



MALLETTS BAY



Stormwater Management & Transportation Scoping Study

January 19, 2017

Project Team



Bryan Osborne – Director of Public Works

Sarah Hadd – Director of Planning & Zoning



Marshall Distel – Transportation Planner

Eleni Churchill – Transportation Program Manager



Project Team – Consultants



Amy Macrellis – Stormwater Task Leader



Wayne Elliot, PE – Stormwater Technical Advisor



David Saladino, PE, AICP – Project Manager

Evan Detrick, PE – Bike and Pedestrian Task Leader



Agenda

- **Introductions**

- Project Overview – David Saladino
- Project Context – Bryan Osborne
- Stormwater Management Plan – Amy Macrellis
- Lakeshore Drive/Blakely Road Intersection Overview – David Saladino
- Bicycle/Pedestrian Overview – Evan Detrick

- **Breakout Groups**

- Stormwater Management – Amy Macrellis, Wayne Elliot
- West Lakeshore Drive Bike & Pedestrian Improvements – Evan Detrick
- Lakeshore and Blakely Intersection Improvements – David Saladino

- **Closing Discussion**

- Discussion Summary
- Next Steps



Project Overview

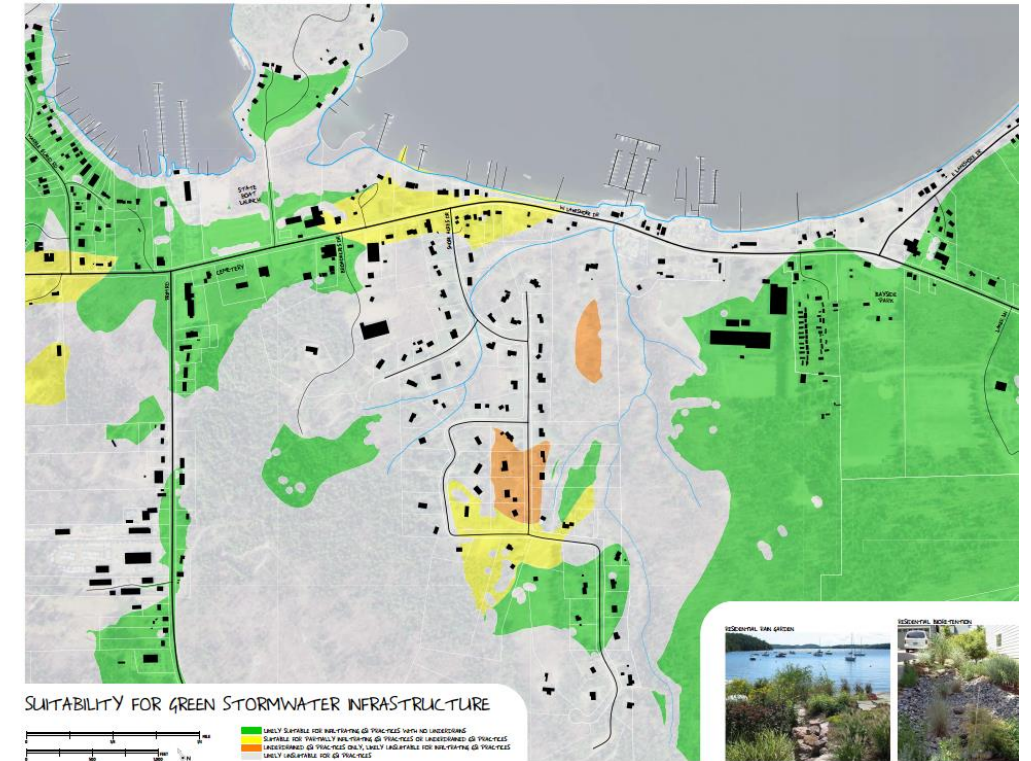
- Malletts Bay Initiative

- Three Scoping Reports

- Stormwater, Bicycle/Pedestrian, Intersection
- Synergies Between Projects
- Identify issues > develop & analyze alternatives > select preferred alternative

- Schedule

- | | |
|--------------------------------------|---------------------|
| ▪ Kick-Off Meeting | November |
| ▪ Evaluate Existing Conditions | November – December |
| ▪ Local Concerns Meeting | Tonight |
| ▪ Alternatives Assessment | February-May |
| ▪ Selection of Preferred Alternative | May |
| ▪ Scoping Report | July-August |



Project Context

- Overall Goals and Priorities

- Improved water quality
- Improved recreational, cultural, and educational opportunities for all ages
- Welcoming, small-scale, yet vibrant infill and redevelopment
- A safe and efficient transportation system for all users
- A four-season destination for both residents and tourists



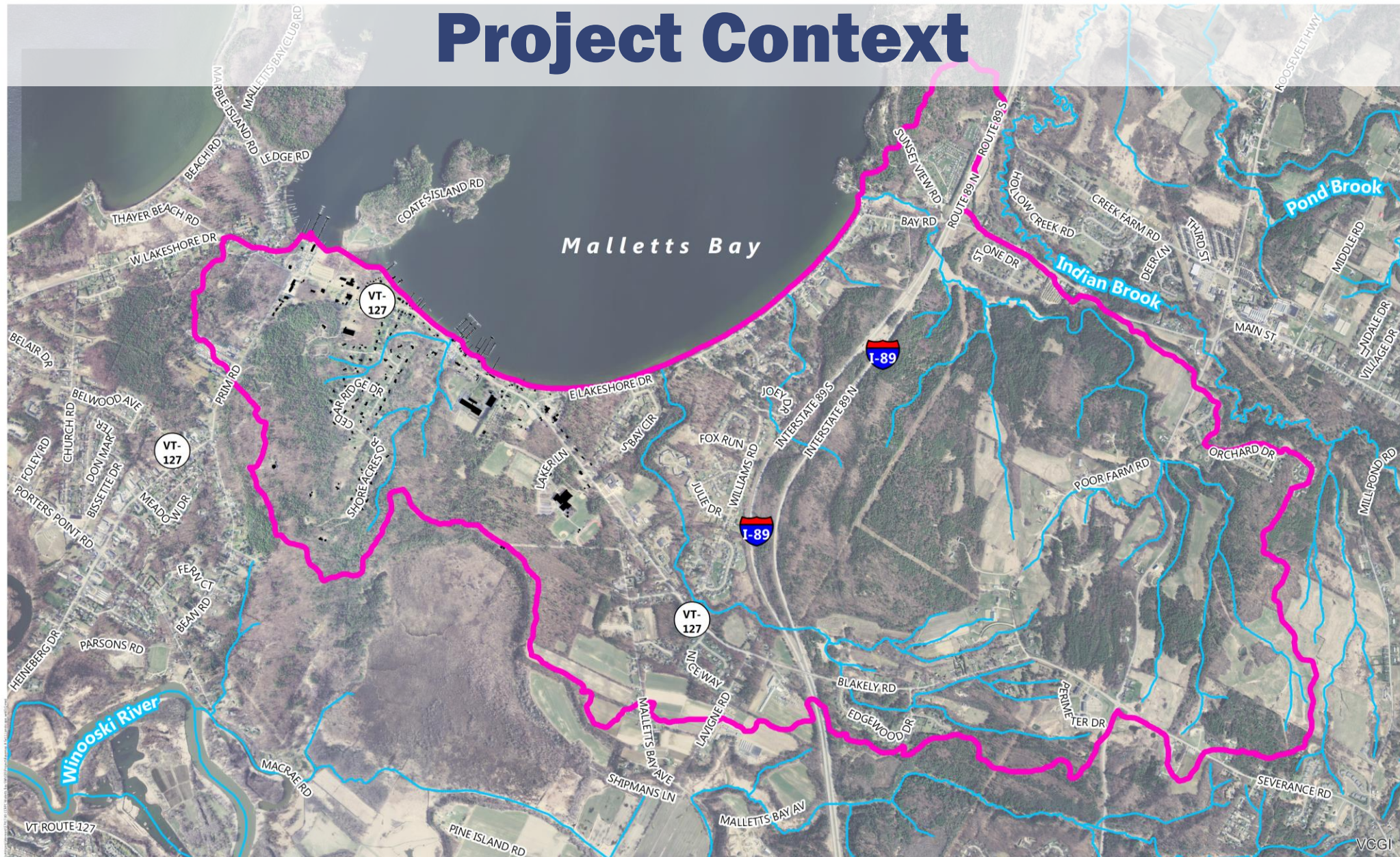
Project Context

• Implementation Projects

- **Malletts Bay Stormwater System**
- Malletts Bay Sewer System
- Re-Zoning to include Low Impact Development Standards
- Community Center
- Blakely Road/Laker Lane Intersection
- **Blakely Road/East Lakeshore Drive/West Lakeshore Drive Intersection**
- West Lakeshore Drive/Prim Road Intersection
- **West Lakeshore Drive Pedestrian Improvements**
- Route 127 By-Pass Road



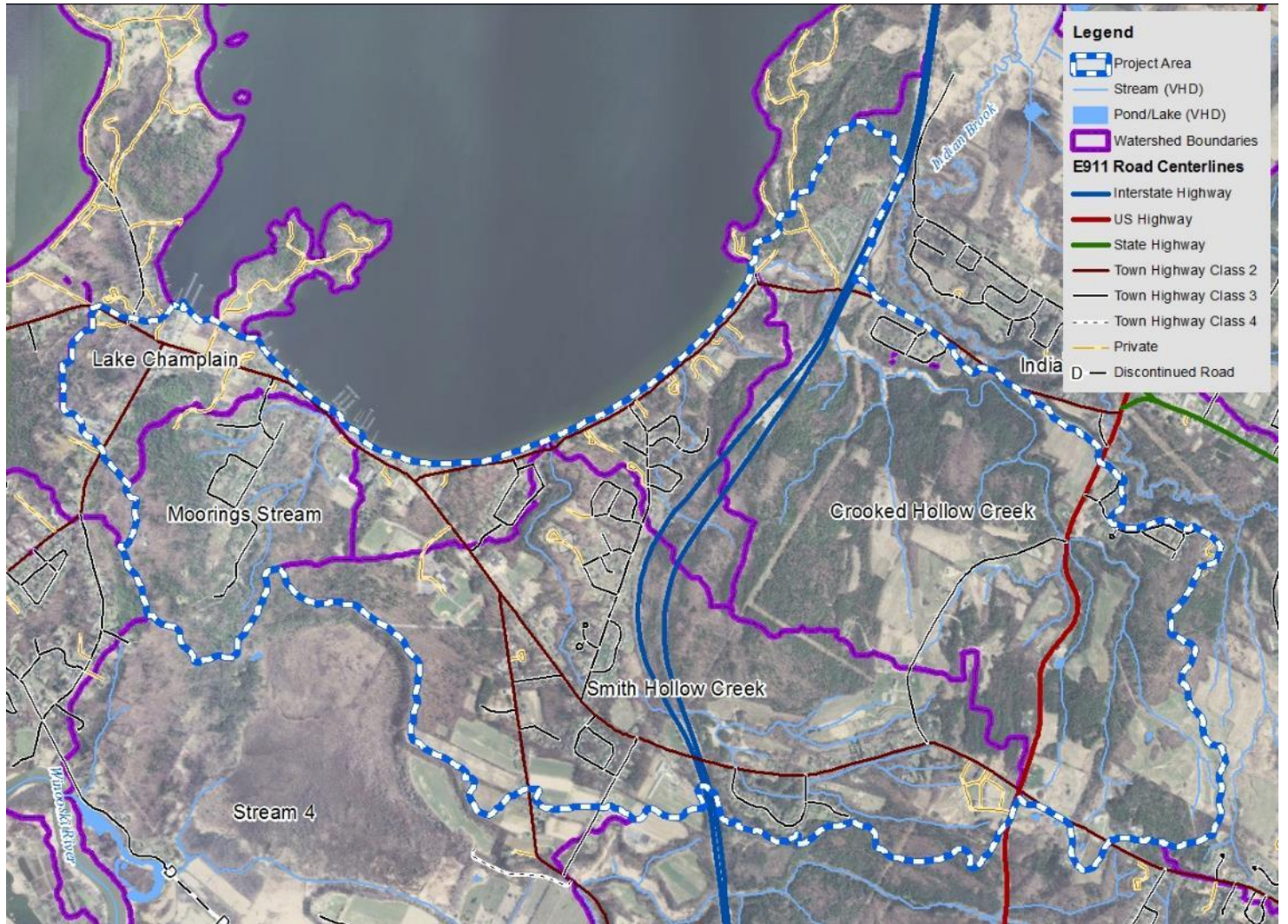
Project Context



Stormwater Management

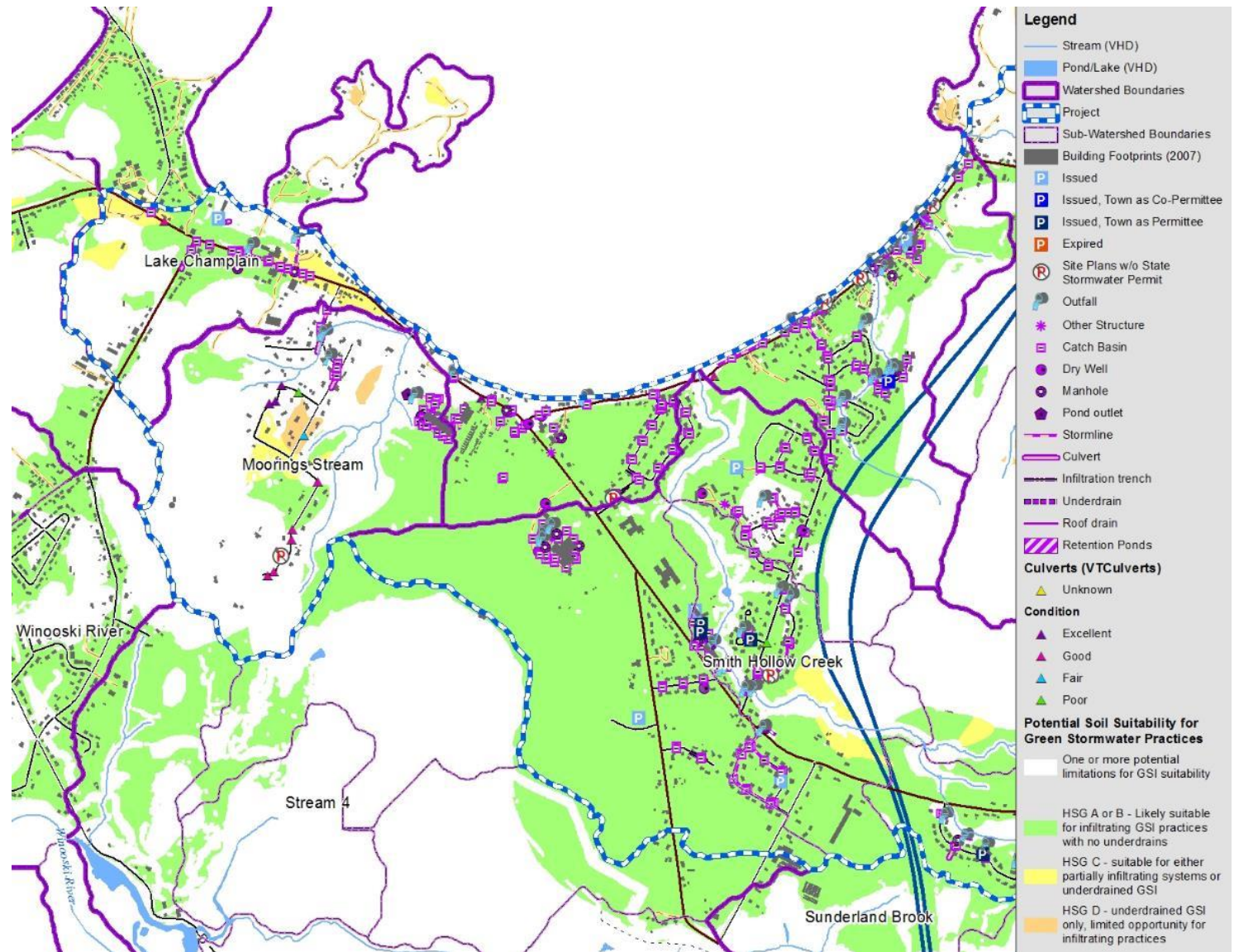
- Goal

- Comprehensive runoff management system for Town-owned property
 - Including roadways along Lakeshore Drive and upland watershed areas
- Coordinate with and leverage anticipated infrastructure projects to protect and enhance water quality



What We Know

- Locations of existing stormwater management infrastructure
- General locations of existing:
 - Drainage and erosion problems
 - Environmental constraints
- “Marching orders” for stormwater treatment standards
 - Preference for “green” infrastructure in keeping with MBI outcomes



What We Need

What problems or opportunities might we be missing?

Alternatives must 'meet' or 'exceed' state stormwater standards for water quality.



West Lakeshore Drive



West Lakeshore Drive – public boat ramp parking



Shore Acres Drive



Moorings Stream watershed



South Bay Circle



Orchard Circle cul-de-sac

What Can “Green” Look Like?

What do you want to see – in neighborhoods, next to streets or sidewalks, in cul-de-sacs?



Pervious concrete sidewalk, municipal retrofit, St. Albans



Curb cut rain garden, residential street retrofit, St. Paul, MN



Green street retrofit, pervious sidewalk and stormwater planters, Ohiopyle, PA



Gravel wetland, end-of-pipe retrofit, St. Albans Park and Ride



Grass bio-swale with catch basin for overflow, new construction, Waterlefe Way, Colchester, VT

West Lakeshore Drive

Bicycle and Pedestrian Facilities

- **Goals**

- Improve safety and mobility for bicyclists and pedestrians
- Accommodate road users of all ages and abilities
- Integrate sustainable stormwater infrastructure with design alternatives





West Lakeshore Drive

Bicycle and Pedestrian Facilities



West Lakeshore Drive

Bicycle and Pedestrian Facilities



West Lakeshore Drive

Bicycle and Pedestrian Facilities



Lakeshore Drive and Blakely Road

Intersection Improvements

- **Goals**

- Enhance operational efficiency / decrease congestion
- Increase safety for all modes
- Accommodate safe crossing for pedestrians and bicyclists
- Increase capacity





Existing AM & PM Peak Hour Traffic Data



Existing Queues & Levels of Service



Intersection	Peak Hour	2016 No Build		
		v/c*	Delay**	LOS***
Blakely Rd at East and West Lakeshore Dr	Weekday AM	0.62	18	B
	Weekday PM	0.82	36	D

* Volume to capacity ratio
** Delay expressed in seconds per vehicle
*** Level of service

- Critical Lane Movements –
- Blakely Rd thru/right: LOS E, v/c = 1
 - W. Lakeshore Dr left: LOS D, v/c = 0.81



Lakeshore Drive and Blakely Road

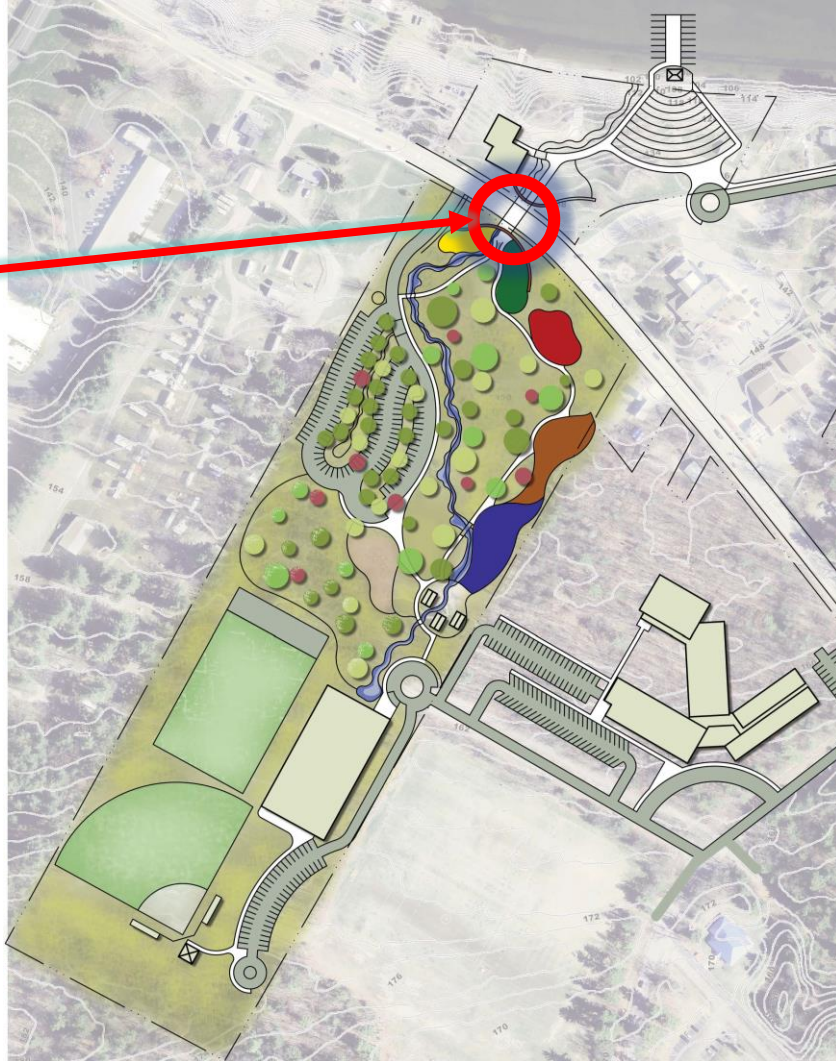
Crash Summary

- **2010-2014 Crash Data**
 - VTrans High Crash Location (HCL)
 - Ranked 105th HCL in the state
 - 24 crashes in 5 years
 - 0 Fatalities, 3 Injuries
- **2011-2015 Crash Data**
 - 33 crashes in 5 years
 - 76% Rear End Crashes
 - 12% Single Vehicle Crashes
 - No Cyclist or Pedestrian Crashes



Bayside Parks Master Plan

**Proposed
Pedestrian
Tunnel**

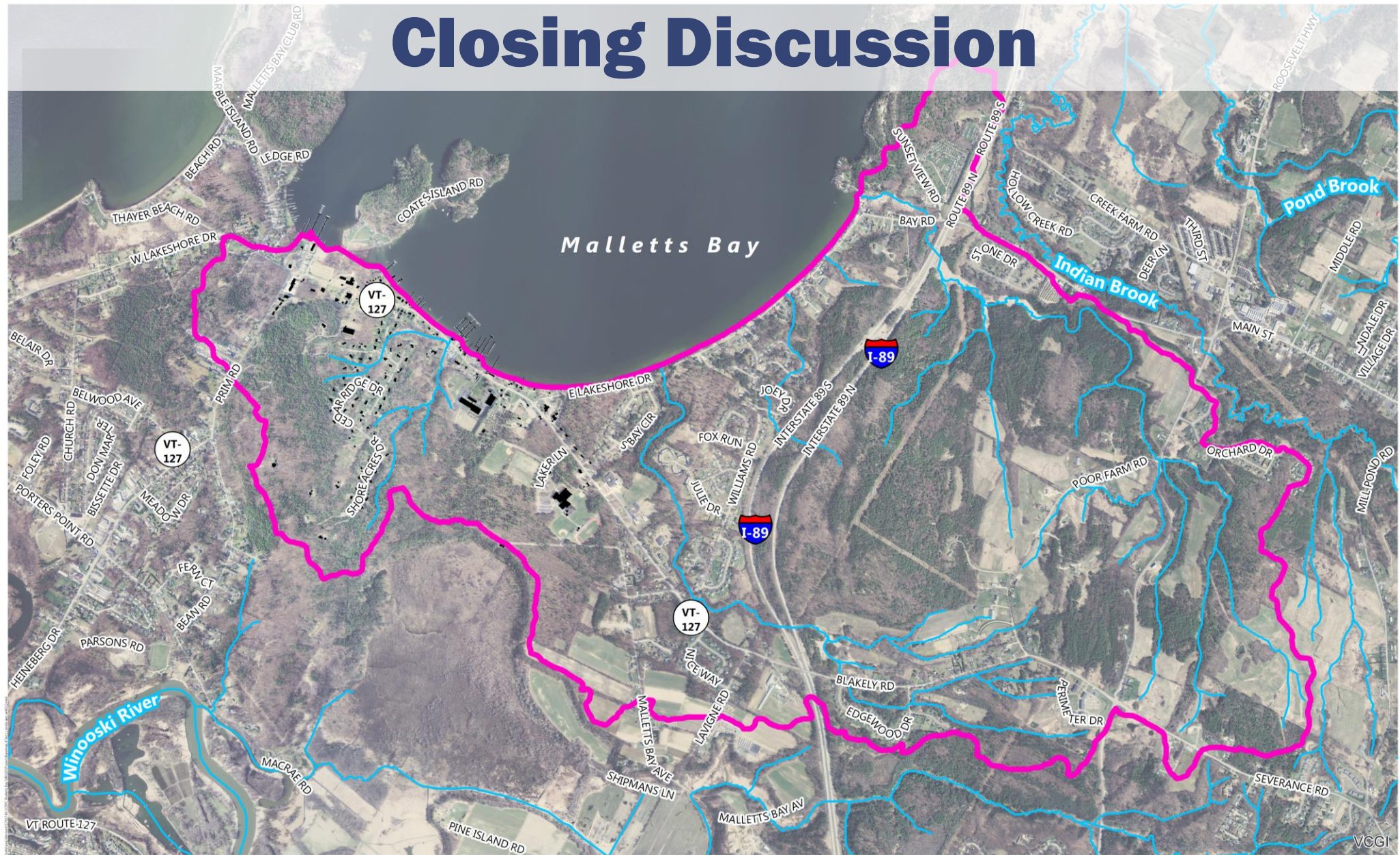


Break-out Groups

Project Website: <http://www.ccrpcvt.org/malletts-bay-initiative>

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Closing Discussion



Next Steps...

- Watershed Delineation & Develop Alternatives
- Public Input on Alternatives
~May 2017
- Identify Preferred Alternative
- Selectboard Approval
~July 2017



THANK YOU!



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