

Coastal Dune Creation – Benefits for Wildlife and People



Brendan Clifford
Nongame and Endangered Wildlife Program
NH Fish and Game Department

Objective: Protect the potential breeding habitat of piping plovers



AREA CLOSED

This area is important breeding habitat for
Piping Plovers—
a federally threatened and
state-endangered species.



Your help is needed
to avoid disturbance to
piping plovers, their nests and chicks.

PLEASE DO NOT ENTER

Piping plovers, their nests and eggs are protected under New Hampshire and federal laws. Persons may be arrested and fined for killing, harassing, or in any way disturbing piping plovers nesting in the area (NH RSA 212A and Title 50 CFR).

NEW HAMPSHIRE FISH AND GAME DEPARTMENT
11 Hazen Drive • Concord, NH 03301
www.wildlife.state.nh.us





Observations

- Dunes have widened and increased in height
- Symbolic fencing has enhanced vegetative growth
- Periodic dredging of the Hampton Harbor channel – sediment has been deposited on both beaches
- Strong tidal storms shift sediment (accumulation and reduction)

4/1998
1992 2013

Chelmsford St

Lowell St

Atlantic Ave

Dracut St

Andover St

Methuen St

Image U.S. Geological Survey

Google earth

1992

Imagery Date: 4/28/1992 42°52'54.82" N 70°48'54.28" W elev 6 ft eye alt 1448 ft

12/2001
1992 2013

N

Chelmsford St

Lowell St

Atlantic Ave

Dracut St

Andover St

Methuen St

Image MassGIS, Commonwealth of Massachusetts EOEA
Image U.S. Geological Survey

Google earth

1992

Imagery Date: 12/31/2000 42°52'54.82" N 70°48'54.28" W elev 6 ft eye alt 1448 ft

8/2003

Chelmsford St

Lowell St

Atlantic Ave

Dracut St

Andover St

Methuen St

Image USDA Farm Service Agency

Google earth

1992

Imagery Date: 7/6/2003 42°52'54.82" N 70°48'54.28" W elev 6 ft eye alt 1448 ft



7/2007
1992 2013





Chelmsford St

Lowell St

Atlantic Ave

Dracut St

Andover St

Methuen St

4/2013

Google earth

Imagery Date: 4/7/2013 42°52'54.82" N 70°48'54.28" W elev 6 ft eye alt 1448 ft

1992

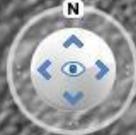


Image U.S. Geological Survey

Google earth



8/2003

River Ave

Dover Ave

Epping Ave

Image USDA Farm Service Agency
Image U.S. Geological Survey

Google earth

Imagery Date: 7/6/2003 42°53'55.82" N 70°48'40.37" W elev 16 ft eye alt 1791 ft

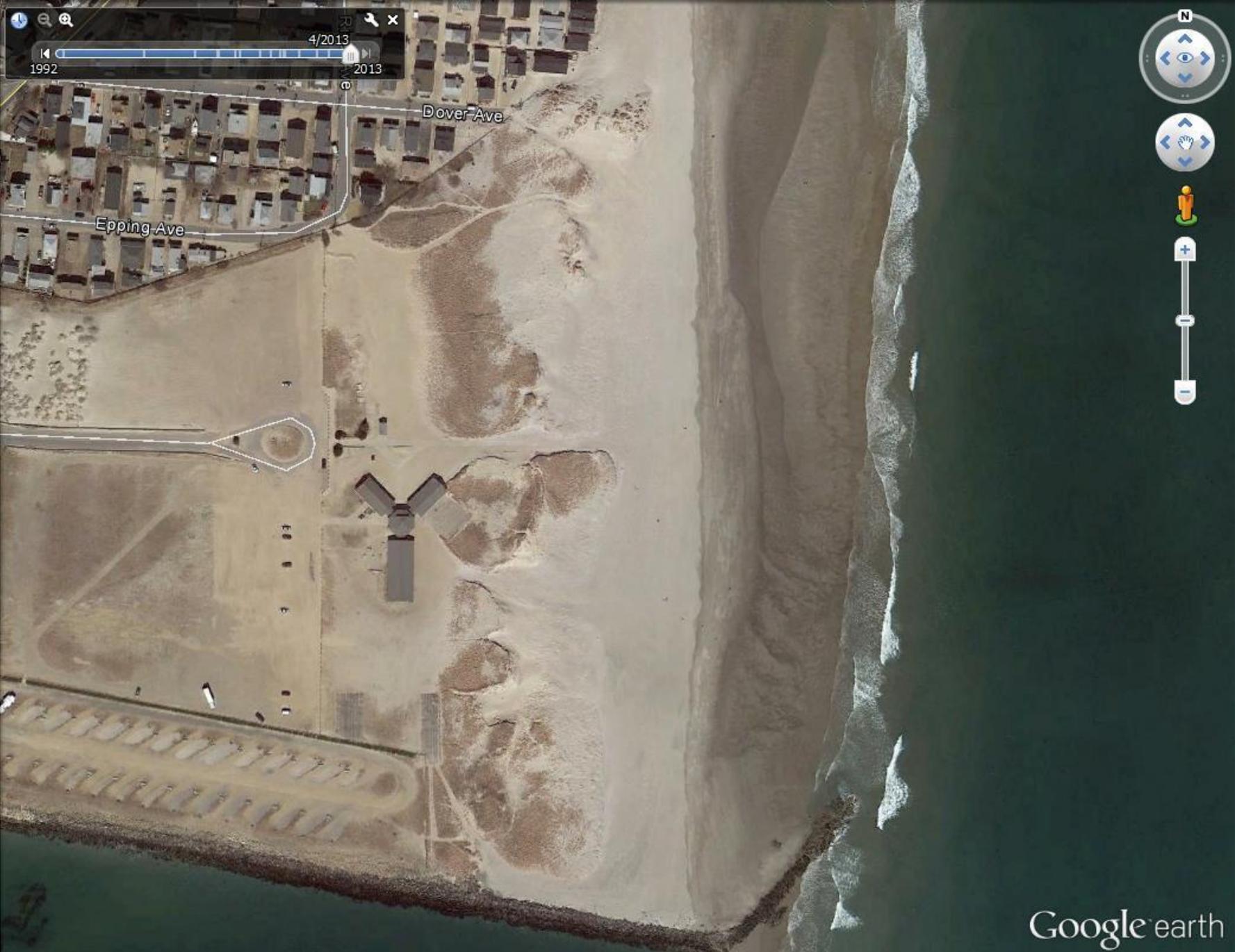


Google earth



Image USDA Farm Service Agency

Google earth



4/2013
1992 2013

Dover Ave

Epping Ave

N

Navigation controls: compass, street view pegman, zoom in (+), zoom out (-)

Google earth

Importance of Robust Dune Systems

- Provides room for shifts in sediment - which maintains suitable nesting habitat for piping plovers
- Natural protection of oceanfront property (more effective than shoreline hardening)

Coastal Storm Surge



North Hampton
March 2013



Superstorm Sandy
Hampton Beach
October 31, 2012



Seacoast Online

9/20/2010

Sea Girt Ave

Camp Dr

2nd Ave



Imagery Date: 9/20/2010 40°07'16.41" N 74°01'51.16" W elev 4 ft eye alt 2120 ft

Google earth

11/3/2012
1995 2013

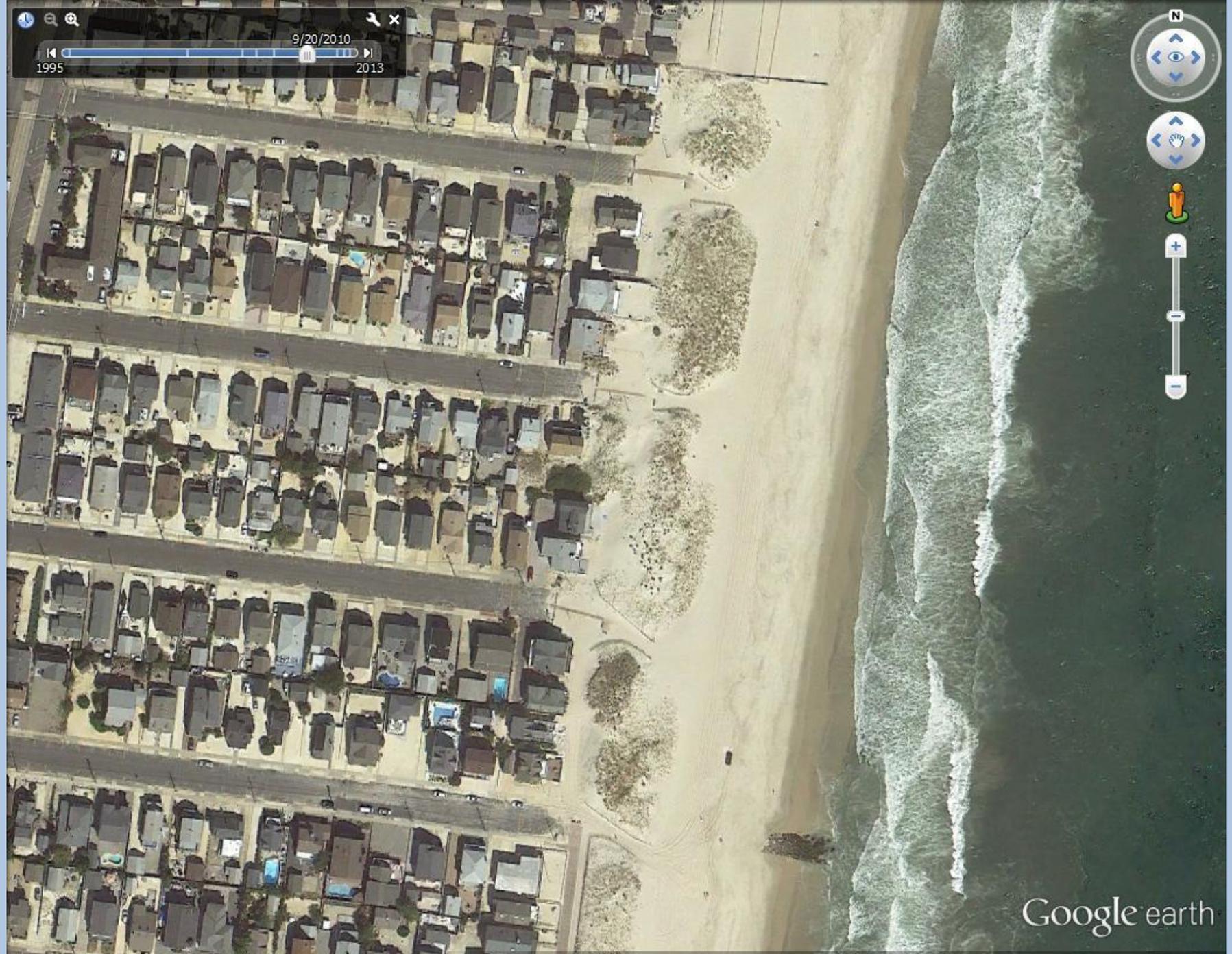
N



Google earth

9/20/2010
1995 2013

N
+
-
Pegman icon



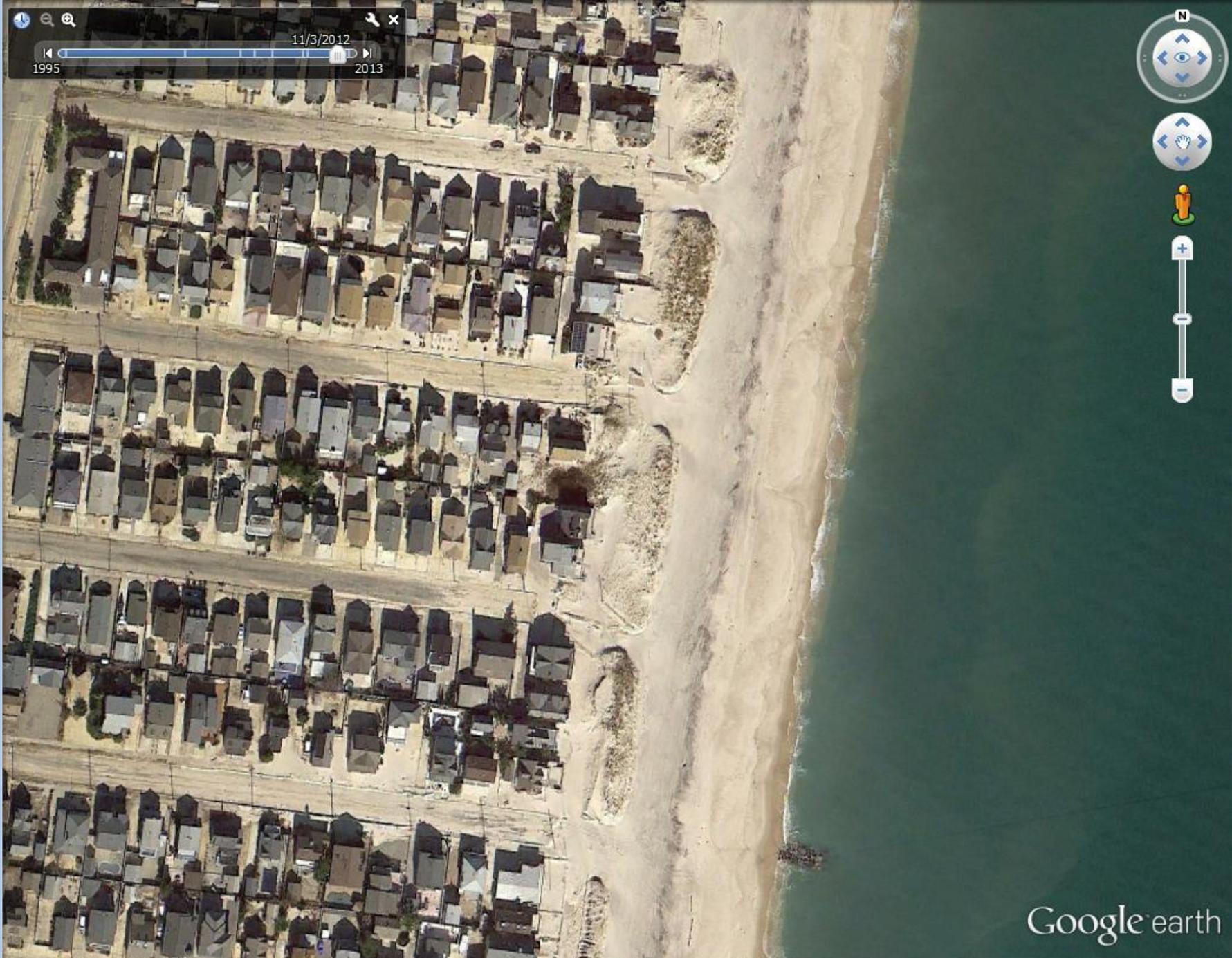
Google earth

Imagery Date: 9/20/2010 39°58'43.35" N 74°03'52.22" W elev 19 ft eye alt 1332 ft

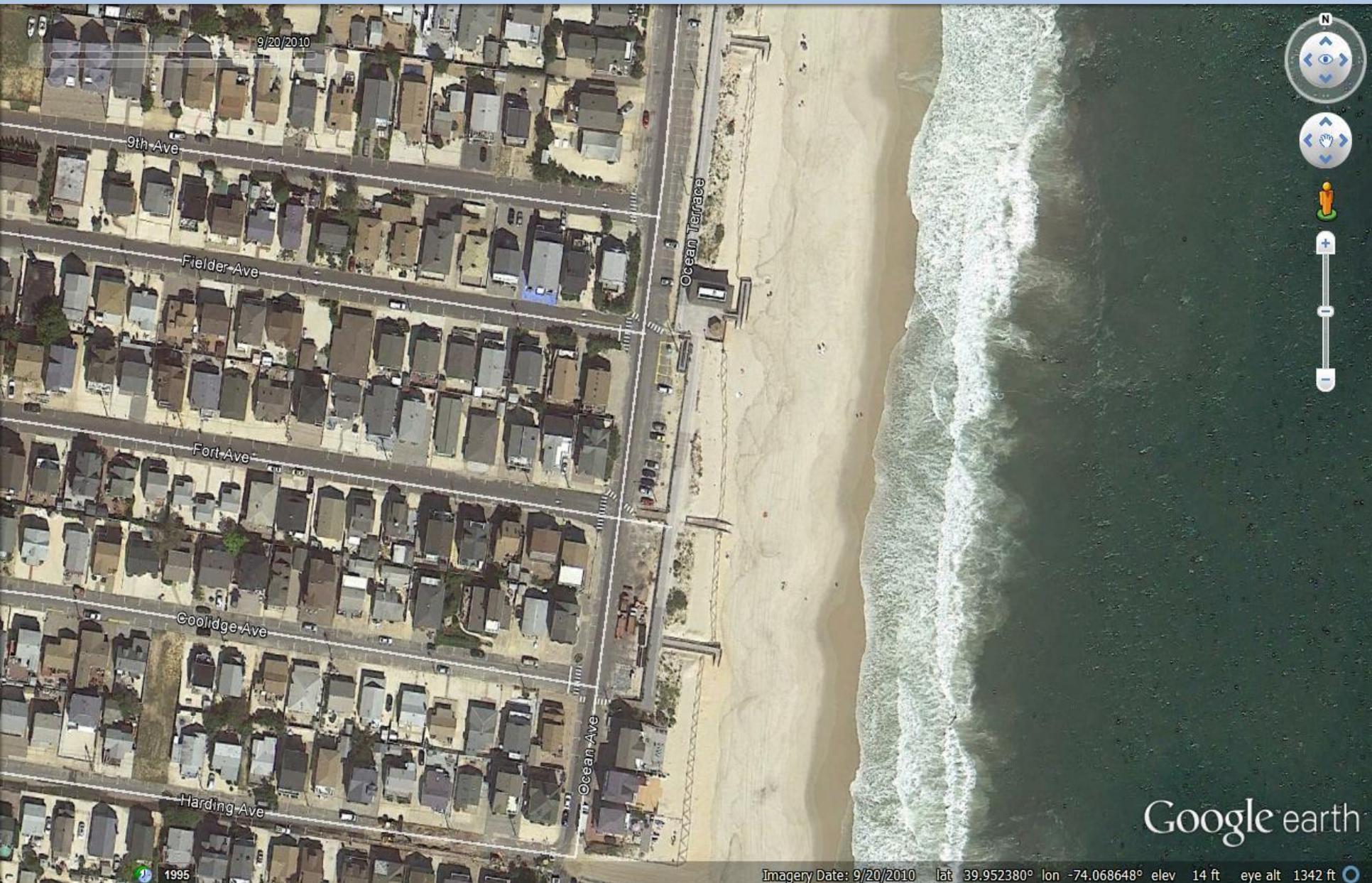
1995

11/3/2012
1995 2013

Navigation controls including a compass, a hand cursor, a person icon, and a vertical zoom slider.



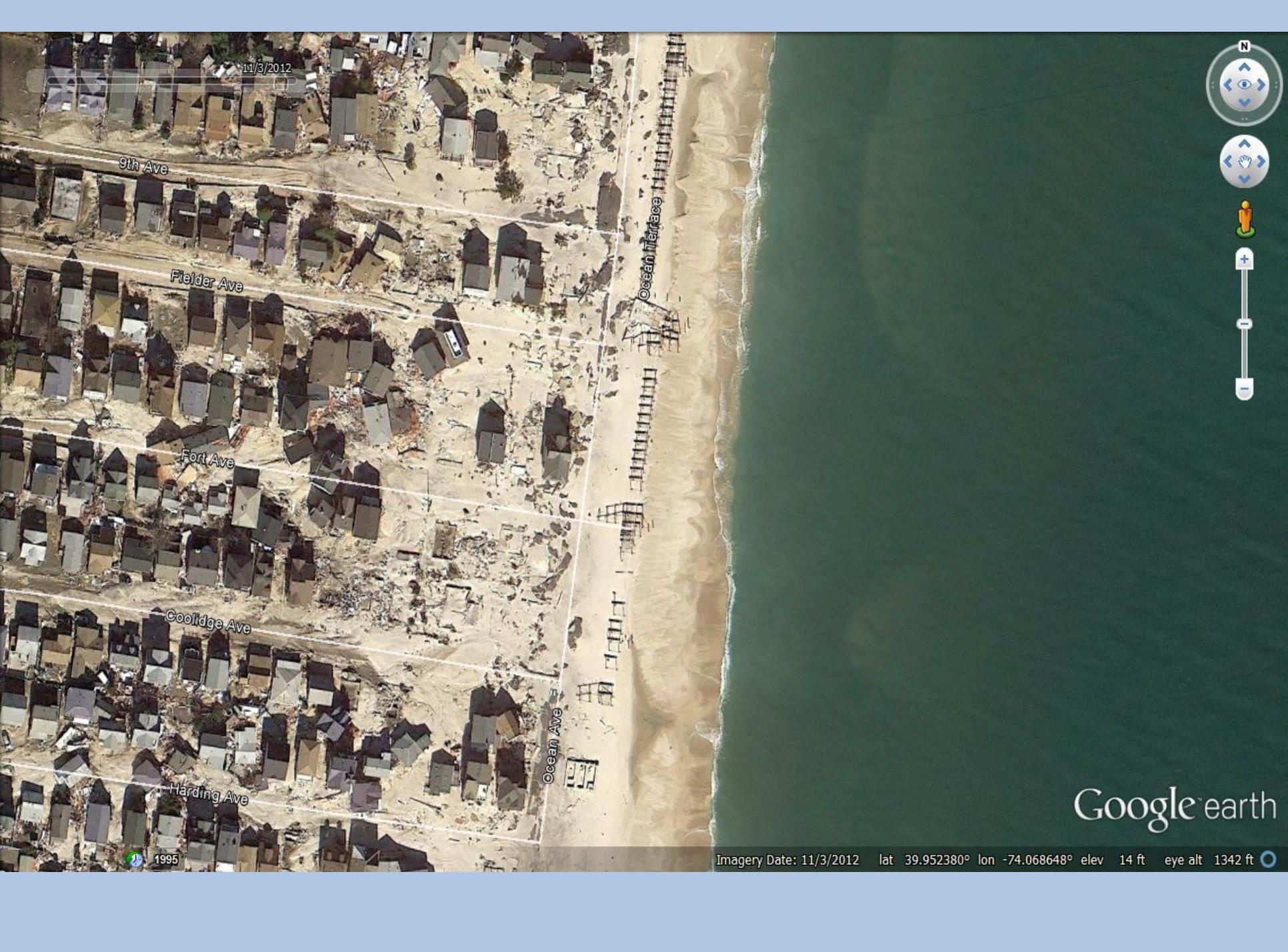
Google earth



Google earth

Imagery Date: 9/20/2010 lat 39.952380° lon -74.068648° elev 14 ft eye alt 1342 ft

1995



11/3/2012

9th Ave

Fielder Ave

Fort Ave

Coolidge Ave

Harding Ave

Ocean Terrace

Ocean Ave



Google earth



1995

Imagery Date: 11/3/2012 lat 39.952380° lon -74.068648° elev 14 ft eye alt 1342 ft

Storm Damage Repair



Opportunity for habitat restoration? How can we make it work for all of us?



PINE MARTEN PHOTO © DAWE GOVATSKI



LOON PHOTO © RINUSBAKKYDREAMSTIME.COM



BROOK TROUT PHOTO © RICHARDY GUNNONDREAMSTIME.COM



MOOSE PHOTO © LUSEWIS

ECOSYSTEMS AND WILDLIFE

Climate Change Adaptation Plan

Amendment to the
**New Hampshire
Wildlife Action
Plan**



October 2013

Funded by State Wildlife Grants
and
Conservation License Plate Funds

