Figure 1.1
Geography

Charlotte, Vermont
2017 All-Hazards Mitigation Plan

Land Cover
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Forest
- Pasture/Crops
- Wetlands

DATA SOURCES:
Land Cover - NLCD, 2011
Hillshade - VCGI
Figure 1.2
Housing and Employment
2017
Charlotte, Vermont
All-Hazards Mitigation Plan

- Congregate Housing*
- Mobile Home
- Multi-family
- Single Family
- Employment Locations

*Congregate Housing includes:
Nursing Homes, Assisted Living
Residence, Therapeutic Community
Residence, and Level III Residential
Care Homes.

DATA SOURCES:
Employment Locations -CORPC, 2013
Congregate Housing-VT Dept. Aging, Independent Living, 2015

DATA SOURCES:
Employment Locations -CORPC, 2013
Congregate Housing-VT Dept. Aging, Independent Living, 2015
Figure 1.3
Future Land Use

Charlotte, Vermont
2017 All-Hazards Mitigation Plan

Zoning District
- Commercial/Light Industrial
- Conservation
- East Charlotte Village
- Rural
- Shoreland
- Shoreland Seasonal Home Management
- Village Commercial
- West Charlotte Village

DATA SOURCES:
Zoning, 2008
Figure 1.4
Critical Facilities
2017
Charlotte, Vermont
All-Hazards Mitigation Plan

DATA SOURCES:
Schools, Law Enforcement, Municipal Office, EMS, Fire, Wastewater Facility - Critical Facilities, 2014, CCRPC
Electric Utility Franchise Areas - VCGI
Vermont Gas data - VT Gas 2016

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Figure 2.1
River Corridors and Floodplains
Charlotte, Vermont
2017 All-Hazards Mitigation Plan

National Inventory of Dams

- In Service
- Breached

Geomorphically Incompatible Culvert Compatibility

- Mostly Incompatible*
- Fully Incompatible**

River Corridor Protection Area
ANR River Corridor - January 2015
Digital Flood Insurance Rate Map

Special Flood Hazard Area (100 Year Floodplain)
View individual Municipal Regs for detail

DATA SOURCES:
Dams data from US Army Corps of Engineers; Insufficient structures derived from ANR geomorphology inventories. River Corridor Protection Area equals a river’s meander belt (also known as Fluvial Erosion Hazard Area). River Corridor equals a river’s meander belt plus buffer extension. See FloodReady.vermont.gov for more detail.
FEMA DFIRM - developed in 2011 by FEMA consultant Municipal Water Protection Buffers & Setbacks derived from municipal zoning regulations.

*Mostly incompatible 5<GC<10
% Bankfull Width + Approach Angle scores < 2 Structure mostly incompatible with current form and process, with a moderate to high risk of structure failure. The design and replacement planning should be initiated to improve geomorphic compatibility.

**Fully incompatible 0<GC<5
% Bankfull Width + Approach Angle scores < 2 AND Sediment Continuity + Erosion and Armoring scores < 2 Structure fully incompatible with channel and high risk of failure. Re-design and replacement should be performed as soon as possible to improve geomorphic compatibility.
Figure 3.1
FEMA Public Assistance Projects
2017
Charlotte, Vermont
All-Hazards Mitigation Plan

Public Assistance Category
- Debris Removal *
- Protective Measures **
- Roads & Bridges
- Water Control Facilities (Stormwater Management)
- Public Buildings
- Public Utilities
- Recreational or Other

Note*: Some Debris removal and protective measures locations are shown at the location of the municipal office. This indicates assistance was at various locations throughout the municipality not that damages were incurred at the office.

DATA SOURCES:
Public Assistance Project Locations-FEMA, 2015

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Number of Claims
June 2011 Disaster
- 1 - 2
- 3 - 4
- 5 - 6
September 2011 Disaster
- 1 - 2
- 3 - 4

DATA SOURCES:
Individual Assistance Claims Locations-FEMA, 2015
Figure 3.2
Stormwater Management
Charlotte, Vermont
2017 All-Hazards Mitigation Plan

DATA SOURCES:
Hydrologically Connected Roads - ANR, 2016
Paved, Gravel & Class 4 Roads - VTrans
MS4 area - ANR
Priority Surface Waters - 2014 List of Priority Surface Waters; ANR

Legend:
- Paved Road
- Gravel or Class 4 Road
- Hydrologically Connected Road
- Segment
- Stream Centerline
- Stormwater Pipe
- Municipal Separate Storm Sewer System General Permit
Figure 4.1
Vulnerable Populations
Charlotte, Vermont
2017 All-Hazards Mitigation Plan

Note: The Social Vulnerability Index (SVI) draws together 16 different measures of vulnerability in three different themes: socioeconomic, demographic, and housing/transportation. The 16 individual measures include poverty, unemployment, per capita income, educational attainment, health insurance, children/elderly, single parent households, disability, minority, limited English, location of apartment buildings, mobile homes, crowding, no vehicle access, and population living in group quarters.

The measures are combined to create relative vulnerability index. For every vulnerability measure, census tracts above the 90th percentile, or the most vulnerable 10%, are assigned a flag. The vulnerability index is created by counting the total number of flags in each census tract.

It is important to remember that the Social Vulnerability Index is just a first step in screening for populations that may be more or less vulnerable to a variety of hazards. Depending on the situation, different measures could be more or less important and should be looked at more closely. These data are NOT saying that one census tract is more vulnerable than another. Rather it is saying that there is a higher concentration of various vulnerable population living within a tract and seeks to identify the conditions that make a population vulnerable.

**Westford, Underhill, and Bolton are contained within one census tract. St. George and Hinesburg share the same census tract boundary. Huntington and Stockbridge also consist of one tract. All the other municipalities are broken down by one or more tracts. More urban communities have many more tracts as the optimal population for tract is 4,000 people. The minimum population threshold is 1,200 and the maximum is 8,000.**

DATA SOURCES:
- Social Vulnerability Index, VDH, 2015
- Census Tracts, US Census
Figure 4.2
Land Development Trends

2017
Charlotte, Vermont
All-Hazards
Mitigation Plan

Year Built for Residential and Non-residential Development
- Built 2010 or earlier
- Built 2011-2014

Digital Flood Insurance Rate Map
- Special Flood Hazard Area (100 Year Floodplain)
- River Corridor Protection Area (FEH)

DATA SOURCES:
- Housing Units - CCRPC, 2014
- CI Data-CCRPC, 2014
- Special Flood Hazard Area - developed in 2011 by FEMA
- River Corridor equals a rivers meander belt plus buffer extension. See FloodReady.vermont.gov for more detail.