

**Incorporating Town GIS Data  
into  
Google Earth / Google Maps**

**The Enosburgh Town Map**

**A session at the 2012  
VCGI “Municipal and Irene Mapping Conference  
January 26, 2012**

By Robert Johnson  
Town of Enosburgh Planning Commission

## Our Mapping Goal

Our goal was to make determining the zoning districts, associated with a given property, simple.

## Criteria

After investigating available options we settled on these criteria:

- 1) The solution should be free to users.
- 2) There should be nothing to download and install on users machines.
- 3) The solution should work on all commonly used computing platforms – Windows, Mac, Linux.
  - Windows
  - Mac
  - Linux
- 4) The solution should work in all commonly used web browsers. – Windows, Mac, Linux.
  - Explorer
  - Firefox
  - Safari
  - Opera
- 5) Required development tools should be free or low cost.

## Implementation

We choose to implement our map using Google Maps and their Javascript API Version 3.

- HTML 5
- CSS
- Google Maps
- Google Javascript API Version 3
- Google Maps JavaScript API Version 3 ArcGIS Server Link
- VCGI Cached Map Service: VIL\_CACHE\_COLOR\_WM

## Website Hosting

- Linux host – Apache web server at [www.enosburghvermont.org](http://www.enosburghvermont.org).
- PHP for server side scripting

Task	Tools	Platform	Cost
Convert ESRI Shapefiles to Google Earth KML or KMZ files.	MapWindow + Shape2Earth	Windows only	\$29.00
	Shape File Converter VermontTownMaps.Com (soon)	Windows, Mac, Linux	Free
Edit KML / KMZ files	Google Earth	Windows, Mac, Linux	Free

## Map Description



**Enosburgh, VT**

[Enosburgh Town Home Page](#)

### Map Layers

#### Tax Parcels

- Tax Parcels

#### Conservation Commission

- Wildlife Habitat
- Deer Wintering Areas
- Wildlife Connectivity

#### Planning Commission

##### Zoning Districts

- Village of E. Falls
- Agricultural
- Rural Residential
- Conservation
- Wellhead Protection

##### Overlay Districts

- Natural Resource
- Wetlands
- Flood

#### Town Boundary

- Town Boundary

## Enosburgh Town Map

[Map Help](#)

### Zoom



### Marker

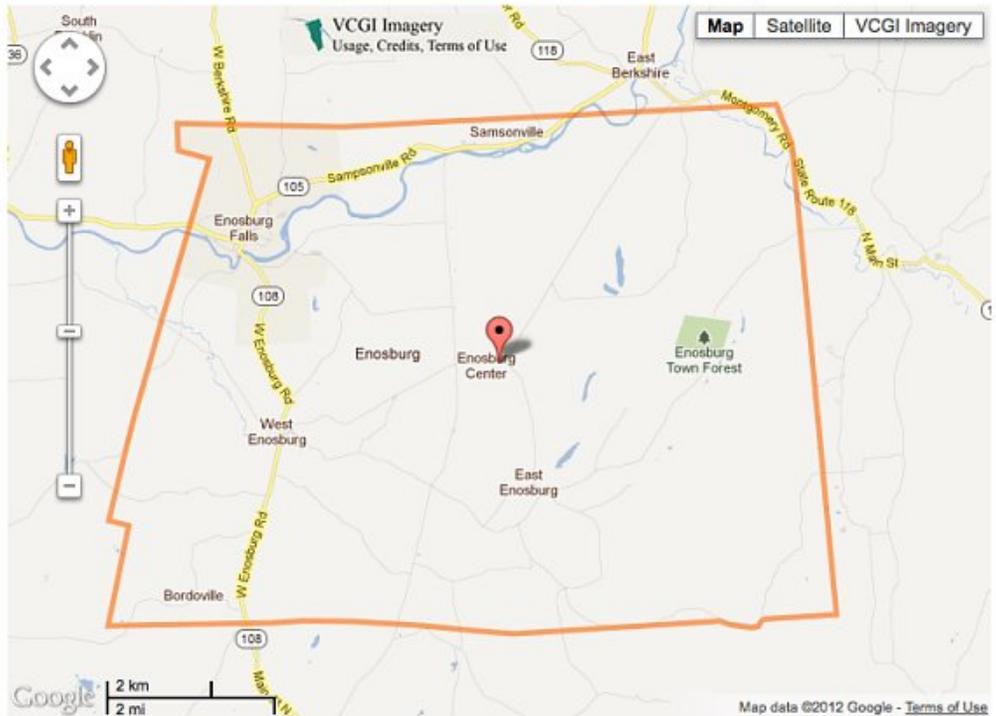
Show Marker    Elevation: 787.9 feet.  
[Move to Address](#)    Latitude: 44.883790  
    Longitude: -72.743923  
   

### Path Length

7.98 Miles

### Zone Finder

[Zone Finder Help](#)



## Map Controls

### Map Layers

#### Tax Parcels

- Tax Parcels

#### Conservation Commission

- Wildlife Habitat
- Deer Wintering Areas

Map Layer Controls

Zoom Controls

### Zoom



### Marker

Show Marker    Elevation: 694.3 feet.  
[Move to Address](#)    Latitude: 44.933393  
    Longitude: -72.828380  
   

Marker

Marker Controls

### Path Length

7.16 Miles

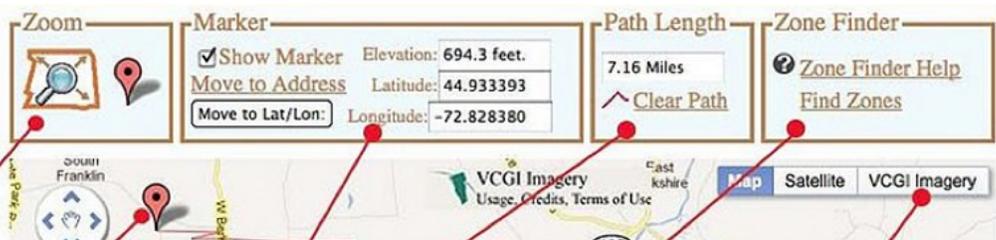
Path Length Controls

### Zone Finder

[Zone Finder Help](#)

Zone Finder Controls

VCGI Imagery Map Type



**Map Layer Controls**

Initially, when the map page is loaded, only the Town Boundary layer is shown. Click on the checkbox next to the layer name to toggle that layer on / off.

**\*\*\* Important Note About Layers \*\*\***

Layers do not have a fixed order. When a layer is displayed it becomes the topmost layer. The last layer displayed is the top layer. Clickable features on a layer may not be accessible unless the layer is the top layer or unless the feature is not below another feature on a higher layer. To make a visible layer the top layer, toggle it off then back on.

**Zoom Controls**

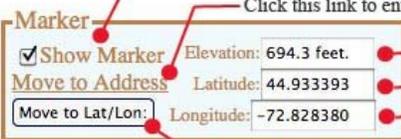


Centers the map on the Marker and zooms in.  
The town center becomes the map center and the zoom level is adjusted to include the entire town.

Double clicking the left mouse button anywhere on the map will zoom in one level and make the map center the "left double click" location.

**Marker Controls**

When the Show Marker checkbox is checked a mouse draggable marker is placed on the map. As the marker is moved around information about its position is displayed in the elevation, latitude, and longitude edit boxes. **\*\*\* Important Note \*\*\*** Unchecking then re-checking the "Show Marker" checkbox will restore a marker that has become lost off the map.



Click this link to enter an address. The marker is then moved to this address.  
Shows the elevation at the marker position.  
Shows the marker position latitude.  
Shows the marker position longitude.  
Type new values into the latitude, and longitude edit boxes then click this button to move the marker to the new location.

**Path Length Control**



As the marker is moved it leaves a red track or "Path" to show where it has been. Drag the marker by pressing and holding down the left mouse button while moving the mouse. When the mouse button is released a straight line segment is drawn between the starting and ending points. Connect several line segments by pressing the mouse button again immediately after releasing it and continue the mouse movement.

The Path Length Control provides a means to display the length of the marker path and a means to clear the path, set the length to zero. If the path length is greater than 2000 feet the length is displayed in miles otherwise the length is displayed in feet.



Opens the Zone Finder help window.  
Opens this window to display zone information.



Closes the window. The data is retained until the "Clear Zone Information" button is pressed to allow reports on multiple locations.  
Erases the zone information displayed in this window.

**\*\*\* Important Note About Verifying Zones \*\*\***

When the marker is close to a zone boundary it's important to zoom in as far as possible to ascertain whether or not the marker is within the zone.

# The Enosburgh Town Map

## Links and Resources

Enosburgh Town Website:

<http://www.enosburghvermont.org/index.php>

Enosburgh Town Map:

<http://www.enosburghvermont.org/Maps/TownMap.php>

VCGI Cached Map Service:

[http://www.vcgi.org/dataware/?page=../products/metadata/map\\_cache.htm](http://www.vcgi.org/dataware/?page=../products/metadata/map_cache.htm)

Google Maps Javascript API Version 3:

<http://code.google.com/intl/en/apis/maps/documentation/javascript/basics.html>

Note:

For help implementing a similar map for your town contact:

Robert Johnson

Email: [Robert@VermontTownMaps.com](mailto:Robert@VermontTownMaps.com)

Or

Visit

<http://www.vermonttownmaps.com>

To view today's presentation video:

<http://www.vermonttownmaps.com/VCGI/Presentation-1-26-2012.php>

This document is at:

<http://www.vermonttownmaps.com/VCGI/Presentation-1-26-2012.docx>