

APPENDIX A: EQUITY AND ENVIRONMENTAL JUSTICE

DEFINING ENVIRONMENTAL JUSTICE, BENEFITS & BURDENS (3 V.S.A. 6002)

Environmental Justice: 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, in the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental Benefits: The assets and services that enhance the capability of communities and individuals to function and flourish in society.

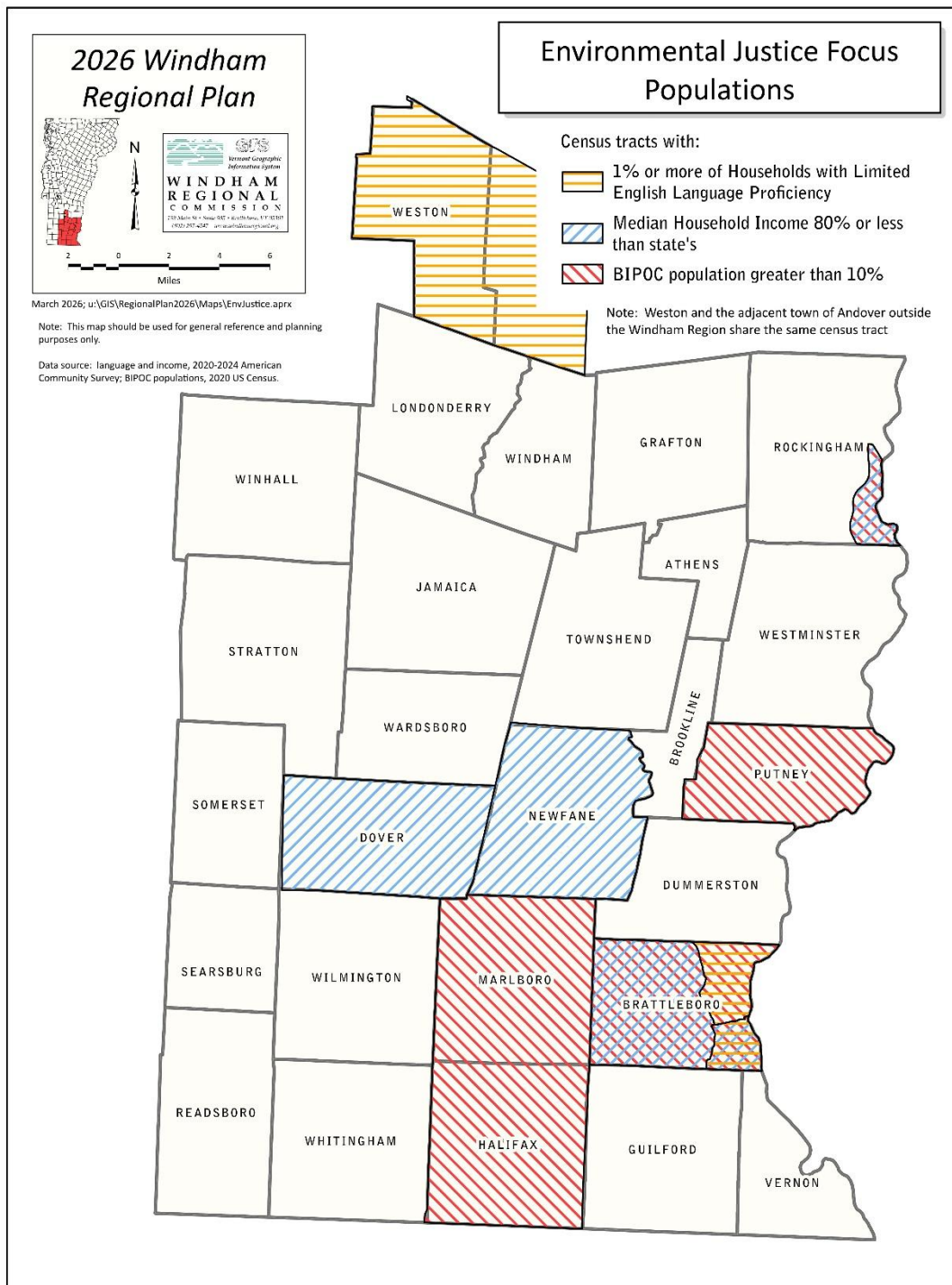
Environmental Burdens: Any significant impact to clean air, water, and land, including any destruction, damage, or impairment of natural resources resulting from intentional or reasonably foreseeable causes.

Environmental Justice Focus Populations: Any census block group in which:

- The annual median household income is not more than 80 percent of the State median household income;
- Persons of Color and Indigenous Peoples comprise at least six percent or more of the population; or
- At least one percent or more of households have limited English proficiency.

ENVIRONMENTAL JUSTICE POPULATIONS

Using the criteria outlined in Vermont State Statute 3 V.S.A. 6002 of an Environmental Justice Focus Population, Windham Regional Commission (WRC) analyzed data from the 2020 U.S. Census as well as the American Community Survey to identify environmental justice census tracts in the Windham Region. WRC created a map to highlight which census tracts in the Windham Region have focus populations. Using the state definition for percent of persons of Color or Indigenous Peoples, most of the census tracts in the Windham Region would be considered Environmental Justice focus populations. To be able to analyze disproportionate impacts at the regional scale, WRC updated the map to show census tracts where at least 10%, as opposed to 6%, or more of the population are persons of Color or Indigenous Peoples.



As WRC moves forward with planning activities in the Windham Region, WRC will consider identified Environmental Justice Focus Populations in policies and actions. It is important to note that due to the rural nature of the Windham Region, the margin of error in the American Community Survey data can be quite large. This leads to the importance of WRC also balancing equity across the region and not just in environmental justice communities. By looking at multiple screening factors, WRC can begin to see patterns in the data and provide more equitable attention to communities with consistent higher percentages of vulnerable populations.

WRC has looked at data from several analytical tools that have been developed by State and Federal agencies to

help identify vulnerable communities across a number of different factors. The tools that WRC considered include:

- Vermont Heat Vulnerability Index – Vermont Department of Health¹
- Vermont Social Vulnerability Index – Vermont Department of Health²
- Vermont Environmental Disparity Index – University of Vermont³
- The Climate and Economic Justice Screening Tool - Federal Council on Environmental Quality⁴
- Environmental Justice Mapper – Environmental Protection Agency⁵

VERMONT HEAT VULNERABILITY INDEX

The heat vulnerability index indicates the vulnerability of each town to heat related illness. This index is a composite of the following themes: population, socioeconomic, health, environmental, acclimatization, and heat emergency.

In the Windham Region, towns identified as having a higher than the state average (with a standard deviation of 0.5 – 1.5) vulnerability include:

- Brattleboro
- Readsboro
- Searsburg
- Somerset

VERMONT SOCIAL VULNERABILITY INDEX

This index identifies census tracts where each of the identified social vulnerability measures are given a flag if they are above the 90th percentile. Overall, looking across all 16 of the identified social vulnerability measures, the census tracts with the highest number of flags, therefore are more socially vulnerable are:

- Downtown Brattleboro

¹ Vermont Department of Health. Tool was retired in 2016. Data included in this report is from [May 2016 mapping results](#).

² Vermont Department of Health. *Based upon 2016-2020 American Community Survey data*

³ University of Vermont. <https://uvm.maps.arcgis.com/apps/webappviewer/index.html?id=68a9290bde0c42529460e1b8deee8368>

⁴ Originally developed by the federal Council on Environmental Quality, it was removed from the agency website January 2025. Plan data is from 2023. Archived Version of the Climate and Economic Justice Screening Tool: <https://climateprogramportal.org/resource/climate-and-economic-justice-screening-tool-cejst/>

⁵ Originally developed by the Environmental Protection Agency, it was removed from the agency website January 2025. Plan data is from 2023. Archived data was found on: <https://www.arcgis.com/apps/dashboards/446dcf37ead342cc91fac21f8a7740d2>

- Downtown Bellows Falls

Census tracts in the WRC region that are of medium social vulnerability risk include:

- Dover
- Whitingham
- Western Brattleboro

VERMONT ENVIRONMENTAL DISPARITY INDEX

The Vermont Environmental Disparity Index is a combination of environmental exposure and population characteristics: $\text{VT Environmental Disparity Index} = \text{Environmental Exposure} * (\text{Health Risk Factors} * 0.5 + \text{Social Vulnerability} * 0.5)$. Census tracts with the highest environmental risk:

- Downtown Brattleboro

Census tracts with above average environmental risk:

- Vernon
- Northwest Brattleboro
- Westminster
- Weston

CLIMATE AND ECONOMIC JUSTICE SCREENING TOOL

The original version of this tool was designed to identify census tracts that are marginalized by underinvestment and overburdened by pollution. These tracts are labeled as disadvantaged.

- Downtown Bellows Falls: Low Income, High Energy Cost, High Asthma, Lack of Indoor Plumbing, Lead Paint, % of people 25 or older with no High School Diploma
- Downtown Brattleboro: Low Income, High Energy Costs, Lack of Indoor Plumbing
- Northwest Brattleboro: High Energy Cost

ENVIRONMENTAL JUSTICE MAPPER

The original version of the environmental justice mapper was designed to identify geographic areas with potential environmental justice concerns—specifically communities with low-income or minority populations that may face

higher pollution burdens. Tracts identified as disadvantaged in the Windham Region include:

- Downtown Brattleboro
- Northwest Brattleboro
- Downtown Bellows Falls

PLAN BENEFITS AND BURDENS ASSESSMENT

Windham Regional Commission identified the key environmental benefits and burdens mentioned in Vermont State Statue 3 V.S.A. 6002 that are relevant to WRC's work and the Regional Plan. For each listed benefit and/or burden, WRC then correlated any goals and policies in the Regional Plan that would address mitigating for the environmental benefit or burden.

Environmental Benefit	Environmental Burden	Goals and Policies in the WRC Regional Plan addressing the Environmental Benefit/Burden	How the Regional Plan Mitigates Disproportionate Benefits and Burdens
Clean air		Natural Resources, Air Quality, Policies 31-32	Policies address protecting clean air from direct and indirect impacts from development activities as well as monitoring emissions by commercial operations for their impacts on human health.
Clean water	Improper sewage disposal Reduction of groundwater levels Increased stormwater flows	Natural Resources, Surface Waters, Policies 7-20 Natural Resources, Groundwater, Policies 21-23 Community Utilities, Facilities and Services, Water and Wastewater Facilities, Policies 4-8	Clean water policies protect surface and groundwater. Policies also address the safe disposal of wastewater.

Environmental Benefit	Environmental Burden	Goals and Policies in the WRC Regional Plan addressing the Environmental Benefit/Burden	How the Regional Plan Mitigates Disproportionate Benefits and Burdens
Clean land	Improper handling of solid wastes	Natural Resources, Soils, Topography and Mineral Resources, Policy 24 Community Utilities, Facilities and Services, Solid Waste Management, Policies 9-11	WRC manages a Brownfields Program and in the project selection prioritization matrix, gives weight to projects that are in an area where the median household income is less than the county. The prioritization matrix also gives weight to projects that are located in an area where the unemployment rate exceeds the county rate. Policies support working with solid waste entities and towns to plan for waste disposal needs and to support local actions that reduce the volume and toxicity of solid waste.
Green spaces		Natural Resources, Forest Resources, Policy 4	Policies in the Regional Plan Support the establishment and protection of public access to forested lands through the preservation of historic access points and by promoting public access in development proposals.
Outdoor recreation facilities		Educational, Cultural and Recreational Resources, Recreational Resources, Policies 9-17	Policies support providing varied and accessible opportunities for outdoor recreation.
Affordable/Clean energy sources		Energy, Energy Conservation, Efficiency and Resilience, Policies 1-9	Policies support energy efficiency and conservation measures that reduce costs, usage, and emissions.

Environmental Benefit	Environmental Burden	Goals and Policies in the WRC Regional Plan addressing the Environmental Benefit/Burden	How the Regional Plan Mitigates Disproportionate Benefits and Burdens
Public transportation		Transportation, Transit, Policies 47-55	WRC transportation policies support walkable villages and public transportation. Policies encourage the consideration of equity for all transit users, in particular vulnerable populations such older adults, disabled persons, and low-income or car-less residents.
Green jobs		Economic Development Policies 3, 4, 7, 8	WRC economic development policies support a strong and diverse economy that maintains environmental standards and promotes environmental justice. The plan supports educational programs for technical and trade skills to improve the value of opportunities for the workforce.
Healthy homes/buildings	Lead paint Lead pipes Asbestos Mold	Housing, Policy 1, 6	WRC policies support increasing the number of safe, adequate, accessible and affordable housing units to meet the needs of all residents. WRC provides financial support, through a federal program, to clean up brownfield sites. Priority for funding is given to projects in disadvantaged communities.
Health care		Community Utilities, Facilities and Services, Human Services, Policies 37-39	WRC policies support the development and location of health care services that provide for the care of children, elderly residents, and persons with disabilities throughout the region. WRC provides planning technical assistance to social service organizations throughout the region that are providing development solutions that address community needs.

Environmental Benefit	Environmental Burden	Goals and Policies in the WRC Regional Plan addressing the Environmental Benefit/Burden	How the Regional Plan Mitigates Disproportionate Benefits and Burdens
Nutritious food		Economic Development Policy 9	WRC policies support the local agricultural economy which offers nutritious food options for residents. The Economic Development chapter includes a policy on encouraging development and support of land-based industries including production and distribution of local agricultural products.
Indigenous food & Cultural resources		Cultural and Historical Resources Policies 6 and 7	WRC policies encourage a vibrant cultural community through assistance and support for local cultural facilities and organizations. The plan calls for the protection of places of outstanding archeological or historical value from adverse impacts.
	Excessive noise	Natural Resources, Light and Noise Pollution, Policy 35	New development projects must meet state and federal noise level standards. If there are questions about potential noise levels, a noise study is encouraged. WRC's Development Review Committee considers noise levels as part of their review of any Act 250 permits.
	Increased flooding	Land Use, Policies 3-4	The Regional Plan policies does not encourage any new development in identified flood areas or river corridors. If new development is permitted, then it should not increase the risks of flooding.