



# VT Backcountry Ski Handbook

## Creating a Common Language for Backcountry Ski Zone Management

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# Overview

- Purpose
- Content
- Best Mgmt. Practices
- Monitoring
- Questions



**Into the Wilds: Backcountry Skiers Push for State Help in Carving New Glades**  
 Local Matters  
 By CHARLES ECHACKER

VERMONT'S INDEPENDENT VOICE  
**SEVEN DAYS**

 powder

**Vermont's Expanding Backcountry**  
 Volunteers trim and maintain new zones for backcountry skiers

October 15, 2014 | By Johnny Sudekum

**Backcountry Skiing Clinics**  
 Bolton Valley, Vt.

The New York Times

**The Backcountry Ski Sales Boom Is Upon Us**  
 Here's what you need to know if you're in the market to buy this season



2022

Outside

**Backcountry skiers organize for access**  
 By Evan Johnson

VERMONT   
**SPORTS**  
 NEW ENGLAND'S OUTDOOR MAGAZINE

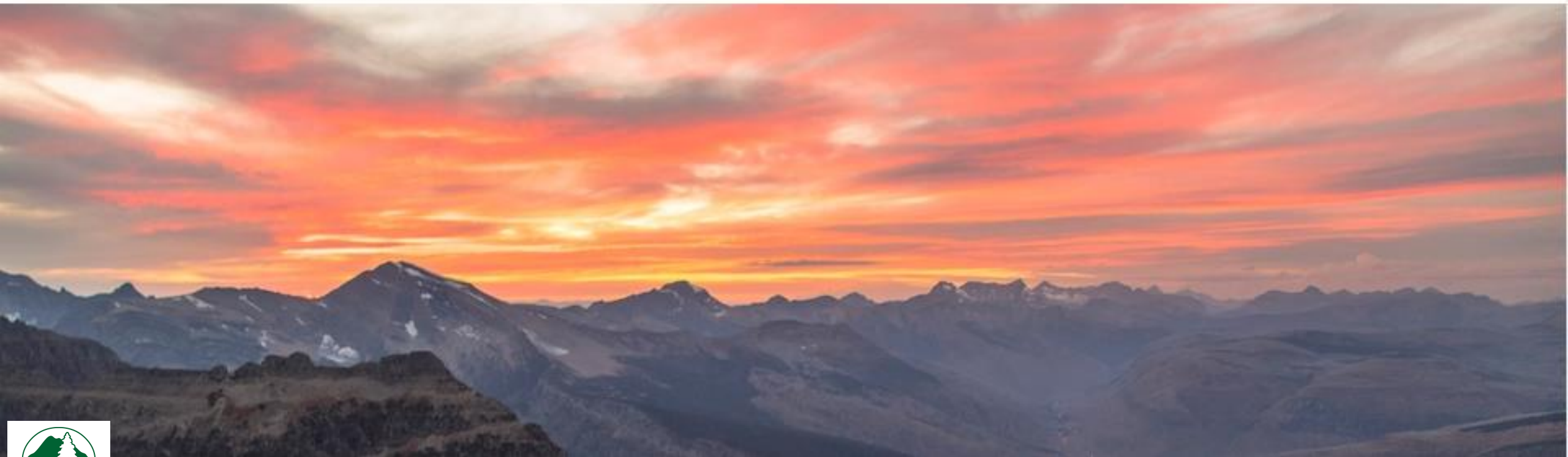


**Rise of Backcountry Skiing**

# Outdoor Recreation Now Contributes More than \$1 Trillion to the U.S. Economy

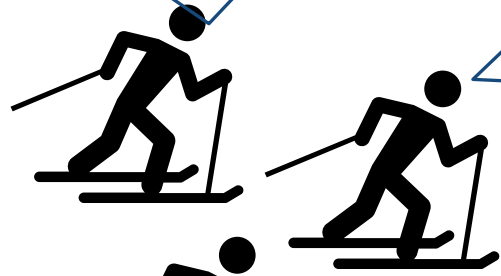
Outside

The outdoor recreation economy is outpacing domestic growth



Recreation Influence Nationally

Stoke!



Shreddin' the GNAR!

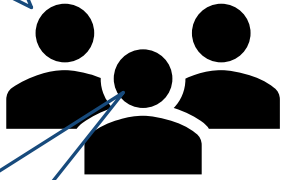


POW POW

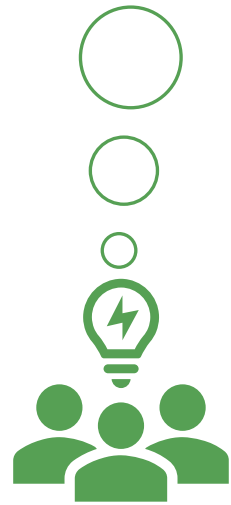


Structural Diversity

Sequestration



Land Use Classification



# Identified the following needs

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 Overview of Backcountry Skiing

 Natural Resource & Social Considerations

 Long-term Mgmt./Partnerships

 BC Ski Zone Approval Process

 Implementation/Construction

 Safety & Risk Management

 Maintenance

 Monitoring

 Overnight Use



# Natural Resource Considerations

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## GENERAL CONSIDERATIONS

- Ecological Context
- Landscape-Scale
- Forest Stand Level
- Wildlife
  - Flight Response
  - Change in Habitat + Forage Use
  - Vigilance
- Natural Communities

## SPECIAL CONSIDERATIONS

- RTE Species
- Important Wildlife Habitats
- Riparian Areas
- State/Federal Designations
  - i.e. Natural Areas, Wilderness
- Unauthorized Cutting

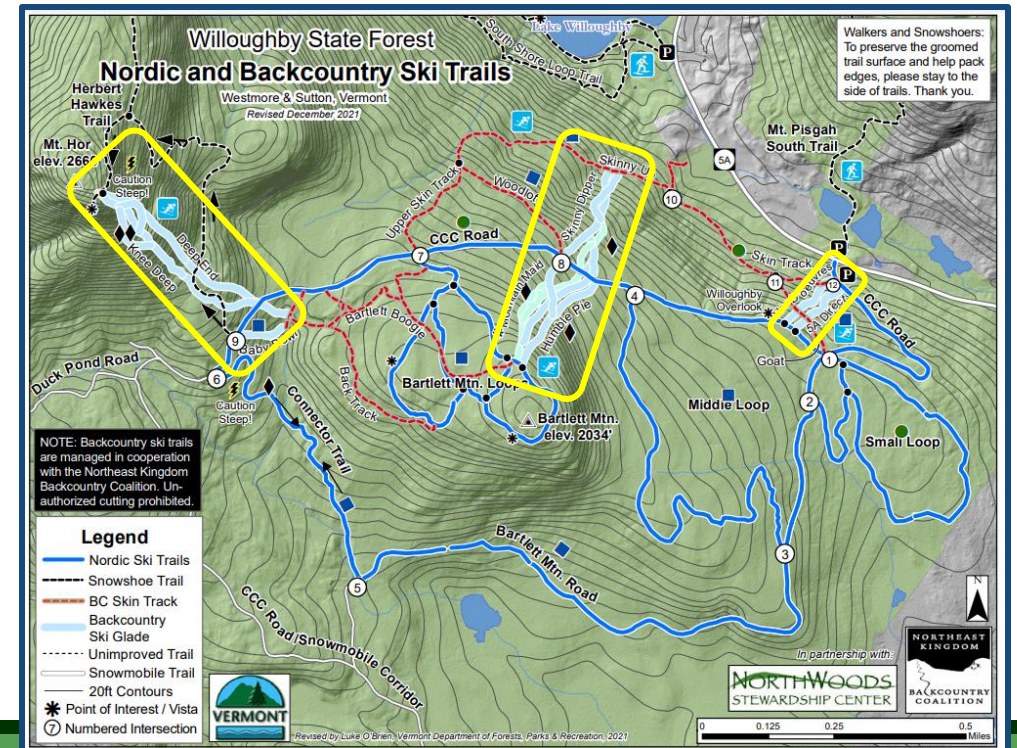
# Detailed Guidance

## SKI ZONE DELINEATION

- Understand Landowner Goals
- Identify Target Audience + Terrain
- Conduct Site Reconnaissance
- Determine Control Points (+ and -)
- Identify BC Ski Zone Boundaries
  - Vegetation Islands
  - Skiable Lines
  - Skin Tracks (uphill travel)

## SKI ZONE CONSTRUCTION

- Mark the Zone Boundary + Vegetation Islands + Lines





# Applying the Guidance: Vegetation Islands

- 🌲 Locations where **silvicultural goals** may be applied
- 🌲 Help **maintain forest structure and diversity**
  - 🌲 Maintain vegetation of different sizes, species, etc.
  - 🌲 Contain healthy, vigorous trees that can act as mast + seed sources
  - 🌲 Can include seeps, softwood inclusions, cliffy terrain, etc.
- 🏂 Provide **challenging and diverse** ski terrain
- 🤝 Identifying + laying out vegetation islands is crucial for:
  - 🤝 long-term **forest health**
  - 🤝 Influencing the **number, width, and variety of ski lines.**

Forest

Line

Vegetation  
Island



# BC Ski Zone Guidance – VT FPR | Willoughby SF

## NON-VEGETATION SPECS

### Flagging Specifications

- Left + Right Edges (Pink + Orange)
- Vegetation Islands + Retention Trees (Blue)

### Blow downs + Slash

- Downed trees – cut  $\leq 2'$  max height off ground
- Scatter slash – islands + uneven terrain

## VEGETATION SPECS

### Cutting restrictions

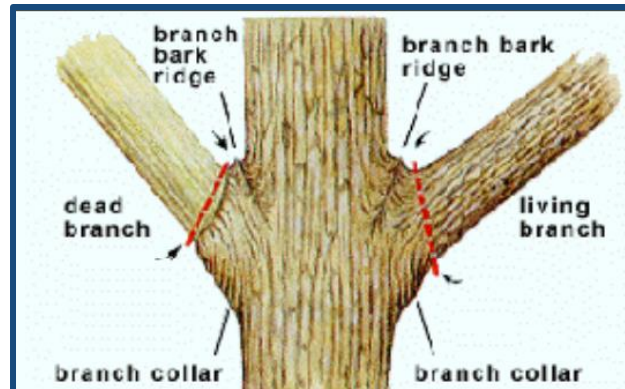
- Do not cut vegetation  $\leq 1$  meter (3.2 ft) in height

### Limit cutting

- Red spruce and hemlock
- Yellow birch
- Mountain Ash
- Mature trees ( $\geq 8"$  dbh)

### Cutting Allowed

- Hobblebush
- Branches, dead wood, hazards
- Poorly formed stems
- Signs of disease
- Hardwoods overtopping softwoods
- Competing hardwood poles (3-8")



Applying the Guidance: Construction Guidelines

# Monitoring

- Identified long-term data sets that exist
  - Forest structure
    - FIA
    - CFI
- Overview of User Data
  - Infrared Counters
  - User Surveys
- Suggested Partners





# Thank you!

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**FORESTS, PARKS & RECREATION**

**VERMONT**



**AGENCY OF NATURAL RESOURCES**

- 1 Parking Area
- 2 Staging Area
- 3 Skinning Ascent
- 4 Transition Point
- 5 Descent
- 6 Hut or Shelter



Diagram of a Backcountry Ski Zone

# Willoughby State Forest Nordic and Backcountry Ski Trails

Westmore & Sutton, Vermont  
Revised December 2021

Walkers and Snowshoers:  
To preserve the groomed trail surface and help pack edges, please stay to the side of trails. Thank you.



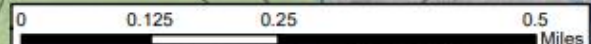
NOTE: Backcountry ski trails are managed in cooperation with the Northeast Kingdom Backcountry Coalition. Unauthorized cutting prohibited.

**Legend**

- Nordic Ski Trails
- - - Snowshoe Trail
- - - BC Skin Track
- Backcountry Ski Glade
- - - - - Unimproved Trail
- Snowmobile Trail
- 20ft Contours
- \* Point of Interest / Vista
- 7 Numbered Intersection



Revised by Luke O'Brien, Vermont Department of Forests, Parks & Recreation, 2021



1 Skin Track Ascent

2 Side-Stepping

3 Herringbone

4 Boot Packing

5 Skin Track with Kick Turns



Jackson Tupper



# Different Ways to Ascend



### THE VT BACKCOUNTRY SKI HANDBOOK CAN:

- Help public land managers and private landowners more clearly understand what backcountry skiing is;
- Help partner organizations looking to create a proposal understand the breadth of information needed by public land managers and private landowners to come to a decision;
- Foster a common language related to backcountry ski zones that can be used by a variety of land management organizations, including both public and private entities;
- Be approached, read, and used flexibly. Although presented as one manual, the chapters are designed to support each other and be used independently to answer questions.
- Provide real-world examples of guidelines used in existing BC ski zones, sample documents related to CTA chapter establishment, and online tools for creating maps and understanding how natural resources overlay with proposed zones

### THE RESOURCES IN THIS DOCUMENT DO NOT:

- Identify all of the specific ecological, management or other factors that might be considered for a unique proposal on public or private land;
- Replace institutional policies, plans, procedures or statutes



We clearly identified what the handbook can and cannot do

# VERMONT BACKCOUNTRY ETHICS

## Tools Identified

- History of Backcountry Skiing
- Vermont Conservation Design
- Forestry for the Birds
- BioFinder
- ANR Natural Resources Atlas
- Wetland, Woodland, Wildland
- VT Backcountry Ethics
- Town Forest Recreation Planning Toolkit

## LEAVE NOTHING BUT TRACKS

### 1 \_ Plan Ahead & Prepare

- ▶ Practice safety first.
- ▶ Know where you are going.
- ▶ Know your own and your group's limits, and minimize risks.

### 2 \_ Travel On Durable Surfaces

- ▶ Stay on deep snow cover whenever possible.

### 3 \_ Dispose of Waste Properly

- ▶ Pack it in. Pack it out.

### 4 \_ Leave Things As They Are

- ▶ Leave only tracks. No unauthorized cutting.

### 5 \_ Minimize Campfire & Hut Impacts

- ▶ Use a lightweight stove for cooking and enjoy a lantern for light.
- ▶ Leave huts and cabins in better shape than you found them.

### 6 \_ Respect Wildlife

- ▶ Observe wildlife from a distance. Do not follow or approach wildlife. Winter is an especially vulnerable time for animals.

### 7 \_ Be Considerate of Others

- ▶ Any maintenance cutting can be done only with permission, as part of an authorized project or program. Respect landowners, both public and private.
- ▶ Respect other skiers/riders and all other users.
- ▶ When ascending trails, keep clear and yield to downhill traffic. Avoid booting and snowshoeing in skin or ski tracks. When descending always stay in control, go one at a time, and slow down near others.
- ▶ Respect designated areas, signs and wildlife.



[www.catamounttrail.org](http://www.catamounttrail.org)

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# Outlined Landowner Processes

- USFS
- ANR
  - DSTs
  - FPR
  - F&W
- Private Landowners
- Partner Organizations  
(Explained the importance of a long-term partner organization when working with all landowners)

## Understand Landowner Objectives

- Objectives vary across government agencies and among private landowners
- Find public land managers' missions, goals, and objectives online and in specific management plans
- Public land is managed for multiple uses but not on every acre!
- Some areas have specific objectives and constraints not compatible with backcountry skiing
- Projects on public land will likely require a public involvement process
- Private land is managed for uses determined by the private landowner (and often governed by forest management plans)
- The goals and objectives, including legal protections and interests, on public land and/or private land may not align with backcountry skiing
- Determine the proper communication channels: Who is the correct point of contact for federal, state, municipal, or private landowner/manager?