Farm fields at Albany Town Forest, photo by Joe Klementovitch

STRATEGIC CONSERVATION PLAN

for the

UPPER SACO VALLEY LAND TRUST

August 2022

A 10-year update to USVLT's Strategic Conservation Plan & Natural Resource Inventory

Developed by USVLT's Strategic Planning Committee

Prepared by Peter Howe, Cold Mountain Maps LLC

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EXECUTIVE SUMMARY

In 2021 the Upper Saco Valley Land Trust began the process of reviewing and revisioning its 10-Year Strategic Conservation Plan, last updated in 2011. Led by Dan Spreduto and Peter Ellis, the 2011 Plan centered around a comprehensive Natural Resource Inventory of USVLT's 11-town service area. Based on inventory results and assessment of organizational priorities, a Resource Data Model was built with Geographic Information Systems (GIS) to identify high value resource areas for the Land Trust to focus its conservation efforts.

Given the depth of the 2011 Natural Resource Inventory (NRI), the Land Trust entered this planning process seeking to produce a streamlined update to the existing Plan, with emphasis on incorporating newly available resource data and making data more accessible to staff, municipal leaders, landowners, and the greater public. Four project aims were ultimately developed:

1) Reassess and resharpen conservation priorities;
2) Conduct a conservation resource inventory of the Upper Saco Valley;
3) Build data-driven tools to support high impact conservation work;
4) Build regional coordination and collective knowledge in the Upper Saco Valley around natural resource management and conservation efforts.

In the fall of 2021 the Land Trust applied for grant funding through two programs: New Hampshire's Moose Plate Program, and the Land Trust Alliance's Land and Climate Grant Program, a joint program with the Open Space Institute. USVLT sought funding to cover two project phases: the GIS-driven update to the NRI and Conservation Plan (Phase 1), and public /Town outreach (Phase 2). USVLT was awarded funding from both programs, though only partial funding was awarded for Phase 2.

Despite the challenges of the COVID-19 pandemic and multiple staffing transitions, a Strategic Planning Committee formed in the spring of 2022 to lead the project. The 6 committee members represented USVLT staff, Board members, Lands Committee members, and environmental and planning professionals. Peter Howe of Cold Mountain Maps LLC was contracted to steer the planning process and carry out all data collection, GIS analysis, and map production.

Based on USVLT's 2011 NRI, review of recent regional plans from neighboring organizations and from across the country, as well as a survey of the latest available

GIS data, the Planning Committee identified 14 resources as core to the Land Trust's conservation priorities. These 14 "conservation resources" fell into 4 focus categories: Water Resources, Ecological Integrity, Farmland Protection, and Public Access/Scenic Value. GIS data for these resources was gathered and processed, and maps were generated to meet USVLT's needs.

*Note: because this Plan aims to encompass a wider range of resources beyond just traditional natural resources [i.e. Trail corridors, parcel connectivity, designated scenic areas], what were collectively referred to as natural resources in the 2011 Plan are here more broadly termed "conservation resources."

As in 2011, the Committee used a Delphi Process - a system popular in the scientific community for making meaningful management decisions as a group- to rank these 14 resources based on relative conservation priority to the Land Trust. Additionally, a weighting system was established for each resource (i.e. unfragmented forest blocks 500-1000 acres in size are valued more than forest blocks 100-500 acres in size). A Resource Data Model was built based on these intra-resource weights and overarching organizational weights to produce a "Co-Occurrence Map" highlighting areas of high combined resource value. Additionally, parcel-based co-occurrence maps were produced using areal-weighted reaggregation methods to assign average scores to each tax parcel in USVLT's service area.

Based on high scoring areas identified in the co-occurrence maps, by consensus the Committee proposed 7 Focus Areas. Focus Area boundaries were then delineated based on existing conserved lands, development, roads, tax parcel bounds, and scoring thresholds. Focus Area development was intentionally more constrained than the process in 2011 which yielded a 3-tiered collection of 23 focus areas.

To begin local outreach and gauge Town priorities, USVLT also distributed a simplified survey to all Town Conservation Commissions within the service area, asking Commissions to rank and score the 14 conservation resources. 5 towns responded with scores to be captured in this Plan and to be further reviewed with Commissions during public outreach sessions (Phase 2).

Finally, a series of interactive web maps were designed to serve as planning tools for the Land Trust and other land managers to more easily access, explore, and share conservation resource data. Interactive maps also allow staff to continually update

web maps with the latest data as it becomes available. A final interactive Story Map was designed to serve as a public-facing project overview of the Conservation Plan.

As outlined in USVLT's 2017 Strategic Organizational Plan, the Land Trust's primary strategic initiative remains "conserving lands with high natural resource values," with Special Focus Areas of protecting agricultural lands and water resources. This Conservation Plan aims to support USVLT's broader Organizational Plan by bringing a sharpened geographic focus to these initiatives and enabling the Land Trust to prioritize high impact projects.

Looking ahead, USVLT will lean into the second project phase of public outreach, focused particularly on engaging Town Conservation Commissions, Planning Boards, private landowners, and partner conservation groups.

TECHNICAL SUMMARY

Planning & Committee Structure

In March 2022, staff, board members, and all committee members across the organization were invited to join the newly formed Strategic Planning Committee that would guide the planning process. The Committee was eventually formed with the following members:

Mark Dindorf, Interim Executive Director (Hart's Location)
Doug Burnell, President (Conway)
Linda Comeau, Lands Committee (Jackson)
Jennifer Richardson, Lands Committee (Fryeburg)
Stan Rullman, Lands Committee (Fryeburg)
Jim Gore, Lands Committee (Conway)

The Committee met virtually by Zoom on an ad-hoc basis, convening 6 times between April and August of 2022.

Identifying End-Products

After reviewing USVLT's 2011 Plan and surveying numerous regional conservation plans from across New Hampshire and nationally, the Committee identified the following as desired project end-products:

- Suite of updated GIS data for New Hampshire and Maine covering conserved lands, tax parcels, climate resilience, natural resources, and other relevant conservation resource layers
- Resource Data Model to produce Co-Occurrence Maps and define Focus Areas
- Print maps produced for all core resource layers and co-occurrence rasters
- Suite of interactive maps to house resource data and make data more accessible to staff, land managers, and broader public. (Some for internal use only, some available for external sharing).
- Interactive Story Map and Project Summary to document and share planning process

Identifying Core Resources

Based on a range of available natural resource and planning data, the Committee honed in on 14 resources as core to the Land Trust's mission and priorities, split across four categories:

WATER RESOURCES
Watershed Protection
Aquifers
Flood Storage
Wellhead Protection Areas

ECOLOGICAL INTEGRITY
High Rank Natural Communities
Wildlife Corridors
Unfragmented Forest Blocks
Conservation Parcel Connectivity
Climate Resiliency
Carbon Storage

FARMLAND PROTECTION
Important Agricultural Soils
Open Fields

PUBLIC ACCESS & SCENIC VALUE
Trail Corridors
Designated Scenic Areas

Scoring & Scaling Resource Attributes

For each Resource, scoring criteria was developed based on:

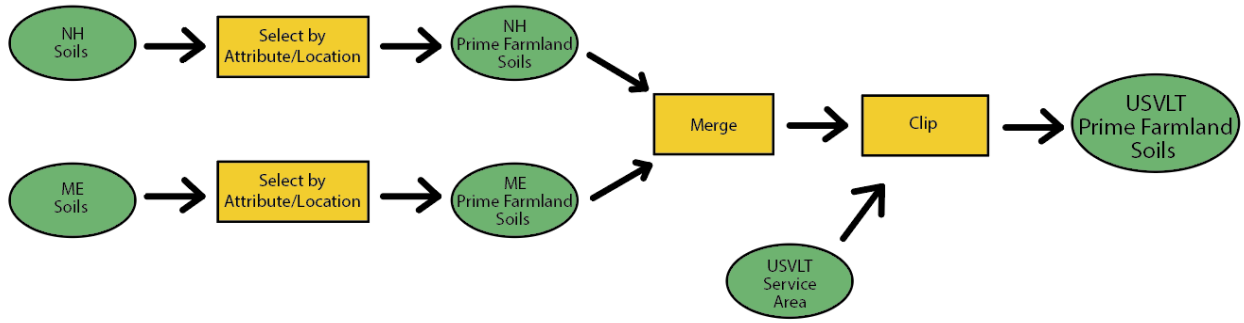
- State and federal agency-generated rankings and metrics
- Scoring criteria used in the 2011 Plan and other specified Conservation Plans
- Broader committee expertise and scientific studies

WATER RESOURCES			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Aquifers	High Transmissivity: >50 gpm (1) Transmissivity: 0-50 gpm (0.5) No Transmissvity: 0 gpm (0)	ME and NH Aquifer datasets	NH Granit, ME GIS Transmissivity Ranking: ME Geological Survey
Flood Storage - Wetlands & Soils	Wetlands present (1) All well-drained soils (0.5) No wetlands or well-drained soils present (0)	Wetlands and well-drained soils within FEMA 100-year flood zone	FEMA, Natl Wetlands Inventory, MA Greenbelt Plan, OSI Flood Risk Report 2022; OSI Flood Report 2020
Wellhead Protection Areas	Inside Protection Area (1) Outside Protection Area (0)	Buffer areas defined by ME DEP & NH DES, based on wellsize and population served	NH DES, ME DEP
Watershed Protection	Inside 100m major water buffer (1) Inside 50m minor water buffer (1) Outside Frontage Buffers (0)	100m buffer on all waterbodies >10 ac. and waterways of stream order 3-5+; 50m buffer for waterbodies <10ac. and stream order 1-2	100m Buffer Sizing: SPNHF Lakes Region Plan 50m Buffer Sizing for Stream Order 1-2: TNC Coastal Water Plan
ECOLOGICAL INTEGRITY			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Highly Ranked Natural Communities	NH Wildlife Action Plan Tier 1 (1.0) Tier 2 (0.75) Tier 3 (0.5) ME Rare, Threatened and Endangered Plants (1) ME Exemplary Natural Communities: (1) ME Essential Wildlife Habitat: (0)	3 ME Natural Community datasets will be merged, dissolved, then merged with NH WAP data	NH Fish & Game 2020 Wildlife Action Plan ME Beginning with Habitat Program
Wildlife Corridors (NH)	Within Primary Corridor (1) Within Secondary Corridor (0.5) Outside Corridor: (0)	Wildlife corridors are an NH state generated dataset, but cover portions of USVLT's Maine service area	NH Fish & Game Wildlife Corridors Map
Unfragmented Forest Blocks	>10000 acres: (1.0) 1000-10000 acres: (0.75) 500-1000 acres: (0.5) 100-500 acres: (0.25) 0-100 acres: (0)	Unfragmented Forest Blocks classified by size; generated using National Land Cover Dataset (NLCD) data, plus NH and ME roads data	Block Sizing: USVLT 2011 NRI & 2020 NH Forest Action Plan (pg. 68)
Conservation Parcel Connectivity	Adjacent parcel lands: (1) non-adjacent parcel lands: (0)	Unconserved, primarily undeveloped parcels adjacent to existing Conservation Lands	Generated in-house using latest Conserved Lands data and Tax Parcel data
Climate Resiliency- Resilient & Connected Network	Resilience, Flow, and Recognized Biodiversity: (1) Resilience and Flow: (0.75) Resilience and Recognized Biodiversity: (0.5) Not In Network: (0)	Climate modeling data produced by The Nature Conservancy, classified by 3 tiers	The Nature Conservancy Resiliant and Connected Lands Mapper More on TNC Ranking System
Carbon Storage	0-120 Metric Tons/Acre: Rescaled to (0-1)	Estimated 2010 Carbon Storage in Metric Tons per Acre	The Nature Conservancy Resiliant and Connected Lands Mapper
IMPORTANT FARMLAND			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Important Agricultural Soils	Prime Farmland: (1) Farmland of state importance: (0.75) Farmland of local importance: (0.5) Not prime farmland: (0)	Designated prime agricultural soils	USDA & USGS Web Soil Survey
Open Fields	Existing open Field: (1) No Field: (0)	All open fields (cultivated, or uncultivated)	National Land Cover Dataset
PUBLIC ACCESS & SCENIC VALUE			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Trail Corridors	Unconserved Parcel within Trail Corridor: (1) Conserved Parcel within Corridor: (0) Parcel not within Corridor: (0)	Unconserved and mostly undeveloped parcels along existing Trail Corridor (25 meter buffer) *Not accounting for Trail Easements	Trail Data: CCGIS, AMC, WMNEMBA, NH GRANIT
Designated Scenic Areas	Scenic Frontage: (1) No Scenic Frontage: (0)	100 meter scenic viewshed buffer along Designated Scenic Areas	US National Register of Historic Places NH Scenic Byways National Wild & Scenic Rivers

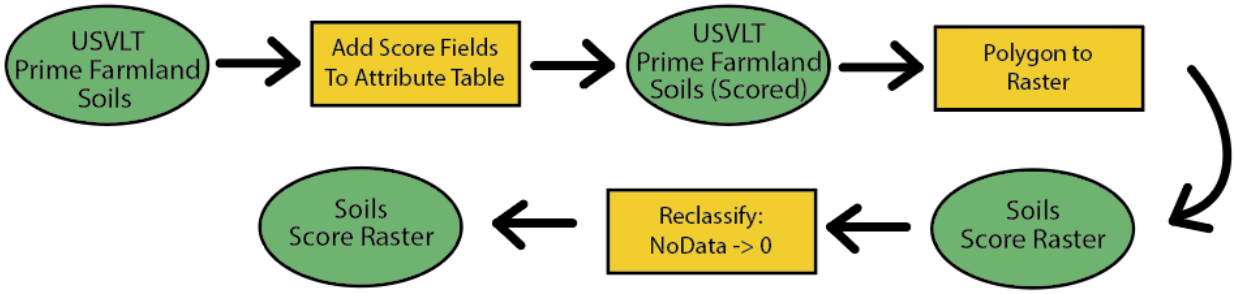
GIS Workflow & Resource Data Model

For each Resource, the following basic GIS workflow was run within the Resource Data Model (using ArcGIS ModelBuilder).
However, most Resource data required additional specialized processing.

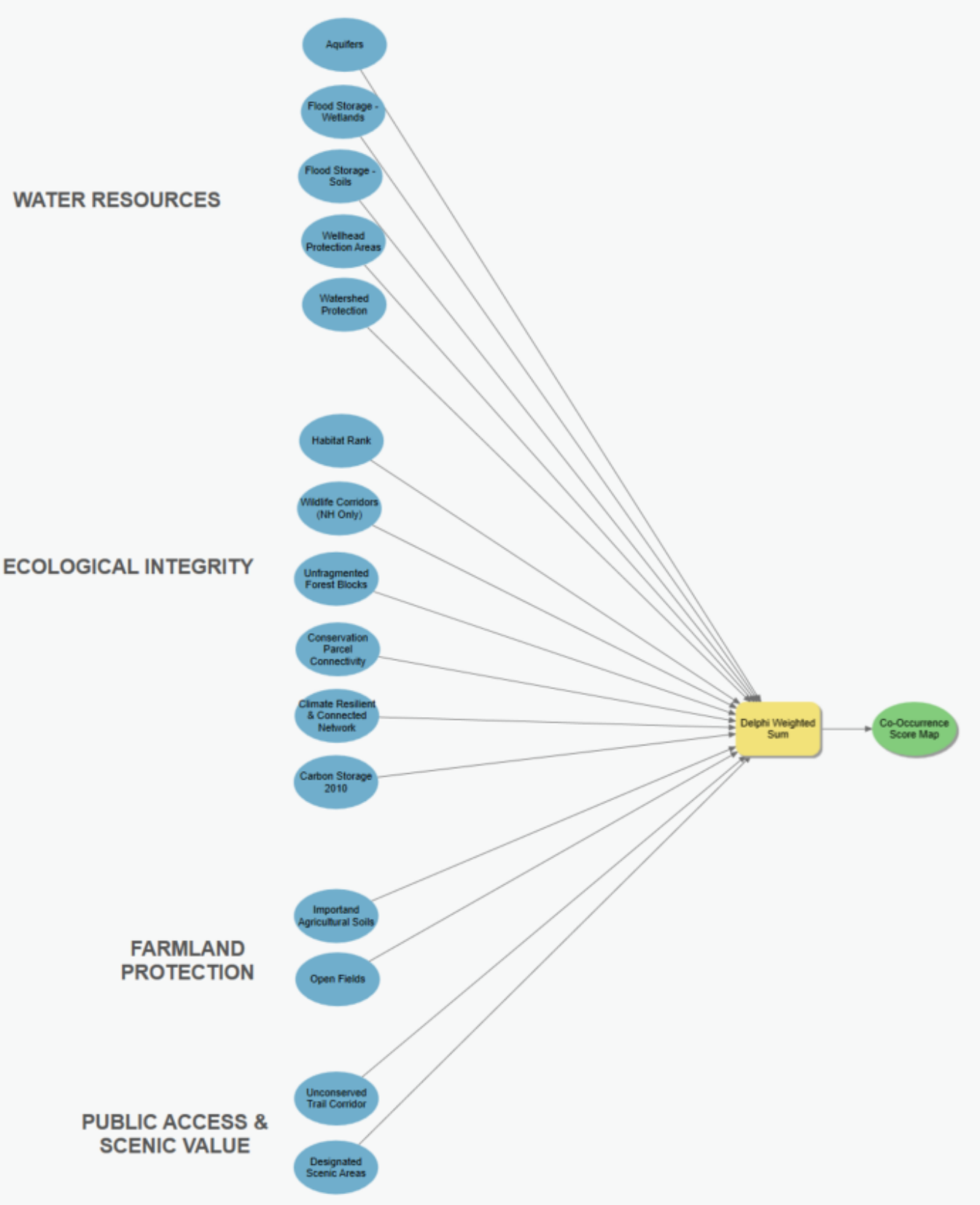
Part 1: Selecting, Merging, & Clipping Data:



Part 2: Polygon (Vector) to Raster Conversion:



Part 3: Delphi Weighting & Co-Occurrence Map Generation
(See next page for Delphi Process Description)



Delphi Weighting Process

The Committee used a Delphi Weighting Process to rank and score Resources based on relative priority, as was done in 2011. Utilizing a Delphi Process to develop a weighted co-occurrence model in conjunction with Natural Resource Inventories has become a common practice, particularly in the New Hampshire Land Trust community. Blank scoring sheets were distributed to each Committee member with the following directions:

"Distribute a total budget of 100 points across the 16 Resource Layers. The average value if uniformly distributed would be 6.25. Each resource should receive a Delphi Weight no greater than 10 points and no less than 0. Distribute the budget of 100 points according to your own professional judgment of relative importance to USVLT's conservation priorities. If you do not believe a certain Resource is worthy of inclusion in the planning process, please indicate with a 0. If multiple 0s are received, that Resource will be reviewed as a group for whether to keep or strike it."

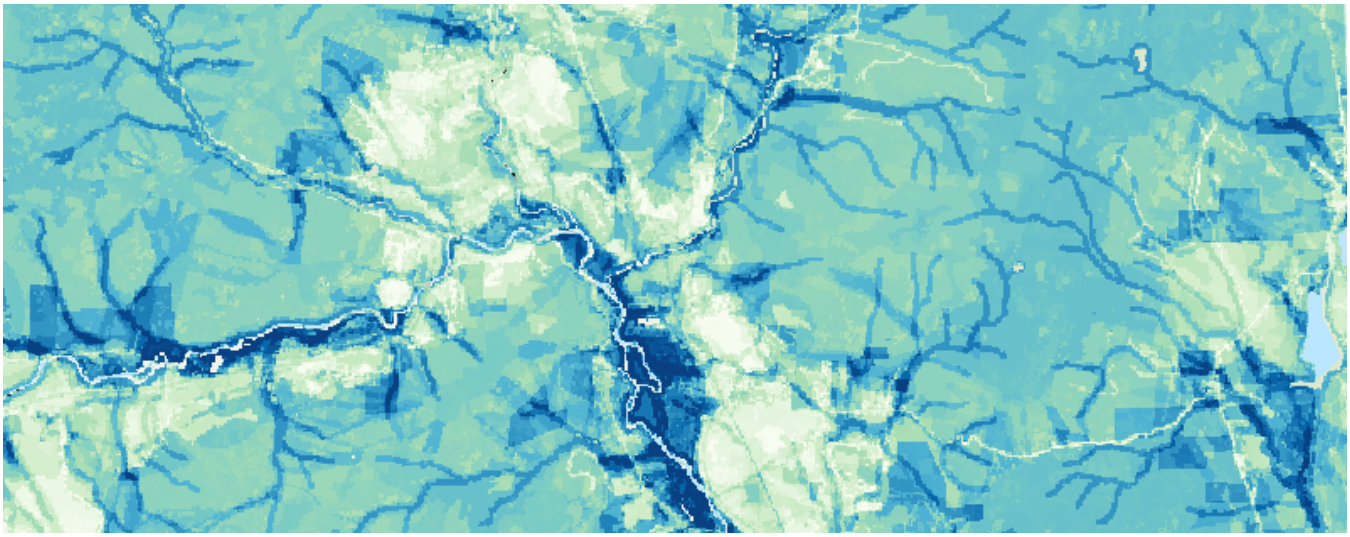
Based on the initial Delphi weighting exercise as a group, two Resource layers ("parcels with unconserved shoreline frontage" and "Mount Washington Viewshed") were struck from the Resource Data Model. The Committee agreed to reallocate those points proportionally across the remaining 14 Resources, to maintain a budget of 100 total points.

5 Committee members submitted scores, which were averaged to create a mean score/weight:

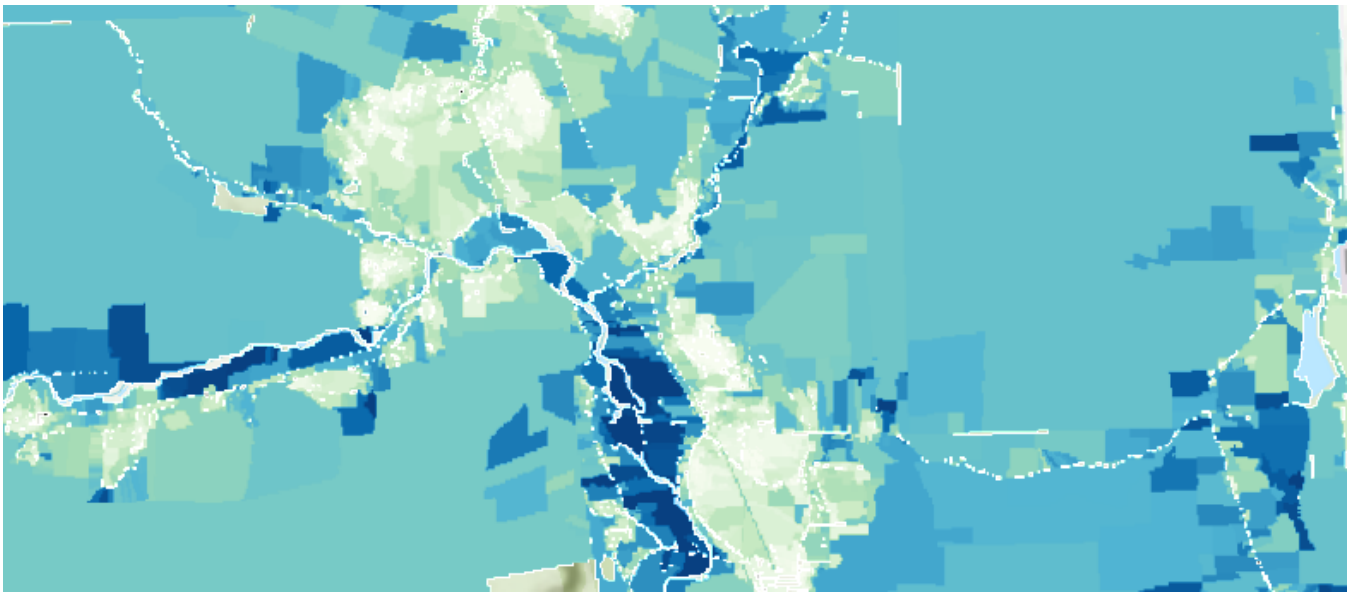
USVLT 2022 Conservation Priority Planning		
Rank	**Conservation Resource**	**Score (0-10)**
1	High Rank Natural Communities	10
2	Unfragmented Forest Blocks	8.9
-	Conservation Parcel Connectivity	8.9
-	Inportant Agricultural Soils	8.9
5	Watershed Protection	8.4
6	Aquifers	8.2
-	Wildlife Corridors	8.2
8	Climate Resiliency	7.8
9	Open Fields	7.1
10	Designated Scenic Areas	6.4
11	Carbon Storage	4.9
12	Trail Corridors	4.4
13	Flood Storage	4.2
14	Wellhead Protection Areas	3.6

Co-Occurrence Maps

Based on these scores, the rasterized resource layers (10m resolution) in the Data Model were weighted accordingly, and all resource rasters were combined using the Weighted Sum tool (see graphic on pg. 8). The result was a co-occurrence raster, representing aggregated scores of all resources across USVLT's service area:

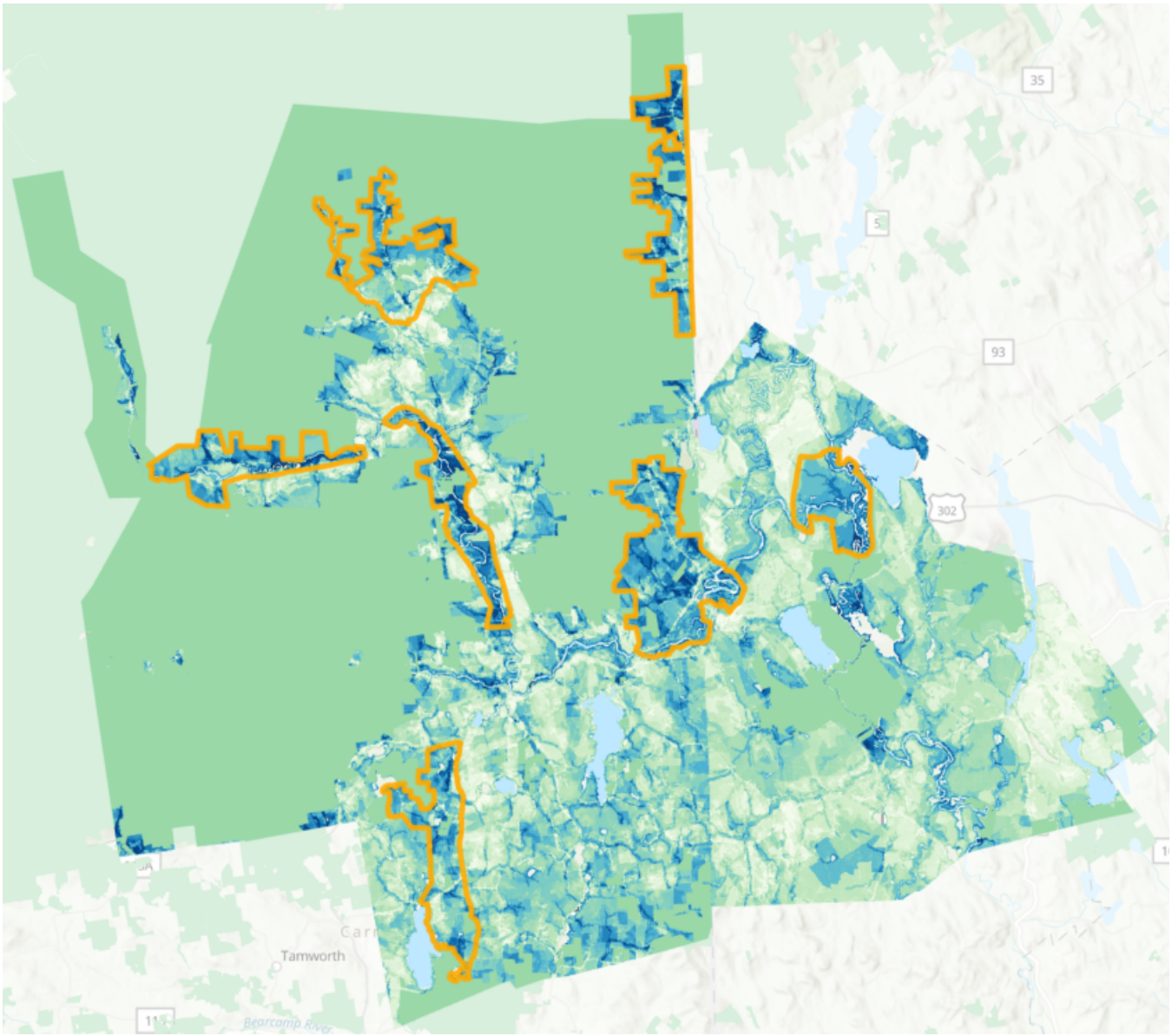


To better understand Resource value on a parcel-by-parcel basis, an areal-weighted reaggregation was also employed to produce mean scores for each parcel based on available tax parcel data:



Focus Area Delineation

After reviewing the co-occurrence maps, the Committee met to propose priority Focus Areas. By overlaying the co-occurrence maps with the latest Conserved Lands data, high scoring regions that remain unconserved could be identified. Seven areas were selected by consensus as strong Focus Areas for USVLT to prioritize conservation efforts. Area boundaries were then delineated based on multiple factors, including existing conserved lands, tax parcel bounds, roads, development, score thresholds, and vertices minimization. Shown below are Focus Areas in yellow overlaying the co-occurrence map, with conserved lands masked in green:



Town Outreach

During the Committee's own internal Resource scoring process, similar but simplified scoring sheets were sent out to each Town Conservation Commission within USVLT's service area, with the following directions:

"Assign a score of 0 to 5 (5=highest priority, 0=not important) to each Resource based on the conservation priorities of your organization, and your community. Multiple Resources within each category can receive the same score. (All Resources could receive a score of 5 if all are highly and equally valued)."

The Committee chose to use a simplified scoring system for towns rather than the Delphi process, in the interest of maximizing participation. Following multiple rounds of outreach by email, 5 Commissions returned with the following scores:

Conservation Resource	Resource Rank	Mean Score (0-5)	Jackson	Bartlett	Conway	Madison	Eaton
Highly Ranked Natural Communities	**7**	4	3	5	4	3	5
Unfragmented Forest Blocks	**4**	4.3	4	5	3	4.5	5
Conservation Parcel Connectivity	**6**	4.1	4	4	3	4.5	5
Inportant Agricultural Soils	**14**	2.4	5	1	3	2	1
Watershed Protection	**3**	4.4	3	5	4	5	5
Aquifers	**1**	4.6	3	5	5	5	5
Wildlife Corridors	**2**	4.5	4	5	4	4.5	5
Climate Resiliency	**9**	3.4	3	3	3	3	5
Open Fields	**12**	3.2	5	1	3	2	5
Designated Scenic Areas	**13**	2.8	5	1	2	3	3
Carbon Storage	**9**	3.4	3	3	3	3	5
Trail Corridors	**9**	3.4	5	3	3	5	1
Flood Storage	**8**	3.8	2	3	5	4	5
Wellhead Protection Areas	**5**	4.2	5	5	5	5	1

No responses were recieved from Albany, Chatham, Fryeburg, Denmark, Brownfield, Hart's Location

Based on the provided scores, USVLT will engage further with towns during the public outreach phase to better understand local priorities, connect towns with relevant tools and information, and collaborate where possible on future projects.

USVLT is committed to following up with all towns who did not provide feedback, to ensure their voices are heard.

While scoring systems may not be comparable (Delphi vs. non-Delphi), comparing rank order illuminates some differences in USVLT and town priorities (see below). However, the Committee noted that rank differences likely better reflect different conservation tools used, rather than ideological differences in conservation values. For example, conservation commissions are better positioned to strengthen town ordinances around source water protection, thus water resource protection may be of higher conservation focus. Meanwhile, Land Trusts can leverage their strengths in crafting conservation easements, stewarding land, and working directly with landowners to more effectively conserve strategic parcels that further natural community protection, conservation connectivity, or prime farmland protection. Ultimately, 6 of the 7 top ranked priorities are shared between the Land Trust and the average rank of all towns that responded.

USVLT Co-Occurrence Model Rank				Town Co-Occurrence Model Rank		
USVLT Rank	**Conservation Resource**	**USVLT Score (Delphi 0-10)**		**Town Rank**	**Conservation Resource**	**Mean Score (0-5)**
1	Highly Ranked Natural Communities	10		**1**	Aquifers	4.6
2	Unfragmented Forest Blocks	8.9		**2**	Wildlife Corridors	4.5
-	Conservation Parcel Connectivity	8.9		**3**	Watershed Protection	4.4
-	Important Agricultural Soils	8.9		**4**	Unfragmented Forest Blocks	4.3
5	Watershed Protection	8.4		**5**	Wellhead Protection Areas	4.2
6	Aquifers	8.2		**6**	Conservation Parcel Connectivity	4.1
-	Wildlife Corridors	8.2		**7**	Highly Ranked Natural Communities	4
8	Climate Resiliency	7.8		**8**	Flood Storage	3.8
9	Open Fields	7.1		**9**	Climate Resiliency	3.4
10	Designated Scenic Areas	6.4		**-**	Carbon Storage	3.4
11	Carbon Storage	4.9		**-**	Trail Corridors	3.4
12	Trail Corridors	4.4		**12**	Open Fields	3.2
13	Flood Storage	4.2		**13**	Designated Scenic Areas	2.8
14	Wellhead Protection Areas	3.6		**14**	Important Agricultural Soils	3.6

Interactive Map Development

Following the generation of all resource data, GIS layers were uploaded from ArcGIS Pro onto the ArcOnline server within USVLT's Esri Enterprise account. Multiple web maps were developed to allow users to explore the data further, without requiring access to or familiarity with ArcGIS software. The web maps can be shared publicly with anyone by link, or permissions can be edited to control access to certain data.

Another advantage of hosting planning data on interactive maps is that staff can continually update them as new data becomes available. Abby King is currently the primary administrator of USVLT's ArcGIS files and Esri account, and she has the requisite knowledge and experience working across the ArcGIS and ArcOnline platforms.

Finally, a public-facing Story Map (a more narrative interactive map feature) was created to aid in sharing the planning process with the broader public and increase data accessibility.

Next Steps

At the conclusion of this Phase 1 of the planning process, all end-products (GIS data, resource maps, planning materials, interactive map links) will be packaged and transferred to USVLT. Moving forward, these tools will be used primarily by staff and the Land Committee to evaluate potential land projects, and proactively pursue high impact projects that further USVLT's goals and mission.

As time and resources allow, USVLT plans to embark on Phase 2 of this planning process - the public outreach phase - over the coming year of 2023. As done in 2011, USVLT plans to hold public forums with towns to share this planning work with municipal leaders and the broader community, as well as gather feedback on local needs and priorities.

Acknowledgements

Rick Van de Poll of Ecosystem Management Consultants, Dan Sundquist of SPNHF and Green Fire GIS, and Dan Sperduto of Sperduto Ecological Services have contributed significantly to designing Natural Resource Inventories, GIS modeling processes, and general best practices for conservation organizations throughout New Hampshire and beyond. Much of their work is imprinted on this Plan, and I am grateful for their guidance in its many forms throughout this process.

Peter Howe
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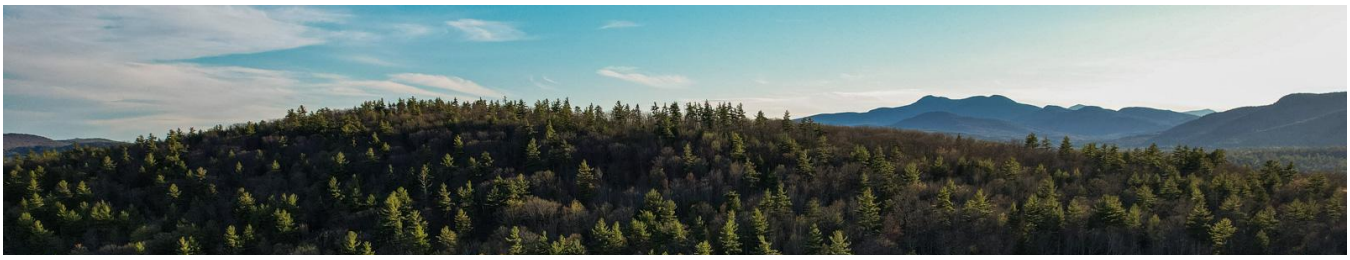

APPENDIX

GIS & Map Products Inventory

Print maps covering 14 priority resources and co-occurrence maps included in the Plan
("Masked" indicates data covered by existing conserved lands to highlight unconserved regions.)

- Co-Occurrence Scoring - Continuous (Masked)
- Co-Occurrence Scoring - Continuous (Unmasked)
- Co-Occurrence Scoring - Parcels (Masked)
- Co-Occurrence Scoring - Parcels (Unmasked)
- Carbon Storage (Masked)
- Carbon Storage (Unmasked)
- Aquifers
- Wellhead Protection Areas
- Open Fields
- Agricultural Soils
- Designated Scenic Areas
- Trail Corridors
- Climate Resilience (Masked)
- Climate Resilience (Unmasked)
- Conservation Connectivity Potential
- Unfragmented Forest Blocks (Masked)
- Unfragmented Forest Blocks (Unmasked)
- Wildlife Corridors
- Natural Communities
- Watershed Protection
- Flood Zones - Wetlands
- Flood Zones - Flood Storage Soils
- Flood Zones
- 2011 Focus Areas

The latest natural resource and planning GIS datasets, packaged as shapefiles and rasters, and compressed into zipped folders to copy into USVLT's organizational files:

- USVLT Conserved Lands
- NH & ME Conserved Lands
- Tax Parcels (Service Area)
- USVLT 2022 Focus Areas
- USVLT 2011 Focus Areas

- 2022 Co-Occurrence Scoring Raster
- 2022 Co-Occurrence Scoring Raster - Parcel-based
- Aquifers (Service Area, NH, ME)
- Flood Zones (Service Area, Carroll County, Oxford County)
- Flood Storage Soils (Service Area)
- Flood Storage Wetlands (Service Area)
- Wellhead Protection Areas (Service Area, NH, ME)
- NH Wildlife Action Plan - Habitat Rank (Service Area, NH)
- ME Rare, Threatened & Endangered Plants (Service Area, ME)
- ME Exemplary Natural Communities (Service Area, ME)
- ME Endangered, Threatened & Special Concern Wildlife Habitat (Service Area, ME)
- Conservation Connectivity Parcels (Service Area)
- Unfragmented Forest Blocks (Service Area)
- Trails Inventory (Service Area)
- Unconserved Trail Corridor Parcels (Service Area)
- National Wild & Scenic Rivers
- White Mountains Trail National Scenic Byway
- Presidential Trail State Scenic Byway
- Important Agricultural Soils (Service Area)
- Soils (Service Area, NH, Oxford County)
- Open Fields (Service Area)
- National Land Cover Dataset, 2019 (Service Area)
- TNC Climate Resiliency Data (Service Area, NH, ME)
    - Connectivity & Climate Flow
    - Landscape Diversity
    - Climate Flow
    - Local Connectedness
    - Resilience & Climate Flow
    - Landscape Resilience
    - Resilient & Connected Network - 1 Tier
    - Resilient & Connected Network - 3 Tiers
    - Resilient & Connected Network - 11 Tiers
    - Carbon Sequestration 2010
    - Carbon Sequestration 2050

- Co-Occurrence Rasters for each of 14 Resource layers used in weighted sum
- ArcGIS Conservation Planning ModelBuilders
- ArcGIS Pro Interactive Map Workspace
- ArcGIS Pro Map Export Workspace

WATER RESOURCES			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Aquifers	High Transmissivity: >50 gpm (1) Transmissivity: 0-50 gpm (0.5) No Transmissvity: 0 gpm (0)	ME and NH Aquifer datasets	NH Granit, ME GIS Transmissivity Ranking: ME Geological Survey
Flood Storage - Wetlands & Soils	Wetlands present (1) All well-drained soils (0.5) No wetlands or well-drained soils present (0)	Wetlands and well-drained soils within FEMA 100-year flood zone	FEMA, Natl Wetlands Inventory, MA Greenbelt Plan, OSI Flood Risk Report 2022; OSI Flood Report 2020
Wellhead Protection Areas	Inside Protection Area (1) Outside Protection Area (0)	Buffer areas defined by ME DEP & NH DES, based on wellsize and population served	NH DES, ME DEP
Watershed Protection	Inside 100m major water buffer (1) Inside 50m minor water buffer (1) Outside Frontage Buffers (0)	100m buffer on all waterbodies >10 ac. and waterways of stream order 3-5+; 50m buffer for waterbodies <10ac. and stream order 1-2	100m Buffer Sizing: SPNHF Lakes Region Plan 50m Buffer Sizing for Stream Order 1-2: TNC Coastal Water Plan
ECOLOGICAL INTEGRITY			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Highly Ranked Natural Communities	NH Wildlife Action Plan Tier 1 (1.0) Tier 2 (0.75) Tier 3 (0.5) ME Rare, Threatened and Endangered Plants (1) ME Exemplary Natural Communities: (1) ME Essential Wildlife Habitat: (0)	3 ME Natural Community datasets will be merged, dissolved, then merged with NH WAP data	NH Fish & Game 2020 Wildlife Action Plan ME Beginning with Habitat Program
Wildlife Corridors (NH)	Within Primary Corridor (1) Within Secondary Corridor (0.5) Outside Corridor: (0)	Wildlife corridors are an NH state generated dataset, but cover portions of USVLT's Maine service area	NH Fish & Game Wildlife Corridors Map
Unfragmented Forest Blocks	>10000 acres: (1.0) 1000-10000 acres: (0.75) 500-1000 acres: (0.5) 100-500 acres: (0.25) 0-100 acres: (0)	Unfragmented Forest Blocks classified by size; generated using National Land Cover Dataset (NLCD) data, plus NH and ME roads data	Block Sizing: USVLT 2011 NRI & 2020 NH Forest Action Plan (pg. 68)
Conservation Parcel Connectivity	Adjacent parcel lands: (1) non-adjacent parcel lands: (0)	Unconserved, primarily undeveloped parcels adjacent to existing Conservation Lands	Generated in-house using latest Conserved Lands data and Tax Parcel data
Climate Resiliency- Resilient & Connected Network	Resilience, Flow, and Recognized Biodiversity: (1) Resilience and Flow: (0.75) Resilience and Recognized Biodiversity: (0.5) Not In Network: (0)	Climate modeling data produced by The Nature Conservancy, classified by 3 tiers	The Nature Conservancy Resiliant and Connected Lands Mapper More on TNC Ranking System
Carbon Storage	0-120 Metric Tons/Acre: Rescaled to (0-1)	Estimated 2010 Carbon Storage in Metric Tons per Acre	The Nature Conservancy Resiliant and Connected Lands Mapper
IMPORTANT FARMLAND			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Inportant Agricultural Soils	Prime Farmland: (1) Farmland of state importance: (0.75) Farmland of local importance: (0.5) Not prime farmland: (0)	Designated prime agricultural soils	USDA & USGS Web Soil Survey
Open Fields	Existing open Field: (1) No Field: (0)	All open fields (cultivated, or uncultivated)	National Land Cover Dataset
PUBLIC ACCESS & SCENIC VALUE			
INPUT LAYER	**SCORING & RESCALING (0-1)**	**DESCRIPTION**	**DATA SOURCE**
Trail Corridors	Unconserved Parcel within Trail Corridor: (1) Conserved Parcel within Corridor: (0) Parcel not within Corridor: (0)	Unconserved and mostly undeveloped parcels along existing Trail Corridor (25 meter buffer) *Not accounting for Trail Easements	Trail Data: CCGIS, AMC, WMNEMBA, NH GRANIT
Designated Scenic Areas	Scenic Frontage: (1) No Scenic Frontage: (0)	100 meter scenic viewshed buffer along Designated Scenic Areas	US National Register of Historic Places NH Scenic Byways National Wild & Scenic Rivers