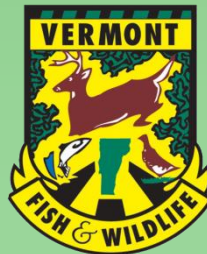


VERMONT CONSERVATION DESIGN

A VISION FOR AN ECOLOGICALLY FUNCTIONAL LANDSCAPE



House Committee on Natural
Resources, Fish, and Wildlife

February 2, 2022
Bob Zaino



VT Fish and Wildlife Department uses Vermont Conservation Design to:

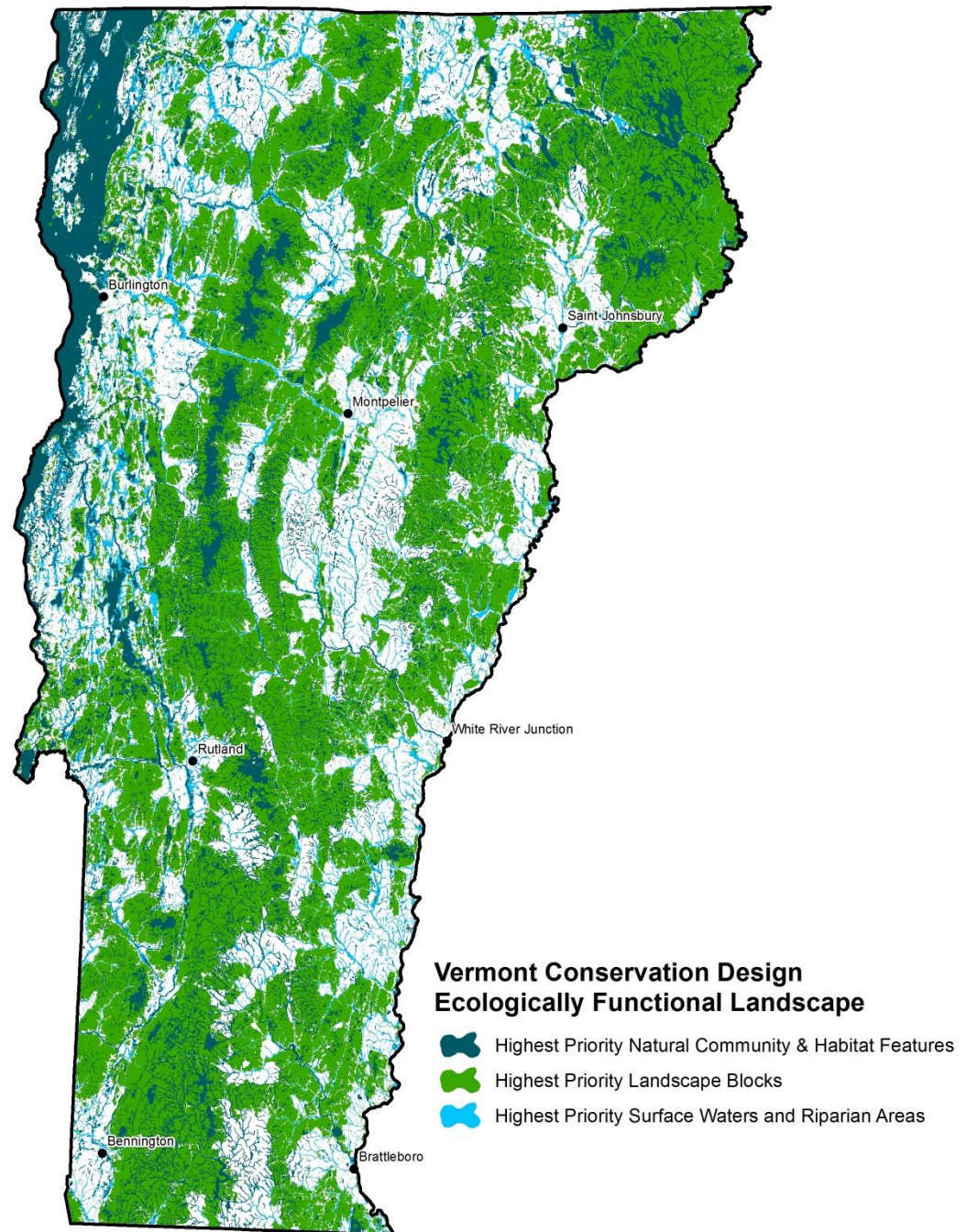
- help select new acquisitions of state lands
- inform our management of state lands
- provide technical assistance to landowners, as a way to put their individual property into a larger context
- inform our assessments of projects subject to Act 250, Section 248, and other regulatory review
- Help towns apply Vermont Conservation Design in their planning efforts

And recently, we received a \$100,000 grant from the US Fish and Wildlife Service to update parts of our work on Vermont Conservation Design.

Ecologically Functional Landscape

- Intact
- Connected
- Diverse

A set of coarse-filter features which, if appropriately conserved and managed for their ecological functions, offer high confidence in maintaining biological diversity and ecological processes into the future.



Conservation Design at Three Scales

Landscapes



Natural Communities



Species



Interior Forest Blocks
Connectivity Blocks
Surface Waters and Riparian Areas
Riparian Areas for Connectivity
Physical Landscapes
Wildlife Road Crossings

Natural Communities
Young and Old Forest
Aquatic Habitats
Wetlands
Grasslands/Shrublands
Underground Habitats

Species with very specific biological needs that will likely always require individual attention

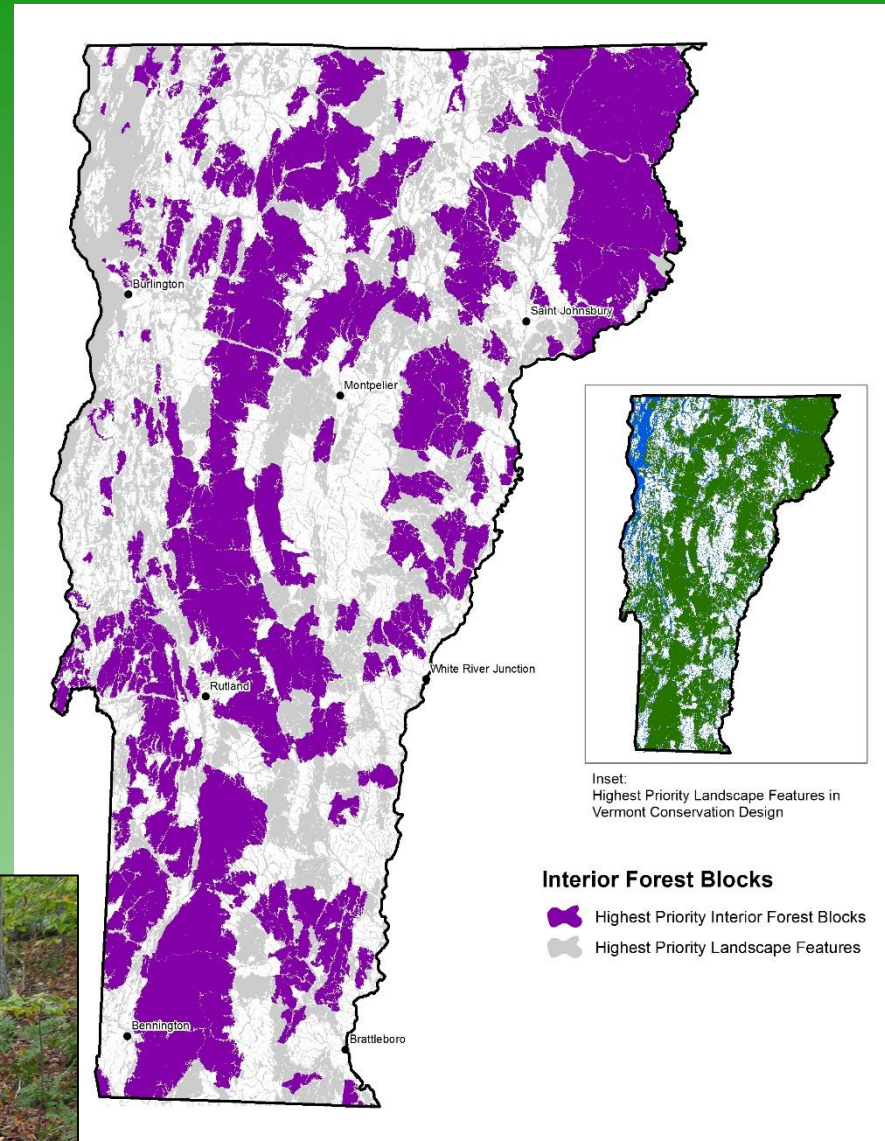
Interior Forest Blocks

The best examples of interior forest in each region of Vermont

Places where species and ecological process exist with minimal disturbance

Ecological functions:

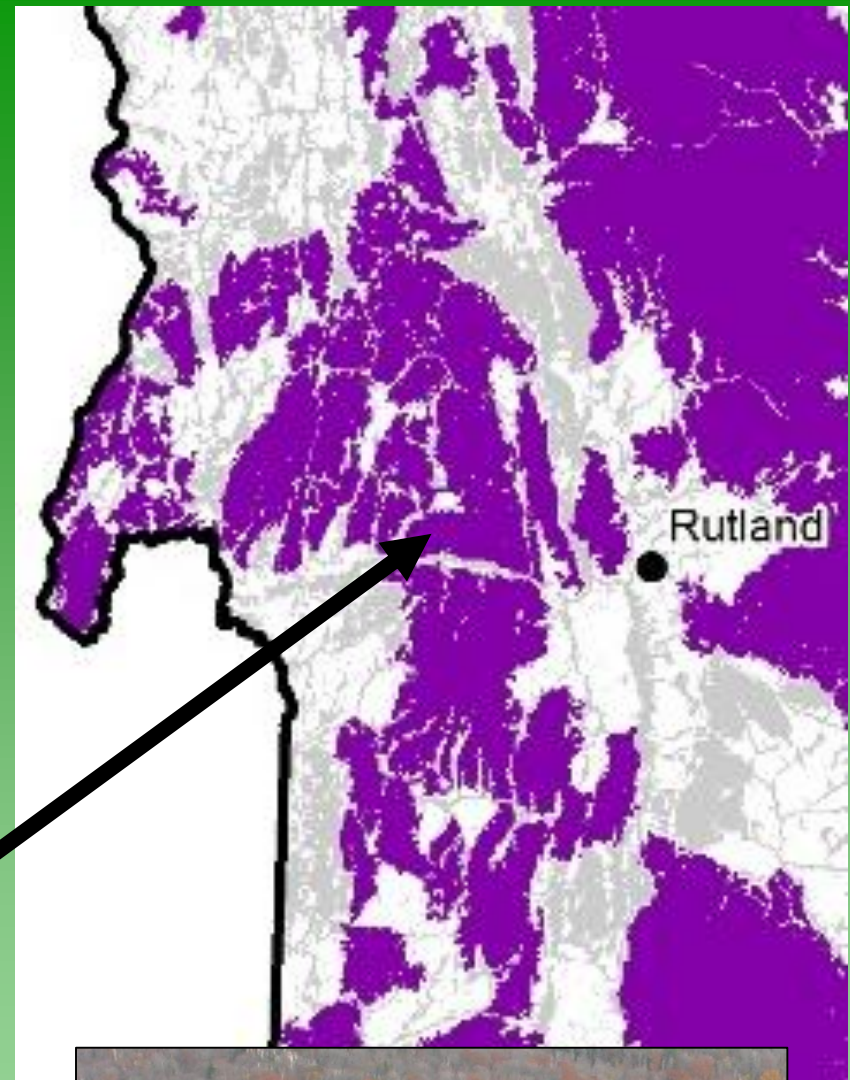
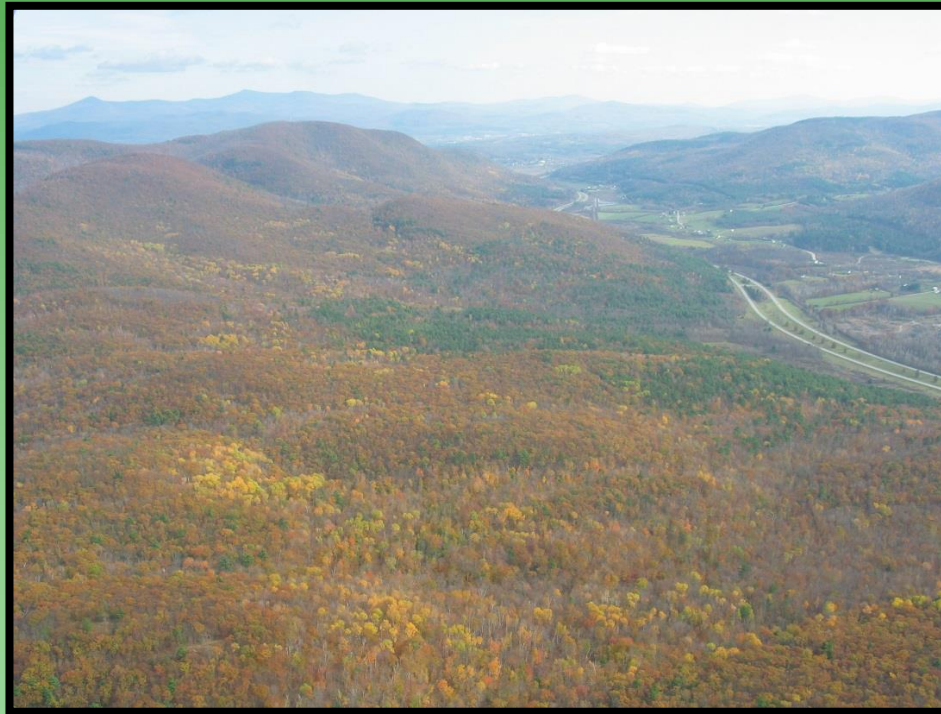
- Interior forest species
- Wide-ranging mammals
- Air and water quality
- Flood resilience
- Ecological processes
- Species can shift and adapt within blocks



Interior Forest Blocks

Guidelines for Maintaining Ecological Function:

- Avoid permanent interior fragmentation
- Limit development to the margins
- Maintain forest structure & distribution of age classes
- Minimize invasive species.



Grasslands

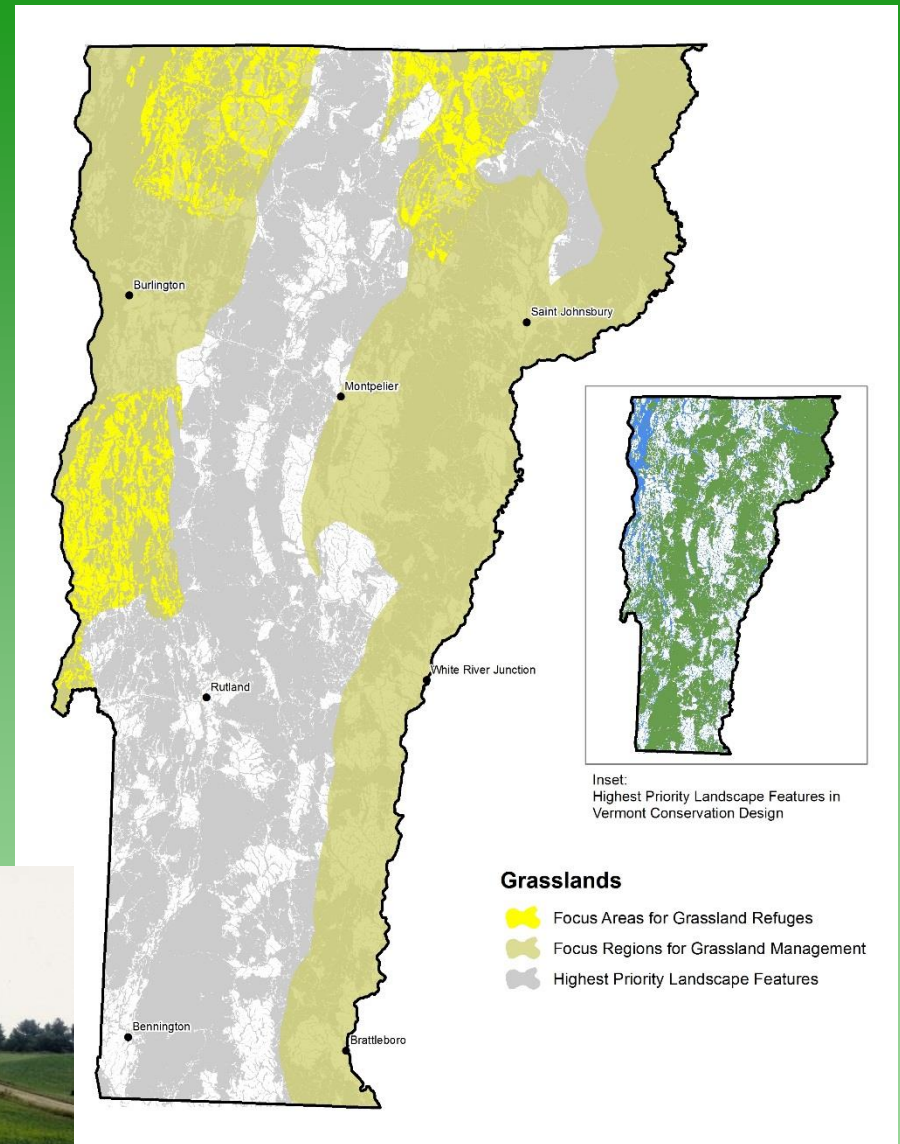
Grasslands are man-made habitats that support a unique set of species

Many bird species that need grasslands are in regional decline

“Lifeboat” of 7,500 acres to ensure these species remain in Vermont

Ecological Functions:

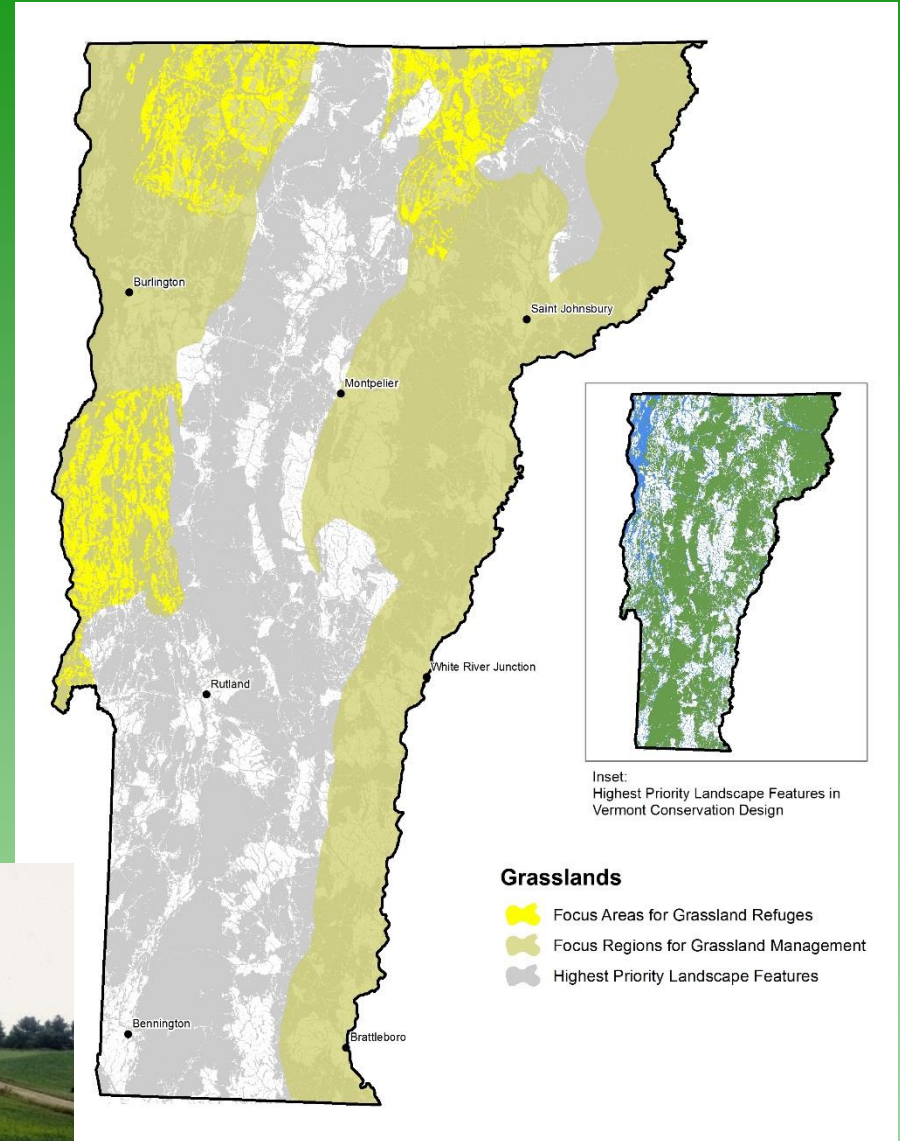
- Supports a suite of grassland-nesting birds such as Bobolink and Savannah Sparrow
- Habitat that has been lost in other parts of the country



Grasslands and Shrublands

Guidelines for Maintaining Ecological Function:

- Grassland patches >25 acres; ideally >250 acres
- Mow at least annually to maintain suitable grass composition
- But no mowing during May – August to protect nests
- Minimize/avoid tree islands or hedgerows in fields



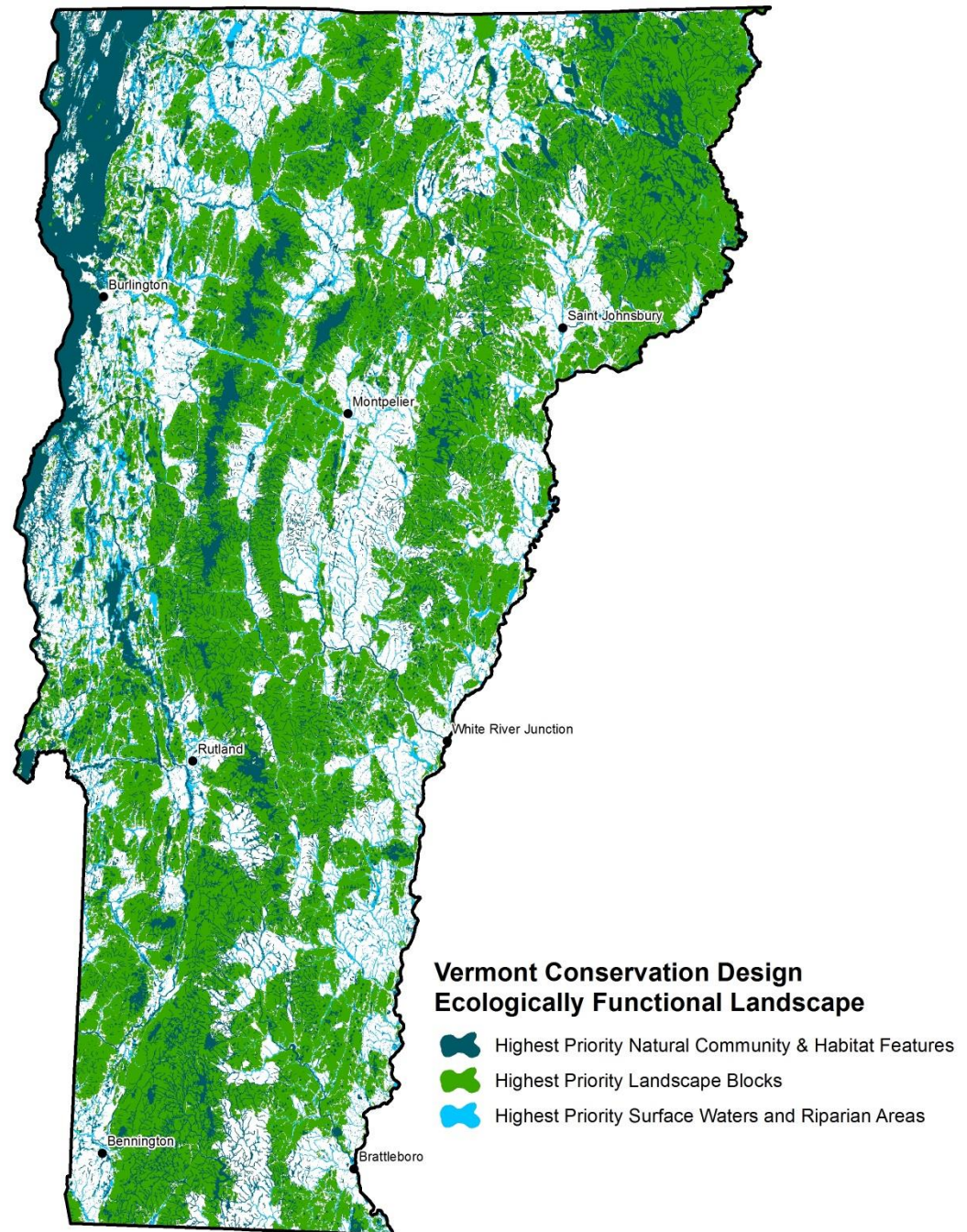
Ecologically Functional Landscape

Landscapes

- Interior Forest Blocks
- Connectivity Blocks
- Surface Waters and Riparian Areas
- Riparian Areas for Connectivity
- Physical Landscapes
- Wildlife Road Crossings

Natural Communities & Habitats

- Natural Communities
- Young and Old Forest
- Aquatic Habitats
- Wetlands
- Grasslands/Shrublands
- Underground Habitats



- What level of conservation and management is needed for each element of Vermont Conservation Design?
- What is the broad conservation status of each element of the ecologically functional landscape in Vermont Conservation Design?
- What places and elements within Vermont Conservation Design are best suited to permanent land conservation?

