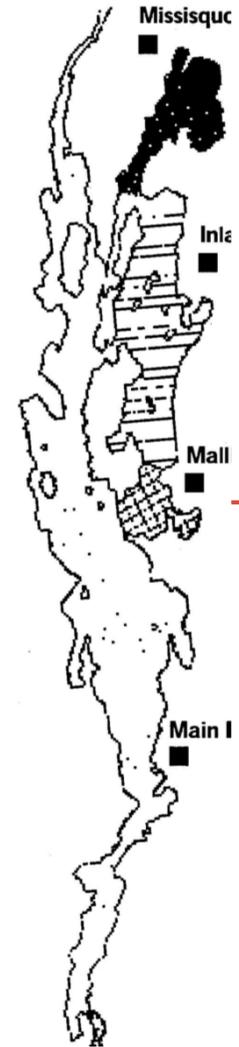
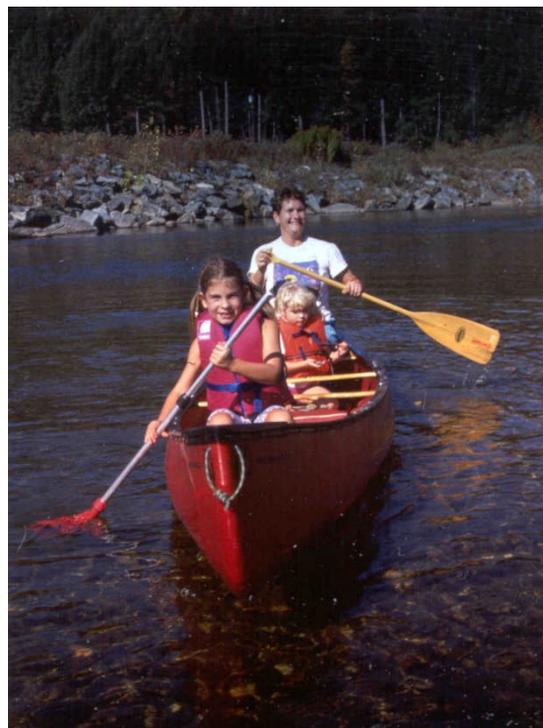
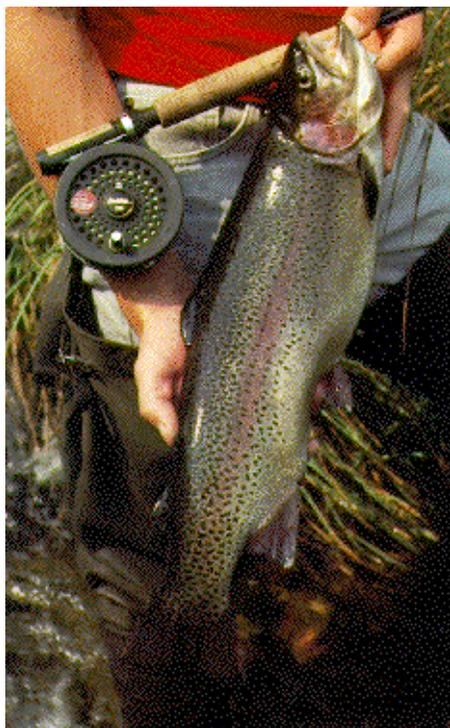


Clean Water Initiative

Presentation to Vermont House
Friday, January 23, 2015



Clean Water Matters to all Vermonters



Clean Water Initiative

VERMONT LAKE CHAMPLAIN
PHOSPHORUS TMDL PHASE 1
IMPLEMENTATION PLAN

PREPARED BY THE STATE OF VERMONT
FOR THE
U.S. ENVIRONMENTAL PROTECTION AGENCY

MAY 29, 2014



Vermont's Clean Water Initiative



November 17, 2014

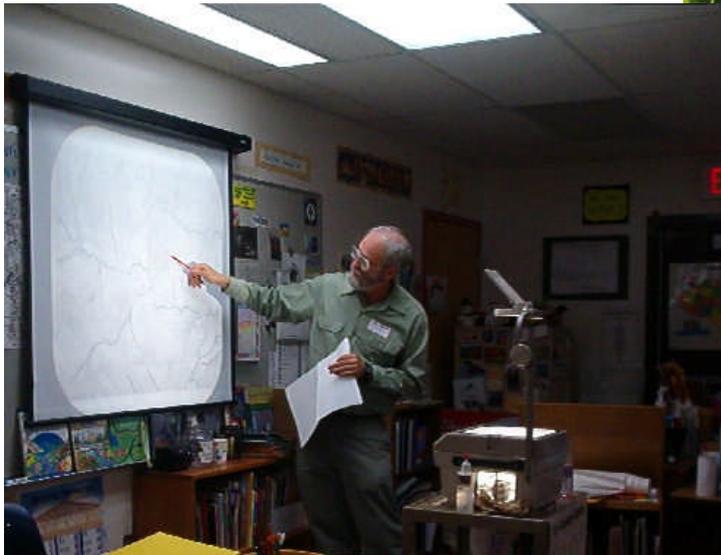
Prepared for the Vermont General Assembly in Accordance with No. 97 of the Acts and Resolves of 2013 (Adj. Sess. 2014), as modified by No. 171 of the Acts and Resolves of 2013 (Adj. Sess. 2014).

1

Working Together to Achieve Results



Providing Educational, Technical, and Financial Assistance



Funding Comes in Many Forms



Clean Water is Vermont's Future



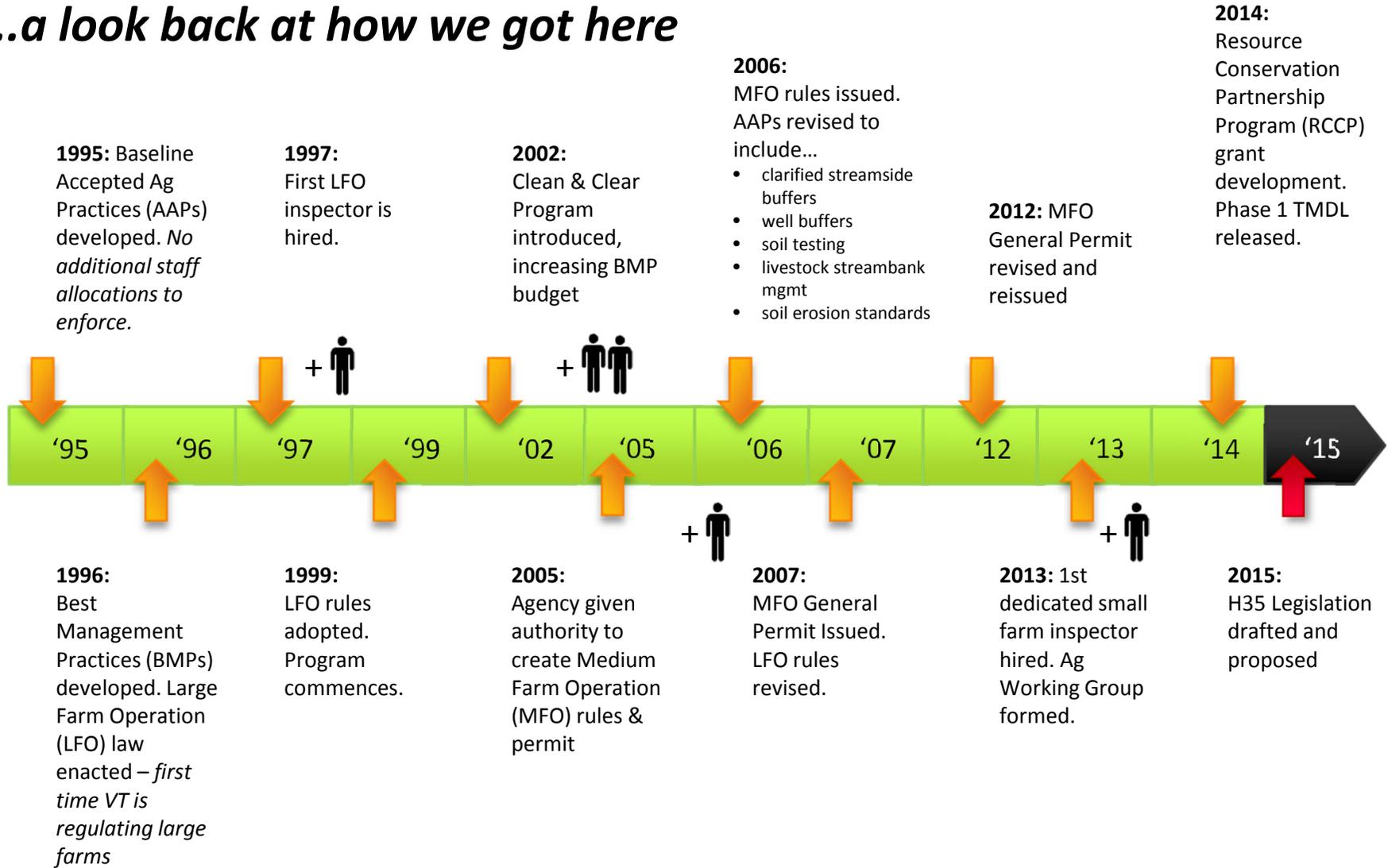


Advancing a Culture of Stewardship & Accountability

A Look At Our Agricultural Water Quality Initiatives

VAAFM Water Quality Program History

...a look back at how we got here



...Over-Promised, Under-Resourced

WQ Inspection Team

Total VT acreage = **5,900,000**
Acres of farmland = **1,250,000**
Acres of dairy land = **900,000**
dairy is 80% of total farm acreage

Total # of farms = **7300***

(all farms, including dairy, vegetable, pigs, chickens, beef)

Dairy Farms = **880****

- **726 small farms** (<200 cows) →

– 83% of dairy farms

- **129 medium farms** (200-599 cows)

– 15% of dairy farms

- **25 large farms** (700+ cows)

– 2% of dairy farms



1 inspector



4 inspectors, total

= Approx. 6400 farms with no dedicated inspector

*2012 Census

** Agency of Ag Monthly Farm Count 12/2014

Stewardship & Accountability

THE WAY FORWARD

1 New \$
Resources
Available for
On-Farm
Practices



2 Increased
Capacity
-Outreach
-Education
-Data Tracking
-Technical Asst.
-Inspections
-Compliance



3 Enhanced
Partnership
across all
sectors
- Public
- Private
- Non-profit



4 Enhanced
Accountability
Mechanisms to
Enforce VT
Laws &
Regulations





1. New Resources

\$45,000,000*

Lake Champlain Initiative

\$16,000,000*

RCCP

\$3,000,000

Lake Champlain Basin Program

\$5,000,000*

Clean Water Fund (to date)

\$800,000*

**RCCP State Nutrient Management Planning
+ Existing & Proposed State Resources**

**over a 5 year period*



1. New Resources for Conservation Practices



Cover Crops



Buffers



Contour
Plowing



No Till



Livestock
Exclusion



Barnyard
Repair



Grass
Waterways



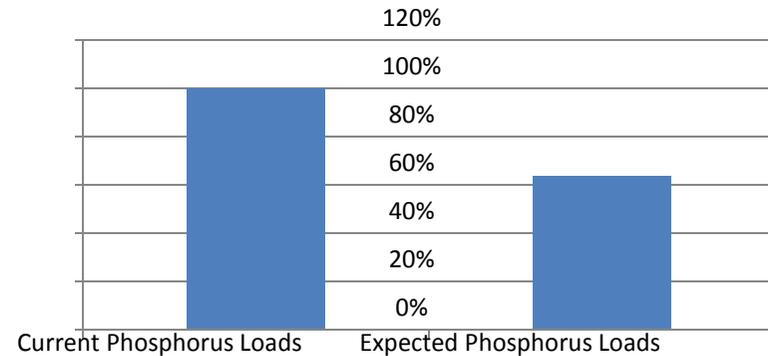
Crop Rotation



1. Better Practices = Real Results



Anticipated Improvements Over Time
(Phosphorus load at Phase I completion, as a percent of current level)

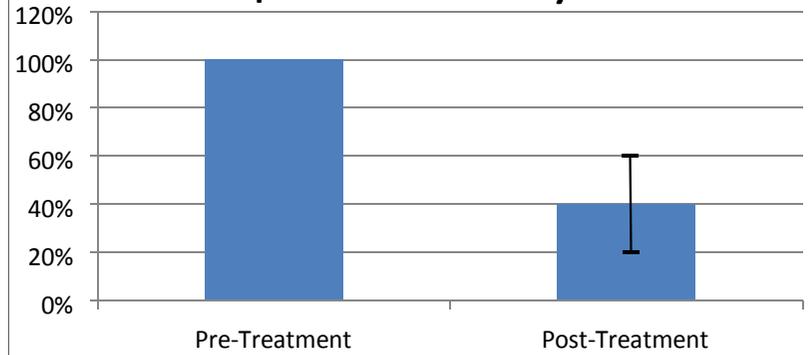


Increase buffer size and crop rotation

Livestock Exclusion and Vegetated Buffer



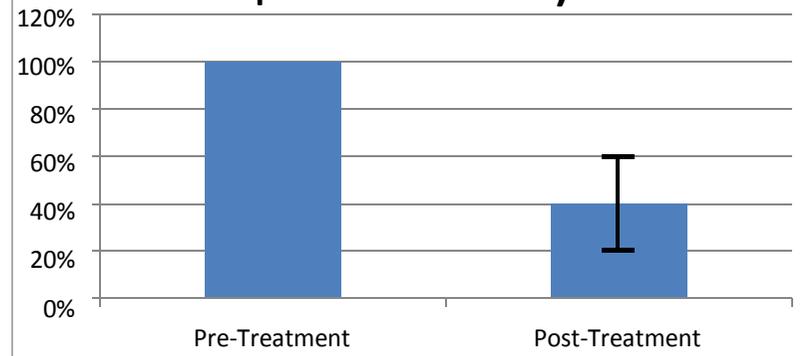
Treatment Effectiveness (Phosphorus load as a percent of pre-treatment level)



Vegetated buffer on Field and Roadside Ditches

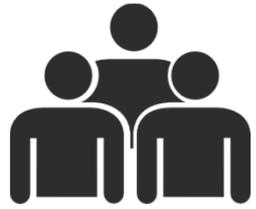


Treatment Effectiveness (Phosphorus load as a percent of pre-treatment level)



Achieving Results





2. Increased Capacity

Redeploying Existing Staff

Working with Partners Across the State

Adding New Staff

- Outreach & Education
- Technical Assistance
- Additional Inspections
 - Small Farms
 - Known Problem Areas
- Investigations
 - Responding to complaints
- Data Tracking
 - New database
 - New BMP tracking across partners



3. Enhanced Partnership

Working together...

- **State Partners:** AAFM, ANR, Vtrans, ACCD, AGO
- **Federal Partners:** USDA, EPA, Congressional Delegation
- **NGOs:** Watershed Groups, Higher Ed
- **Farmers**
- **Businesses**



4. Increased Accountability

- **Enhanced Data Tracking**
- **Amplifying Administrative Enforcement Process ***
 - Emergency Order Authority
 - Civil Penalties
 - Authority to Limit Livestock
- **Increased Penalties***
- **Current Use Penalties***

**proposed*

...All Avoidable by Complying with State WQ laws

Thank You



Stormwater Runoff Causing Problems Statewide



Pollution Source – Road Runoff



Eroding roadside ditch



Storm-damaged gravel road

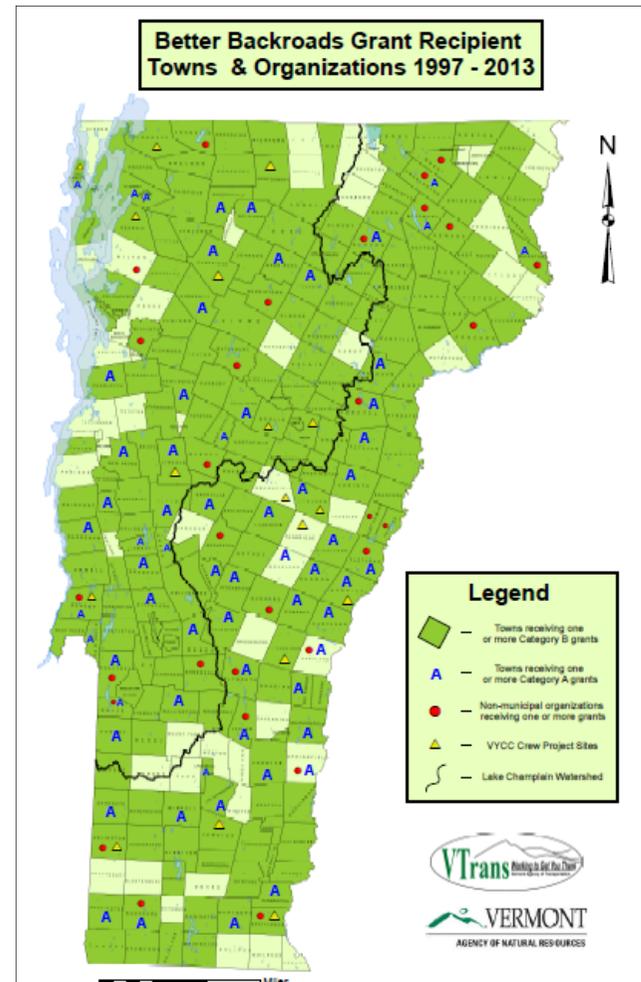
Gravel Roads in VT

- There are over 14,000 miles of public roads in Vermont; over 11,000 of these road-miles are maintained by municipalities
- Vermont has approximately 8,000 miles of gravel roads
- According to VTrans, 75% of town roads need erosion control improvements
- Gravel roads in the Winooski River watershed alone exceeds 40,000 metric tons of sediment per year, and an estimated 15,000 kg of phosphorus (Wemple 2013)



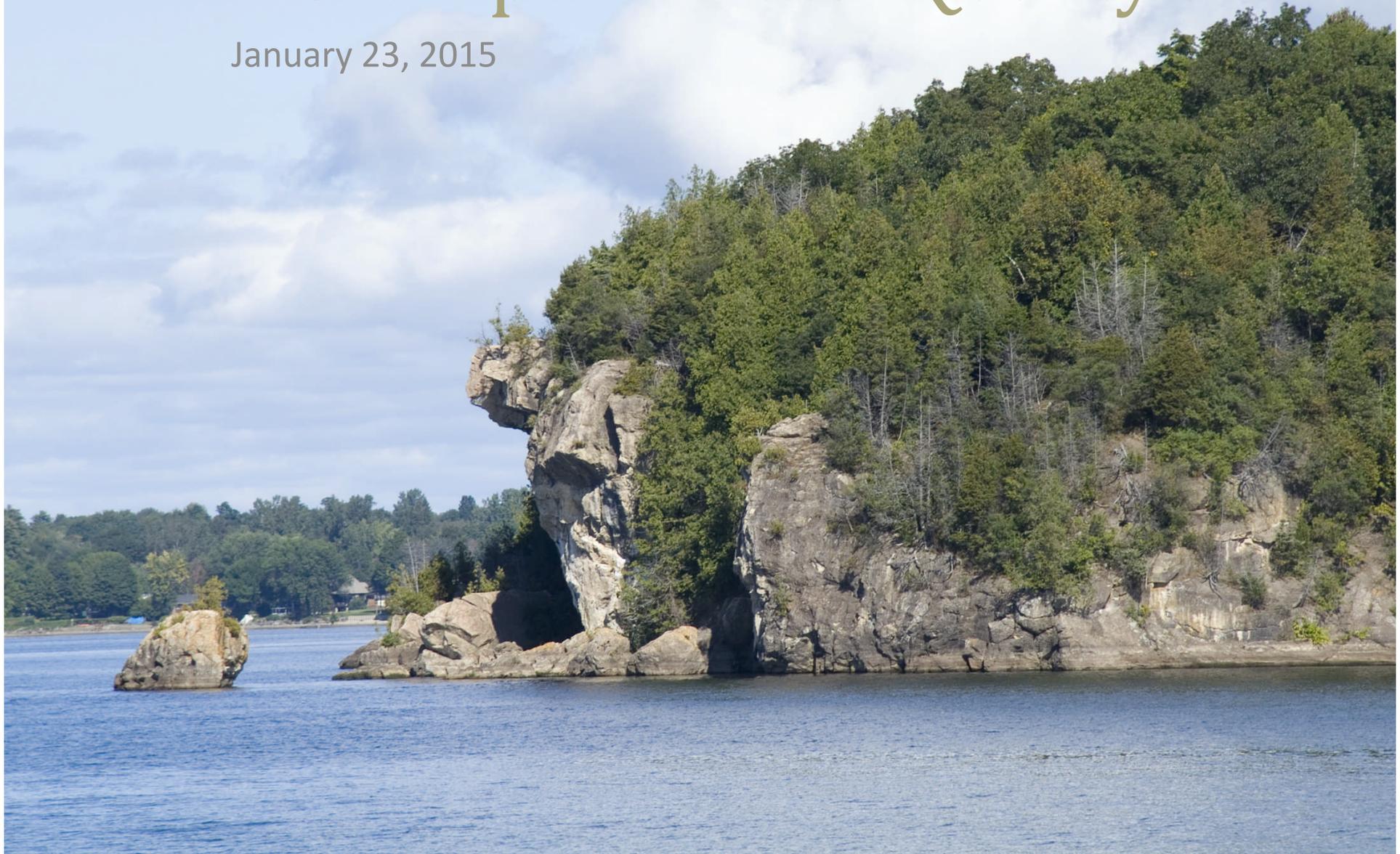
Educational, Technical, and Financial Assistance

- VTrans Better Back Roads Program
- DEC Ecosystem Restoration Program



The Economic Impact of Lake Champlain Water Quality

January 23, 2015



Water for Drinking and Public Use

- 20 million gallons removed every day to provide water to 145,000 residents.
- At a penny a gallon – that is \$200,000 per day or \$75 million per year.

→ Present value = \$850 million



The Economic Value of Tourism and Recreation

Vermont receives \$2.5 billion in tourism spending each year (soon to be released 2013 Tourism Benchmark Study) – Much of which is related to tourism and recreation in and around Lake Champlain

Three categories of Vermont visitors

- Second home owners
- Overnight visitors
- Day visitors

Lake Champlain is a key attraction for visitors to Vermont



Second Home Owners

There are almost 3,000 “seasonal” properties in towns bordering Lake Champlain with \$700 million in value.

Second home owners spend on:
restaurants
retail sales
construction & renovation
and property taxes

→ **\$150 million total**



Overnight Visitors

The Champlain Valley hosts 30% of Vermont's commercial lodging guests. Together with those visiting friends and family, these visitors spend:
→ **More than \$300 million**

How much is related to Lake Champlain?



Day Visitors

In total Day visitors spend \$150 million in Vermont (not including Vermont residents)

→ **\$30 million every year** spent by Lake Champlain day visitors



Adding it up – Tourism & Property

Every year:

- Total – between \$200 million and \$250 million every year
 - Providing between 6,000 and 9,000 jobs
- **Present value for Tourism spending = \$2.3 - \$2.9 billion**
- Seasonal, permanent homes and undeveloped land
- **Close to \$2 billion on Property alone**