

# Update on NH GRANIT Clearinghouse

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University of New Hampshire  
[granit.unh.edu](http://granit.unh.edu)

December 4, 2015  
Grappone Center, Concord, NH



# Presentation Outline



- Overview of GRANIT
- Key GRANIT Data Sets
- Accessing GRANIT Data
- Other GRANIT Resources for the Surveying Community
- Data Updates
- Q&A/Discussion

# Overview of GRANIT



- Central GIS Data Clearinghouse at UNH Earth Systems Research Center
  
- Collaboration of Multiple Data Providers and Data Users
  - State/Federal Agencies
  - Regional Planning Commissions
  - Municipalities
  - Private Sector
  - Non-profit Sector
  - Academic Community
  
- Core GRANIT Services
  - Create, Archive, and Distribute Data
  - Develop Data Standards
  - Conduct Spatial Analysis
  - Develop and Host Online Resources – Map Services, Map Viewers
  - Providing Training and Technical Support
  - Coordinate with Statewide Partners

# Current GRANIT Projects



- Core GRANIT Clearinghouse Activities (OEP, NHDOT, NHDES, Fish & Game, DRED)
  - GRANIT Data Hosting/GRANIT Web Site
  - GRANITViewII, NH Wetlands Mapper, NH Wildlife Sitings Site
  - Data Development (Conservation Lands)
  
- Orthoimagery Project Management (NHDOT)
  
- Cooperating Technical Partner (FEMA)
  - Floodplain Map Updates – Rockingham/Strafford
  - Nonregulatory Products – Rockingham/Strafford
  - “Discovery Projects” – Coastal Watershed, Connecticut River Watershed
  
- Impervious Surface Mapping (EPA, PREP)
  
- Broadband Availability in Coos County (NBRC)
  
- C-RiSe – Climate Risk in the Seacoast (NOAA)
  
- NH Coastal Viewer Development (NOAA, NHDES)
  
- “Dirt to Trees to Wildlife” Tool (Town of Randolph, USDA?)

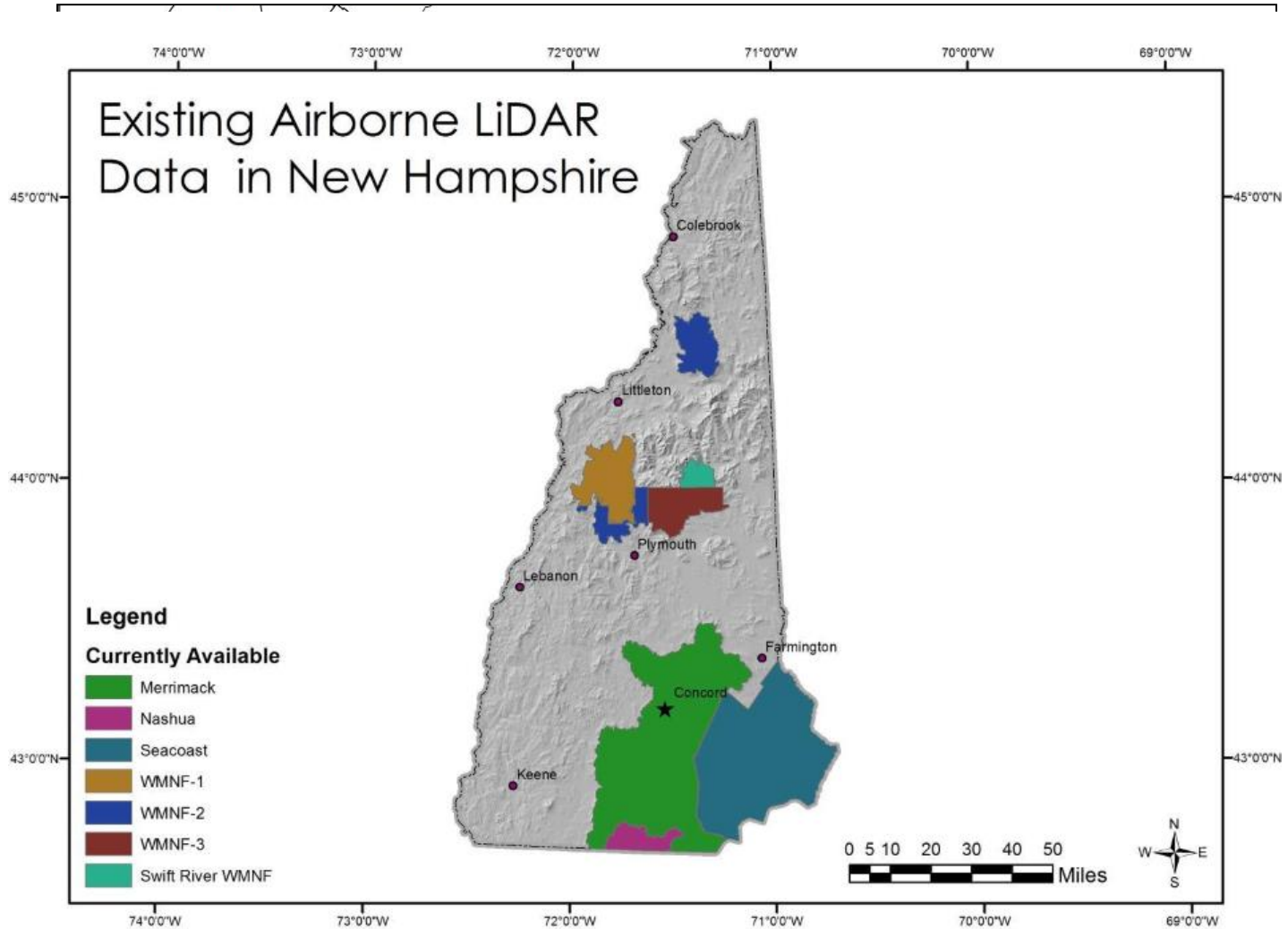
- Aerial Photography
- Topographic Data
  - Digital Elevation Models (DEMs) - LiDAR
  - DEMs- USGS
- Other Imagery
  - USGS Quads (including historic quads)
  - Landsat Data
- Feature Data Layers
  - Base Layers - Town Bounds, Road Centerlines, Surface Water
  - Geodetic Control
  - Parcels
  - Floodplains
  - Wetlands
  - Soils
  - Land Use
  - Conservation Lands

# Aerial Photography

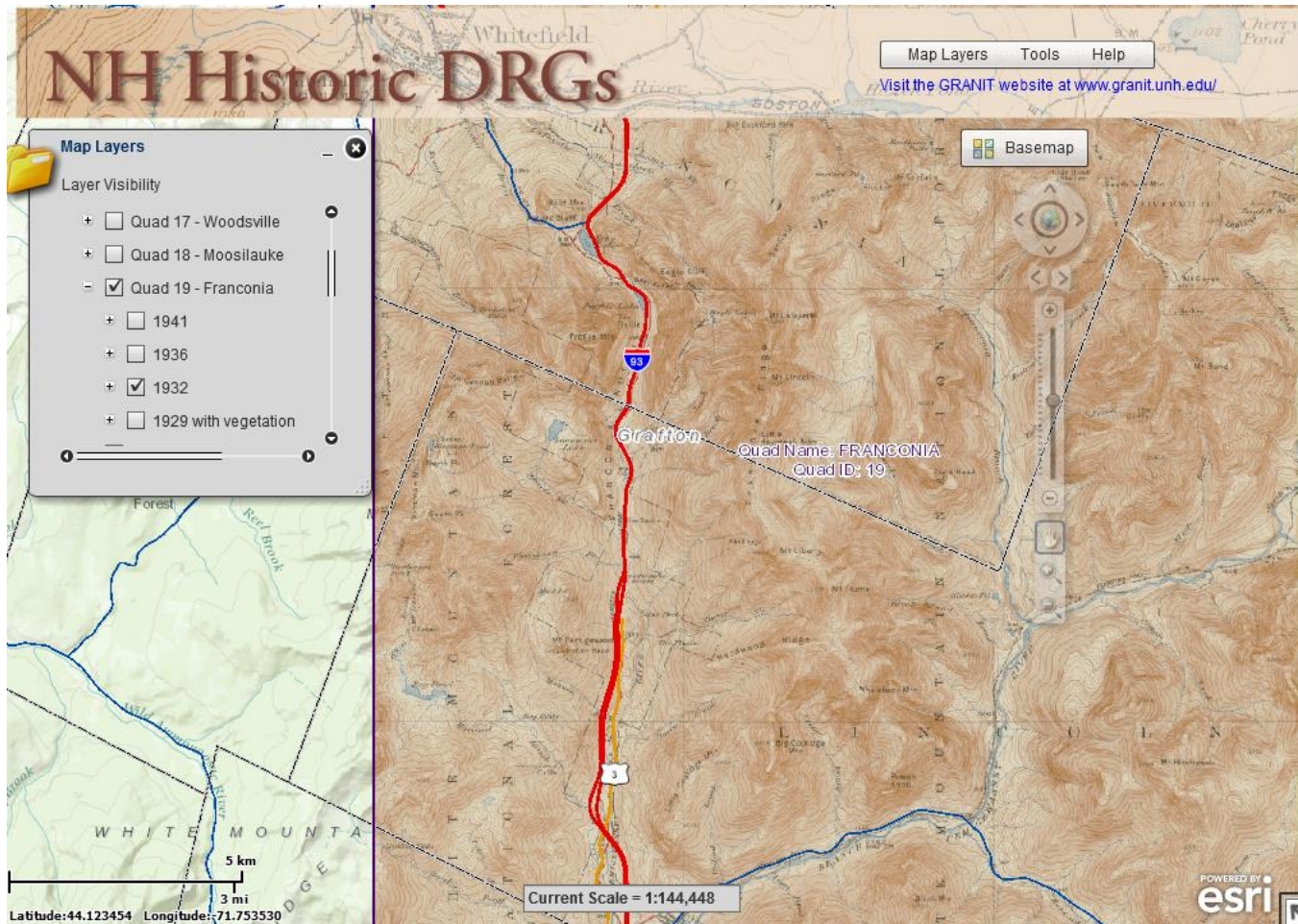


- 1 ft. imagery – RGB and CIR:
  - 2010 Statewide
  - 2005 SE NH and Lakes Region
  
- NAIP 1 or 2 meter statewide imagery:
  - 2003, 2004, 2006, 2008, 2009, 2011, 2012, 2014
  
- Selected Historic Photography

# Topographic Data



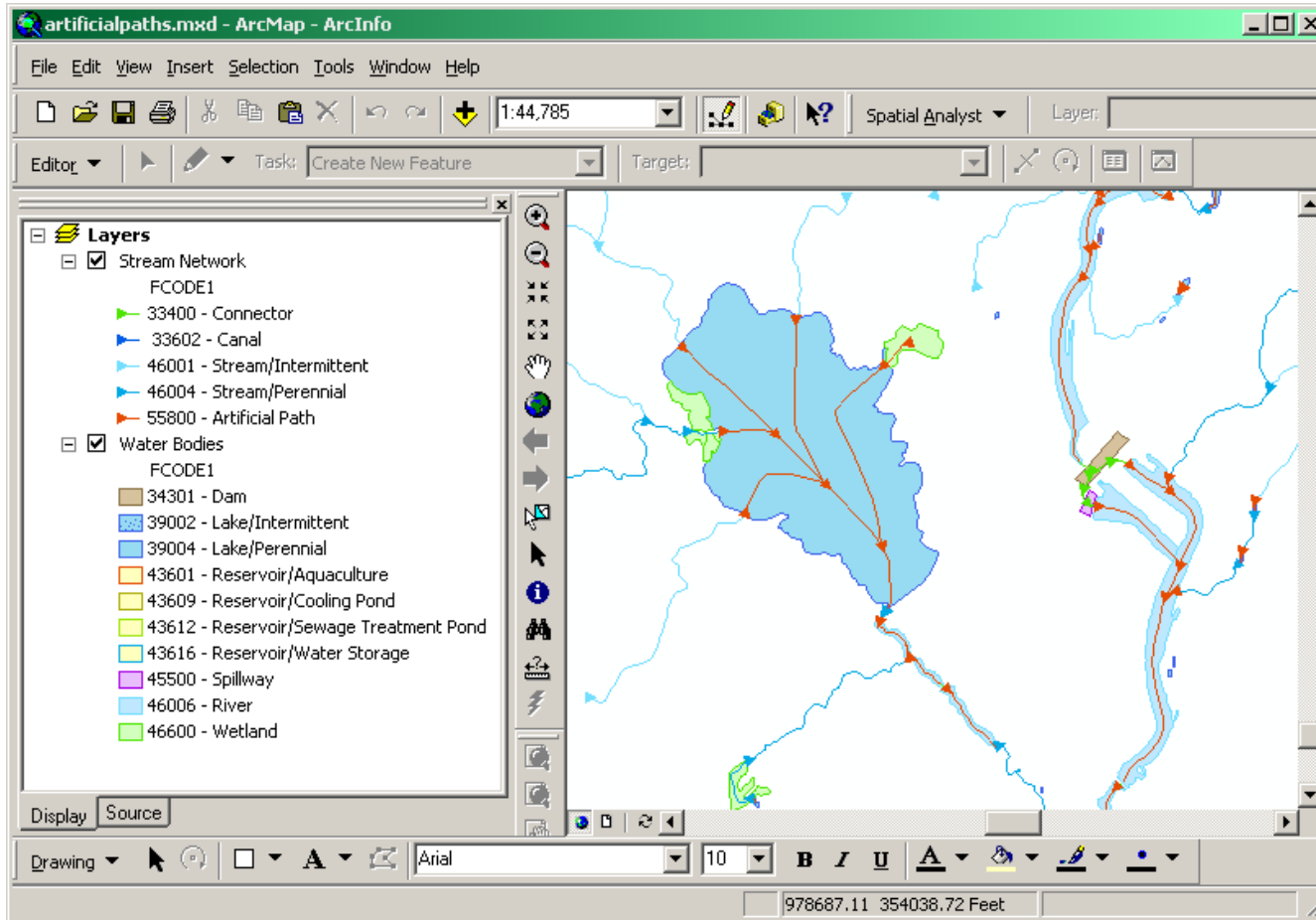
# Other Imagery



- USGS Topographic Quads (current and historic)
- Landsat TM Imagery



# Base Layers



- Political boundaries (town/county)
- Surface water
- Road centerlines
- Railroads
- Pipelines

# Geodetic Control



The screenshot shows the GRANITView II v0 software interface. The top navigation bar includes 'Home', 'Data Sources', 'Layer Info', 'Drawing Tools', and 'Measurement Tools'. The 'Data Sources' menu is open, highlighting the 'Zoom In' button. The map displays various layers, with 'Geodetic Control' selected. A popup window for 'Geodetic Control Points' provides the following details:

- Station Name: N 13 1935
- Town Code: 45
- Sequence: 190
- State Plane Northing (meters): 222480
- State Plane Easting (meters): 340180
- Order: 99
- Agency: SCALED
- Horizontal Datum: 83
- Elevation 88 (meters): 336.536
- Elevation Order: 20

A 'View Data Sheet' link is visible at the bottom of the popup. The map also shows a scale bar (5mi/10km) and coordinates (Lat: Lon:).

- Data from NHDOT
- Updated annually

# Parcels



GRANITView II v0 Search...

www.granit.unh.edu

Home | Data Sources | Layer Info | Drawing Tools | Measurement Tools

Site Info | Pan | **Zoom In** | Zoom Out | Initial View | Full Extent | Back

Map Layers

Layer Theme: Standard GRANIT Layers (default)

- Operational Layers
  - Label Features
  - Base Layers
  - Parcels
    - Parcels - polygons
    - Additional lines
    - Attributes for additional lines
  - Floodplains (DFIRMS)
  - Geodetic Control
  - Conservation Lands
  - Recreation
  - Soils
  - Water Resources
  - Wildlife
  - Environmental Data
  - Landcover/Land Use

Show Legend Filter...

Site Info | Map Layers

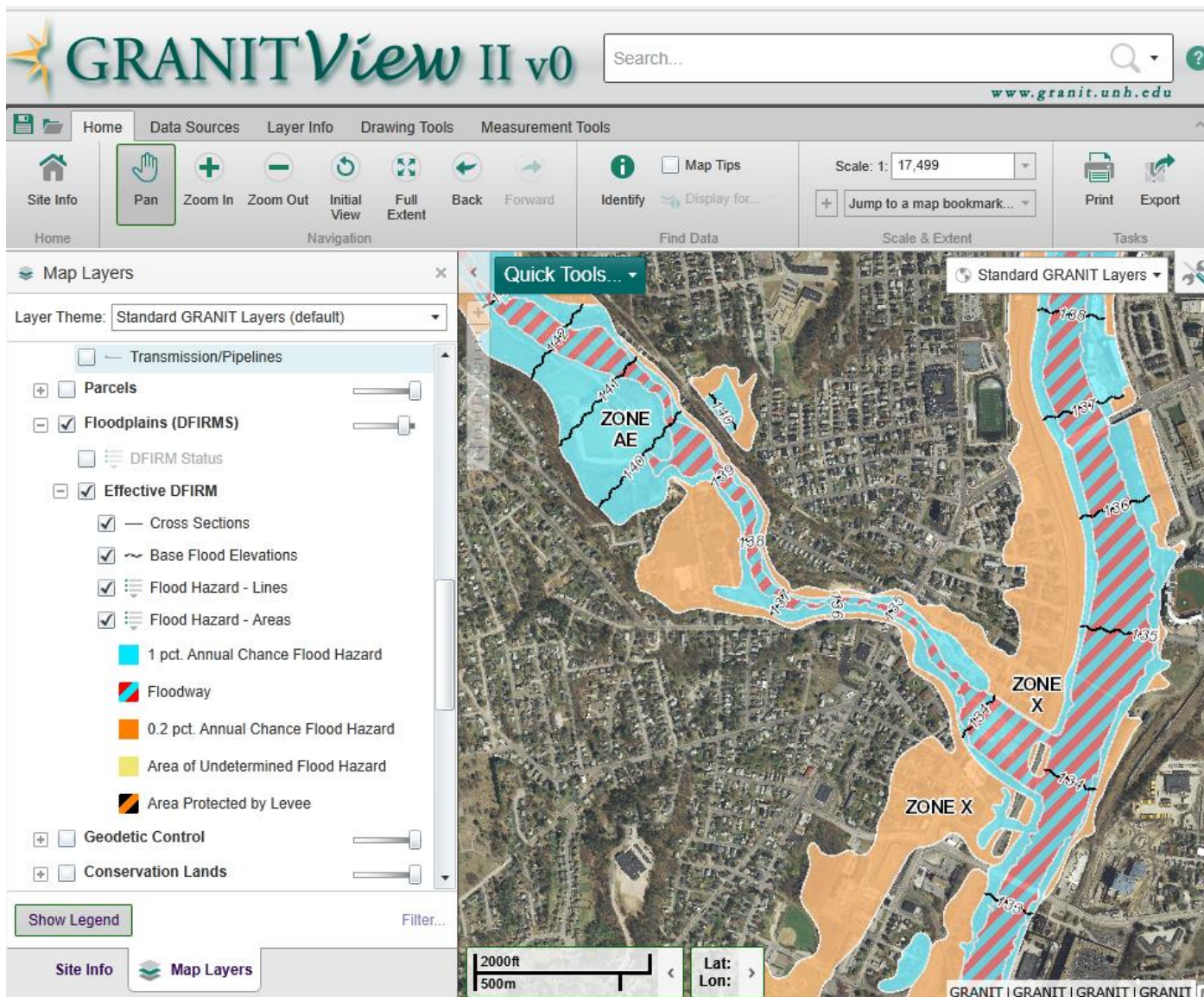
**Parcels - polygons, 122822**

Zoom to Feature | Pan to Feature | Create a Report | Copy to Drawing | Add to Selected  
Export Feature Attachments

Details | **Attributes**

Field Name	Field Value
OBJECTID	122822
Shape	Polygon
Statewide CAMA ID	03113-914070300000
Date to which Data is Current	4/1/2014
CAMA Link	Yes
Town Name	Keene
Local CAMA Link	914070300000
Parcel ID	914-070-300000
County Name	Cheshire
Number of CAMA Cards	1
Address	141 OLD WALPOLE RD.
State Land Use Code	11
State Land Use Code Modifier	

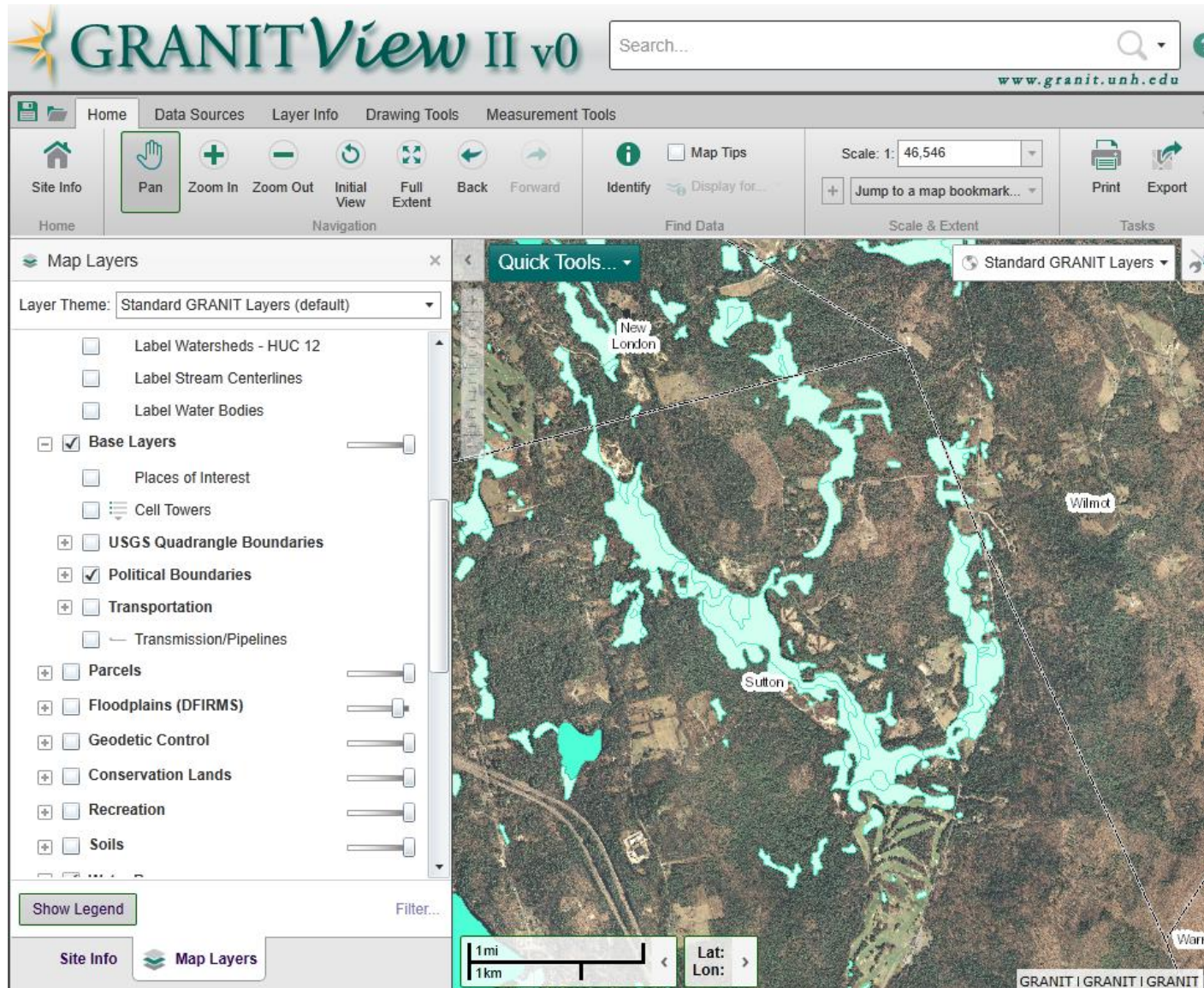
# Floodplains



Effective DFIRM data for all but Belknap County

Includes floodplains, floodways, cross-sections, BFE's, etc.

# Wetlands



- Available statewide
- Most of state – from interpretation of 1970's photography; 2014/2015 updates in seacoast

# Soils

The screenshot displays the GRANIT View II v0 web application interface. At the top, there is a search bar and the URL www.granit.unh.edu. Below this is a navigation toolbar with icons for Home, Site Info, Pan, Zoom In, Zoom Out, Initial View, Full Extent, Back, Forward, Identify, Map Tips, Scale (1:5,562), and Jump to a map bookmark. The main map area shows an aerial view of a landscape with yellow outlines indicating soil series boundaries. A pop-up window titled 'Soil Series' provides detailed information for a selected soil code: 295. The 'Map Layers' panel on the left lists various data sets, with 'Soils' and 'Soil Series' checked. A scale bar at the bottom indicates 500 feet and 200 meters, and the current location is given as Exeter, NH.

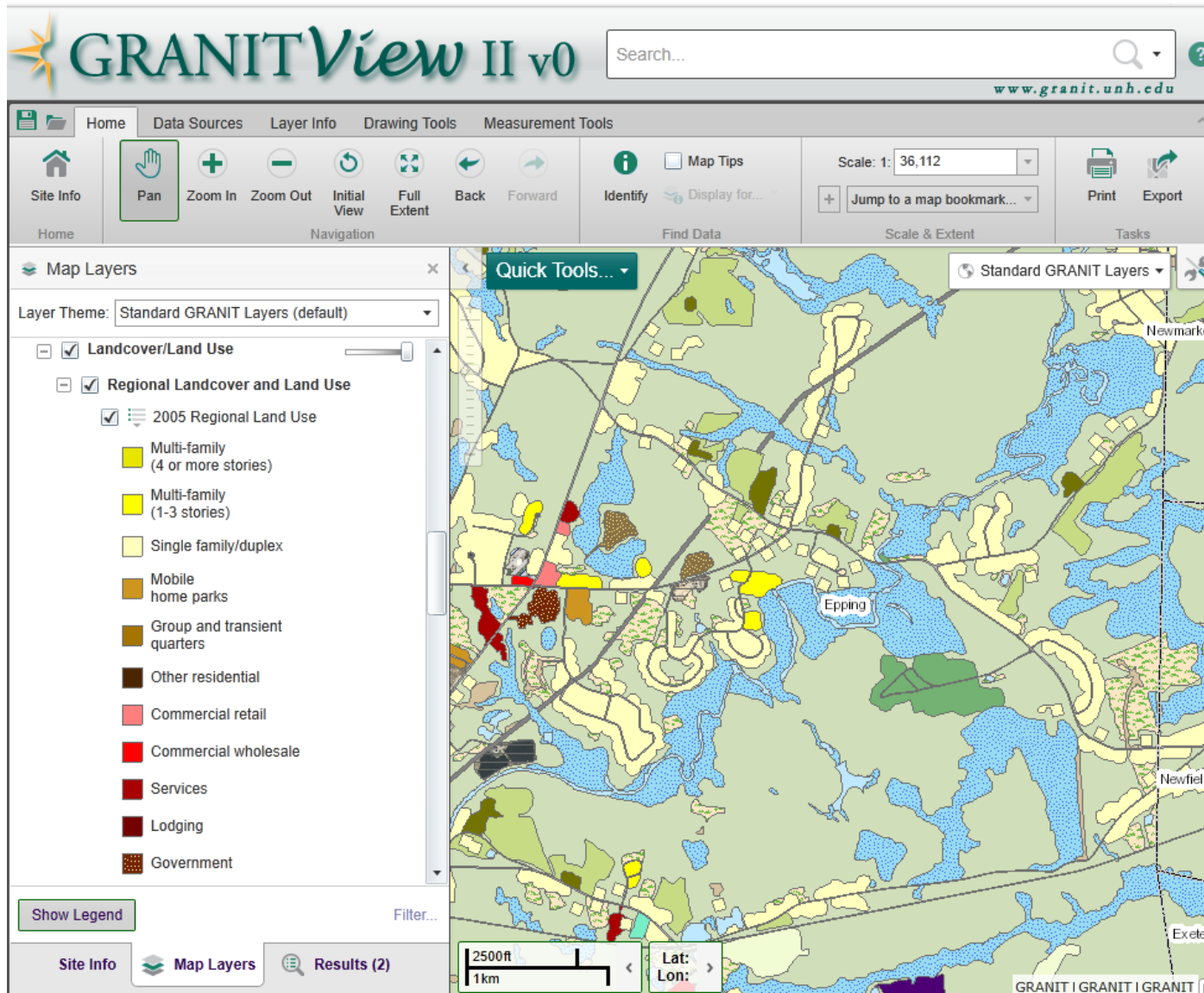
**Soil Series**

- ★ Soil Code: 295
- Soil Unit: Greenwood mucky peat
- Parent Material: organics
- Representative Slope: 1
- Farmland Class: Not prime farmland
- NH Forest Soils Group: NC
- Drainage Class: Very poorly drained
- Hydrologic Group: D
- Area (acres): 3.9

● Available statewide

● “Linkable” to large set of attributes

# 2010 Land Use



Available for Rockingham, Strafford, and parts of Carroll Counties

# Conservation Lands



**GRANIT View II v0** Search... www.granit.unh.edu

Home Data Sources Layer Info Drawing Tools Measurement Tools

Site Info Pan Zoom In Zoom Out Initial View Full Extent Back Forward Identify Map Tips Scale: 1: 48,140 Print Export

Results (2) View History View Selected >> Refine Results | Table View | Charting View Export to Shapefile | Select All | Select None

**Harrisville**  
 General Information  
 Town: Harrisville  
 County: Cheshire  
 Regional Planning Agency: Southwest RPC  
 Acreage: 12945.5

2010 Census Information  
 Total Population: 961  
 Female Population: 514  
 Male Population: 447  
 Number of Housing Units: 695

**Conservation Lands**  
 Name: Skatutakee Ridge Woodlot  
 Reported Size (ac): 75.1  
 Calculated Size (ac): 65.4165  
 Primary Protecting Agency: Monadnock Conservancy, The  
 Agency Type: Private  
 Protection Level: Permanent conservation land  
 Protection Type: Conservation Easement  
 Date Recorded: 20031212  
 Date Added to Database: 20050512

1mi 1km Lon: GRANIT | © 2015 Microsoft Corporation Ear

- Includes ~10,200 tracts of land; 1,850,000 acres statewide

- Updated semi-annually



# Accessing GRANIT Data



- GRANIT Web Site
- LiDAR Data Distribution Site
- Web Services
- Online Viewers
  - GRANITViewII
  - NH Coastal Viewer
  - Historic USGS Quad Viewer

# GRANIT Web Site – granit.unh.edu





WELCOME to **NH GRANIT**  
NEW HAMPSHIRE'S STATEWIDE GIS CLEARINGHOUSE



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Home
About Us
Download Free Data
Projects
Resource Library

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**DATA** >
Data 101
Order Data
Online Maps & Services
Map Library

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**QUICK LINKS**

- Conservation Lands Standards
- Floodplain/DFIRM Resources
- Links to GIS Resources
- NH GIS Data & Metadata**
- GRANITViewI
- GRANITViewLite
- NH Coastal Viewer**
- LiDAR Data Distribution
- User Groups & Organizations

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Login

Contact Us

**GIS Event Calendar**

December						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

As New Hampshire's Statewide Geographic Information System (GIS) Clearinghouse, NH GRANIT offers an array of geospatial services, including:

- data development/distribution
- image processing
- cartography
- spatial analysis
- application development
- related technical services
- online mapping
- training

We welcome your [comments](#) and/or [requests](#) for additional information.

**News & Upcoming Events**

----- News -----

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November 6, 2015

[Web Service Update: Address Geocoding Service](#)  
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[more news ...](#)

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[Getting to Know ArcGIS Online](#)  
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[more events ...](#)

**Project Spotlight**

[Discovery](#)

**Discovery Steps**







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# GRANIT Web Site



**Home**   **About Us**   **News**   **Projects**   **Resource Library**

**DATA**   Data 101   Download Free Data   Order Data   Online Maps & Services   Map Library

## GRANIT Data Discovery Tool

**Data Download Compression & Storage Type**  
 Zip    Tar    Compressed Tar (gzip)

**9 records match your search criteria**

Dataset	Metadata	Sample Image	Format	Download
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, CARROLL COUNTY, NEW HAMPSHIRE, USA	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, CHESHIRE COUNTY, NEW HAMPSHIRE	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, COOS COUNTY, NEW HAMPSHIRE, USA	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, GRAFTON COUNTY, NEW HAMPSHIRE	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, HILLSBOROUGH COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS)	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, MERRIMACK COUNTY, NH, USA	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, ROCKINGHAM COUNTY, NEW HAMPSHIRE	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, STRAFFORD COUNTY, NEW HAMPSHIRE	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set
DIGITAL FLOOD INSURANCE RATE MAP DATABASE, SULLIVAN COUNTY, NEW HAMPSHIRE	<a href="#">"Lite" Record</a> <a href="#">Full Record</a>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> gdb	<input type="button" value="Download Now"/> <input type="checkbox"/> Mark as part of set

## For local access:

- Search by keyword or data listing
- Download from website or ftp site
- Request external media

# GRANIT Web Site



Inland Water Resources				
Layer Name	More Info/ Status Map	Download from Data Discovery Tool	FTP	Request Media
Aquifers: Aquifer Boundaries		N/A		
Aquifers: Low Flow Stream Measurements		N/A		
Aquifers: Saturated Thickness		N/A		
Aquifers: Seismic Lines		N/A		
Aquifers: Transmissivity		N/A		
Aquifers: Water Table		N/A		
Aquifers: Wells, Borings, and Spring Sites		N/A		
Dam Inventory	N/A			N/A
Designated Rivers 24k	N/A			
Digital Flood Insurance Rate Maps				
Level 6 Hydrologic Unit Boundaries for New Hampshire				
NH Wetlands Base Map				
New Hampshire Hydrography Dataset				
Wetlands: Coastal		N/A		
Wetlands: Great Bay		N/A		
Wetlands: National Wetlands Inventory				

| N/A | | |



## Downloadable Data X

### Warning! X

Some data files may be fairly large (100MB-500MB). These files are normally compressed into a single ZIP archive, however if they are collectively greater than 2GB in size, they will be split up into multiple ZIP archives. The limit per download session is 10 GB. After you receive an e-mail containing the download links you will have 3 days to complete the downloads, after which time the links will be invalidated and you will have to make the selection again.

First, select the data you wish to download below. After you have made your selection, you may press download, an email will be sent within 24 hours with a link to your requested data.

Download

Total selected: 0.00 MB

## Merrimack River :: 2011-2012 Bare Earth DEM

Toggle ALL

Show/Hide

92 files

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> <a href="#">merrimack_19_02984755.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03004744.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03004746.img</a> - (9.01 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03004748.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03004749.img</a> - (8.96 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03004750.img</a> - (9.01 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03004752.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03004754.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03004755.img</a> - (8.90 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03024743.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03024744.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03024746.img</a> - (9.01 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03024748.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03024749.img</a> - (8.93 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03024750.img</a> - (9.01 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03024752.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03024754.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03024755.img</a> - (9.01 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03034743.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03034744.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03034746.img</a> - (9.01 MB) |
| <input type="checkbox"/> <a href="#">merrimack_19_03034748.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03034749.img</a> - (9.01 MB) | <input type="checkbox"/> <a href="#">merrimack_19_03034750.img</a> - (9.01 MB) |

# Web Services



GRANIT: Online Map Servi... GRANITView II v0

www.granit.unh.edu/data/onlinemapservices/webservices.html

**I. High Resolution Imagery (1-foot or better)**

2013 Coastal High Resolution Imagery - True Color (RGB)  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Coastal\\_2013\\_1ft\\_RGB/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Coastal_2013_1ft_RGB/ImageServer/WMServer)  
 (1-foot, coastal NH, as collected by the Piscataqua Region Estuaries Project. Imagery collected August 24, 2013, at low tide)

2013 Coastal High Resolution Imagery - Color Infrared (CIR)  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Coastal\\_2013\\_1ft\\_CIR/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Coastal_2013_1ft_CIR/ImageServer/WMServer)  
 (1-foot, coastal NH, as collected by the Piscataqua Region Estuaries Project. Imagery collected August 24, 2013, at low tide)

2010-11 Statewide High Resolution Aerial Photography - True Color (RGB)  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/NH\\_2010\\_2011\\_1ft\\_RGB/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/NH_2010_2011_1ft_RGB/ImageServer/WMServer)  
 (Includes 2010 1-foot RGB southern and central NH, and 2011 1-foot RGB for northern NH.)

2010-11 Statewide High Resolution Aerial Photography - Color Infrared (CIR)  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/NH\\_2010\\_2011\\_1ft\\_CIR/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/NH_2010_2011_1ft_CIR/ImageServer/WMServer)  
 (Includes 2010 1-foot CIR for southern and central NH, and 2011 1-foot CIR for northern NH.)

2010-11 Regional Very High Resolution Aerial Photography -RGB  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional\\_2010\\_6inch\\_RGB/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional_2010_6inch_RGB/ImageServer/WMServer)  
 (Includes 2010 6" RGB imagery, available for selected regions of NH.)

2010-11 Regional Very High Resolution Aerial Photography - CIR  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional\\_2010\\_6inch\\_CIR/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional_2010_6inch_CIR/ImageServer/WMServer)  
 (Includes 2010 6" CIR imagery, available for selected regions of NH.)

2006 1-Foot Color Aerial Photos for Lakes Region New Hampshire - RGB  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional\\_2006\\_1ft\\_RGB/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional_2006_1ft_RGB/ImageServer/WMServer)

2006 1-Foot Color Aerial Photos for Lakes Region New Hampshire - CIR  
[http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional\\_2006\\_1ft\\_CIR/ImageServer/WMServer](http://granitweb.sr.unh.edu:6080/arcgis/services/ImageServices/Regional_2006_1ft_CIR/ImageServer/WMServer)

2005 1-Foot Color Aerial Photos for Southeast New Hampshire - RGB

# Online Viewers



granit.uh.edu - Yahoo Search GRANIT

granit.unh.edu/#

**WELCOME to NH GRANIT**  
NEW HAMPSHIRE'S STATEWIDE GIS CLEARINGHOUSE

Home About Us News Projects Resource Library  
**DATA** Data 101 Download Free Data Order Data **Online Maps & Services** Map Library

Search GRANIT

**QUICK LINKS**  
 Conservation Lands Standards  
 Floodplain/DFIRM Resources  
 Links to GIS Resources  
 NH GIS Data & Metadata  
**GRANITView**  
 GRANITViewLite  
 NH Coastal Viewer

As New Hampshire's Statewide Geographic Information array of geospatial services, including:

- data development/distribution
- spatial analysis
- online mapping
- image
- applic
- trainin

Overview of Online Map Services  
**GRANITView** offers an  
 Historic DRG Viewer  
 NH GRANIT Town Boundary Monument Catalog  
 NH Wildlife Sightings  
 Web Services al services

We welcome your [comments and/or requests](#) for additional information.

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[more news ...](#)

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[Mobile Mapping Made Easy](#)  
December 11, 2015 (1:00 PM - 4:00 PM)

[Getting to Know ArcGIS Online](#)

**Project Spotlight**

[Coos County Broadband Mapping](#)

NH Broadband Mapping & Planning Program  
**Broadband Availability in Coos County**  
 Based On 2015 FCC Speed Definition  
 (25 Mbps / 3 Mbps Speed)

**Broadband Availability**  
 25+ Mbps (red)  
 10-24 Mbps (orange)  
 3-9 Mbps (yellow)  
 1-2 Mbps (green)  
 No service (grey)

Other Features:  
 Town boundaries  
 County boundaries  
 Lakes and ponds  
 Transportation

This map displays broadband availability in Coos County based on data collected from broadband providers in September of 2014. GRANIT is presently updating the broadband coverage information through data collected via the NHBMP speed test tool, as well as working with local and regional stakeholders to plan for broadband expansion in northern NH.

http://granitview.unh.edu/

# Online Viewers - GRANITViewII

The screenshot displays the GRANITView II v0 web application interface. At the top, the title "GRANITView II v0" is shown next to a search bar and the URL "www.granit.unh.edu". Below the title is a navigation menu with options: Home, Data Sources, Layer Info, Drawing Tools, and Measurement Tools. A toolbar below the menu contains various icons for navigation and map interaction. A red box highlights the "Pan", "Zoom In", and "Zoom Out" icons. Other icons include "Initial View", "Full Extent", "Back", "Forward", "Identify", "Map Tips", "Scale & Extent" (with a scale of 1:150,000), "Print", and "Export".

The main map area shows a geographic map with various features. A "Map Layers" panel on the left lists several layers with checkboxes and sliders. The "Operational Layers" section is expanded, showing "Label Features", "Base Layers", "Parcels", "Floodplains (DFIRMS)", "Geodetic Control", "Conservation Lands", "Recreation", "Soils", "Water Resources", "Wildlife", and "Environmental Data". Under "Geodetic Control", "Geodetic Control Points" and "Boundary Monument Points" are checked. A "Quick Tools..." dropdown menu is visible above the map. A scale bar at the bottom left indicates 2.5 miles and 2.5 kilometers. Latitude and longitude coordinates are displayed at the bottom right.



# Online Viewers - GRANITViewII



The screenshot displays the GRANITView II v0 web application interface. At the top, the title bar reads "GRANITView II v0" and includes a search bar and the URL "www.granit.unh.edu". Below the title bar is a menu bar with options: Home, Data Sources, Layer Info, Drawing Tools, and Measurement Tools. A toolbar below the menu bar contains navigation and utility icons: Home, Pan, Zoom In, Zoom Out, Initial View, Full Extent, Back, Forward, Identify, Map Tips, Display for..., Scale & Extent (Scale: 1: 48,140), Jump to a map bookmark..., Print, and Export. The main map area shows an aerial view of Hillsborough, NH, with several colored points (red, yellow, green, blue) and lines overlaid. A "Quick Tools..." dropdown menu is visible above the map. On the left side, a "Map Layers" panel is open, showing a "Layer Theme" dropdown set to "Standard GRANIT Layers (default)". The panel lists several layers with checkboxes and sliders: "Label Stream Centerlines", "Label Water Bodies", "Base Layers" (checked), "Parcels", "Floodplains (DFIRMS)", "Geodetic Control" (checked), "Geodetic Control Points" (checked) with a legend for "NH.geodetic\_control.ELORDER" showing color-coded ranges (0-10, 10-21, 21-40, 40-60, 60-99), and "Boundary Monument Points". A "Show Legend" button and a "Filter..." input are at the bottom of the panel. At the bottom of the map, there is a scale bar (1 mi / 1 km) and a "Lat: Lon:" field. A copyright notice "GRANIT © 2015 Microsoft Corporation Earth" is visible at the bottom right of the map area.

# Online Viewers - GRANITViewII



The screenshot displays the GRANITView II v0 web application interface. At the top, the title "GRANITView II v0" is shown next to a search bar and the URL "www.granit.unh.edu". Below the title is a navigation menu with tabs for "Home", "Data Sources", "Layer Info", "Drawing Tools", and "Measurement Tools". A toolbar contains various icons for site info, pan, zoom, navigation, identify, and scale. The main map area shows a geographic view with roads, water bodies, and geodetic control points. A "Quick Tools..." dropdown menu is open, showing a list of "Base Maps" and "Layer Themes". The "Base Maps" list includes "Bing Roads" (checked), "Bing Aerial", "Bing Hybrid", "Light Gray Base", "National Geographic World Map", "World Physical Map", "World Shaded Relief", "World Street Map", "World Terrain Base", and "World Topo Map". The "Layer Themes" list includes "Standard GRANIT Layers (default)", "Geodetic Control", "Special Projects", and "More map layers...". On the left, a "Results (2)" panel shows details for a geodetic control point: Station Name: F 28 1942, Town Code: 147, Sequence: 90, State Plane Northing (meters): 59410, State Plane Easting (meters): 352070, Order: 99, Agency: SCALED, Horizontal Datum: 83, Elevation 88 (meters): 38.658, and Elevation Order: 20. A "View Data Sheet" link is provided below the details. At the bottom, there is a scale bar (2.5mi / 2.5km) and latitude/longitude coordinates.

# Online Viewers – Coastal Viewer

**NH COASTAL VIEWER** Search...

Home Data Sources Find Drawing Analysis

Initial View Zoom In Zoom Out Back Forward Pan Identify Scale: 1: 45,685 Jump to a map bookmark... Print Export About the Viewer Reload the Viewer View Complete Layer List Recently Added Data

Navigation Find Data Scale & Extent Tasks Home

**Map Layers** I Want To ... All Layers

Layer Theme: All Layers (default)

- Oceans and Coasts
  - Dunes
  - Coastal Beaches
  - Salt Marsh Restoration Opportunities
- Predicted Marsh Migration
- Sea Level Rise Scenarios
  - 2050 High Emissions Scenario (1.7' SLR) MHHW
    - 0 - 9.3 (water depth in ft.)
    - 9.4 - 18.5 (water depth in ft.)
    - 18.6 - 29.4 (water depth in ft.)
    - 29.5 - 40.3 (water depth in ft.)
    - 40.4 - 50.3 (water depth in ft.)
    - 50.4 - 59.6 (water depth in ft.)
    - 59.7 - 67.7 (water depth in ft.)
    - 67.8 - 75.7 (water depth in ft.)

Show Legend Filter... 1mi 1km Lat: Lon: Matt Stutts, Cultural Resources GIS, National

# Other GRANIT Resources



- Geodetic Control Data Sheets
- Town Boundary Monument Catalog
- NH Wetlands Mapper
- NH Wildlife Sitings Site

# Geodetic Control Data Sheets



www.granit.unh.edu/#

WELCOME to NH GRANIT  
NEW HAMPSHIRE'S STATEWIDE GIS CLEARINGHOUSE

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**DATA** Data 101 Download Free Data Order Data Online

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**QUICK LINKS**  
 Conservation Lands Standards  
 Floodplain/DFIRM Resources  
 Links to GIS Resources  
**NH GIS Data & Metadata**  
 GRANITViewII  
 GRANITViewLite  
 NH Coastal Viewer  
 LiDAR Data Distribution  
 User Groups & Organizations

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GIS Event Calendar

December						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

As New Hampshire's Statewide Geographic Information System  
 of geospatial services, including:

- data development/distribution
- spatial analysis
- online mapping
- image processing
- application development
- training

We welcome your [comments and/or requests](#) for additional information.

**News & Upcoming Events**

----- News -----

[Paid Internship Opportunity - City of Portsmouth, NH](#)  
 November 6, 2015

[Web Service Update: Address Geocoding Service](#)  
 November 6, 2015

[Database Update: Recreational Trails](#)  
 November 5, 2015

[Database Update: NH Wildlife Action Plan 2015](#)  
 November 5, 2015

[more news ...](#)

----- Upcoming Meetings -----

[NH GIS Advisory Committee Meeting](#)  
 December 16, 2015 (10:00 AM - 12:00 PM)

**Project Spotlight**

[Coordination of FY 15 Imagery Acquisition](#)

Statewide, high resolution (1-foot) imagery was collected in 2010 and is

Resource Library  
 GRANIT Resources  
 Municipal Resources  
 Learning Network  
 NH Networking Resources  
 Special Topics  
 Links

Map Library  
 NH offers an array  
 2010-2011 Aerial Photography  
 CommunityViz TRC  
 Floodplains/DFIRMs  
 Floodplain Learning on Demand  
**Geodetic Control Datasheets**  
 LIDAR - Topographic  
 NH GIS Strategic/Business Plan  
 Stream Orders

www.granit.unh.edu/geodetic/datasheet

# Geodetic Control Data Sheets



GRANIT: Geod... NH GRANIT Town... NH GRANIT Town... GRANITView II... 8.5 x 11 Portrait.pdf

www.granit.unh.edu/geodetic/datasheet

**NH GRANIT**  
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20	21	22	23	24	25	26
27	28	29	30	31		

## NHDOT Geodetic Control Datasheet

View the Geodetic Control Layer on GRANITView II <http://granitviewii.unh.edu>

Designation:	G 3	NGS PID#:	
Town/Sequence:	19-0010	Location:	ASHLAND
Coord Source:	SCALED	County:	GRAFTON, NH
Horiz Order:	99	Northing (USft):	453542
Datum/Year:	83	Easting (USft):	985169
Superseded coordinates, NAD83/86		Mapping Angle:	0"
NGVD29 Elevation (ft):	550.89	Northing (USft):	0
NAVD88 Elevation (ft):	550.48	Vertical Order	21
Last Recovery:	06/04/2012	Easting (USft):	0
Condition:	Good	Elevation Type	DIFF
Monumented By:	NHDPWH	Note: NAVD88 values are lower than NGVD29 values	
Marker Type:	Survey Disk	Recovered By:	NHDOT
Monumentation:	BRIDGE WINGWALL	GPSable?:	N
		Year Set:	1964
		Stamping:	G 3

THE STATION IS LOCATED IN ASHLAND.

TO REACH THE STATION FROM THE JUNCTION OF I-93 AND STATE ROUTE 175-A AT EXIT 25 IN HOLDERNESS, GO SOUTH FOR 1.05 MI (1.69 KM) TO THE ASHLAND/HOLDERNESS TOWN LINE. CONTINUE SOUTH FOR 0.35 MI (0.56 KM) ON I-93 TO BRIDGE 72 (NORTH ASHLAND ROAD OVER I-93), AND THE STATION ON THE RIGHT.

THE STATION IS A STANDARD NHDPWH DISK STAMPED-G 3-. SET INTO THE NORTHWEST WINGWALL OF BRIDGE. 19.0 FT (5.8 M) EAST FROM A CATCH BASIN, 9.5 FT (2.9 M) EAST FROM THE WEST END OF A CHAIN-LINK FENCE, AND 0.5 FT (15.2 CM) NORTH FROM A CHAIN-LINK FENCE.

FIELDBOOK 10577.

RECOVERED IN GOOD CONDITION BY GEODETIC SURVEY. ON 06/04/2012.

# Town Boundary Monument Catalog



boundary.granit.unh.edu/Data/Points

## NH GRANIT Town Boundary Monument Catalog

Home View Data Submit Data Related Resources Login

You are seeing a limited set of information because you are not logged in as a user of the Town Boundary Monument site. For full viewing privileges, please [visit the site](#) and login. (If you are a first-time user, you will need to register as a site user prior to logging in.)

view add column filter column sort ascending sort descending delete column

**Monument List** Result(s) (1 - 25) of 346 New | Refresh | Printer Friendly | Excel | Save

Sort: Towns, Local Name (click to remove)

Towns	Local Name	Submitter	Collection Date	National Grid	Latitude	Longitude	State Plane X	State Plane Y	Method	Status
Acworth, Lempster, Marlow		Krygeris, Allan	11/08/2014	18TYN2597483999	43.17498	-72.21977	836707.85	246486.59	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2830369963	43.96276	-71.14019	1122870	533590	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2781069990	43.96289	-71.14634	1121250	533625	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2559269505	43.958	-71.17381	1114030	531800	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2601069983	43.9624	-71.16876	1115350	533410	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2241365862	43.92446	-71.21219	1103990	519513	GPS	Not Reviewed
Albany		King, Paul	2003	19TCJ1286364595	43.9107	-71.33061	1072810	514350	GPS	Not Reviewed
Albany		King, Paul	2003	19TCJ1335164659	43.9114	-71.32457	1074400	514610	GPS	Not Reviewed
Albany		King, Paul	2003	19TCJ1317865766	43.92131	-71.3271	1073720	518220	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2444768238	43.94633	-71.18766	1110406	527521.1	GPS	Not Reviewed
Albany		King, Paul	2004	19TCJ1162664434	43.90894	-71.34595	1068770	513690	GPS	Not Reviewed
Albany		King, Paul		19TCJ1055164301	43.90746	-71.35928	1065260	513140	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2728670005	43.9629	-71.15288	1119530	533620	GPS	Not Reviewed
Albany		King, Paul	2003	19TCJ1126164385	43.9084	-71.35047	1067580	513490	GPS	Not Reviewed
Albany		King, Paul	2007	19TCJ2345367078	43.93565	-71.19965	1107270.8	523611.8	GPS	Not Reviewed
Albany		King, Paul	2004	19TCJ1230664522	43.9099	-71.33752	1070990	514050	GPS	Not Reviewed
Allenstown, Candia, Deerfield, Hooksett		Krygeris, Allan	08/24/2014	19TCH0827074847	43.1021	-71.35614	1067182.4	219590.05	GPS	Not Reviewed
Amherst, Hollis, Milford		Krygeris, Allan	04/12/2015	19TBH8677341772	42.79882	-71.60745	1000142.84	108908.2	GPS	Not Reviewed
Amherst, Milford		Krygeris, Allan	04/12/2015	19TBH8645641732	42.79837	-71.61131	999106.98	108743.49	GPS	Not Reviewed
Antrim, Stoddard, Windsor		Krygeris, Allan	05/18/2014	18TYN4078474181	43.08212	-72.04205	883963.71	212378.76	GPS	Not Reviewed
Auburn, Hooksett, Manchester	M/H/ATL	Miccio, Martin		19TCH0503264633	43.00937	-71.39231	1057631.92	185757.69	GPS	Not Reviewed
Auburn, Londonderry,	M/L/ATL	Miccio, Martin		19TCH0606257682	42.9471	-71.37727	1061734.94	163077.69	GPS	Not Reviewed

Development of this site was generously funded by the NH Department of Transportation.

# NH Wetlands Mapper



## NH Wetlands Mapper

Welcome | Help | Contact Us | Admin | Upload
Logout

**User Defined Wetlands** create new wetland

This tab allows the user to "create a new wetland", that is, map the boundaries of the wetland using mapped data and field observation.

**TO CREATE A NEW WETLAND MAP:**

- Select the location, zoom level and layers you want to display.
- Click on the "create new wetland" button.
- For more information, follow the instructions on the [Help](#) tab.

**TO VIEW OR EDIT A PREVIOUSLY CREATED WETLAND:**

- Click the box next to the wetland you want to view or edit
- Click the "edit" button to edit the wetland's boundary.
- For more information, follow the instructions on the [Help](#) tab.

**TO EVALUATE A PREVIOUSLY CREATED WETLAND:**

- Click on the "evaluation form" button and enter information into the on-line NH Method Evaluation Data Form.

clear all

To view, edit or evaluate a previously defined wetland boundary, click on the box next to your user name to expand the folder, then click on the individual wetland of interest.

- astone
- fmitchell
- clyman
- rhuntley
- jmclammer
- msullivan
- mcoughlan
- cbowler
- aweise
- floddell
- mrobbins
- ebaker
- kburgard
- fay
- deerfield
- wpreston
- lsalters
- zmerrigan

evaluation form | edit

↑N Scale: 1: 5000
Zoom Level: 11
Location: 901739.0ft, 256247.1ft



This website was developed under Assistance Agreement No. CD00110401-0 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA.



New Hampshire Fish & Game Department

 **New Hampshire Wildlife Sightings** 



Home Species of Interest Related Links Contact Us Login



Bobcat (*Lynx rufus*)

1 2 3 4 5 6 7 Previous Next Pause

**NH Fish & Game's Nongame and Endangered Wildlife Program**  
Protecting over 400 species of mammals, birds, reptiles, and amphibians, as well as thousands of insects and other invertebrates.  
[Read more...](#)



**Tips for Wildlife Watching in New Hampshire**  
Get ideas on tools for wildlife viewing, viewing ethics and responsibilities, photo tips, and how to increase your chances of seeing wildlife.  
[Read more...](#)

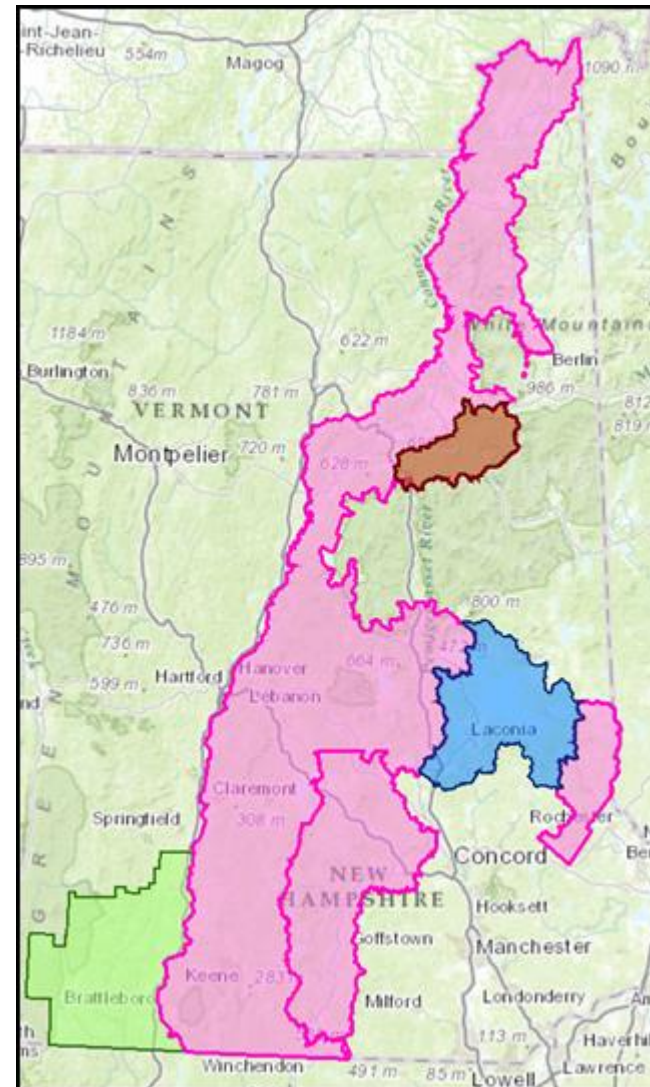


**NH Wildlife Management Conservation Areas**  
Find locations of undeveloped land owned by N.H. Fish and Game Dept. and designated as areas for wildlife conservation, hunting and fishing.  
[Read more...](#)



# Data Updates

- 2015 Statewide Orthoimagery
  - 4-band imagery
  - Spring, 2015 acquisition, winter 2015/2016 delivery
  
- 2015 LiDAR
  - ~5,000 sq. miles
  - Fall 2015 acquisition, spring 2016 delivery
  
- NRCS Statewide Soils Update
  
- Floodplains – Rockingham County



# Questions/Discussions



- Other Data Sets of Interest?
- Other Map Services?
- Tools?

## Contact Info:

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