



**FORESTS, PARKS & RECREATION
VERMONT**



AGENCY OF NATURAL RESOURCES

WORCESTER RANGE DRAFT MANAGEMENT PLAN

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WELCOME



**PLANNING FOR STATE LAND
MANAGEMENT**

AGENCY OF NATURAL RESOURCES



Vermont Department of Forests, Parks and Recreation

“... the conservation and management of Vermont’s forest resources, the operation and maintenance of the State Park system, and the promotion and support of outdoor recreation for Vermonters and their visitors.”

Vermont Fish & Wildlife Department

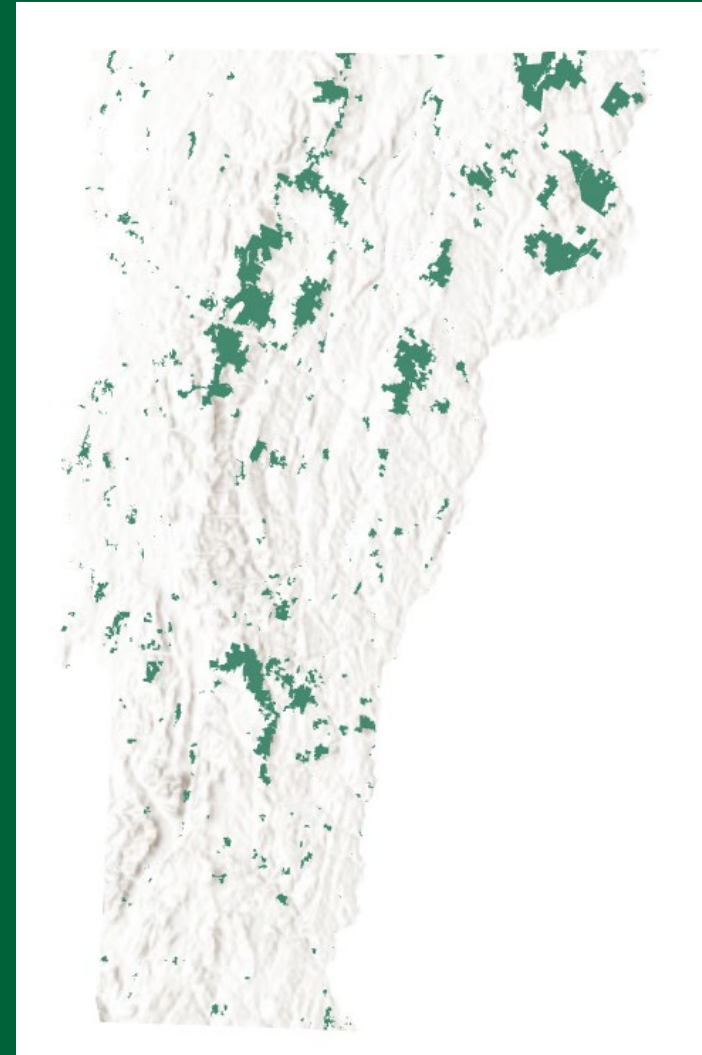
“... The conservation of all species of fish, wildlife, and plants and their habitats for the people of Vermont...”

Vermont Department of Environmental Conservation

“... To preserve, enhance, restore, and conserve Vermont’s natural resources, and protect human health, for the benefit of this and future generations.”

AGENCY LAND OWNERSHIP

- Department of Forests, Parks and Recreation (239,000 ac)
 - State Forests (185,000ac)
 - State Parks (54,000ac)
- Department of Fish and Wildlife (135,000 ac)
 - Wildlife Management Areas
 - Riparian Management Areas
- Department of Environmental Conservation
 - DEC-owned dam lands



FPR DIRECTION (10 VSA 2603)

“(b) The Commissioner shall manage and plan for the use of publicly owned forests and park lands in order to implement the policy and purposes of this chapter, promote and protect the natural, productive and recreational values of such lands, and provide for multiple uses of the lands in the public interest...”



AGENCY LANDS CONCEPT

- Recognize unique, specific mission of each department and purposes for which lands were acquired.
- Agency land management and planning is strengthened by collaboration between Departments.



WHY MANAGEMENT PLAN?

- Landscape-scale resource planning and management
- Balance multiple uses
- Understand public desires and opinion
- Provide opportunities that the public seeks, and that are consistent with ANR and Department missions and policies
- Establish continuity across staff



PROCESS

Resource assessments - complete

Public scoping - complete

Draft management plan - complete

Public comment – Dec 13-Feb 2

Evaluate comments

Draft revised management plan





State of Vermont
Agency of Natural Resources
Department of Forests, Parks and Recreation
Department of Fish & Wildlife

Worcester Range Management Unit
Draft Long Range Management Plan

Elmore, Vermont
Middlesex, Vermont
Stowe, Vermont
Waterbury, Vermont
Worcester, Vermont

18,772 acres

 Prepared by: *Barre District Stewardship Team* 

Approved by: _____, Commissioner Date _____
Choose an item.

Reviewed by: _____, Commissioner Date _____
Choose an item.

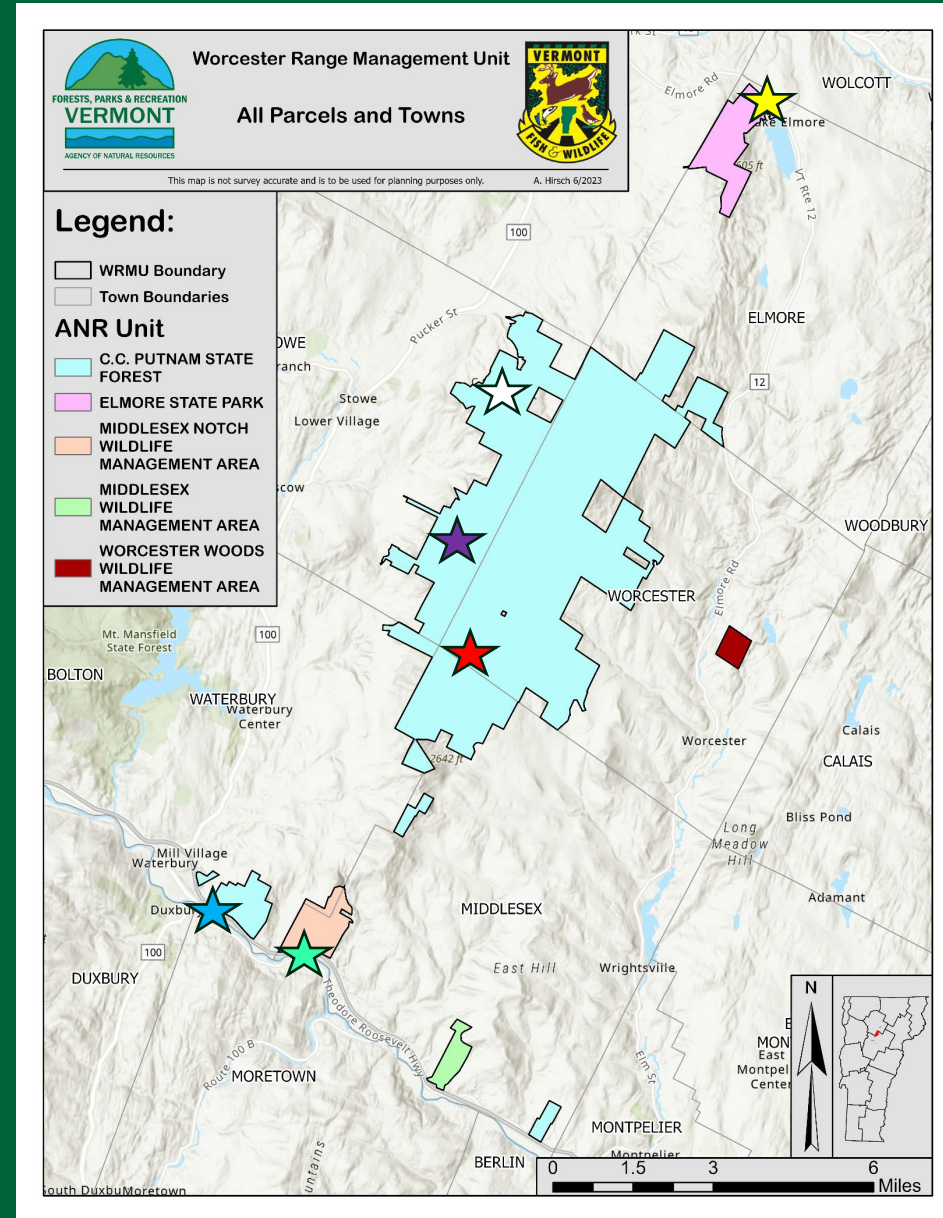
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Agency of Natural Resources



WORCESTER RANGE OVERVIEW

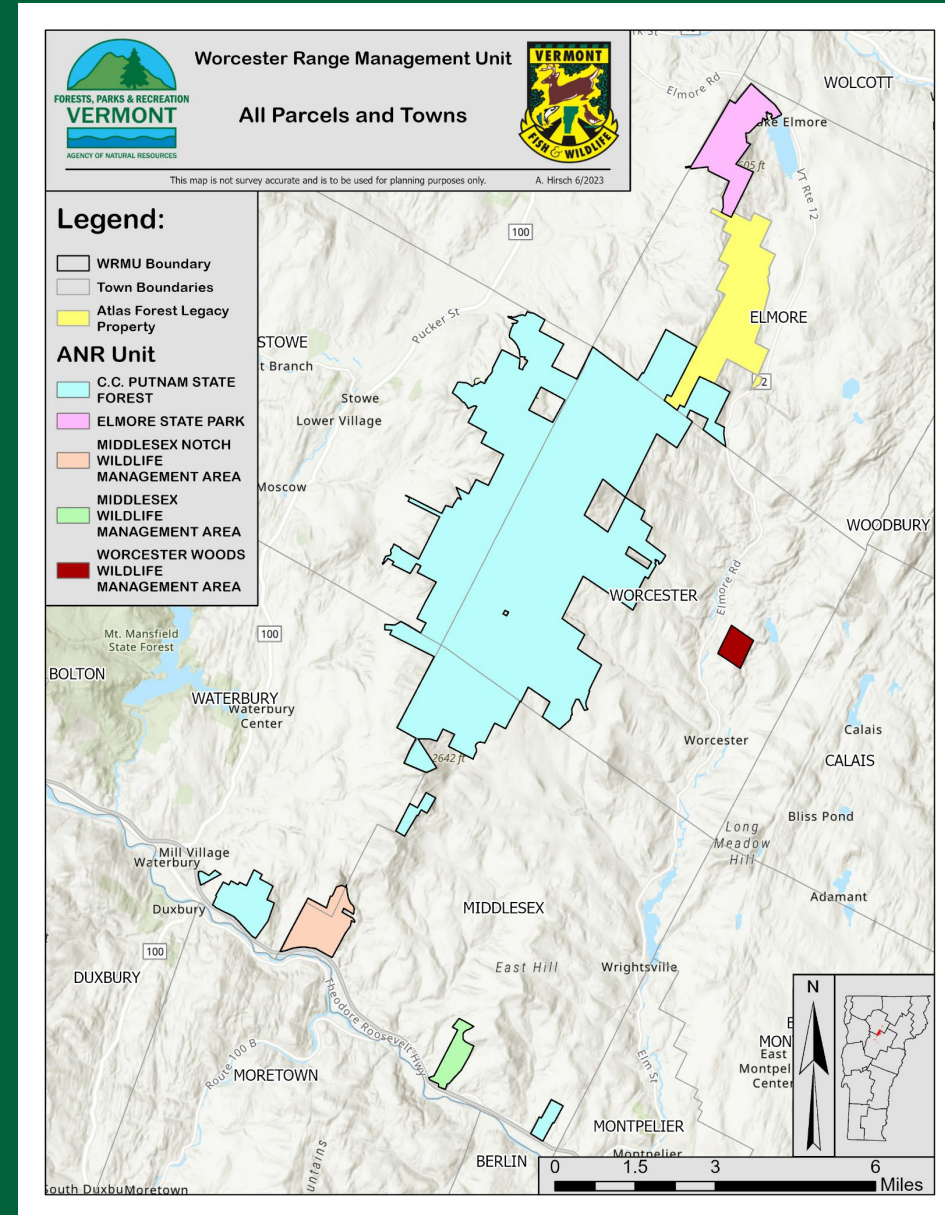
THE WORCESTER RANGE

- 18,772 Acres
- Northern Green Mountains Biophysical region
- Prominent features
 - ★ Hunger Mountain
 - ★ Elmore State Park
 - ★ Perry Hill Trails
 - ★ Stowe Pinnacle
 - ★ Middlesex Notch WMA
 - ★ Brownsville Forest Acquisition



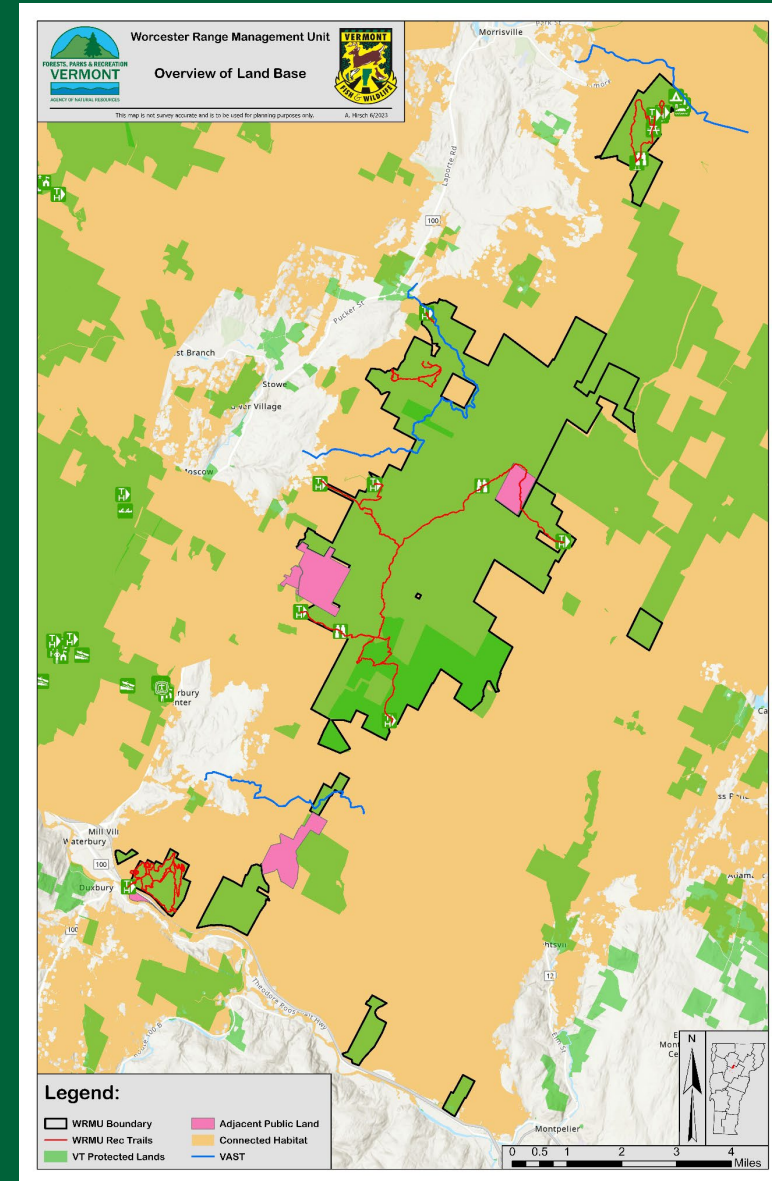
OVERVIEW OF OWNERSHIP

- FPR: 17,680 acres
 - CC Putnam SF - 16,685 ac
 - Elmore SP - 995 ac
- FWD: 811 acres
 - Middlesex Notch WMA - 625 ac
 - Worcester Woods WMA - 186 ac
- *Adjacent State easements:*
 - FPR: Atlas easement - 2,281 ac
 - FWD: Middlesex WMA easement - 281 ac



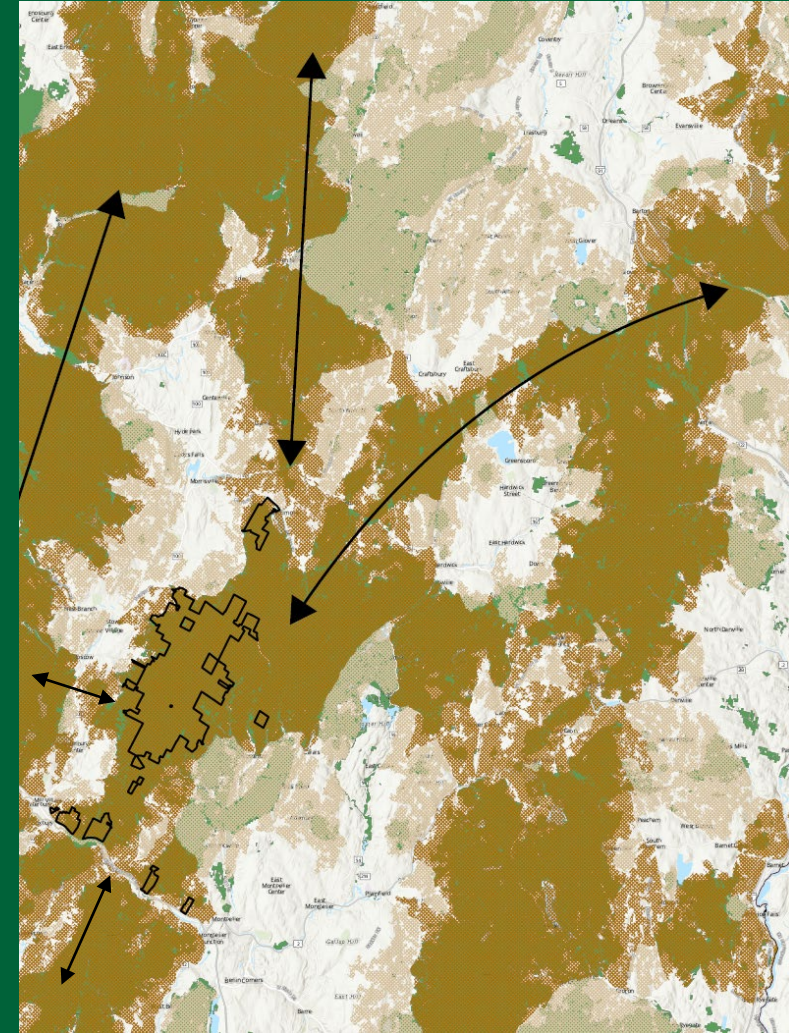
LANDSCAPE CONTEXT

- Adjacent conserved lands
 - Former Atlas Lands
 - VLT Worcester Woods Forest Legacy
 - NEWT Woodbury Mountain Preserve
 - Waterbury Waterworks parcel
 - Worcester Town Forest
 - Middlesex Town Forest
- Forest blocks and connectivity blocks
 - Entirely within two 45,000-acre highest priority blocks for intact forest and habitat connectivity
 - Critical north-south and east-west travel linkages for wildlife



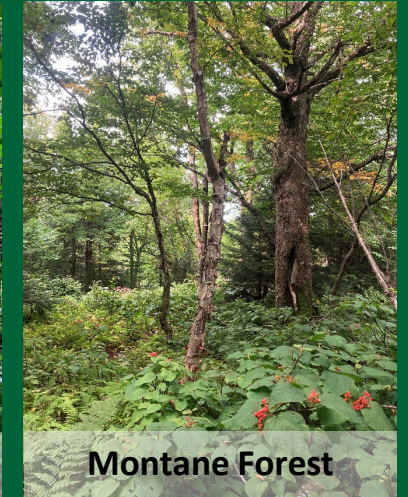
ECOLOGICAL & WILDLIFE CONTEXT

- Key connection between the Adirondacks and western MA, north and east to ME, New Brunswick, and the Gaspé.
- Provides critical ecological and wildlife connection from the Northern Green Mountains to the Northeastern Highlands.
- Also provides connections west to Bolton Mtn and Mt. Mansfield, and south, across Route 2 and Interstate 89.



ECOLOGICAL HIGHLIGHTS

- Supports 27 natural community types and a notable diversity of species.
- Communities range from low-elevation floodplain forest to high-elevation boreal forest



WILDLIFE HABITAT HIGHLIGHTS

- Large contiguous interior forest and significant water resources
- 938 acres of deer wintering area (5%)
- 600 acres of hard mast feeding areas (3.2%)
- 29 mapped vernal pools
- Supports wide array of common reptiles, invertebrates, and amphibians



RECREATION HIGHLIGHTS

43 Total Miles of Trail in WRMU

By Area

- Worcester Range - 23 miles
- Perry Hill - 10 miles
- Elmore State Park - 6 miles
- Brownsville Forest - 2.5 miles
- Moss Glen - 0.25 miles

By Type

- Mechanized/Multi-Use - 10 miles
- Motorized - 6 miles
- Pedestrian - 27 miles



WATER RESOURCE HIGHLIGHTS

- Extensive headwater network – Lake Champlain Basin – Winooski & Lamoille Watersheds
- Popular water resources include Moss Glen Falls & Lake Elmore
- Groundwater is abundant in the mountains, resulting in frequent seepage at the surface.
- Small pocket wetlands are widespread and provide important landscape diversity that supports many species of plants and animals.





MANAGEMENT PLAN OVERVIEW

MAJOR MANAGEMENT PROPOSALS







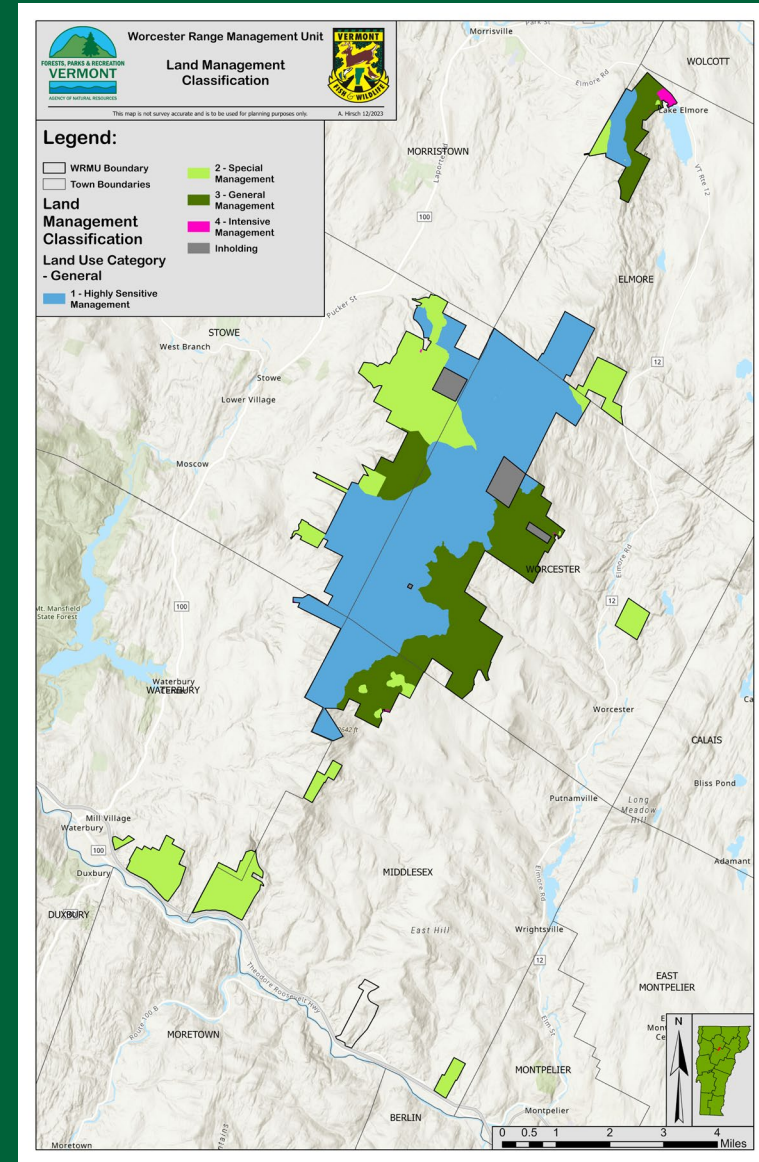
1. Expansion of HSMA by 5,492 acres (29% of the unit)
2. Forest management on 1,935 acres (10% of the unit)
3. Establish management direction for new acquisitions
4. Formalize some pre-existing recreational uses (mountain bike use at Brownsville Forest, winter biking at Perry Hill)
5. Proactively manage unauthorized recreational uses



MANAGEMENT PROPOSALS

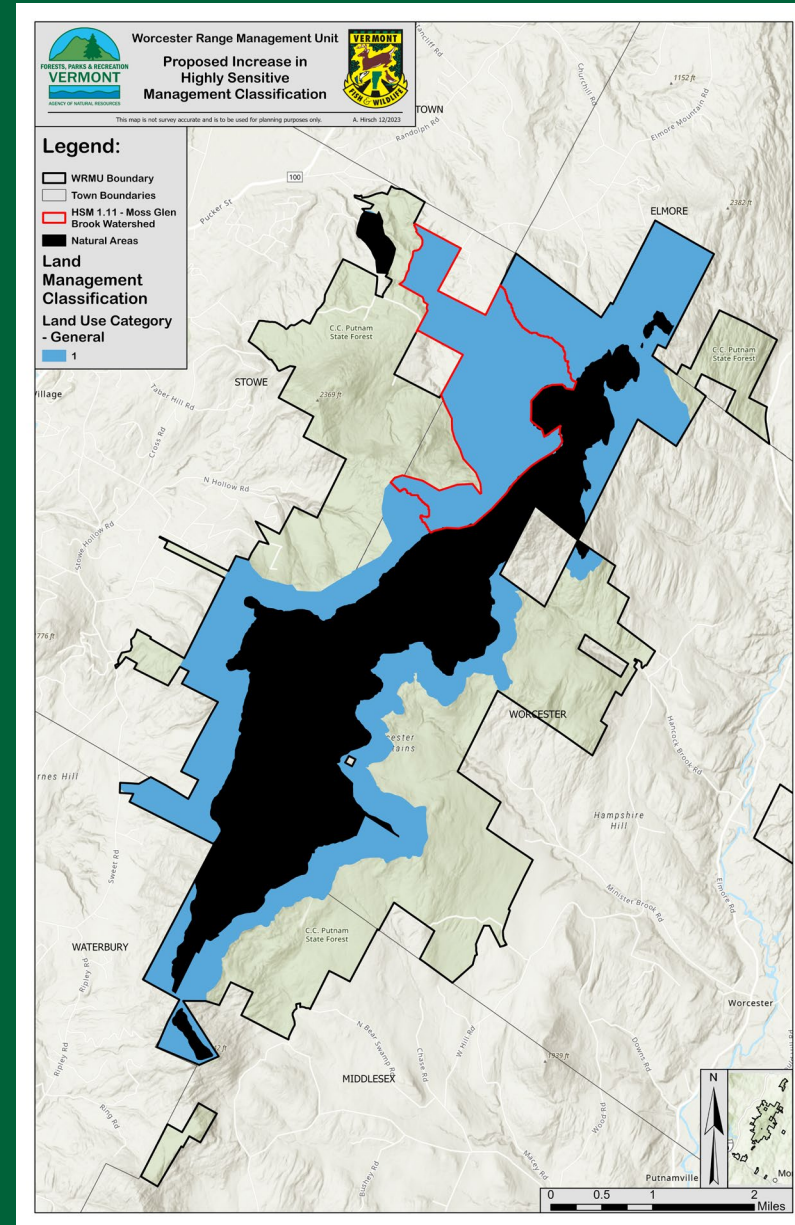
LAND MANAGEMENT CLASSIFICATIONS

-  **HIGHLY SENSITIVE MANAGEMENT AREA (HSMA)— 9,651 ACRES (52%)**
-  **SPECIAL MANAGEMENT (SM)— 4,250 ACRES (23%)**
-  **GENERAL MANAGEMENT (GM) — 4,543 ACRES (25%)**
-  **INTENSIVE MANAGEMENT (IM) — 55 ACRES**



PROPOSED INCREASE IN HSMA

- Already-classified HSMA (4,139 ac)
 - Moss Glen Falls NA (81 ac)
 - Worcester Range NA (4,058 ac)
- New HSMA additions (5,492 ac)
 - Moss Glen Watershed Area (1,207 ac)
 - Mid-elevation inclusion (4,285 ac)
- Total HSMA: 9,651 ac (52%)



A photograph of a dense forest with tall, thin trees and a ground covered in fallen leaves. The text "FOREST MANAGEMENT" is overlaid in the center in a white, bold, sans-serif font. A thin white horizontal line is positioned below the text.

FOREST MANAGEMENT

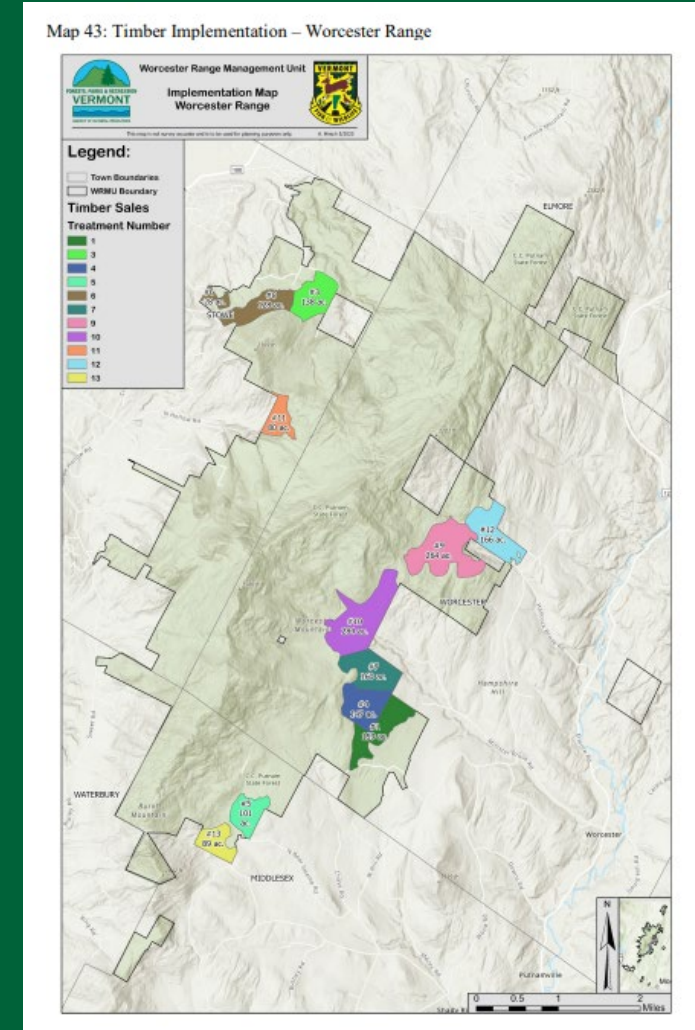
WHAT IS ACTIVE FOREST MANAGEMENT?

- “Active Forest Management” includes a range of techniques and tools that manipulate vegetation:
 - Timber harvests
 - Invasive plant treatment
 - Promoting wildlife features like food-producing trees
 - Open field maintenance
 - Non-timber stand management
- All active forest management on state lands is guided by ecologically informed sustainable forestry to secure the health, growth, climate resiliency, and human and wildlife values of our state-owned forests



MANAGING THE FOREST RESOURCE

- Timber Harvests (10%)
 - 13 harvests across 1,935 treatment acres over the 20-year plan.
- Other active forest management (38%)
 - Invasive plant control
 - Mast/crop tree release and pruning (apples & oaks)
 - Open land and young forest management
 - Forest ecosystem restoration
- Passive or limited vegetation management (52%)



WHY CONDUCT TIMBER HARVESTS ON STATE LAND?

- When conditions on the ground justify them, timber harvests are an effective method to:
 - Restore and accelerate healing from past land clearing
 - Address human-introduced threats to forests
 - Accelerate accumulation of old forest characteristics
 - Enhance and maintain forest health and resilience
- On some sites, there is no other affordable tool to accomplish these outcomes at scale in Vermont's forests.
- Harvests provide wood products Vermonters want and need locally that we can be proud of.
- Revenue never drives the proposal of a timber sale on state lands.



SOME TIMBER HARVESTS ARE PATCH CUTS

Patch cut to address
beech bark disease
and limited saplings
of other species



Beech outnumber all other
trees 3 to 1, posing forest
health vulnerability



30 years after a patch cut, there will be more
diversity, more ages and still vibrant forest

TIMBER HARVESTS CAN BE SINGLE TREES AND GROUPS



Single tree harvest after 7 years spurs growth of younger trees in small gap, accelerating complexity



Maintaining long-term effort to create many ages of trees



Several years after a patch cut, birches come back strong to increase structural diversity

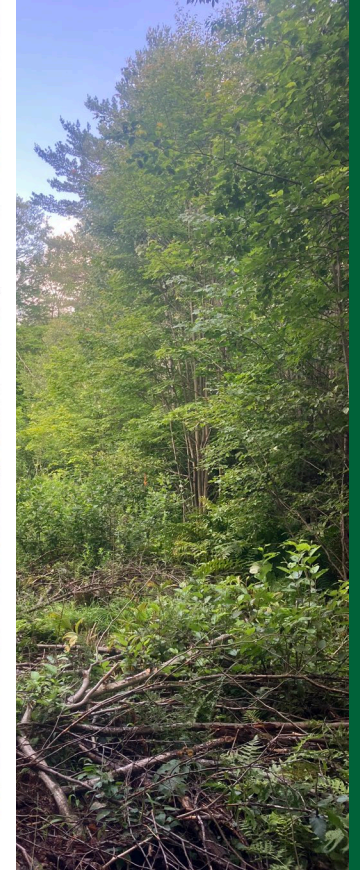
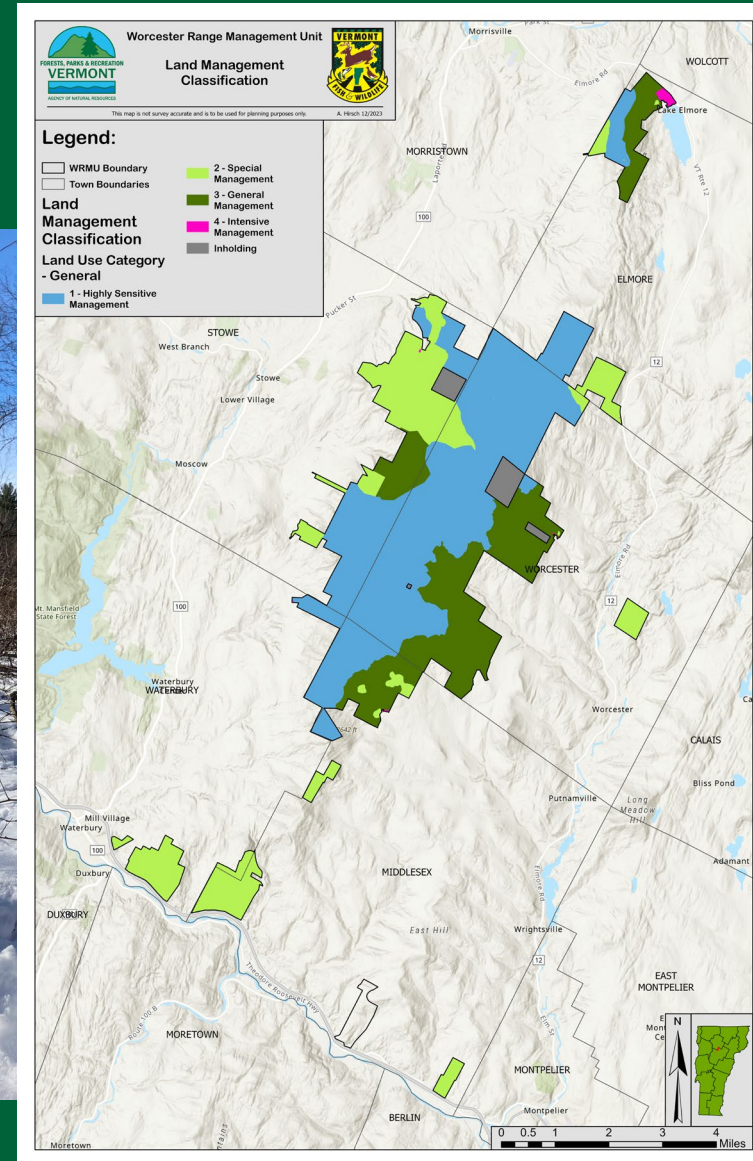
MANAGING FOR CLIMATE RESILIENCE

- Retain woody debris in active management areas
- Match harvesting equipment to the site
- Improve infrastructure like roads
- Improve forest structure and age diversity
- Manage against non-native plants, pests and pathogens



MANAGING FOR HABITAT

- Use timber harvests to create structural diversity, maintain intact forests, and enhance wildlife food sources
- Create complex forests to support more wildlife species and habitats with a variety of ages and cover types
- Assignment of LMCs to protect wildlife migration corridor



MANAGING FOR RECREATION

- Manage new parcel (Brownsville)
- Disperse use (Stowe Pinnacle)
- Improve trail sustainability (Brownsville, Stowe Pinnacle, Moss Glen Falls)
- Manage access pressure (Waterbury Trail, Pinnacle Meadows, Stowe Pinnacle, Moss Glen Falls, Middlesex Trail)
- Manage unauthorized uses



MANAGING FOR WATER QUALITY AND FLOOD RESILIENCE

- Maintain and enhance forested areas surrounding surface waters.
- Protect water quality.
- Maintain and improve stream connectivity.
- Improve fish habitat by allowing a natural stream process.
- Improve angler access and promote fishing opportunities.

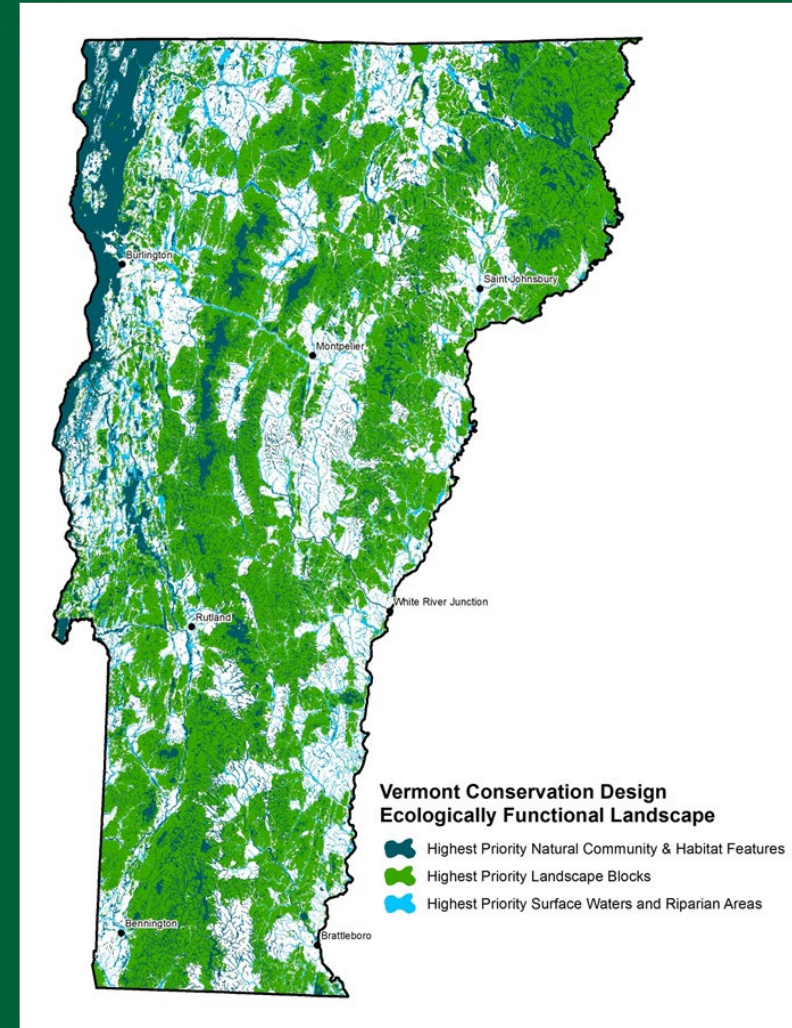




VCD OLD FOREST TARGETS

WRMU AND VERMONT CONSERVATION DESIGN

- VCD is broad vision for maintaining ecological function
- VCD is not a parcel-by-parcel management plan
- The LRMP is consistent with VCD
- Managed forests are consistent with VCD
- Maintains intact forest blocks, protects rare species, significant natural communities, and important habitats, including old forest

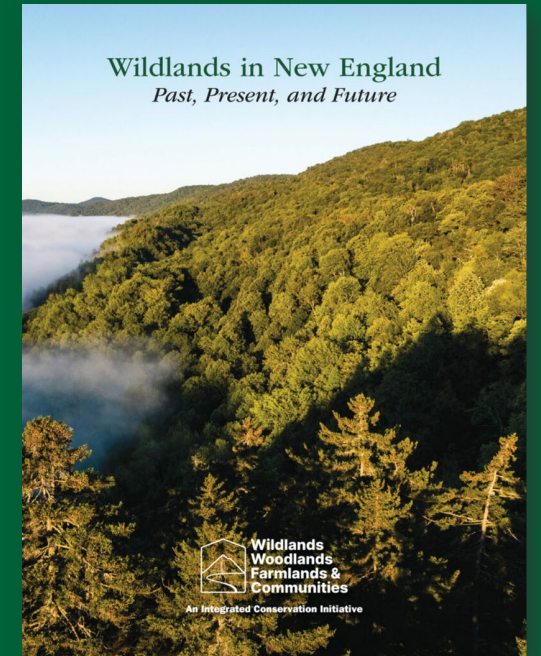
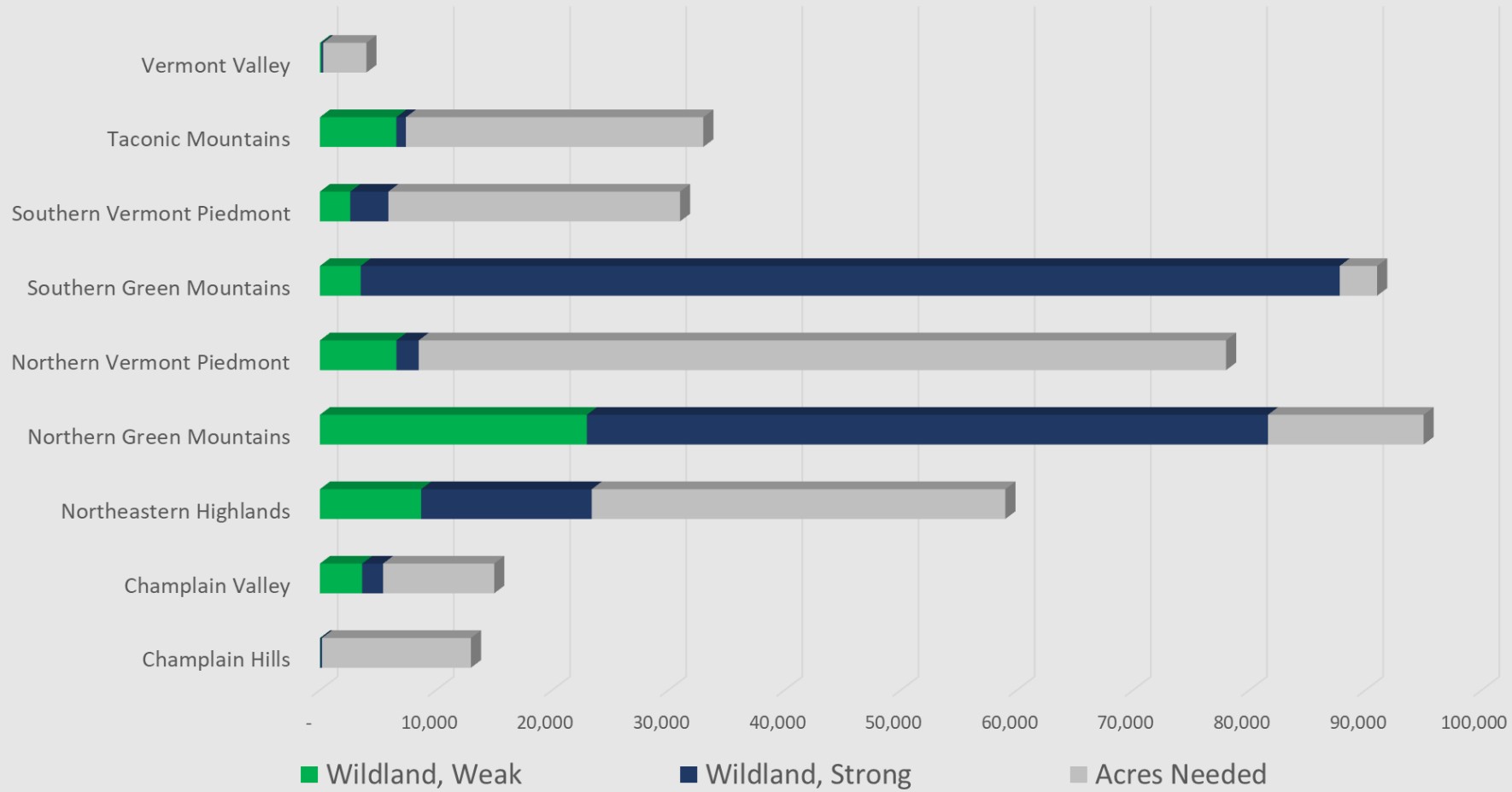


VCD OLD FOREST TARGETS

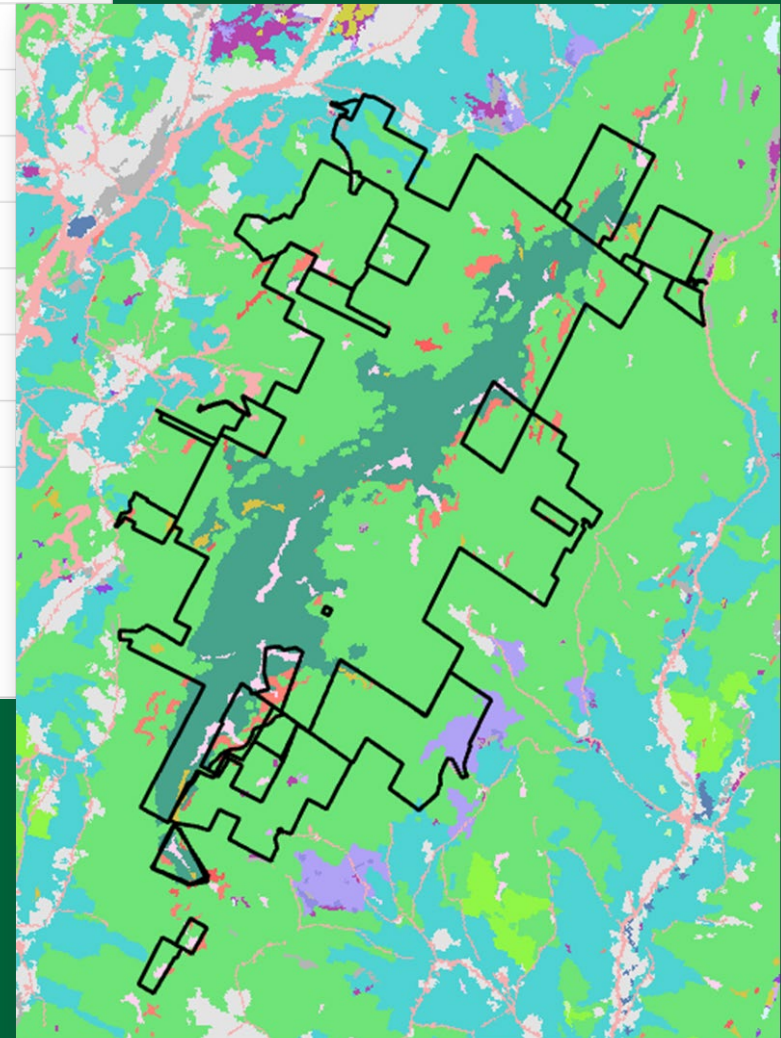
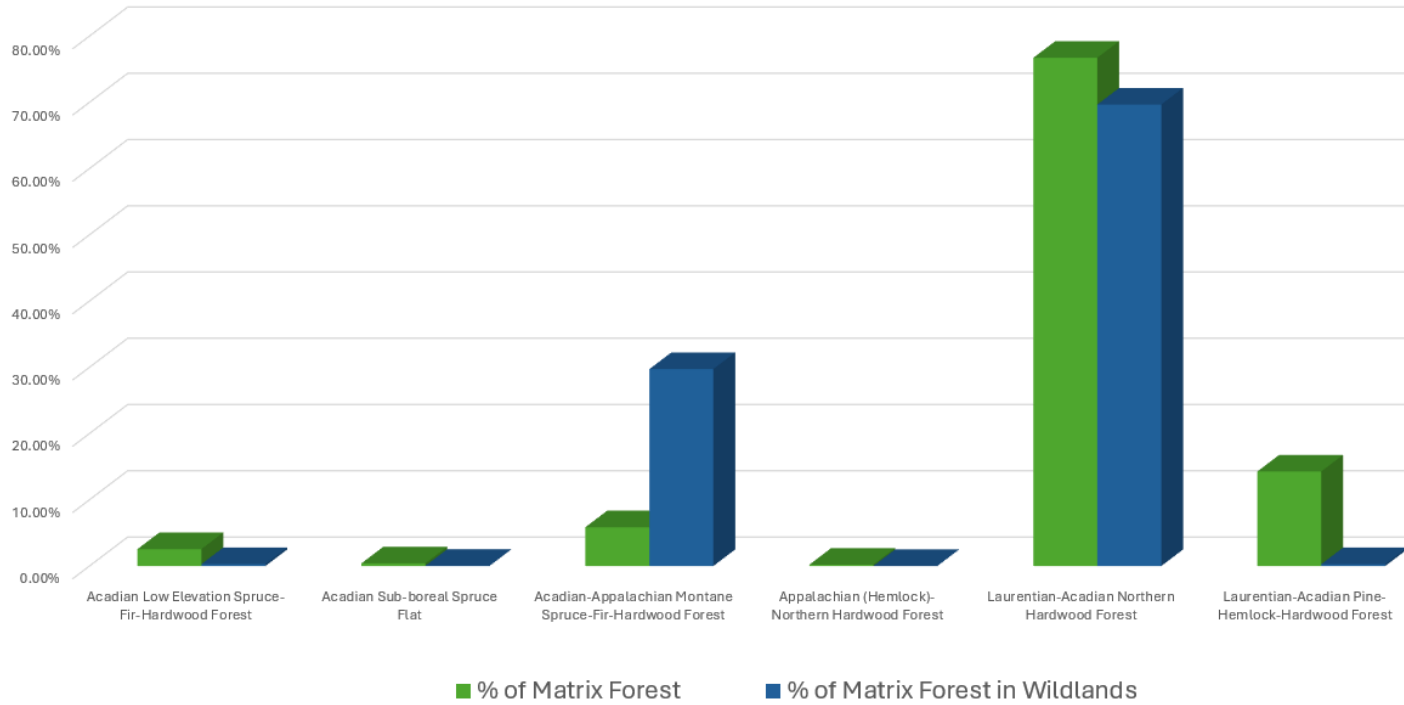
- VCD Target of 95,000 acres of old forest in Northern Green Mountains
- Analysis shows approx. 81,000 acres of "Wildland," which are expected to become old forest.
- This includes the existing Worcester Range Natural Area (4,100 acres).
- Draft LRMP adds 5,500 acres of HSMA, making a significant contribution towards the old forest target.



Wildlands and the Vermont Conservation Design Old Forest Targets



Representation of Matrix Forest Types – Northern Green Mountains Wildlands



Importance of natural community representation, and comprehensive planning for ecological reserves.



NEXT STEPS

PROCESS



1. Comment period closed on February 2
2. Nearly 700 comments received on draft plan
3. District Stewardship Team reviews comments; recommends plan updates to ANR Lands Team
4. ANR Lands Team reviews proposed updates, recommends next steps to Agency Leadership
5. ANR Leadership (Commissioners, Secretary) decide next steps



THANK YOU
