



Draft Required Agricultural Practice Rules



What are the RAPs?

Act 64

- VAAFM was directed by the Legislature to draft the RAPs pursuant to Act 64, signed into law on June 16, 2015.
- VAAFM has been charged with revising the RAPs by rule on or before **July 1, 2016**

RAPs

- Act 64 requires that the revised RAPs include requirements for:
 - small farm certification,
 - nutrient storage,
 - soil health,
 - buffer zones,
 - livestock exclusion, and
 - nutrient management.
 - *Tile Drainage Rules for Jan 15, 2018*

RAP Rulemaking Timeline

Today



Draft RAPs Released

10/20/2015

Draft RAP Public Comment Period

10/20/2015

Written Comments Due on Draft RAPs

12/18/2015

10 Statewide Public Meetings

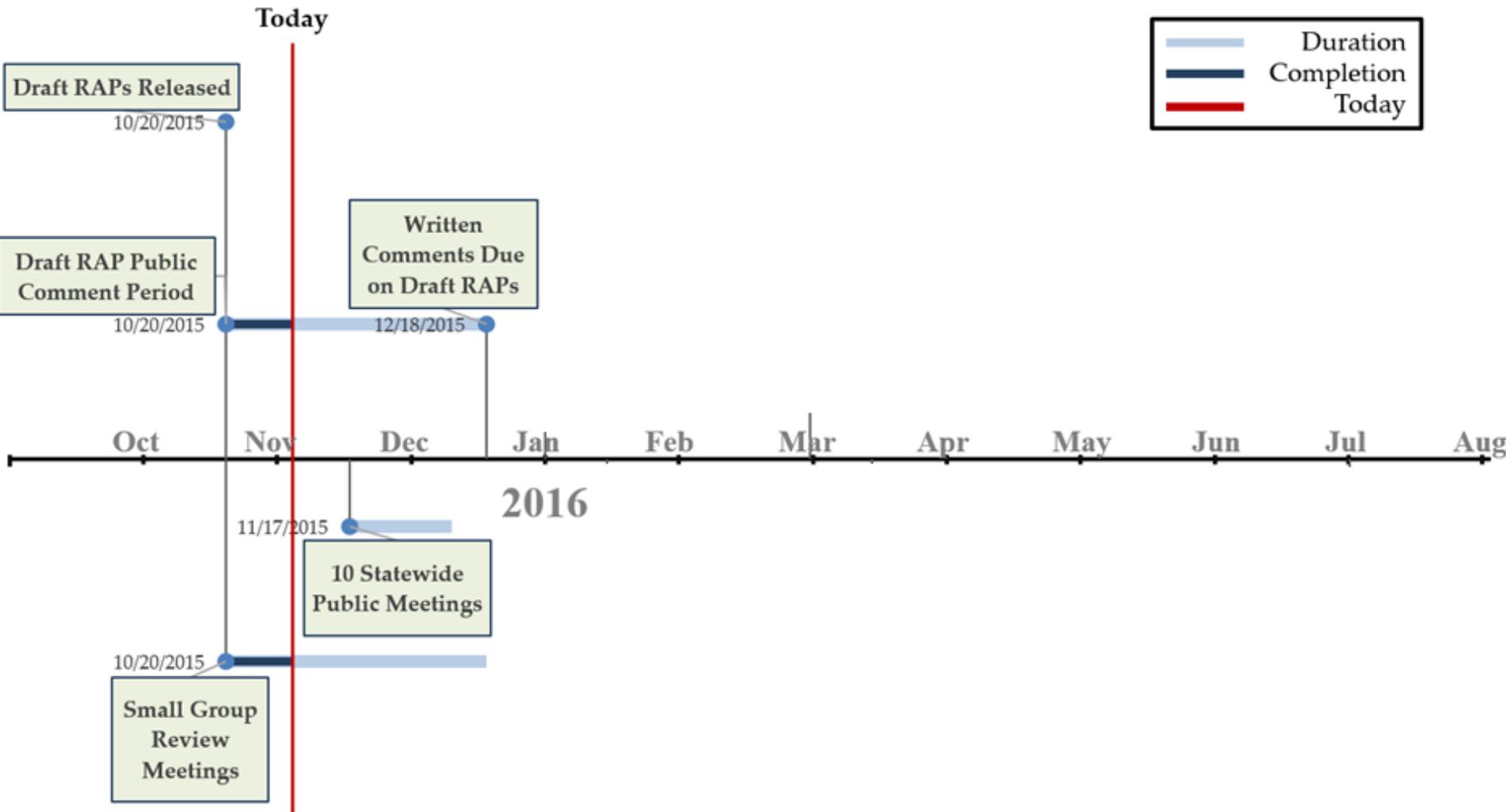
11/17/2015

Small Group Review Meetings

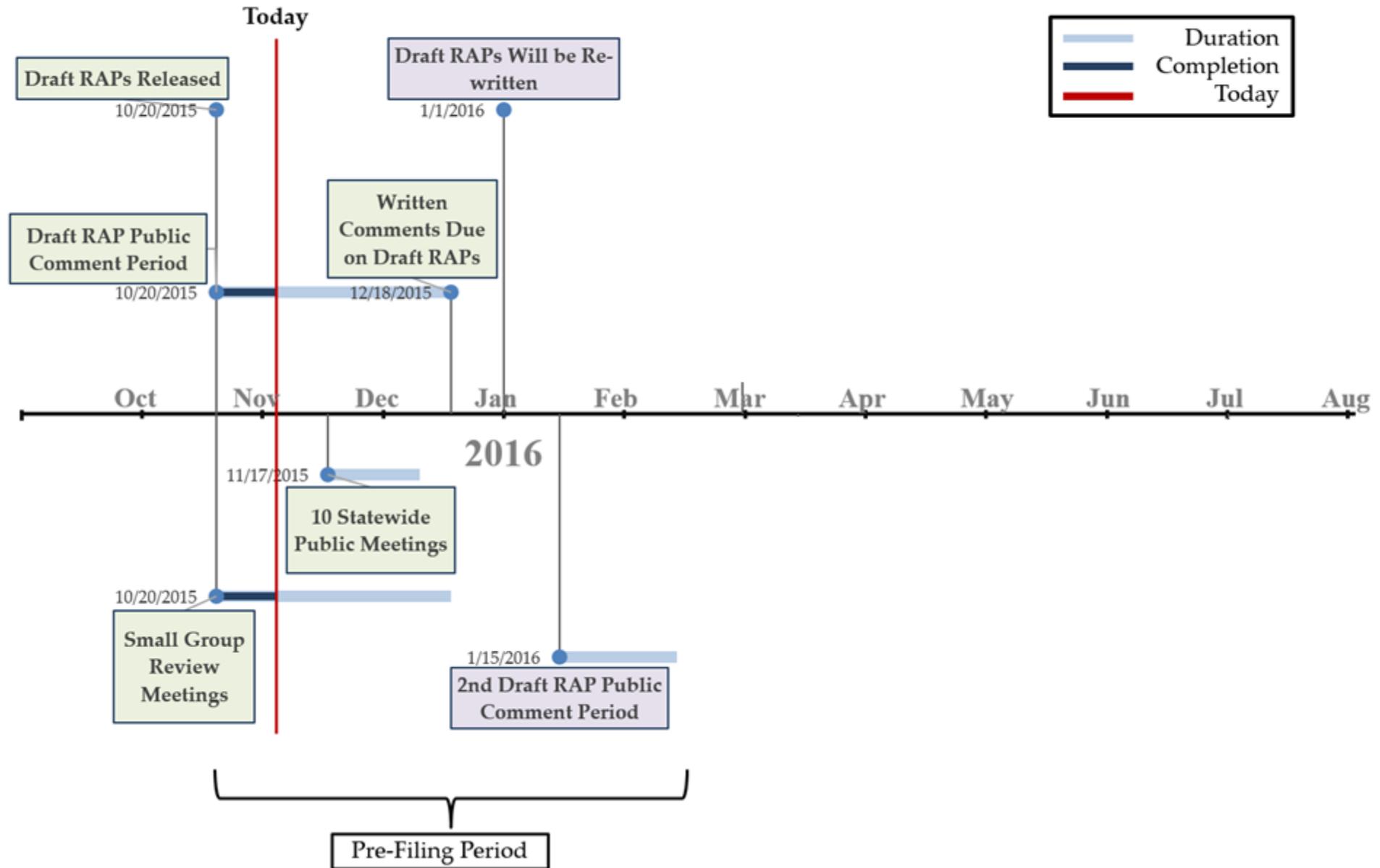
10/20/2015



2016

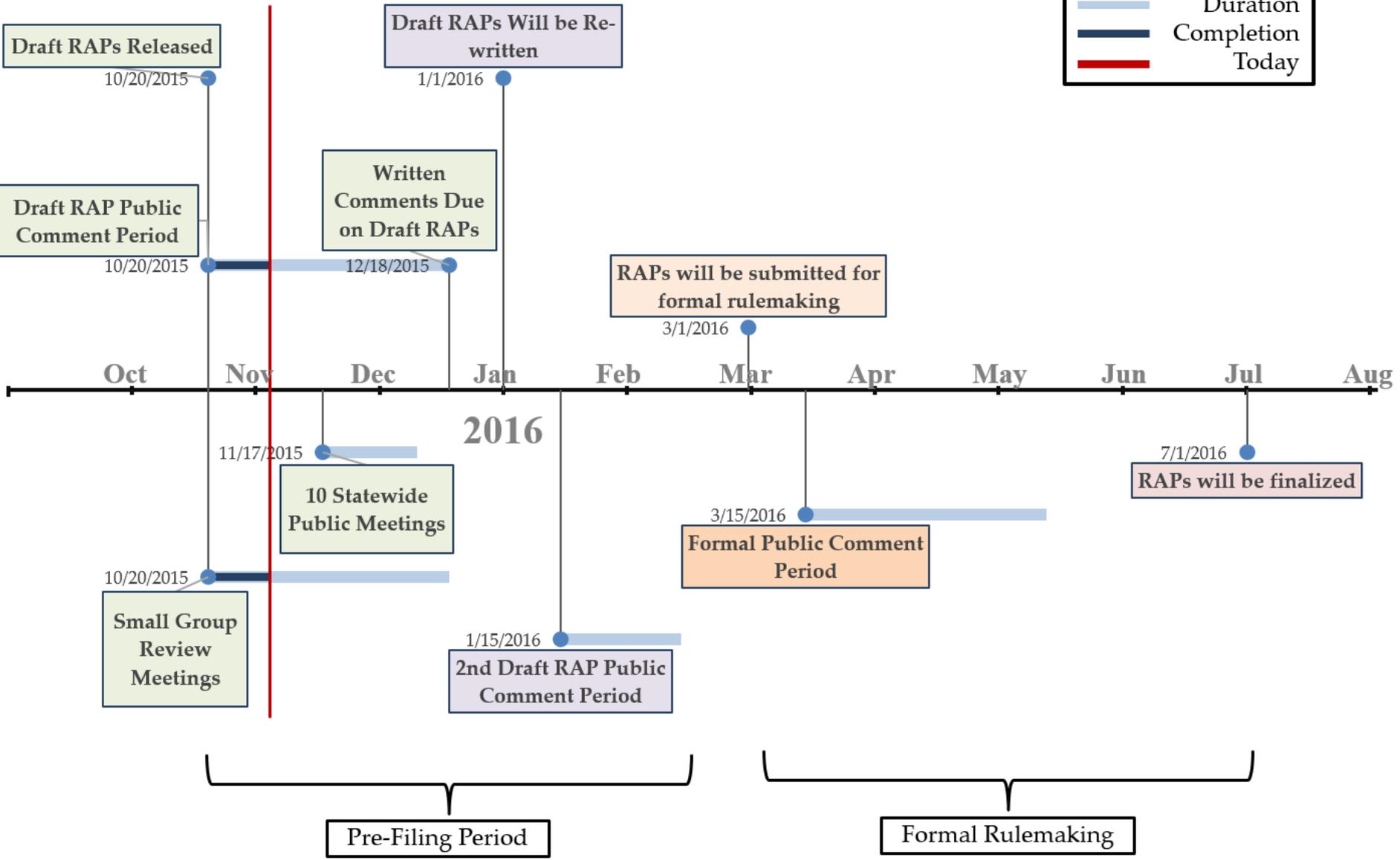


RAP Rulemaking Timeline

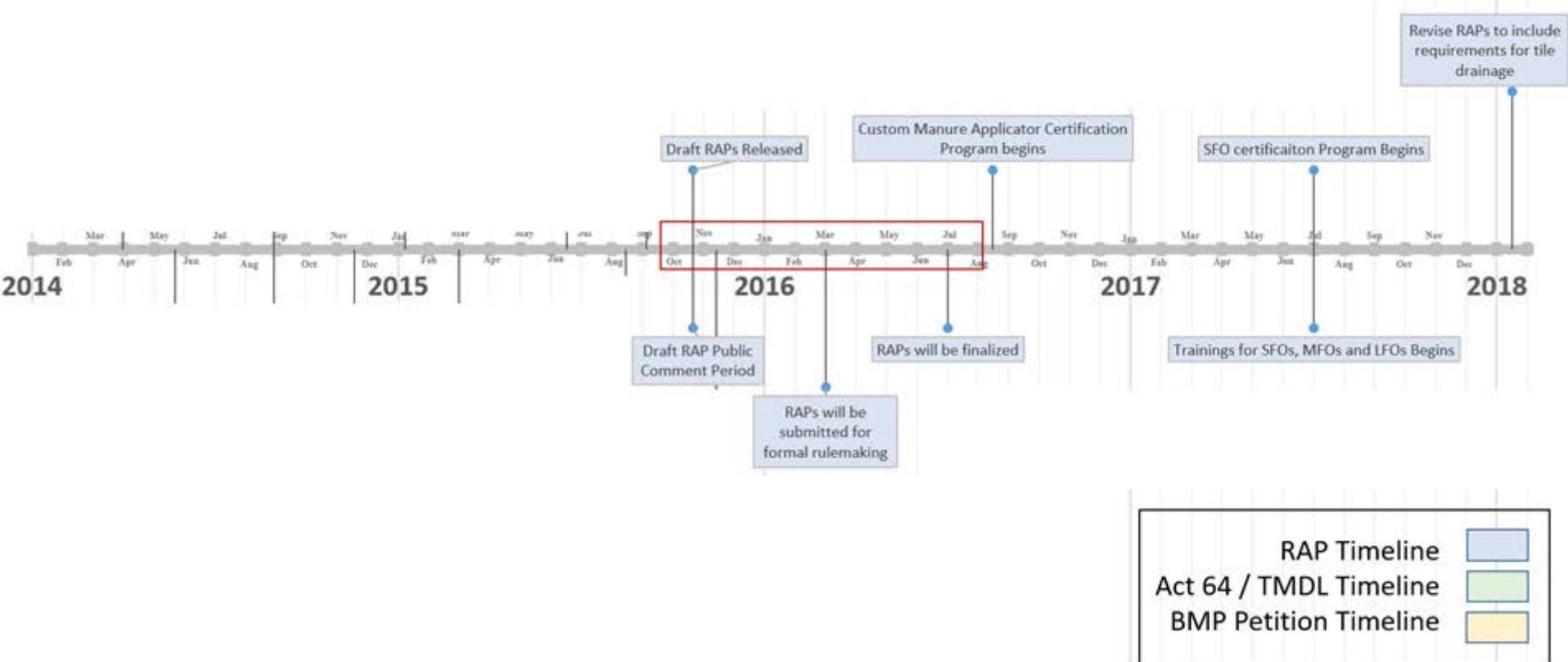


RAP Rulemaking Timeline

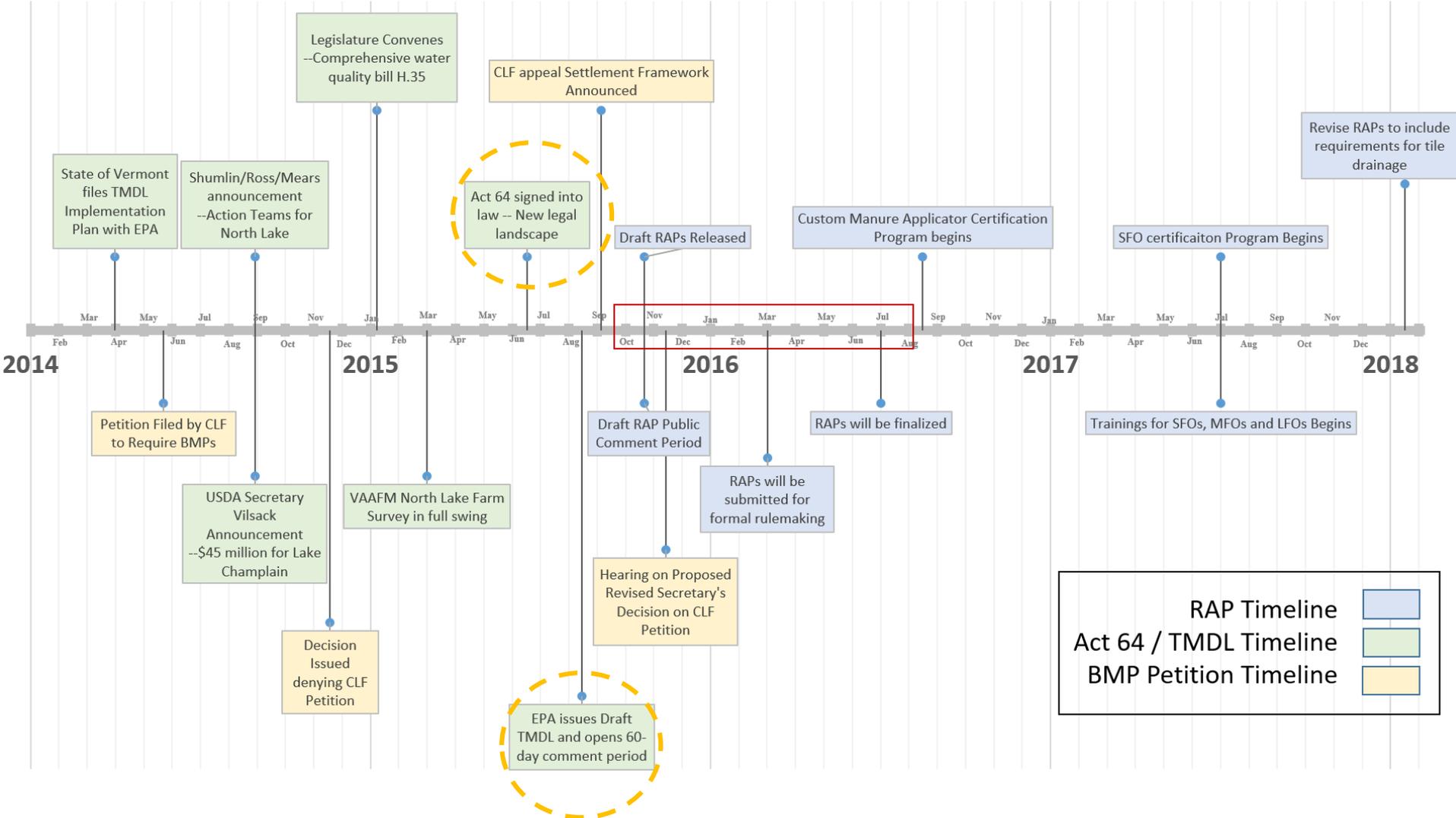
Today



Vermont Water Quality Timeline



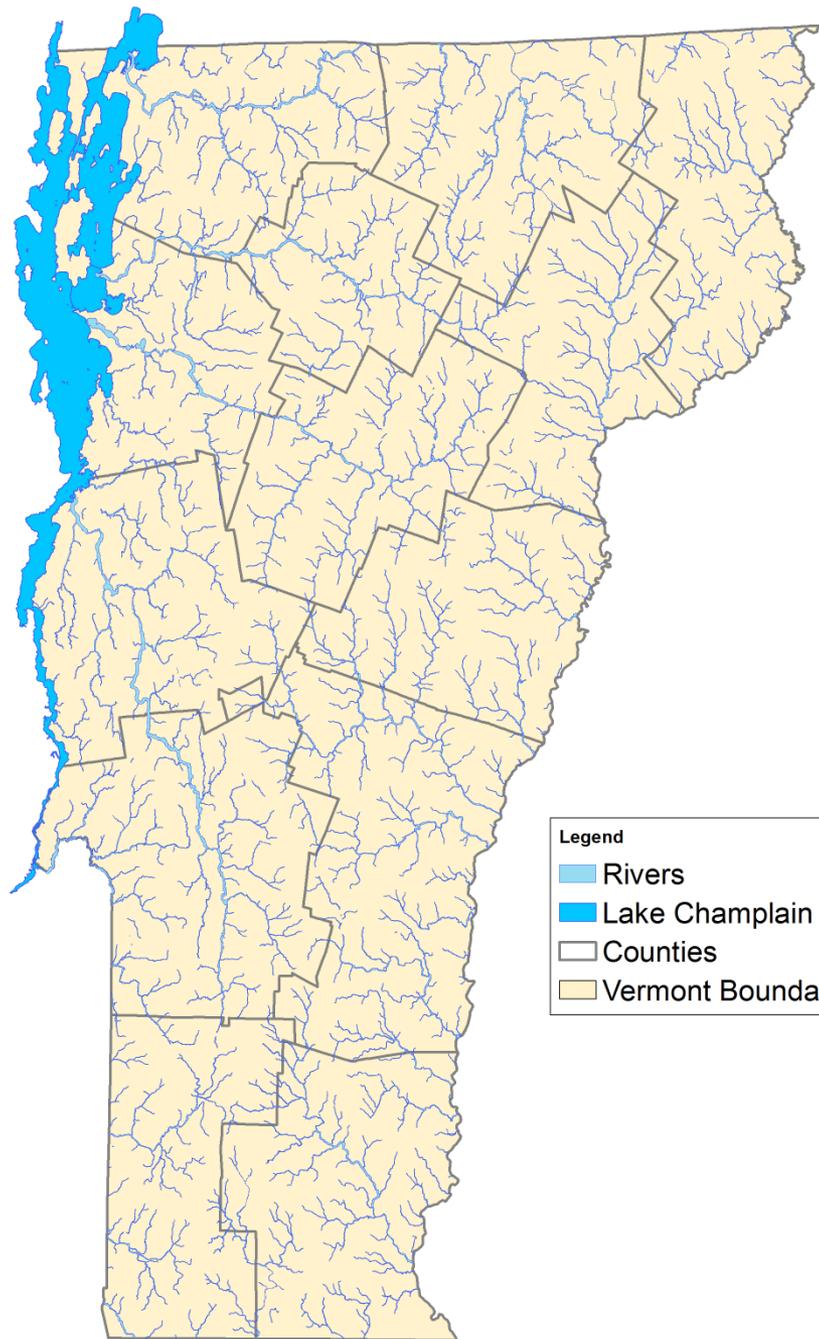
Vermont Water Quality Timeline

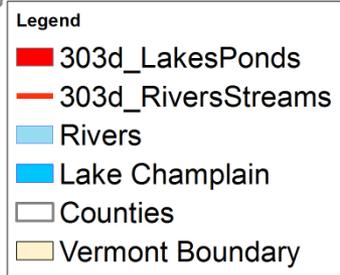
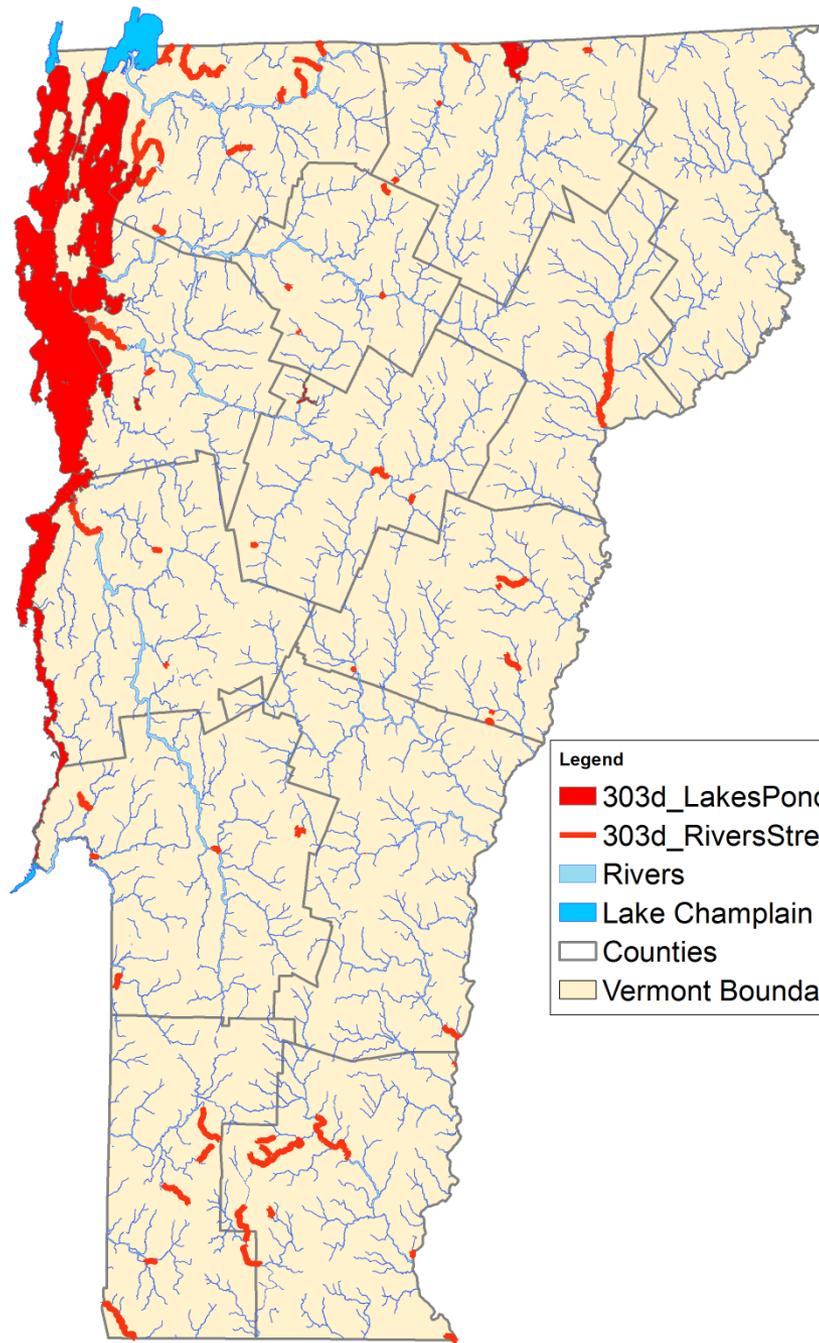


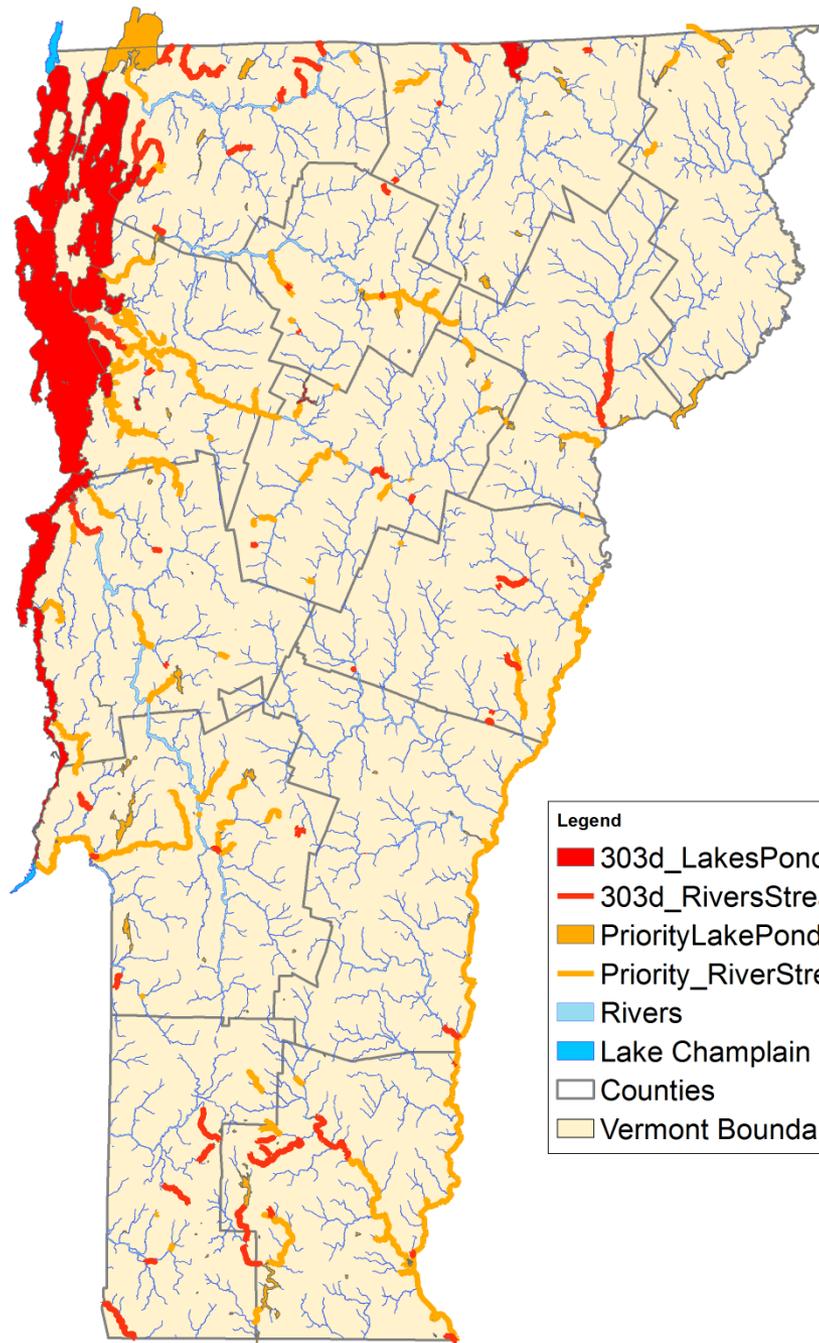
Vermont Clean Water Initiative: All-In



- WWTF
- Forest Lands
- Developed Lands Including Paved Roads
- Unpaved Roads
- River Corridors & Floodplains
- Wetlands
- Ag Lands

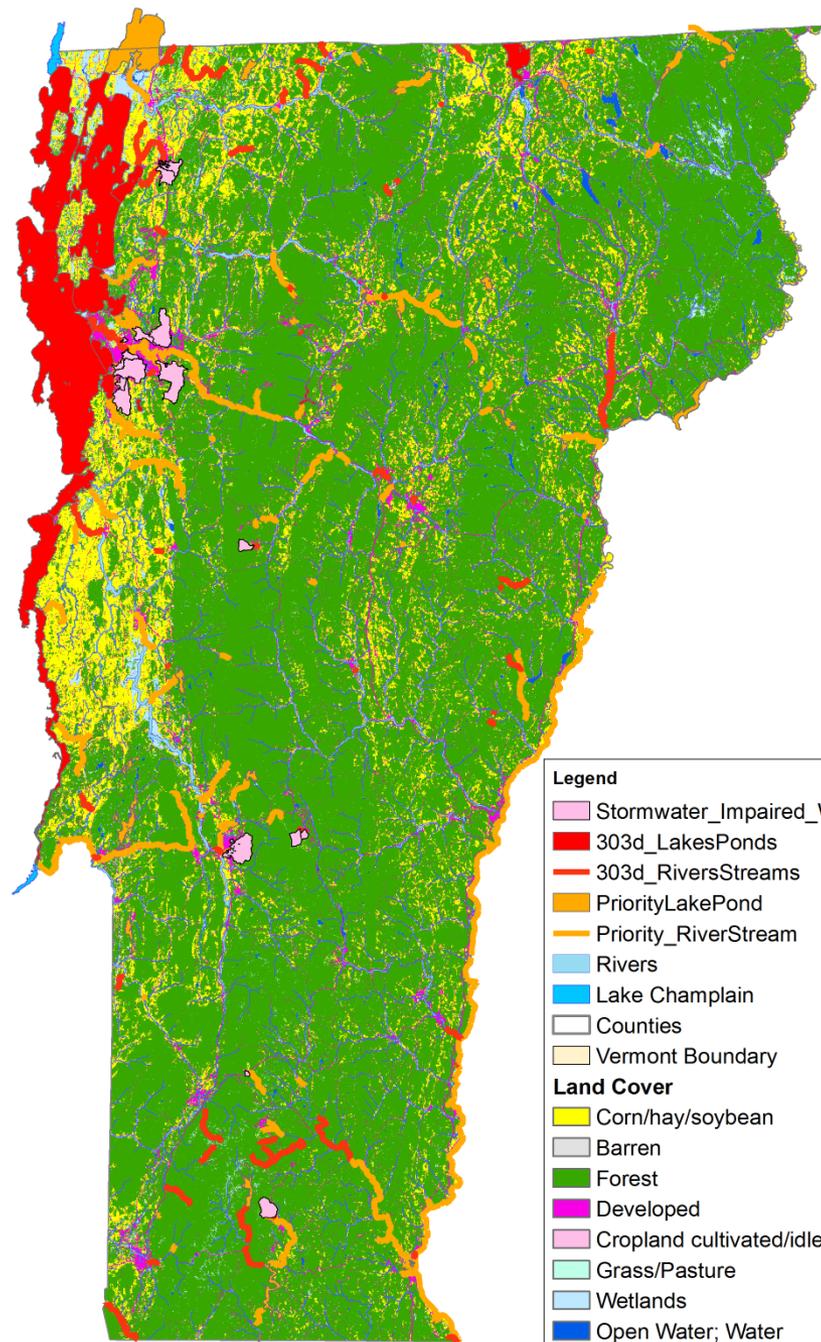






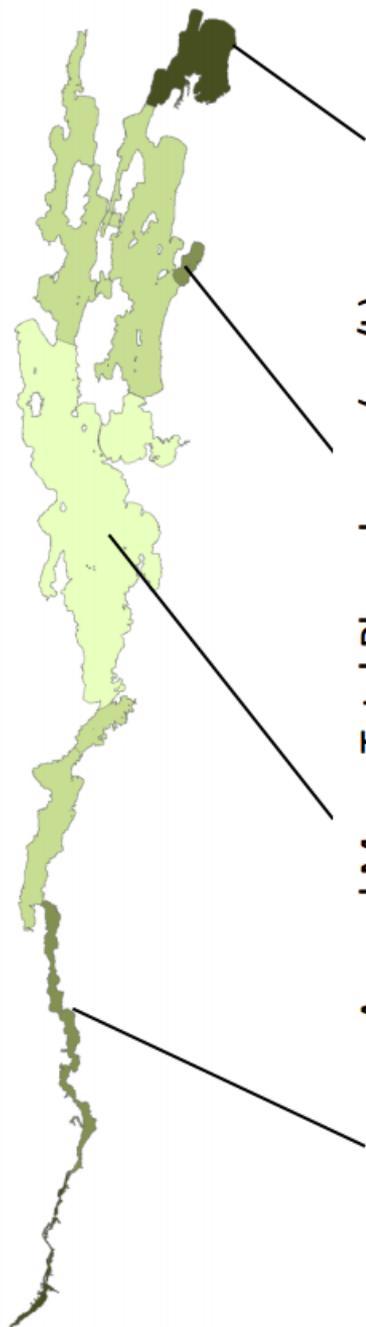
Legend

- 303d_LakesPonds
- 303d_RiversStreams
- PriorityLakePond
- Priority_RiverStream
- Rivers
- Lake Champlain
- Counties
- Vermont Boundary

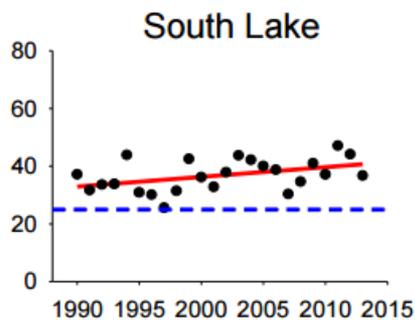
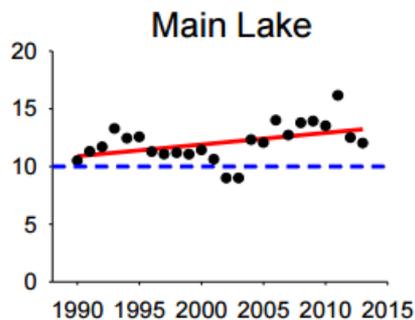
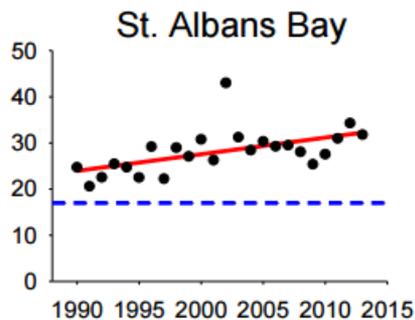
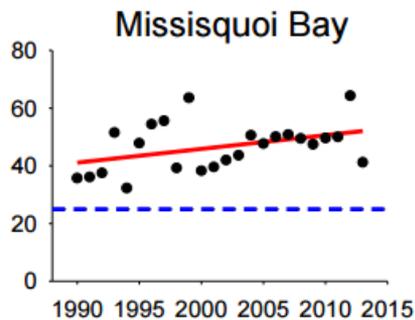


Legend

- Stormwater_Impaired_Watersheds
- 303d_LakesPonds
- 303d_RiversStreams
- PriorityLakePond
- Priority_RiverStream
- Rivers
- Lake Champlain
- Counties
- Vermont Boundary
- Land Cover**
- Corn/hay/soybean
- Barren
- Forest
- Developed
- Cropland cultivated/idle
- Grass/Pasture
- Wetlands
- Open Water; Water
- Grassland/Shrubland



Annual Mean Total Phosphorus ($\mu\text{g/L}$)



— Trend line
- - - Water quality standard

Lessons learned from the past 20 years

Phosphorus levels in the lake are above the allowable standards.

Vermont has taken many important actions, especially in the last 10 years.

Cleaning up the lake ecosystem is complex and recovery will take time.

We need to do a lot more.

TMDL Equation (reduction requirements)

Lake Segment	WWTF	Developed Land	Ag Prod Area	Forest	Streams	Ag	Total Overall
1. South Lake B	0.0%	23.7%	80.0%	60.0%	30.5%	59.5%	43.4%
2. South Lake A	0.0%	21.0%	80.0%	5.0%		59.5%	52.7%
3. Port Henry		10.6%	80.0%	5.0%		20.0%	15.8%
4. Otter Creek	0.0%	22.2%	80.0%	5.0%	40.1%	46.9%	24.7%
5. Main Lake	61.1%	23.8%	80.0%	5.0%	28.9%	46.9%	21.3%
6. Shelburne Bay	64.1%	21.3%	80.0%	5.0%	55.0%	20.0%	12.5%
7. Burlington Bay	66.7%	38.1%	0.0%	0.0%		0.0%	30.5%
9. Malletts Bay	0.0%	26.3%	80.0%	5.0%	44.9%	23.9%	17.6%
10. NE Arm		9.8%	80.0%	5.0%		20.0%	13.0%
11. St. Albans Bay	59.4%	9.8%	80.0%	5.0%	55.0%	34.3%	24.3%
12. Missisquoi Bay	51.9%	30.1%	80.0%	60.0%	65.3%	82.8%	64.3%
13. Isle LaMotte	0.0%	12.0%	80.0%	5.0%		20.0%	12.4%
Total	42.1%	24.1%	80.0%	23.4%	43.4%	51.5%	33.8%



USDA NRCS: \$45 million over 5 years



AGENCY OF AGRICULTURE, FOOD & MARKETS

<p>VT Agency of Agriculture, Food & Markets BEST MANAGEMENT PRACTICE & ALTERNATIVE MANURE MANAGEMENT PROGRAMS</p>	<p><u>Return Application to:</u> 116 State Street Montpelier, VT 05620-2901 (802) 828-1410 fax</p>	<p><u>Engineering Contact:</u> Rob Achilles, P.E. (802) 917-1397 cell Alyson Allen, E.I (802) 522-0857 cell <u>Payment Contact:</u> Jeff Cook (802) 828-3474 office</p>
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Increasing Technical and Financial Assistance for all Farms in Vermont

Vermont Clean Water Fund:
 \$1.75 Million Proposed for Farms



State of Vermont RCPP: \$16 million
Long Island Sound RCPP: \$10 million
VACD RCPP: \$800,000
Memphremagog RCPP: \$600K Proposal



Small Farm Designation

§2.25, §3.1(a-d); §4.10



Not Subject to RAPs

(Subject to Municipal & DEC Rules)

1. Less than \$2,000 Annual Gross Income AND Not filed Form 1040F once in last two years
2. Less than 4 Acres (contiguous) AND Animal numbers below RAP Operation Thresholds. (No Income Threshold)

(Example 1-4 cows)



Must Follow RAPs

- AT LEAST ONE OF THE FOLLOWING; (Example 5-19 cows)
- Between 4-10 Acres -AND- within RAP Animal Thresholds
 - More than \$2,000 Annual Gross Income -AND- filed a Form 1040 F within last two years
 - Have an Approved Business Management Plan
 - 10+ Acres used for crop production with no livestock, livestock manure or wastes



Certified SFOs

- More than 10 Acres used for Farming AND
- Meets SFO Definition Animal Thresholds -OR- (Example 20-199 cows)
- Manure and other agricultural wastes are utilized to grow crops

*The Secretary may designate on a case by case basis additional farms that must certify.

Requirements Only For: Certified Small Farm Operations

Proposed Changes:

Annual Compliance Reporting

Minimum inspection within 10 years

590 Nutrient Management Plan Required

Required Education for Farmers



Annual Compliance Report

Farm/Business Name: _____		Owner/Operator Name: _____	
Reporting Period (mm/dd/yyyy): ____/____/____ to ____/____/____			
I. TYPE AND NUMBER OF ANIMALS			
Report the maximum number of each type of animal confined at all of the facilities covered under the MFO GP at any one time.			
Type	Number of Animals		
Mature Dairy Cows (lactating and dry)			
Youngstock and Heifers			
Veal Calves			
Cow/Calf pairs			
Swine (55 lb. or more)			
Swine (under 55 lb.)			
Horses			
Sheep or Lambs			
Turkeys			
Chickens (w/liquid system)			
Chickens (w/out liquid system)			
Ducks (w/liquid system)			
Ducks (w/out liquid system)			
II. MANURE AND WASTE PRODUCTION			
Report the estimated amount of manure and waste generated from or imported to the facilities under this permit during the 12-month period covered by this report. Waste includes: spoiled feed, manure, milkhouse waste, washwater, leachate, used bedding, rainfall into waste storage structures, barnyard runoff, anaerobic digester substrates, and other dirty water.			
A. Amount of liquid manure and waste generated or imported during the 12-month period covered by this report.		_____ gallons	
B. Amount of solid or semi solid manure and waste generated or imported during the 12-month period covered by this report.		_____ tons	
III. MANURE AND WASTE TRANSFERRED TO OTHER PERSONS			
Report the estimated amount of waste transferred to other persons from the facilities under this permit during the 12-month period covered by this report.			
A. Amount of liquid manure and waste transferred during the 12-month period covered by this report.		_____ gallons	
B. Amount of solid or semi solid manure or waste transferred during the 12-month period covered by this report.		_____ tons	

- Shall notify Secretary of changes in ownership or land base (including changes of leased land) within 30 days.

Who must obtain water quality training?

Proposed Changes:

Required education
for farmers



- Certified Small Farms
- Permitted Medium and Large Farms

Training shall provide information regarding topics such as;

- The prevention of discharges
- Land application of manure or nutrients and methods or techniques used to mitigate runoff
- Statutory & Regulatory Requirements
- Shall obtain 4 hours of approved training at least every 5 years

Nutrient, Agricultural Inputs & Waste Storage Field Stacking of Manure

Proposed Changes:

Increased stacking setbacks
from water and wells plus
180 day and 1 in 4 year
storage minimums



- **Prohibited to be stacked in a floodway or in an area subject to flooding**
- Manure stacks must meet the following setbacks:
 - 200' from property lines or domiciles
 - 200' from surface waters
 - 200' from private water supplies
 - 200' from any public water supply
 - 100' from ditches, swales, diversion or other conveyances
- Field Stacks can not remain in one location for more than 180 days. 1 in 4 year storage minimums

Soil Health Management Recommendations: Cover Crop Requirements

Proposed Changes:



Manage gully erosion and reduce overall erosion to T



Cover Crop Floodplains
(broadcast by 9/15 or drilled by 10/1)

- Cropland shall be cultivated so that average soil loss will be less than or equal to the tolerable soil loss (T) for a particular soil. RUSLE₂
- Field born gully erosion will be managed through appropriate BMP.
- Annual croplands subject to flooding are required to plant cover crops.
 - Broadcast by September 15th
 - Drilled by October 1

Manure & Waste Application Standards

Proposed Changes:

Manure may not be spread within 100' of top of bank of adjacent surface waters:

- **After October 15 or Before April 15th**



Winter Spreading Ban

- No Manure or Waste application spread between December 15 and April 1
 - Secretary may prohibit between **12/1-12/15 and 4/1-4/30** of any calendar year
 - Emergency exemptions
 - Manure and other wastes shall not be spread when actual or expected weather or field conditions could lead to off site movement of nutrients

Manure & Waste Application Standards

Proposed Changes:

Weather conditions conducive to runoff



Manure and other wastes shall not be applied when actual or expected weather and/or field conditions are conducive to flooding, runoff, ponding or other off site movement or can be reasonably anticipated to result in flooding, runoff, ponding or other off site movement

Manure & Waste Application Standards

Proposed Changes:

No Manure Application on
Fields with Soil Test Phosphorus
> 20 ppm

No Manure Application on
fields with slopes greater than
10% w/o 100' buffer



Manure Shall Not be Applied to Fields That:

- Exceed Soil Test Phosphorus **20 PPM** Modified Morgan
- Exceed 10% Slope Without vegetated buffers to surface waters of at least 100'
 - No manure in buffer
- Are Saturated with Water
- Are frozen and/or snow covered

Winter Manure Spreading Exemptions



Proposed Changes:

Seasonal winter
spreading exemptions

- RAPs revise and set new standards for winter manure and wastes spreading ban.
 - Requirements for requests
 - Standards for approvals
 - Guidelines for manure application

Buffer Zones & Setbacks

Proposed Changes:

Increased buffers and
manure setbacks
(25' streams and 10'
ditches)



Buffer Zone Requirements

- Surface Water shall be buffered 25'
- Intermittent waters, ditches, swales, diversions shall be buffered 10'
- Harvesting of Vegetated Buffer is Allowed
- No spreading manure or wastes in the vegetated buffers
- Fertilizer may be used per NMP to establish or maintain buffer
- No Tillage Allowed in Buffer except for establishment or Maintenance

Site Specific Variances

- Variances for vegetated buffers may be considered based on a site specific characteristics

Animal Mortality Management & Composting

Proposed Changes:

**Mortalities must be
disposed in 48 hours**



Animal mortalities being disposed of on the farm within 48 hours according to the following standards:

- Compost
- Burial
- Render

Livestock Exclusion Standards

Proposed Changes:

Establish standards for livestock exclusion from waters.
Production & Pasture Areas
(3" minimum growth)



Production Area & Immediately Adjacent areas

- No Access to Surface Water except:
 - At defined crossing
 - Where prescribed rotational grazing plan exists (3" residual)
 - In areas approved by Secretary
 - Adequate vegetative cover shall be maintained to protect banks of surface water

Outside Production Area (Pasture)

Livestock shall not have access to surface water outside of production area that:

- Have unstable banks of surface water
- Areas designated by Secretary where actual or potential threat exists

Custom Manure Applicator Certification

Proposed Changes:

Train & license
custom manure
applicators



- Custom Manure Applicators (§2.06) shall be certified by the Secretary
 - Must demonstrate knowledge of RAPs and NRCS 590 standard
 - Must demonstrate competency in methods and techniques to ensure appropriate nutrient application in compliance with environmental standards.
- Certified custom manure applicators shall train all employees and seasonal workers in methods and techniques to meet RAP and NRCS 590 standards for nutrient application
- Certification is valid for 5 years; Shall complete 8 hours of training in each 5 year period.

Comment To:

AGR.RAP@vermont.gov

By December 18, 2015

Additional Information:

<http://agriculture.vermont.gov/water-quality/regulations/rap>

