

Natural Communities

Natural communities are interacting assemblages of organisms and their environment, and they are classified into types, such as Northern Hardwood Forest, Hemlock Forest, Red Maple-Black Gum Swamp, and Cattail Marsh, that repeat across the landscape wherever similar conditions are found.

Ecological Functions

Natural communities are one of the most important “coarse filters” for conserving biological diversity (Hunter 1991, Thompson and Sorenson 2000). This is because there are relatively few natural community types—97 in Vermont—compared to the tens of thousands of plant and animal species. Collectively, these 97 types in Vermont encompass the full range of habitat conditions that native flora and fauna evolved with and are adapted to. Therefore, conserving high-quality examples of all the natural community types is an efficient way to conserve most species.

Natural communities are relatively stable in a human timeframe, but their species assemblages have changed over thousands of years and will continue to shift in response to a changing climate. Sites with high-quality natural communities today represent places that are expected to continue to support important natural communities, and associated species, into the future.

Highest Priority Features and Guidelines for Maintaining Ecological Function

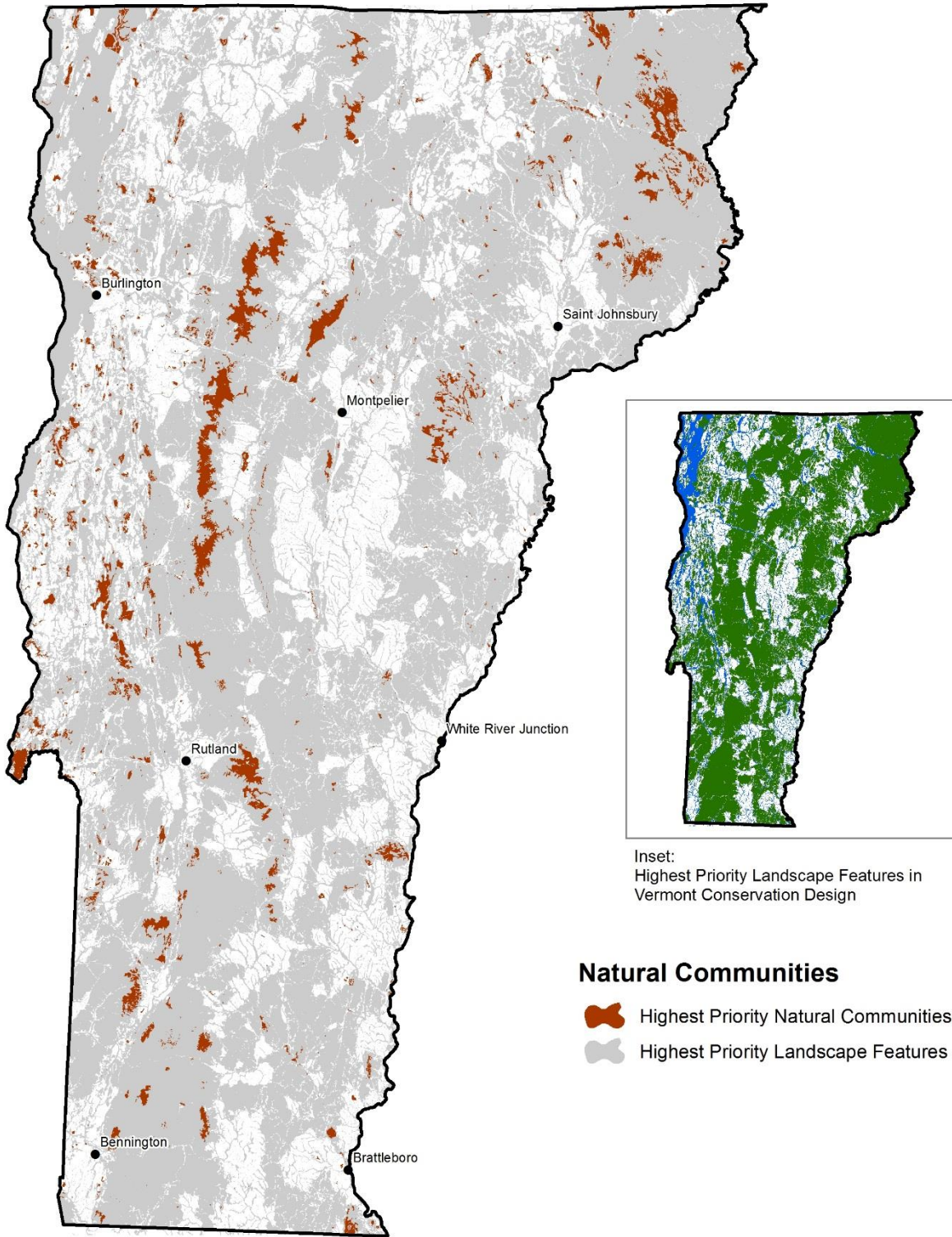
Vermont Conservation Design identifies conserving state-significant examples of each of the natural community types as a highest priority for maintaining ecological function. Specifically, this means conserving all significant examples of rare natural community types, and 50% of the significant examples of more common types, distributed across biophysical regions, and within an intact and connected natural landscape whenever possible. Some community types can be effectively conserved by other coarse filters. Matrix community types, such as Northern Hardwood Forest, are effectively captured by forest blocks and old forests. Seeps and vernal pools are captured by forest blocks and wetlands, respectively.



These natural communities should be maintained in, or restored to, a state of high ecological integrity. This translates into several measurable characteristics. Each natural community should be dominated by the native species characteristic of that community type. The species composition and physical conditions (soils, hydrology, etc.) should be largely unaltered by, or mostly recovered from, human disturbances. Natural disturbance processes should predominate. In general, high ecological integrity will correspond to an A or B- ranked element occurrence, and A-ranked condition, using Vermont Fish and Wildlife Department’s Natural Community Ranking Specifications.

For more information on natural communities, see the following section in the Part 2 Vermont Conservation Design Technical Report:

- Natural Communities



Map 6. Highest Priority Natural Communities. Mapping represents the best current knowledge; additional highest priority natural communities exist that are not yet mapped.