

Winooski River Basin Water Quality Council Meeting

December 15, 2022

Agenda

1:00 Call to order & Roll call

1:05 Updates to agenda

1:10 Public Comment

1:15 Review & approve minutes from November 17, 2022 meeting (action item)

1:25 CWSP Updates (information)

1:40 Winooski Tactical Basin Plan Updates – Karen Bates (DEC) & Keith Fritschie (DEC) (information & discussion)

2:10 Developing a co-benefit scoring matrix & methodology (information & discussion)

2:55 Agenda items for next meeting (January 19. 2023)

3:00 Adjourn

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CWSP Updates: Policy Development

- ◆ Bylaws & Public Engagement are complete
- ◆ Procurement Policy (in process)
 - ◆ Procurement of goods, Debarment, Conflict of Interest: complete
 - ◆ Pre-qualification & Subgrant / Subcontract guidance: in development
 - ◆ RFQ for Project Managers / Implementors (municipalities & organizations)
 - ◆ RFQ for Subcontractor Services
- ◆ Records Retention(in process)
 - ◆ Continue to meet with Vermont State Archives & Records to develop records retention schedules
- ◆ Personnel Policy (in process)
 - ◆ CVRPC policy has been reviewed
 - ◆ Limited updates required
- ◆ Internal Controls Policy (complete, waiting Executive Committee adoption)

CWSP Updates: Timeline

- ◆ Policies will be presented to the CVRPC Board at their January meeting
- ◆ RFQs
 - ◆ issued in late December with a late-January submission date
 - ◆ complete submission reviews by early February
- ◆ BWQC
 - ◆ Goal: monthly meetings through January 2023 with less frequent (quarterly?) meetings after that
 - ◆ Objectives: finalize co-benefits scoring, discuss RFQ results, hear from Project Implementors
 - ◆ Project Solicitation: issued in January 2023 (following BWQC meeting)

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Co-Benefits

UVM Co-Benefits White Paper

- 1) Environmental Justice
- 2) Clean Water & Sanitation
- 3) Ecosystem Services and Climate Resiliency
- 4) Recreation & Community
- 5) Education
- 6) Economic Growth

CWSP Proposal for Basin 8

- 1) Environmental Justice
- 2) Ecological Benefits
- 3) Ecosystem Services
- 4) Community Building
- 5) Education

Environmental Justice

- ◆ An Environmental Justice Co-Benefit is realized when a project is situated in a Census Block Group where one or more demographic conditions exist to warrant the identification of that area as an Environmental Justice Focus Population.
- ◆ S.148 (Act 154) – signed by the Governor on 31 May 2022
- ◆ § 6002. DEFINITIONS
 - ◆ (3) “Environmental justice” means all individuals are afforded equitable access to and distribution of environmental benefits; equitable distribution of environmental burdens; and fair and equitable treatment and meaningful participation in decision-making processes, including the development, implementation, and enforcement of environmental laws, regulations, and policies. Environmental justice recognizes the particular needs of individuals of every race, color, income, class, ability status, gender identity, sexual orientation, national origin, ethnicity or ancestry, religious belief, or English language proficiency level. Environmental justice redresses structural and institutional racism, colonialism, and other systems of oppression that result in the marginalization, degradation, disinvestment, and neglect of Black, Indigenous, and Persons of Color. Environmental justice requires providing a proportional amount of resources for community revitalization, ecological restoration, resilience planning, and a just recovery to communities most affected by environmental burdens and natural disasters.

Environmental Justice

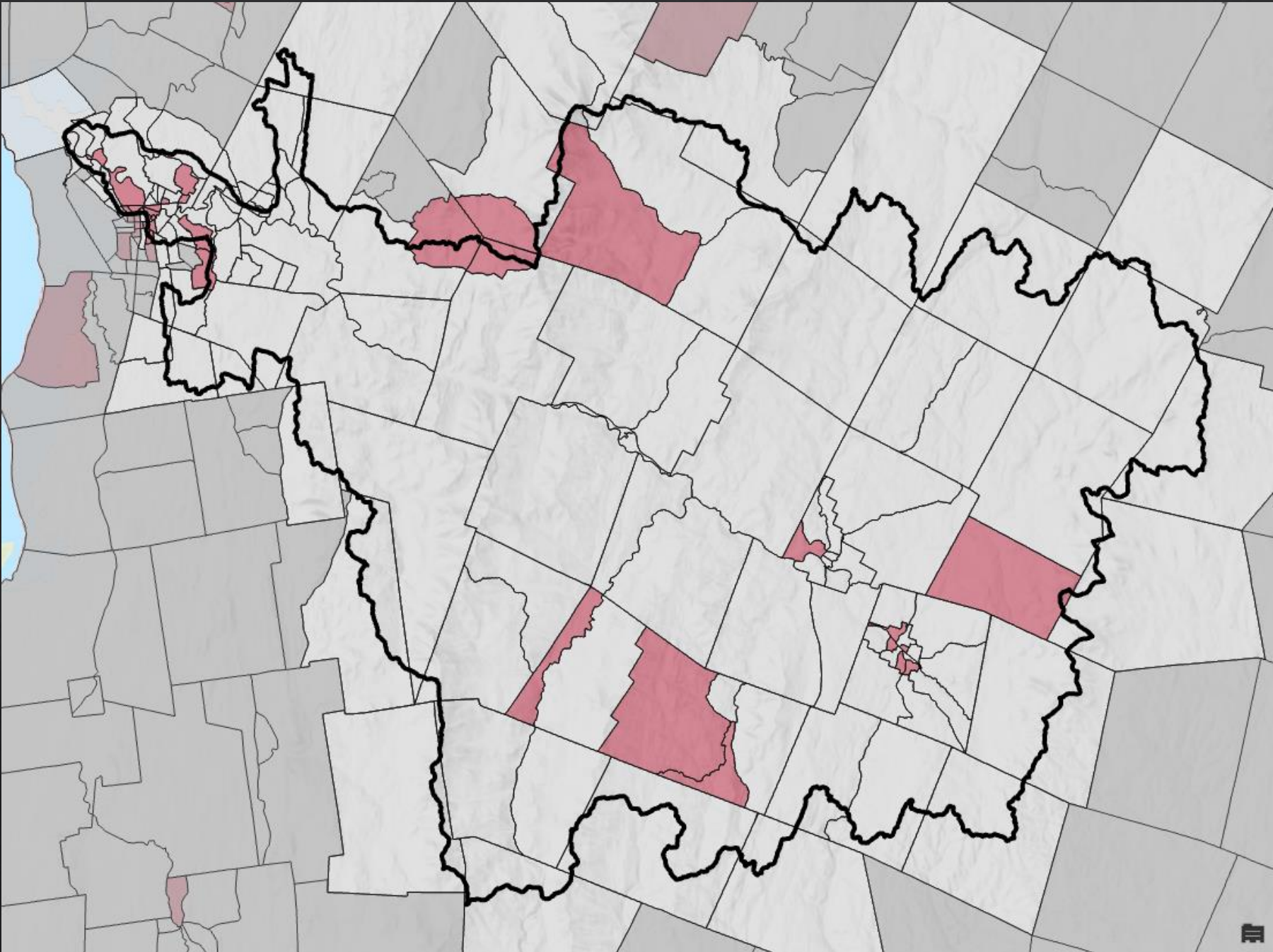
- ◆ S.148 (Act 154) – signed by the Governor on 31 May 2022
- ◆ § 6002. DEFINITIONS
 - (4) “Environmental justice focus population” means any census block group in which:
 - (A) the annual median household income is not more than 80 percent of the State median household income;
 - (B) Persons of Color and Indigenous Peoples comprise at least six percent or more of the population; or
 - (C) at least one percent or more of households have limited English proficiency.
 - (5) “Limited English proficiency” means that a household does not have a member 14 years or older who speaks English “very well” as defined by the U.S. Census Bureau.
 - (6) “Meaningful participation” means that all individuals have the opportunity to participate in energy, climate change, and environmental decision making. Examples include needs assessments, planning, implementation, permitting, compliance and enforcement, and evaluation. Meaningful participation also integrates diverse knowledge systems, histories, traditions, languages, and cultures of Indigenous communities in decision-making processes. It requires that communities are enabled and administratively assisted to participate fully through education and training. Meaningful participation requires the State to operate in a transparent manner with regard to opportunities for community input and also encourages the development of environmental, energy, and climate change stewardship.

Environmental Justice: Data Resources

- ◆ Vermont Center for Geographic Information
 - ◆ [Block Group Boundaries](#)
 - ◆ [Town Boundaries](#)
- ◆ US Census American Communities Survey (2021)
 - ◆ [Median Household Income \(B19103\)](#)
 - ◆ [Race \(B02001\)](#)
 - ◆ [Language \(C16002\)](#)
- ◆ Proposed scoring (10 points max)
 - ◆ Income – 3 points
 - ◆ Race – 3 points
 - ◆ Language – 3 points
 - ◆ Meets more than one target criteria – 1 point

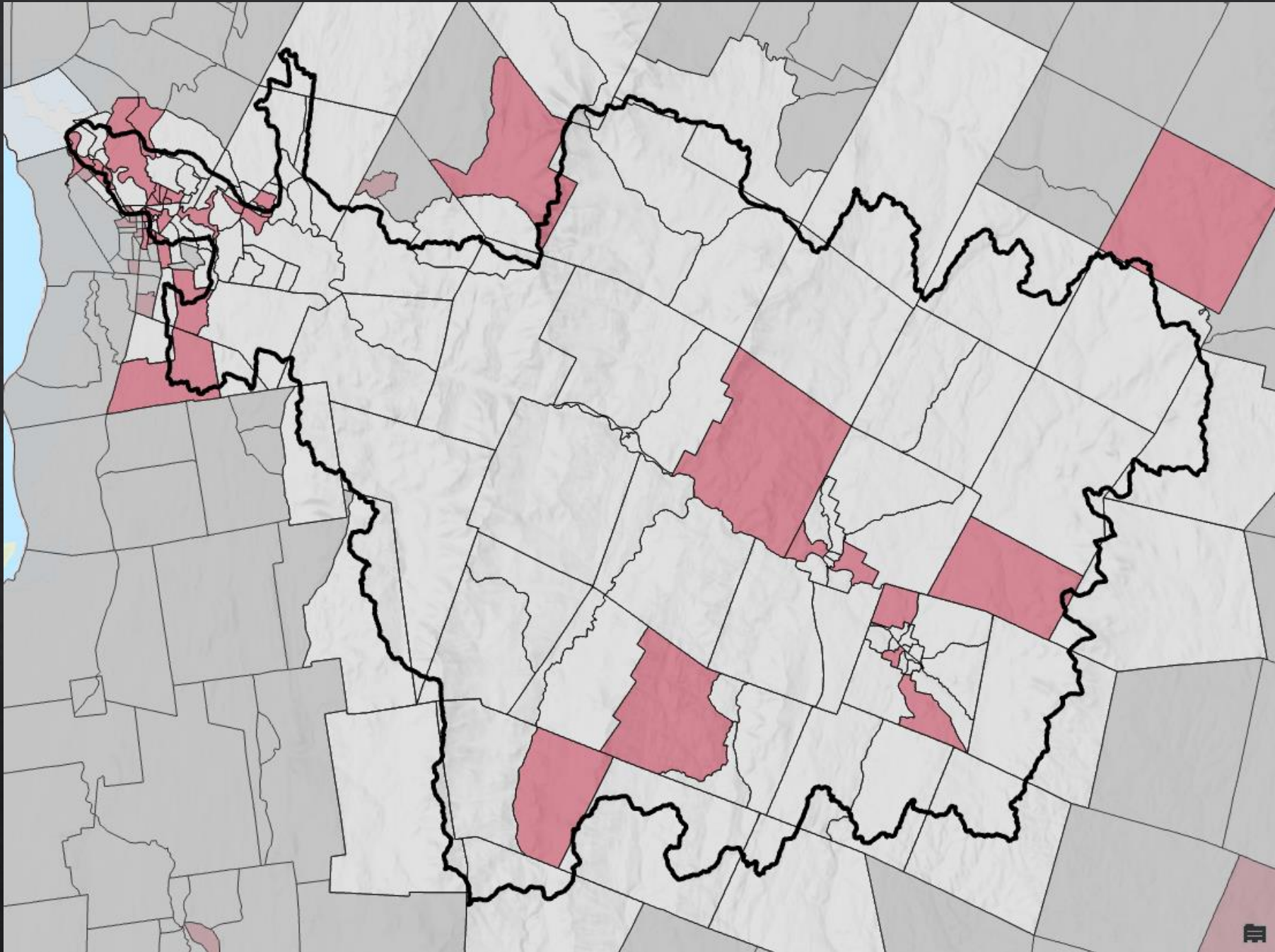
EJ: Income

| Municipality |
|--------------|
| Barre City |
| Bolton |
| Burlington |
| Colchester |
| Jericho |
| Montpelier |
| Northfield |
| Plainfield |
| S Burlington |
| Stowe |
| Underhill |
| Waitsfield |
| Winooski |



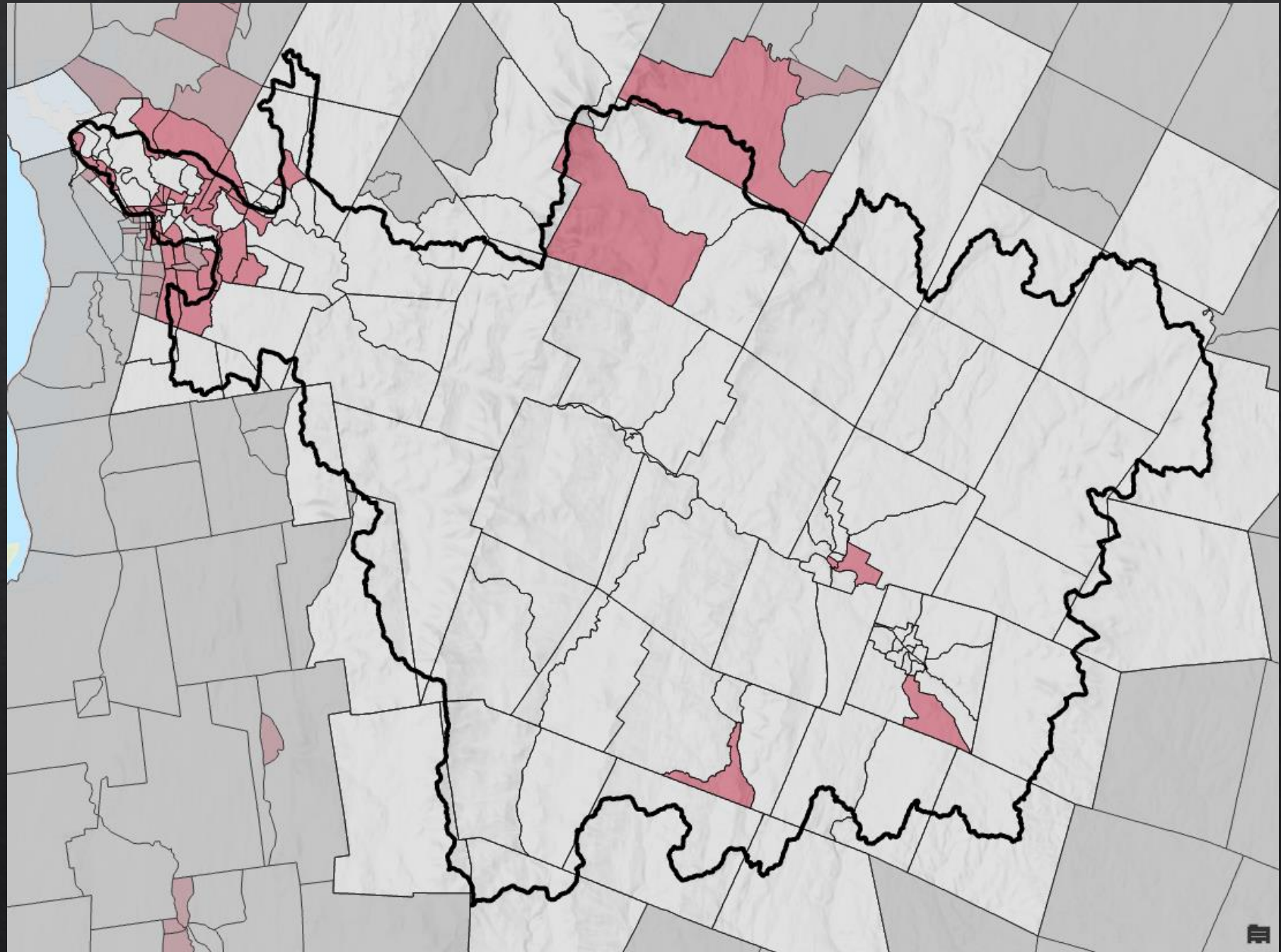
EJ: Language

| Municipality | |
|--------------|--------------|
| Barre City | Northfield |
| Barre Town | Plainfield |
| Burlington | Shelburne |
| Colchester | S Burlington |
| Essex | Underhill |
| Jericho | Walden |
| Middlesex | Warren |
| Montpelier | Winooski |



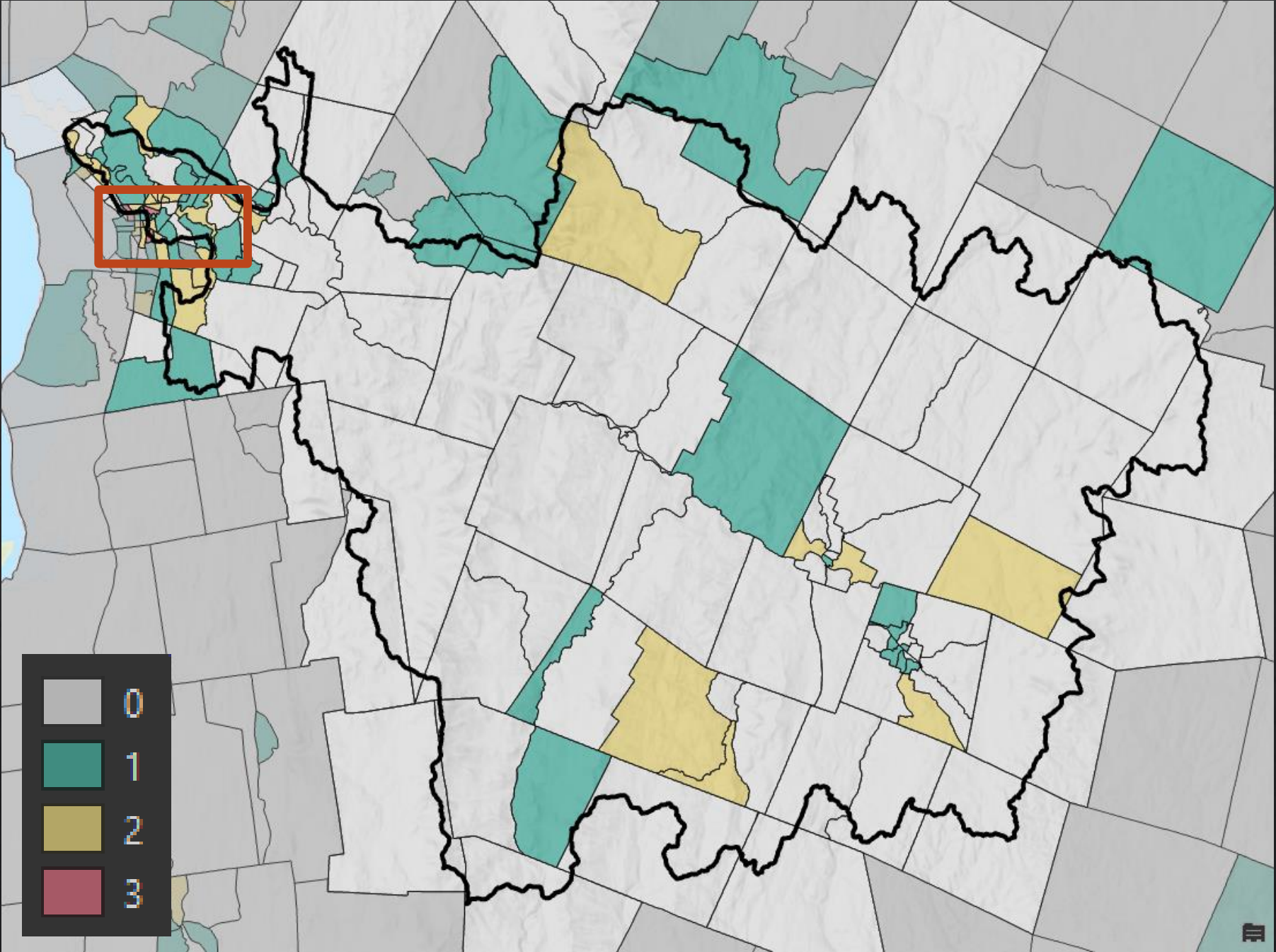
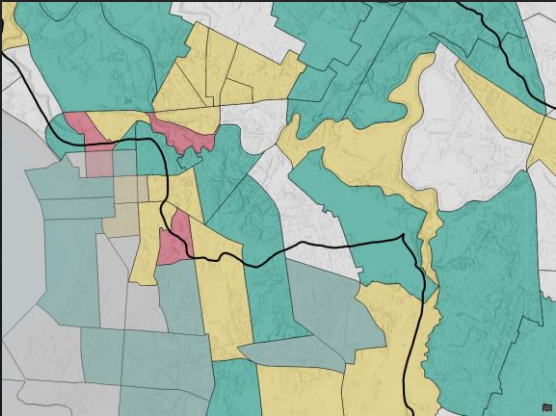
EJ: Race

| Municipality |
|--------------|
| Barre Town |
| Burlington |
| Colchester |
| Essex |
| Montpelier |
| Morristown |
| Northfield |
| S Burlington |
| Stowe |
| Williston |
| Winooski |



EJ: Total Flags

| | Basin 8 | VT |
|---|---------|-----|
| 0 | 79 | 263 |
| 1 | 109 | 39 |
| 2 | 26 | 25 |
| 3 | 3 | 8 |

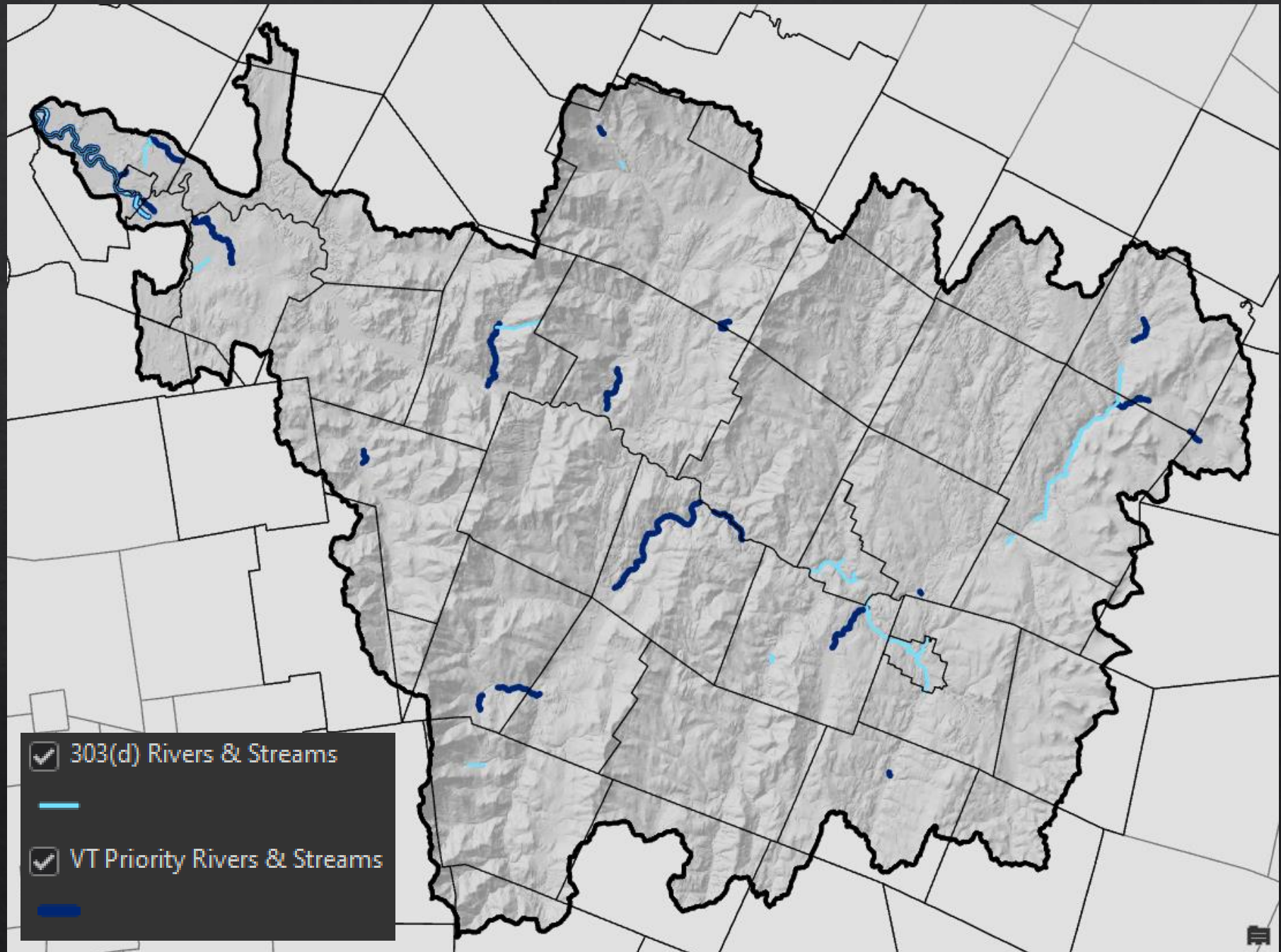


Ecological Benefits

- ◆ An Ecological Co-Benefit is realized when a project reduces sediment and / or non-P nutrient loads to stressed, altered, impaired or priority waterways to which it is hydrologically connected.
- ◆ Reduction of other stressors (5 points)
 - ◆ Stressor: a phenomenon with quantifiable damaging effects on surface waters resulting from the delivery of pollutants to a waterbody, or an increased threat to public health and safety (Winooski TBP, 2018)
 - ◆ Stressed, Altered & Impaired Waters: waters that do not support uses and do not meet standards are included in the 303(d) List of Impaired Waters
 - ◆ [Vermont Water Quality Monitoring Program Strategy 2011 - 2020](#)
 - ◆ [2016 DEC Assessment & Listing Methodology](#)
- ◆ Protection of priority waters (5 points)
 - ◆ Water supply, aquatic habitat, swimming, fishing & boating (see Winooski Tactical Basin Plan Chapter 4 (pages 121 – 130))
 - ◆ Outstanding Resource Waters – there aren't any currently in Basin 8 but the last TBP suggested two (Huntington River from gorge to confluence w/ Winooski & North Branch of the Winooski from the Worcester / Middlesex town line upstream to the headwaters)

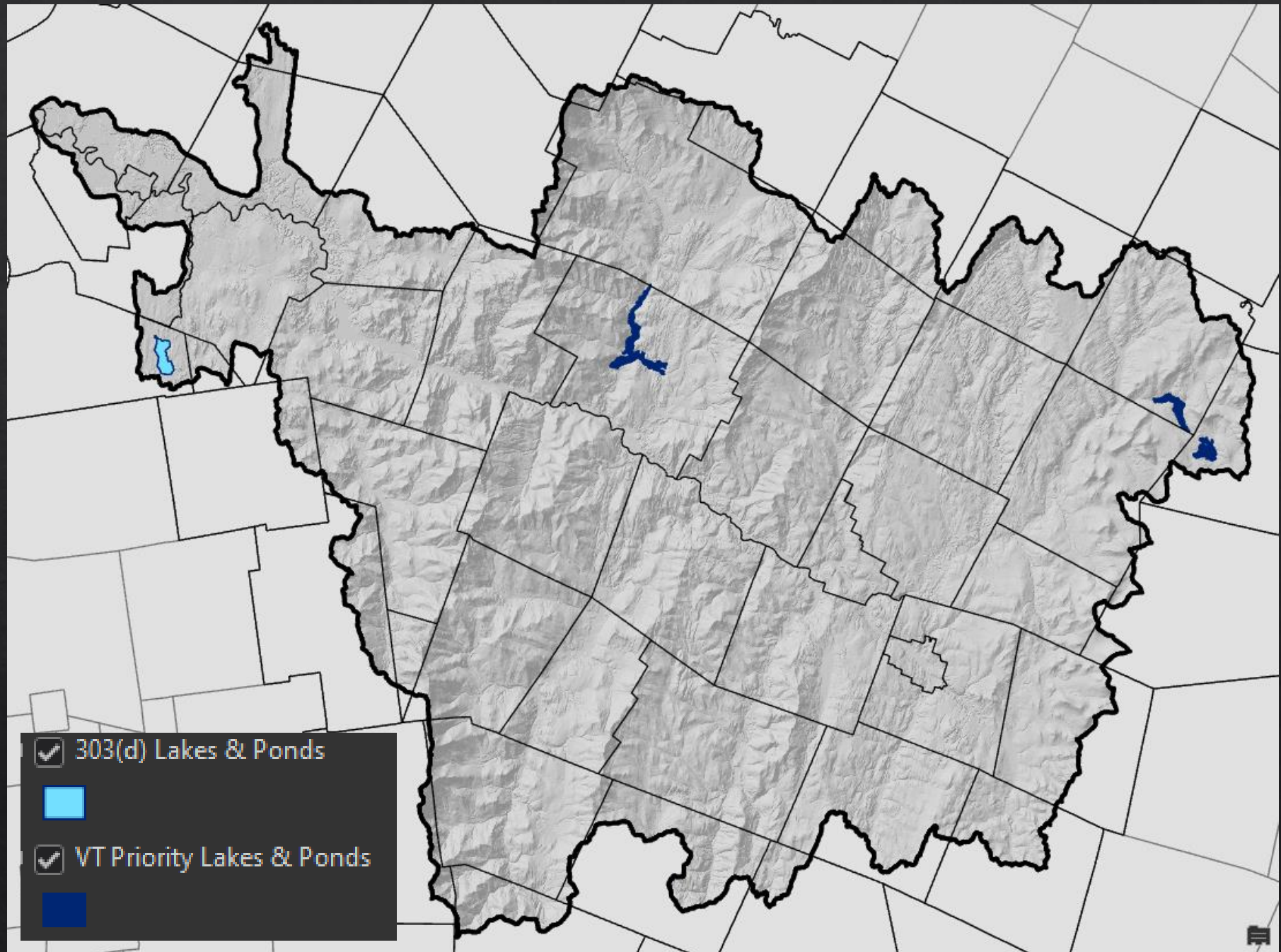
Other Stressors

- Rivers & Streams



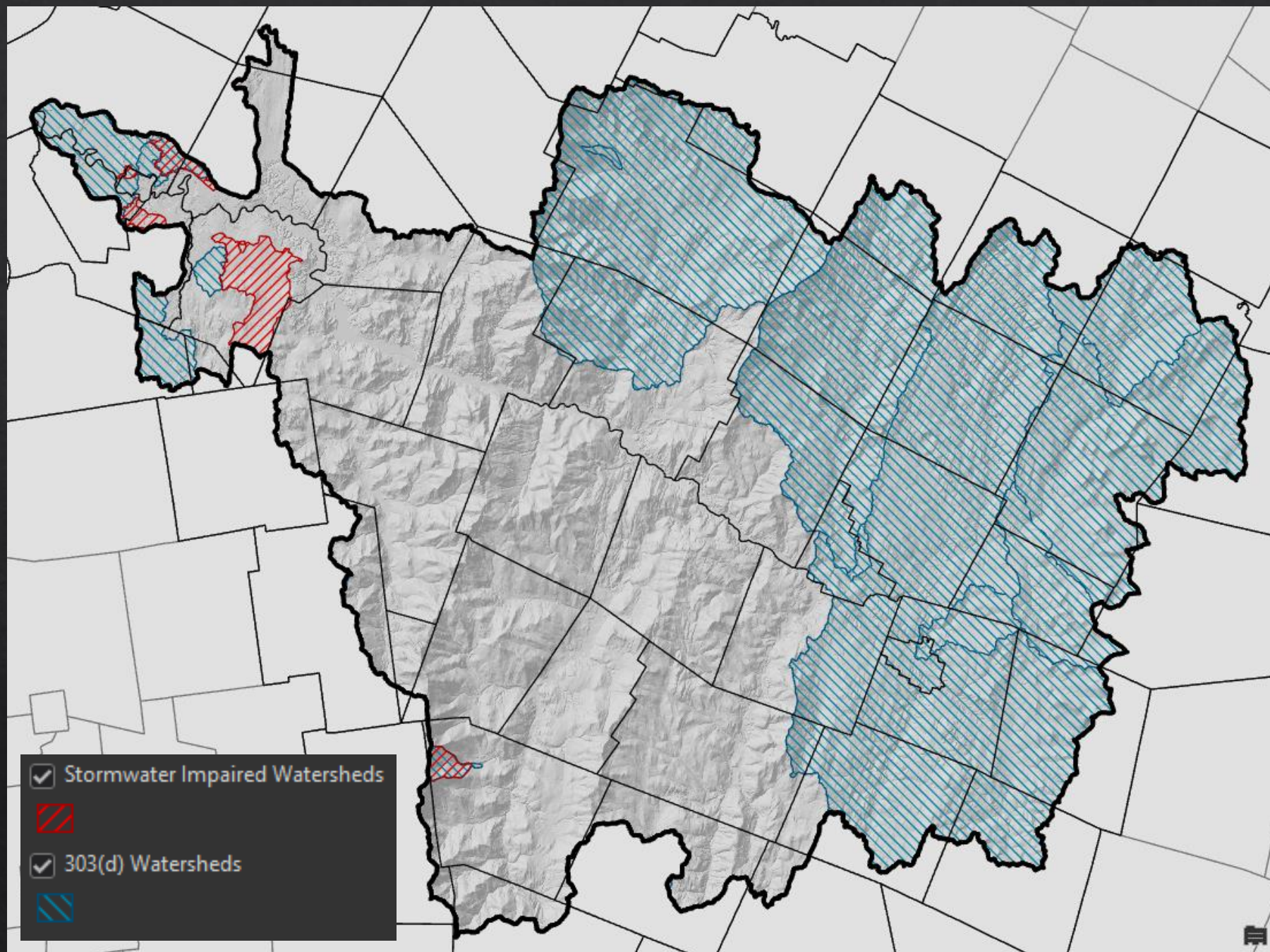
Other Stressors

- Lakes & Ponds



Other Stressors

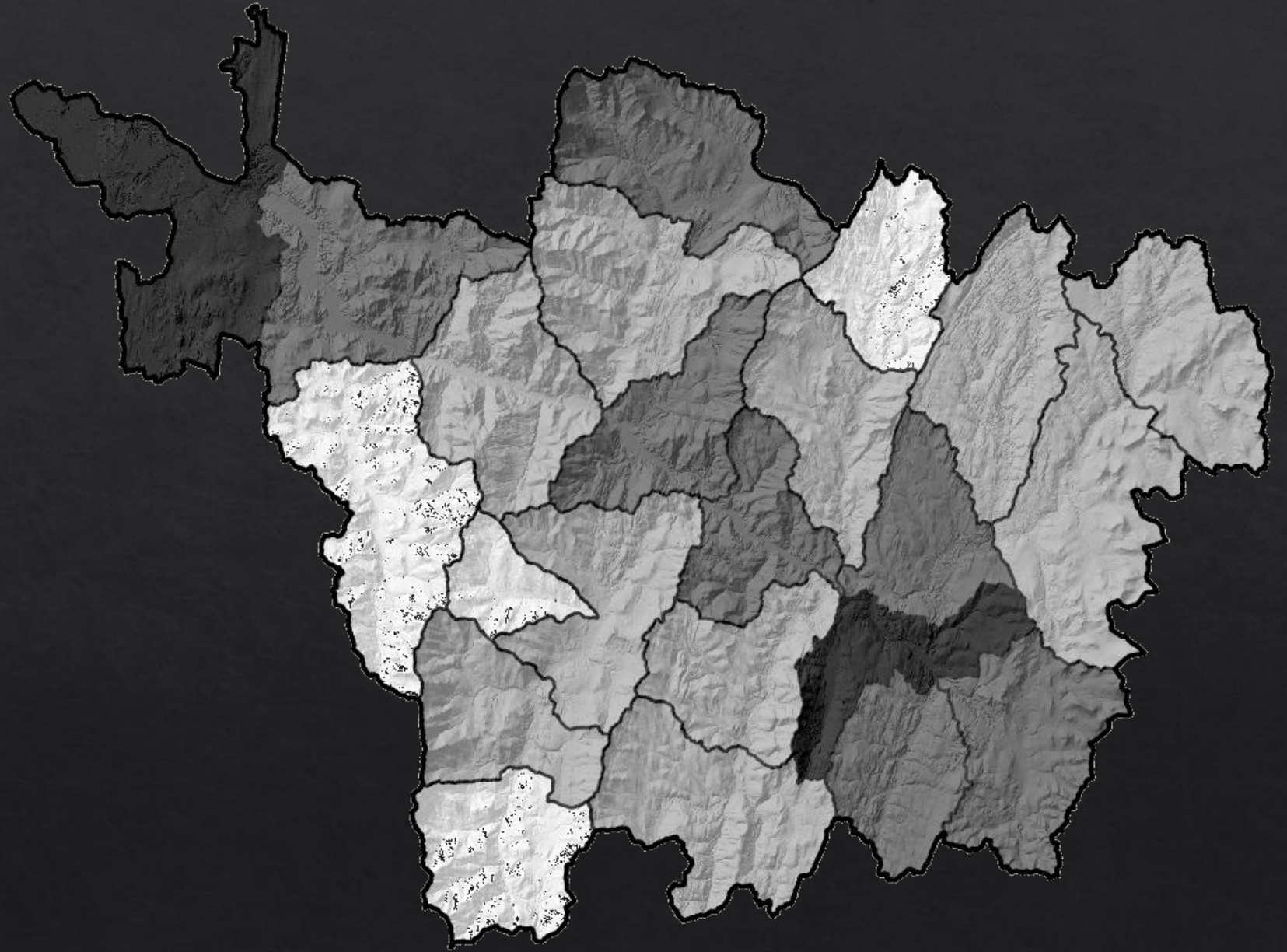
– Impaired Watersheds



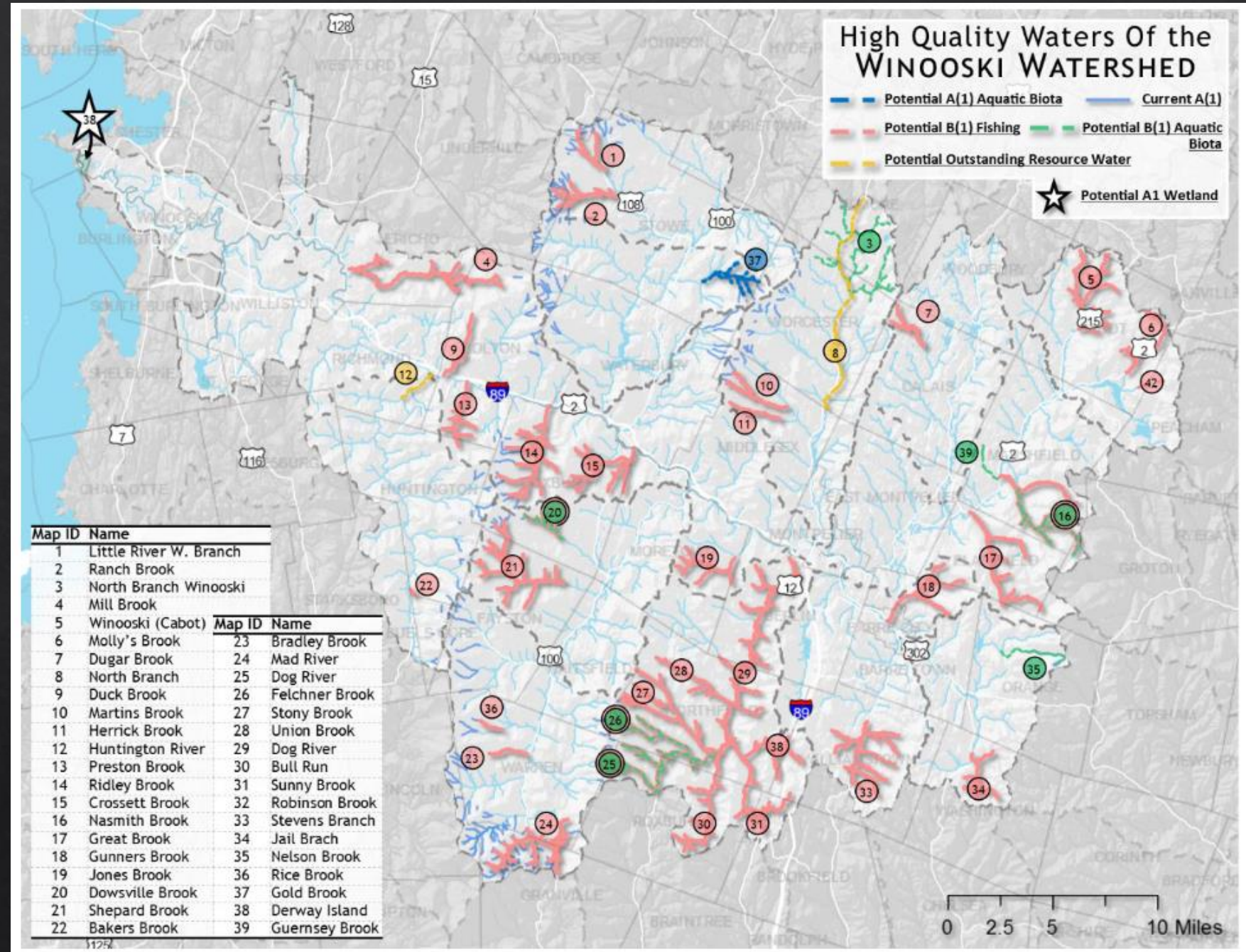
Other Stressors

- Impervious Surface

Target watersheds with high impervious surface?
Bonus points for projects that are surrounded by impervious surface?



Priority Waters



Ecosystem Services: Definitions

- ◇ National Wildlife Federation: An ecosystem service is any positive benefit that wildlife or ecosystems provide to people.
 - ◇ Millennium Ecosystem Assessment: Benefits people obtain from ecosystems.
 - ◇ Four major categories: Provisioning, Regulating, Cultural & Supporting
 - ◇ US Environmental Protection Agency: Ecosystem goods and services produce the many life-sustaining benefits people receive from nature.
-
- ◇ For what it's worth: The misconception of ecosystem disservices: How a catchy term may yield the wrong messages for science and society

Ecosystem Services: Categories

- ◆ Provisioning Services: any type of benefit to people that can be extracted from nature
 - ◆ Food
 - ◆ Fiber
 - ◆ Natural Medicines
- ◆ Regulating Services: the benefit provided by ecosystem processes that moderate natural phenomena
 - ◆ Carbon Sequestration
 - ◆ Flood Resilience
 - ◆ Air Quality
- ◆ Cultural Services: non-material benefit that contributes to the development and cultural advancement of people
 - ◆ Ethical Values
 - ◆ Existence Values
 - ◆ Recreation & Tourism
- ◆ Supporting Services: the processes which allow the Earth to sustain basic life forms
 - ◆ Nutrient & Water Cycling
 - ◆ Soil Formation
 - ◆ Photosynthesis

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Ecosystem Services

- ◇ An Ecosystem Services Co-Benefit is realized when a project improves carbon sequestration or flood resilience potential on the landscape.
- ◇ Regulating Services: the benefit provided by ecosystem processes that moderate natural phenomena
 - ◇ Carbon Sequestration (list project types that qualify – e.g. riparian planting)
 - ◇ Flood Resilience (list project types that qualify – e.g. green stormwater infrastructure)



% Tree Canopy
Cover - 2019

Community Building

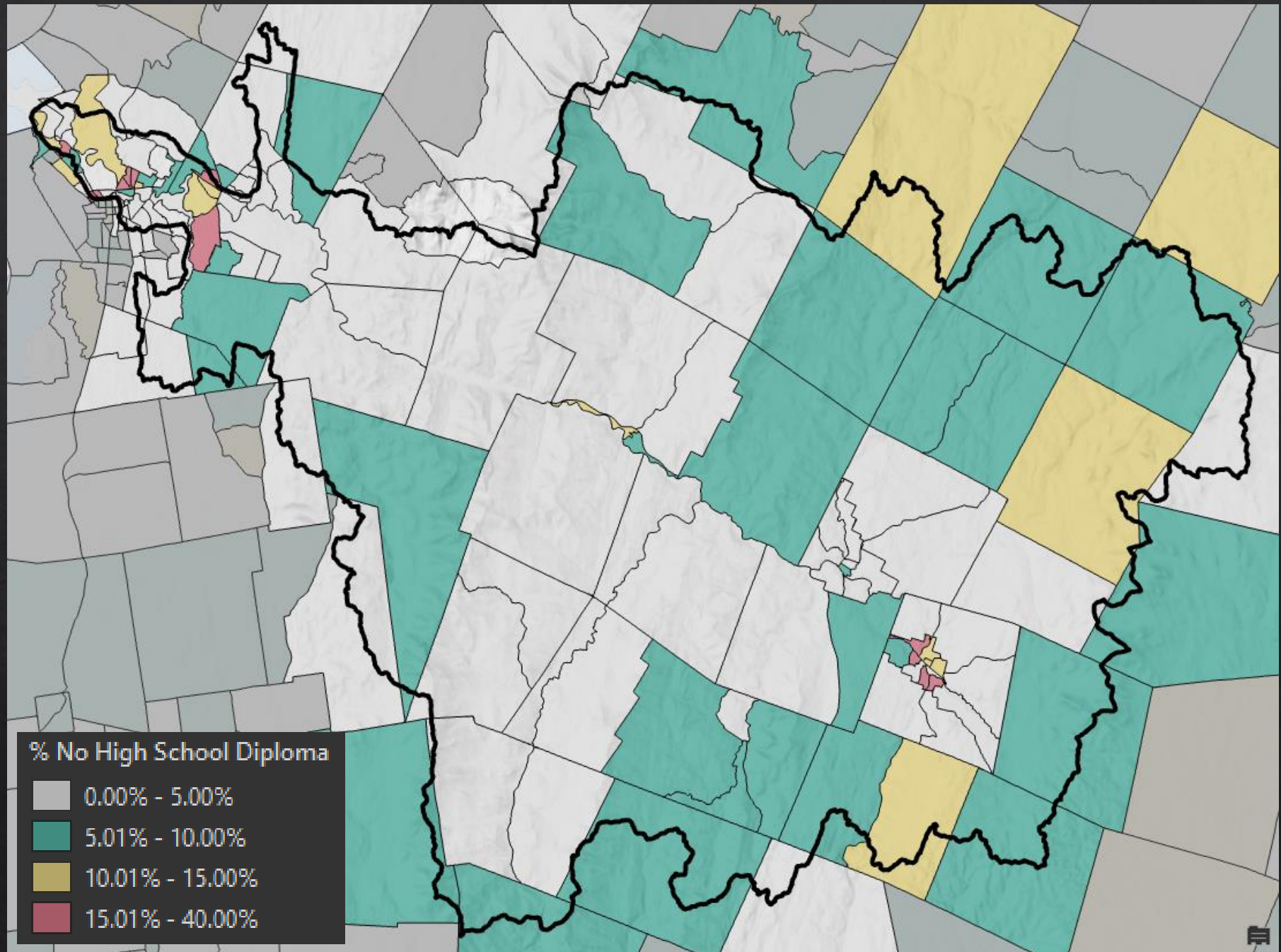
- ◆ A Community Building Co-Benefit is realized when a project involves the community in data collection and decision-making, enhances the working landscape and provides recreational benefits.
- ◆ Community (4 points max):
 - ◆ Are there proposed efforts to meaningfully involve community members in planning and decision-making? (2 points)
 - ◆ Does the project involve data collection by community members (e.g. citizen science initiative)? (2 points)
- ◆ Working Landscape (3 points max):
 - ◆ Is the project located on a parcel that is currently enrolled in the Use Value & Appraisal Program (aka the Current Use Program)?
 - ◆ NOTE: this may rule out projects on jurisdictional farms (i.e. those subject to Required Agricultural Practices)
- ◆ Recreation (4 points max):
 - ◆ Does the project maintain / improve an existing recreational space? (2 points)
 - ◆ Will the project result in new / expanded recreational opportunities? (2 points)

Education

- ◆ An Education Co-Benefit is realized when a project includes aspects of:
 - a) public outreach designed to educate community members about the importance of phosphorus reduction and watershed health; or
 - b) involve community members in project development and implementation.
- ◆ Option 1: Scoring (10 points max)
 - ◆ No educational component: 0 points
 - ◆ Interpretive signage: 5 points
 - ◆ Educational meetings / workshops: 5 points
- ◆ Option 2: Geographic targeting
 - ◆ bonus point(s) awarded / multiplier applied based on community educational achievement in priority location
 - ◆ use Census data to define priority locations for educational development

Education

- ◇ Target Population: residents w/out a high school diploma (or equivalent)
- ◇ Geographic target area: 1.25x points multiplier
- ◇ Scoring (12.5 points max)
 - ◇ No educational component: 0 points
 - ◇ Interpretive signage: 5 points
 - ◇ Educational meetings / workshops: 5 points
- ◇ ((Interpretive sign (5) + Workshop (5)) * Multiplier (1.25) = 12.5



Co-Benefits: Scoring Example

| Co-Benefit | CWSP Score | BWQC Weight | Project Score |
|-----------------------|------------|-------------|---------------|
| Environmental Justice | 7 | 33% | 2.31 |
| Ecological Benefits | 5 | 30% | 1.5 |
| Ecosystem Services | 10 | 15% | 1.5 |
| Community Building | 4 | 17% | 0.68 |
| Education | 5 | 5% | 0.25 |
| | | Total Score | 6.24 |

Maximum Project Score = 10 points

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