

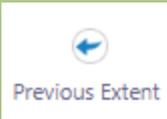
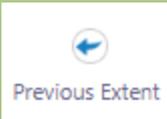
Overview of ANR's Natural Resource Atlas

Windham Regional Commission, Oct. 2017

The screenshot displays the Vermont Natural Resources Atlas web application. At the top, a purple banner features the Vermont state logo and the text "Natural Resources Atlas" and "Vermont Agency of Natural Resources". Below the banner, the page is divided into a left sidebar and a main map area. The sidebar contains a "Quick Tools..." menu, a search bar, and a "Welcome to the VT ANR Natural Resources Atlas" section. This section includes a release note: "Release Notes - GE4.8.2 - HTML5 v2.9.1 - Updated: 8/23/2017". Below the welcome message, there is a link for "Issues with Unresponsive Script Errors? Are you using Firefox? Click Here". Further down, a YouTube icon is accompanied by the text "The Natural Resources Atlas Webinar is now online!". A "NEW FAQ" button is also present, with the text "Please visit the NEW FAQ before contacting ANRGIS!". At the bottom of the sidebar, there is a "MAP SIMPLY." logo with icons for location, state, and computer. The main map area shows a satellite view of Vermont with a white grid overlay. The map includes various geographical features, roads, and place names. A scale bar at the bottom indicates distances up to 40 km. The footer of the map area includes the text "bing", "Aerial wit...", "Earthstar Geographics SIO, © 2017 Microsoft Corp", and "VERMONT".

- Natural Resource Atlas:
 - Google "ANR natural resource atlas"
 - (<http://anrmaps.vermont.gov/websites/anra5/>)
 - Firefox browser can have unresponsive script issues (instructions for fixing this are included on the atlas)
- Flood Ready Atlas:
 - Google "Vermont flood ready atlas"
 - http://floodready.vermont.gov/assessment/vt_floodready_atlas
- Biofinder Atlas:
 - Google "Vermont biofinder"
 - <http://anrmaps.vermont.gov/websites/BioFinder2016/>

Navigation Tools

- Click “Tools” button  
- zoom in:  ; or scroll wheel up on mouse
- zoom out:  ; or scroll wheel down on mouse
- pan: hand; four arrows; or hold mouse button down
- full extent –  
- previous extent -  
- zoom to specific place (“bookmark” ): may be pick-list
- go to an address



Natural Resources Atlas

Vermont Agency of Natural Resources

vermont.gov

Natural Resources Atlas

Release Notes - GE4.8.2 - HTML5 v2.9.1 - Updated: 8/23/2017



Welcome to the VT ANR Natural Resources Atlas

The Vermont Agency of Natural Resources has been busy making the Natural Resources Atlas the best online mapping tool for Vermont's Natural Resources. With over 150 map layers available to make your custom map from across all of our departments and other state and municipal agencies, you can use the Atlas to create a robust map for any purpose.

Issues with Unresponsive Script Errors?
Are you using Firefox? [Click Here](#)



The Natural Resources Atlas Webinar is now online!



Please visit the NEW FAQ before contacting ANRGIS!



Natural Resources Atlas

Layers

Quick Tools...

Search...

Tools

tools button

Firefox issues



Layers

Atlas Layers

Filter Layers... Filter

- Drinking water and Groundwater
- Protection
 - ANR Basemap Data
 - Buildings (E911)
 - Act250 Permits
 - **INCOMPLETE**
 - Bridge & Culvert Inventory
 - Railroads
 - Roads
 - Waterbody
 - Stream
 - Lake Champlain Segment

Quick Tools...

- Zoom to a Town
Select a town to zoom to
- Find an Address
Search for a location by its address.
- Search Layers
Search layers by keyword
- Create Printable Map
Print Map
- Download GIS Data
Download GIS Data from ANR's Atlas
- Run Private Well Report
Run a report of Private Wells
- Open/Close Toolbar
Toggle the toolbar open or closed
- Show Map Layers

Quick Tools:

- zoom to town
- find an address

Bookmark

Layers

- turn on and off
- often in folders or groups
- legends – may need to turn on
- data description – “metadata”
- scale dependency: some layers draw only at larger or smaller scales – layer may be grayed out in layer list if currently in wrong scale
- transparency/opacity: make polygon layers transparent, so you can see base data below; slider bar
 - when all else fails, right click!

Natural Resources Atlas

Release Notes - GE4.8.2 - HTML5 v2.9.1 - Updated: 8/23/2017



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Issues with Unresponsive Script Errors?

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Please visit the NEW FAQ before contacting ANRGIS!



Natural Resources Atlas

Layers



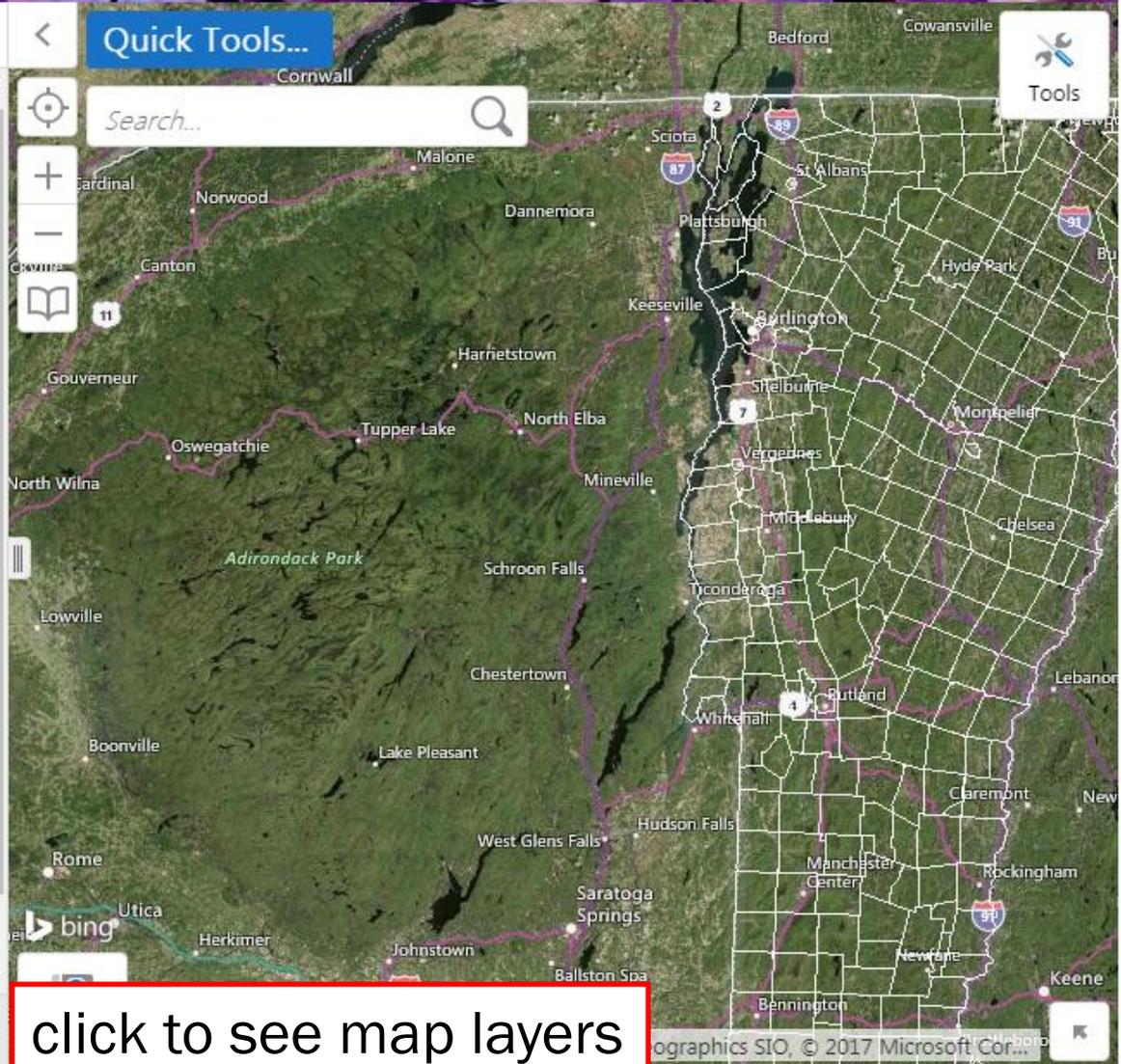
Quick Tools...



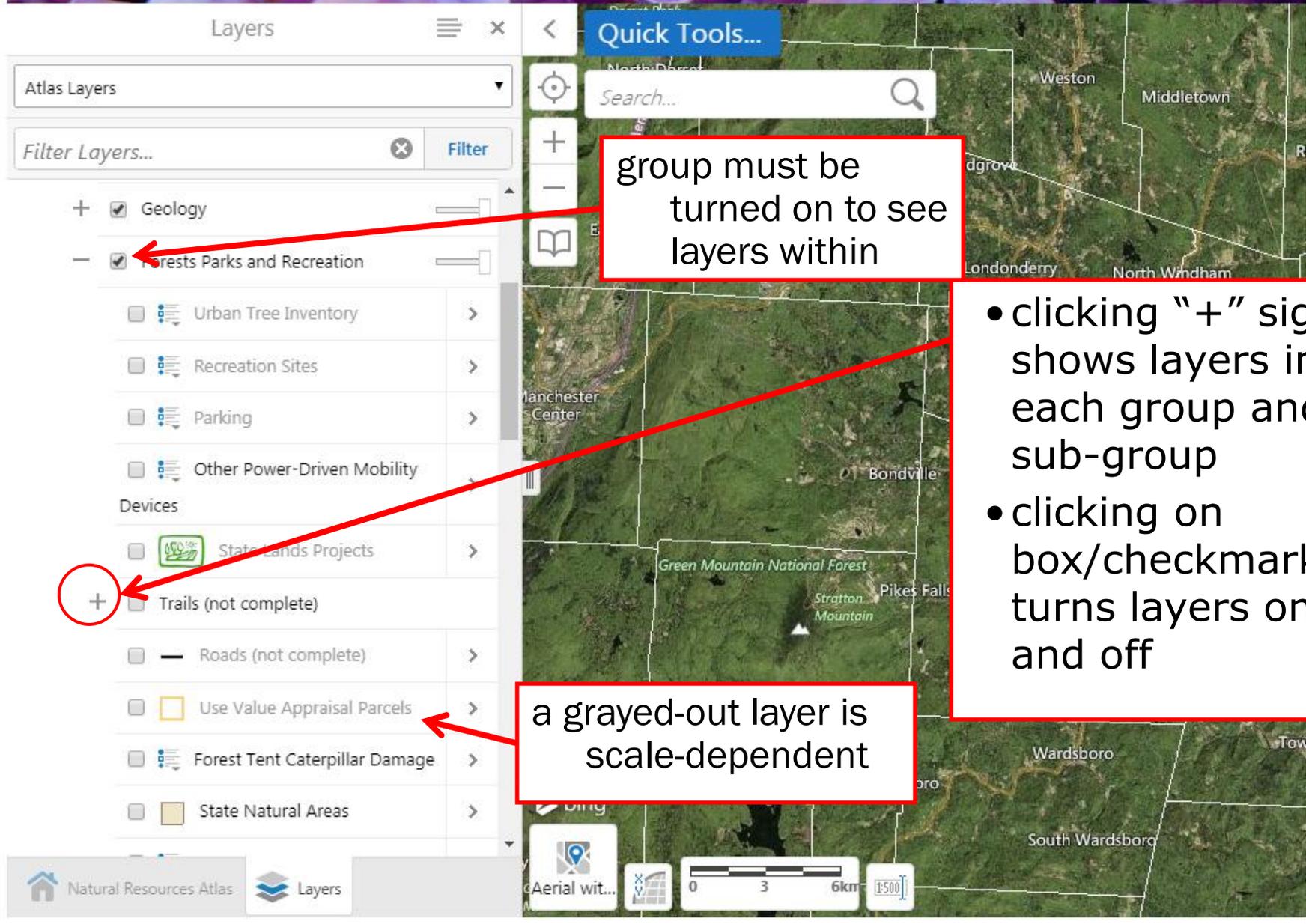
Search...



Tools



click to see map layers



The screenshot shows the Natural Resources Atlas interface. On the left is a 'Layers' panel with a search bar and a list of layers. The 'Forests Parks and Recreation' group is expanded, showing sub-layers like 'Urban Tree Inventory', 'Recreation Sites', 'Parking', 'Other Power-Driven Mobility', 'State Lands Projects', 'Trails (not complete)', 'Roads (not complete)', 'Use Value Appraisal Parcels', 'Forest Tent Caterpillar Damage', and 'State Natural Areas'. A red circle highlights the '+' icon next to 'Trails (not complete)'. A red arrow points from a text box to the '+' icon. Another red arrow points from a text box to the 'Forests Parks and Recreation' group. A third red arrow points from a text box to the 'Use Value Appraisal Parcels' layer. The top right has a 'Quick Tools...' button and a search bar. The bottom has a toolbar with icons for home, layers, aerial view, and a scale bar.

group must be turned on to see layers within

- clicking “+” sign shows layers in each group and sub-group
- clicking on box/checkmark turns layers on and off

a grayed-out layer is scale-dependent

Layers

Atlas Layers

Filter Layers...

Filter

- Other Power-Driven Mobility
- Devices
 - State Lands Projects
- Trails (not complete)
- Roads (not complete)
- Use Value Appraisal Parcels
- Forest Tent Caterpillar Damage
- State Natural Areas
- Fragile Areas Registry
- Ski Area Leases

Quick Tools...

Search...

zoom in, and UVA parcels can be shown



Natural Resources Atlas

Vermont Agency of Natural Resources

vermont.gov

Map Tools | **Navigation** | Map Data | Draw | Identify | Query | Select | Measurement

Tool Labels ✕

Pan Zoom In Zoom Out Zoom to Town Full Extent Previous Extent Bookmarks

Layers

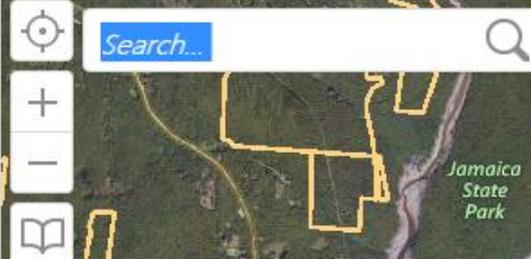
Atlas Layers

Filter Layers... ✕ Filter

- Other Power-Driven Mobility
- Devices
 - State Lands Projects
- + Trails (not complete)
- Roads (not complete)
- Use Value Appraisal Parcels
- Forest Tent Caterpillar Damage
- State Natural Areas
- Fragile Areas Registry
- Ski Area Leases

Quick Tools...

Search...



turned on State Natural Areas

Natural Resources Atlas Layers



NES (2017) Distribution ...

Layers

Atlas Layers

Filter Layers...

Filter

- Stormwater
- Rivers
- Geology
- Forests Parks and Recreation
- Urban Tree Inventory
- Recreation Sites
- Parking
- Other Power-Driven Mobility
- Devices
 - State Lands Projects
- Trails (not complete)



Quick Tools...

Search...

adjust transparency – to see layers underneath

Layers

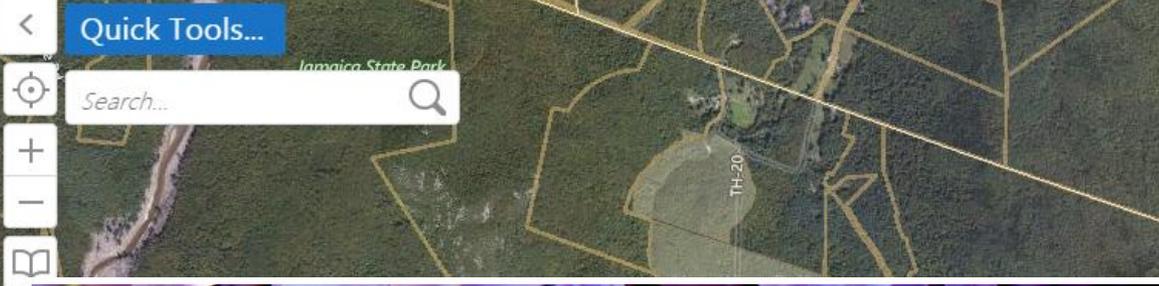
Atlas Layers

Filter Layers... Filter

- Stormwater
- Rivers
- Geology
- Forests Parks and Recreation
- Urban Tree Inventory
- Recreation Sites
- Parking
- Other Power-Driven Mobility
- State Lands Projects
- Trails (not complete)

Quick Tools...

Search...



Natural Resources Atlas

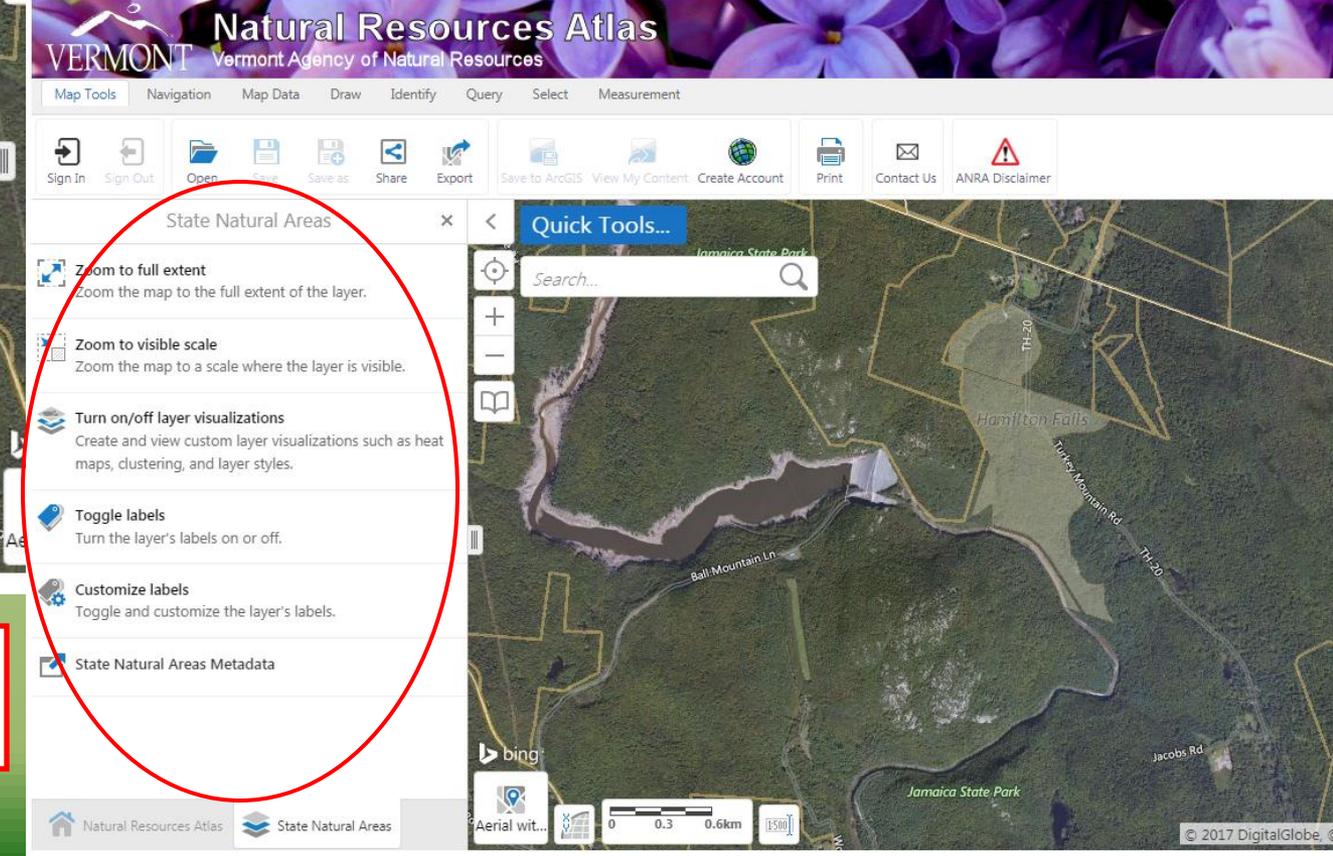
Vermont Agency of Natural Resources

Map Tools Navigation Map Data Draw Identify Query Select Measurement

Sign In Sign Out Open Save Save as Share Export Save to ArcGIS View My Content Create Account Print Contact Us ANRA Disclaimer

State Natural Areas

- Zoom to full extent**
Zoom the map to the full extent of the layer.
- Zoom to visible scale**
Zoom the map to a scale where the layer is visible.
- Turn on/off layer visualizations**
Create and view custom layer visualizations such as heat maps, clustering, and layer styles.
- Toggle labels**
Turn the layer's labels on or off.
- Customize labels**
Toggle and customize the layer's labels.
- State Natural Areas Metadata**



Click on the right arrow for layer options



click on hamburger menu to show all legends



Layers

Atlas Layers

Filter Layers... Filter

- Roads (not complete)
- Use Value Appraisal Parcels
- Forest Tent Caterpillar Damage
- State Natural Areas
-  Fragile Areas Registry
- Physical Feature
- Biological Feature
- Physical and Biological Features
- Ski Area Leases
- Primitive Camping Area
- Managed Lands

click on symbol for layer legend



Layers Atlas Layers Quick Tools... Search...
Filter Layers... Filter
Roads (not complete)
Use Value Appraisal Parcels
Insect Caterpillar Damage
Natural Areas
Fragile Areas Registry
Physical Feature
Biological Feature
Physical and Biological Features
Ski Area Leases
Primitive Camping Area
Managed Lands

bing
Aerial wit... 0 0.3 0.6km 1:500

Click drop-down to see all base layers

Layers

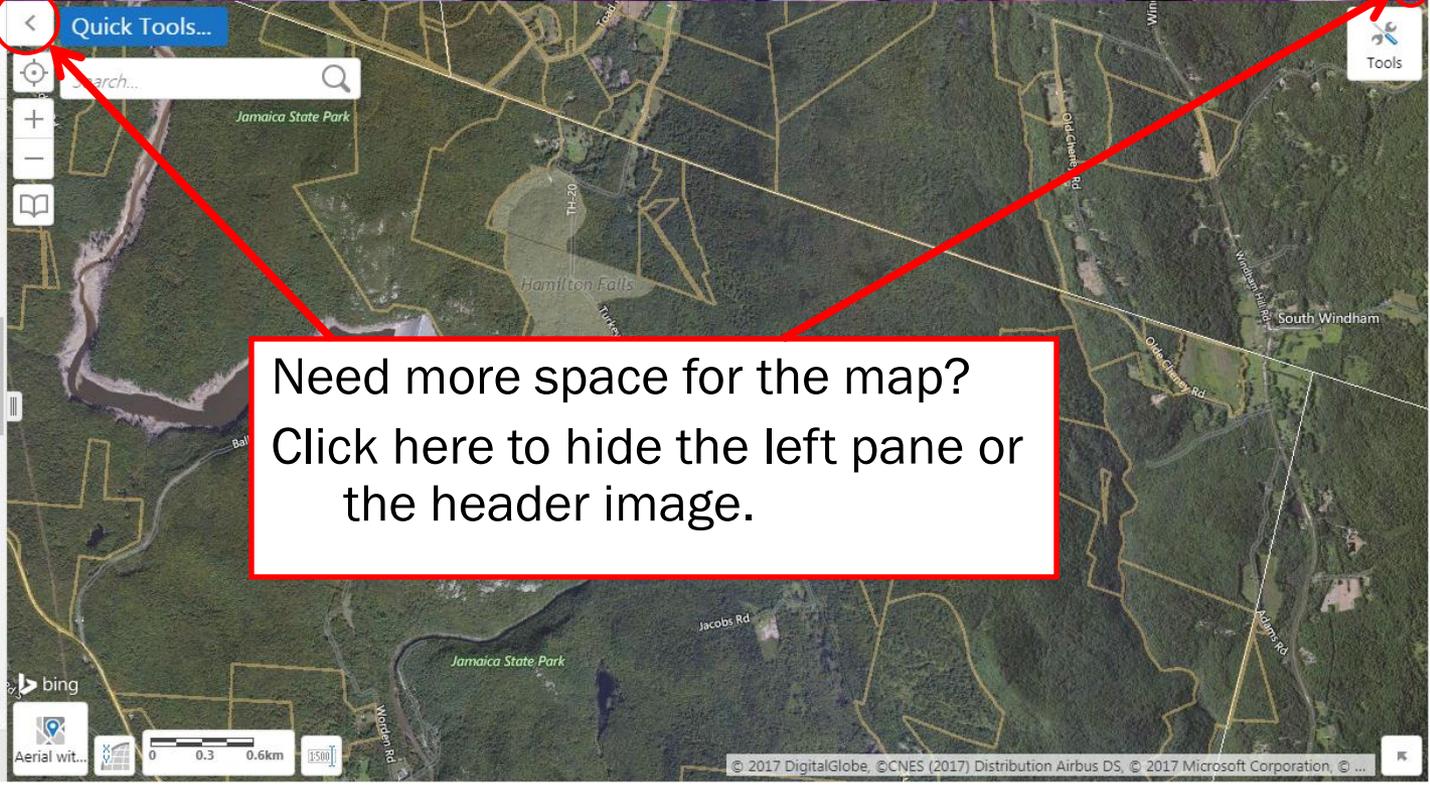


Quick Tools...

Atlas Layers

Filter Layers...

- Roads (not complete)
- Use Value Appraisal Parcels
- Forest Tent Caterpillar Damage
- State Natural Areas
- Fragile Areas Registry
- Physical Feature
- Biological Feature
- Physical and Biological Features
- Ski Area Leases
- Primitive Camping Area
- Managed Lands
- Congressional Areas (GMNF)
- Green Mountain National



Need more space for the map?
Click here to hide the left pane or
the header image.

Data types

vector:

- points – e.g. E911 building points
- lines – e.g. roads
- polygons – e.g. wetland

raster:

- imagery, orthophotography – air photos
- topo/topography – may be USGS topographic map (“DRG” or Digital Raster Graphic), or elevation
- accessed under map layers, or atlas layers pull-down as “base map”
- rasters & base map underneath all other layers
- can’t see two raster data layers at once without altering transparency (e.g. an ortho and a topographic map)

Layers

Atlas Layers

Filter Layers...

Filter

- Roads (not complete)
- Use Value Appraisal Parcels
- Forest Tent Caterpillar Damage
- State Natural Areas
- Fragile Areas Registry
- Physical Feature
- Biological Feature
- Physical and Biological Features
- Ski Area Leases
- Primitive Camping Area
- Managed Lands

Quick Tools...

Search...

base maps (orthos, topos, etc.)



Aerial wit...

Measurements:

- icon often a ruler
- line/distance
- area
- units

measurement tab

Map Tools Navigation Map Data Draw Identify Query Select Measurement

Line Freehand Line Polygon Freehand Shape Circle Radius Tool Erase Clear Meters (m) Acres (ac) Enable Snapping Select Snapping Layers Plot Coordinates Profile Tool

Create measured radius

Click or tap, then drag to draw a circle and find area.

This tool will create a radius from a point at a user defined distance. Please click where you'd like to place the center of your radius.

Define your custom geometry by choosing one of the tools below, and selecting an area on the map.



DONE CANCEL

Quick Tools... Search...

bing

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Click here to change units

Identify

- GIS data: location and attributes (many, too many to put on a map)
- identify = details about a specific feature (what's here?)
- tool often has an "i"
- may need set an "active layer," or choose the layer you want
- may need to look at a results window



identify tab

Significant Natural Community (1)

Significant Natural Community

Natural Community: Dry Red Oak-White Pine Forest
Element Occurrence ID: 10700
State Rank: S3

[Link to Element Occurrence \(EO\) Report](#)



map tips

results for all visible layers

Click or tap a location on the map to learn what's there. X

Quick Tools...

Search...

bing

Aerial wit...

0 0.2 0.4 1500

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drawing tools

Natural Resources Atlas

Agency of Natural Resources

Map Tools Navigation Map Data Draw Identify Query Select Measurement

Point Text Line Freehand Freehand Shape Circle Polygon Rectangle Disable Snapping Select Snapping Layers Styles Edit Erase Clear Export Drawings Drawing Area

Layers

Atlas Layers

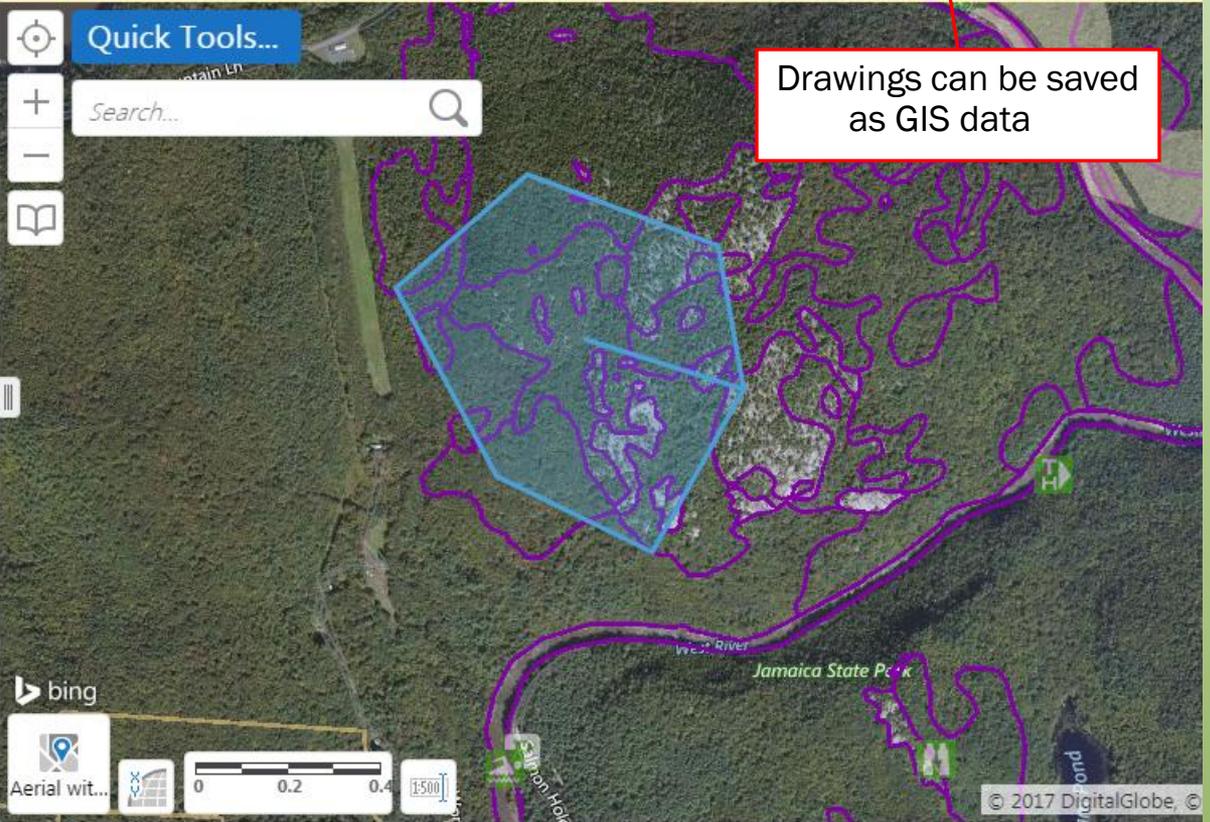
Filter Layers...

Filter

- Gates and Barriers
- Invasive Plant Atlas
- Designated Public Sites
- Designated Trail Corridors
- Rare Threatened Endangered
- Species**
 - Significant Natural
- Community**
 - Uncommon Species and Other
- Features**
 - Deer Wintering Areas
 - Habitat Blocks

Quick Tools...

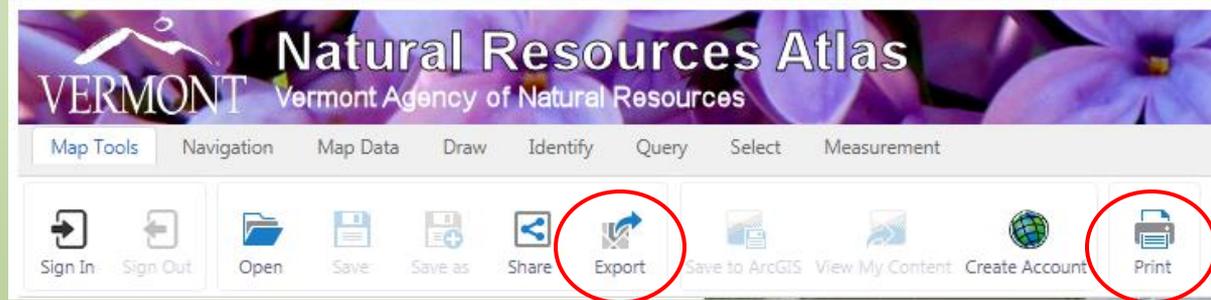
Search...



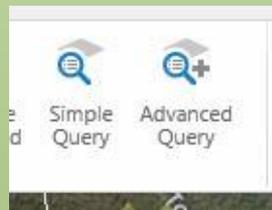
Drawings can be saved as GIS data

other

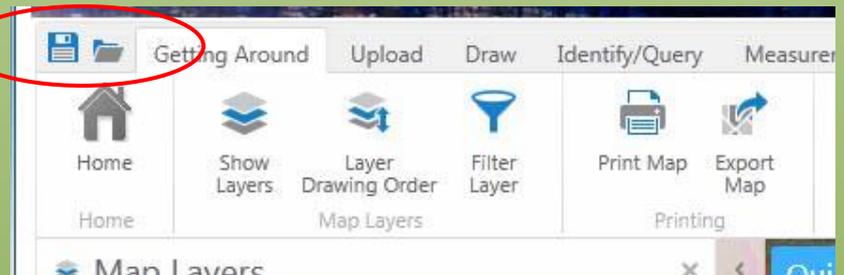
- create a map/drawing: print (can add title, etc.) or export (essentially a screenshot)



- query: find a specific feature (where is...?)

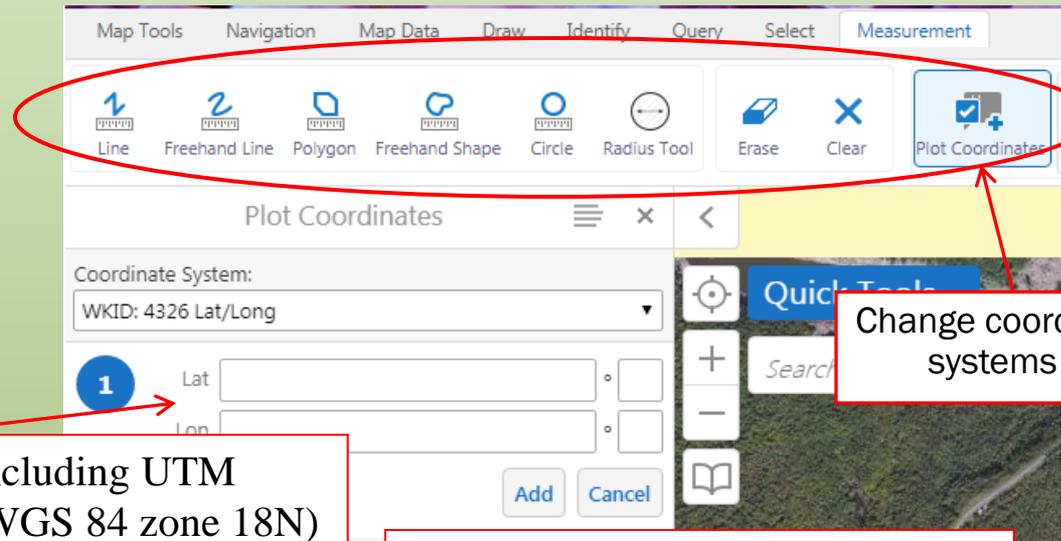


- save project, permalink, etc.



other

- Coordinates, etc.:

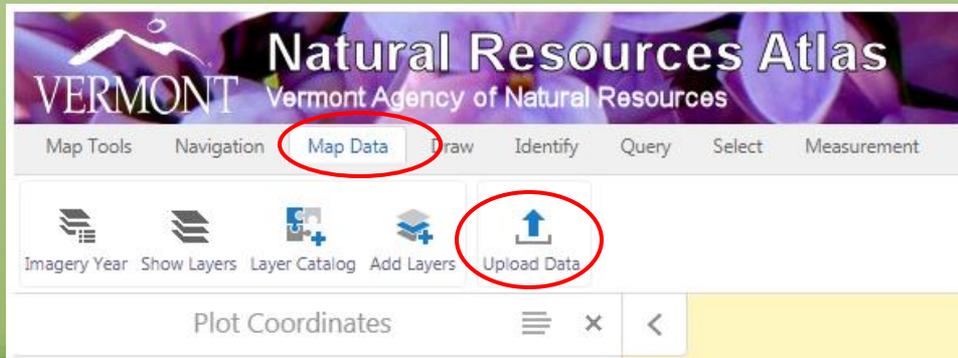


Can enter coordinates here, including UTM
(WKID = 32618 for UTM WGS 84 zone 18N)

Change coordinate systems here

Latitude/Longitude (DD or DMS)
Vermont State Plane

- Upload data:



Query Tab

Find Features Query Filter Find Address Railroad Well Finder **Delineate Watershed** Summarize Landcover Water Well Search

Layers

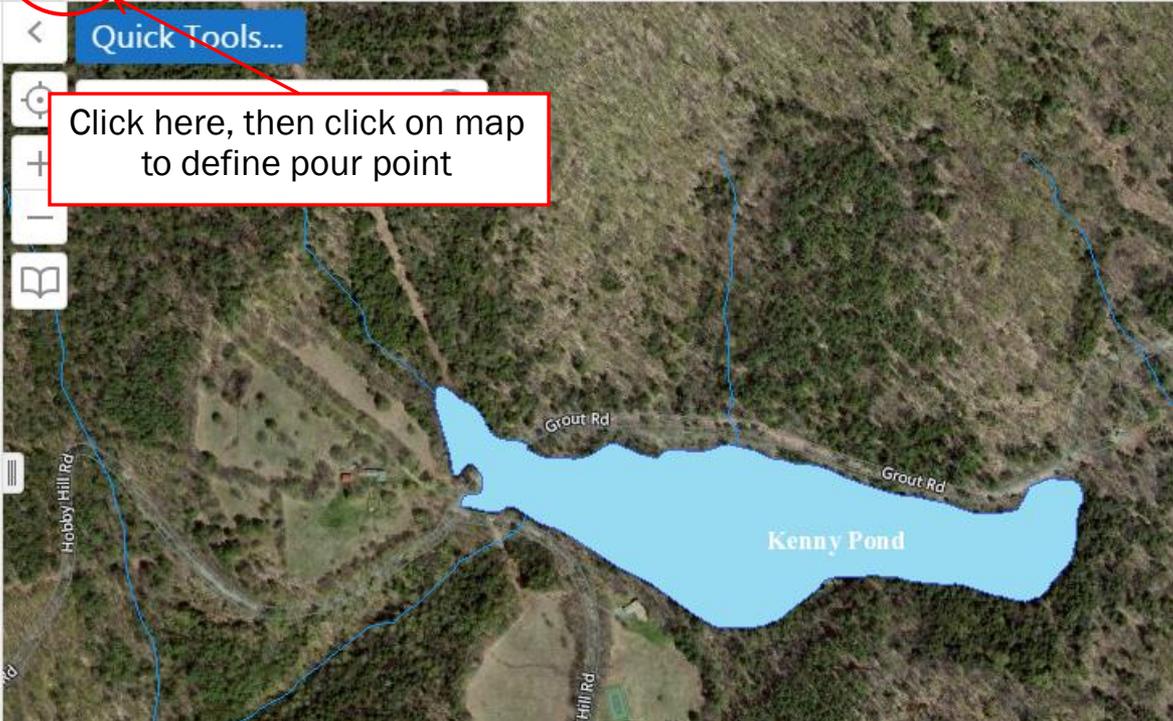
Landcover

Filter Layers... Filter

- Public Water Sources
- Groundwater Interference
- SurfaceWaterSPA
- Ground Water SPA
- Groundwater Classification
- Ground Water Withdrawals -

Projected 2020

- ANR Basemap Data
- Buildings (E911)



Click here, then click on map to define pour point

Layers

Landcover

Filter Layers...

Filter

- Atlas Layers
- Waste Management
- Geology
- Forests Parks and Recreation
 - Urban Tree Inventory
 - Recreation Sites
 - Other Power-Driven Mobility
- Devices
 - Trails (not complete)
 - Roads (not complete)
 - Use Value Appraisal Parcels

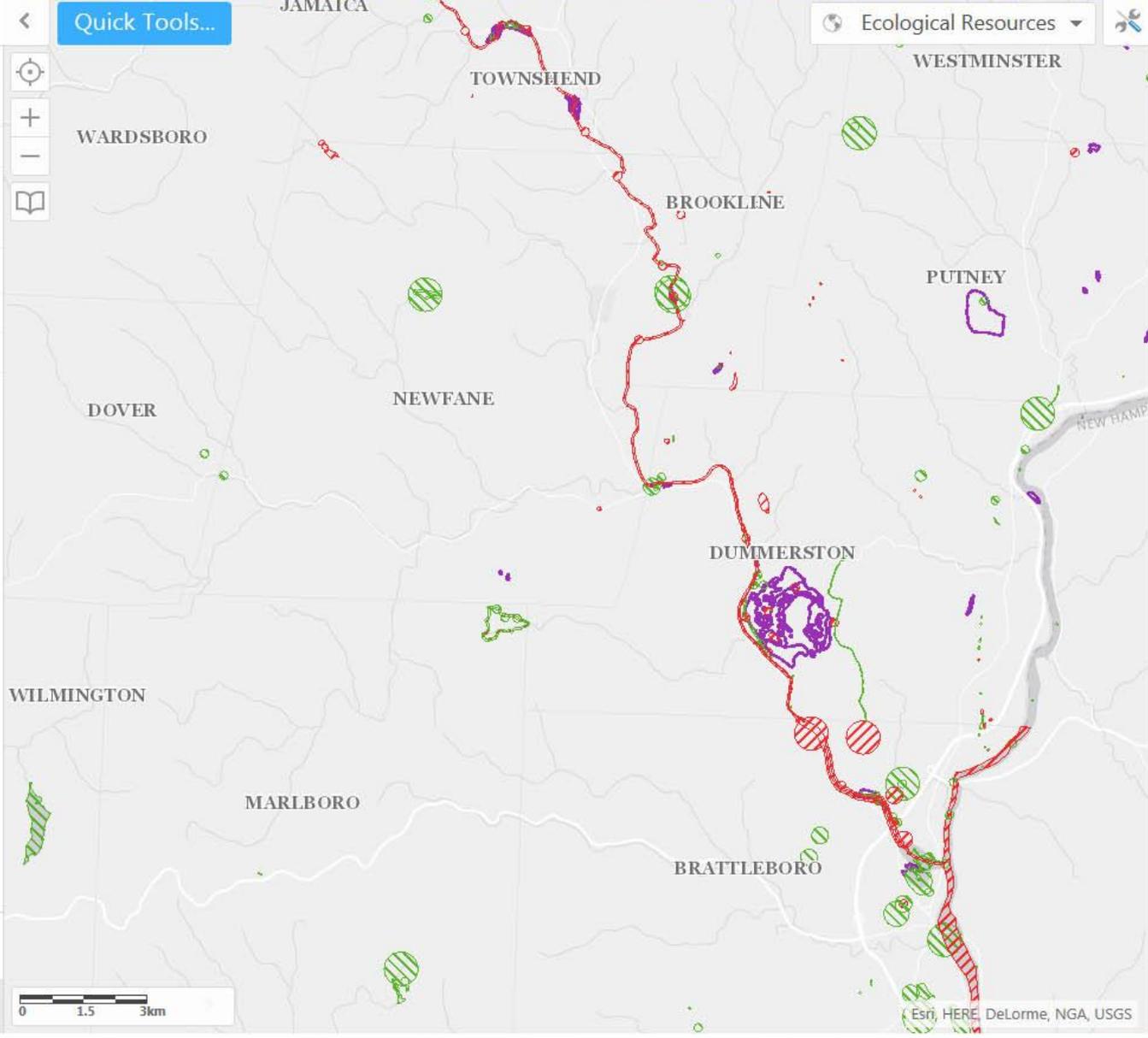
Quick Tools...

Search...

boundaries – the location where we're most confused

Map Legend

- Forest Stewardship Layers
 - Rare Threatened Endangered Species
 - Threatened or Endangered (Red hatched)
 - Rare (Green hatched)
 - Significant Natural Community (Purple outline)
 - Uncommon Species and Other Features
 - Animal (Blue outline)
 - Plant (Orange outline)
 - Natural Community (Purple outline)



Quick Tools... (button)

Ecological Resources (dropdown menu)

Show Layer List (button)

Esri, HERE, DeLorme, NGA, USGS (copyright notice)



PROGRAMS

-
- Brownfields
-
- Community Development
-
- Emergency Planning
-
- Energy
-
- LEPC-6
-
- Maps & GIS
-
- Mitigation Planning
-
- Natural Resources
-
- Project Review
-
- Transportation
-
- Town Planning
-
- Vermont Yankee
-
- Water Quality



Parcel data

Quick Links:

- [ESRI shapefile download](#) (VCGI website; type in the keyword "parcels")
- [ESRI shapefile download](#) (VCGI FTP site; direct file download)
- [KMZ file download](#) (for use in Google Earth)
- [Halifax property map](#)
- [Somerset parcel data and map](#)
- [Parcel data status](#) of Windham Region towns
- [Parcel data resources](#) - links to on-line maps, standards, etc.



parcel lines, Westminister

Vermont is one of only a few states in the country where property records are maintained at the town level. Each individual town is responsible for these property records, which may include parcel, or "tax" maps. As such, parcel maps and data—their currentness, format, and quality— vary from town

Obtaining Digital Parcel Data

Parcel data polygons for most towns can be downloaded as ESRI shapefiles from the Vermont Center for Geographic Information. Go to the [VGIS data warehouse](#), type in the keyword "parcels," click "go," then click on the "download" button. You may also download files directly from VCGI's [FTP site](#).

If you are looking for parcel data lines, data showing non-parcel boundary lines on tax maps (e.g. land hooks, utility easements—the "TZ" files), archive version of parcel data, more current parcel data, or information on data not available from the VGIS data warehouse, please contact GIS staff at WRC.

Town Parcel Map and GIS data status

This is our best estimate as to the status of tax maps and parcel data. * Note: "Year" indicates year of the most current data WRC and VCGI have from contractor. More current data may exist.

Town	Paper maps	Contractor	Digital data	Year*	Contractor	Data Notes
Athens	yes	Dibo	no	-	-	lines available, contact WRC
Brattleboro	yes	CAI	yes	2014	CAI	updated yearly
Brookline	yes	Dibo	yes	2003	WRC	(paper maps more current)

MAPS & GIS DATA

-
- Road Name Maps
-
- E911/Emergency Response Maps
-
- Parcel Data
-
- Bike Maps
-
- Watershed Maps
-
- Culvert Inventories
-
- Road Sign Inventories