

# VCGI + Irene: Close Encounter

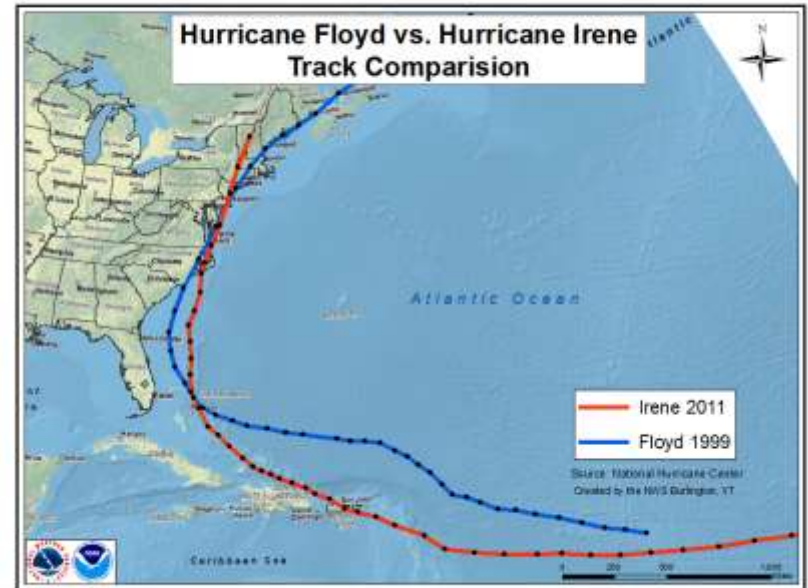


**Steve Sharp, Senior Project Manager**  
**VT Center for Geographic Information**



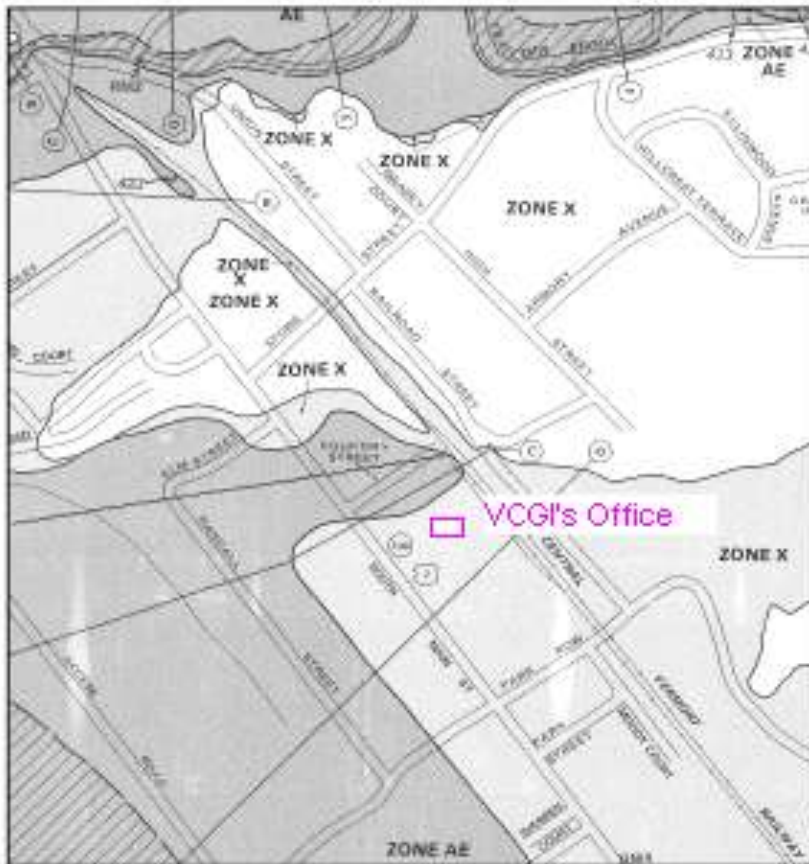


# Irene Storm Track





## VCGL's Location



## LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED  
BY 100-YEAR FLOOD

**ZONE A** No base flood elevations determined.

**ZONE AE** Base flood elevations determined.

**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding; velocities also determined.

**ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.

**ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.

**ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.



## FLOODWAY AREAS IN ZONE AE



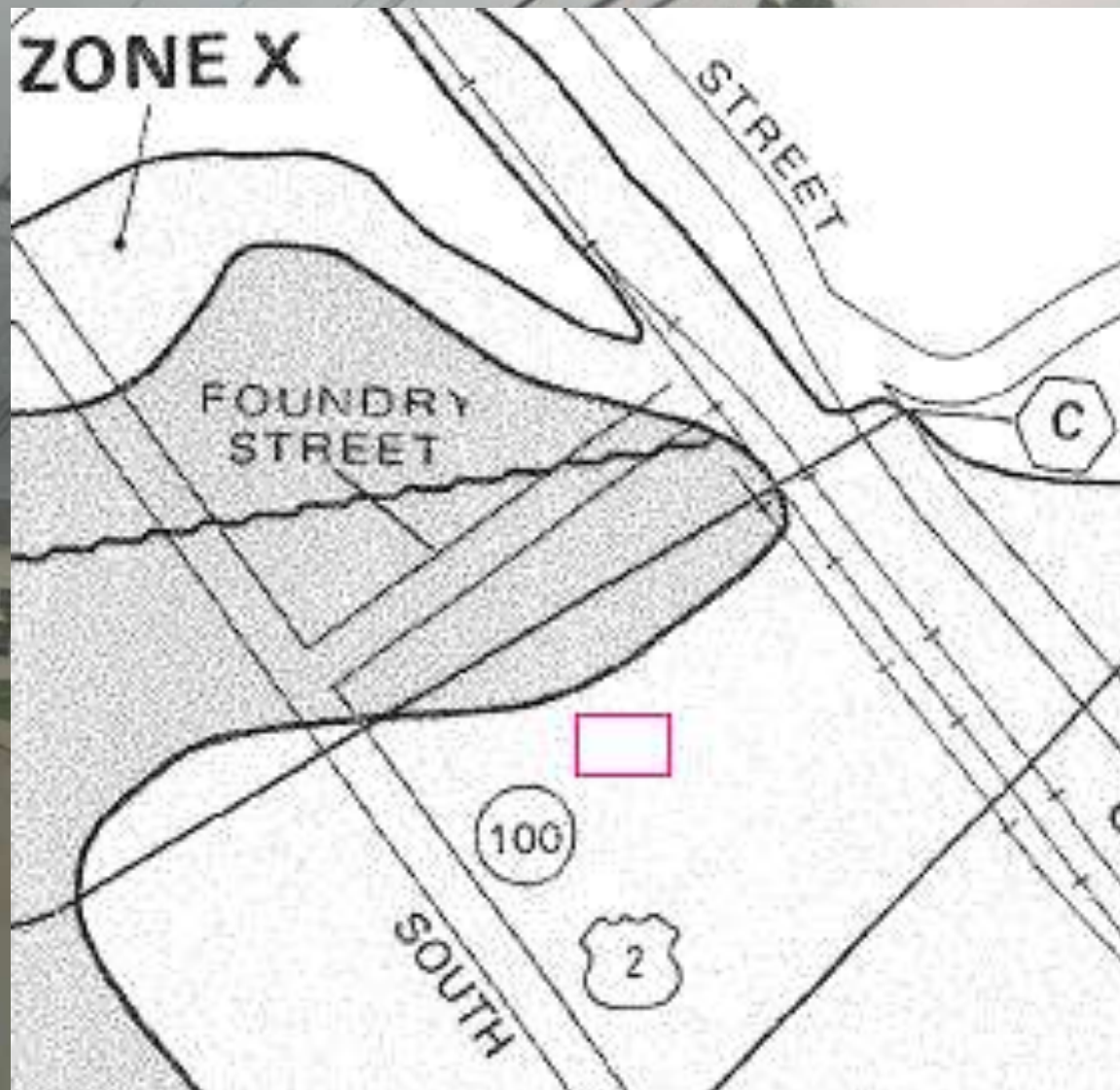
## OTHER FLOOD AREAS

**ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year



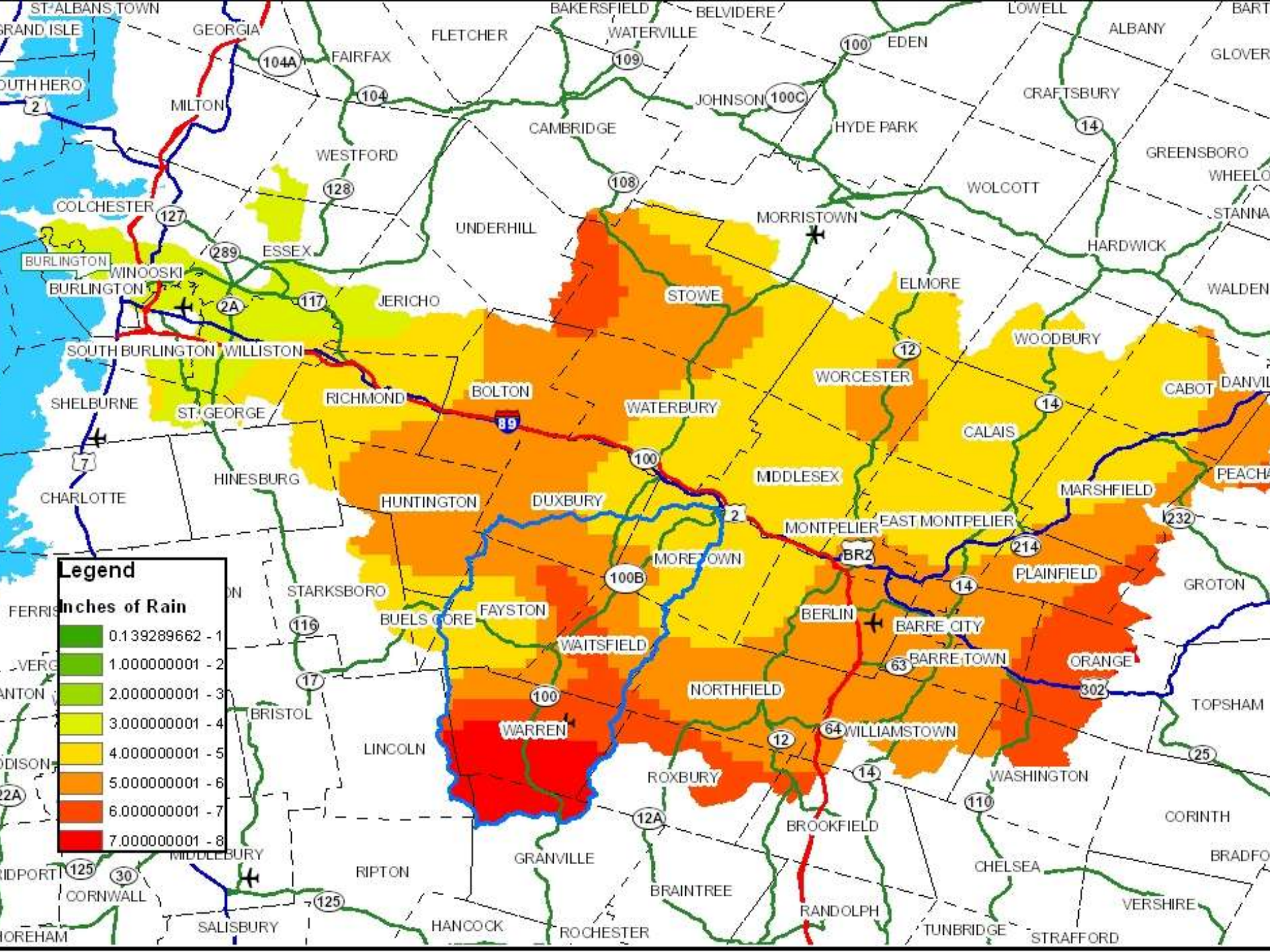


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# Impacts in the Winooski watershed





## Impacts in the Winooski watershed





## Impacts in Waterbury





## VCGI's Close Encounter





## VCGI's Response – What a mess!



- This stuff is dirty man!
- What can be saved?
- What should be tossed?
- Toss into dumpster
- Load into truck
- Move to storage



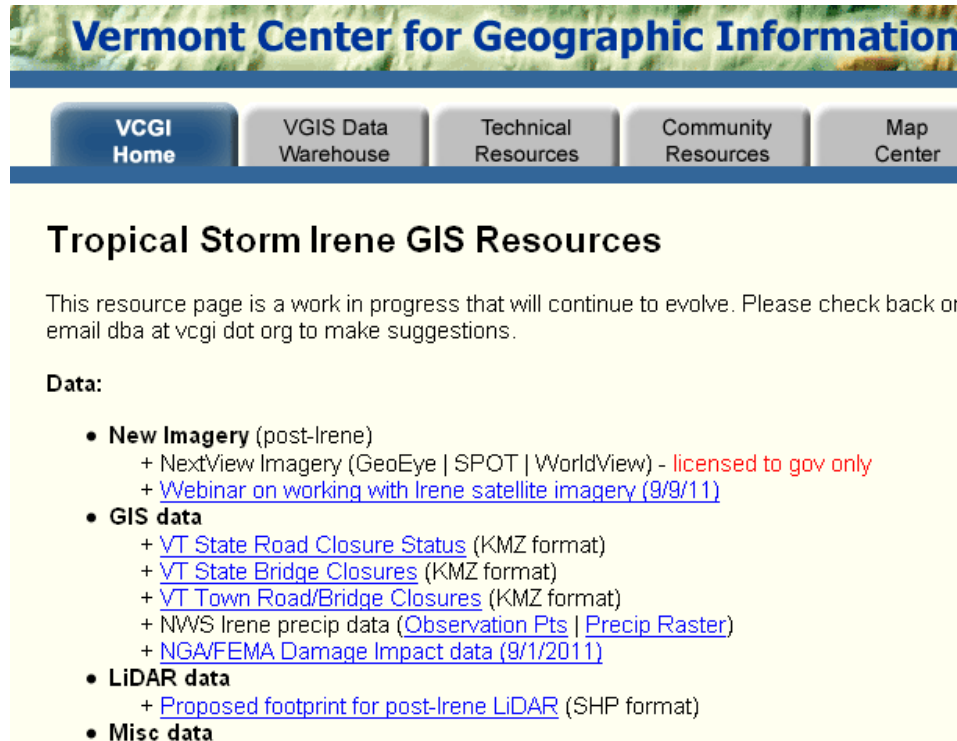
# VCGI's Response – Getting back online



- Servers were ok (top of rack)!
- Moved to Montpelier
- 133 State St – Data Center
- Back online by Wednesday
- Thanks to DII!
- Thanks to UVM SAL (Jarlath) for making data available while we were down!



# VCGI's Response – Getting back in the game



**Vermont Center for Geographic Information**

VCGI Home VGIS Data Warehouse Technical Resources Community Resources Map Center

## Tropical Storm Irene GIS Resources

This resource page is a work in progress that will continue to evolve. Please check back or email dba at vcgi dot org to make suggestions.

**Data:**

- **New Imagery** (post-Irene)
  - + NextView Imagery (GeoEye | SPOT | WorldView) - *licensed to gov only*
  - + [Webinar on working with Irene satellite imagery \(9/9/11\)](#)
- **GIS data**
  - + [VT State Road Closure Status](#) (KMZ format)
  - + [VT State Bridge Closures](#) (KMZ format)
  - + [VT Town Road/Bridge Closures](#) (KMZ format)
  - + NWS Irene precip data ([Observation Pts](#) | [Precip Raster](#))
  - + [NGA/FEMA Damage Impact data \(9/1/2011\)](#)
- **LiDAR data**
  - + [Proposed footprint for post-Irene LiDAR](#) (SHP format)
- **Misc data**

- Who is doing what?
- Who is collecting what?
- Setup Irene resources page
  - Data
  - Apps/Mashups
  - Maps
  - Other resources
- Coordination & communication...more to do



## VCGI's Response – Irene Resources Page

- **New Imagery (post-Irene)**
  - + **NextView Imagery (GeoEye | SPOT | WorldView)**
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- **GIS data**
  - + **[VT State Road Closure Status](#) (KMZ format)**
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  - + **[NGA/FEMA Damage Impact data \(9/1/2011\)](#)**
- **LiDAR data**
  - + **[Proposed footprint for post-Irene LiDAR](#) (SHP format)**
- **Misc data**
  - + **[List of Irene Data - provided by USGS](#) (PDF)**



# VCGI's Response – Irene Resources Page

## Apps and Mashups:

- [Google Crisis Map - Vermont Flooding 2011 - Road/Bridge closures](#)
- [VT 511 Closure Map - US & State highways only](#)
- [VT Power Outages Map](#)
- [VT Irene Crowd Map](#)
- **Regional Mashups**
  - + [Windham County - Road/Bridge Status Mashup](#)

## Web Services (for use with Mashups and/or GIS apps):

- **New Imagery** (post-Irene)
  - + ...pending
- **Hazards Data Distribution System (HDDS)**
  - + [Rest Services](#)
- **Weather feeds**
  - + [USGS Real-time streamflow](#)
  - + [NOAA Watches & Warnings](#)



## VCGI's Response – Lessons Learned?

- VCGI's office in 500 yr floodplain (very close to 100yr)
- If possible move office outside of floodplain, otherwise...
  - Move servers outside of floodplain **or** position servers at top of rack (which we did)
  - Place other important items (workstations, files) at least one foot above grade
- Build upon existing EGC Data Exchange protocol to have pre-staged “snapshots” of VGIS data available in an emergency
- More lessons need to be learned...



## **VCGI's Response – Waterbury or Bust!**

- VCGI will be moving back into the office during the 1<sup>st</sup> week of October
- We want to support the recovery of Waterbury and VT by
  - Returning to “normal” operation
  - Facilitate coordination, communication, and data sharing
    - Federal
    - State
    - Regional
    - Local



# VCGI's New Logo?

