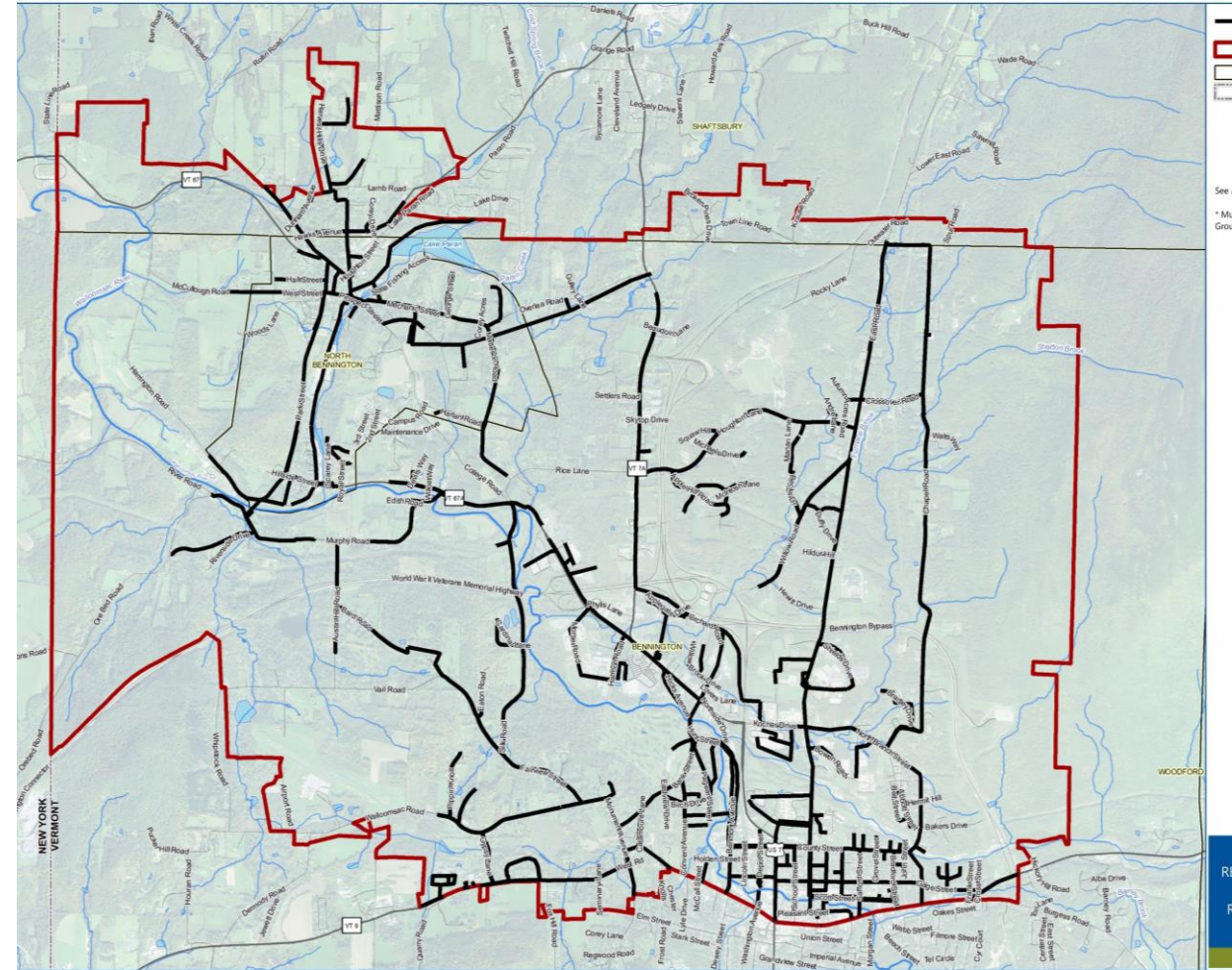


# Proposed Groundwater Reclassification Bennington and Shaftsbury VT

Public Meeting

March 4, 2021

VT Department of  
Environmental Conservation



# Agenda

- Opening remarks- (Chuck Schwer-Director) 5 min
- How did we get here? (Richard Spiese) 5 to 10 min
  - Summary and update of PFAS response over the last five years
- Groundwater Reclassification (John Schmeltzer) 15 min
- Questions
- Reminder of Current Deadline for Comments and how to provide them



# FINAL CORRECTIVE ACTION AND OPERABLE UNIT AREAS



## LEGEND

### Sampling Locations

Sample Results (ODL - 04/11/2019)

Highest Concentration

- <6.7 ppt (Original Detection Limit)
- 6.7 - 20 ppt (VDH Advisory)
- 20 - 100 ppt
- 100 - 1000 ppt
- >1000 ppt
- Building Footprints

### Waterlines

Municipal Waterlines

- Existing
- Installed 2017-2018
- Proposed Waterlines

### Parcels

Parcel Boundary

OU Boundary (March 28, 2019)

- CAAL OUA - Waterlines Connected Per Corrective Action
- CAAL OUB - Includes Existing Connections AND Parcels Without Connections
- CAAL OUA - Proposed Waterline Connections
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- CAAL OUC - Proposed Waterline Connections
- Outside CAA Boundary

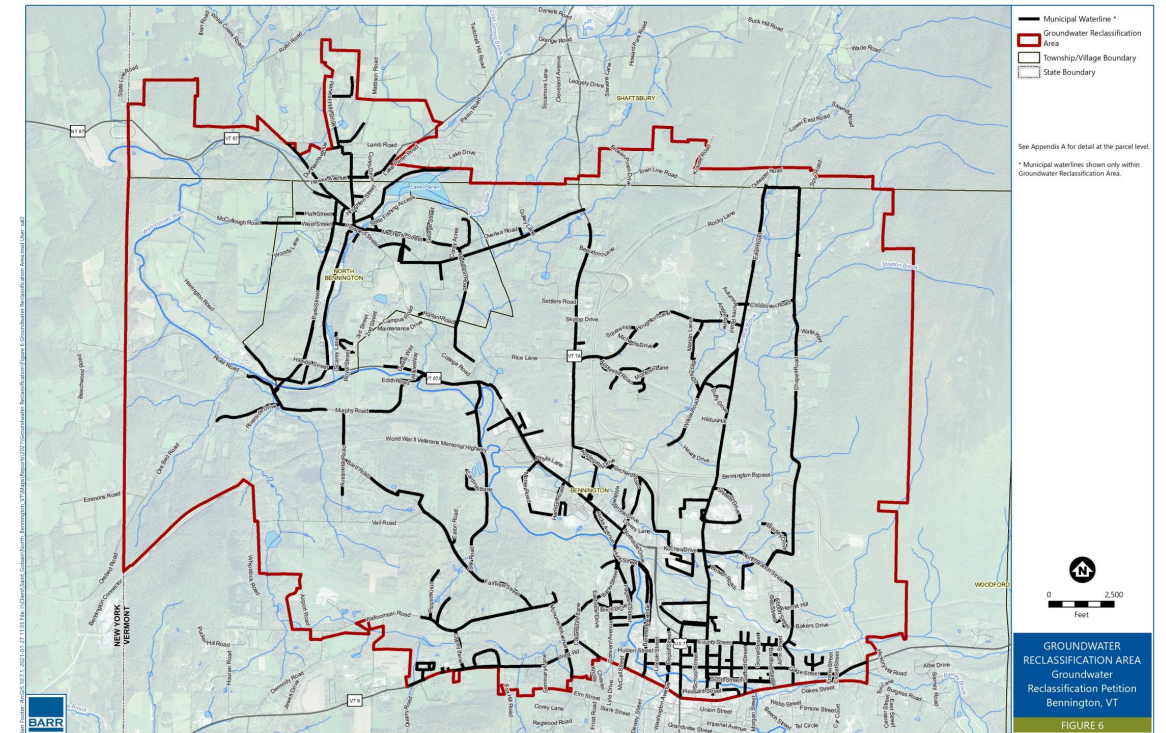


Map Author: Erik Engstrom (VTANRGIS)  
Map Date: 4/12/2019



# Groundwater Reclassification Presentation Outline

- Why is the Groundwater Being Reclassified to a Class IV (non-potable) and how were the Boundaries Determined
- Summary of Draft Finding of Fact and Reclassification Order (What does reclassification mean and how does it affect new wells?)
- What Does not Change with Reclassification?
- Saint-Gobain's Obligations
- Summary
- Next Step in Reclassification process



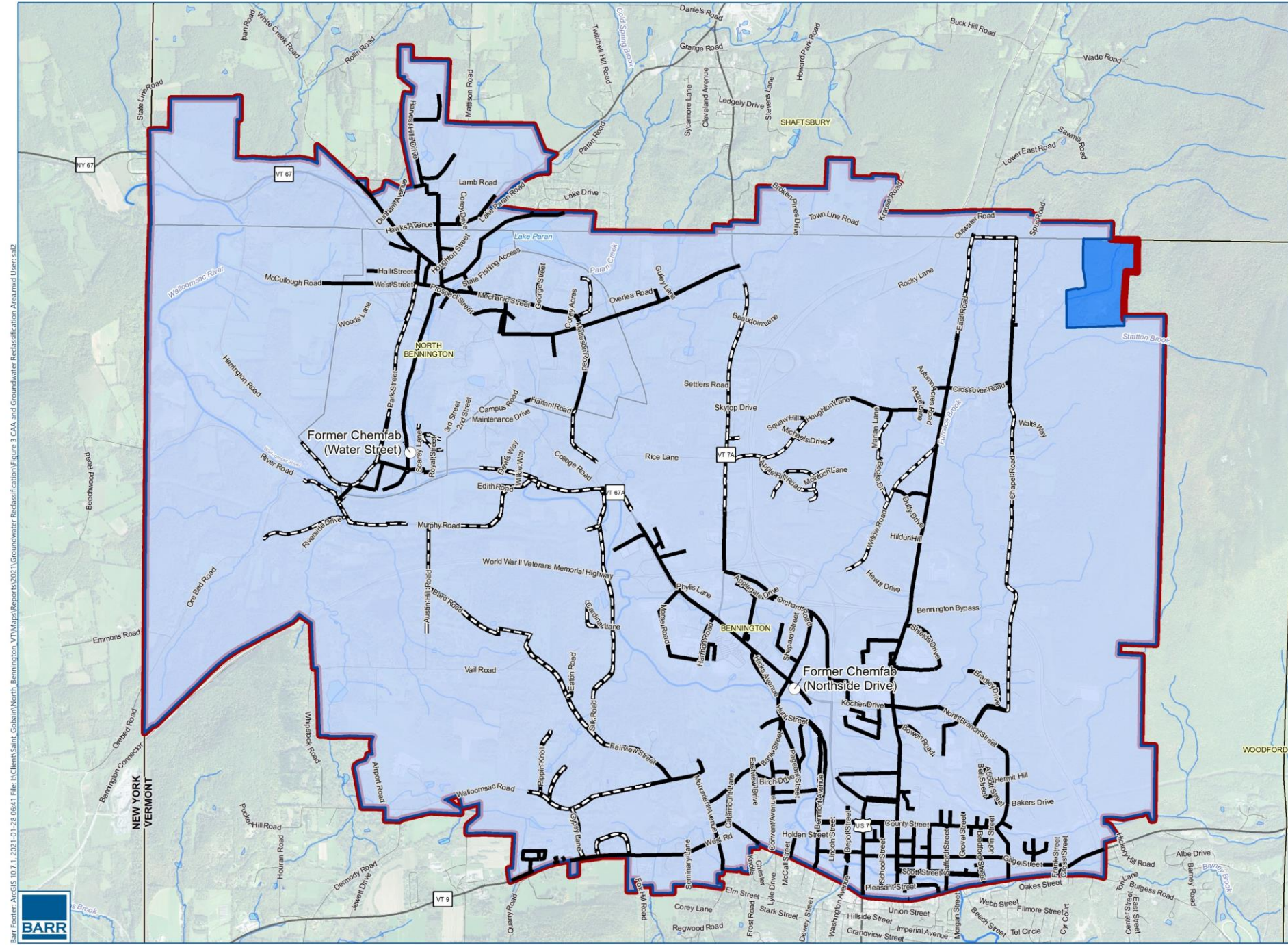
# Why is the Groundwater Being Reclassified to a Class IV?

- Public notification of the Presence and Expected Persistence (over 5 years) of Per-Polyfluoroalkyl Substances (PFAS) above Groundwater and Drinking Water Standards (as required by Vermont Groundwater Protection Rule and Strategy)
- Protects human health and safety by providing a formal notification to landowners, well drillers, and permitting agencies that groundwater is or may be contaminated by PFAS
- Determined Not Feasible to Remediate Area-Wide Contamination: Corrective Action Focused Drinking Water Remedies, Natural Attenuation, and Institutional Controls (Groundwater Reclassification)
- Barr Engineering, on behalf of Saint-Gobain, submitted a reclassification petition per the Settlement Agreement and applicable Corrective Action Plans

# How were the Proposed Reclassification Boundaries Determined?

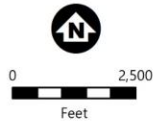
- Consistent with Corrective Action Boundaries, with one addition
- Collection and Analysis of data and Information summarized in 2018 Barr report, entitled, Conceptual Site Model Site Investigation Report: Bennington, Vermont
- Independent Analysis by Agency and their experts
- PFAS results of over 650 water supply wells





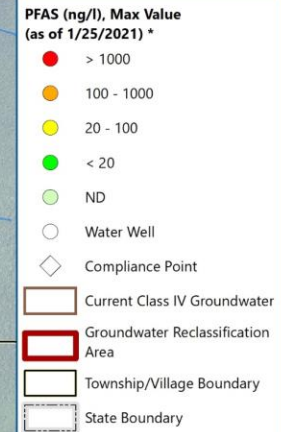
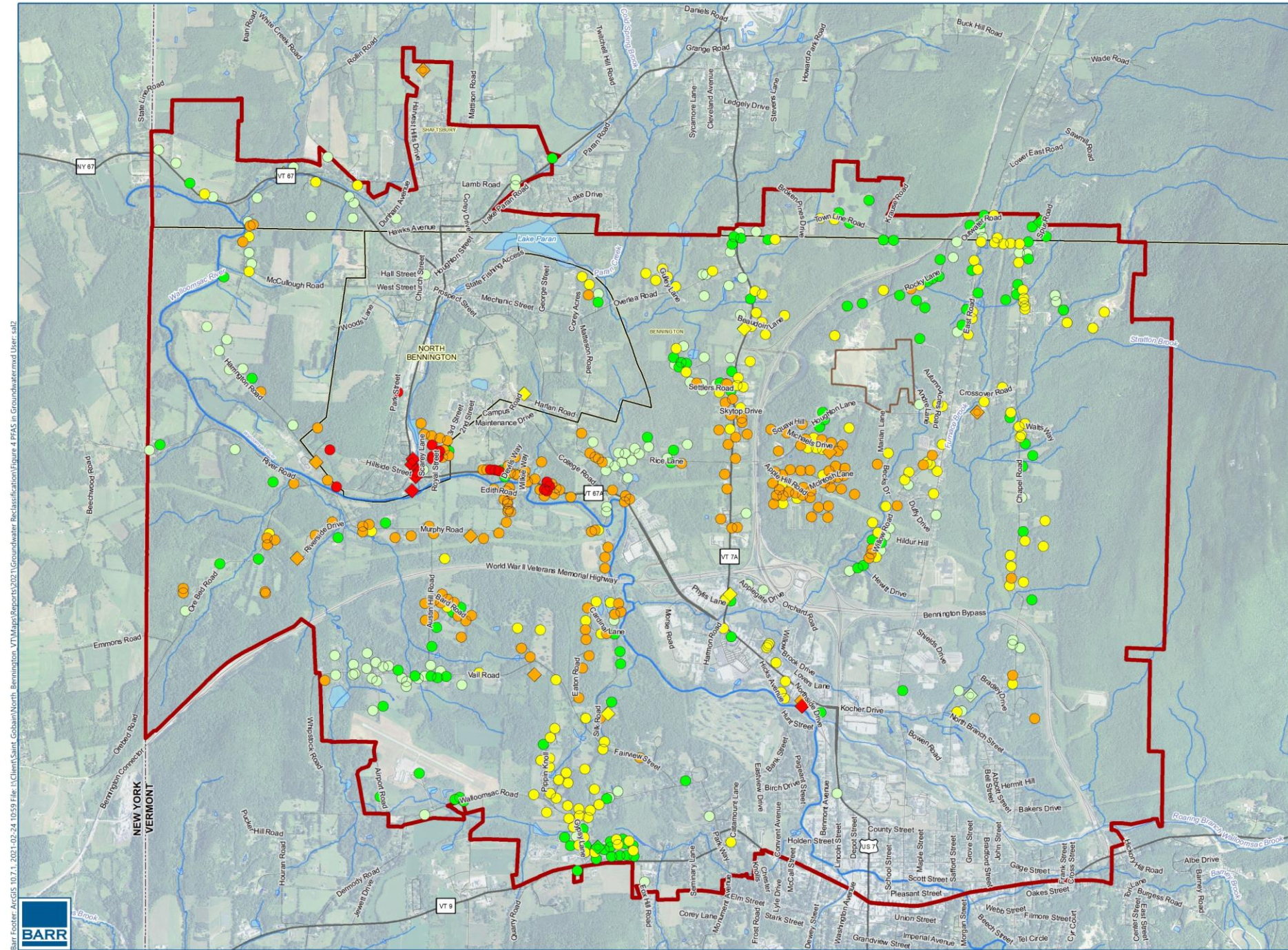
- Former Chemfab Facility
- Existing Waterline \*
- - - Waterline Installed as Part of Corrective Actions
- Groundwater Reclassification Area
- Corrective Action Area
- Outside Corrective Action Areas
- Township/Village Boundary
- State Boundary

\* Municipal waterlines shown only within Groundwater Reclassification Area.



CAA AND GROUNDWATER RECLASSIFICATION AREA  
Groundwater Reclassification Petition  
Bennington, VT  
FIGURE 3

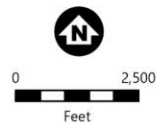




Notes:  
PFAS: per- and poly-fluoroalkyl substances

\* Includes the combined levels of  
perfluorooctanoic acid (PFOA),  
perfluorooctane sulfonic acid (PFOS),  
perfluorohexane sulfonic acid (PFHxS),  
perfluoroheptanoic acid (PFHpA), and  
perfluorononanoic acid (PFNA).

ng/l = parts per trillion (ppt)



**PFAS CONCENTRATIONS  
IN GROUNDWATER  
Groundwater  
Reclassification Petition  
Bennington, VT**

**FIGURE 4**



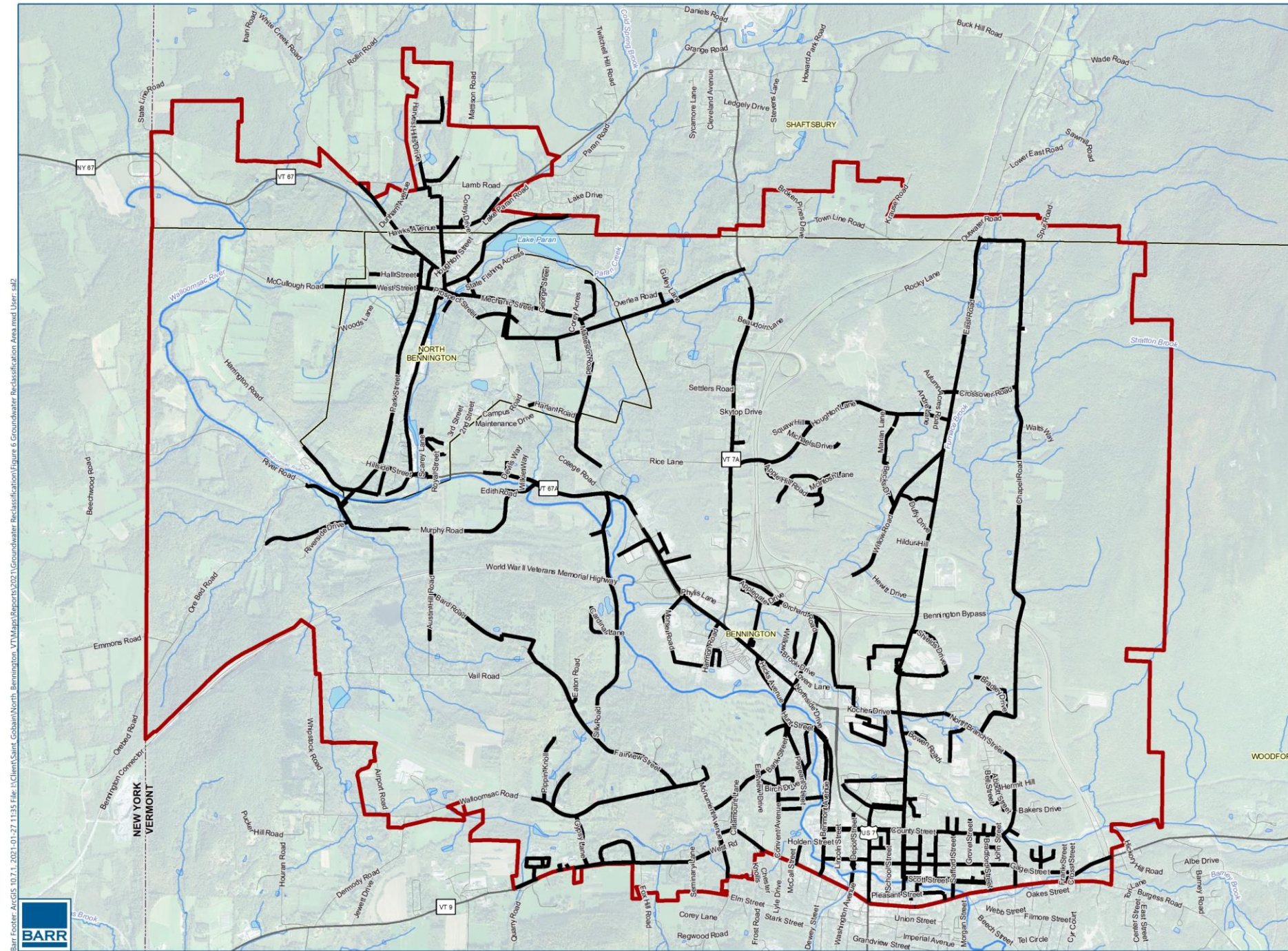
# Draft Finding of facts

- Petition administratively and technically complete
- Petition and other referenced documents support the proposed reclassification
- Based on environmental investigations, summarized in Petition, the zone of PFAS contamination is defined and major source of PFAS appears to be the leaching of PFAS through the soils into groundwater from past air emissions from two former Teflon facilities
- PFAS in groundwater above the applicable groundwater standards are predicted to persist for more than five years
- The presence of PFAS in groundwater could adversely affect potable and non-potable groundwater uses
- Connection to municipal is preferred long-term remedy, but recognized that connection to waterline not feasible for all parcels given scale of proposed Class IV Area

# Draft Reclassification Order

- Allowance for the Installation of new permitted drinking water wells (including Replacement Wells) outside 200-feet of an existing water line or within 200-feet, if given a variance by ANR, with conditions
  - Well Construction Requirements
  - Initial Testing requirements
  - A long-term monitoring plan
  - Treatment requirements if PFAS levels above the applicable
- Prohibit the use of overburden wells, springs, or shallow wells as a new potable or public water source (*Does not affect existing water sources*)
- VT DEC (our Division) must be notified before any new well installed for industrial, commercial, or geothermal to assess suitability given Class IV
- Agency of Agriculture, Food, and Market must be Notified to assess suitability for agricultural use
- Long-term monitoring within Class IV (performed by Saint-Gobain per Settlement Agreement and approved Corrective Action Plans) to assess future adjustments to reclassification area (expansion, contraction, or reclassification back to Class III)

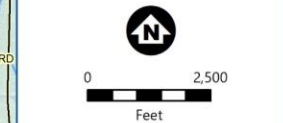




- Municipal Waterline \*
- Groundwater Reclassification Area
- Township/Village Boundary
- State Boundary

See Appendix A for detail at the parcel level.

\* Municipal waterlines shown only within Groundwater Reclassification Area.

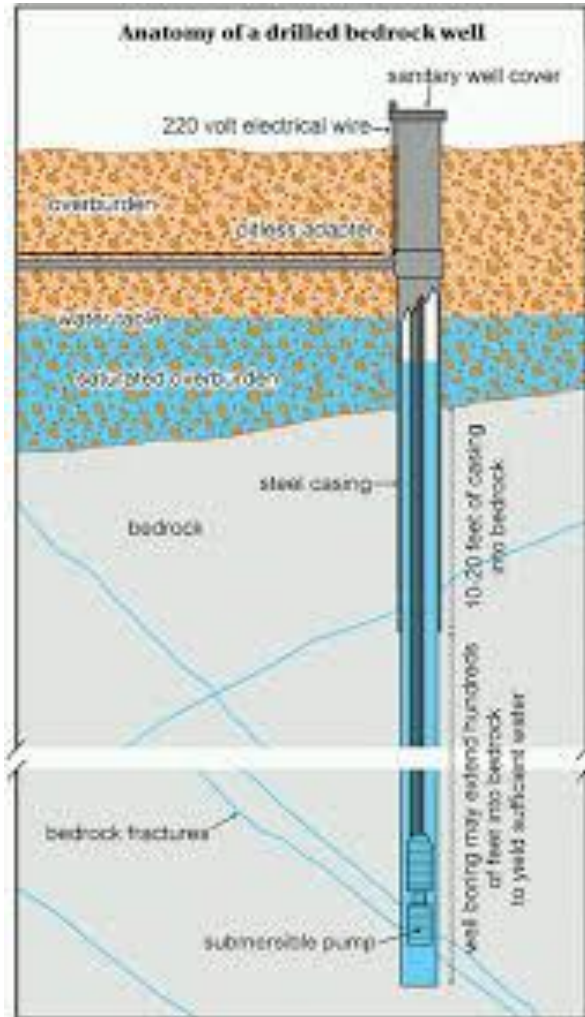


GROUNDWATER RECLASSIFICATION AREA  
Groundwater  
Reclassification Petition  
Bennington, VT

FIGURE 6



# Well Construction Requirements



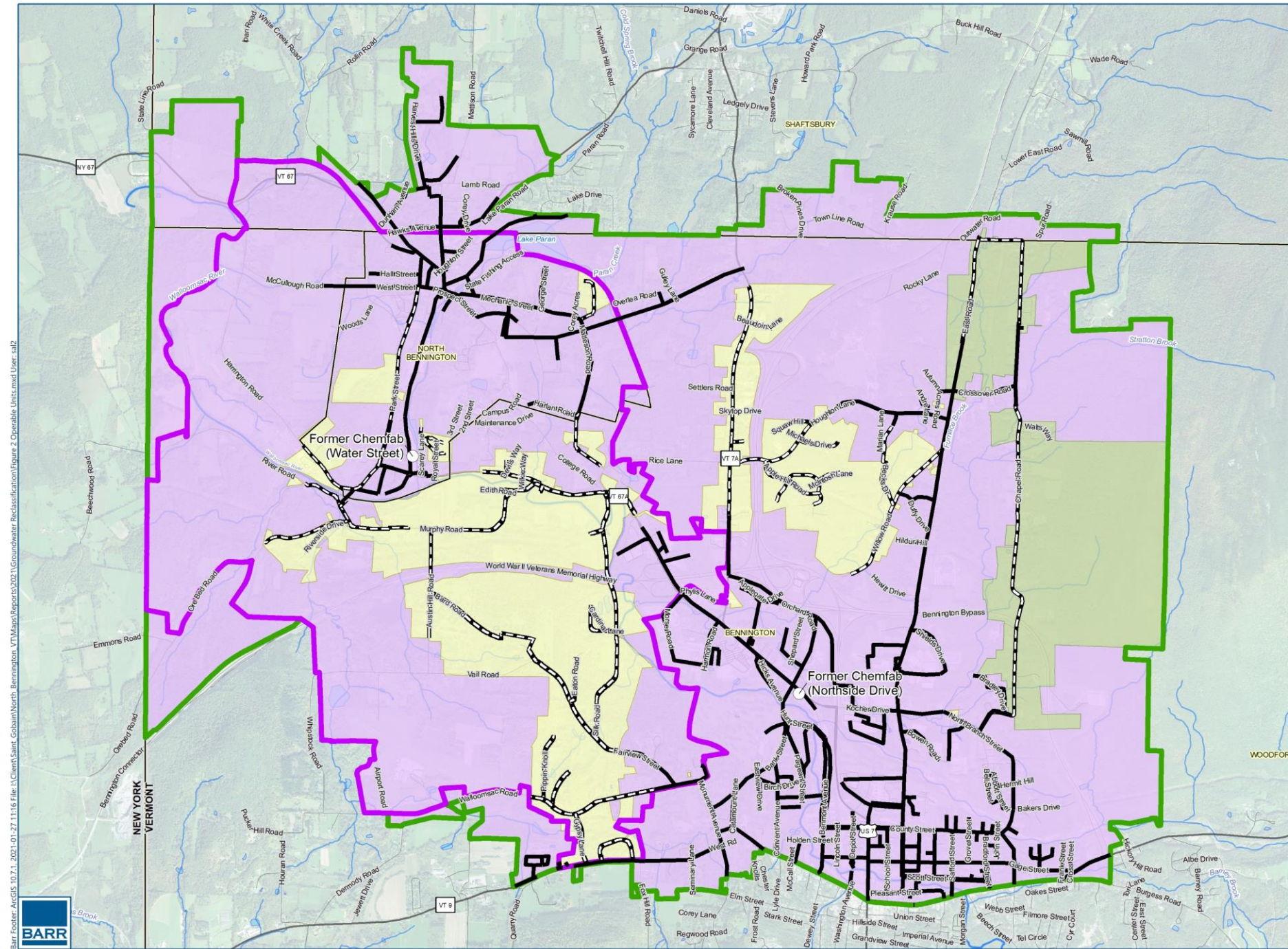
- Casing Depth at least 50 feet below competent bedrock
- For properties with existing wells completed in bedrock, recommend replacement well casing be installed 30 feet below casing.
- Borehole diameter be such that it is 4 inches greater in diameter than the casing, e.g., 10-inch diameter borehole for a six-inch casing
- Grout casing
- Variance  
It is known" that in some areas in Bennington installing casing into competent bedrock as described above is not possible. There is flexibility in the order to take in account extenuating circumstances.

Image-state of Maine



# What Does NOT Change

- Does NOT affect the use of existing wells
- Does NOT affect the ability for a new property owner to use an existing well
- Does NOT affect Saint-Gobain's obligation under the Settlement Agreements for Operational Unit B



○ Former Chemfab Facility

— Existing Waterline \*

— Waterline Installed as Part of Corrective Actions

■ Corrective Action Area I

■ Corrective Action Area II

Operable Units

■ OUA

■ OUB

■ OUC

— Township/Village Boundary

— State Boundary

\* Municipal waterlines shown only within Groundwater Reclassification Area.

0 2,500 Feet

OPERABLE UNITS  
Groundwater  
Reclassification Petition  
Bennington, VT

FIGURE 2



# FINAL CORRECTIVE ACTION AND OPERABLE UNIT AREAS



## LEGEND

### Sampling Locations

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Map Author: Erik Engstrom (VTANRGIS)  
Map Date: 4/12/2019

# Saint-Gobain's Obligations

## **OPERABLE UNIT B**

- Long-term PFAS monitoring or existing and new wells
- Provide short-term (bottled water) and long-term (treatment system if PFAS Levels exceed standard
- Assess and implement an alternative long-term drinking water remedy, i.e., replacement wells
- Provide Annual Report on monitoring results and response activities

## **OPERABLE UNITS A AND C (Waterlines)**

- No obligations for sampling or treatment for existing wells after waterline connections are completed (2021)
- If permittee chooses to drill a new drinking water within areas where waterlines available (OU A and OU C), then permittee responsible to meet the testing and treatment requirements as outlined in the Reclassification Order



# Summary

## (based on Proposed Reclassification Order)

- Prohibits new drilling drinking water supply wells within 200 feet of an existing water line, with allowances for extenuating circumstances
- Specify conditions in which new “bedrock” water wells can be installed within Reclassification Area-Well Construction Requirements, testing, and PFAS treatment if levels above applicable standards
- Replacement Wells will require a new permit
- Prohibits permitting the use of overburden well or spring as a new drinking water source
- Requires notification of the Vermont Department of Environmental Conservation Waste Management and Prevention Division before installing well for non-drinking water use
- Requires Notification of the Agency of Agriculture, Food, and Markets before installing a new water source for agricultural use
- Well Drillers notified about Reclassification and Reclassification place on ANR Atlas

# Next Steps

- ANR will Review Comments and questions on the proposed reclassification and Draft Decision
- ANR (Secretary) will issue a final decision to reclassify groundwater and response to public comments through the Environmental Notice Bulletin. Final decision will also be place on website
- The final decision shall include a final reclassification order, if applicable
- Notify all Vermont licensed well driller if final decision reclassifies Groundwater and place reclassification area on VT ANR Atlas



# More Information

- For more information about the proposed reclassification go to our website <https://dec.vermont.gov/bennington-groundwater-reclassification>
  - The Petition and other supporting documentation
  - The Draft Decision, including a proposed reclassification order
  - Links to Environmental Notice Board
  - Fact Sheets/FAQs
- Copies of reclassification documents at the Bennington Town Offices at 205 South Street. Please contact Town to arrange an appointment at 802 442-1037 to set up an appointment

Formal Comments on Reclassification can be made through the Environmental Notice Board or can be sent via e-mail to:

John Schmeltzer 802 249-5620 [john.Schmeltzer@vermont.gov](mailto:john.Schmeltzer@vermont.gov)

Richard Spiese 802 249-5083 [richard.spiese@vermont.gov](mailto:richard.spiese@vermont.gov)