

Map Data for Municipalities

A High-Level Overview

Vermont Center for Geographic Information ([VCGI](#))

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Municipal Day | October 20, 2023



Overview

- **VCGI, GIS in the State of Vermont**
- **Available GIS Data & Resources**
- **Where Do I Find Data**
- **Resources for Mapmaking**
- **Where Can I Learn More**

It's almost 2024.
Aren't y'all done mapping yet?...



What VCGI Does



BUILD

Foundational
Datasets
(Spatial Data
Infrastructure)



LEAD

Development and
use of Statewide
Geographic Information
System (GIS) and the
Coordination it requires



EMPOWER

Data access,
visualization and use.
“Helping Vermonters
visualize choice.”

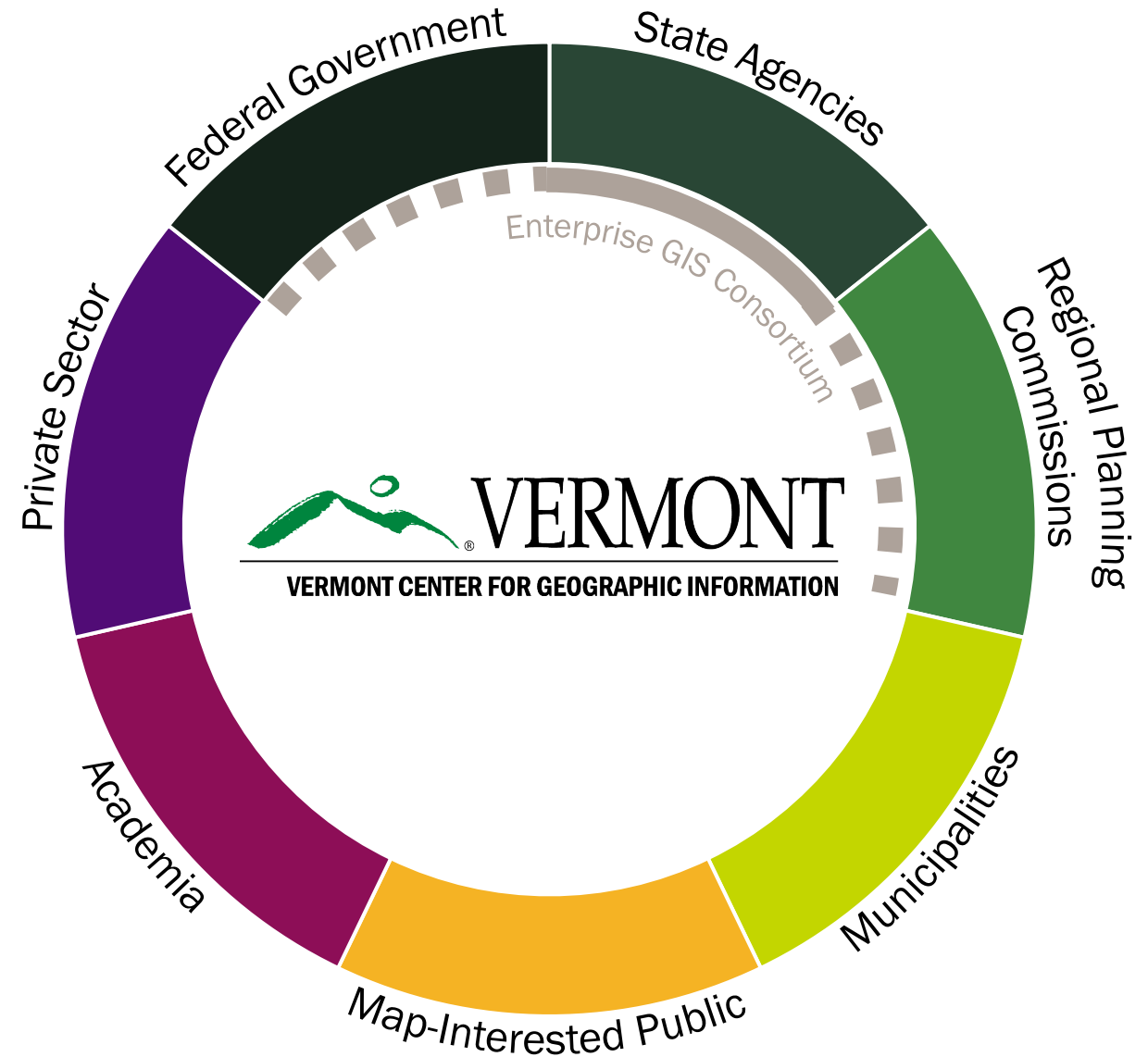


Purpose

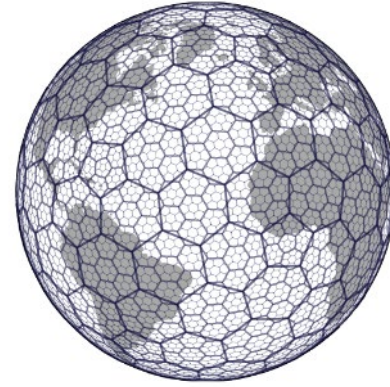
[10 V.S.A. Chapter 8: Geographic Information](#)

The Vermont Center for Geographic Information (VCGI) was created to develop and implement a “comprehensive strategy for the development and use of a geographic information system.” This strategic plan provides guidance toward this end from 2023 through 2027.

Most of what we do is provide freely-accessible, public, statewide spatial information resources.



Feature	Raster
Service	Vector
Filter	Query
Attribute	Clip
Field	Topology
Schema	Geoprocessing
View	Geographic Coordinate System / Projected Coordinate System / CRS
GDB	WKID / EPSG
Shapefile	Web Mercator



GIS

JARGON*

**a tiny sample*



[Link: USDA NRCS Glossary of Common GIS and GPS Terms](#)

Past

(2018 – 2022)

A look at some things we've accomplished in the last five years to help gauge what is next.

- Availability of statewide, uniform grand-list joined [municipal parcel data](#) representing over 330,000 parcels with ongoing upkeep
- Availability of statewide, high-resolution [QL2 lidar-derived elevation products](#)
- Availability of 1,000+ open datasets by multiple publishers at the [VT Open Geodata Portal](#) that served 50,000+ unique users last year
- Availability of [30cm and 15cm orthoimagery](#) for multiple locations
- Availability of key public data and applications such as COVID-19 tools that have been viewed millions of times
- Ongoing support of key applications such as the [ANR Atlas e911 viewer](#) and [Planning Atlas](#)
- Availability of weekly-updated key datasets such as [address points](#) and [road centerlines](#)
- Availability of statewide [high-resolution land cover](#) products, including impervious surfaces
- Availability of digital copies of [land surveys](#) statewide
- Availability of [municipal zoning boundaries](#) statewide, and more.

2017-
2020

30 Years of Mapping

2022 marks the 30th anniversary of the passage of Act 258 which created the Vermont Center for Geographic Information, a part of the Data Division at the Agency of Digital Services. In 1992, staff (snail) mailed an average of three orders a week with floppy disks containing 17 MB of data. At the time, the Center estimated that demand for data over the next couple decades would grow a rate of 2%-10% annually, which (at the high end) would result in well under 2,000 users. These forecasts were off, as we now see over a half million visits a year from over 80,000 users accessing over 20TB of data. **In three decades, maps and spatial data have expanded from the niche world of tech-savvy geographers in academia and physical maps to a basic government service expected by the public, easily accessible online.** The growth and success of GIS in Vermont can largely be attributed to the collaboration of more than 20 different partner agencies, regional planning commissions, and others outside of government contributing to over 1000 datasets to the Open Geodata Portal. This group is now known as the Vermont Enterprise GIS Consortium.



Year in Review

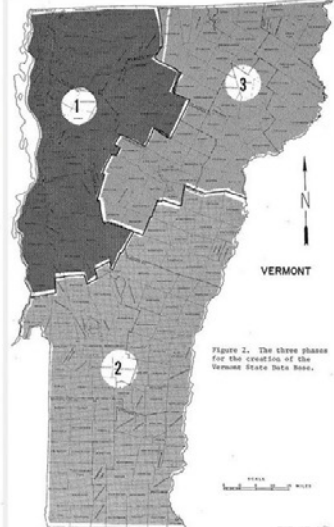
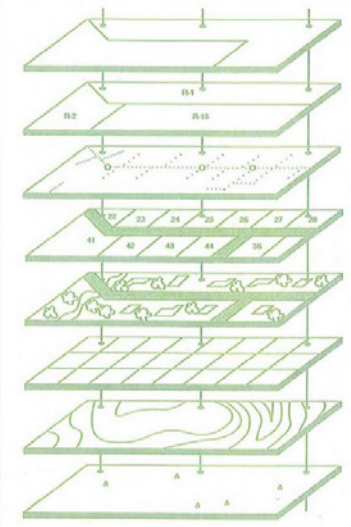
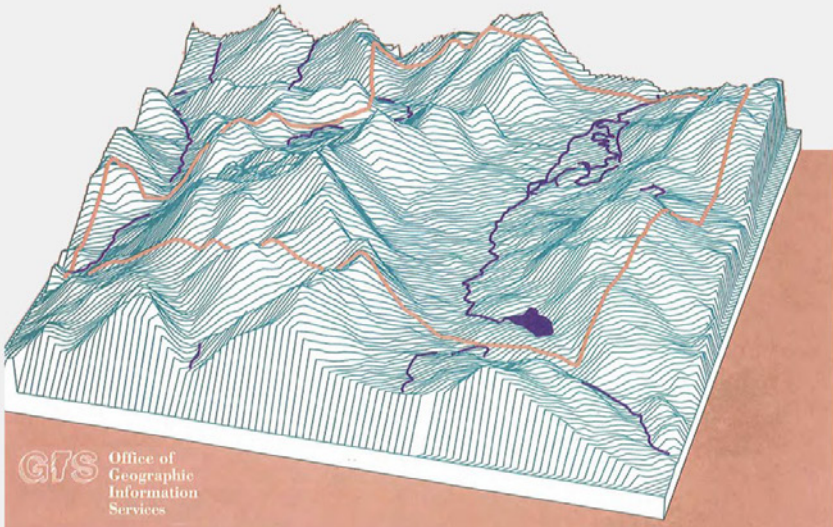
2022

2021

2020

2019

2018



Early Vermont GIS Work: 1990's GIS for Vermont Communities: Applications and Concepts (left), 1989's VGIS Report to the Legislature (center), and 1983's The Creation of the Vermont State Database are all available at the [History of GIS in VT](https://www.vt.gov/history-of-gis-in-vt) page at [vcgi.vermont.gov](https://www.vt.gov/history-of-gis-in-vt).



Available GIS Resources

Sample across Agencies & Departments





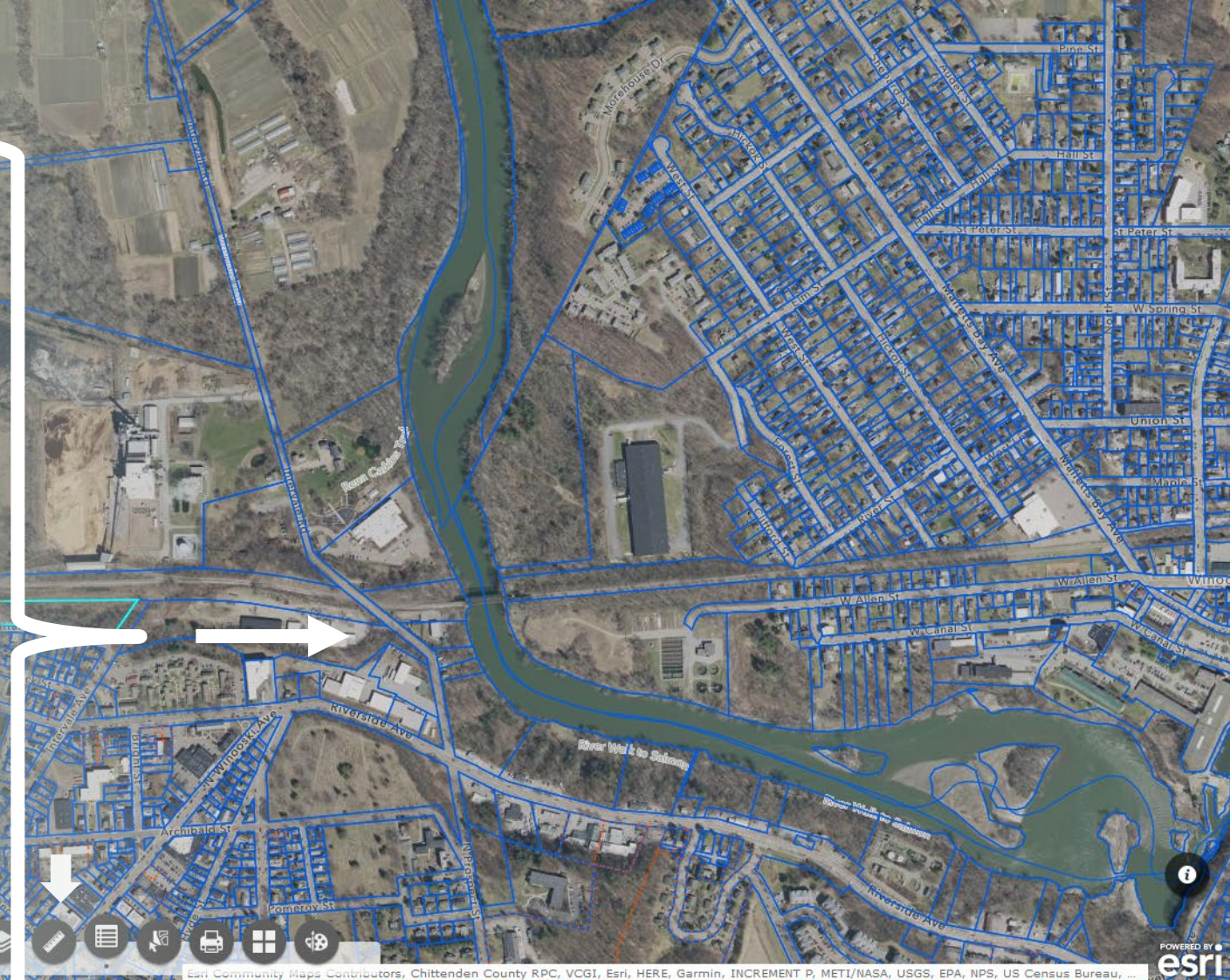
MAP GEOMETRY W/ SPAN
256 TOWNS



ANNUAL STATEWIDE
GRAND LIST from TAX

SPAN: 114-035-13809

MAPID	039-2-053-000
Property Type	PARCEL
GIS Year	2018
TOWN	BURLINGTON
Owship	CITY DPW, 645 PINE ST BURLINGTON, VT, 05401
Property Description	FORMER CITY DUMP MONITORING STATION CR
Category (Real Estate only)	Commercial
Resident Ownership Code	C
Zoom to	



TOWN	Property Description	Category (Real Estate only)	Resident Ownership Code	Total Acres	Listed Real Value (Full)	Listed Value of Land	Listed Value of Improvements	Homestead Declared (Y/N)	Owship
BURLINGTON	FORMER CITY DUMP MONITORING STATION CR	Commercial	C	37.70	521,200	508,600	12,600	N	CITY DPW, 645 PINE ST BURLINGTON, VT, 05401



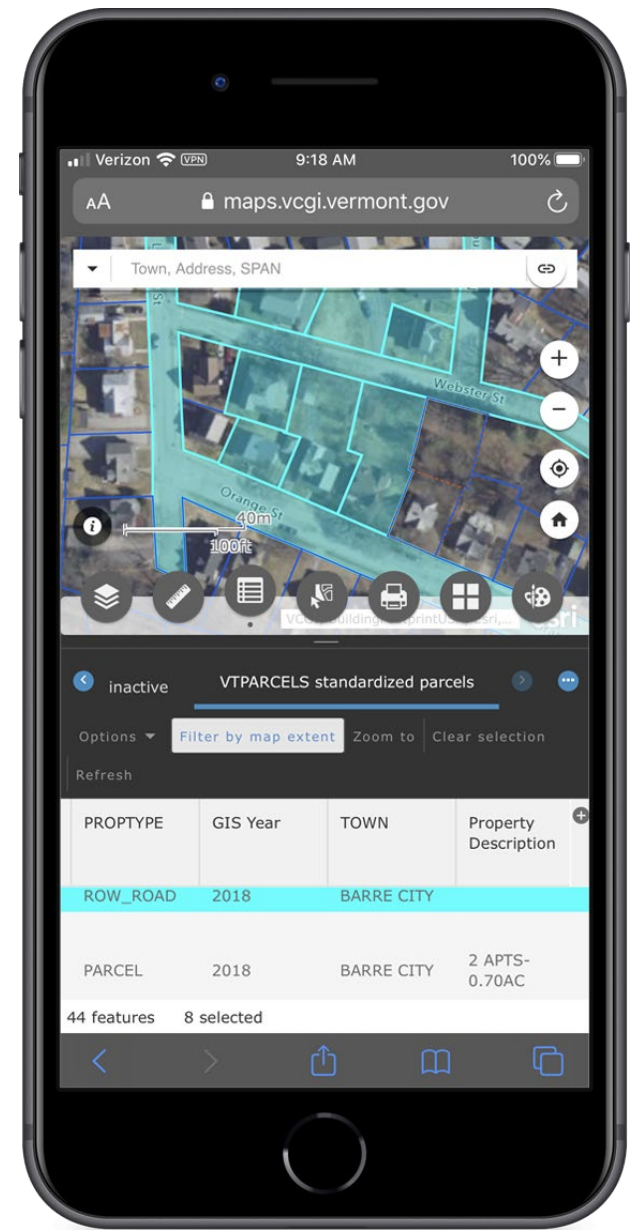
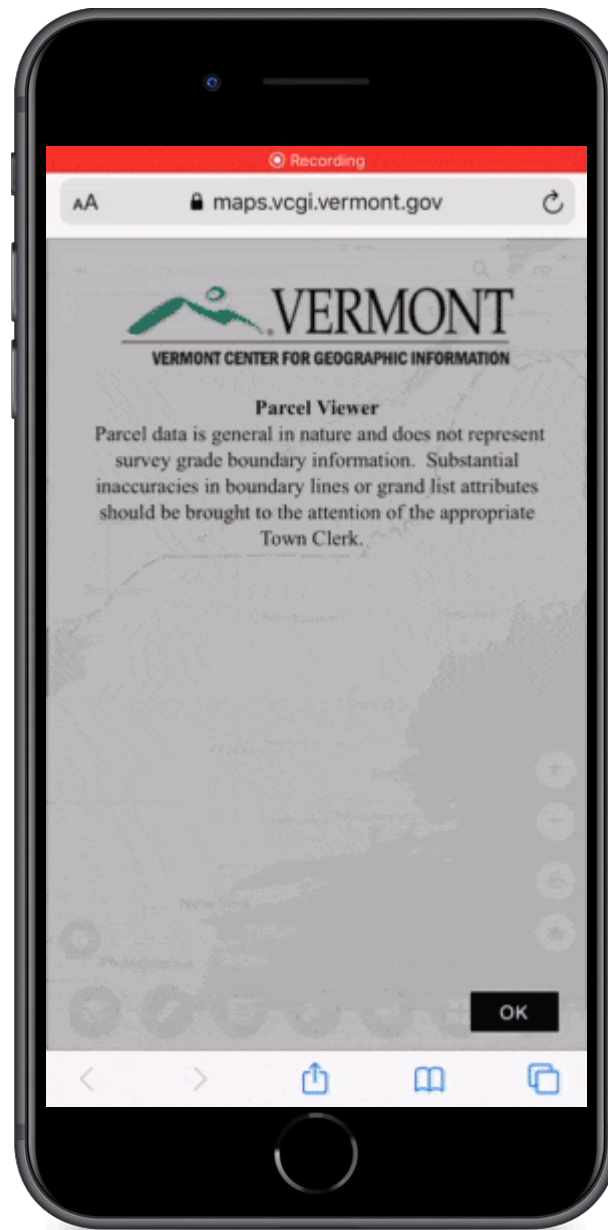
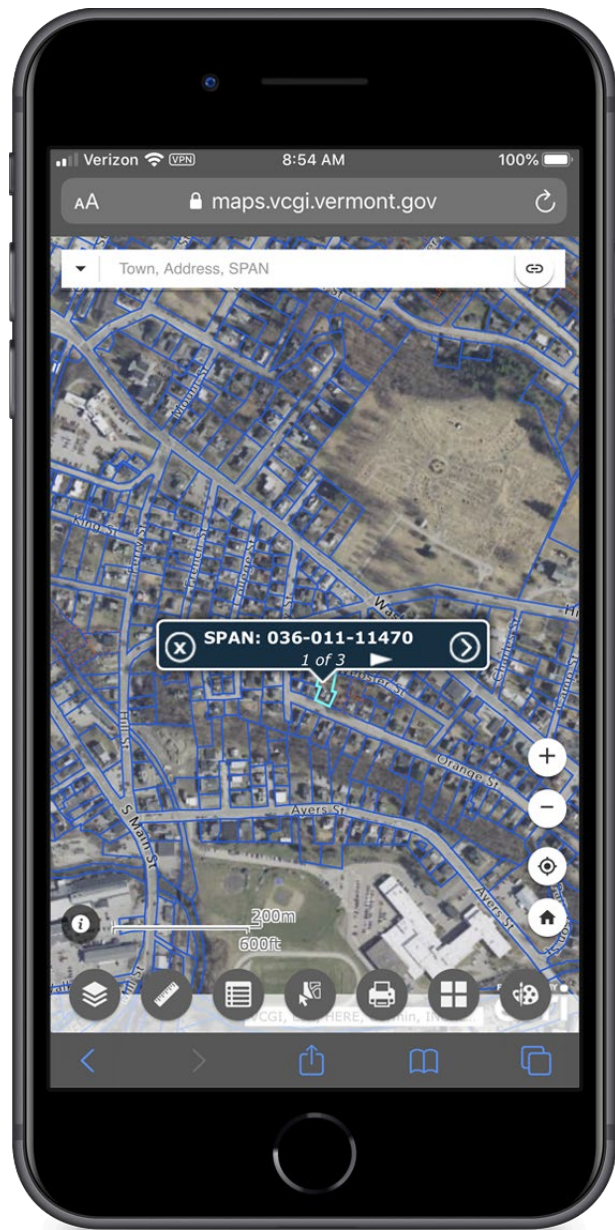


-73.186 43.272 Degrees
100m



Boundaries: Parcel Data | [Vermont Parcel Viewer](#)

Export grand list attributes to table format



Boundaries: Parcel Data | [Vermont Parcel Viewer](#)

Retain view and search functionality in the field (in locations with cellular connection)

STATE OF VERMONT Vermont Open Geodata Portal

DATA WEB SERVICES APPLICATIONS DEVELOPERS CONTACT US HELP



Datasets

These datasets are downloadable and contain the best available GIS parcel data we have received from each municipality to date.



Excerpt of Parcel Data

Parcel Datasets

Vermont GIS parcel data is made available here as typically collected annually by municipalities. There are statewide datasets for parcel polygons and "inactive" parcel polygons (where available). A town by town extract of parcels is also available.

Choose which dataset you wish to use below:

[Parcel Polygons](#)

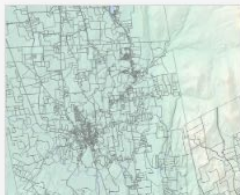
[Inactive Parcel Polygons](#)

[Parcel Data Status by Town](#)

[Parcels Available by Town](#)

Web Services

Services stream spatial data to your machine via the internet. For an overview of how to connect to map services in desktop GIS software,

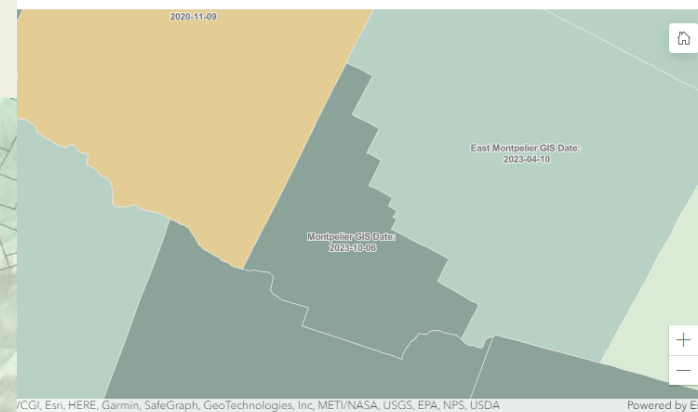


Parcel Web Services

Vermont parcel data are available as a statewide, web mercator service in two ways: a feature service and an OGC web feature service or WFS. The services contain both the active and inactive parcel polygon layers.

Both service types contain the same content and are updated at the same time.

GIS Geometry Update Recency



Publishing Review Status



CGI, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA Powered by Esri

GIS Recency and Status Town Mapping Capacity Town Match Status Town Mapping Practices

Select a town from the drop down menu above.

Montpelier

Published GIS Geometry Date	2023-10-06
Current Map Capacity	Contract GIS Vendor
Current Vendor	CAI
Update Month if Known	October
Update Frequency if Known	Annual
Contract Length	1 Year
Most Recent Geometry Submittal	2023-09-29
Submittal Reviewed by Town	No
Submitting Entity	CAI
Submitted By	Don Butson
Submission ID	Montpelier 2023-09-29T17:01:59.000Z
Regional Planning Commission	Central Vermont Regional Planning Commission
Published GIS Notes	
Parcel Project (2017-19) Vendor	Russell Graphics

Review Status Map Legend

- In Publishing Queue
- Not in Publishing Queue

Selected Town: Montpelier

All Towns Currently Joined With

2022

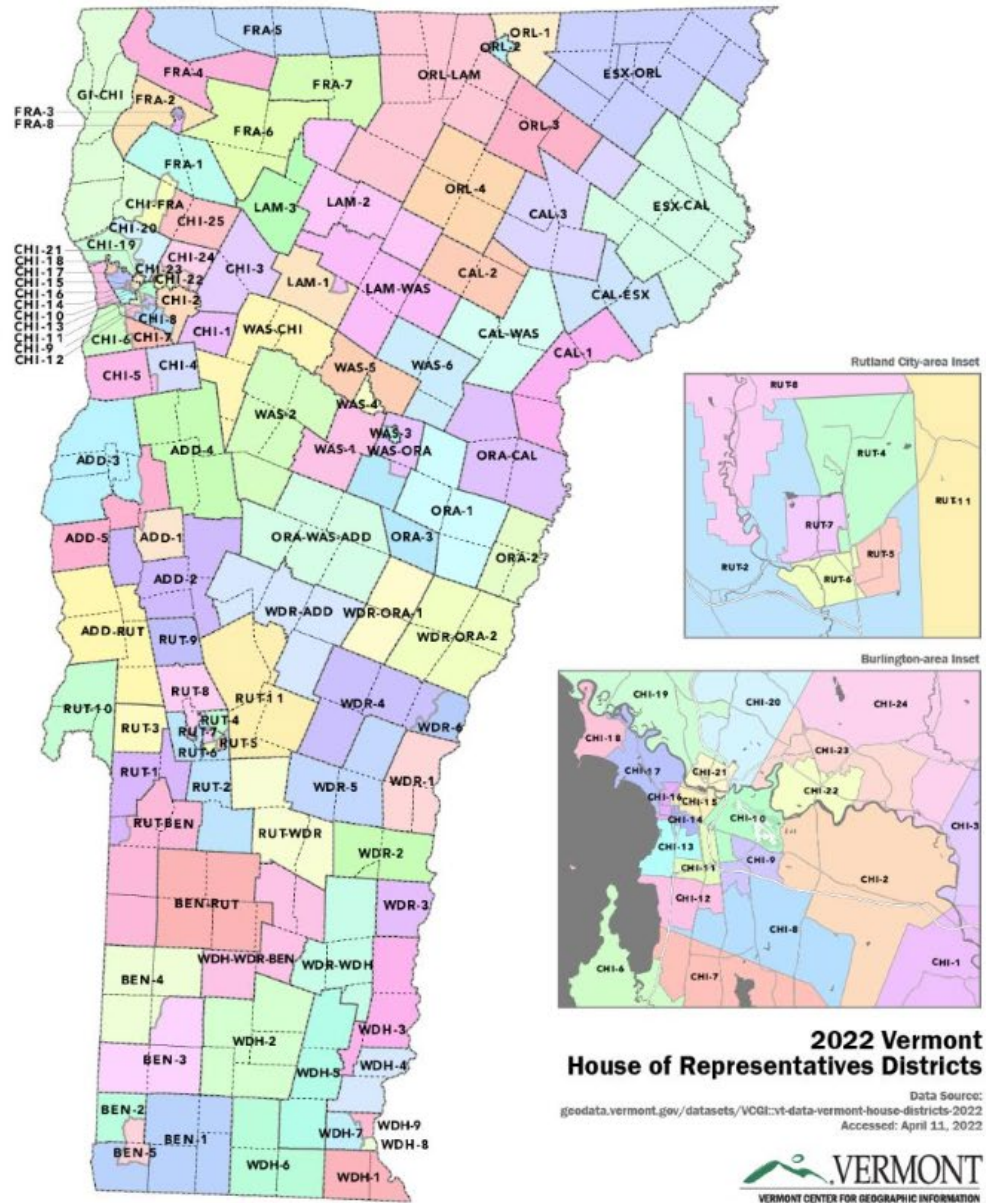
Statewide Grand List
*Statewide grand list represents the owner on record on April 1 annually.

Status Last Updated: 10/18/2023, 7:48 AM
Status updated weekly.

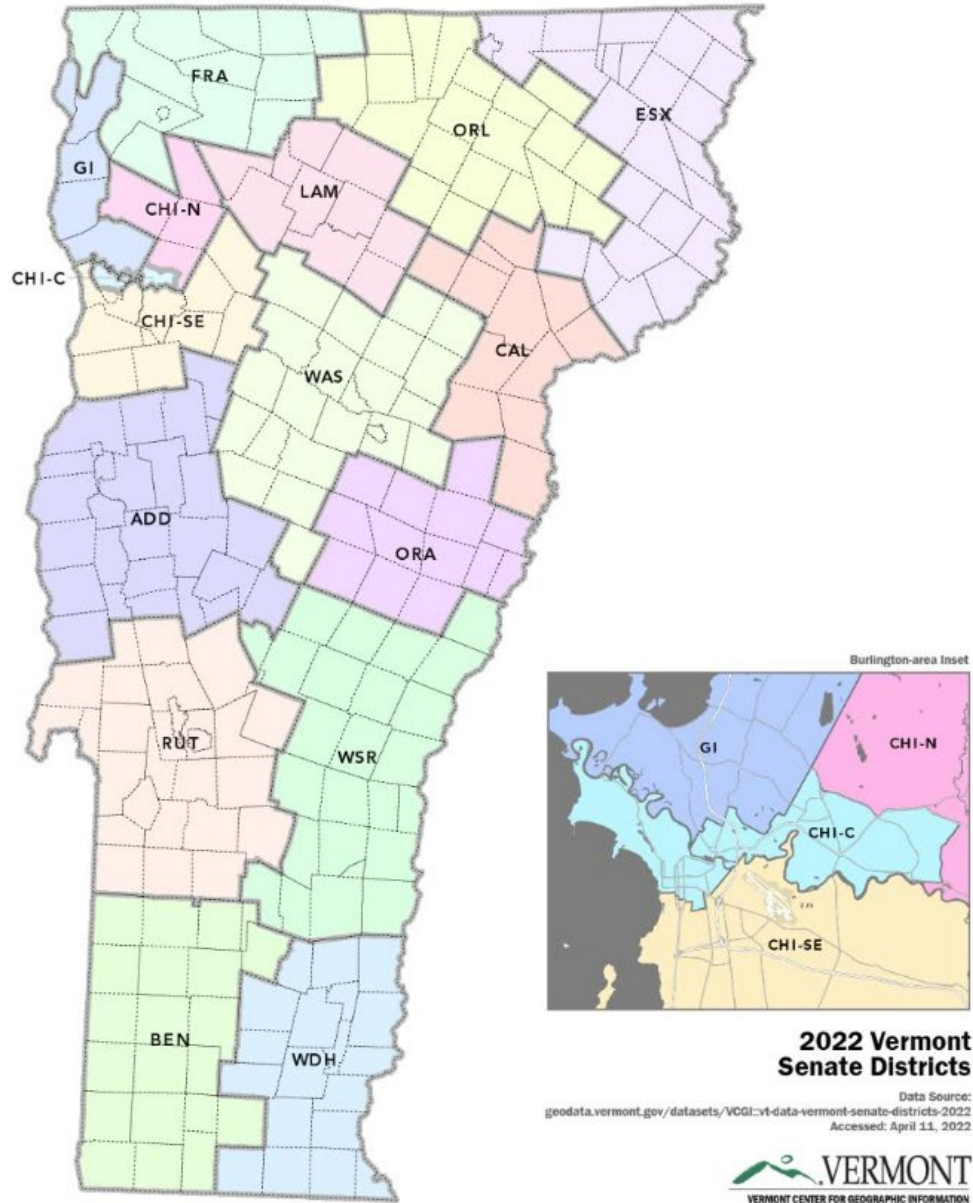


Boundaries: Parcel Data | [Parcel Page](#), [Town Parcel Status](#)

Links to data downloads, streaming services, applications

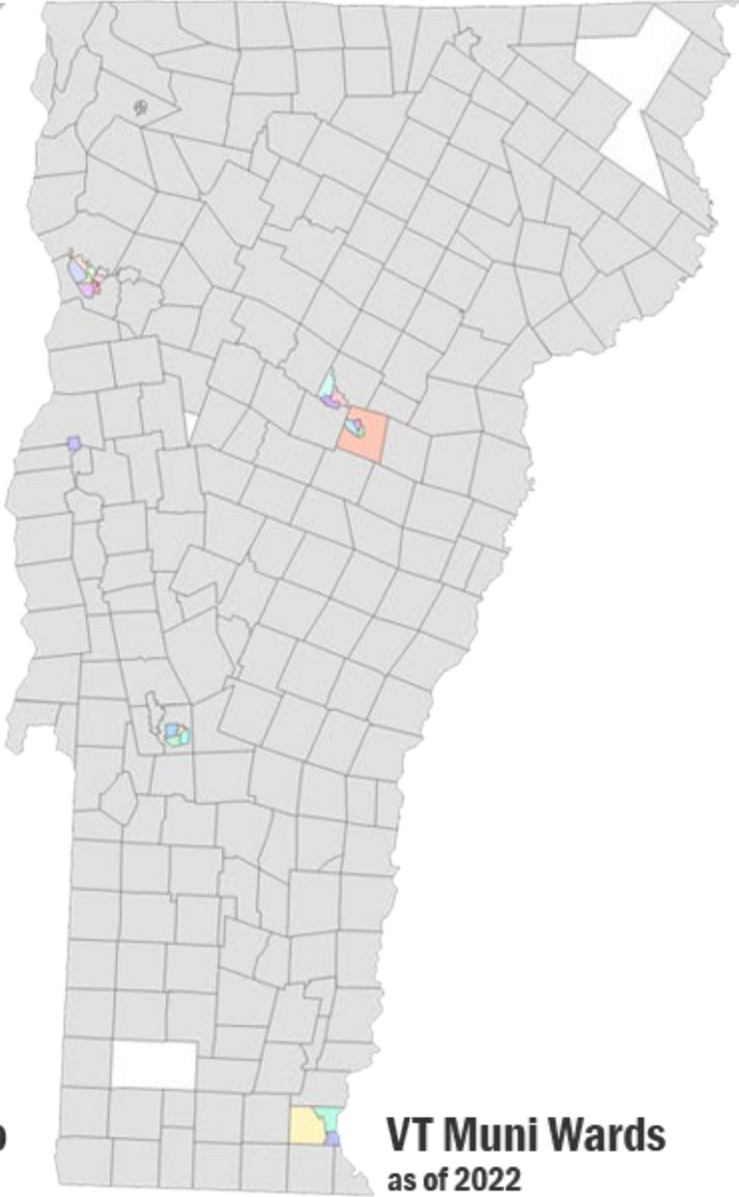
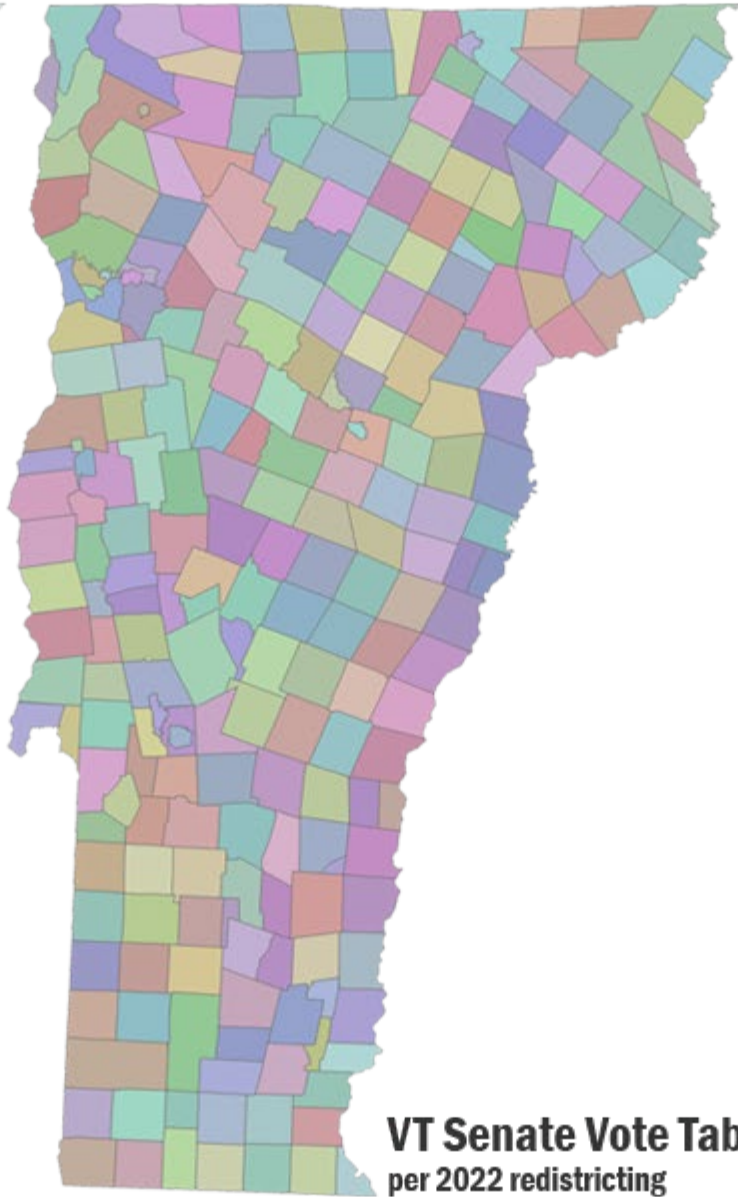
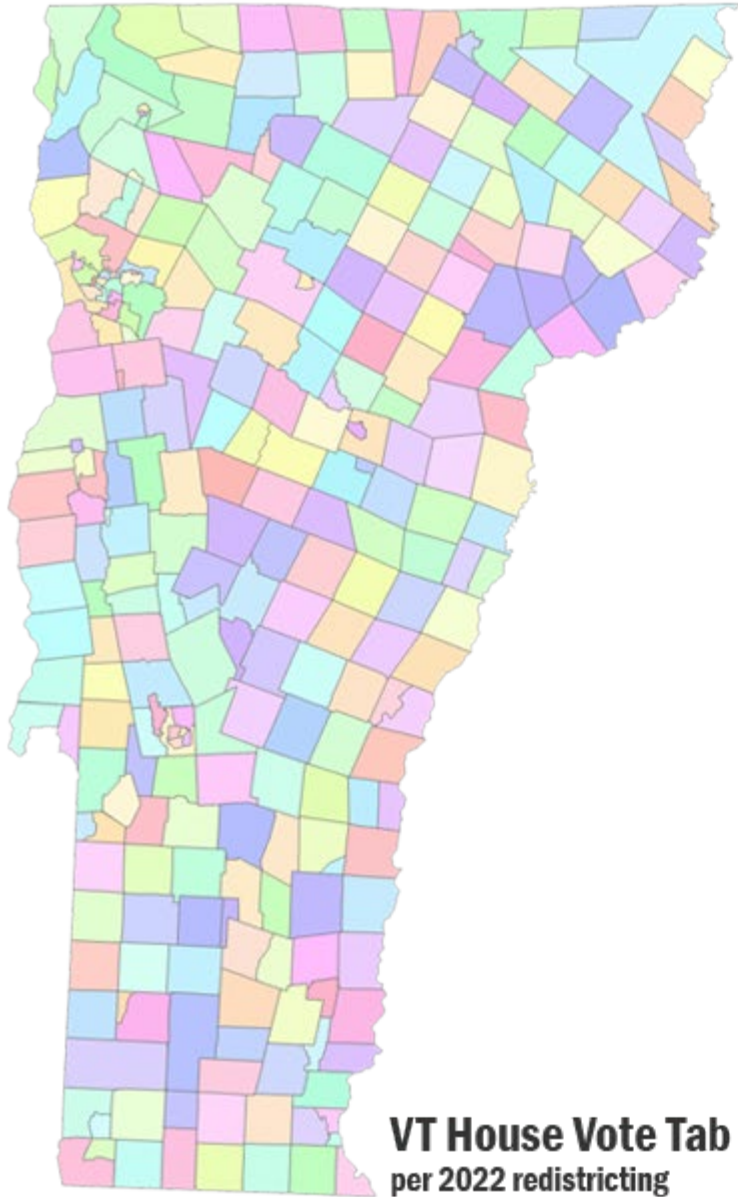


2022 Vermont House of Representatives Districts
 Data Source: geodata.vermont.gov/datasets/VCGI:vt-data-vermont-house-districts-2022
 Accessed: April 11, 2022

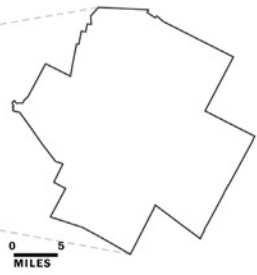


2022 Vermont Senate Districts
 Data Source: geodata.vermont.gov/datasets/VCGI:vt-data-vermont-senate-districts-2022
 Accessed: April 11, 2022





County



0 5
MILES

Tract



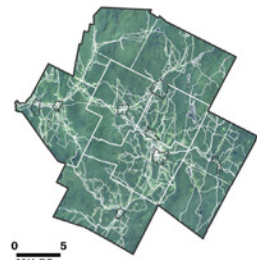
0 5
MILES

Block Group



0 5
MILES

All Visible



0 5
MILES

County
Subdivision (Town)



0 5
MILES

Block



0 5
MILES

Place



0 5
MILES

- [2020 Census - VT State](#)
- [2020 Census - VT Counties](#)
- [2020 Census - VT Tracts](#)
- [2020 Census - VT Block Groups](#)
- [2020 Census - Towns \(County Subdivision\)](#)
- [2020 Census - Blocks](#)



VT Data - H3 Hexagonal Spatial Index Level 4 - Vermont
(~ 23km per side) (25 hexes in VT)

VT Data - H3 Hexagonal Spatial Index Level 5 - Vermont
(~ 9km per side) (121 hexes in VT)

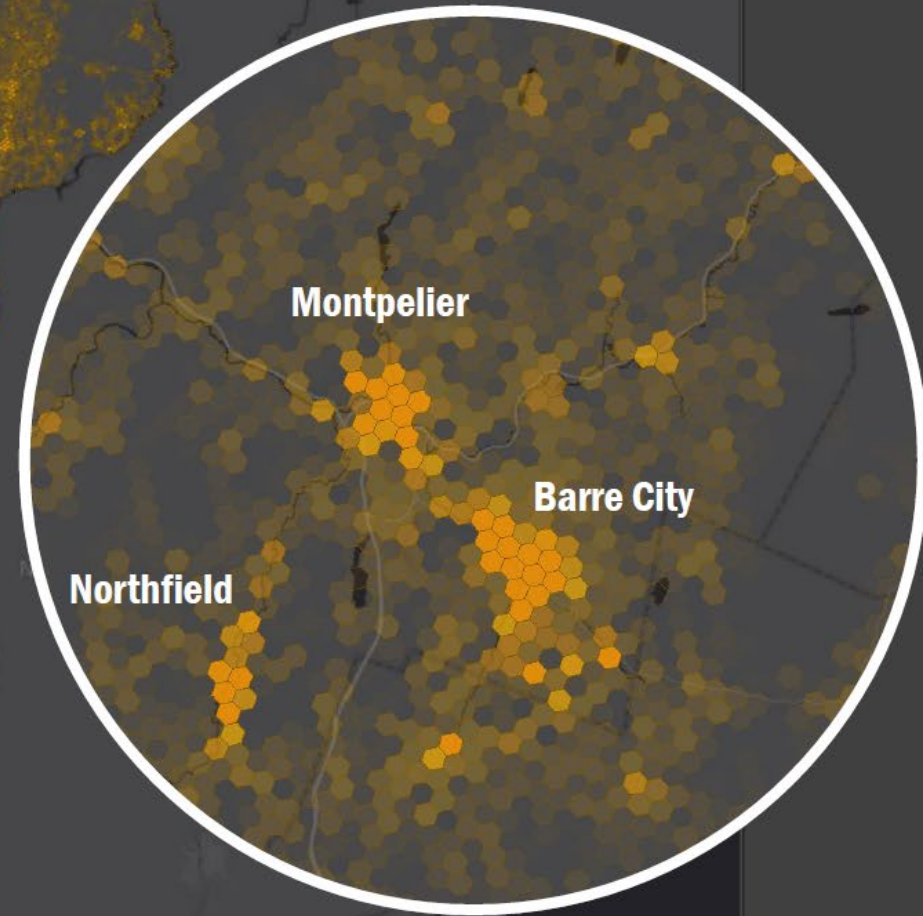
VT Data - H3 Hexagonal Spatial Index Level 6 - Vermont
(~3km per side) (727 hexes in VT)

VT Data - H3 Hexagonal Spatial Index Level 7 - Vermont
(~1km per side) (4,753 hexes in VT)

VT Data - H3 Hexagonal Spatial Index Level 8 - Vermont
(~0.5km per side) (32,340 hexes in VT)

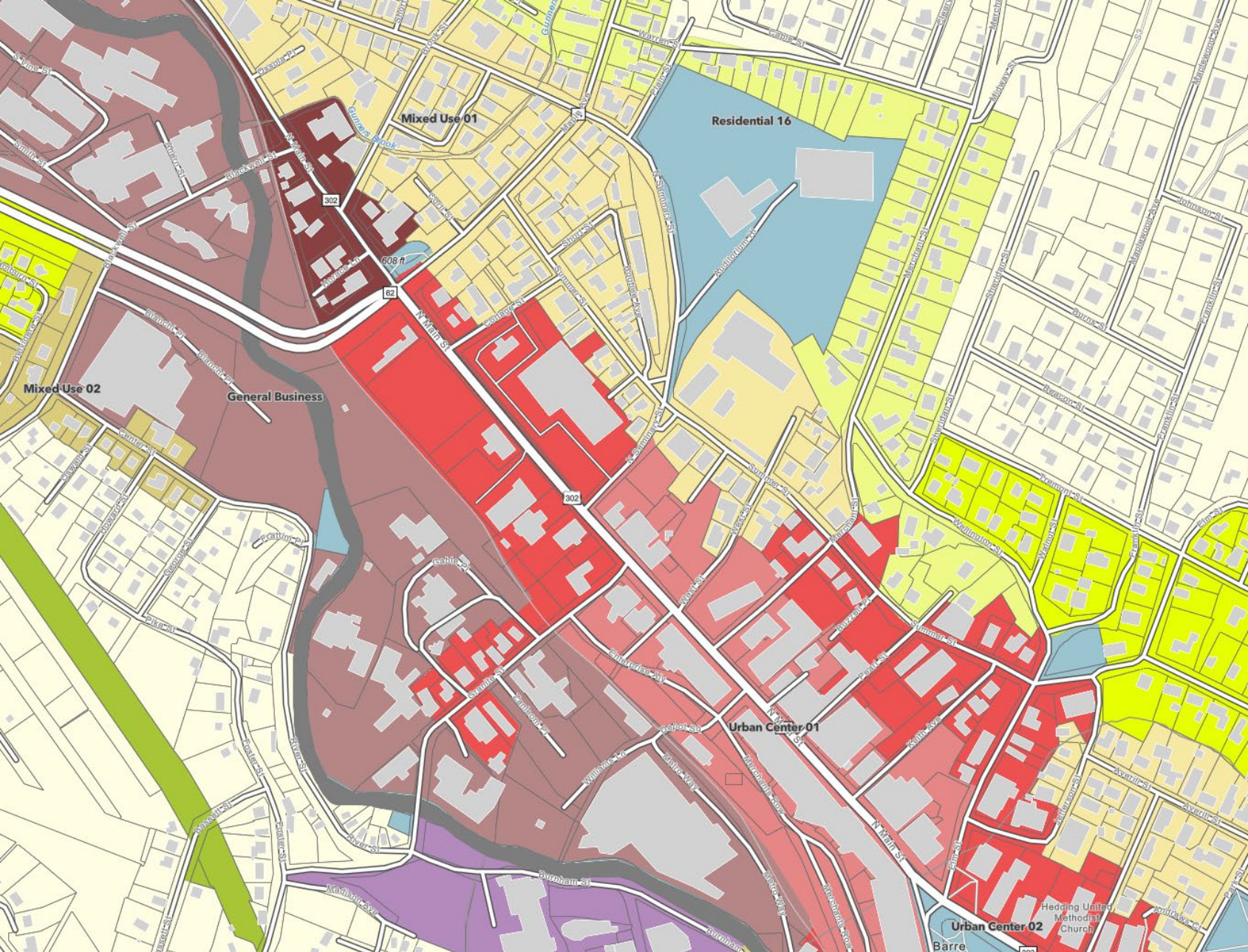
VT Data - H3 Hexagonal Spatial Index Level 9 - Vermont
(~0.2km per side) (223,807 hexes in VT)

ESITES (342,511)
H3 - L8
21,996 Hexbins
(31,730 Total / 69%)
1 Min
1,214 Max
15.6 Mean



L8





zoning

All (1117) Data (941) Documents (144) Apps & Maps (26)

Filters Reset 1 - 12 of 501 Relevance

Location

Find address or place

Results: 501

Type: Feature Service Date updated: 6/13/2022
Tags: zoning, isothemeBoundary, nodeCCRPC, subthemeOt...

Type: Feature Service Date updated: 12/27/2022
Tags: zoning, Newfane, South Newfane, Williamsville, Verm...

Type: Feature Service Date updated: 12/13/2022
Tags: isothemeBoundary, subthemeTown, nodeCCRPC, Colc...

Type: Feature Service Date updated: 3/15/2023
Tags: isothemeBoundary, subthemeTown, nodeCCRPC, Hun...

Type: Feature Service Date updated: 10/19/2023
Tags: isothemeBoundary, subthemeTown, nodeCCRPC, Bolt...

Type: Feature Service Date updated: 6/15/2022
Tags: isothemeBoundary, subthemeTown, nodeCCRPC, St...

Type: Feature Service Date updated: 12/24/2018

License

Filter options



Vermont Land Survey Library

Search, View and Add Vermont Land Surveys

A Public Library for Vermont's Land Survey Records

The library hosts copies of land surveys of boundary line adjustments and subdivisions as prepared by Vermont licensed land surveyors.

[Enter the Land Survey Library](#)

Digital Survey Plats

Effective January 1, 2020 and as stated in [27 V.S.A. § 341](#), surveys are required for property line changes in Vermont. Licensed land surveyors who produce the surveys are to submit a digital copy of them to the library in [.pdf format](#) (see [27 V.S.A. §1401](#) and [27 V.S.A. §1403](#)).

The copies of surveys are for public reference only, with the originals that most often reside with the Municipality remaining the official documents. The purpose of the land survey library is to improve knowledge of who owns

What is it?

The library consists of a web map that displays the general locations of .pdf copies of surveys produced by Vermont licensed land surveyors. For new surveys produced from January 1, 2020 onward, surveyors upload the .pdf copies to the map when the surveys are to be filed with the Town Clerk. The library's content is open to the public for viewing and reference.

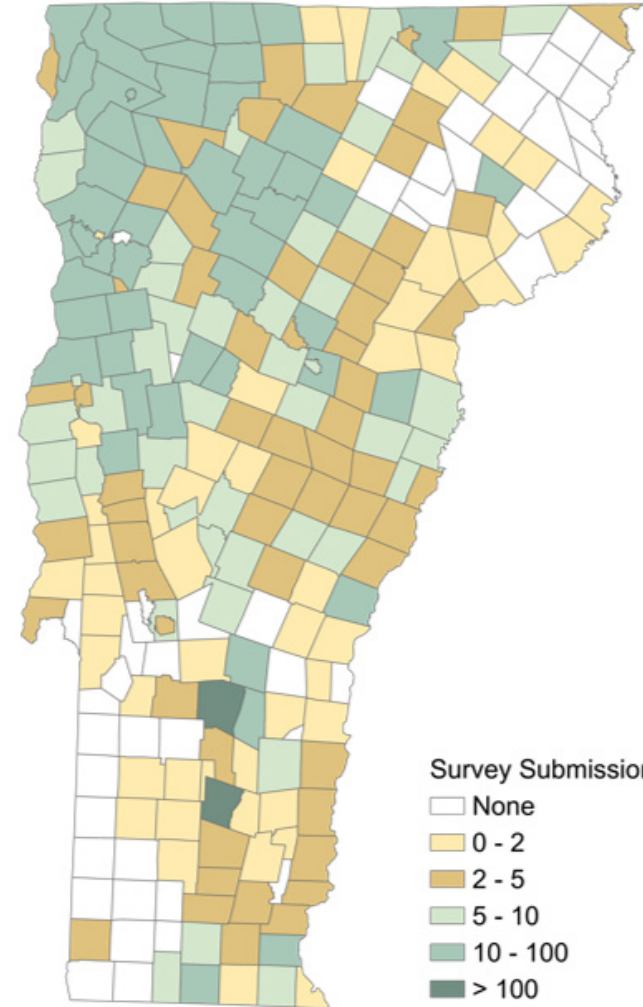
[Learn More Here](#)

Submit a Survey

Are you a Vermont licensed land surveyor completing a survey of a property line change on land in Vermont? Are you a town official with recorded surveys that you'd like to make available on a map? If yes to either, then use the survey library application linked from this page to submit a .pdf copy of these documents. Learn more about how and when to use the library in the [How It Works](#) section, and read answers to frequently asked questions under [FAQ's](#).

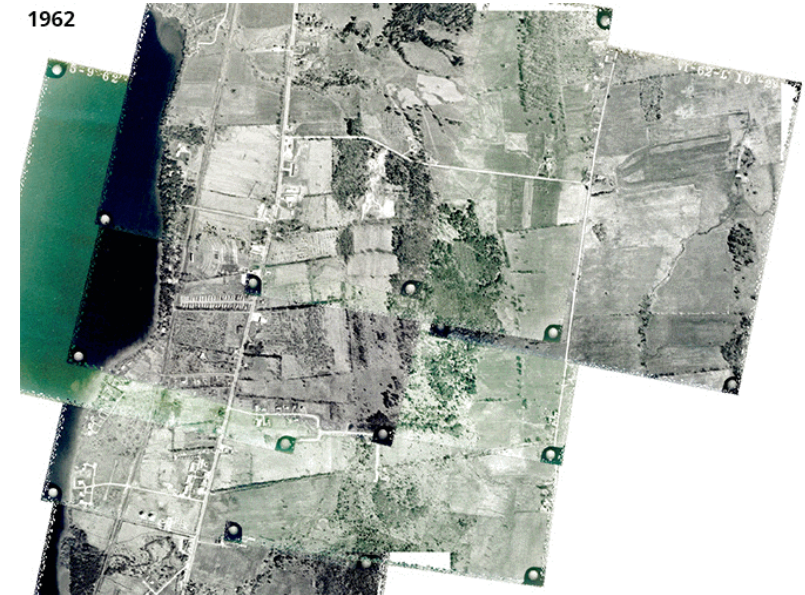
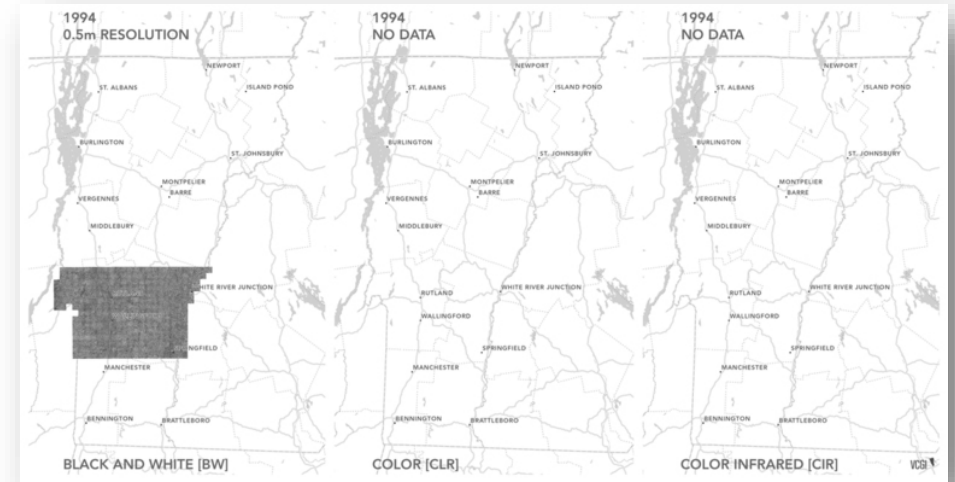
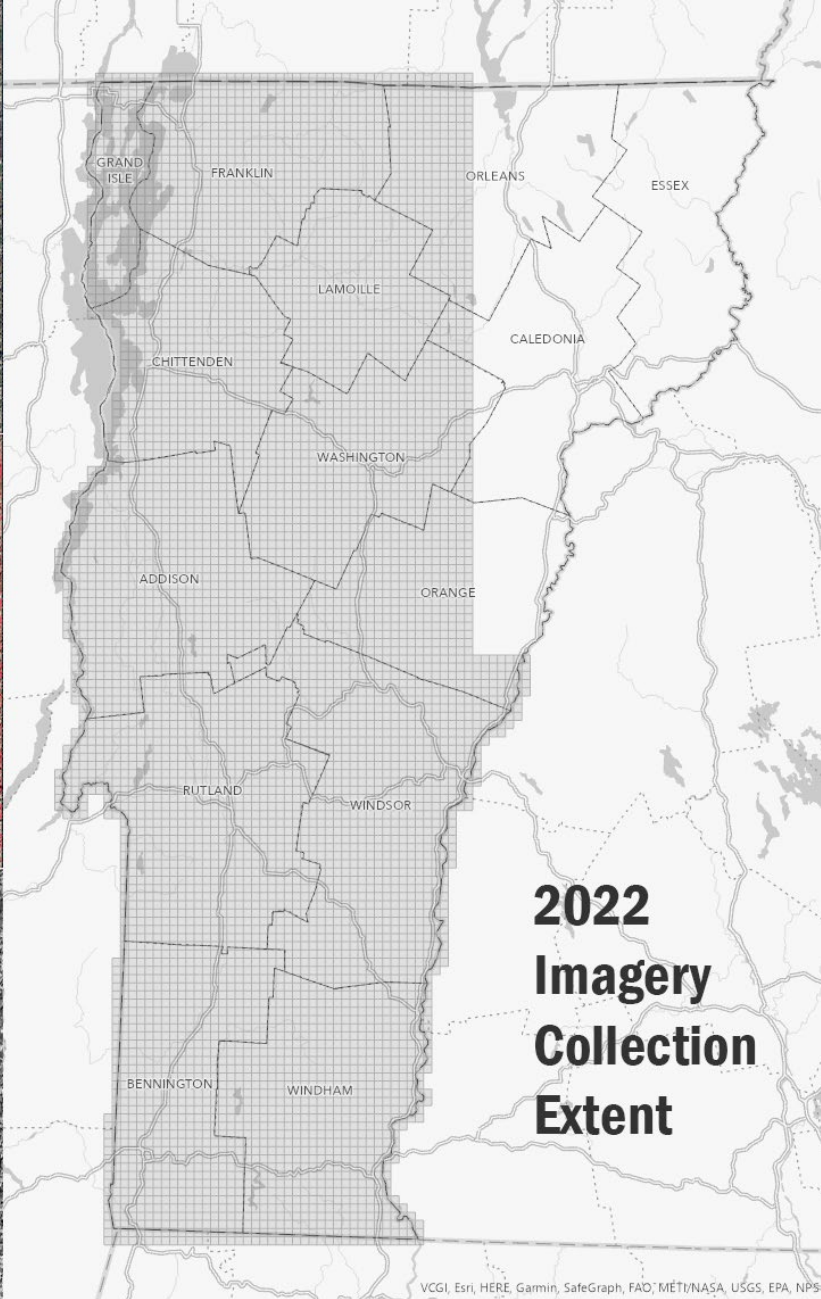
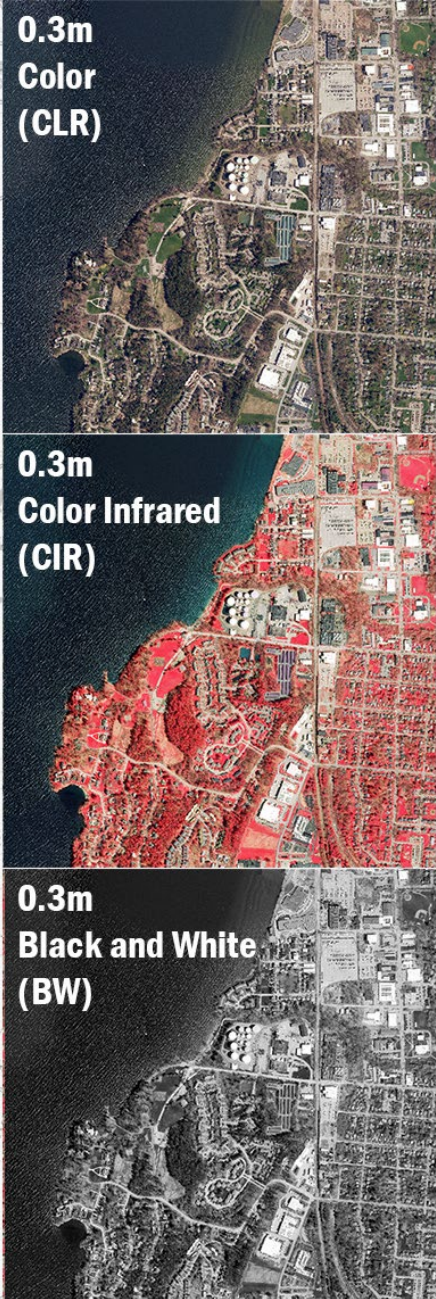
The Vermont Land Survey Library: Status

2,272 surveys have been submitted since January 2020. Most were performed in or after 2020, but some have been uploaded retroactively.

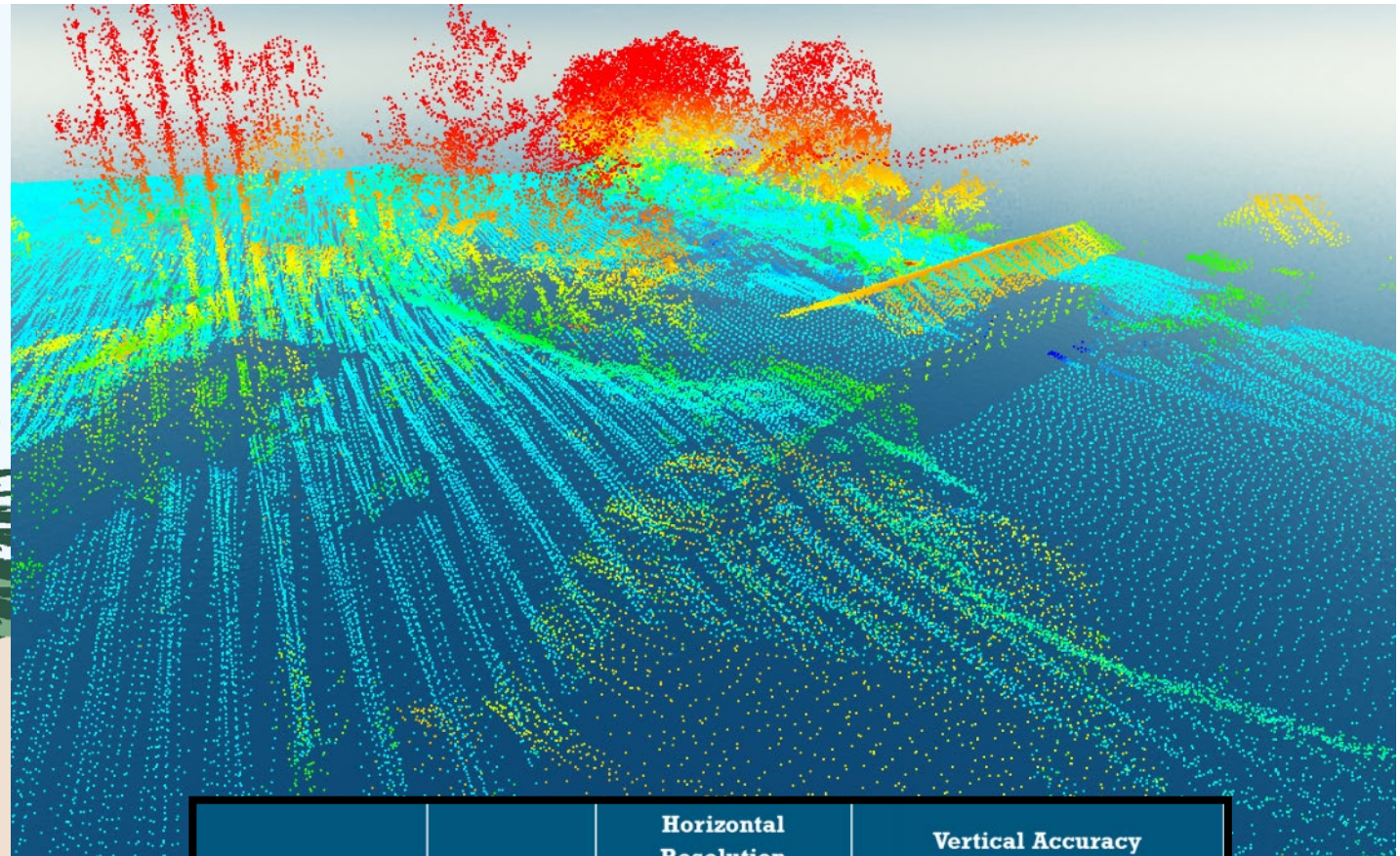
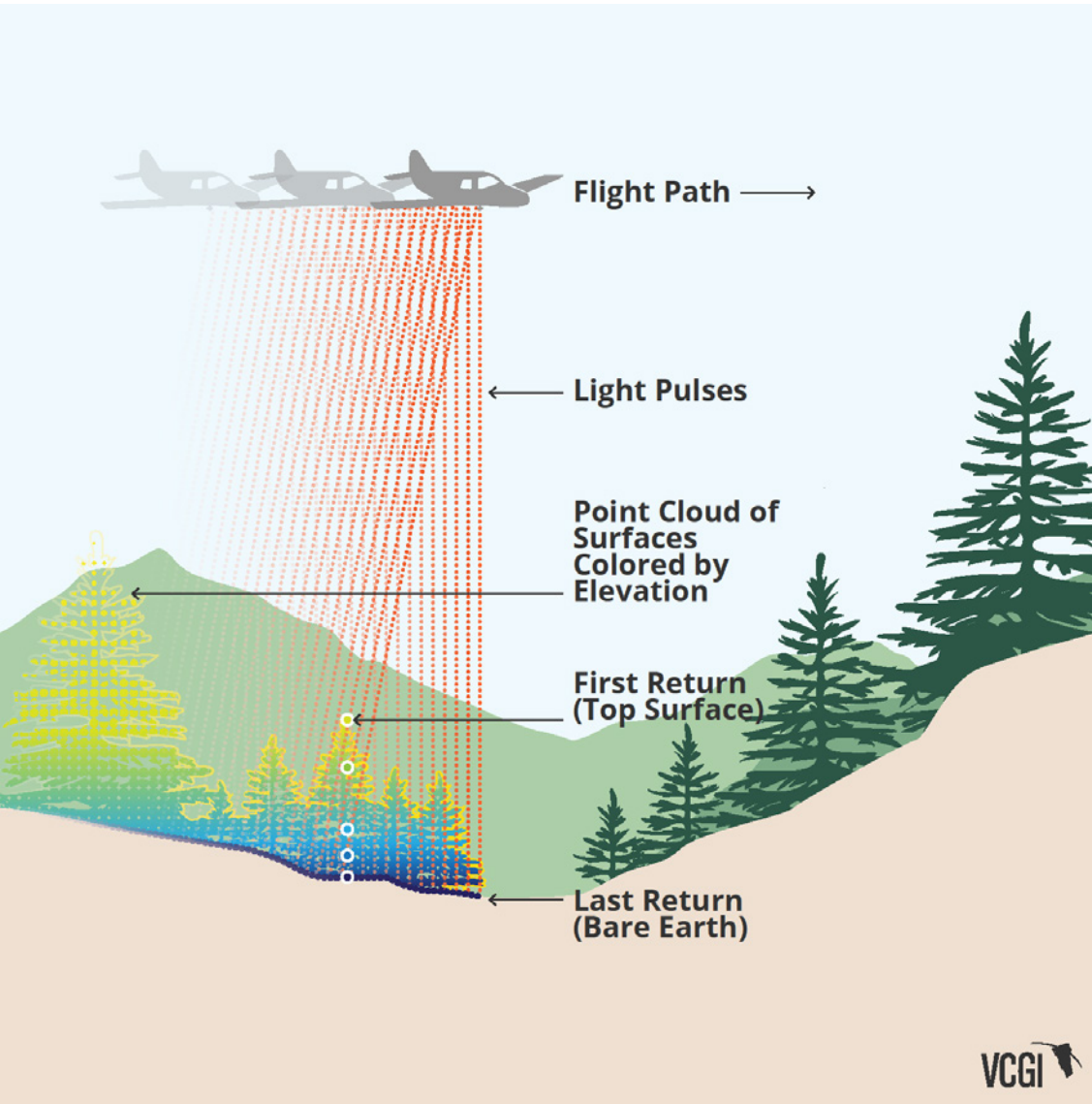


Boundaries: Land Surveys | [Library](#), [Data Layer](#)

Submitted by Licensed VT Land Surveyors (primary), Town Officials (secondary)



Shooting lasers at the Earth. Getting points in return. Making useful data products from them.



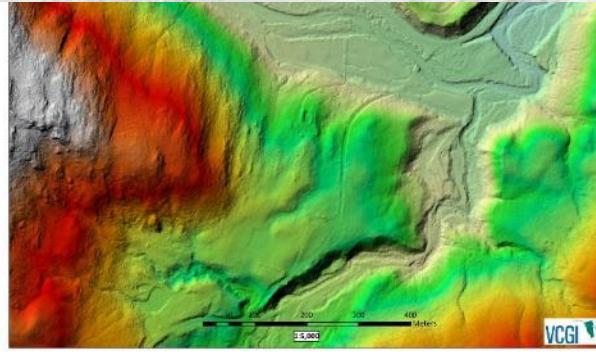
Quality Levels	Data Source	Horizontal Resolution	Vertical Accuracy	
		Point Density	RMSEz in Open Terrain	Equivalent Contour Accuracy
QL 1	LiDAR	8 points/m ²	9.25 cm	1 foot
QL 2	LiDAR	2 points/m ²	9.25 cm	1 foot



ONE LOCATION, MANY PRODUCTS



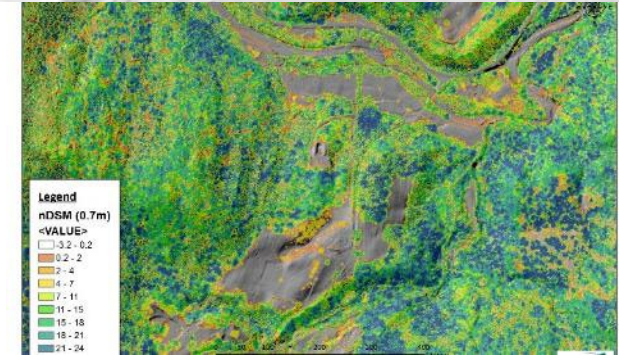
MARLBORO, VT



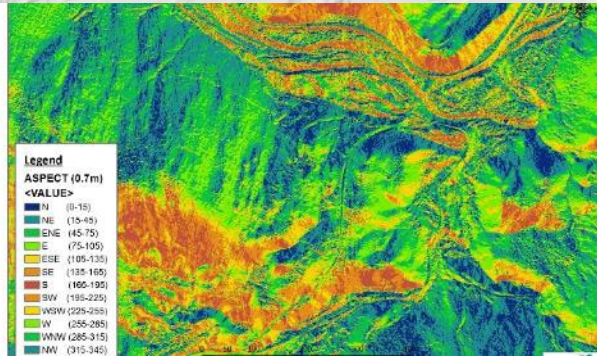
DIGITAL ELEVATION MODEL (DEM)



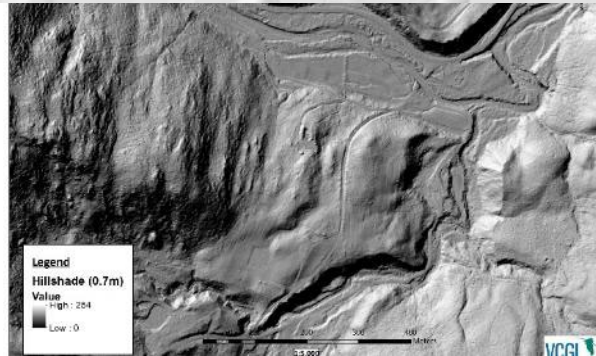
DIGITAL SURFACE MODEL (DSM)



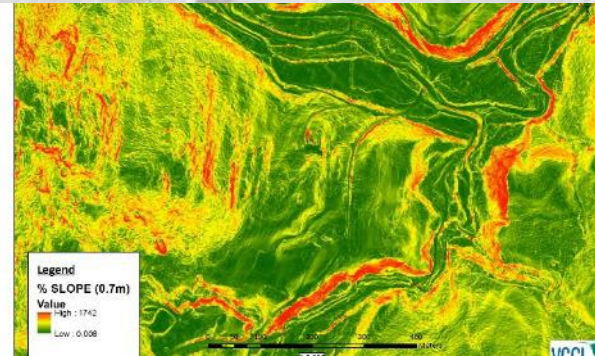
NORMALIZED DSM (nDSM)



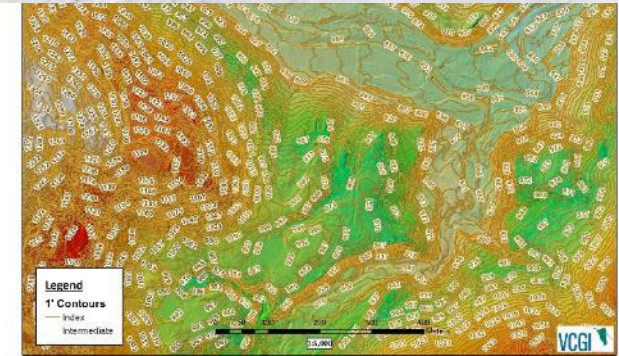
ASPECT (AZIMUTH)



“BARE EARTH” HILLSHADE



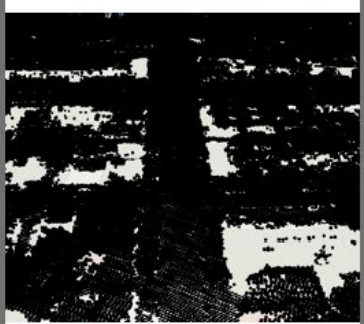
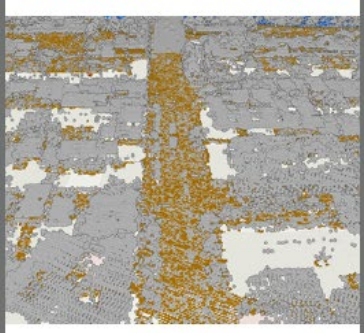
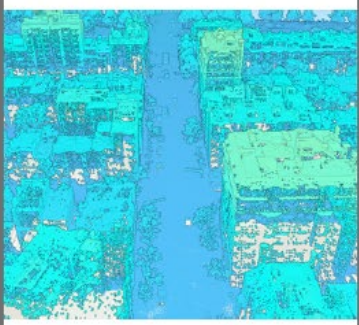
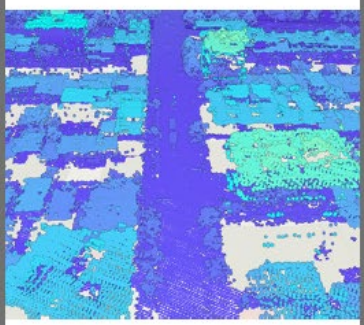
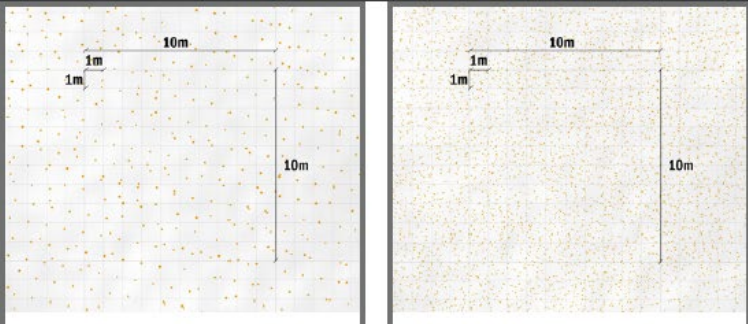
SLOPE



1 FOOT CONTOURS

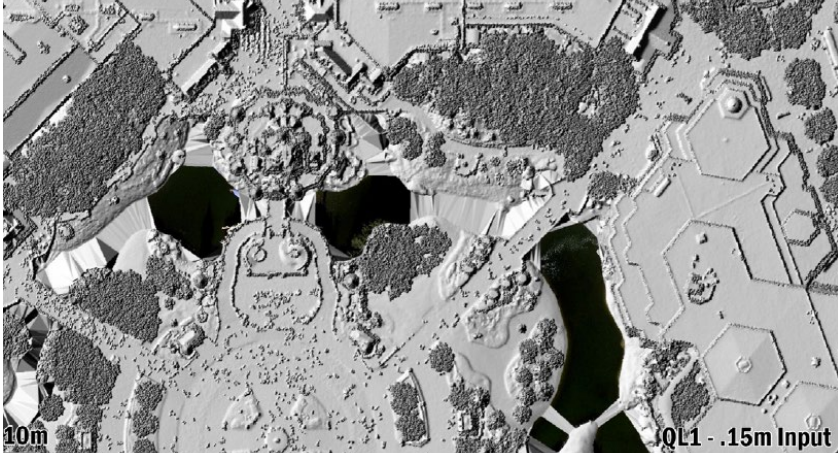
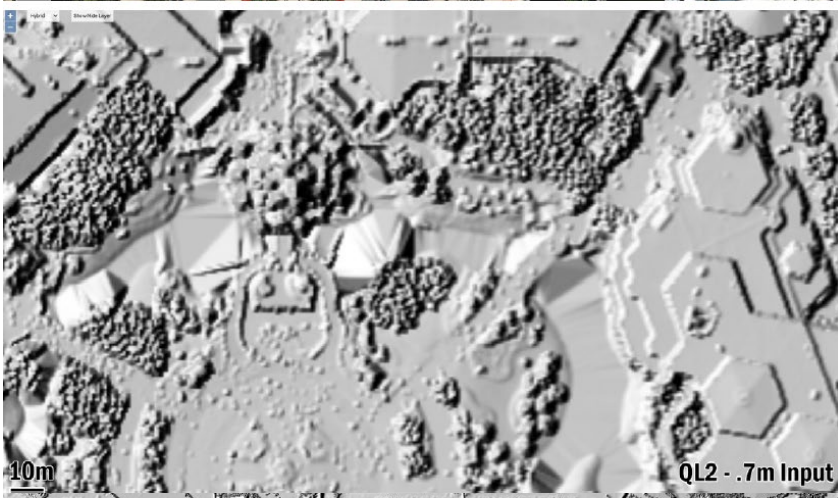
Elevation: Lidar Derived Products | [Elevation Page](#)

Soon to be updated to QL1 in 2024



"QL2" Capture
 ~2 points per sq. meter
 Existing VT Lidar-derived
 Elevation Resolution

"QL1" Capture
 ~8 points per sq. meter
 Proposed VT Lidar-derived
 Elevation Resolution



Forthcoming statewide,
 Single-capture
 Quality Level 1 (QL1)
 Lidar-derived
 Elevation products
 in 2024.

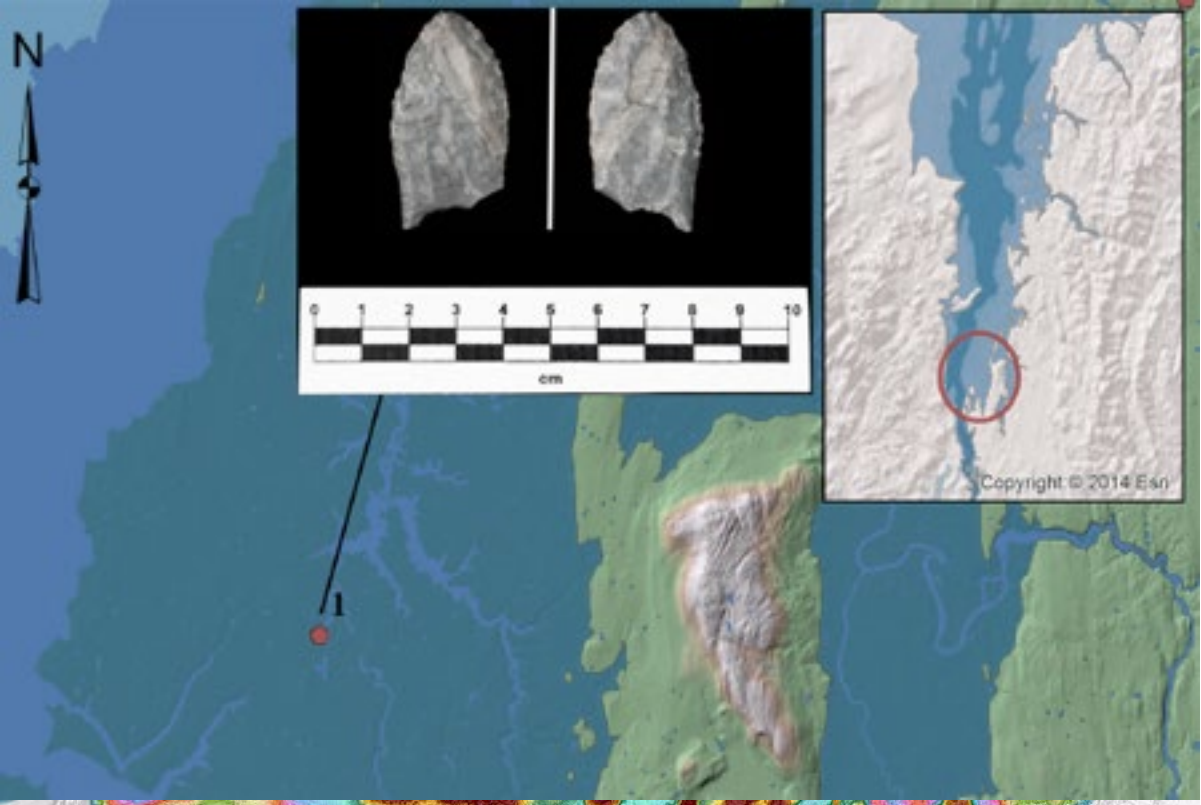
[Vermont Lidar Program](#)



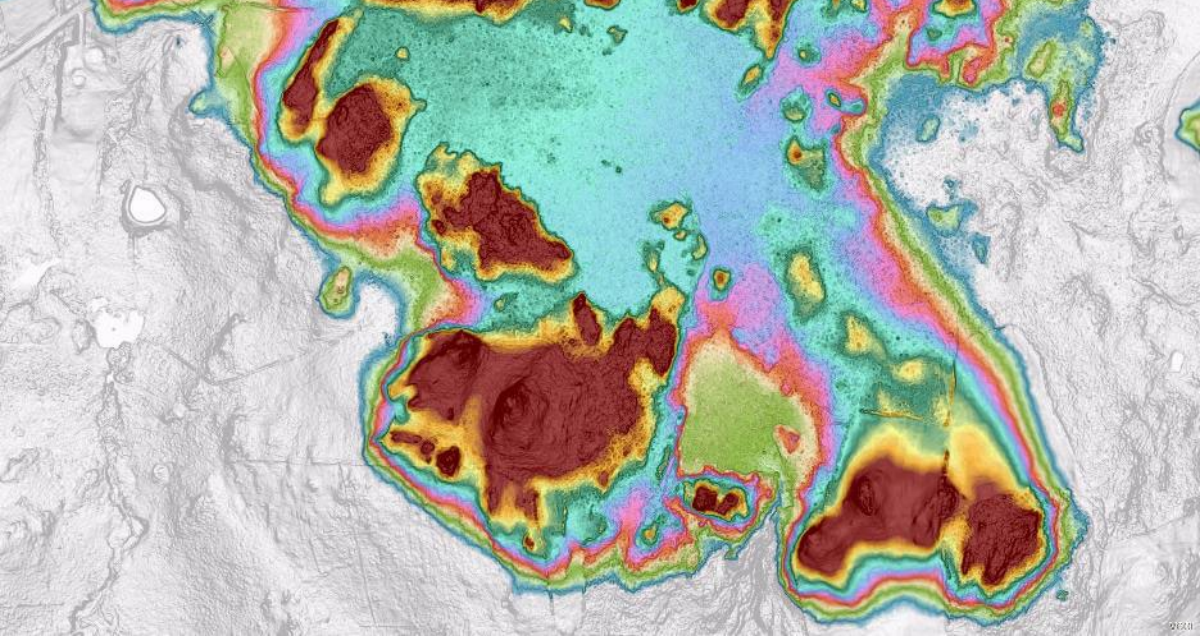
Example Uses

- Agriculture
- Archeology & Historic Preservation
- Construction
- Dam Management
- Design
- Emergency Planning
- Energy/Communications Planning
- Erosion Assessment and Mitigation
- Evacuation Planning
- Farm-to-Plate Initiative
- Fire Fuel Models
- Flood plain Mapping
- Flow Analysis
- Forestry, Biomass, & Vegetation Management
- Gully Detection
- Habitat Analysis
- Hazardous Spill Analysis
- Ice Jam Potential
- Land Cover Mapping
- Landslide Potential
- Line of Sight and Viewshed Analysis
- Riparian Buffer Mapping and Protection
- Shoreline Erosion
- Soils Mapping
- Solar and Wind Energy Suitability
- Stormwater analysis and design
- Timber Volume
- Town Planning
- Transportation Infrastructure
- Updating FIRM to DFIRM
- ...and more





Archaeology

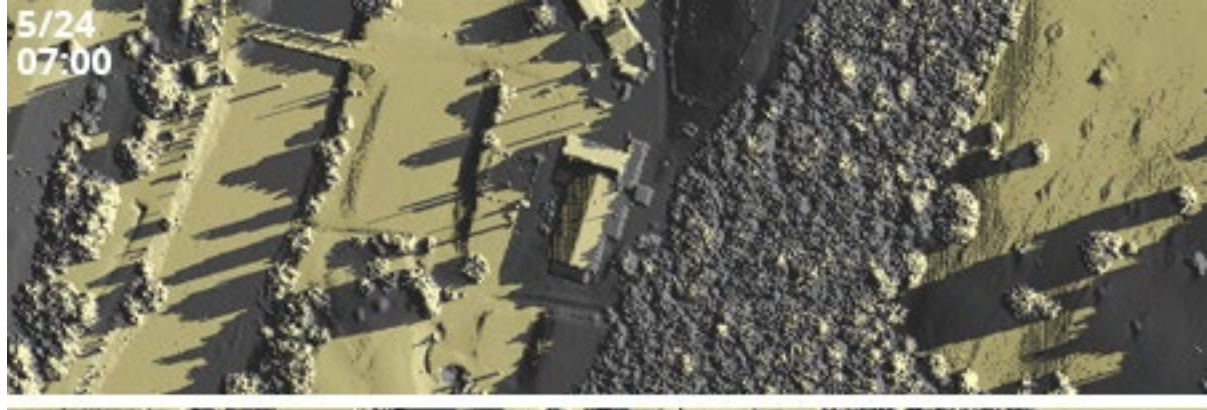
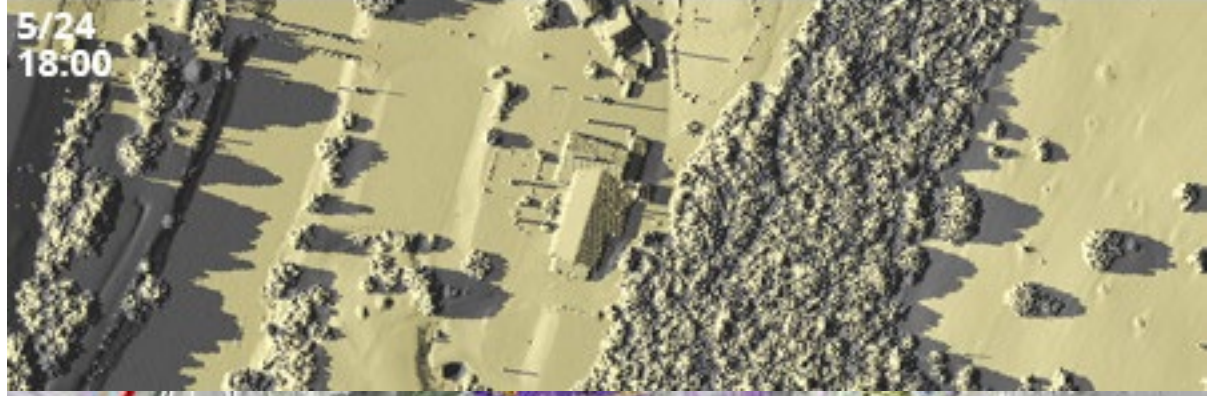


Wetlands Assessment

Site Suitability



Solar Assessment





VT Data - Renewable Energy Potential - 2022

Ground Mount Solar Energy: filtered Resource Potential

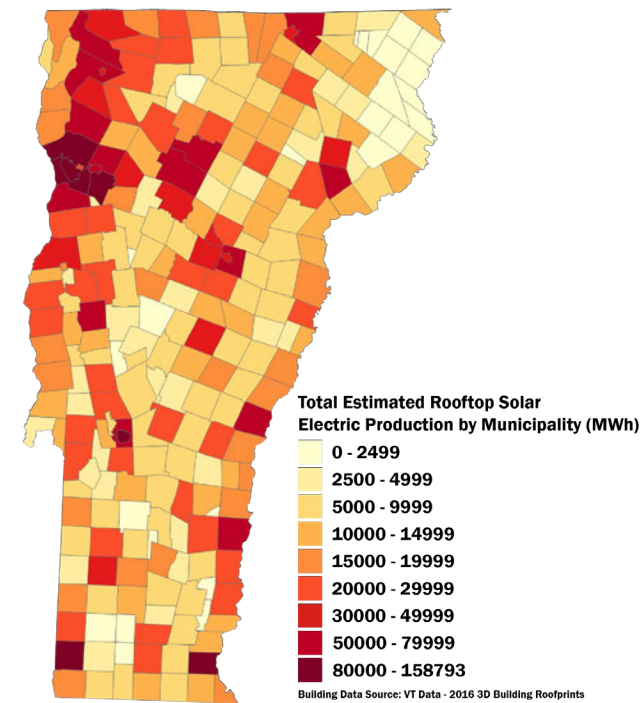
Constraint_

- Prime Solar - No Constraint
- Base Solar - Possible Constraints

Wind Energy: Filtered Resource Potential

Constraint_

- Prime Wind - No Constraint
- Base Wind - Possible Constraints



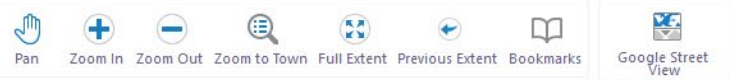
[Act 174 Energy Planning Layers Overview & Links](#)

VT Data - Rooftop Solar Potential - Act 174 2022

Electric Productivity (MWh)

- 933.90 - 1681.01
- 397.39 - 933.89
- 219.43 - 397.38
- 105.08 - 219.42
- 45.17 - 105.07
- 16.69 - 45.16
- 3.52 - 16.68

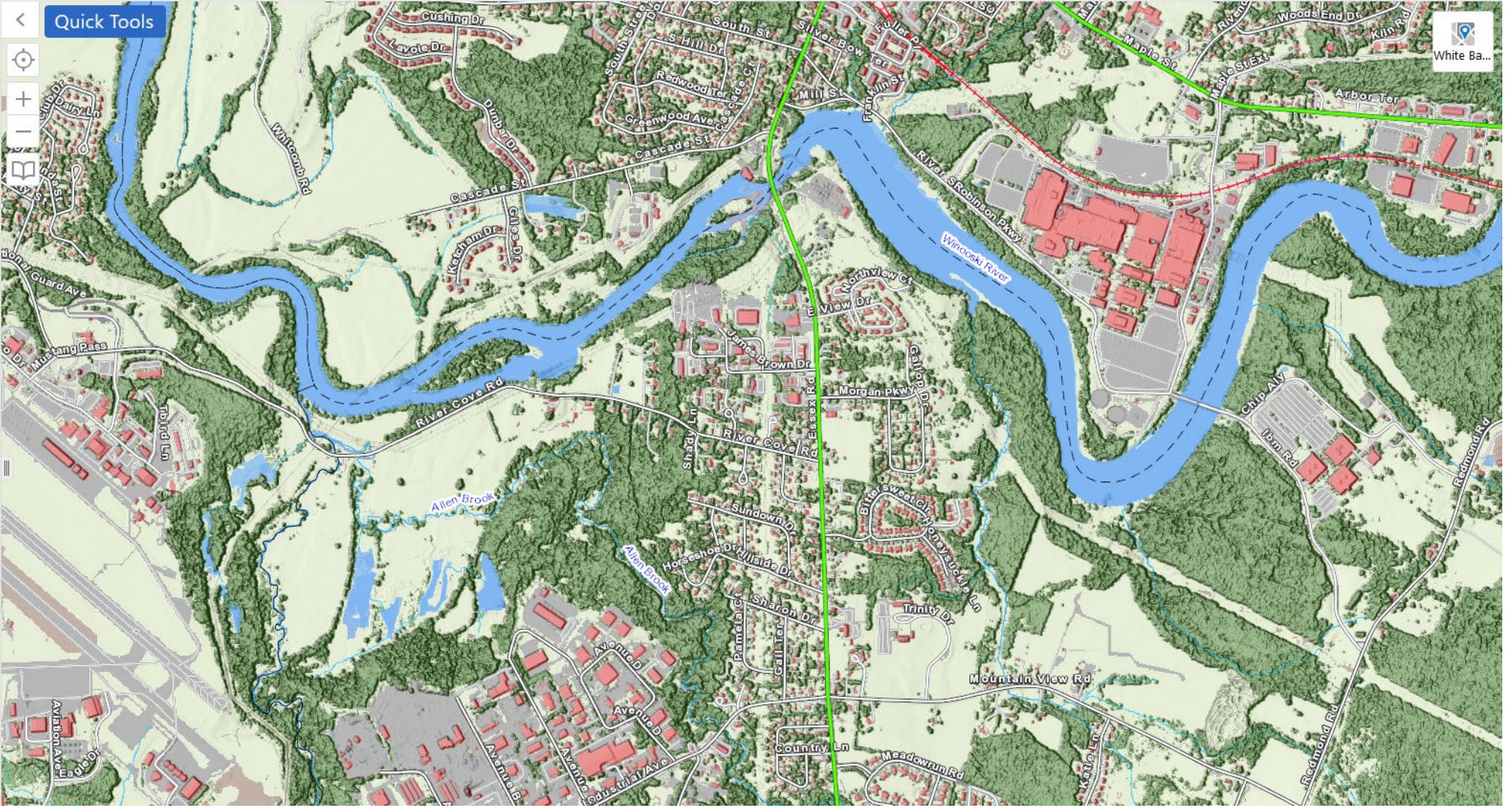


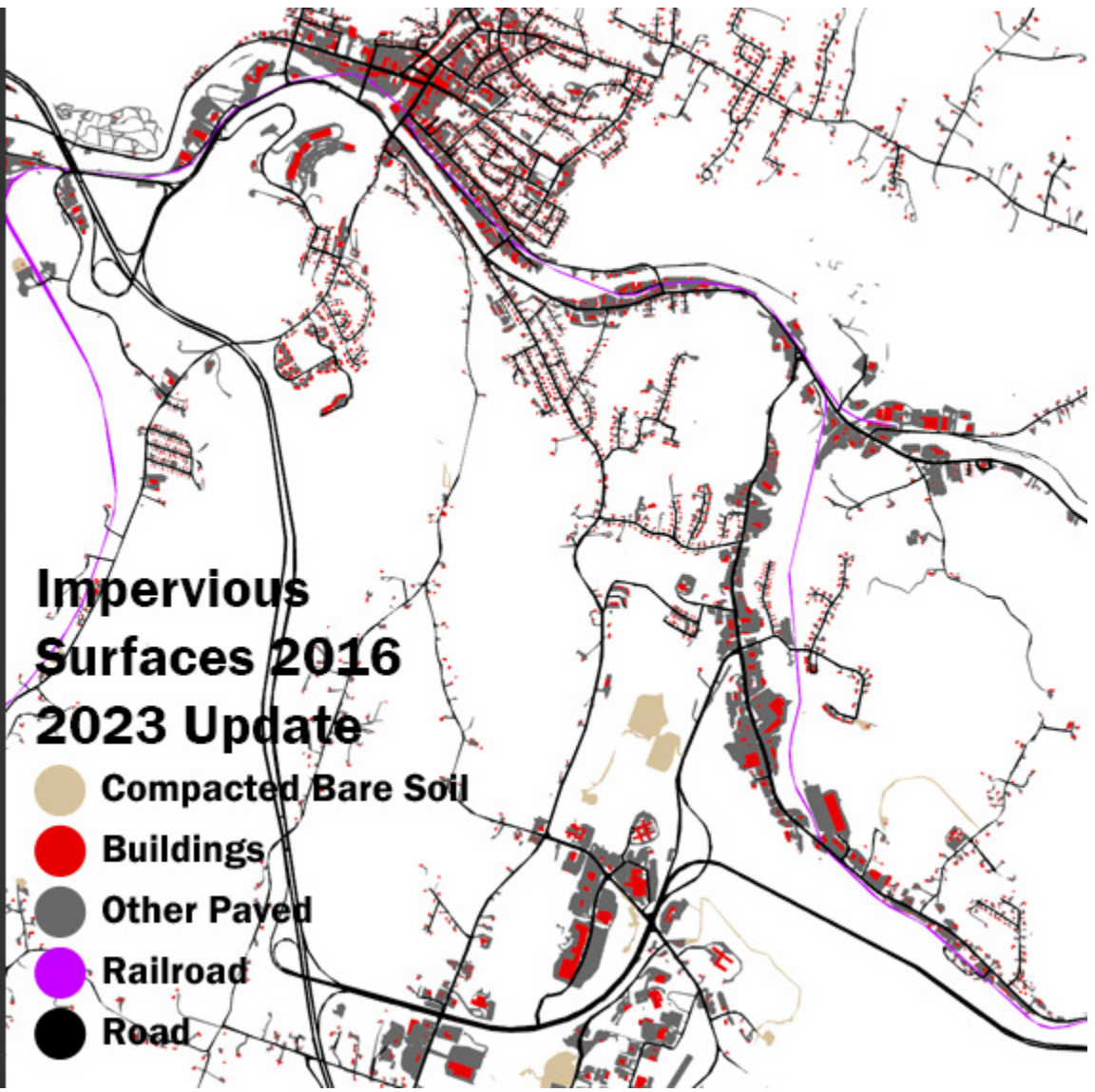
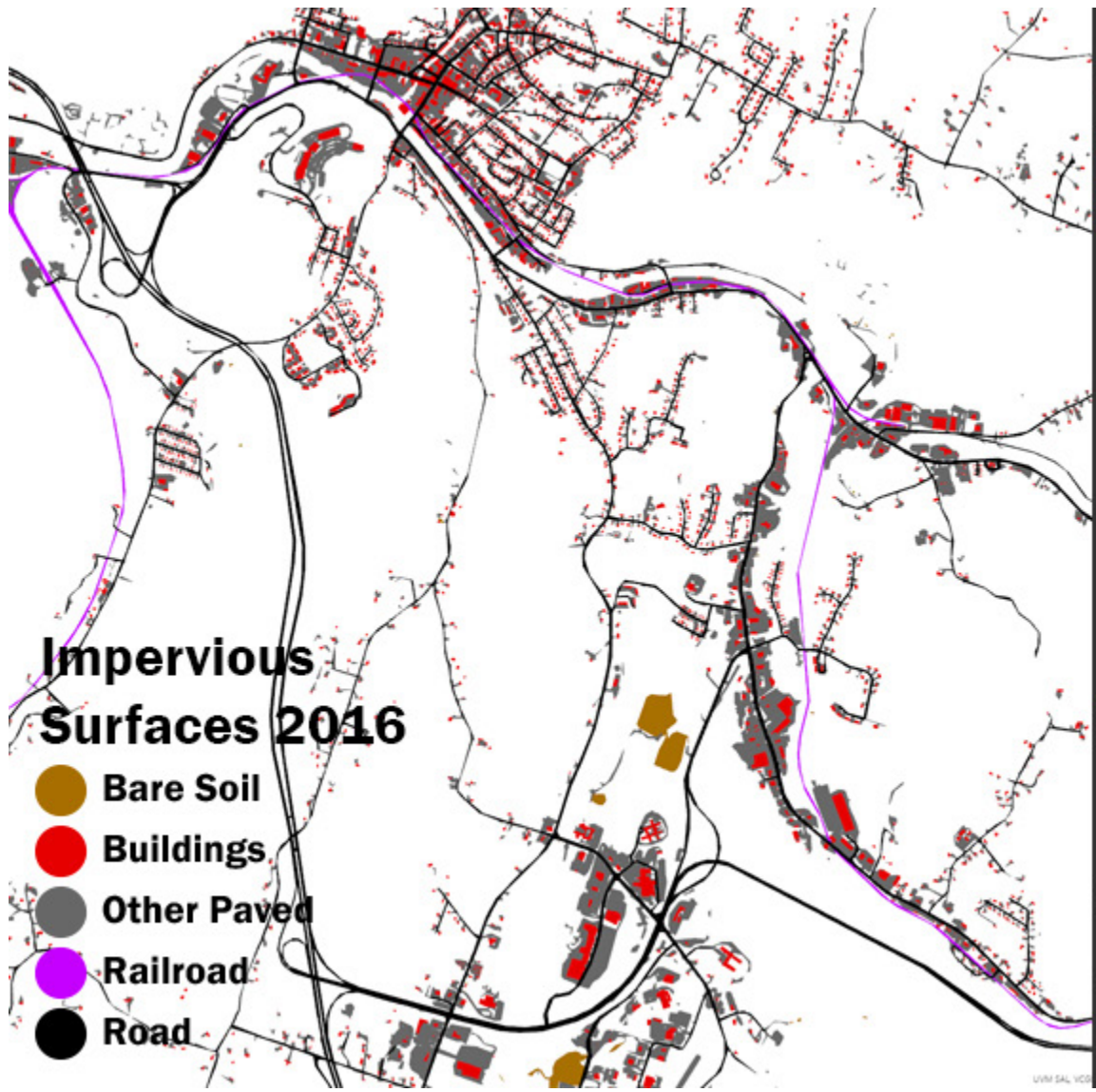


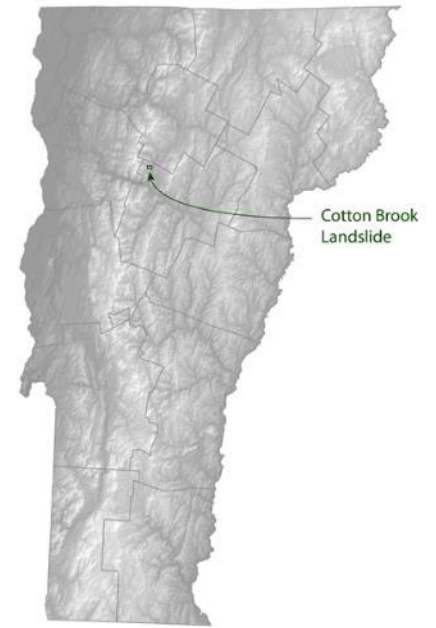
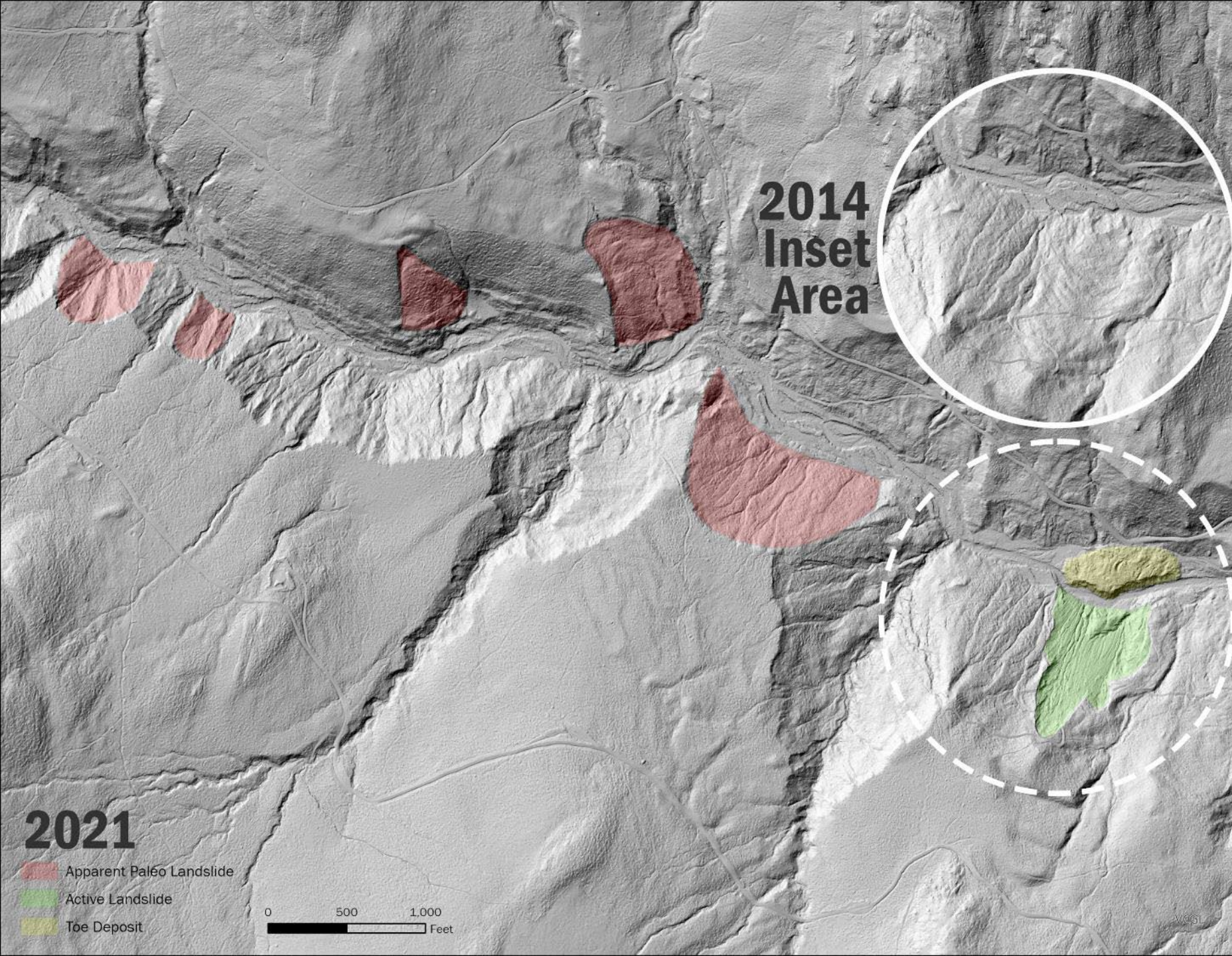
Layers

Filter Layers... Filter

- emergency
- Environment
- Facilities
- Geologic
- Land Cover/Use
 - 0.5 meter Land Cover
 - Agricultural land cover
 - Impervious surfaces (2016)
 - Suburblands (2016)
 - Tree Canopy (2016)
 - Wetlands - modeled (2016)
 - Land Cover (2016)
 - 30 meter Land Cover
- Landmarks
- Lidar
 - Digital Surface Model - lidar
 - Hillshade - lidar
 - Surface Aspect - lidar (compass direction)
 - Slope Angle - lidar (percent)









BARRE CITY, VT

Click image to view full size

July 13, 2023 1 of 1

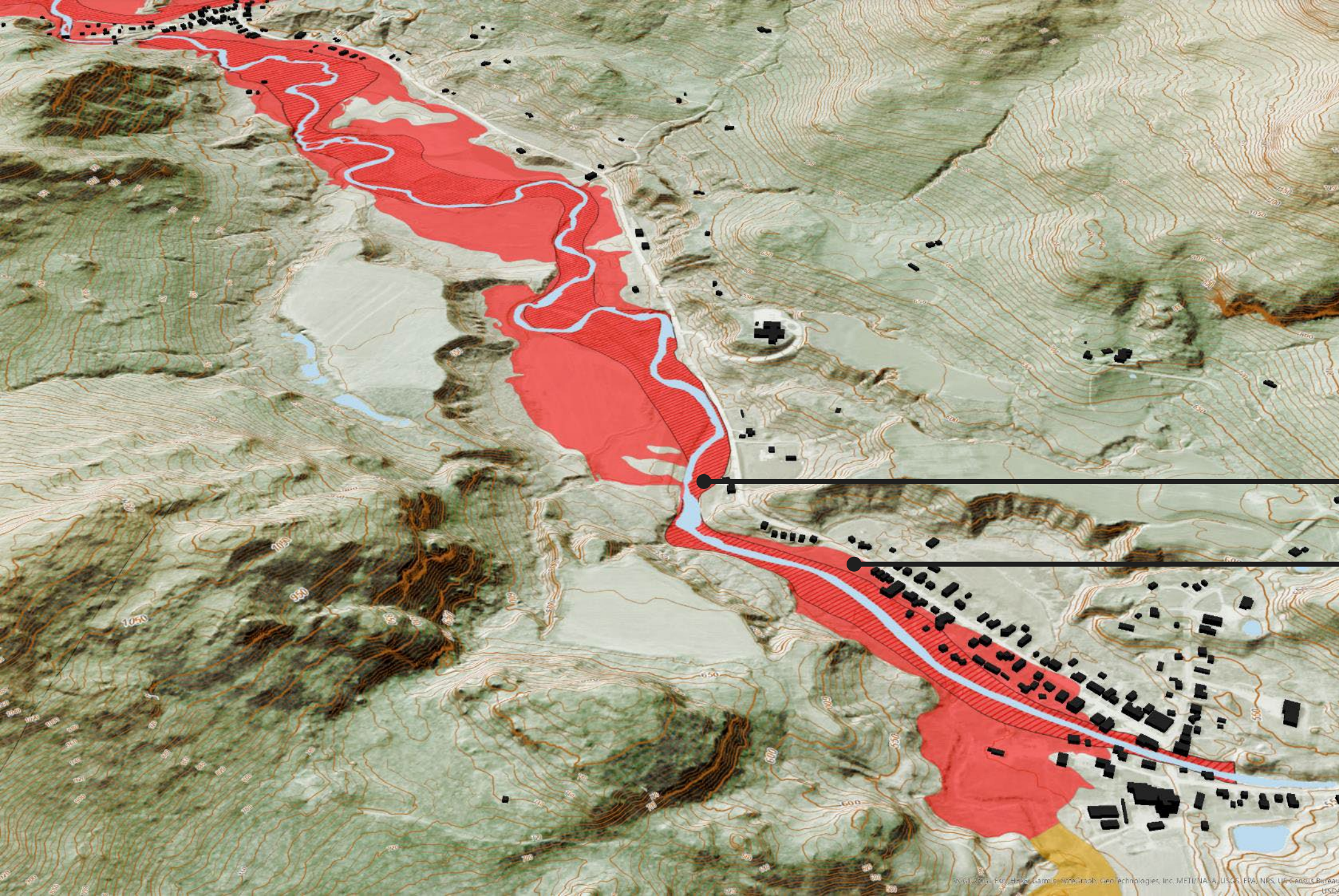
Zoom to < > 2 of 2



3D Impact Assessment | Steep Slopes + Landslides
[Statewide Steep Slopes \(greater than 51%\) layer](#)

FLOODING:
Managing Risk
Exposure





FLOODING:
Managing Risk
Exposure

FEMA's
NFHL (DFIRM's)

Regulatory
Floodway Zone AE

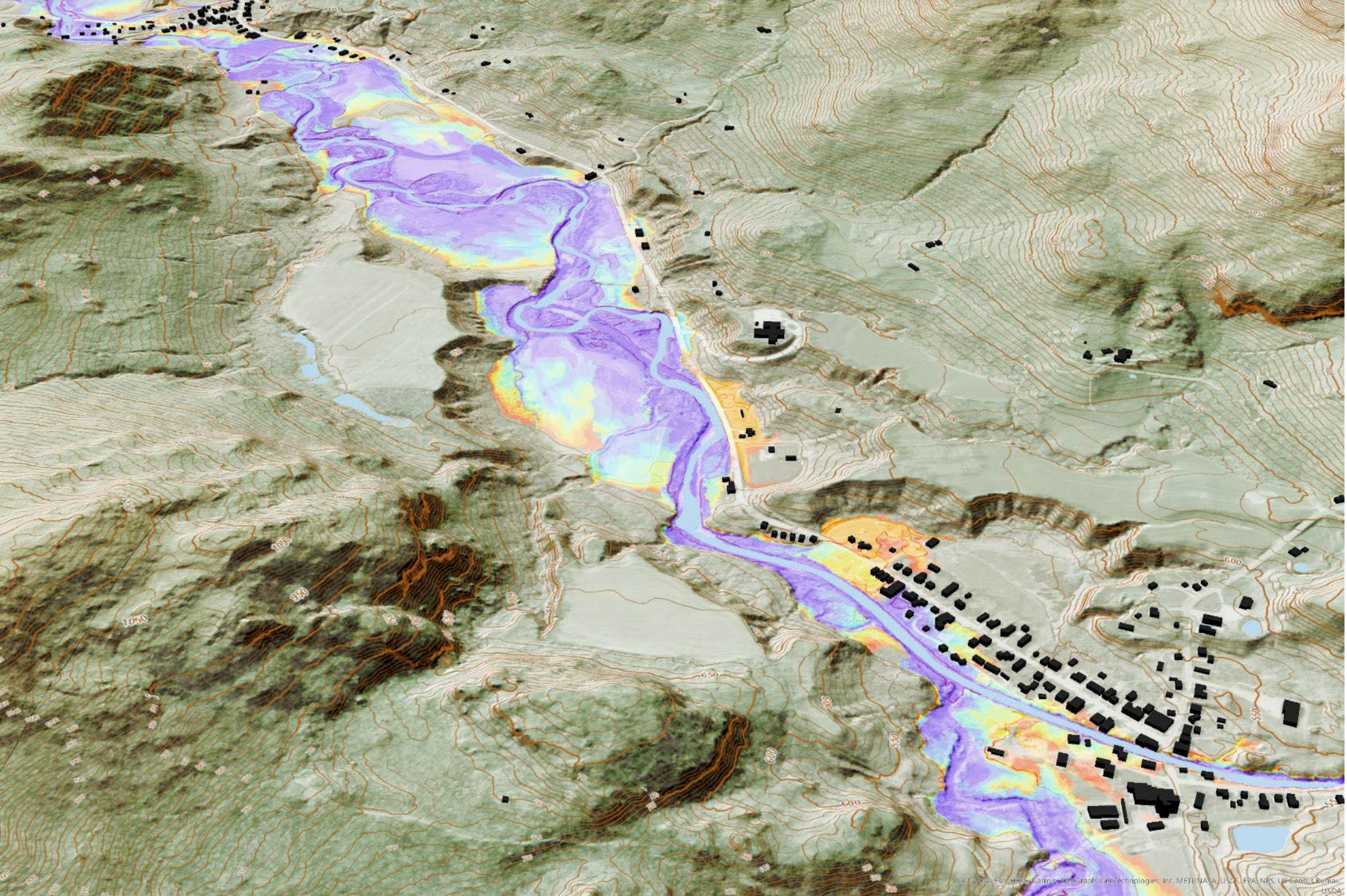
1% Annual Chance
Flood - Zone AE

0.2% Annual
Chance Flood -
Zone X
(not shown)

FLOODING: Managing Risk Exposure

UVM's Lidar-aided Flood Inundation Layer (2022)

- 2-year flood zone (50% annual exceedance)
- 5-year flood zone (20% annual exceedance)
- 10-year flood zone (10% annual exceedance)
- 25-year flood zone (4% annual exceedance)
- 50-year flood zone (2% annual exceedance)
- 100-year flood zone (1% annual exceedance)
- 200-year flood zone (.05% annual exceedance)
- 500-year flood zone (.02% annual exceedance)



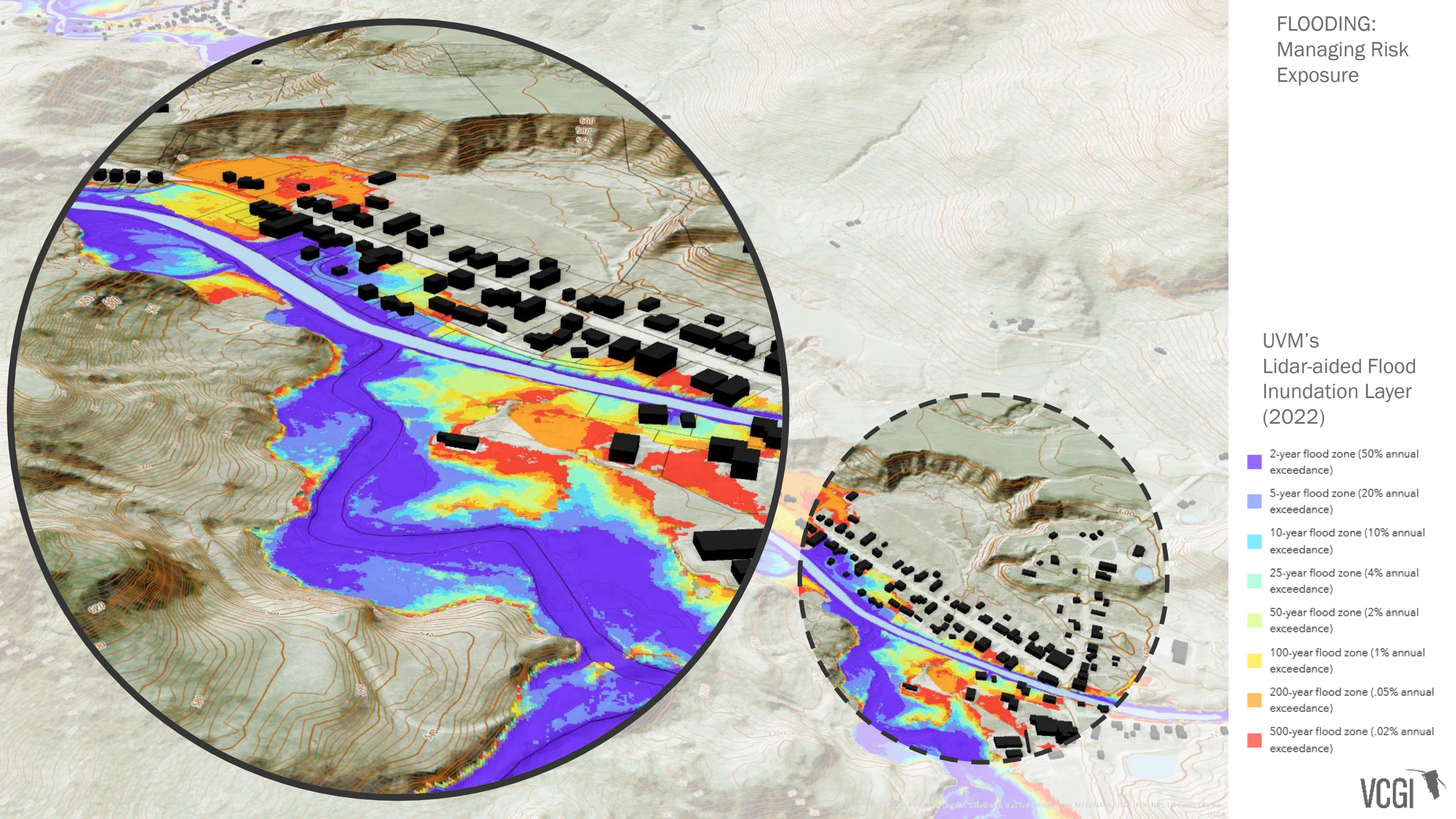
© 2022 VCGI, Inc. All rights reserved. VCGI is a registered trademark of VCGI, Inc. METI/NA/A, USGS, EPA, NPS, US Census Bureau, USDA



FLOODING: Managing Risk Exposure

UVM's Lidar-aided Flood Inundation Layer (2022)

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- 100-year flood zone (1% annual exceedance)
- 200-year flood zone (.05% annual exceedance)
- 500-year flood zone (.02% annual exceedance)



Data and Programs

Resources

Maps

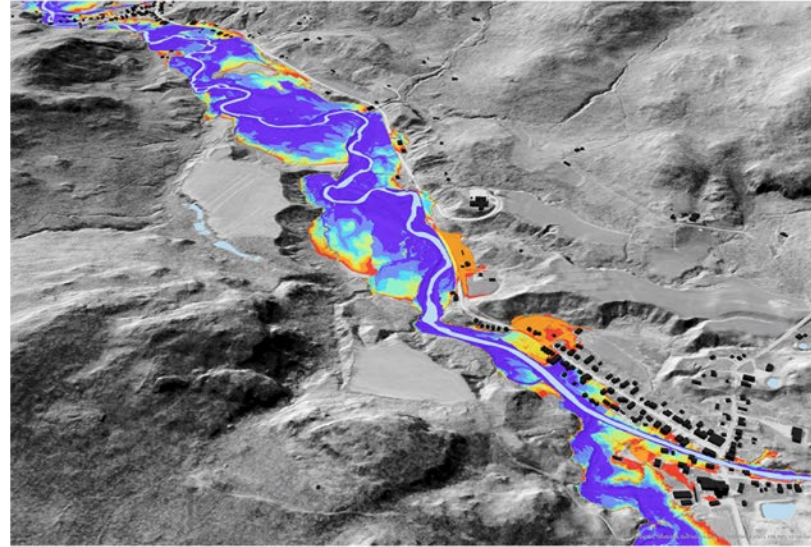
Partners

About VCGI

DATA RELEASE

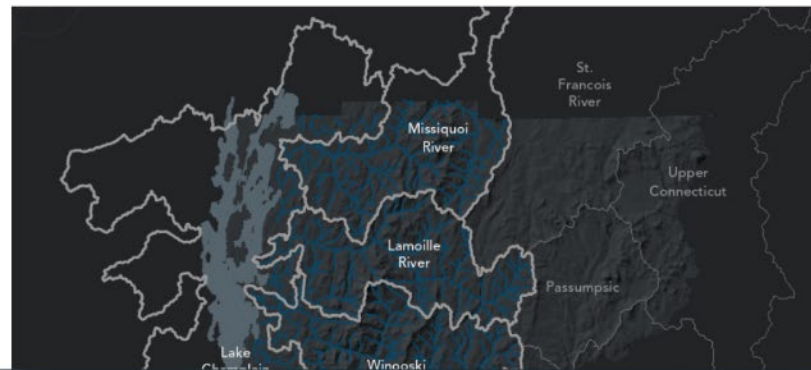
LAKE CHAMPLAIN BASIN LIDAR-INFORMED FLOOD INUNDATION LAYER NOW AVAILABLE

23 MAY 2022



The new flooding layer as seen above with other QL2 lidar data at the Trout River between Montgomery and Montgomery Center in Franklin County, VT. (View Image at Full Size)

VCGI is pleased to announce the availability of a detailed flood inundation layer for the Vermont portion of the Lake Champlain Basin. The product is informed by Vermont's statewide QL2, 0.7-meter resolution lidar collections performed between 2013 and 2017 and depicts the lateral extent of flooding at 8 modeled storm sizes of recurrence intervals ranging from 2 to 500 years for rivers that drain more than 2 square miles.



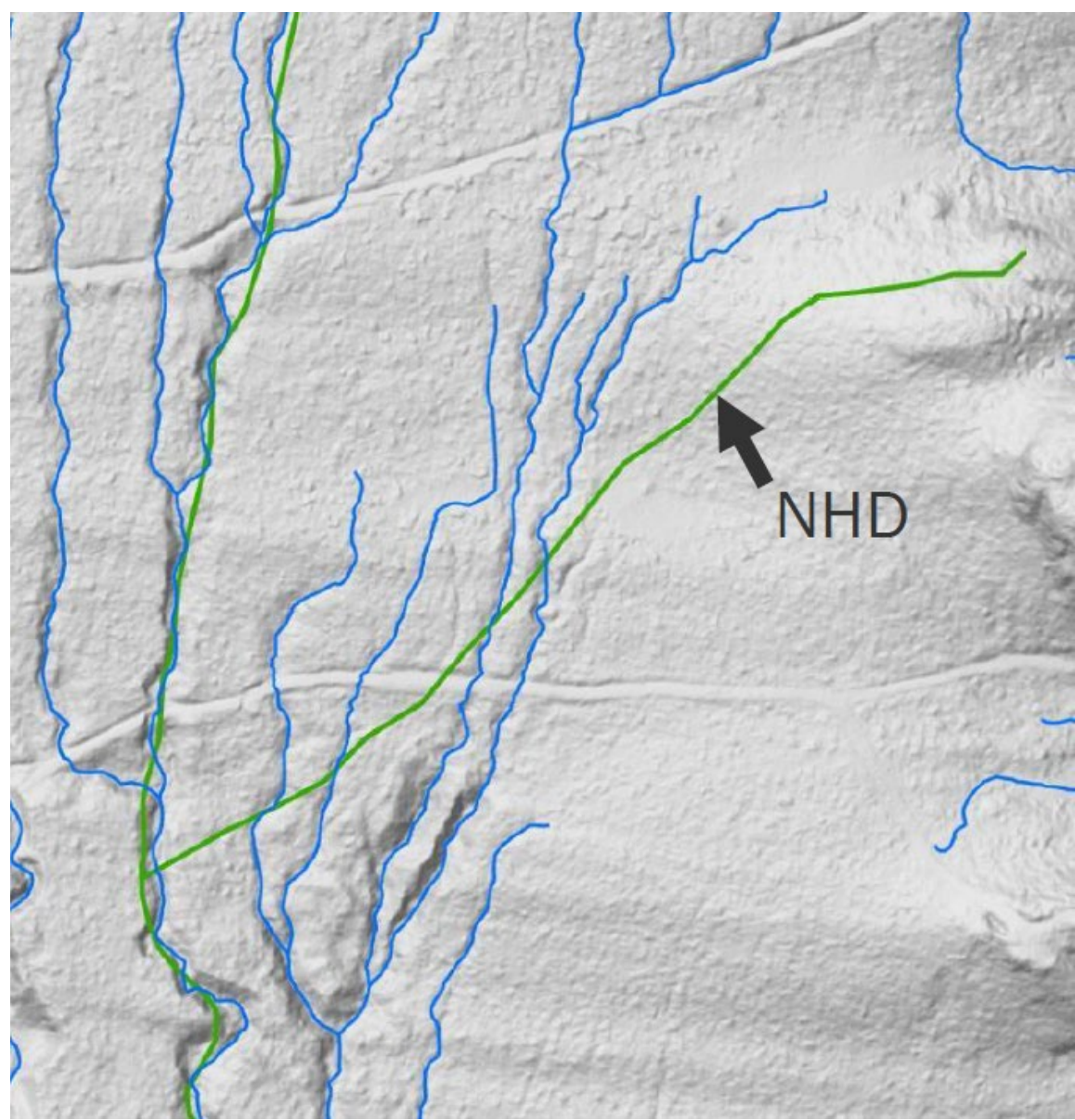
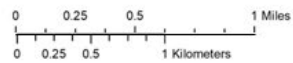
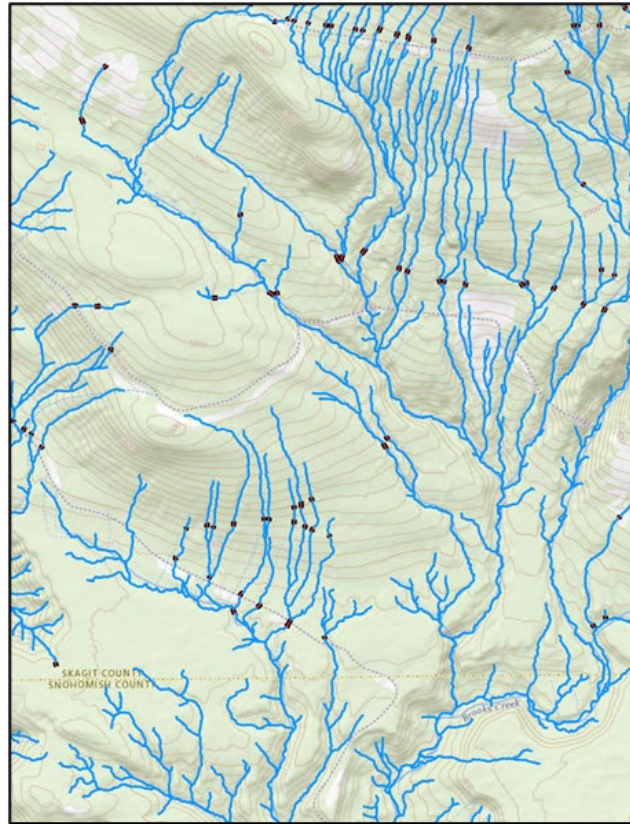
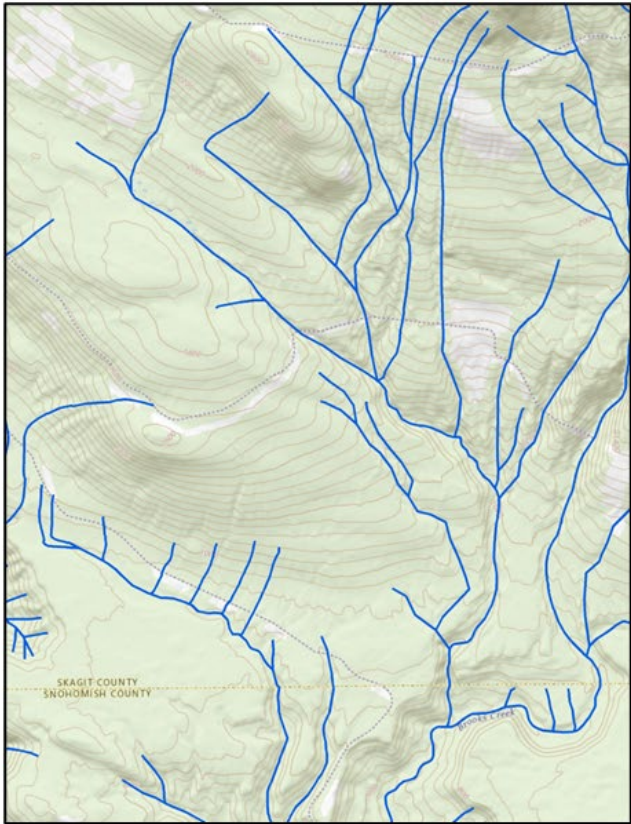
FLOODING: Managing Risk Exposure

UVM's Lidar-aided Flood Inundation Layer (2022)

- 2-year flood zone (50% annual exceedance)
- 5-year flood zone (20% annual exceedance)
- 10-year flood zone (10% annual exceedance)
- 25-year flood zone (4% annual exceedance)
- 50-year flood zone (2% annual exceedance)
- 100-year flood zone (1% annual exceedance)
- 200-year flood zone (.05% annual exceedance)
- 500-year flood zone (.02% annual exceedance)



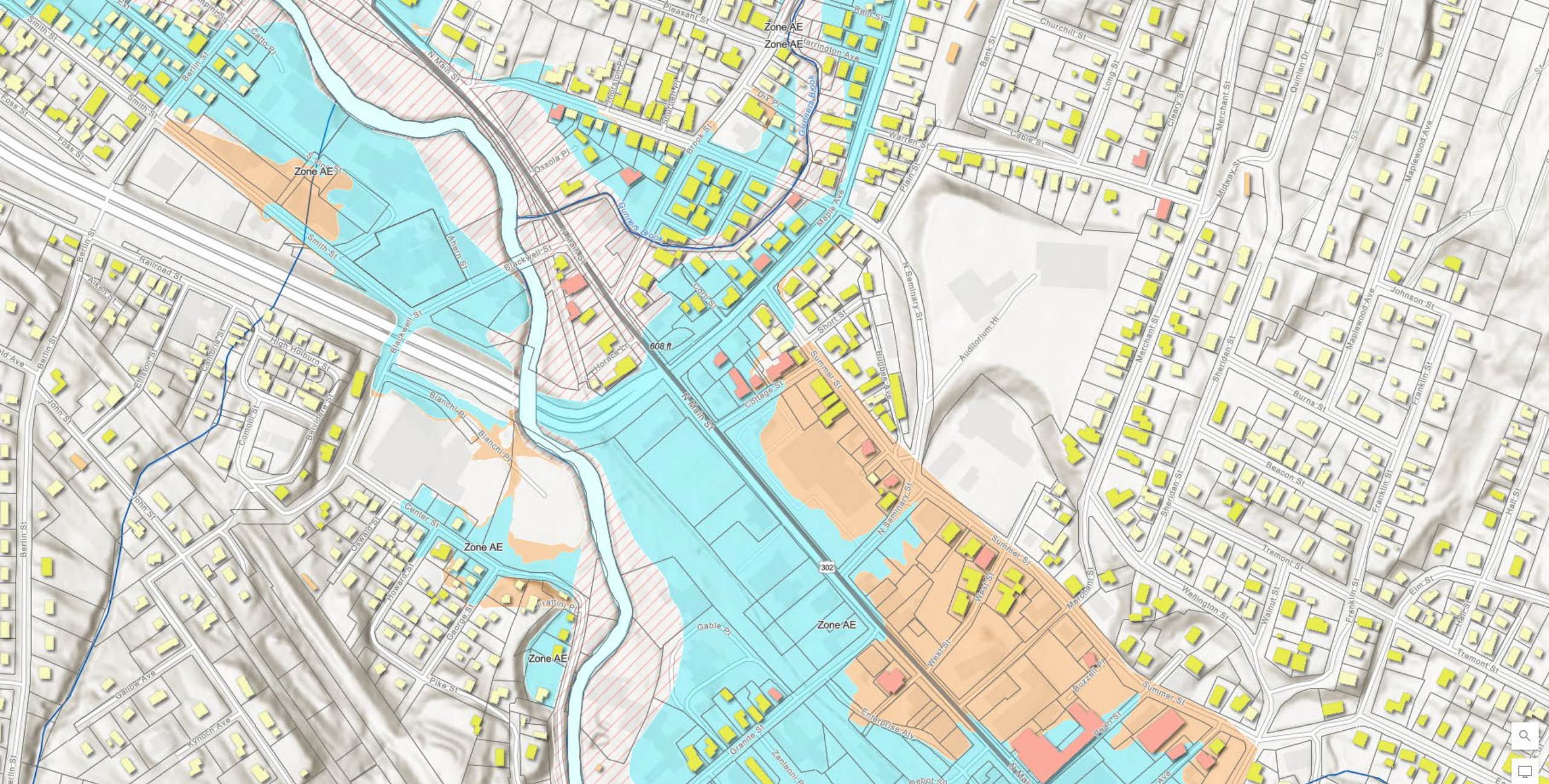
<https://vcgi.vermont.gov/data-release/lake-champlain-basin-lidar-informed-flood-inundation-layer-now-available>



Forthcoming Resources | Elevation-Derived Hydrography ([3DHP](#))

Using forthcoming QL1 Lidar products





Integrating Data Locally | Parcels, Elevation, Buildings, Flood Zones, etc.

Using [ArcGIS Online Map Viewer](#) with [Free Public Account](#)



Where Do I Find Data?

Vermont Open Geodata Portal



Vermont Center for Geographic Information
One National Life Drive
Dewey Building 2nd Floor
Montpelier, VT 05620-2001

[Email VCGI](#)

[Tim Terway](#), Helpful GIS Professional
(802) 585-0820

[John E. Adams](#), Director
(802) 522-0172



*VCGI is your source for the State of Vermont's
geospatial data, information, and activities.*

News and Updates

NEWS

13 JULY 2022

Town Boundaries Updated to Reflect City of Essex Junction, Geographic Area Names and Codes Standard Updated

DATA RELEASE

23 MAY 2022

Lake Champlain Basin Lidar-Informed Flood Inundation Layer Now Available

HOW-TO

22 APRIL 2022

Improving Parcel Data Quality: Reviewing Match Status

[MORE](#)

Popular Datasets

[Parcels](#)

[Elevation \(Includes Lidar\)](#)

[Imagery](#)

[Land Cover](#)

Map Applications

[Vermont Interactive Map Viewer](#)

[Vermont Parcel Viewer](#)

[Municipal Parcel Map Status](#)

[Vermont Land Survey Library](#)

[Vermont Orthoimagery Finder](#)

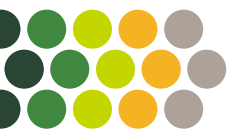
[Vermont Orthoimagery Status](#)

[Vermont Lidar Finder](#)

[Vermont Lidar Status](#)

[See More Here](#)

Footer of most pages at vcgi.vermont.gov



SEARCH

CONTACT

Data and Programs

Resources

Maps



Partner Agency Maps

Historic Maps

Partners

About VCGI

PARTNER AGENCY MAPS

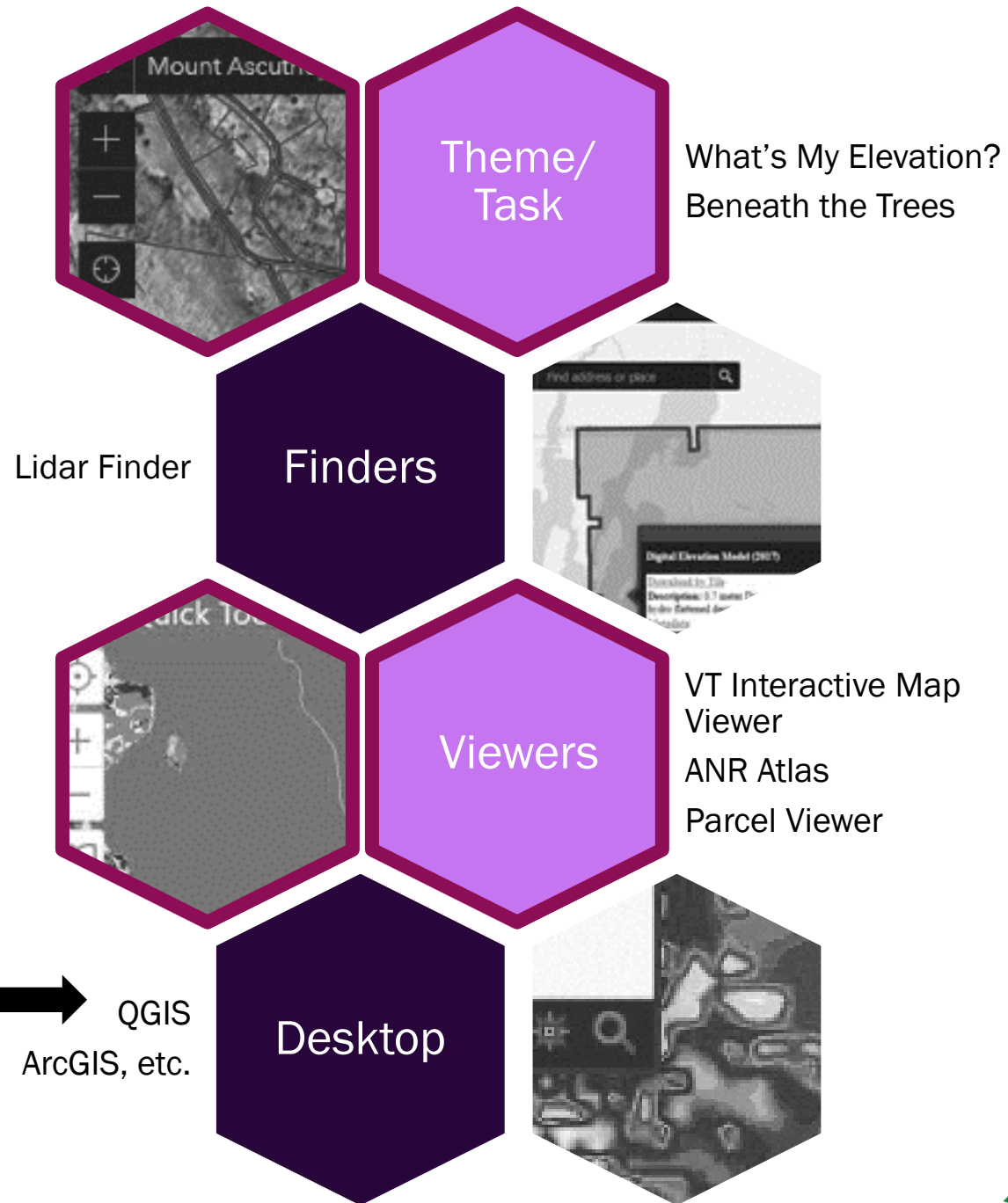
VCGI works with multiple state agencies through the [Enterprise GIS Consortium](#), whose own maps and mapping applications are linked below.

Map Applications

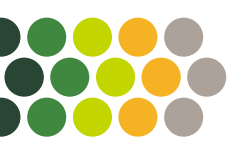
AGENCY / DEPARTMENT	INTERACTIVE MAP	USES
ACCD / DHCD	Planning Atlas	View planning, development, and historic preservation-related spatial datasets.
ACCD / DHCD	Municipal Planning Data Center	View status of municipal plans, bylaws and designated areas through Vermont.
ACCD	Themed Tourism Maps	View lodging, attractions, shops, events, and fun facts around Vermont.
ACCD / DED	Interactive Community Atlas	View businesses in Vermont with 30 or more employees and across a variety of sectors.
AHS / VDH	Local Health Basemap	View information to support local health work in Vermont.
AHS / VDH	Public Health Data Explorer	View public health information, trends over time, and visualize health indicators on a map.
AHS / VDH	Community Profiles	View public health information, trends over time, and visualize health indicators on a map, sortable by different health communities.
AHS / VDH	Environmental Public Health Tracking	View data on air quality, asthma, cancer, climate and health, drinking water, and more, all by location in Vermont.



Types of Apps



This is where raw datasets, thus, the VT Open Geodata Portal comes in





[Beneath the Trees App Link](#)



About

Using the Library

Zoom in and navigate the map to the location of the land survey. You can enter an address in the search bar or pan and zoom around the map with your mouse. Different layers become visible once zoomed in. **The buttons above are for the following tasks:**



Use the **Add a Survey** tool to add a survey.



Use the **Measurement** tool to measure lines or areas.



Use the **Layer List** to toggle layers on and off.



Use the **More** button to select items or change the basemap.



Use the **Select** tool to select multiple surveys and view their contents in the attribute table.



View the **Attributes** of selected items by expanding the table view at the bottom of the page.

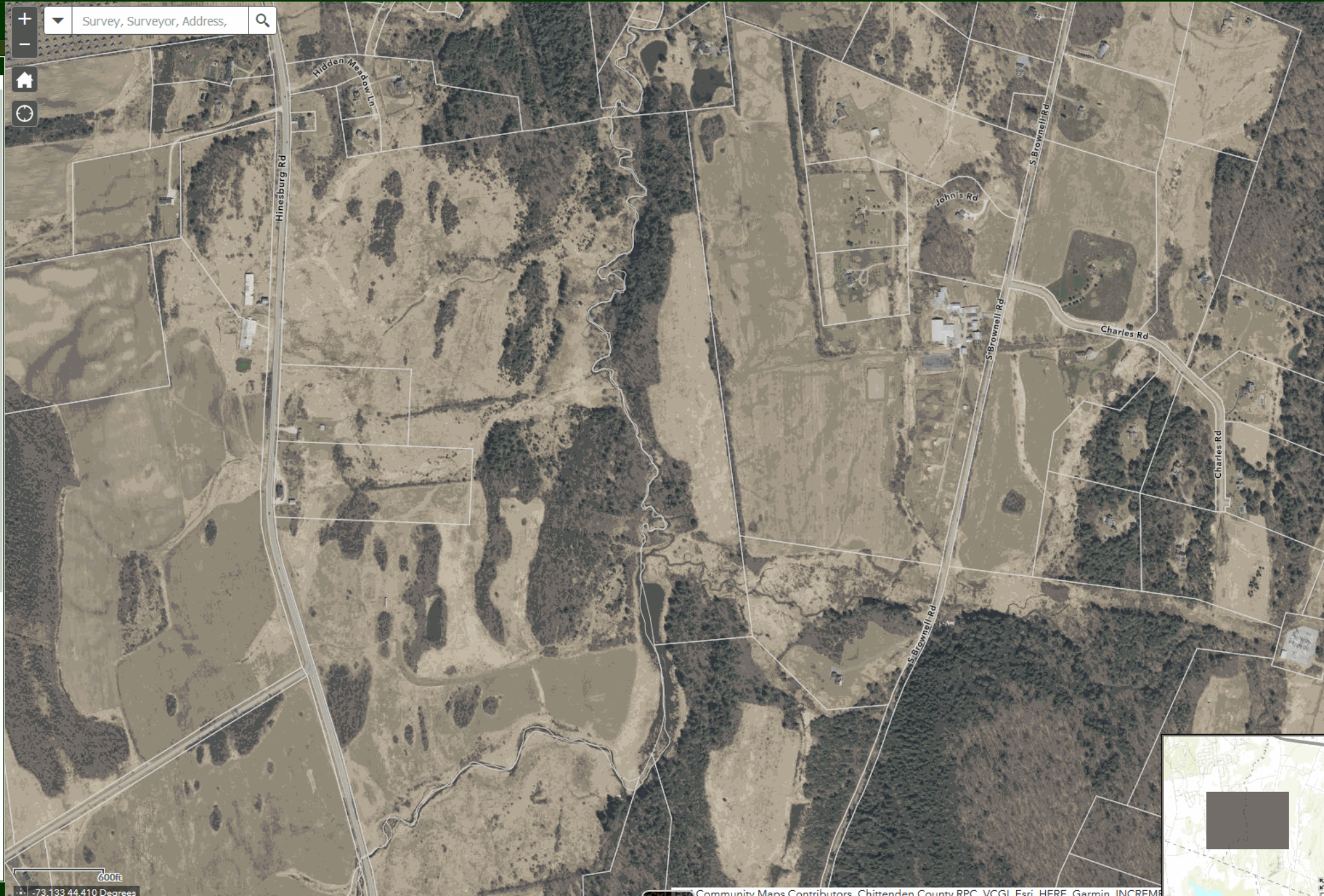
Searching for a Survey

By Search Bar: Type in the name of the surveyor or address of the survey's location

By Map: Navigate the map to the general location of the survey and make sure the survey library layer is turned on. You may also filter available surveys by map extent using the attribute table at the bottom of the page.

Viewing a Survey

Click on a polygon of a survey that you've located on the map. A pop-up window will display with its associated information. **In the pop-up window, click on the linked .pdf in the Attachments field.** This will open the .pdf in a new tab. For example:



Vermont Open Geodata Portal

[DATA](#) [WEB SERVICES](#) [APPLICATIONS](#) [DEVELOPERS](#) [CONTACT US](#) [HELP](#)



Agriculture



Basemap



Boundaries



Climate



Demographic + Economic



Elevation



Environment



Geologic + Soils



Health + Public Safety



Imagery



Land Use + Land Cover



Recreation



Transportation



Utilities + Facilities

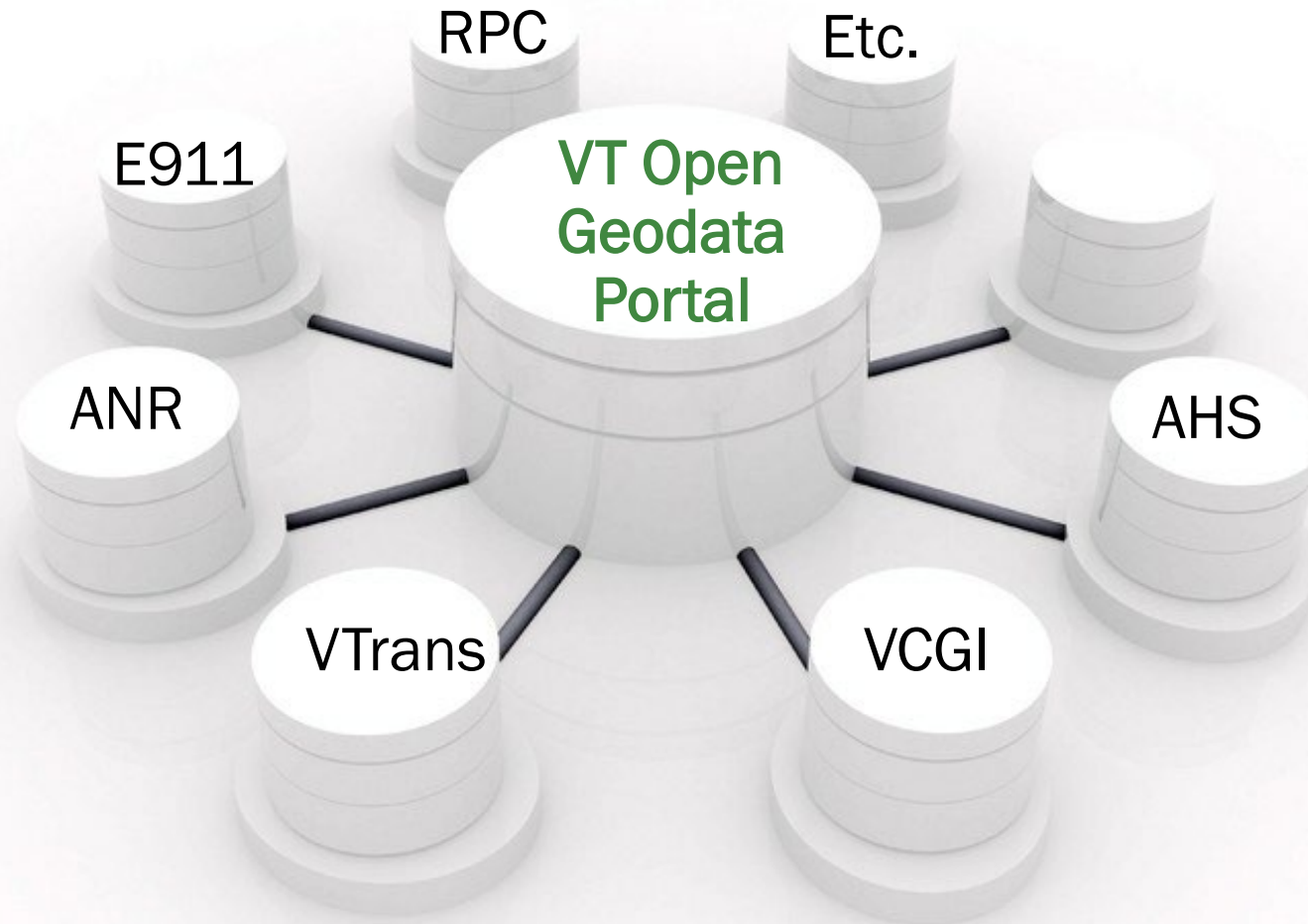


Water



Hub-and-spoke design

a.k.a. “federated” model



Still, not perfect.

- No master librarian technical capabilities in current form
- Mixed adherence to data standards (e.g., Naming, tagging, metadata, etc.) – requires regular manual policing
- ESRI runs the platform backend (and changes things often, we’re along for the ride)
- Vector data: Great. Raster data: not so great.
- Hitting ceiling on current portal capabilities as configured
- A head’s up: the portal will change with time, so everything will evolve!



Current publishers.

Search by Agency/Organization

- [VT Agency of Commerce and Community Development](#)
- [VT Agency of Human Services](#)
- [VT Agency of Natural Resources](#)
- [VT Agency of Transportation](#)
- [VT Center for Geographic Information](#)
- [VT Department of Public Service](#)
- [Addison County Regional Planning Commission](#)
- [Bennington County Regional Commission](#)
- [Central Vermont Regional Planning Commission](#)
- [Chittenden County Regional Planning Commission](#)
- [Northeastern Vermont Development Association](#)
- [Northwest Regional Planning Commission](#)
- [Rutland Regional Planning Commission](#)
- [Lamoille County Planning Commission](#)
- [Southern Windsor County Regional Planning Commission](#)
- [Two Rivers-Ottawaquechee Regional Commission](#)
- [Windham Regional Commission](#)



Search

All Data Documents Apps & Maps

Filters Reset 1 - 20 of 161 results Relevance ▾

tag:nodevcgi x

Content Type ^

- Apply type
- Feature Layer
- Shapefile
- Table
- Feature Service
- CSV

More ▾

Last Updated ^

Calendar range selector

Source ^

- Apply source
- VT Center for Geographic Information
- gisnvda
- Northwest Regional Planning Commission
- CentralVTRPC
- BenningtonRPC

More ▾

Data

[VT Data - Locations of Surveys Accessible via Vermont Land Survey Library](#)

VCGI | Publisher_VCGI

Feature layer of locations corresponding to surveys that are produced by Vermont licensed land surveyors and submitted—as .pdf copies—to the Vermont Land Survey Library.Locations are...

Type: Feature Layer **Rows:** 1,680
Last Updated: September 14, 2022 **Tags:** Survey Library, isothemeCadastral, isothemeBoundar...

Data

[VT Data - Geographic Area Names and Codes](#)

VI Center for Geographic Information | Services_VCGI

Tables containing standard codes for various geographic areas. The codes are described in greater detail in the VT Geographic Area Names and Codes Standard. The table preview shows 1 of the...

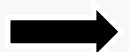
Type: Table **Rows:** 290
Last Updated: July 12, 2022 **Tags:** vcgi open data, isothemeBoundary, subthemeOther, ...

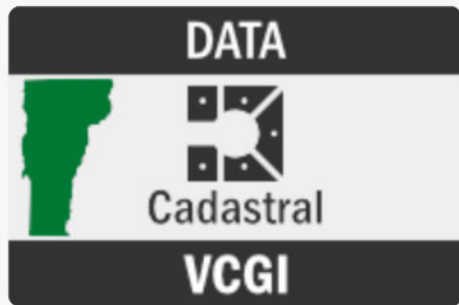
Data

[VT Data - VT Hydrography Dataset - cartographic extract polygons](#)

VT Center for Geographic Information | Services_VCGI

(Link to Metadata) VHDCARTO is a simplified version of the local resolution Vermont Hydrography Dataset (VHD) that has been enriched with stream perenniality, e.g., "intermittent" vs. "perennial",...





VT Data - Locations of Surveys Accessible via Vermont Land Survey Library

VCGI - VT Center for Geographic Information

View Map Download More



Summary

Locations and information corresponding to copies of surveys that are accessible via the Vermont Land Survey Library.

Feature layer of locations corresponding to surveys that are produced by Vermont licensed land surveyors and submitted—as .pdf copies—to the Vermont Land Survey Library.

Locations are attributed with information such as name of surveyor, date of survey, survey type (e.g., subdivision), and municipality. When the feature layer is opened in ArcGIS Online, the .pdf copies (as feature attachments) can be viewed/downloaded.

Boundaries Property

Looking for something else? See other datasets nearby



Attributes (16)

Name	Type	Action
CreationDate	Date or Time	
Creator	Text	
EditDate	Date or Time	
Editor	Text	

Details

Dataset Feature Layer

January 3, 2022 Info Updated

Weekly Data Updated: September 15, 2022

January 1, 2020 Published Date

1,684 Records View data table

Public Anyone can see this content

Custom License View license details

Relevant Area



VT Data - Locations of Surveys Accessible via Vermont Land Survey Library

VCGI - VT Center for Geographic Information

Summary

Locations and information corresponding to copies of surveys that are accessible via the Vermont Land Survey Library.

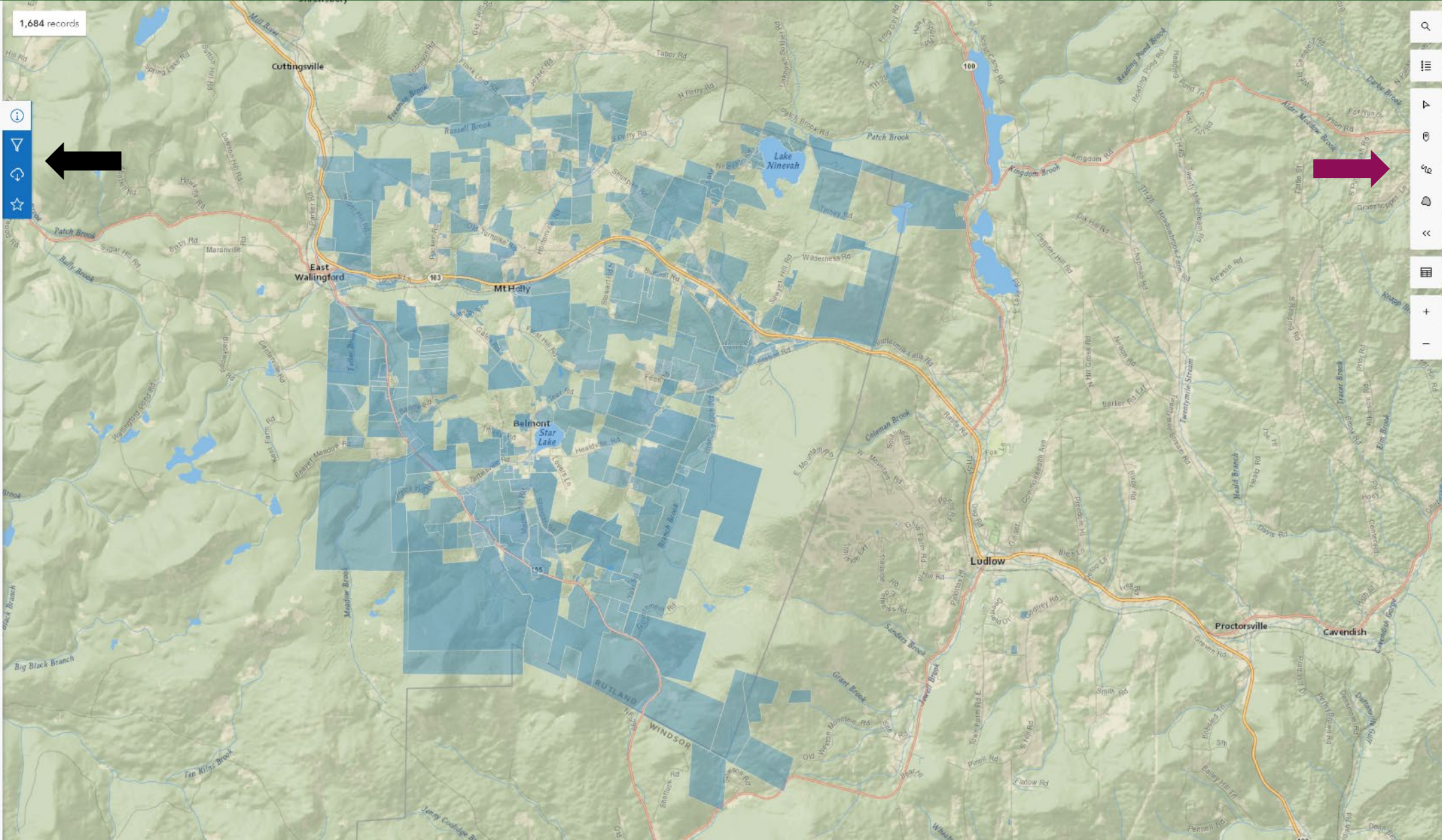


[View Full Details](#)

[Download](#)

Details

- Dataset
- Feature Layer
- January 3, 2022
Info Updated
- Weekly
Data Updated: September 15, 2022
- January 1, 2020
Published Date
- 1,684 Records
[View data table](#)
- Public
Anyone can see this content
- Custom License
[View license details](#)



Download Options

VI Data - Locations of Surveys Accessible via Vermont Land Survey Library

Toggle Filters:



112 records ready for download

Extent of filtered area is used for content where hosted downloads is not enabled.

Creating a new file with your filters will take some time

CSV

Downloading an updated file may take some time.

Download

KML

Downloading an updated file may take some time.

Download

Shapefile

Downloading an updated file may take some time.

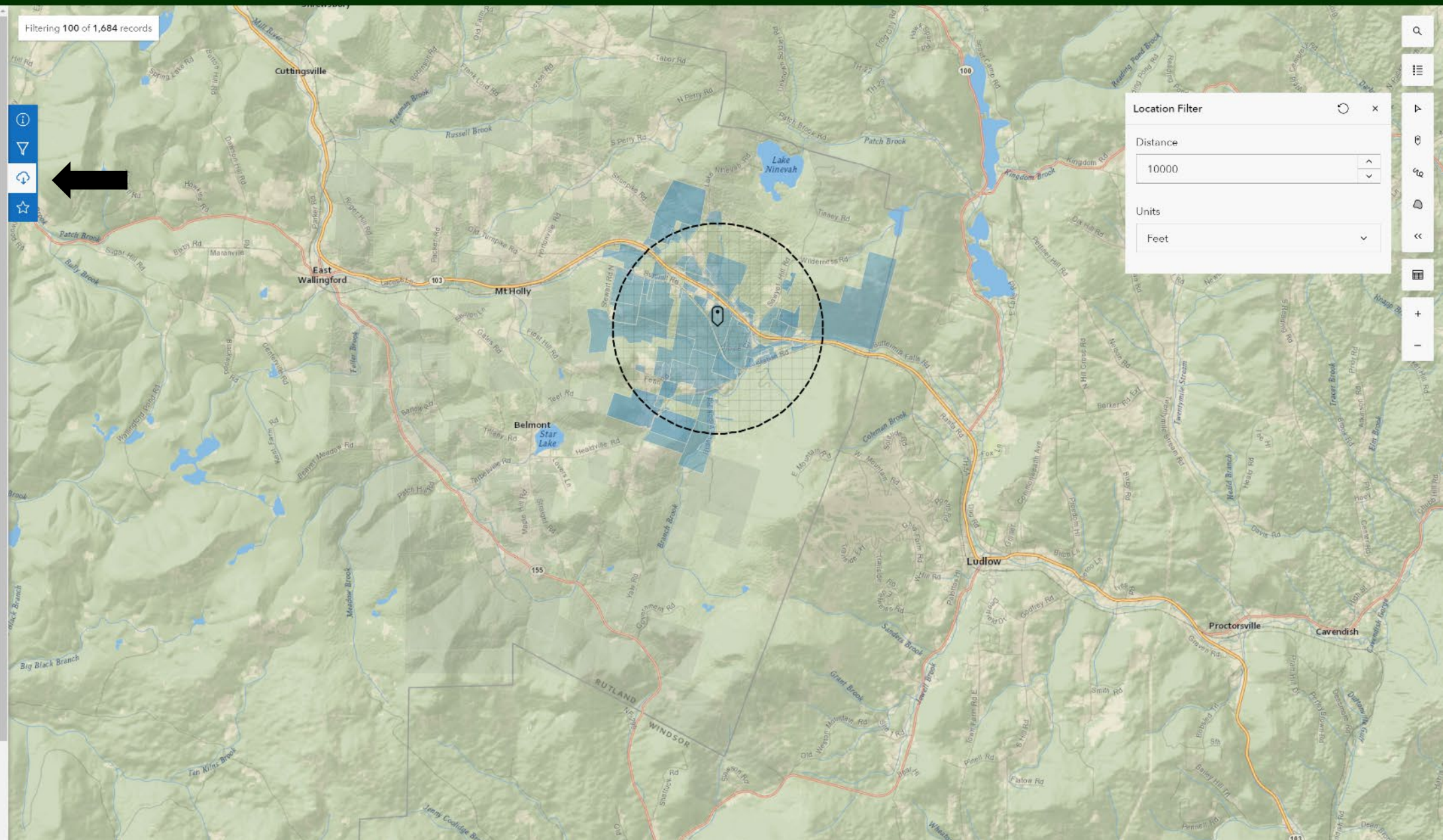
Download

GeoJSON

Downloading an updated file may take some time.

Download

File Geodatabase



Location Filter

Distance: 10000

Units: Feet



Filters

VT Data - Locations of Surveys Accessible via Vermont Land Survey Library

Filters

Styling

Filter as map moves ⓘ

Location filter applied ←

[Remove filter](#)

Select attribute filters (16)

CreationDate
10/31/2019 to 8/7/2022

Creator
1 values

EditDate
10/31/2019 to 8/9/2022

Editor
1 values

Survey Title
1,424 values

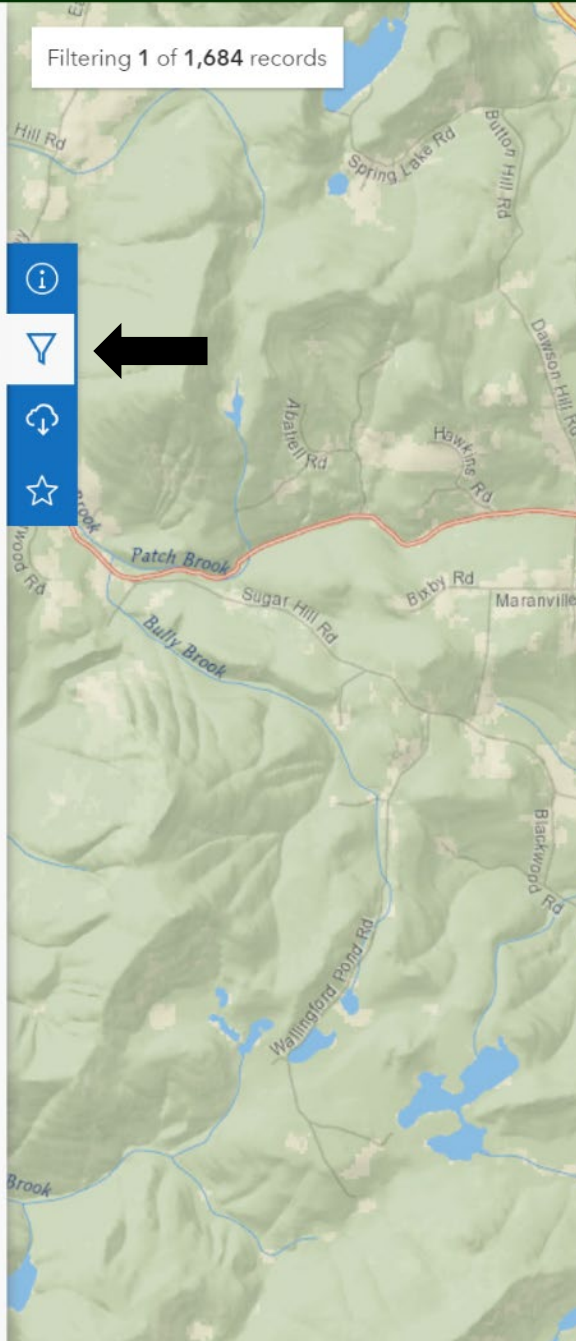
Name of Surveyor
226 values

Uploader Email
94 values

Date of Survey
8/1/1924 to 7/25/2022

Survey Type
4 values

Filtering 1 of 1,684 records



Filters

VT Data - Locations of Surveys Accessible via Vermont Land Survey Library

Filtering 102 of 1,684 records

Filters Styling

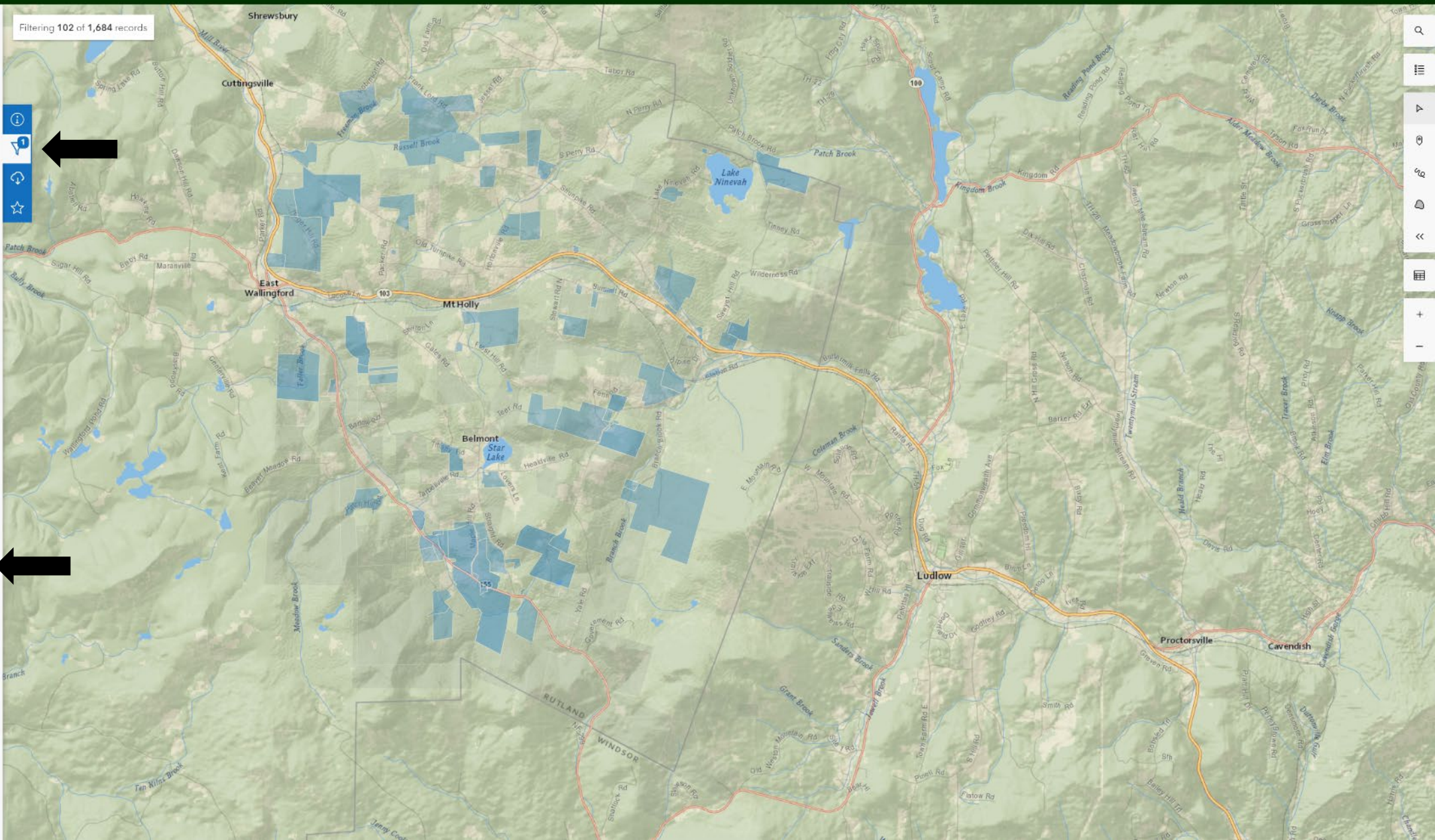
Filter as map moves

- Name of Surveyor
- Michael Gervais 6.25%
 - Peter H. Cross, Cross Consulting Engineers 5.99%
 - Nathan Nadeau 5.79%
 - Ralph J Michael 5.07%
 - Ronald L. LaRose 3.88%

Search 221 more values

Select attribute filters (16)

- CreationDate 10/31/2019 to 8/7/2022
- Creator 1 values
- CeditDate 10/31/2019 to 8/9/2022
- Editor 1 values
- Survey Title 1,424 values
- Name of Surveyor 226 values



VT Data - Locations of Surveys Accessible via Vermont Land Survey Library



Summary

Locations and information corresponding to copies of surveys that are accessible via the Vermont Land Survey Library.

[View Full Details](#)

[Download](#)

Details

- Dataset**
Feature Layer
- January 3, 2022**
Info Updated
- Weekly**
Data Updated: September 15, 2022
- January 1, 2020**
Published Date
- 1,684 Records**
[View data table](#)
- Public**
Anyone can see this content
- Custom License**
[View license details](#)

Showing 25 of 1,684 rows

[Close Table](#)

CreationDate	Creator	EditDate	Editor	Survey Title	Name of Surveyor	Uploader Email	Date of S
10/31/2019, 2:00 PM	Publisher_VCGI	3/11/2020, 2:33 PM	Publisher_VCGI	Plat Showing subdivision of l...	Kevin R. Larose	david.n.fox@vermont.gov	7/17/201
10/31/2019, 2:00 PM	Publisher_VCGI	10/31/2019, 2:00 PM	Publisher_VCGI	Preliminary Plat of Minor Sub...	BM Paul	david.n.fox@vermont.gov	8/18/201
10/31/2019, 2:00 PM	Publisher_VCGI	10/30/2020, 8:34 AM	Publisher_VCGI	Lands of John M. & Julie M. E...	Michael Gervias	david.n.fox@vermont.gov	6/5/2017
10/31/2019, 2:00 PM	Publisher_VCGI	10/31/2019, 2:00 PM	Publisher_VCGI	Property Line Adjustment Pla...	Merrill A. Mundell, Jr.	david.n.fox@vermont.gov	2/25/201
10/31/2019, 2:00 PM	Publisher_VCGI	10/31/2019, 2:00 PM	Publisher_VCGI	Subdivision Plat for Ernest N...	Mark Day	david.n.fox@vermont.gov	6/20/201
10/31/2019, 2:00 PM	Publisher_VCGI	10/31/2019, 2:00 PM	Publisher_VCGI	Boundary and Subdivision Pl...	Mark Day	david.n.fox@vermont.gov	3/20/201
10/31/2019, 2:00 PM	Publisher_VCGI	10/31/2019, 2:00 PM	Publisher_VCGI	A Map of Certain Lands of Je...	Kenneth G. Weston	david.n.fox@vermont.gov	6/15/200
12/12/2019, 2:30 PM	Publisher_VCGI	12/30/2019, 9:01 AM	Publisher_VCGI	Subdivision of th Bruce Whe...	George E. Bedard	david.n.fox@vermont.gov	12/7/201
12/16/2019, 10:06 AM	Publisher_VCGI	12/30/2019, 9:00 AM	Publisher_VCGI	Subdivision Plat of a Portion ...	Donald A. Johnson	david.n.fox@vermont.gov	7/30/201
12/16/2019, 10:10 AM	Publisher_VCGI	12/30/2019, 9:00 AM	Publisher_VCGI	Suvery and Subdivision of La...	Tami Bass	david.n.fox@vermont.gov	8/1/2004
12/20/2019, 11:40 AM		12/30/2019, 11:24 AM	Publisher_VCGI	Estate of Adelbert Ames, III	Joseph DiBernardo	joedibo@comcast.net	10/2/201
12/20/2019, 12:57 PM		10/30/2020, 8:34 AM	Publisher_VCGI	Boundary Line Adjustment of...	Keith Van Iderstine	scott@mccainconsulting.com	12/20/20
12/20/2019, 2:17 PM		12/30/2019, 8:57 AM	Publisher_VCGI	Subdivision Plat, Lands of: B...	KML Surveying & Design, PL...	kml.surveying@icloud.com	12/12/20
12/30/2019, 11:07 AM		10/30/2020, 8:34 AM	Publisher_VCGI	Survey and Subdivision of a ...	Keith Van Iderstine	scott@mccainconsulting.com	12/19/20
1/2/2020, 4:21 PM		1/3/2020, 10:00 AM	Publisher_VCGI	Laquerre Subdivision	William R Chase	cdchase@chasesurveyors.com	4/1/2019
1/6/2020, 2:35 PM		10/30/2020, 8:35 AM	Publisher_VCGI	Subdivision For THE CONSE...	Richard F. Lunna	rflunna@gmail.com	11/22/20
1/8/2020, 11:36 AM		10/30/2020, 8:34 AM	Publisher_VCGI	LANDS OF CHAMPLAINSIDE...	Michael Gervias	rob@barnardandgervais.com	11/15/20
1/9/2020, 9:49 AM		1/9/2020, 3:26 PM	Publisher_VCGI	Boundarv Line Adjustment Pl...	Mark Dav	nicole.snow@tcevt.com	11/19/20





Land Cover

Search, Find and Use Land Cover Products

- Datasets
- Services
- Applications
- Documentation

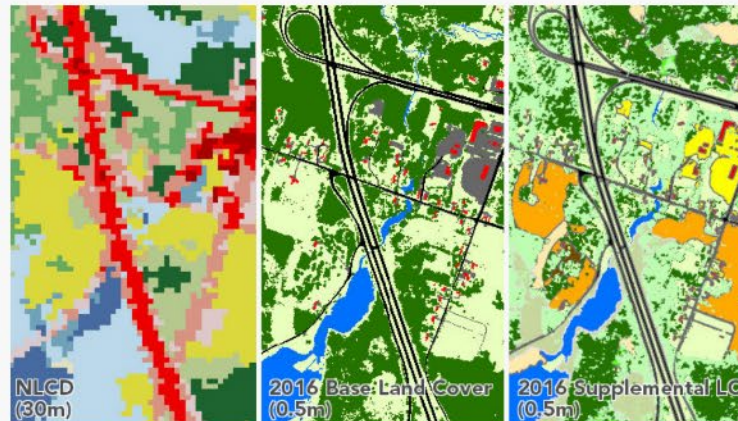
Datasets

Download Land Cover Products

Vermont land cover data is available from two different efforts: the National Land Cover Database (NLCD) managed by the Multi-Resolution Land Characteristics Consortium (MRLC), and Vermont-specific land cover products created over the years.

For Vermont-specific land cover products including the 2016 statewide 0.5 meter resolution set derived from a combination of 2013-2017 LiDAR and 2016 orthoimagery data (see Report for details), use the data download table below. Vermont-specific land cover products are updated on an as-available basis.

For NLCD data at 30 meter resolution with editions every 2-3 years beginning in 2001, see this page.





The screenshot shows the Vermont Open Source Portal website. At the top, there is a header with the text "Vermont Open Source Portal" and a navigation menu. Below the header, there are several sections: "Elevation" with a map, "Datasets" with a table of data, "Services" with a grid of service cards, and "Related Applications" with a list of links. The table in the "Datasets" section has columns for "Name", "Description", "Format", "Download", and "View". The "Services" section contains a grid of 12 service cards, each with a thumbnail image and a brief description. The "Related Applications" section lists several applications with their respective logos and descriptions.

Page Name/Content

Overview / Navigation

Data Downloads

Streaming Services

Related Applications

Documentation
More Info



Resources for Mapmaking

Example Free and Paid Desktop and Cloud Resources



(Free) Resources for Mapmaking

- Basic, Viewer Apps (SoV)
 - [Interactive Map Viewer](#)
 - [ANR Atlas](#)
 - [E911 Viewer](#)
 - [Planning Atlas](#)
 - [Parcel Viewer](#)
 - [Parcel Status](#)
 - [Boundaries and Jurisdictions](#)
- Intermediate, Create-your-own Maps (non-SoV)
 - [ESRI's Map Viewer](#)
 - Need an account to save
 - [Free Public Account](#)
 - [Free Developer Account](#)
 - Datawrapper Map Visualizations ([Free Account](#))

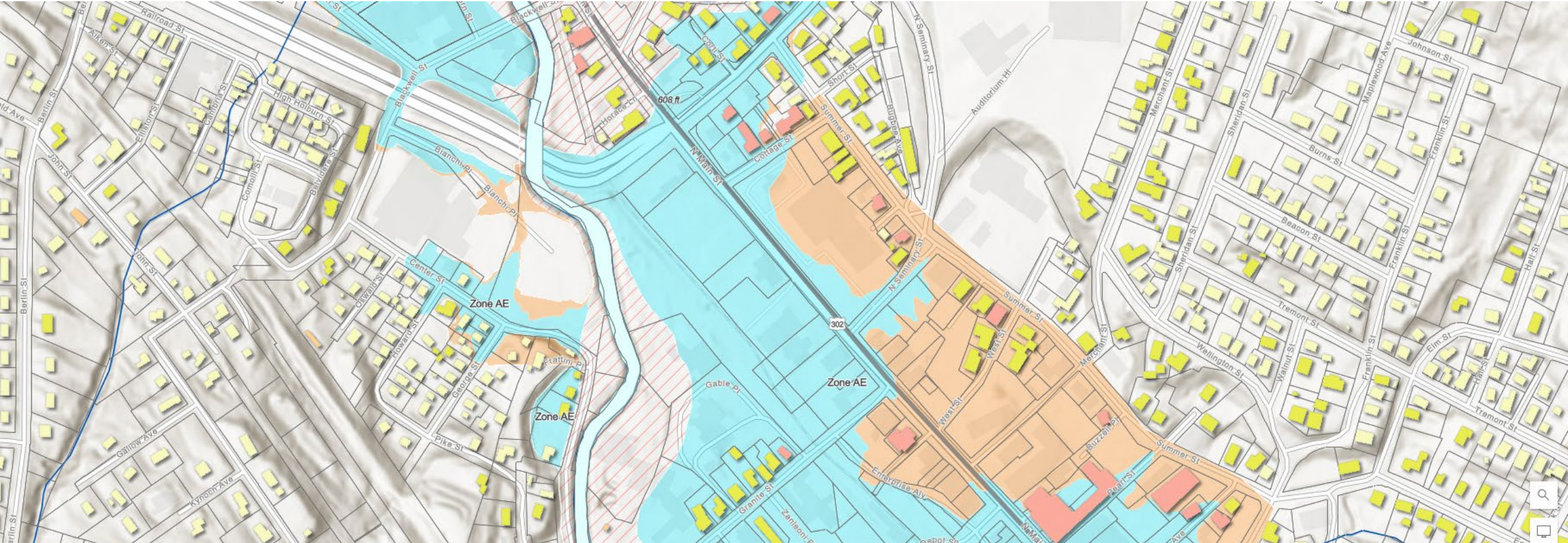


Resources for Mapmaking

- Advanced, Make Your Own Maps
 - Free, Open-source: [QGIS](#)
 - Licensed (\$): [ESRI's ArcGIS Pro](#) / ArcGIS universe of applications
- Other Advanced Tools (mostly web/cloud-based)
 - [Mapbox](#)
 - [Carto](#)
 - Many, many more



ESRI's Map Viewer Demo



Where can I learn more?

Links to Resources Elsewhere



Staying In the Loop

- Partners: <https://vcgi.vermont.gov/partners>
- News & Data Releases: <https://vcgi.vermont.gov/articles>
- Events / Other VT GIS Info: [VGIS-L Listserv](#)
- VT GIS Standards and Guidelines (modernization underway): <https://vcgi.vermont.gov/resources/vermont-gis-standards-and-guidelines>





planet

Join us remotely for a talk by Planet Labs, a publicly traded Earth imaging company based in San Francisco, California. Planet builds, owns and operates its own constellation of nearly 200 satellites. Planet provides daily satellite data that helps businesses, governments, researchers and journalists understand the physical world and take action.

EGC GeoEnlightenment Session
March 9, 2022, 9:30 - 10:30 AM

VERMONT
VERMONT ENTERPRISE GIS CONSORTIUM

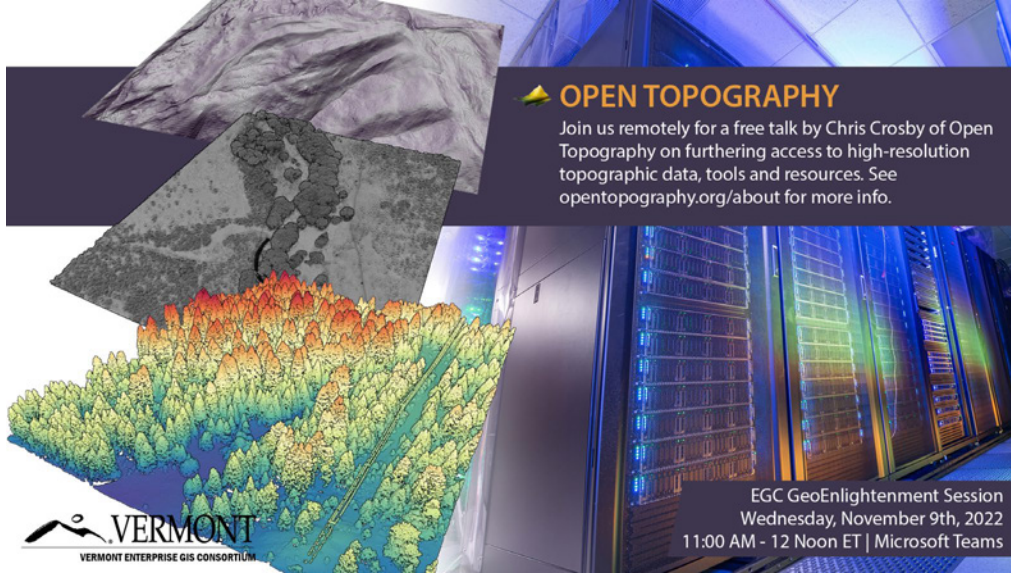
Presidential Range, NH
Oct. 27, 2021

Denmark Glacier, Greenland
Jan. 25, 2021

Wibby Fire, California
Sept. 28, 2021

Newfield, NY Summer
Sept. 28, 2021

Lake Mead, Nevada
June 18, 2021

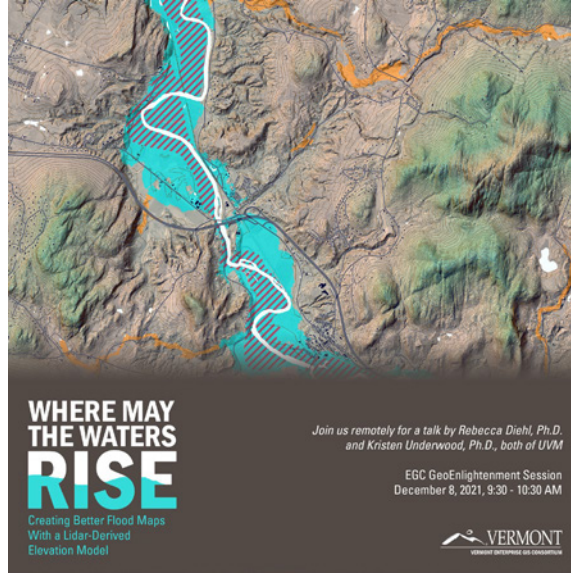


OPEN TOPOGRAPHY

Join us remotely for a free talk by Chris Crosby of Open Topography on furthering access to high-resolution topographic data, tools and resources. See opentopography.org/about for more info.

EGC GeoEnlightenment Session
Wednesday, November 9th, 2022
11:00 AM - 12 Noon ET | Microsoft Teams

VERMONT
VERMONT ENTERPRISE GIS CONSORTIUM



WHERE MAY THE WATERS RISE

Creating Better Flood Maps
With a Lidar-Derived Elevation Model

Join us remotely for a talk by Rebecca Diehl, Ph.D. and Kristen Underwood, Ph.D., both of UVM

EGC GeoEnlightenment Session
December 8, 2021, 9:30 - 10:30 AM

VERMONT
VERMONT ENTERPRISE GIS CONSORTIUM



makepath

Join us remotely for a free talk by Dylan Stewart of makepath on connecting machine learning, open source tools, and geospatial applications including change detection.

EGC GeoEnlightenment Session
Wednesday, October 12th, 2022
9:30 - 10:30 AM | Microsoft Teams

VERMONT
VERMONT ENTERPRISE GIS CONSORTIUM



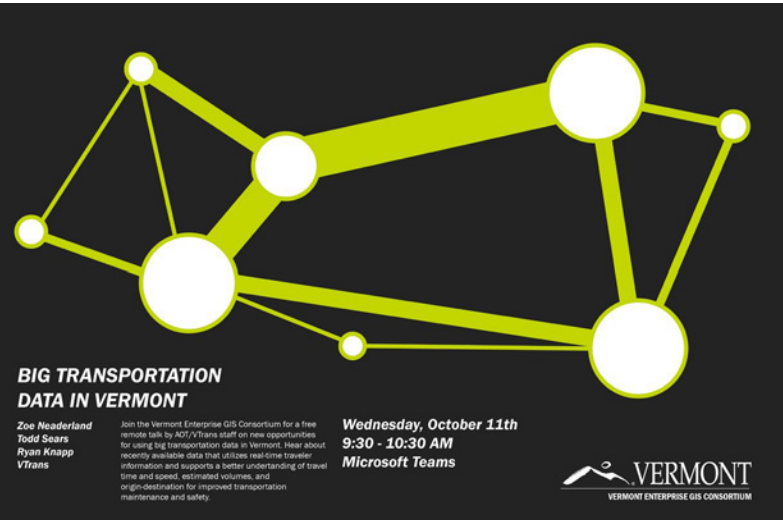
BENDING LINES

leventhalmap.org/digital-exhibitions/bending-lines/
Maps and Data from Distortion to Deception

Join us remotely for a talk by Garrett Dash Nelson, Ph.D. of the Leventhal Map & Education Center, Boston Public Library

EGC GeoEnlightenment Session
November 10, 2021, 9:30 - 10:30 AM

VERMONT
VERMONT ENTERPRISE GIS CONSORTIUM



BIG TRANSPORTATION DATA IN VERMONT

Join the Vermont Enterprise GIS Consortium for a free remote talk by AOT/VTrans staff on new opportunities for using big transportation data in Vermont. Hear about recently available data that utilizes real-time traveler information and supports a better understanding of travel time and speed, estimated volumes, and origin-destination for improved transportation maintenance and safety.

Zoe Neaderland
Todd Sears
Ryan Knapp
VTrans

Wednesday, October 11th
9:30 - 10:30 AM
Microsoft Teams

VERMONT
VERMONT ENTERPRISE GIS CONSORTIUM



Events | EGC GeoEnlightenment Sessions

Typically Monthly, Second Wednesday of the Month from 9:30-10:30 (see VGIS-L for announcements)

How-To Resources

- VCGI Short-list:
<https://vcgi.vermont.gov/resources/how-and-education-resources>
- [Gentle Introduction to \(Q\)GIS](#)
- [Introduction to GIS Fundamentals](#)
- [QGIS 3 for Absolute Beginners](#)
- [Accessing GIS Resources at the Vermont Open Geodata Portal \(2022\)](#)
- [QGIS Training Manual](#)
- [ESRI Training](#)
- [Datawrapper Academy](#)



GIS Consultants Serving Vermont [\(link\)](#)

GIS Consultants Serving Vermont Use this data		Airtable				
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<p>Applied Geographics, Inc. (...)</p> <p>BUSINESS WEBSITE https://www.appgeo.com</p> <p>POINT OF CONTACT NAME Michele Giorgianni</p> <p>CONTACT EMAIL mgorgianni@appgeo.com</p> <p>BUSINESS STREET ADDRESS 1 33 Broad Street</p> <p>BUSINESS CITY OR TOWN Boston</p> <p>BUSINESS STATE/PROVINCE Massachusetts</p> <p>BUSINESS ZIP 02109</p> <p>BUSINESS PHONE (860) 339-4254</p> <p>SERVICES OFFERED Cartography and/or Graphic D...</p> <p>OTHER SERVICES OFFERED Geospatial services for all levels of government and many industries: Transportation GIS System Implementation and Setup</p>	<p>Architecture, Engineering, a...</p> <p>BUSINESS WEBSITE www.aesnortheast.com</p> <p>POINT OF CONTACT NAME Brad Noviski</p> <p>CONTACT EMAIL bradnoviski@aesnortheast.com</p> <p>BUSINESS STREET ADDRESS 1 12 City Hall Place</p> <p>BUSINESS CITY OR TOWN Plattsburgh</p> <p>BUSINESS STATE/PROVINCE New York</p> <p>BUSINESS ZIP 12901</p> <p>BUSINESS PHONE (518) 561-1598</p> <p>SERVICES OFFERED Cartography and/or Graphic D...</p> <p>OTHER SERVICES OFFERED Zoning and Regulation Review and Mapping GIS System Implementation and Setup</p>	<p>Arrowwood Environmental</p> <p>BUSINESS WEBSITE arrowwoodvt.com</p> <p>POINT OF CONTACT NAME Aaron Worthley</p> <p>CONTACT EMAIL aaron@arrowwoodvt.com</p> <p>BUSINESS STREET ADDRESS 1 950 Bert White Road</p> <p>BUSINESS CITY OR TOWN Huntington</p> <p>BUSINESS STATE/PROVINCE Vermont</p> <p>BUSINESS ZIP 05462</p> <p>BUSINESS PHONE (802) 434-7276</p> <p>SERVICES OFFERED 3D Modeling / Photogrammetry</p> <p>OTHER SERVICES OFFERED</p>	<p>Atlas Geographic Data, Inc.</p> <p>BUSINESS WEBSITE www.atlasgeodata.com</p> <p>POINT OF CONTACT NAME Hays Lambert</p> <p>CONTACT EMAIL hlambert@atlasgeodata.com</p> <p>BUSINESS STREET ADDRESS 1 215 Racine Drive</p> <p>BUSINESS CITY OR TOWN Huntington</p> <p>BUSINESS STATE/PROVINCE North Carolina</p> <p>BUSINESS ZIP 28403</p> <p>BUSINESS PHONE (910) 256-9892</p> <p>SERVICES OFFERED 3D Modeling / Photogrammetry</p> <p>OTHER SERVICES OFFERED</p>	<p>Avitar Associates of New En...</p> <p>BUSINESS WEBSITE https://avitarassociates.com</p> <p>POINT OF CONTACT NAME</p> <p>CONTACT EMAIL info@avitarassociates.com</p> <p>BUSINESS STREET ADDRESS 1 150 Suncook Valley Road</p> <p>BUSINESS CITY OR TOWN Chichester</p> <p>BUSINESS STATE/PROVINCE New Hampshire</p> <p>BUSINESS ZIP 03258</p> <p>BUSINESS PHONE (603) 798-4419</p> <p>SERVICES OFFERED Tax Parcel Mapping Print Map F</p> <p>OTHER SERVICES OFFERED</p>	<p>AXIS GeoSpatial LLC</p> <p>BUSINESS WEBSITE www.axisgeospatial.com</p> <p>POINT OF CONTACT NAME Erica Insley</p> <p>CONTACT EMAIL einsley@axisgeospatial.com</p> <p>BUSINESS STREET ADDRESS 1 28640 Mary's CT</p> <p>BUSINESS CITY OR TOWN Easton</p> <p>BUSINESS STATE/PROVINCE Maryland</p> <p>BUSINESS ZIP 21601</p> <p>BUSINESS PHONE (410) 822-1441</p> <p>SERVICES OFFERED 3D Modeling / Photogrammetry</p> <p>OTHER SERVICES OFFERED</p>	<p>Bear Creek Environmental, L...</p> <p>BUSINESS WEBSITE www.bearcreekenvironmental.com</p> <p>POINT OF CONTACT NAME Mary Nealon</p> <p>CONTACT EMAIL mary@bearcreekenvironmental.com</p> <p>BUSINESS STREET ADDRESS 1 131 Elm Street, Suite 1</p> <p>BUSINESS CITY OR TOWN Montpelier</p> <p>BUSINESS STATE/PROVINCE Vermont</p> <p>BUSINESS ZIP 05602</p> <p>BUSINESS PHONE (802) 223-5140</p> <p>SERVICES OFFERED Architecture, Landscape Archite...</p> <p>OTHER SERVICES OFFERED</p>
<p>CAI Technologies</p> <p>BUSINESS WEBSITE www.cai-tech.com</p> <p>POINT OF CONTACT NAME Tim Fountain</p> <p>CONTACT EMAIL tfountain@cai-tech.com</p>	<p>Cartographic Technologies I...</p> <p>BUSINESS WEBSITE www.cti-vt.com</p> <p>POINT OF CONTACT NAME Susan Boswell</p> <p>CONTACT EMAIL cartographictechnologiesinc@gm...</p>	<p>Center for Community GIS</p> <p>BUSINESS WEBSITE https://community-gis.org/</p> <p>POINT OF CONTACT NAME Claire Polfus</p> <p>CONTACT EMAIL cpolfus@community-gis.org</p>	<p>Christine Chamberlain Map...</p> <p>BUSINESS WEBSITE</p> <p>POINT OF CONTACT NAME Christine Chamberlain</p> <p>CONTACT EMAIL chrischamb@gmavt.net</p>	<p>Control Point Associates, Inc.</p> <p>BUSINESS WEBSITE https://cpasurvey.com/</p> <p>POINT OF CONTACT NAME Dawn McCall, GISP</p> <p>CONTACT EMAIL dmccall@cpasurvey.com</p>	<p>ESRI</p> <p>BUSINESS WEBSITE https://www.esri.com/</p> <p>POINT OF CONTACT NAME Matthew Deal</p> <p>CONTACT EMAIL mdeal@esri.com</p>	<p>Fogarty Forestry, LLC</p> <p>BUSINESS WEBSITE www.fogartyforestry.com</p> <p>POINT OF CONTACT NAME John Fogarty</p> <p>CONTACT EMAIL info@fogartyforestry.com</p>



Map Data for Municipalities

A High-Level Overview

Vermont Center for Geographic Information ([VCGI](#))

tim.terway@vermont.gov

Municipal Day | October 20, 2023



AGENCY OF DIGITAL SERVICES