VERMONT CONSERVATION DESIGN

A VISION FOR AN ECOLOGICALLY FUNCTIONAL LANDSCAPE

VERMONT

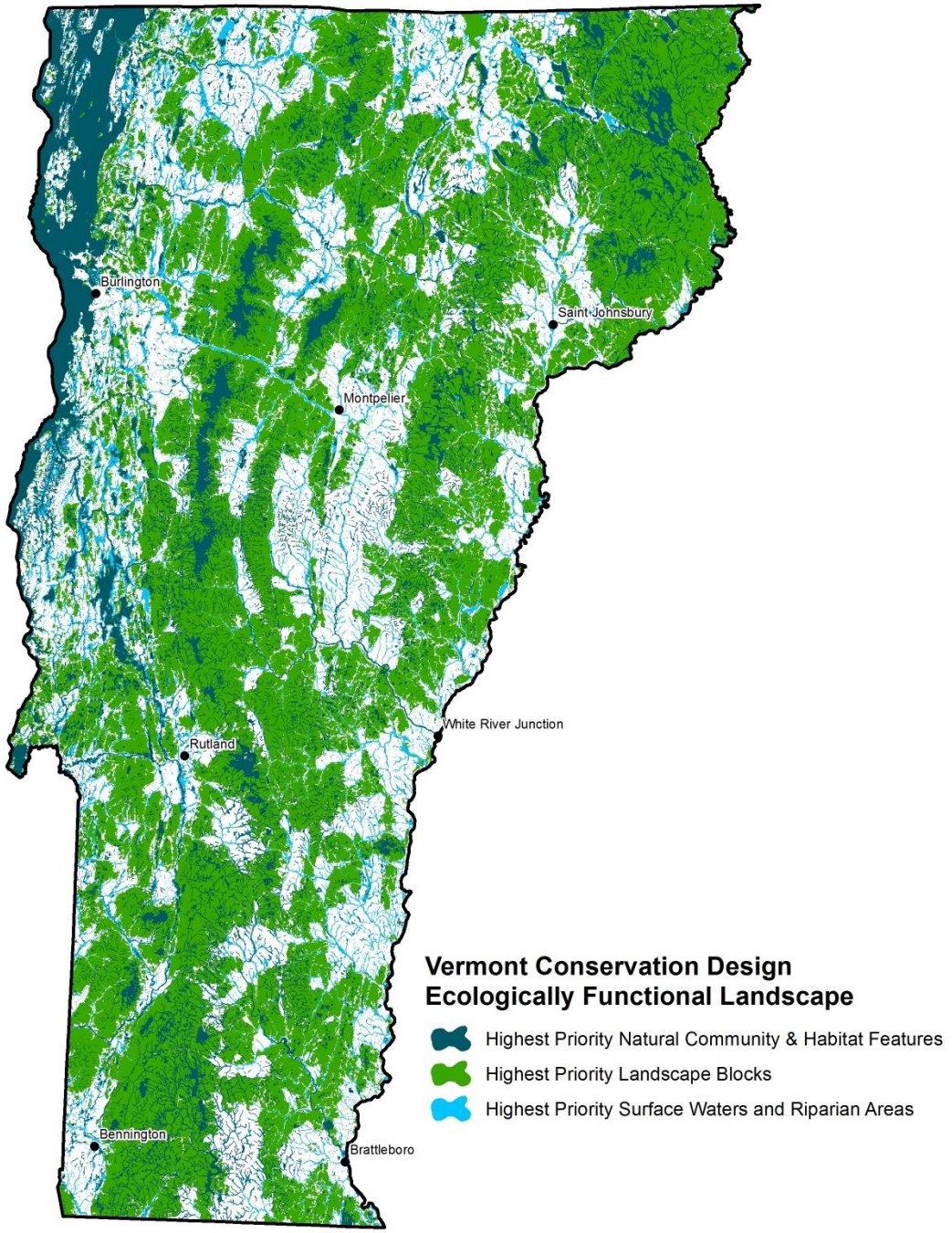
House Natural Resources, Fish, and Wildlife Committee

February 5, 2019 **Eric Sorenson**

Ecologically Functional Landscape

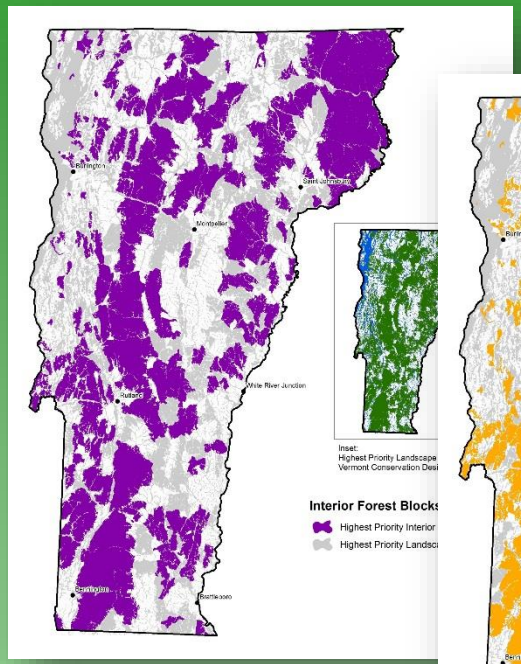
- **Intact**
- **Connected**
- **Diverse**

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.

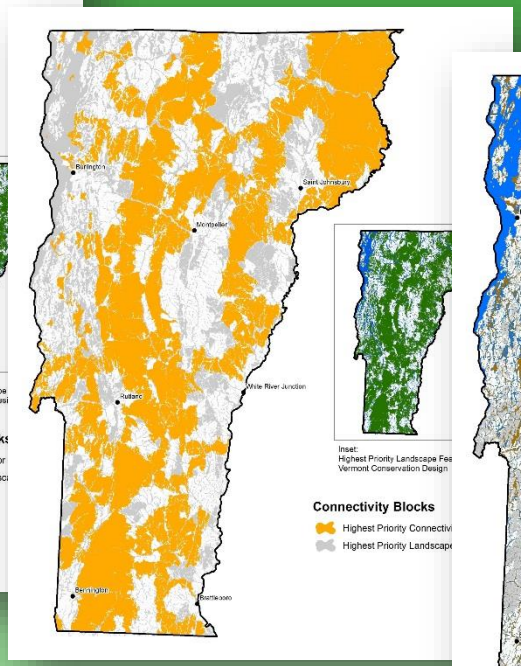


Intact and Connected Forest Blocks
Surface Waters and Riparian Areas

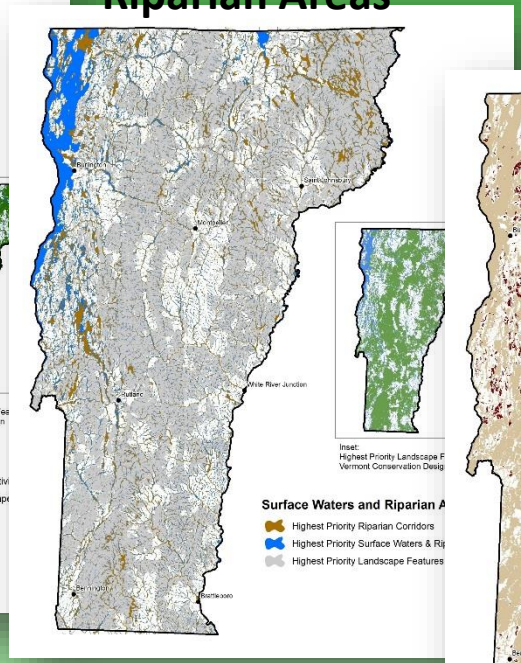
Interior Forest Blocks



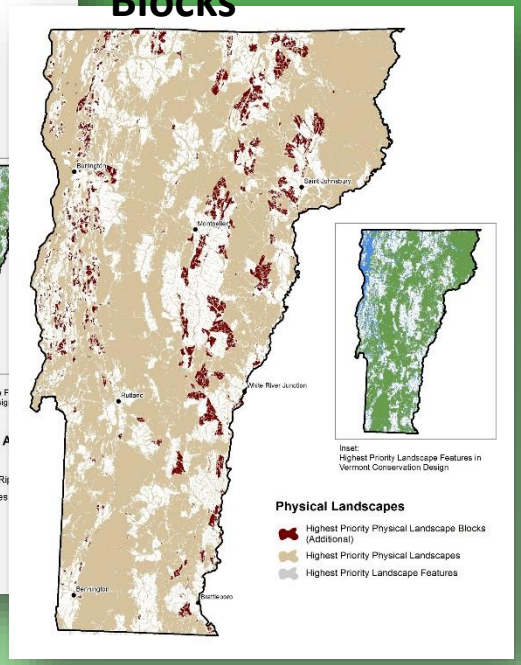
Connectivity Blocks



Surface Waters and Riparian Areas



Physical Landscape Blocks



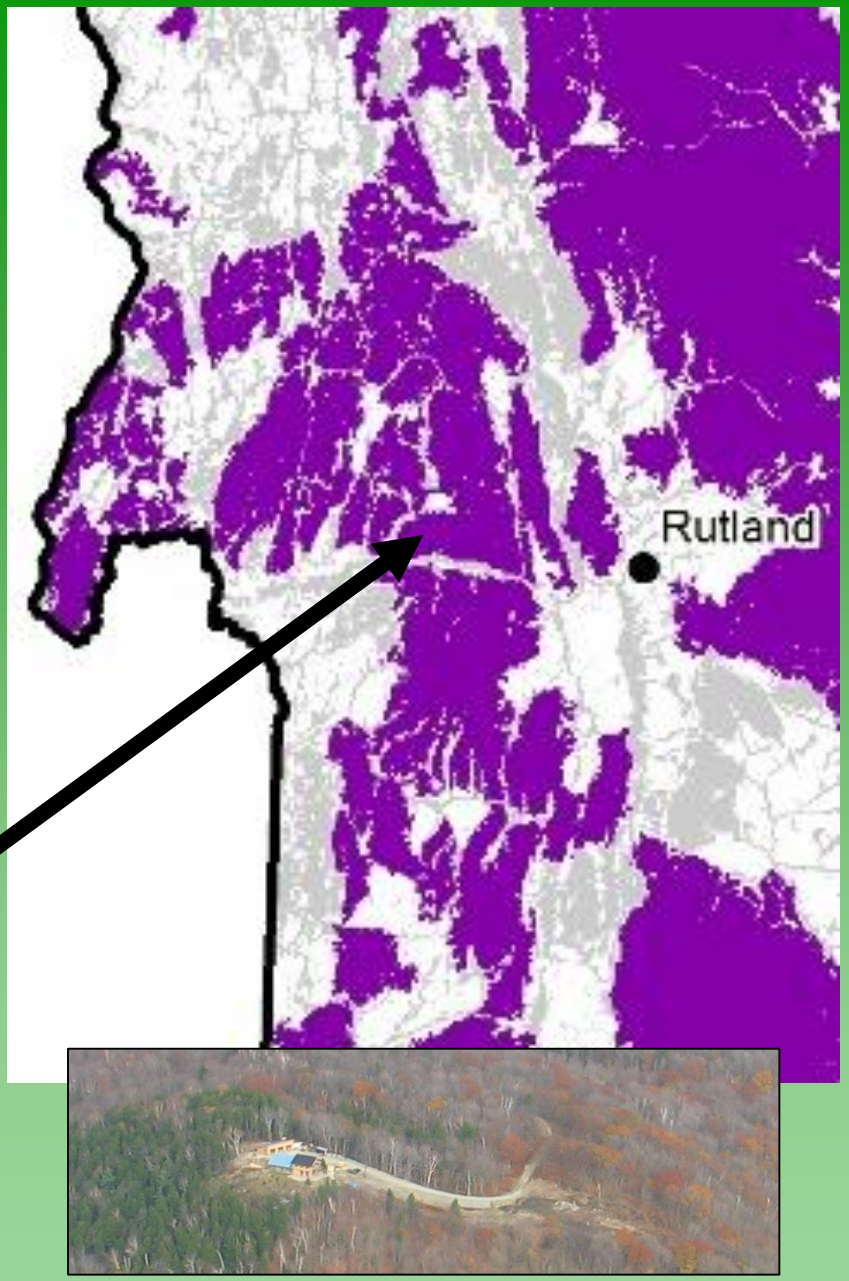
Wildlife Road Crossings

Maintain the specific functions of each element

Interior Forest Blocks

Guidelines for Maintaining Ecological Function:

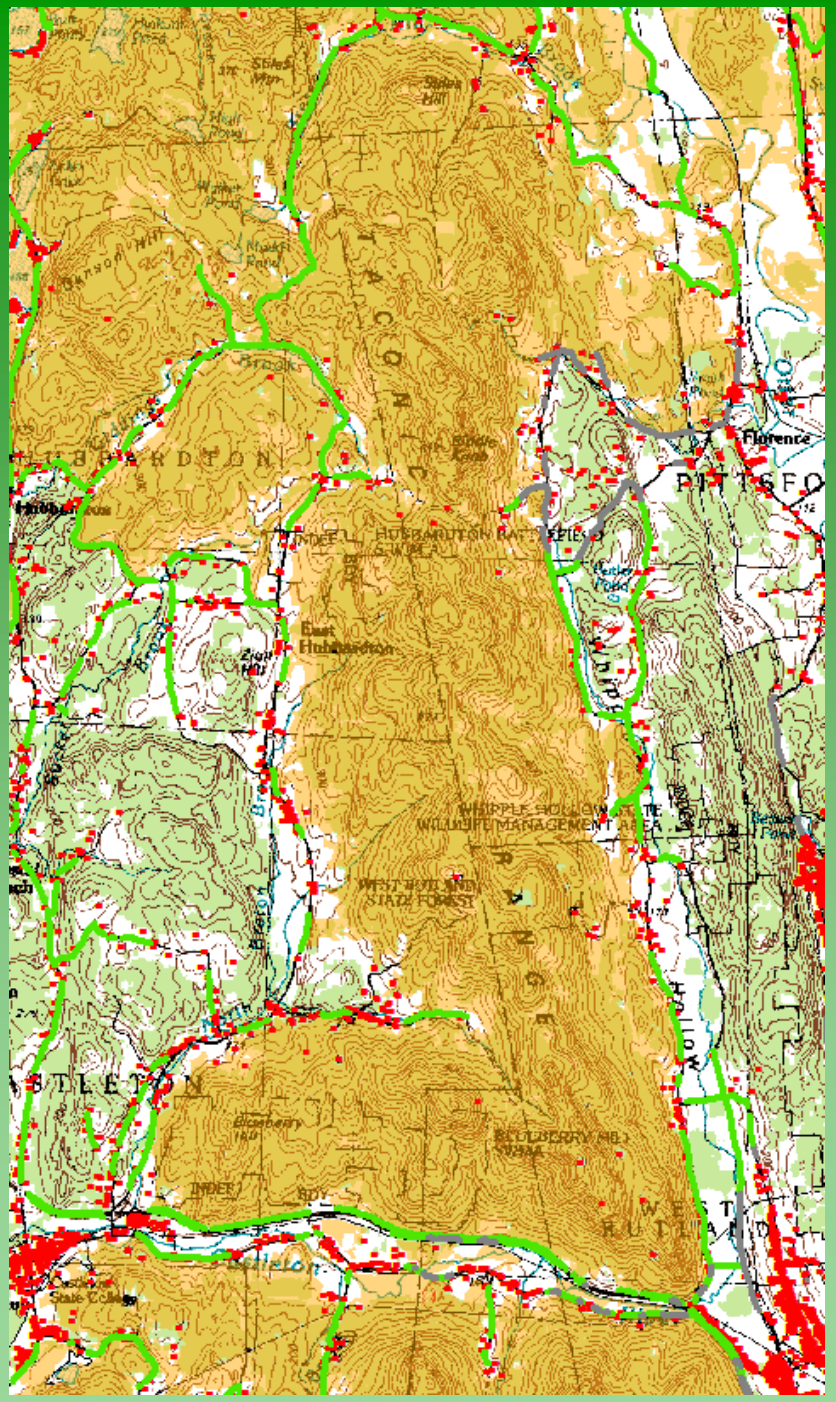
- Avoid permanent interior fragmentation
- Limit development to the margins
- Maintain forest structure & distribution of age classes
- Minimize invasive species.



Connectivity Blocks

Guidelines for Maintaining Ecological Function:

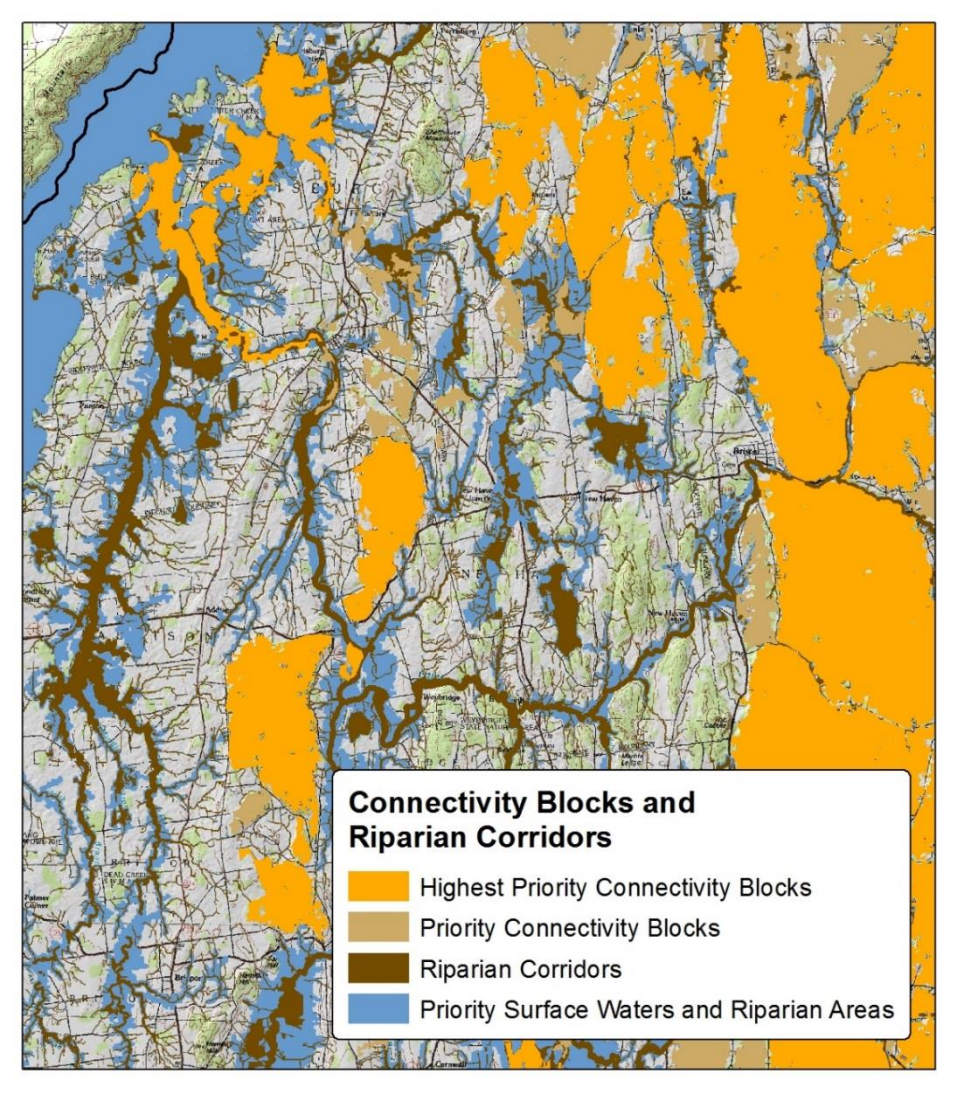
- Maintain interior forest conditions;
- Avoid development that creates interior forest fragmentation;
- Maintain or enhance structural and functional connectivity at block margins where they border other connectivity blocks;
- Limit development in these areas of block-to-block connectivity and maintain forest cover.



Riparian Connectivity

In parts of the state, riparian areas are the only connections between forest blocks

We need to restore riparian vegetation



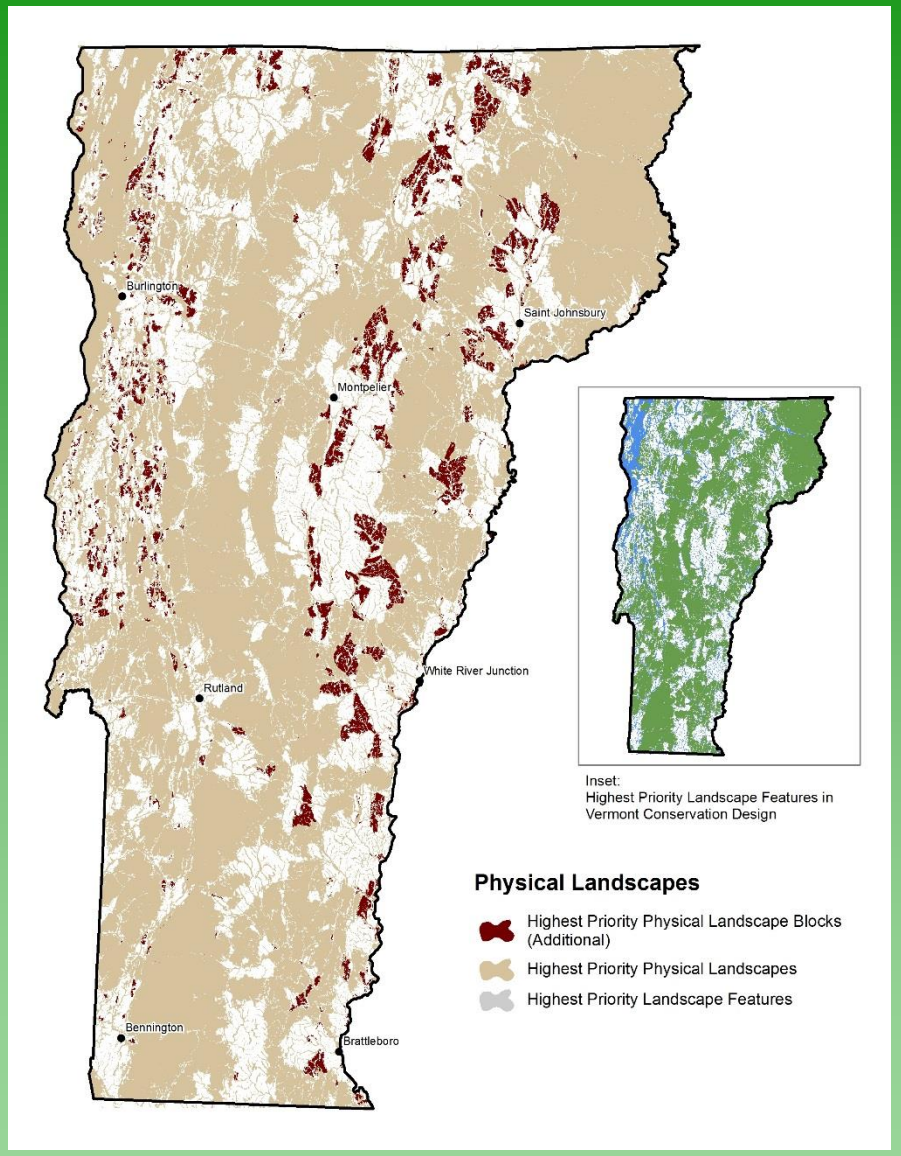
Physical Landscape Diversity

A set of forest blocks that ensure we conserve Vermont's full diversity of elevation, geology, and landforms

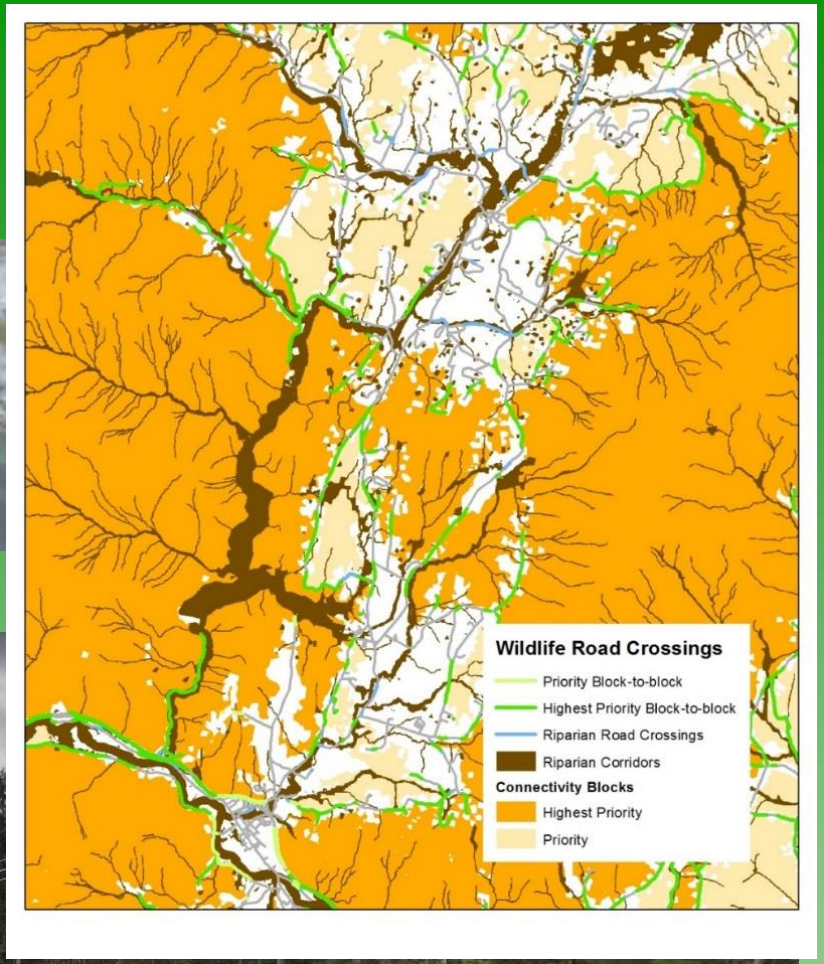
"Conserve nature's stage"

Ecological functions:

- Habitat for species that use specific physical settings (e.g. those found on calcium-rich rock)
- Species can shift to new settings in a changing climate



Wildlife Road Crossings

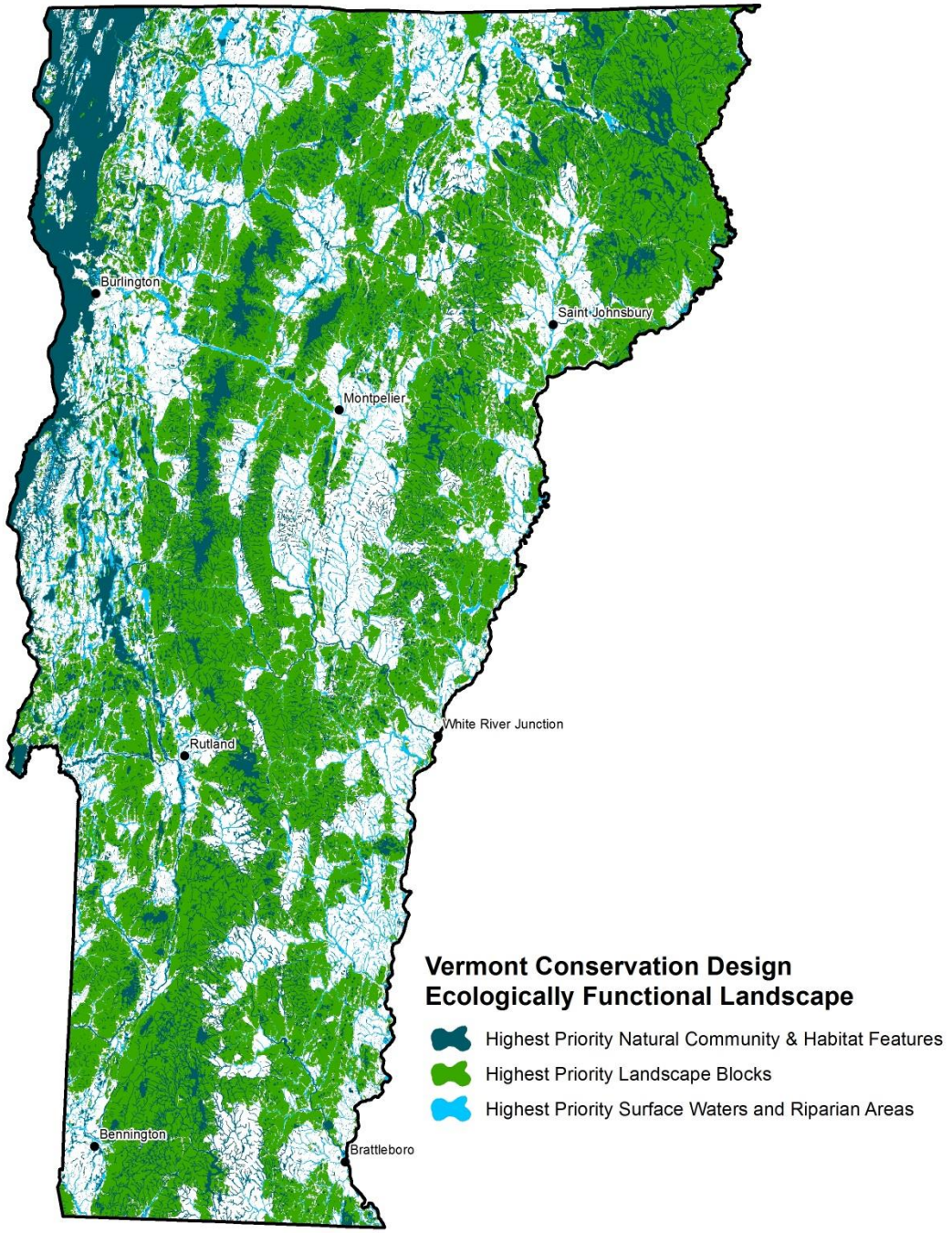


Vermont Conservation Design

Maintains an intact, connected and diverse natural landscape

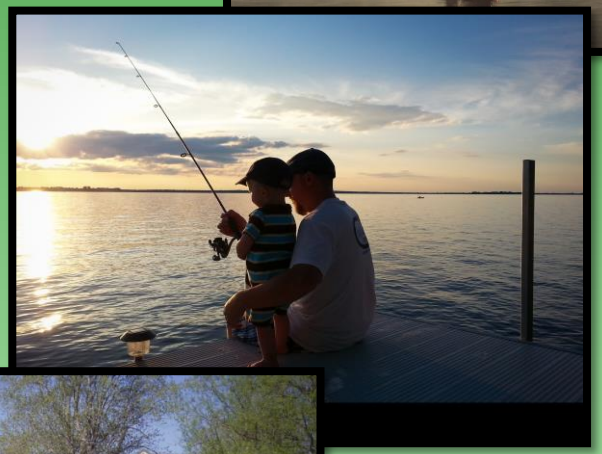
Conserves species and natural communities

Allows nature to adapt to a changing climate



Sustains more than biodiversity

- Outdoor recreation
- Clean water
- Sense of place and rural character
- Working farms and forests
- Nature's benefits



Some Thoughts and Perspectives

- Vision for the future of Vermont.
- Landowners and their decisions are key to success.
- All the features are needed for ecological function.
- Unifies many aspects of conservation, without being prescriptive.
- Supports Vermont's social and economic values.

Photo by Susan Morse

Vermont Conservation Design – On the Road

- About 30 presentations and discussion in 2018
- Overwhelming support for the concepts and vision
- Consistent concern about how to make implementation equitable to landowners

How Do We As a State Make Vermont Conservation Design a Reality for Our Future?

A balance of:

- Galvanizing public support
- Social and financial support for landowners, allowing them to continue good stewardship
- Permanent conservation in key areas
- Regulation at the town (Act 171) and state level
  - Including “significant forest blocks” and “significant connecting habitat” as Act 250 criteria is critical

Vermont Conservation Design Maps

They are:

- 67 percent of Vermont is identified at the landscape scale
- Maps are a useful tool to focus all aspects of our conservation work
- All the map data is available on BioFinder website for transparency and predictability

Vermont Conservation Design Maps

<u>They are</u>:

- **Not Effective as a regulatory jurisdictional trigger as the Highest Priority areas cover 67 percent of Vermont**
  - **Contrast with wetlands (3%) and land over 2,500 feet (~60,000 acres)**

- **A work in progress and will continue to evolve as our scientific understanding and technology improve**

Suggestions for Act 250 (E. Sorenson only)

- **We need criteria to consider development impacts to "significant forest blocks" and "significant connecting habitat".**

- **Since VCD Highest Priority features cover such a large area, jurisdictional triggers based on development activities would be most effective. Activities include:**
  - **Long roads**
  - **Multiple lots**
  - **Others??**

- **Towns with permanent zoning for forest blocks and habitat connectors could have a higher threshold for number of lots triggering Act 250.**

Thank you.