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# Surface Water Conditions & Project Improvement List

## LaPlatte River & Direct Drainage Watersheds Hinesburg, Shelburne, & Charlotte, Vermont

### Introduction

Data collection over the past 10 years in the watersheds of the LaPlatte River, Thorp Brook, Kimball Brook, and Holmes Brook has improved understanding of water resource conditions and led to the identification of water quality, stream channel stability, and habitat improvement projects. This project summarizes the data on a map and prioritizes the projects in a list for each Town – Charlotte, Hinesburg, and Shelburne. An annotated bibliography has been provided to connect each recommendation to the data and report from which it originated.

### Legend

#### Water Quality

- Poor
- Moderate
- Good

P	Solids
Cl	E.Coli

Baseline conditions at South Chittenden River Watch sampling stations (2004 to 2015) compared to VT Water Quality Standards (2014). Poor Water Quality can degrade local habitat and downstream receiving waters such as Lake Champlain.

P = Total Phosphorus  
Solids = Turbidity  
Cl = Chloride  
E. Coli = Indicator of coliform bacteria

Likelihood of excessive channel change, such as erosion, deposition, or suddenly changing paths, during a flood.

#### Stream Channel Stability

- Poor
- Moderate
- Good

#### Landcover

- Developed- Medium to High Density
- Rural Development- Low Density
- Agriculture
- Shrubs and Grasses
- Forest
- National Wetland Inventory
- Lakes and Ponds

The type of landcover influences stormwater runoff, with more runoff from urban and agricultural areas than from forested and naturally vegetated landcovers. Data from 2006 NLCD, corrected by MMI based on field observations 2013.

#### Streams (By Order)

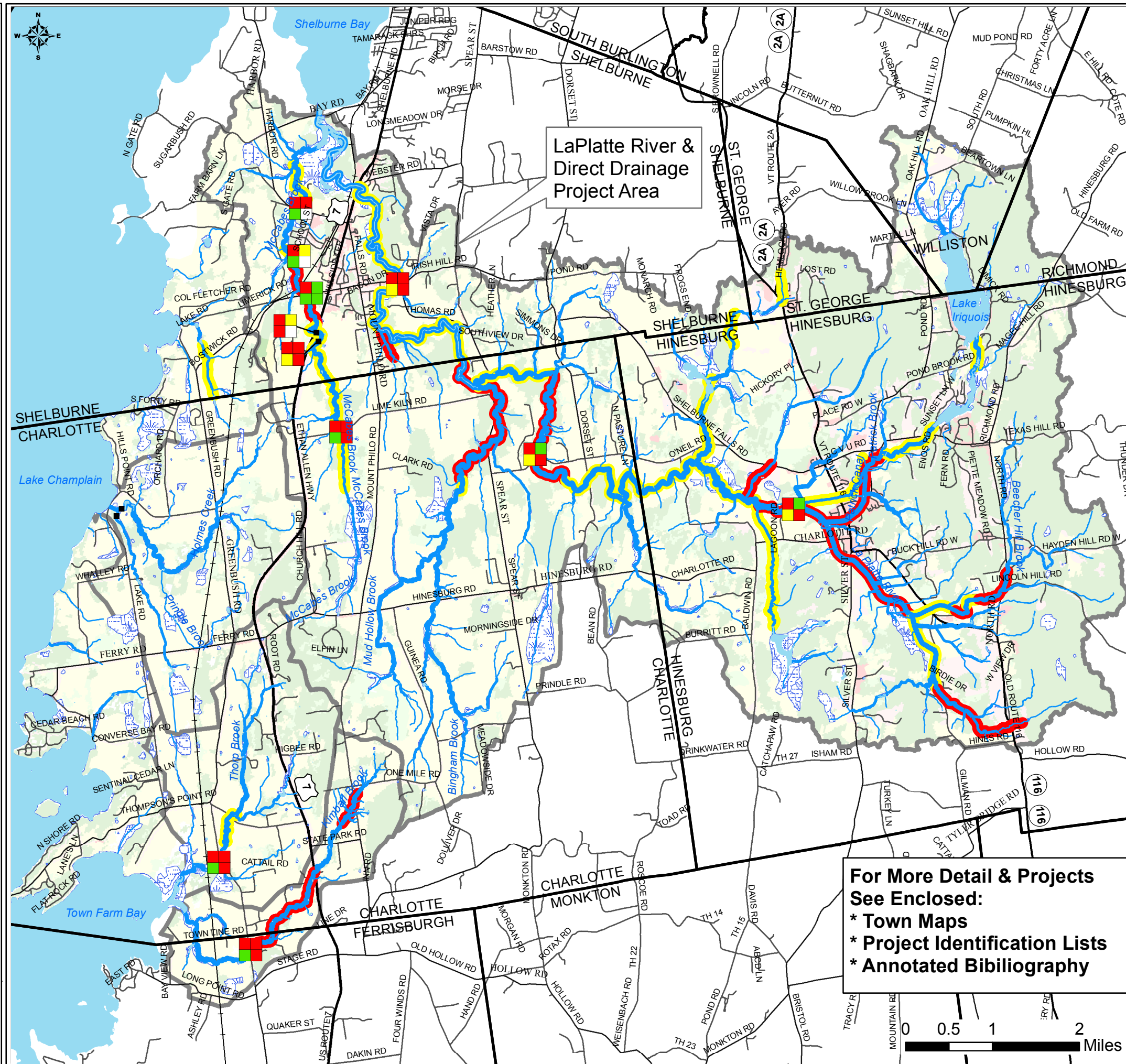
- Stream
- Railroad
- Roads
- Town Boundary
- Watershed Boundary

### For More Information:

Lewis Creek Watershed Association  
[www.lewis-creek.org](http://www.lewis-creek.org)

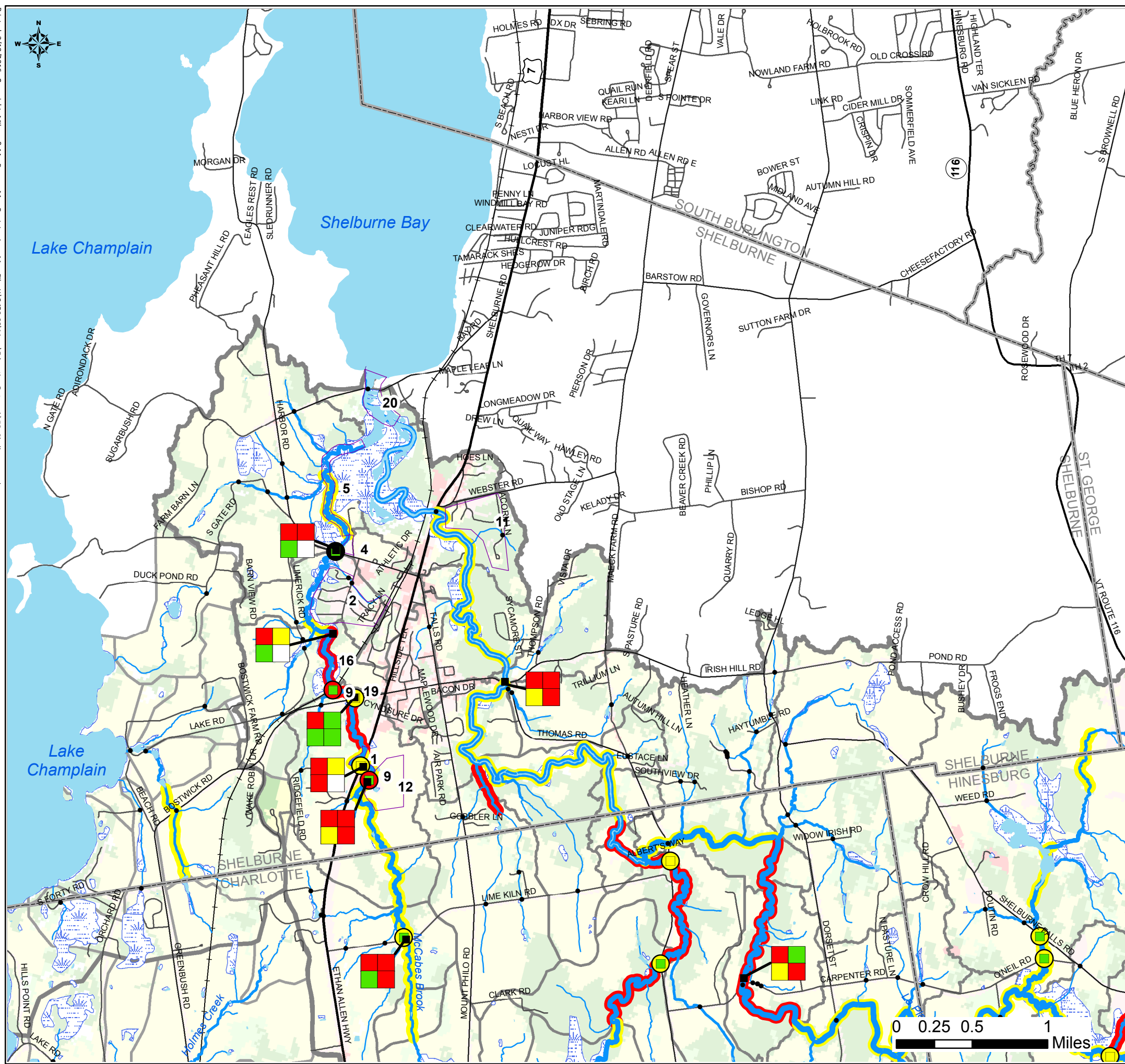


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**For More Detail & Projects See Enclosed:**

- \* Town Maps
- \* Project Identification Lists
- \* Annotated Bibliography



# Surface Water Conditions & Project Improvement List

## LaPlatte River & Direct Drainage Watersheds Shelburne, Vermont

### Legend

- Water Quality**
- Poor
  - Moderate
  - Good

P	Solids
Cl	E.coli

Baseline conditions at South Chittenden River Watch sampling stations (2004 to 2015) compared to VT Water Quality Standards (2014). Poor Water Quality can degrade local habitat and downstream receiving waters such as Lake Champlain.  
 P = Total Phosphorus  
 Solids = Turbidity  
 Cl = Chloride  
 E. Coli = Indicator of coliform bacteria

- Stream Channel Stability**
- Poor
  - Moderate
  - Good

Likelihood of excessive channel change, such as erosion, deposition, or suddenly changing paths, during a flood.

- Culvert Geomorphic Compatibility**
- Poor
  - Moderate
  - Good

Measure of how well a culvert matches a channel. A poor culvert is more likely to be damaged during a flood.

- Culvert Aquatic Organism Passage (AOP)**
- Poor
  - Moderate
  - Good
  - Missing Data

How a culvert impacts the movement of fish and other species in the stream. Poor means that organisms are likely unable to move through the culvert.

### Landcover

- Developed- Medium to High Density
- Rural Development- Low Density
- Agriculture
- Shrubs and Grasses
- Forest
- National Wetland Inventory
- Lakes and Ponds

The type of landcover influences stormwater runoff, with more runoff from urban and agricultural areas than from forested and naturally vegetated landcovers. Data from 2006 NLCD, corrected by MMI based on field observations 2013.

### Streams (By Order)

- Stream
- Bridge or Culvert - Not Assessed
- Railroad
- Roads
- Town Boundary
- Watershed Boundary
- Subwatershed Boundary

**# = Project ID, See Back for Project List**

