CONNECTIONS

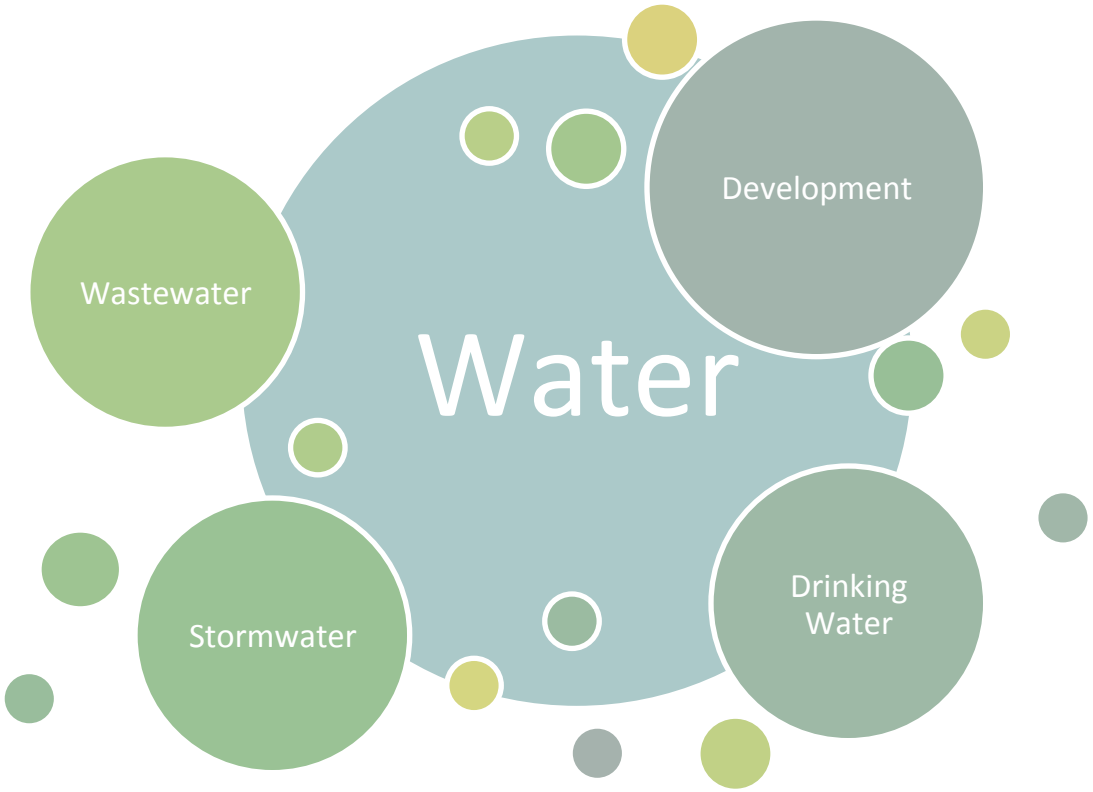
S. 101 - § 7 and § 8

Annette Smith
Executive Director

Vermonters for a Clean Environment

Testimony to House Natural Resources, Fish & Wildlife Committee, April 14, 2021

Development and Water Quality



We have been told that

There is no connection between S.101 § 7 & § 8 and water quality

D
- Department of Environmental Conservation relies on municipalities regarding Waste Water Treatment Facility (WWTF) capacity

S
- State permitting adds costs with no benefits except technical engineering review of plumbing connection

C
- Combined Sewer Overflows (CSOs) are caused by rain, and are not relevant to enabling multiple municipal hook-ups

E
- Enabling municipal permitting will free up money for WWTFs to address CSOs

S.101 in the Senate

Housing Bill Advances Despite Water Pollution Concerns
Seven Days, March 26, 2021

"Bray acknowledged that hooking up more homes, apartments and businesses to such systems could exacerbate the problem."

Bacteria Impaired Segments

https://dec.vermont.gov/content/statewide-bacteria-tmdl-final-document

Table 8-4: Summary of CSO/WWTF-related Bacteria-Impaired Segments.

Waterbody Name	Waterbody ID	Towns	Impairment
Basin 2: Poultney-Mettawee			
Castleton River, Fair Haven	VT02-03	Fairhaven	*E.coli*
Basin 3: Otter Creek, Little Otter Creek, and Lewis Creek			
Lower Otter Creek, Below Vergennes WWTF (approx 7 miles)	VT03-01	Vergennes, Panton, Ferrisburg	*E.coli*
Otter Creek below Rutland City WWTF	VT03-05	Rutland City	*E.coli*
East Creek, mouth to 0.2 mi (below CS) drainage pts #2 and #9)	VT03-14	Rutland City	*E.coli*
Basin 8: Winooski			
Winooski River above Montpelier WWTF discharge	VT08-05	Montpelier	*E.coli*
Lower North Branch, Winooski River (approx 1 mile)	VT08-13	Montpelier	*E.coli*
Basin 10: Ottauquechee, Black			
Black River, from mouth to 2.5 miles upstream (Springfield)	VT10-11	Springfield	*E.coli*
Basin 15: Passumpsic			
Passumpsic River from Pierce Mills Dam to 5 miles below Passumpsic Dam	VT15-01	St. Johnsbury, Waterford, Barnet	*E.coli*
Lower Sleepers River in St. Johnsbury	VT15-04	St. Johnsbury	*E.coli*

Issues Raised

Inter-connected Items

Vermont is a delegated state under the Clean Water Act. Discharges enter waters of the state, not municipalities. Has EPA approved the state delegating permits of multiple hook-ups to municipalities?

Title 10, Chapter 047, Subchapter 001, § 1251a. Water pollution administration. (c) On or before July 1, 2016, the Secretary of Natural Resources shall adopt by **rule** an implementation process for the antidegradation policy in the water quality standards of the State.

Numerous WWTFs are operating under expired - Administrative Extension (AE) - National Pollution Discharge Elimination System (NPDES) permits.

Otter Creek flows into Lake Champlain

Expired (AE) NPDES permits go back years. Why?

- Rutland's WWTF permit expired (AE) June 30, 2008. https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-1285/3-1285.pdf Public deprived of commenting 2008, 2013, 2018.
- Brandon's WWTF permit expired (AE) Dec. 31, 2011 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-1196/3-1196.pdf
- Middlebury's WWTF permit expired (AE) Sept. 30, 2013 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-1210/3-1210.pdf
- Vergennes' WWTF permit expired (AE) Dec. 31, 2009 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-0368/3-0368.pdf
- Burlington's main WWTF permit expired (AE) Jan. 30, 2010 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-1331/3-1331.pdf

Investments are Needed to the Limits of Technology

https://www3.epa.gov/region1/npdes/permits/2017/finalvt0100196permit.pdf

RESPONSIVENESS SUMMARY

for

NPDES Discharge Permit #3-1207

City of Montpelier Wastewater Treatment Facility

The above referenced permit was placed on public notice for comment from a period of **June 29, 2017** through **August 8, 2017**. This is a renewal permit.

Comments on the draft permit were received during the public notice period. The following is a summary of the comments and the Agency's responses to those comments. Similar comments were grouped together. A copy of any or all comments received can be obtained by contacting the Agency's Watershed Management Division at (802) 828-1535.

Conservation Law Foundation (CLF) Comments.

COMMENT:

See letter dated August 7, 2017 from Conservation Law Foundation (attached).

1272 Enforcement Orders

The facilities with 1272 orders are Vergennes, Springfield, Northfield, Hartford, Enosburg Falls, Newport City, Burlington (all three WWTF's), Rutland City, and St. Johnsbury. Some of these plants may have capacity to add more connections, even though they are releasing sewage during stormwater events.

- Rutland WWTF 1272 Order May 8, 2018 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-1285/3-1285_1272order.pdf

  In 2020 Rutland had 55 Combined Sewer Overflow events reported at 5,500,000 gallons.

- Vergennes WWTF 1272 order in April 20, 2018 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-0368/3-0368_1272order.pdf
- Burlington WWTF 1272 order Feb. 19, 2019 https://anrweb.vt.gov/PubDocs/DEC/WSMD/Wastewater/permits/3-1331/3-1331_1272Order.pdf

Downtown and Neighborhood Development Areas

Of the 23 downtown development districts, 14 have wastewater facility issues.

Of the 7 neighborhood development areas, 3 have wastewater facility issues.

Downtown Development Districts with Wastewater Issues

- Bennington — WWTF permit expired 9/30/16
- Brandon — WWTF permit expired 12/31/11
- Burlington — 3 WWTF permits expired 6/30/09, 9/30/09, 6/30/10. all have 1272 orders, CSOs
- Middlebury — WWTF permit expired 9/30/13
- Newport — WWTF permit expired 6/30/09, 1272 order, CSO
- Randolph — WWTF permit expired 9/30/20
- Rutland — WWTF permit expired 6/30/08, 1272 order, CSO
- Springfield — WWTF permit expired 9/30/20, 1272 order, CSO
- St. Johnsbury — 1272 order, CSO
- Vergennes — WWTF permit expired 12/31/09, 1272 order, CSO
- Waterbury — WWTF permit expired 12/31/09
- White River Junction — 1272 order, CSO
- Winooski — WWTF permit expired 12/31/09

Neighborhood Development Areas with Wastewater Issues

- Burlington — 3 WWTF permits expired 6/30/09, 9/30/09, 6/30/10. all have 1272 orders, CSOs
- Essex Junction — WWTF permit expired 6/30/09
- Winooski — WWTF permit expired 12/31/09

Sewage Overflows in Village Centers in 2019

Summary: 12 village centers had 23 overflows.

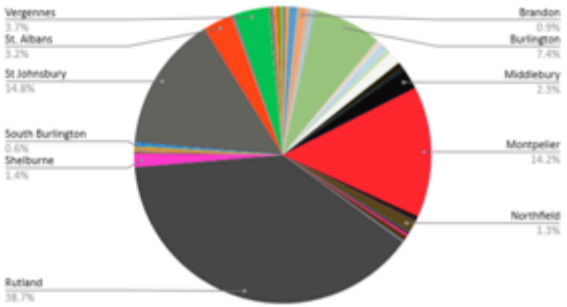
Municipality	no. of overflows	type of overflow	estimated volume
Bethel	1	untreated sewage	> 1,000 to 10,000
Cavendish	1	partially disinfected	> 1,000 to 10,000
Fair Haven	1	untreated	> 10,000 to 100,000
Hardwick	1	partially disinfected	> 10,000 to 100,000
Ludlow	2	undisinfected	> 100,000 to 500,000
		undisinfected	> 100,000 to 500,000
Manchester	2	untreated	no estimate; 9 hours
		untreated	no estimate; 4 1/2 hrs.
Northfield	1	other	other
Pittsford	1	partially disinfected	> 10,000 to 100,000
Proctor	5	untreated	> 1,000 to 10,000
		untreated	> 1,000 to 10,000
		untreated	> 1,000 to 10,000
		other	> 100 to 1,000
		other	> 10,000 to 100,000
Shelburne	4	untreated	> 100 to 1,000
		untreated	> 100 to 1,000
		untreated	> 1,000 to 10,000
		partly treated; undisinfected	> 10,000 to 100,000
Wallingford	3	untreated	> 10,000 to 100,000
		other	> 1,000 to 10,000
		other	> 10,000 to 100,000
West Rutland	1	partly disinfected	> 10,000 to 100,000

2015 – 2020 Sewage Diversions and Overflows into Vermont's Rivers and Lakes

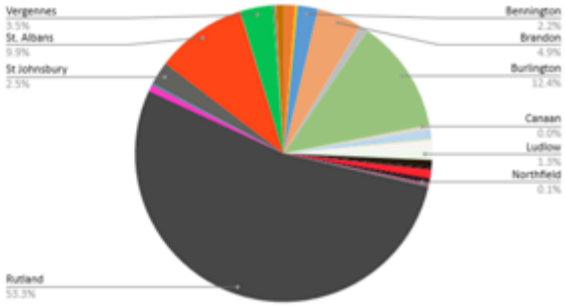
2015 - 2020 Sewage Diversions and Overflows into Vermont Rivers and Lakes

Town	Total Spills	Max Gallons
	1,174	176,069,024
Arlington	2	18,000
Barre	4	2,161,000
Barton	1	10,000
Bellows Falls	1	500,000
Bennington	10	3,854,551
Berlin	1	9,000
Bethel	1	10,000
Brandon	11	8,600,000
Brattleboro	7	1,630,200
Bridgewater	1	1,000
Brighton	3	27,010
Burlington	87	21,819,842
Canaan	1	10,000
Cavendish	3	210,000
Chester	2	585,000
Enosburg Falls	1	10,000
Essex Junction	9	1,623,000
Fair Haven	6	331,000
Gilman	1	100,000
Hardwick	3	517,300
Hartford	5	1,002,258
Hinesburg	1	10,000
Jeffersonville	2	11,000
Ludlow	5	2,215,000
Lunenburg	8	1,330,000
Manchester	3	1,002
Middlebury	27	445,169
Montpelier	167	1,701,500
Newport	5	311,000
North Troy	2	600,000
Northfield	15	132,000
Orleans	1	30,000
Pawlet	3	20,099
Pittsford	3	201,000
Proctor	6	132,000
Putney	1	1,000
Randolph	1	100,000
Readsboro	1	137,800
Rutland	454	93,796,535
Shelburne	17	1,225,000
Sheldon Springs	2	174,000
Sherburne	1	1,000
South Burlington	7	14,198
Springfield	4	210,700
St Johnsbury	174	4,449,000
St. Albans	37	17,361,200
Stowe	2	110,000
Troy & Jay	2	20,000
Vergennes	44	6,143,660
Wallingford	2	200,000
West Rutland	5	320,000
Williston	1	1,000
Wilmington	3	210,000
Windsor	5	1,404,000
Winooski	2	11,000
Woodstock	1	10,000

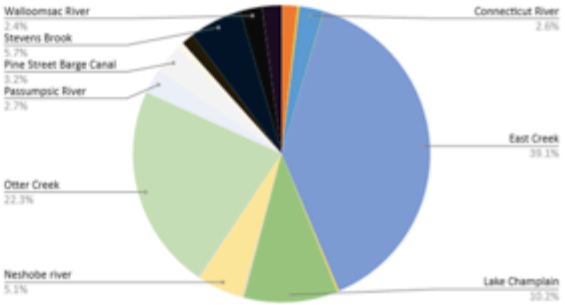
Total Spills per Municipality



Maximun Gallons Diverted



Rough share of the pollution



Data: State of Vermont Combined Sewer Overflows and Untreated Discharge website:
https://anrweb.vt.gov/DEC/WWInventory/SewageOverflows.aspx

For more information contact:
James Ehlers at: jamesehlersvt@gmail.com

Lake Champlain International

Wastewater Constituents

Microorganisms
Pathogenic bacteria, virus and worms eggs.
Risk when bathing and eating shellfish.

Biodegradable organic materials
Oxygen depletion in rivers, lakes and fjords.
fish death, odors.

Nutrients
Nitrogen, phosphorus, ammonium eutrophication
Oxygen depletion, toxic effect

Metals
Hg, Pb, Cd, Cr, Cu, Ni
Toxic effect, bioaccumulation.

Odour (and taste)
Hydrogen sulphide.
Aesthetic inconveniences, toxic effect.

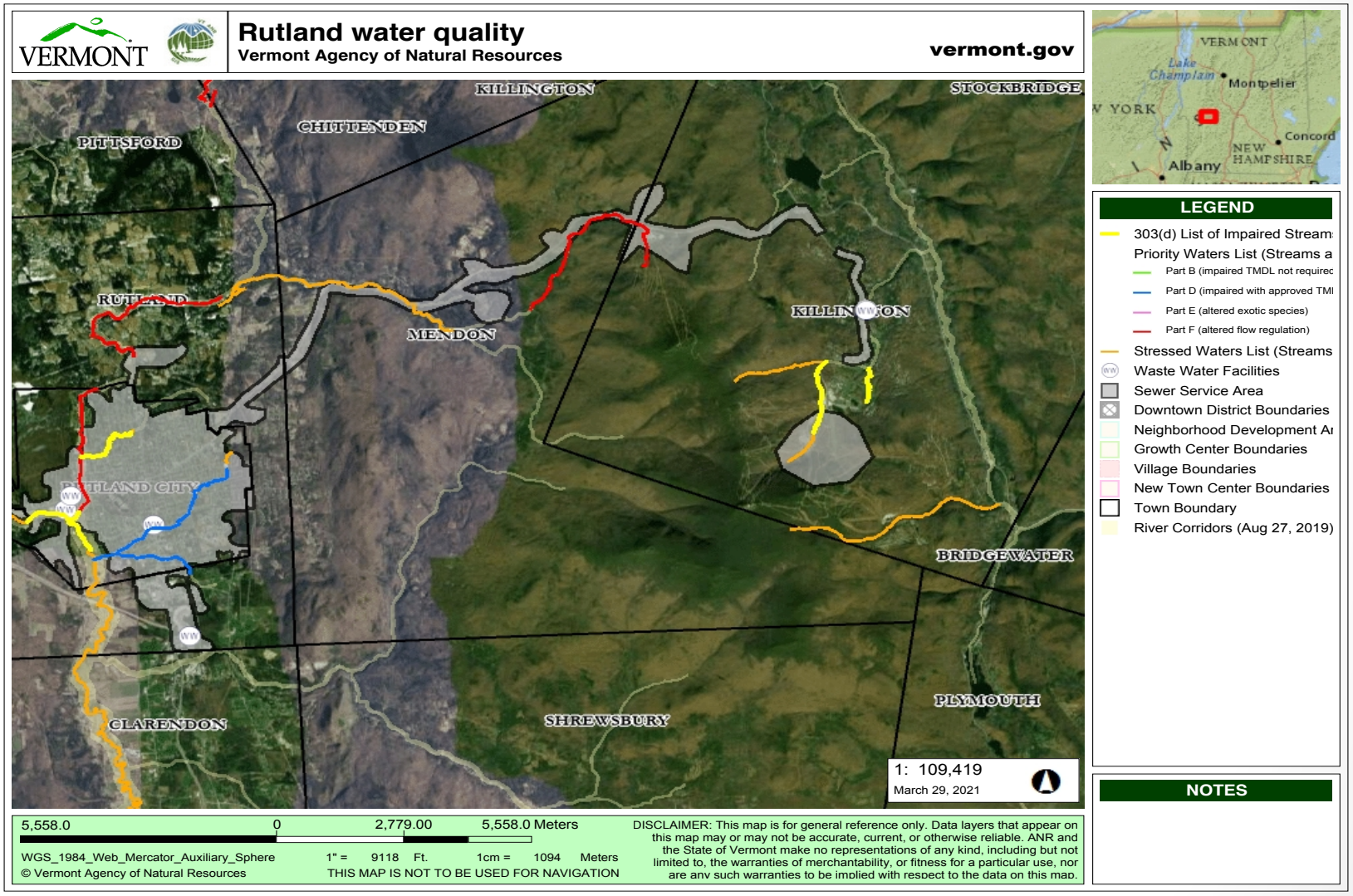
Radioactivity
Toxic effect, accumulation.

Other organic materials
Detergents, pesticides, fat, oil and grease, coloring, solvents, phenols, cyanide.
Toxic effect, aesthetic inconveniences, bio accumulation in the food chain.

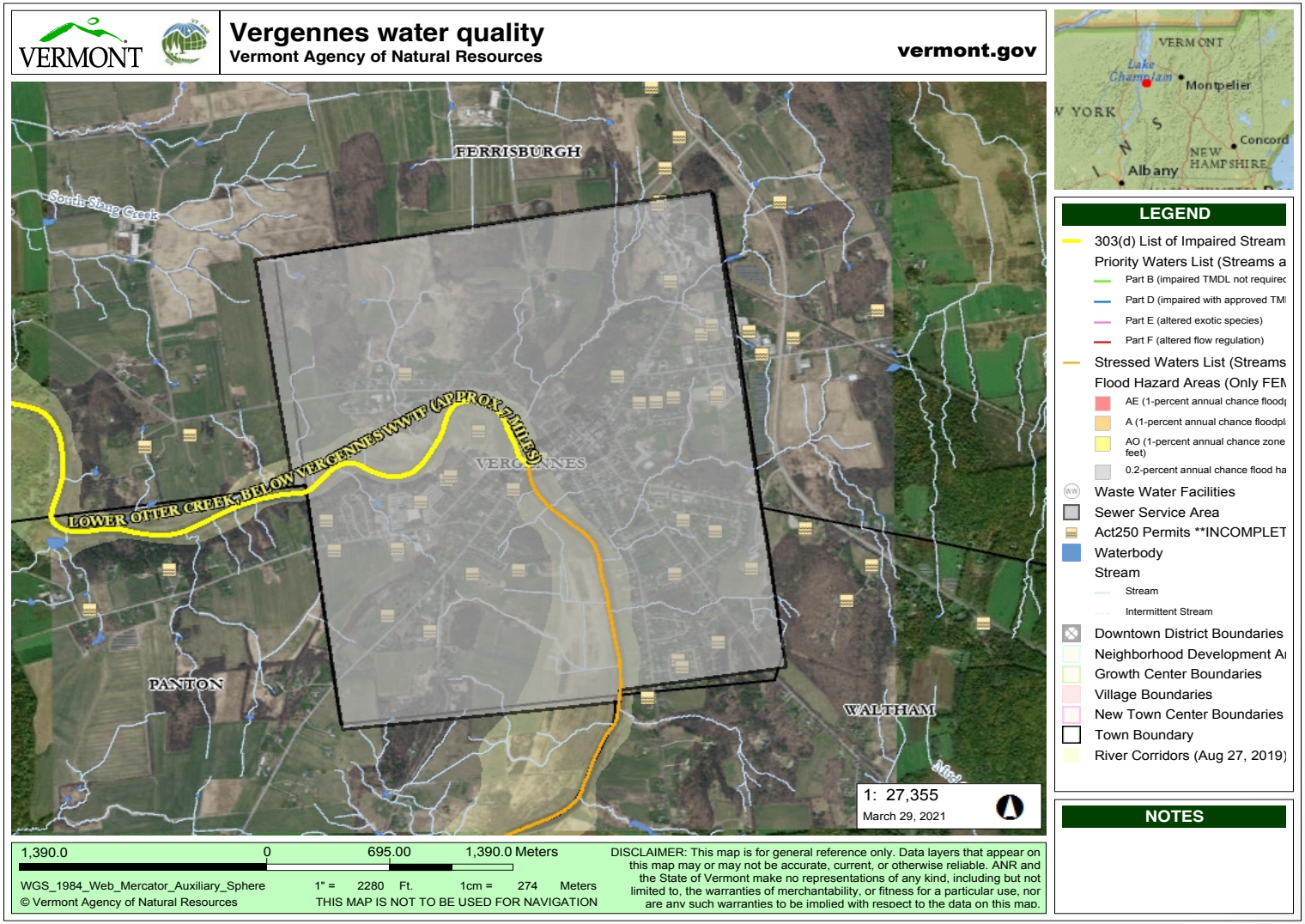
Other inorganic materials
Acids, for example hydrogen sulphide, bases, corrosion, toxic effect.

Thermal effects
Hot water.
Changing living conditions for flora and fauna.

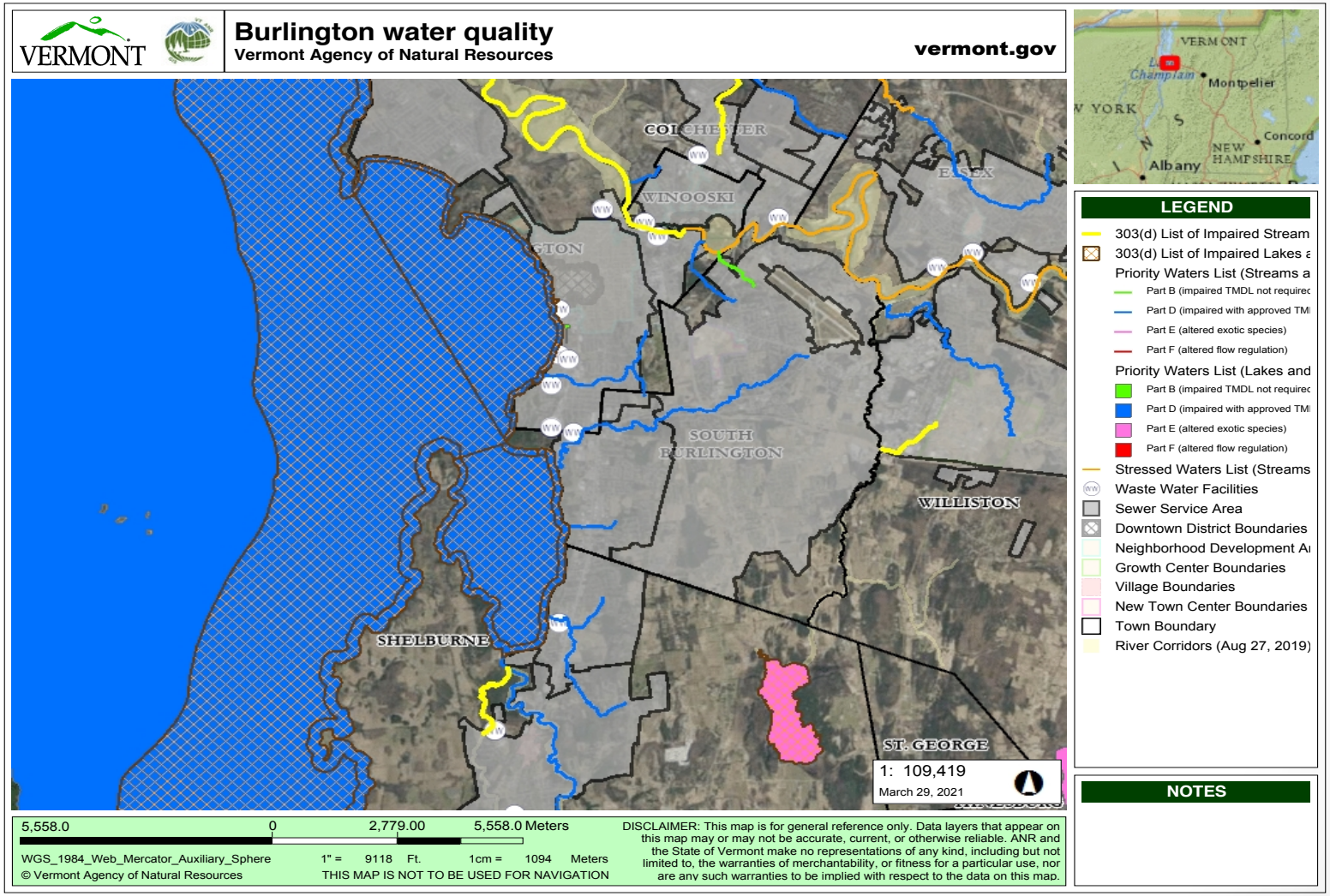
Rutland Water Quality



Vergennes Water Quality



Burlington Water Quality



CSOs & Water Quality 2011

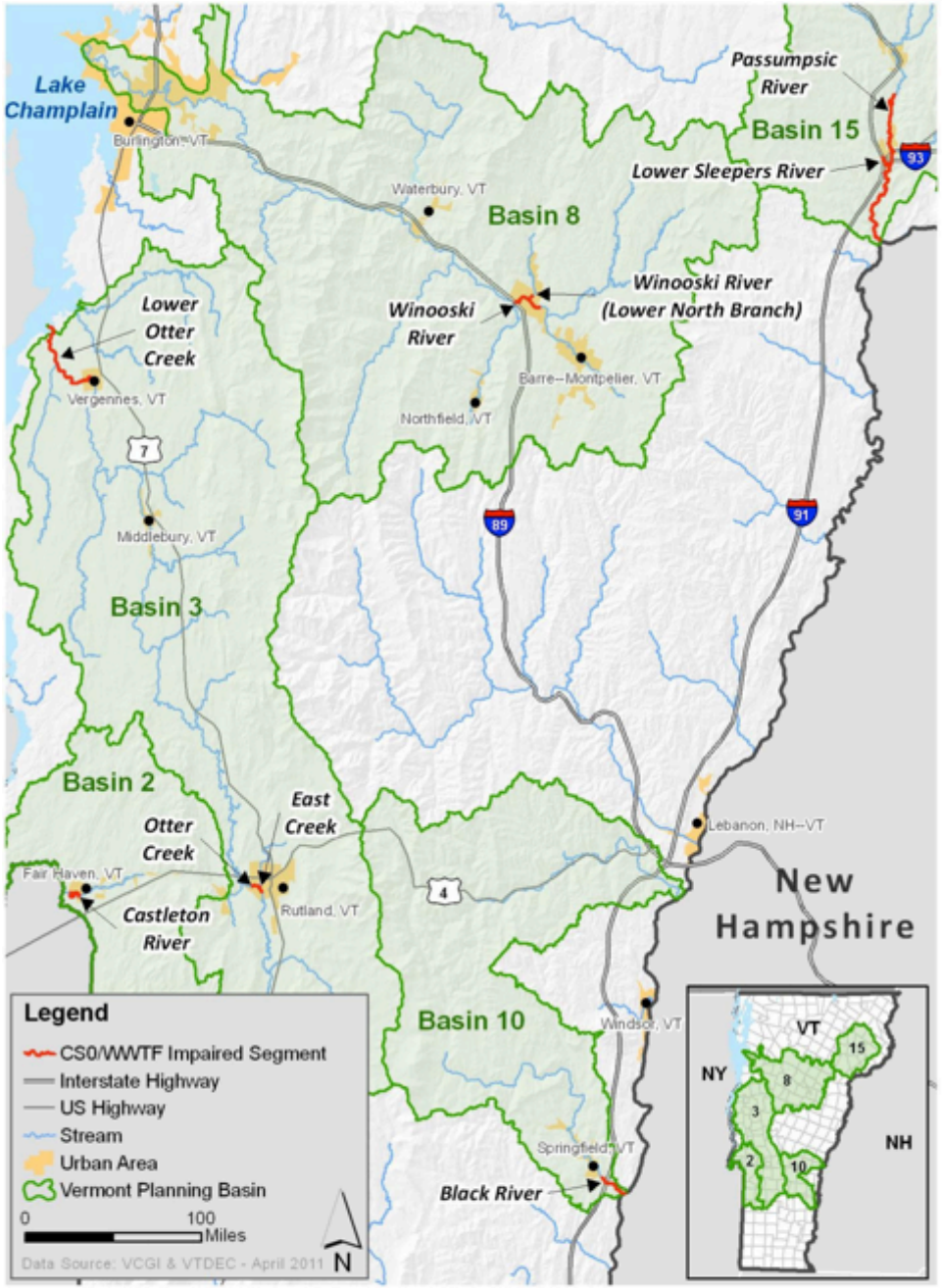


Figure 1: ***Locations of CSO/WWTF-related bacteria-impaired waterbodies, with planning basins indicated.***

Bacteria-Impaired Waters

E. coli
&
CSO/WWTF
Impaired
Waters

The two VPBs with the most impaired segments are Basin 5 - Upper Lake Champlain, LaPlatte, Malletts Bay, St. Albans Bay, Rock, Pike (5 impaired segments), and Basin 3 - Otter Creek, Little Otter Creek, Lewis Creek (6 impaired segments).

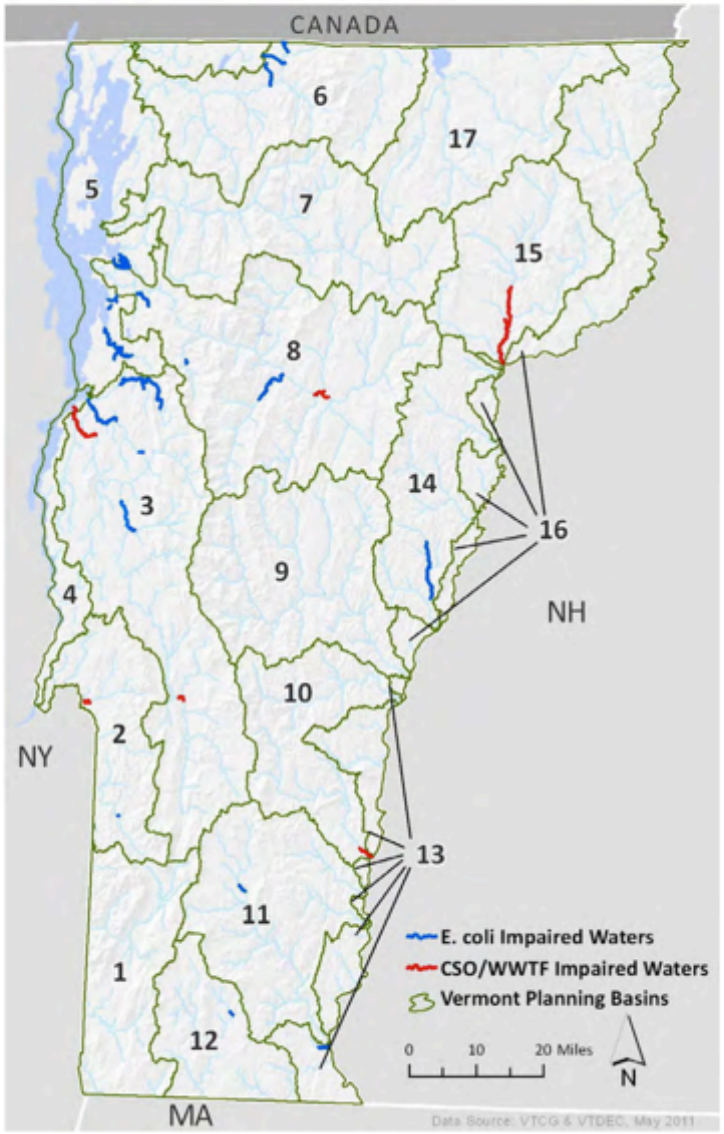
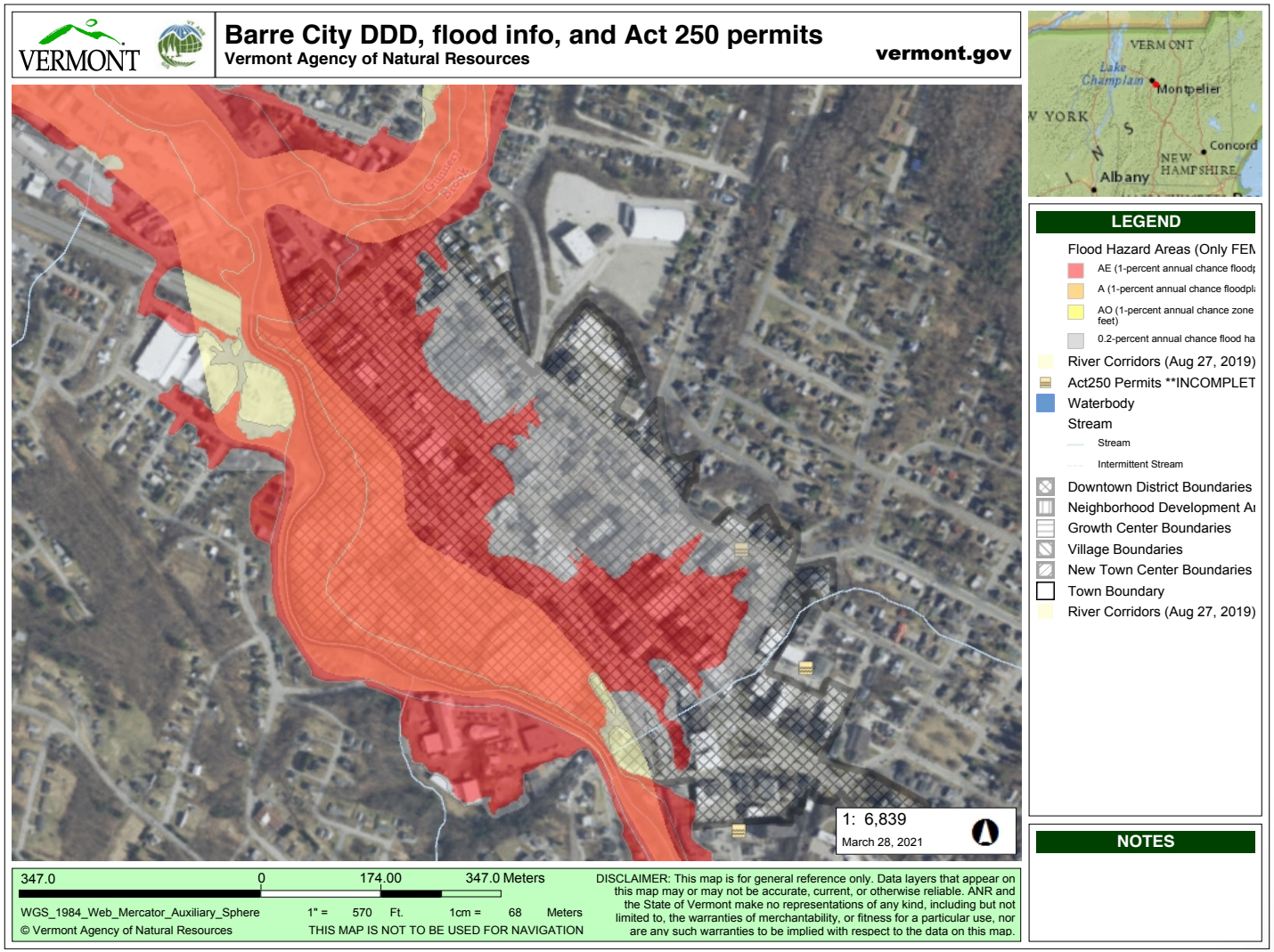


Figure 8-1: Bacteria-Impaired Waters in Vermont, by Vermont Planning Basins.

Downtown Development Districts without WWTF issues in Flood Zones

- Barre
- Bellows Falls
- Brattleboro
- Bristol
- Montpelier
- Poultney
- St. Albans
- Stowe
- Wilmington
- Windsor

Barre


VERMONT
Barre City DDD, flood info, and Act 250 permits
Vermont Agency of Natural Resources
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March 28, 2021
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1" = 570 Ft.
1cm = 68 Meters
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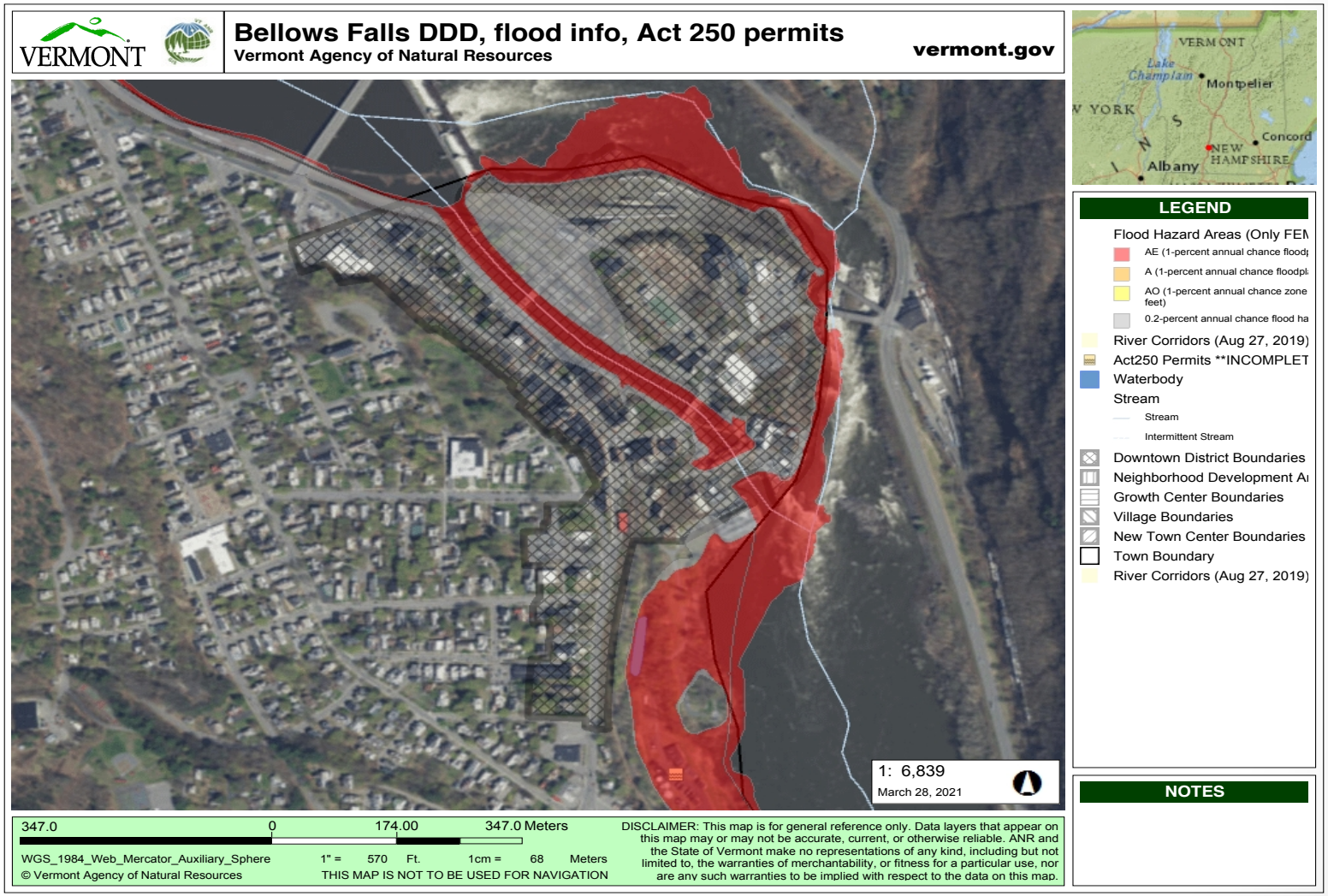
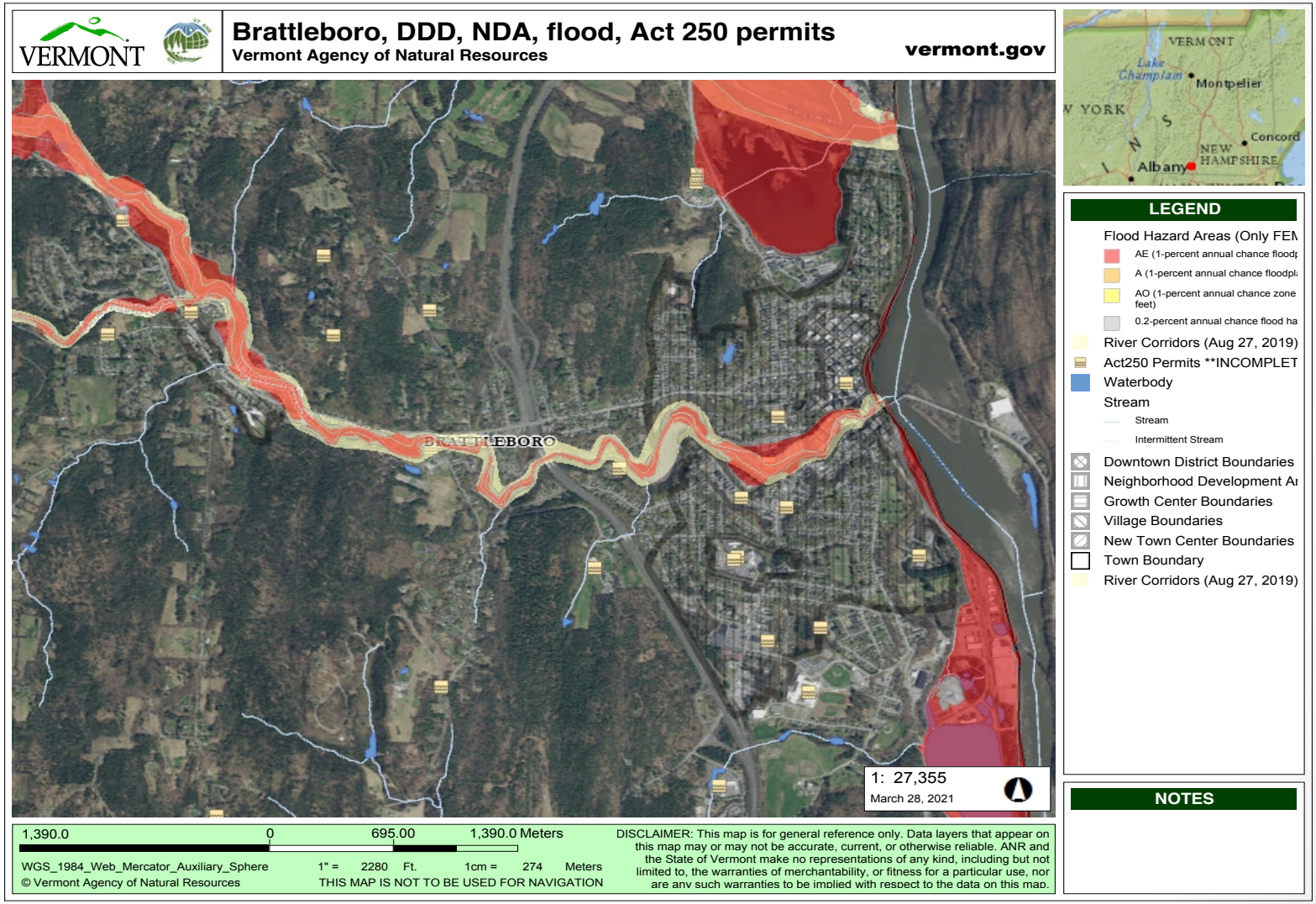
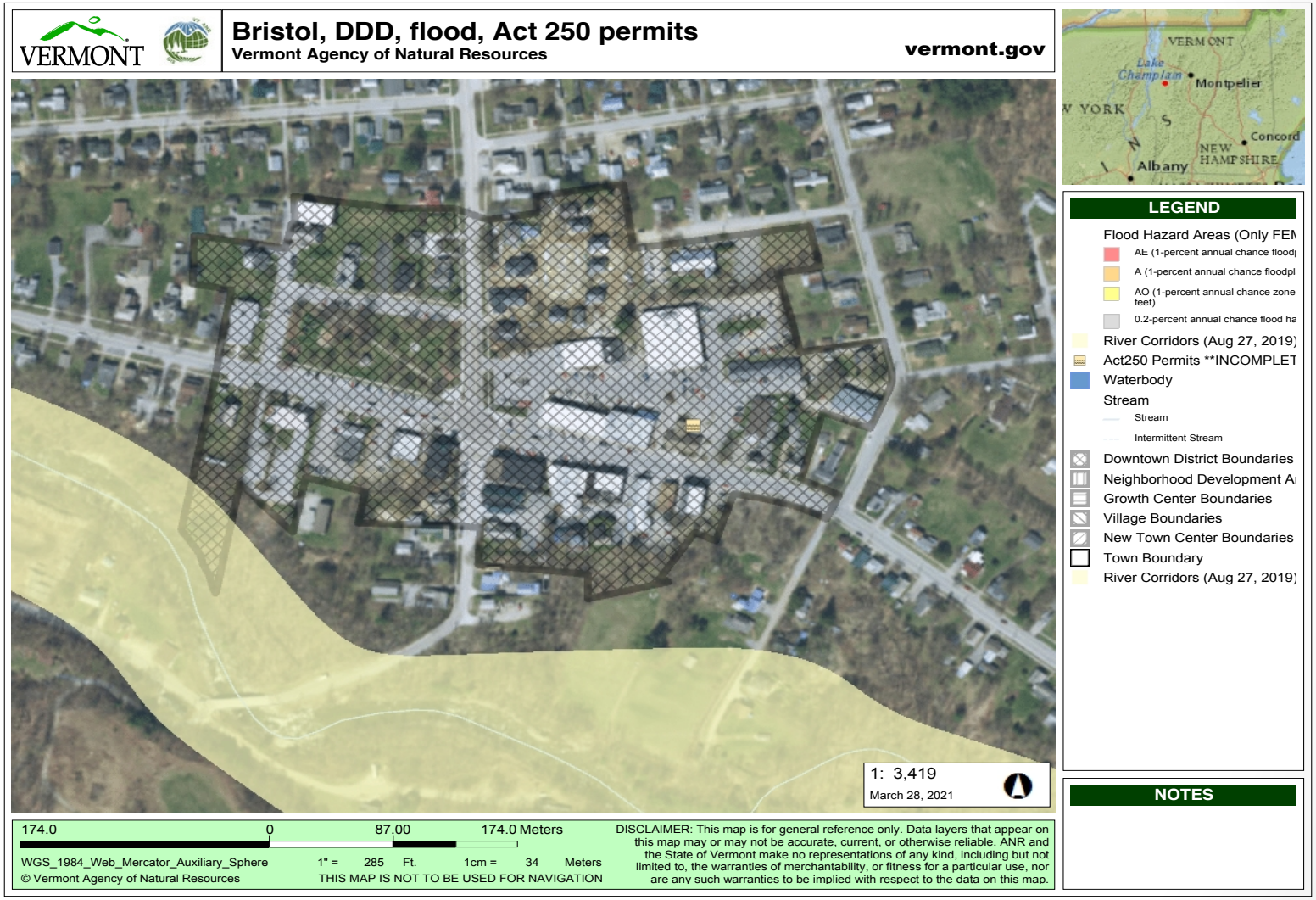
Bellows Falls



Brattleboro



Bristol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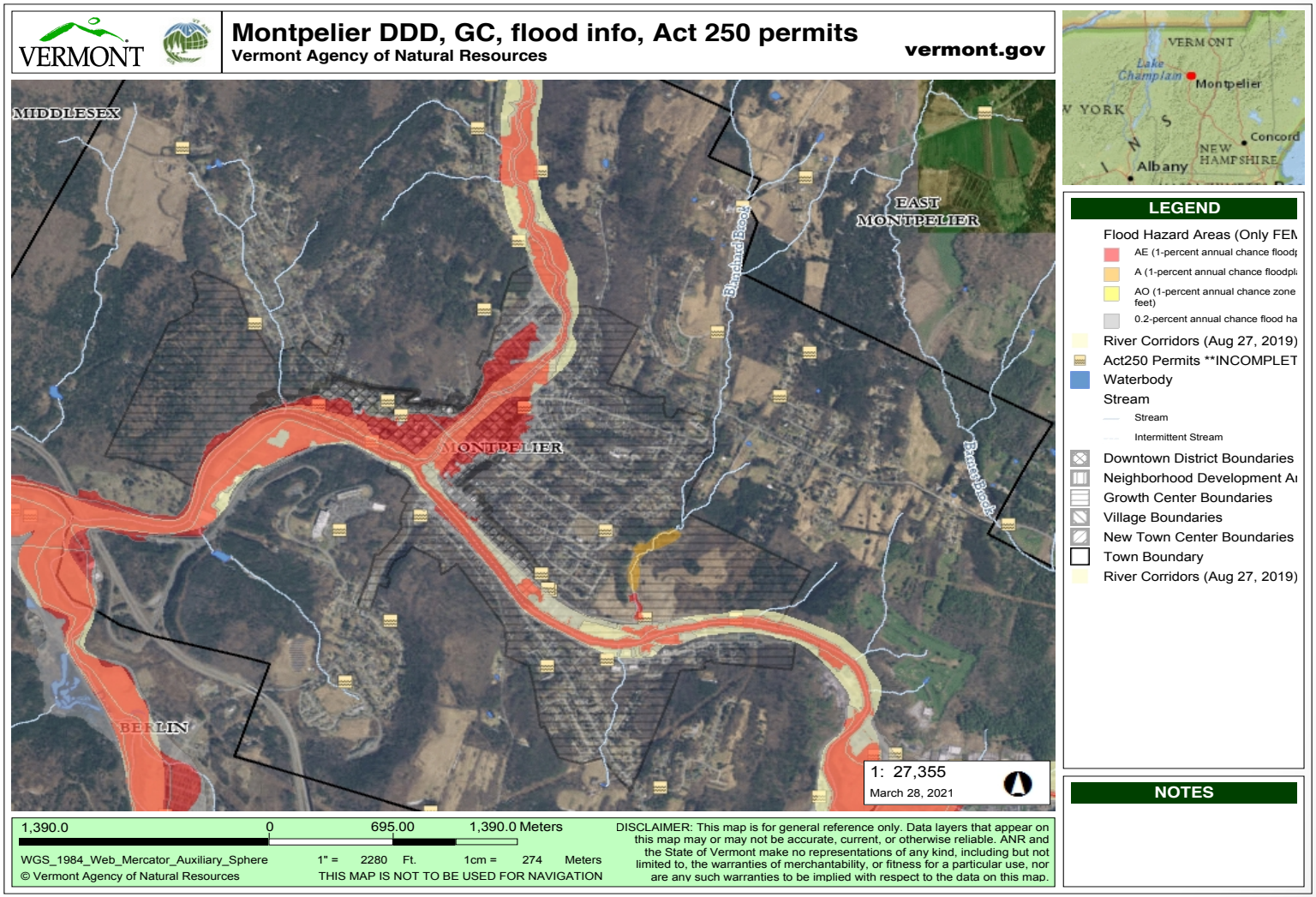
Montpelier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Vermont Agency of Natural Resources
vermont.gov
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MONTPELIER
BERLIN
Blanchard Brook
Barnet Brook
1: 27,355
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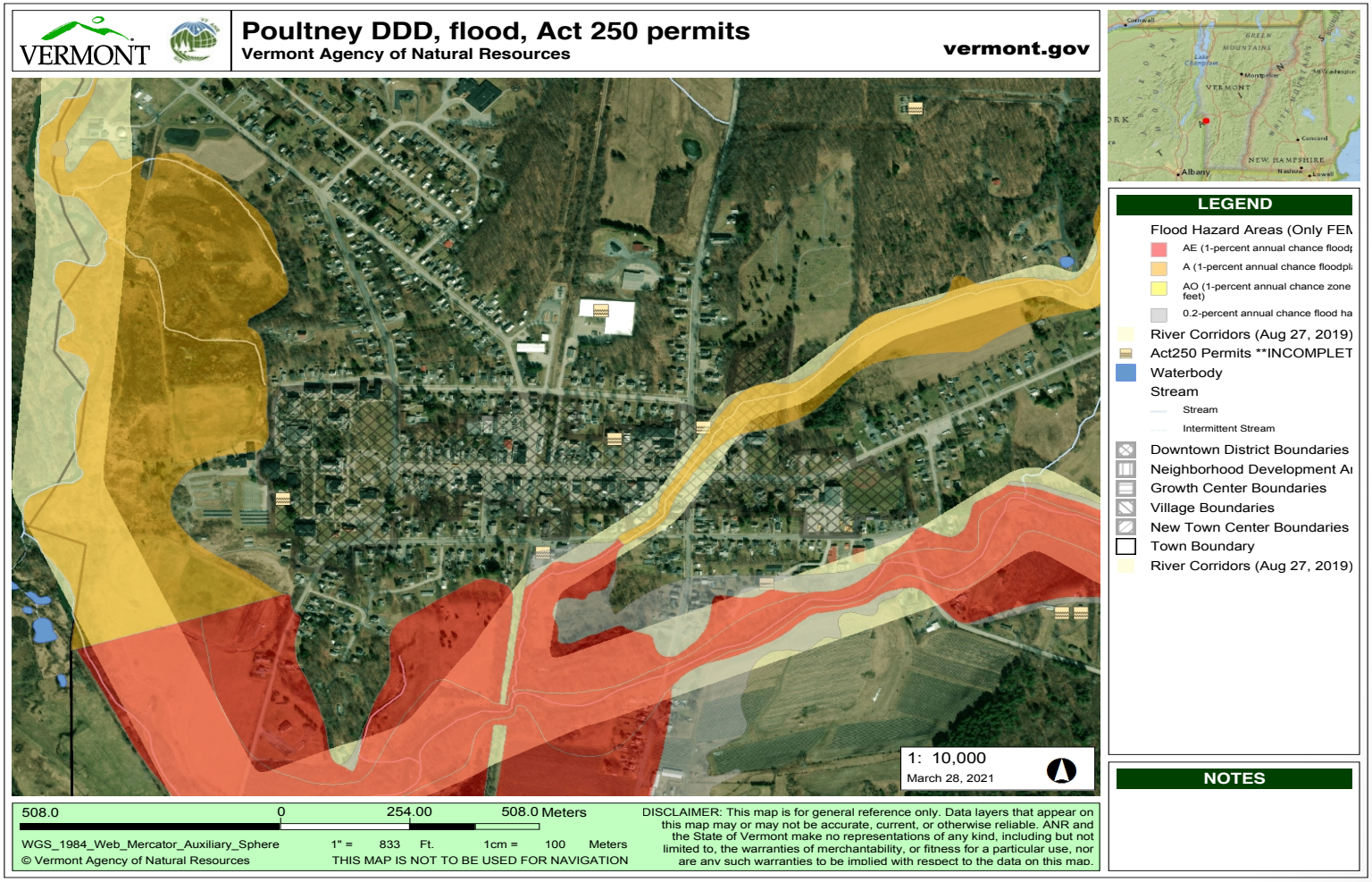
Poultney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Poultney DDD, flood, Act 250 permits
Vermont Agency of Natural Resources
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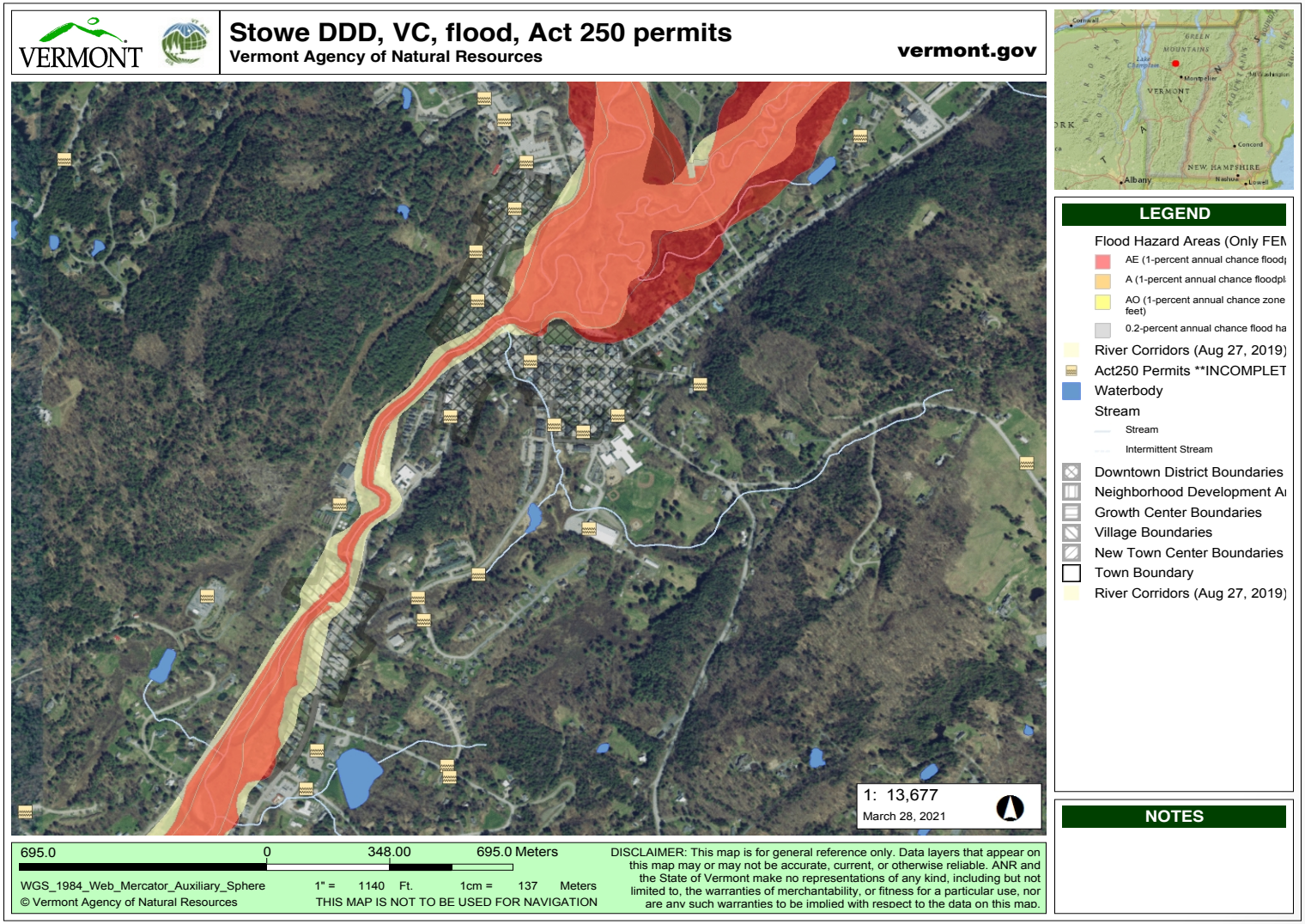
Stowe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Stowe DDD, VC, flood, Act 250 permits
Vermont Agency of Natural Resources
vermont.gov
1: 13,677
March 28, 2021
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River Corridors (Aug 27, 2019)
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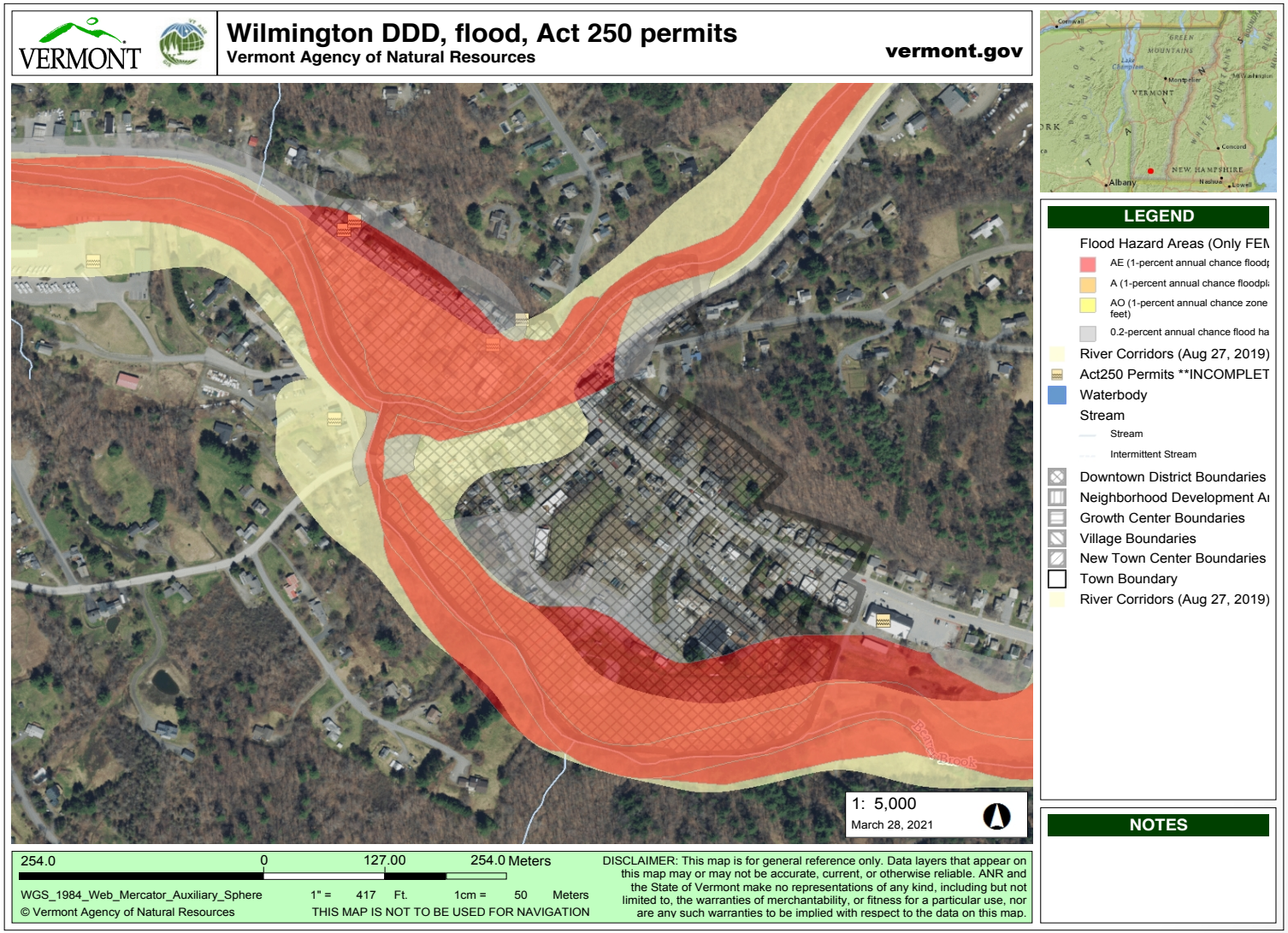
Wilmington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Wilmington DDD, flood, Act 250 permits
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vermont.gov
LEGEND
Flood Hazard Areas (Only FEM
AE (1-percent annual chance flood
A (1-percent annual chance floodpl
AO (1-percent annual chance zone feet)
0.2-percent annual chance flood ha
River Corridors (Aug 27, 2019)
Act250 Permits **INCOMPLET
Waterbody
Stream
Stream
Intermittent Stream
Downtown District Boundaries
Neighborhood Development A
Growth Center Boundaries
Village Boundaries
New Town Center Boundaries
Town Boundary
River Corridors (Aug 27, 2019)
NOTES
1: 5,000
March 28, 2021
254.0 0 127.00 254.0 Meters
WGS_1984_Web_Mercator_Auxiliary_Sphere
1" = 417 Ft. 1cm = 50 Meters
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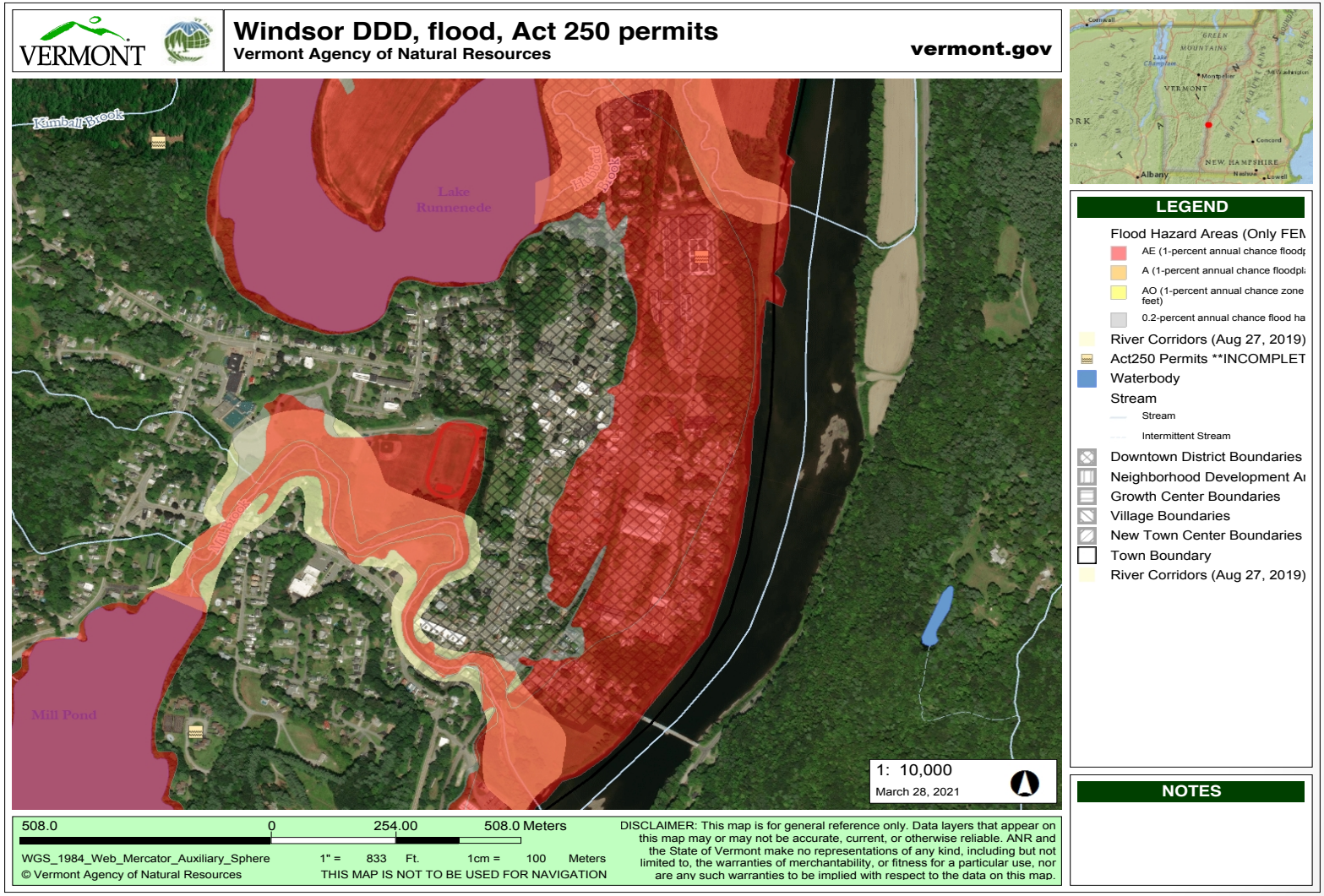
Windsor


VERMONT
Windsor DDD, flood, Act 250 permits
Vermont Agency of Natural Resources
vermont.gov
Kimball Brook
Lake Runnenede
Mill Pond
1: 10,000
March 28, 2021
508.0 0 254.00 508.0 Meters
WGS_1984_Web_Mercator_Auxiliary_Sphere
1" = 833 Ft. 1cm = 100 Meters
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Fix the Infrastructure Before Enabling More Sewage to Flow into Vermont's Waters

Municipalities will always say yes to new hook-ups. As more sewage gets added to WWTF capacity, when Combined Sewer Overflows, diversions or flooding occurs, more sewage will flow out into the water as part of the overflow. Why would any new hook-ups, regardless of who issues the permit, be allowed to connect to WWTFs that are operating under expired (AE) permits and/or have a record of CSOs?

Fix it First – Everything is Connected

Connections + Discharges + Overflows + Diversions + Flood Zones

Use ARPA and Infrastructure Money for Clean Water First, and for Development Second. Please delete § 7 and § 8 from S.101.

Thank you for listening.

Annette Smith, Executive Director

Vermonters for a Clean Environment vce@vce.org (802) 446-2094