

Implementation planning for the Lake Champlain TMDL

Proposed amendments in H35, and Tactical Basin Planning

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Outline of testimony

- 10 VSA 1253's reference to a Surface Water Management Strategy.
- Tactical Planning Process relies on Data and Assessment.
- Significant Progress since 2011.
- Implementing the Champlain TMDL using Tactical Basin Plans.
- The Need for Predictive Modeling.
- Tactical Planning and RPC's.



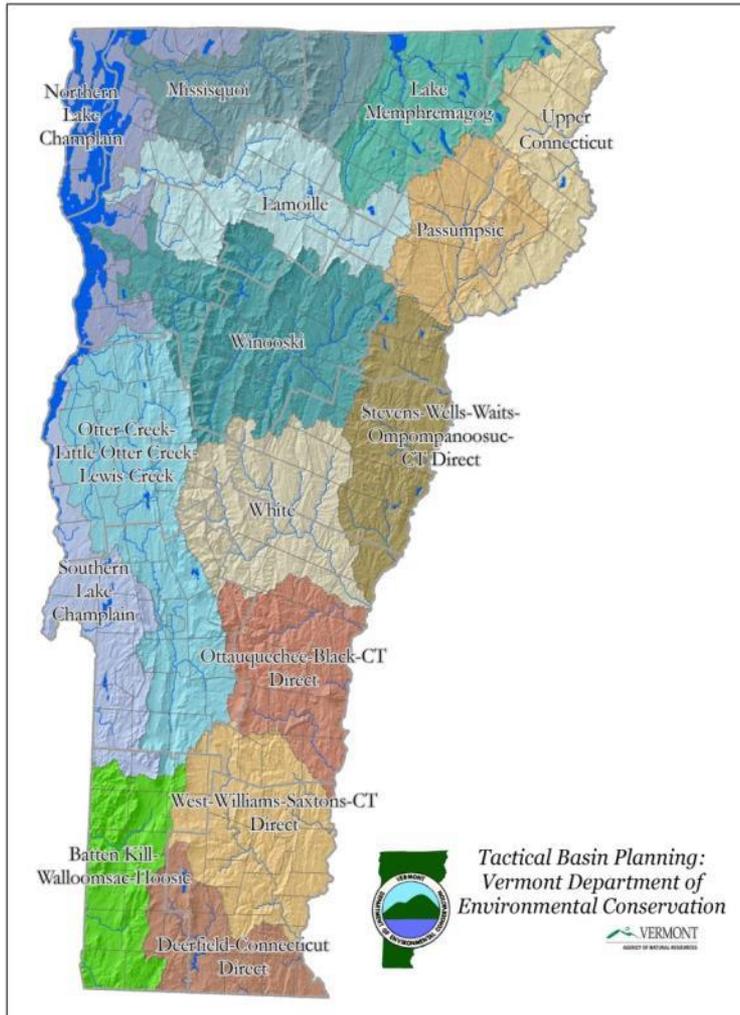
- **Surface Water Mgmt. Strategy** (10 VSA 1253d)
 - Implements Clean Water Act requirement for States
 - Statewide “Continuous Planning Process” originally published in early 1990’s.
 - Comprehensive Revision produced VT’s *Surface Water Management Strategy* in 2010.
- **Tactical Planning Implements the “SWMS”** (also in 10 VSA 1253d)
 - CWA 208 Plans
 - Watershed Initiative Plans of late 1990’s
 - Relied on education, coalition building, and public interest/input
 - Tactical Planning Process of 2011
 - Uses scientific data, repeatable assessments, and prioritized implementation

Surface Water Stressors



Each stressor has specific associated pollutants
Each stressor has a unique implementation approach.

Tactical Basin Planning Cycle:



- 15 Planning Basins
- 5 Planners
- Plans revisited every 5 years
- Planner has one district in:
 - M+A
 - Planning
 - Implementation
- Plans are produced on a 2-yr timeline, with a 5 year lifespan, and midstream update.

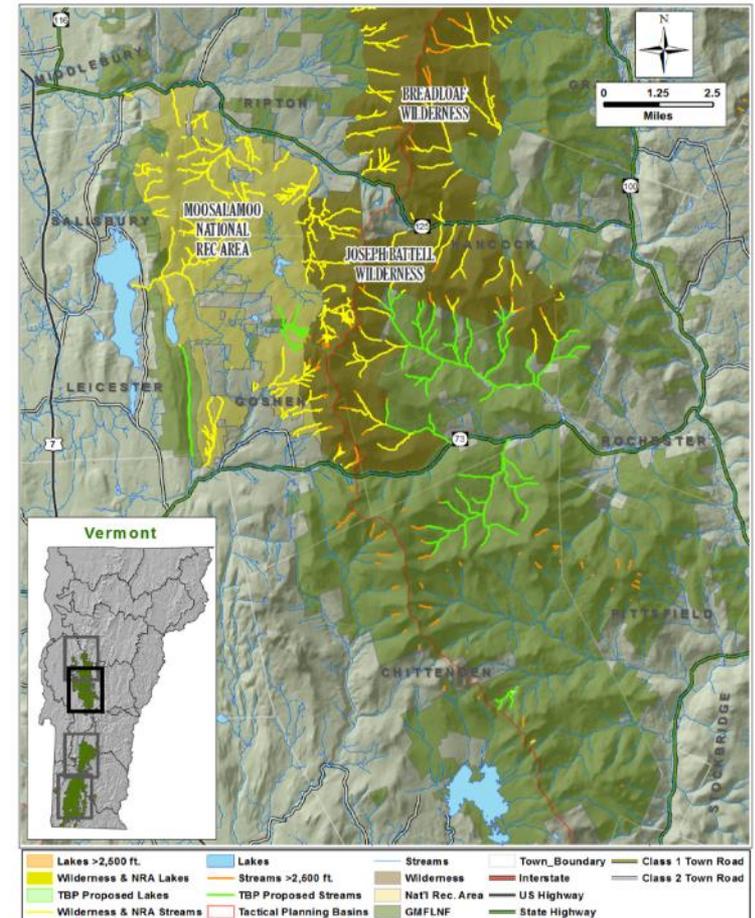
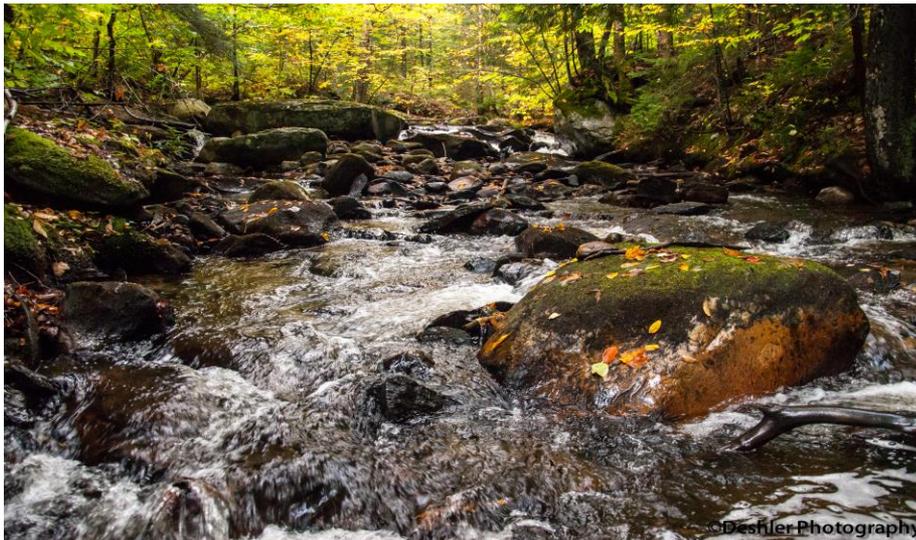
Tactical Basin Plans Address:

- What is known about the surface water condition?
 - Monitoring
 - What is known about stressors?
 - Assessments
 - What problems and actions are identified by partners?
 - Working Groups/Municipalities
 - What does local knowledge indicate?
 - Public Process and municipal input
 - Where is action needed? In place and operational ↑
 - Implementation Tables
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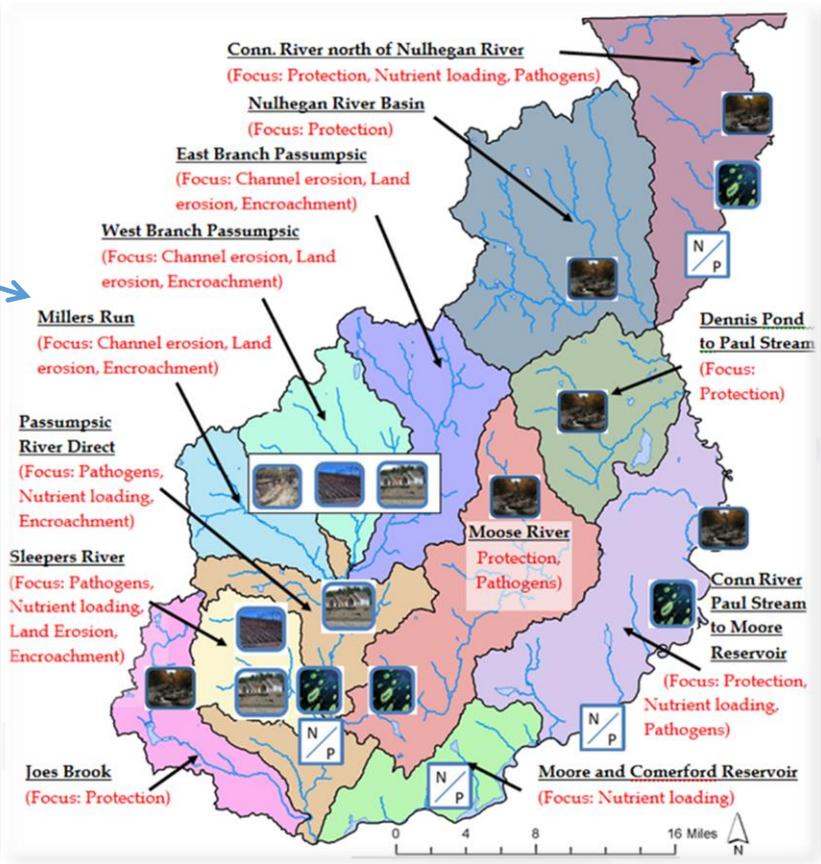
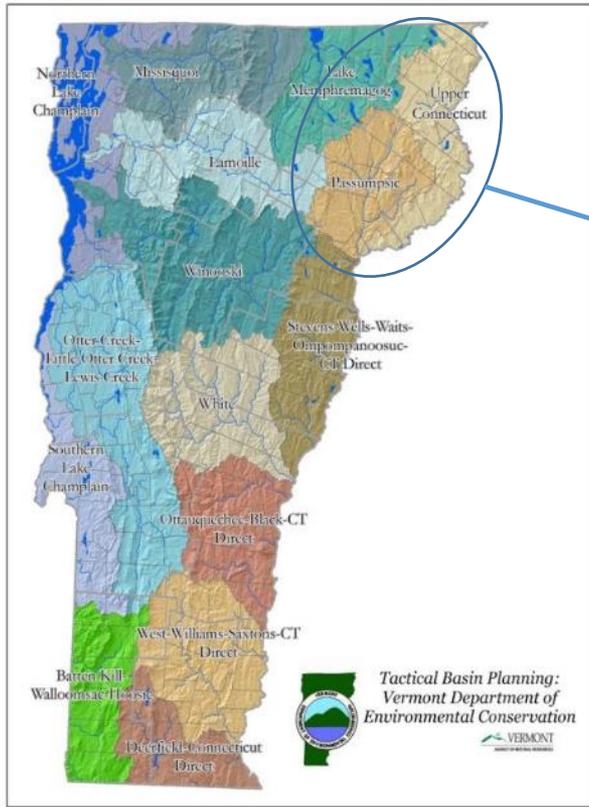
- *What about where we do not have data?* Being developed coincident with H35 ↓
 - *Modeling*
- *How are we doing*
 - *Tracking*

Tactical Basin Plans Promote Protections

- Reclassification
 - Lakes and Streams (VWQS)
 - Wetlands (VWR)
- Outstanding Resource Waters

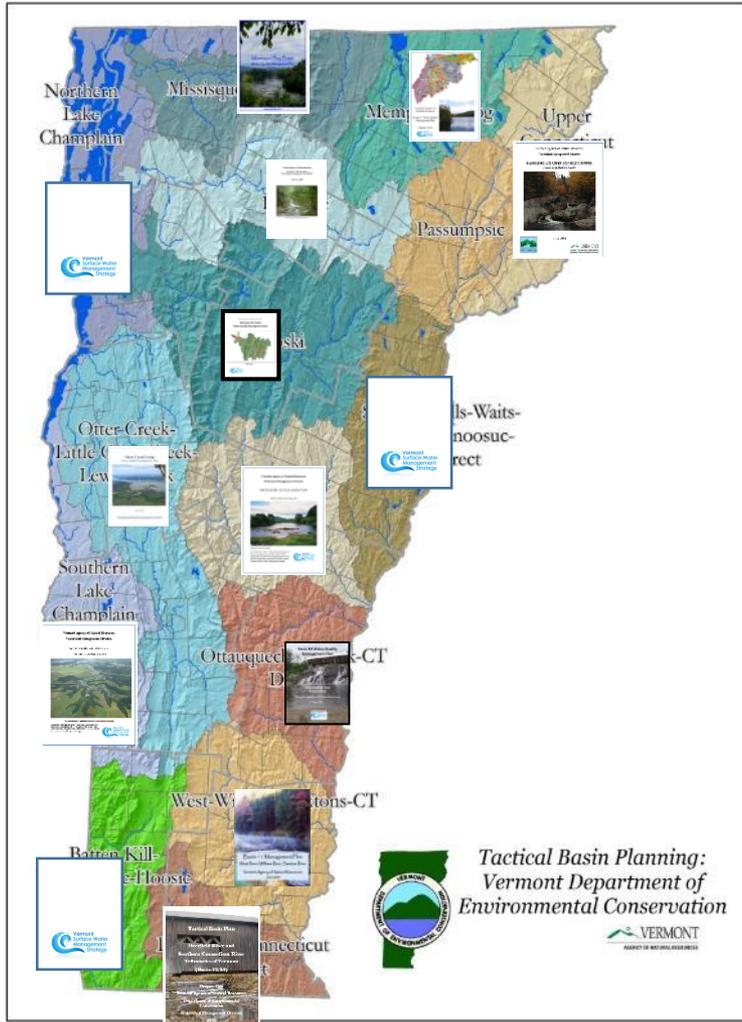


Example - North CT River Summary



Tactical Plans implementation tables display actions.

Significant Progress

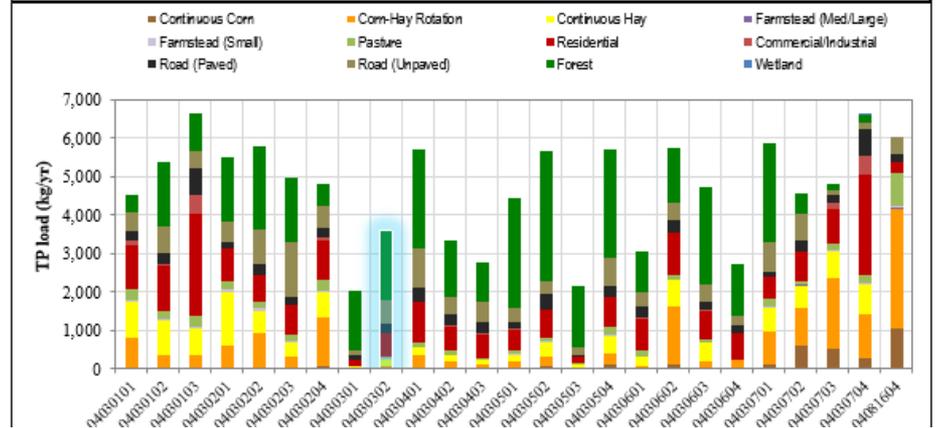
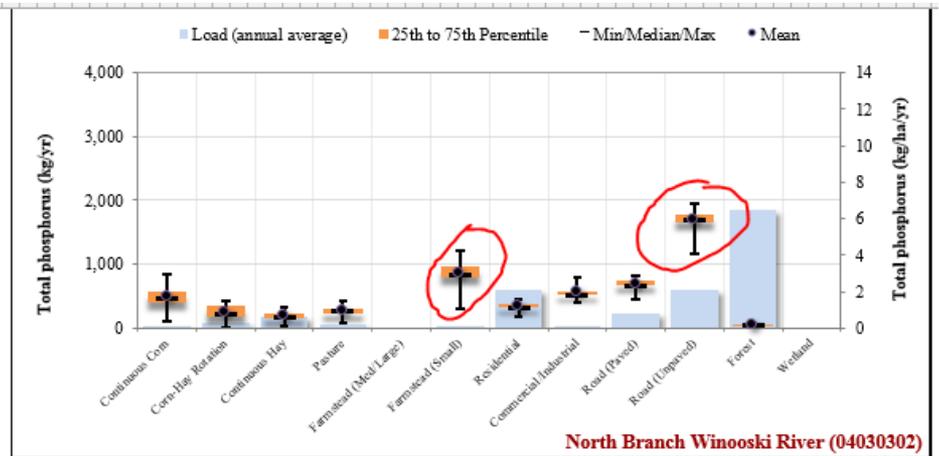
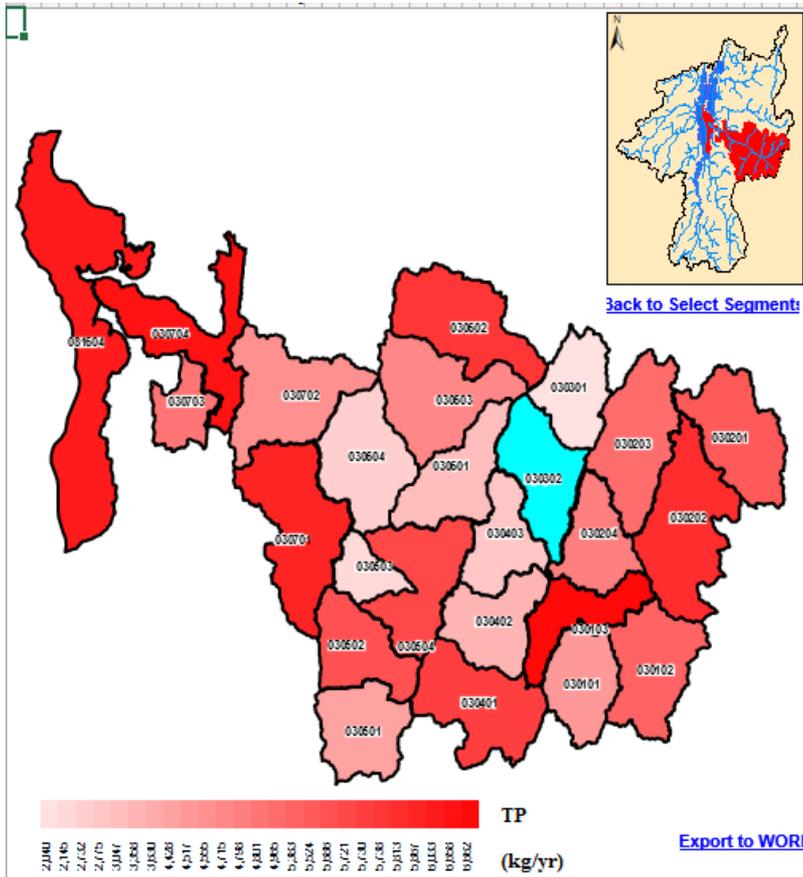


- 2015 in prep.
 - Battenkill Hoosic Walloomsac
 - North Lk. Champlain
 - Waits/Wells Ompompanoosuc
- 2014
 - Deerfield
 - North CT River/Passumpsic
 - South Lake Champlain
- 2013
 - Missisquoi
 - Otter Ck.
 - White
- 2012
 - Memphremagog
 - Ottaqueechee
 - Winooski
- Prior
 - Lamoille
 - West

Implementing the Lake Champlain TMDL (and others) using Tactical Planning.

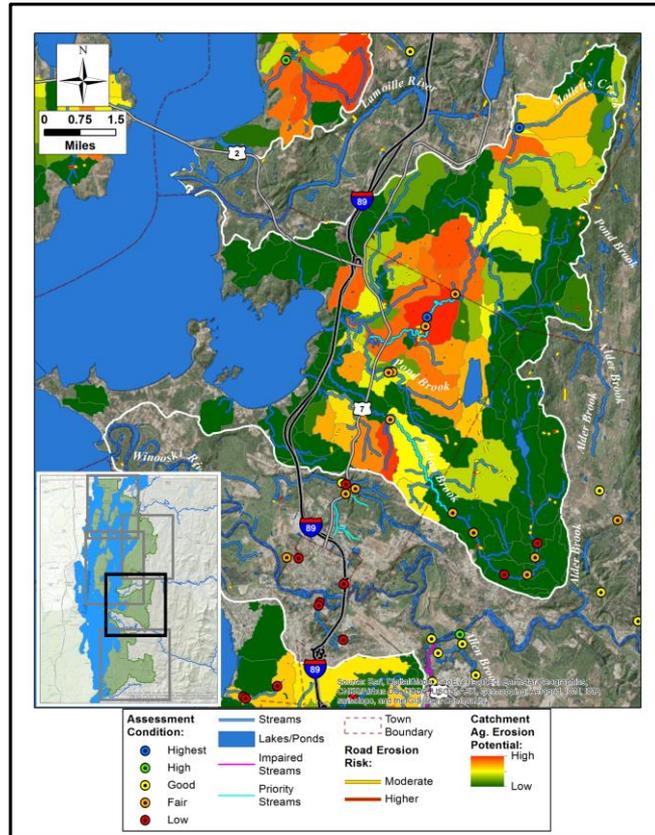
- Per EPA, very specific BMP's need to be identified for each Champlain subwatershed, with associated phosphorus load reduction estimates.
- Current Tactical Plans are not yet this precise.
- The Agency is developing the capacity to conduct this watershed pollutant reduction modeling.
- Also critical is the ability to track BMP implementation, and to verify the applicability of identified BMPs.
- Staffing needs for this work have been identified.
- Section 25 of H35 supports this work.

Example: EPA's SWAT model identifies high phosphorus source sectors basin-wide.

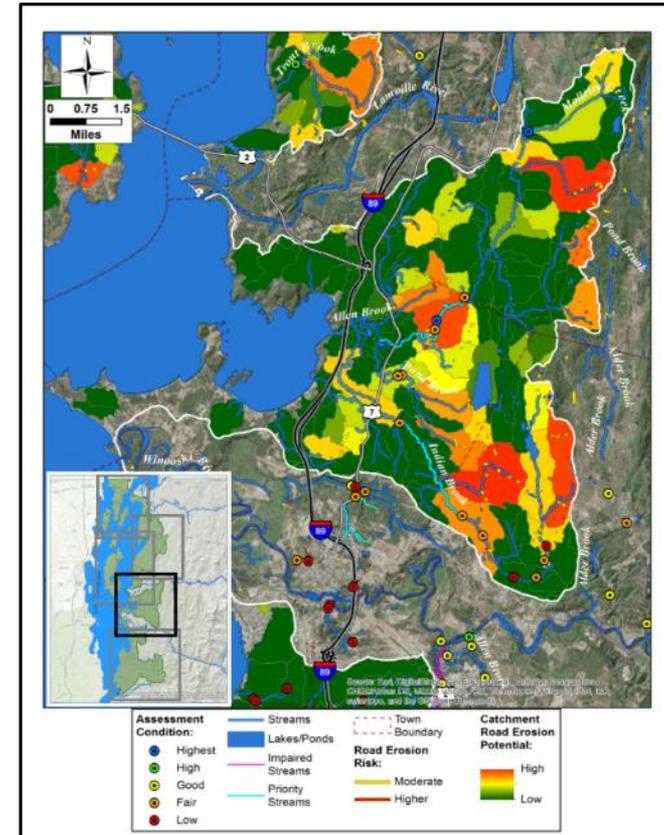


EPA's basinwide phosphorus model is a starting point to direct targeted intervention where data and information are simply lacking.

Example: Agricultural and road runoff risk, by small watershed



Agricultural runoff risk (NRCS)



Road runoff risk (Stone Env.)

Information like this guides detailed watershed assessments by Ag teams or road assessors

Gold Standard: LCBP/Stone Env. Critical Source Area Model models specific phosphorus hotspots in Mississquoi Watershed.

Very high resolution modeling such as LCBP's Critical Source Area Model directs intervention teams to specific "dooryards" to determine the possibilities for phosphorus reduction, in this instance in the developed landscape.

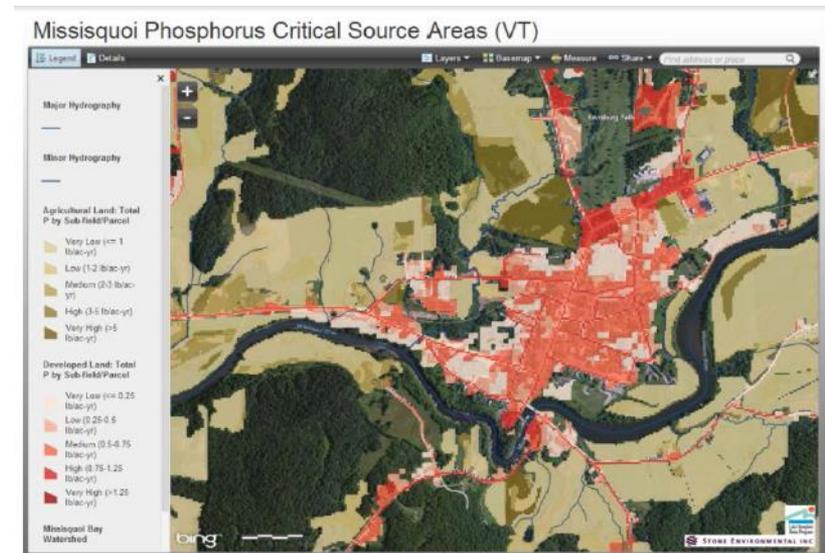


FIGURE 8 - CRITICAL PHOSPHORUS SOURCE AREAS FOR DEVELOPED AND AGRICULTURAL LAND, IN THE VICINITY OF ENOSBURG FALLS, VT, IN THE MISSISSQUIO RIVER BASIN.

Role of RPC's in Tactical Planning

- RPC's have always been partners in the process led by ANR.
- ANR supports provisions of proposed 1253(h), and related proposed revisions to 24 VSA 4302:
 - ANR staff cannot be everywhere at all times;
 - RPCs possess capabilities or staffing that certain municipalities do not;
 - Municipalities have a stronger relationship to RPC's than to ANR Planners;
 - RPC technical capacity complements ANR's.