, they must have looked on this tree full of huge stick mounds as a nest hunter's paradise. They settled on the biggest nest in the tree which had originally been rather "L" shaped but during the winter had lost the top half of the "L" leaving just the bottom part. This section still contained two parrot nesting chambers. On top of this section the owls proceeded to lay their eggs. One nestling survived. The parrots went on about their business. In fact, parrots could be seen working on their part of the nest while the baby owl sat directly above them in its part of the nest. The adult owls spent the days roosting in the tree, blending so well with the foliage and tree bark that sometimes it took us 5 or 10 minutes to locate them.

We thought that the owls' moving in would probably be the end of this parrot colony and of a major part of our study. Surely, day after day the owls would help themselves to the parrots until there were no parrots left. By that time the baby owl would fledge and they would all move on.

We found it imperative to know what the owls were eating and whether their diet included [monk parakeets](#). Unfortunately, the nest was too high to be able to investigate its debris. Nor did we want to tangle with the adult owls. However, regurgitated owl pellets were obvious on the clipped grass under the tree and on the paved street nearby. We began to collect them.

We were relieved to find that the pellets contained the skulls and bones of rats, squirrels, mice and voles. One day we found a pheasant leg under the tree and another day we found part of a seagull wing. We found no parrot skulls or green feathers in the pellets or under the tree. Evidently the owls were finding their food in the nearby marshes, fields and woods and not preying on their closest neighbors.

Why would the owls pass up such an ample food supply which would require so little energy to harvest? One explanation was temporal separation: the owls don't hunt in the daytime when the parrots are active, and the parrots are in their nests when the owls are ready to hunt. In the winter when the weather is cold and the sun sets early, the parrots are all in their nests practically before dark. The owls would start calling as the first stars appeared and would fly off to hunt only when it was dark.

There is also a theory that predators don't hunt in the immediate vicinity of their own nests or lairs, probably in order not to draw the attention of other predators to their young. By the end of May, the baby owl was acquiring its darker adult plumage. Although the parents continued to remain hidden, the baby was very active and easily seen in the daylight hours. Often crows would mob the tree, but the baby would hunch down under a branch, and the adult owls never responded. Eventually the crows would give up.

### **Taking Flight**

As flight feathers began to appear the nestling would stretch its wings and flap them. Then it began to climb around the top branches of the tree and take short experimental flights from branch to branch. One night in early June the baby was strong enough to fly, and the owls left the tree. They could be heard hooting softly in some nearby white pines for a few nights after their departure.

We were sorry to see them go as it had been a rare experience to watch the baby mature. How often does one get such a close-up view of the life of these great predators? Who would have believed that the two species - - owl and parrot - - could live together so harmoniously. How relieved we were that they could.

We certainly know more about [monk parakeets](#) now than we did earlier. We have located most of the nests along the Connecticut coast. We know what the parrots eat and so far have not witnessed any serious damage to crops. The birds' tendency to settle coastally, their enclosed nests and a good winter supply of food at bird feeders may all be factors in their ability to thrive. They do not seem to be competing with or adversely affecting native birds.

For now we can enjoy the [monk parakeet](#) as a flamboyant and intriguing member of our avian population. We will continue observing our local population, counting nest sites, and pursuing a method of marking individuals so that we can decipher their social structure.

## **MONK PARAKEET (*Myiopsitta monachus monachus*)**

### **Description**

12", looks similar to mourning dove in flocking flight. Predominantly green with gray forehead and gray scaling on breast, dark blue primaries. Eyes are brown, bill beige and legs gray.

### **Range**

Naturally occurs in southern South America: central Bolivia and southern Brazil to central Argentina, including Paraguay and Uruguay. Exotic in U.S. with populations in CT, CA, IL, FL, MD, TX and RI.

### **Food**

Virtually omniverous including fruits, cereal, seeds, nuts, leaf buds, grasses, blossoms, insects and insect larvae; have also been observed eating meat according to Forshaw. Considered an agricultural pest in South America, this has yet to be documented in ornithological literature.

### **Nesting**

Only species of parrot (Family Psittacidae) to build stick nests. Nests can contain many separate chambers that house pairs (or more). Apparently only one breeding season in temperate zone with fledglings appearing in June-July. Young fed by regurgitation.

### **Habits**

Gregarious; noisy, raucous calls and many other vocalizations. Fly strongly but seldom for long distances. Climb using bill. "Waddling" walk caused by zygodactyl configuration of toes -- two in front and two in back.

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