## **Synthesis: A Place In Between**

Organizations working to maintain a healthy landscape Between the Green Mountains and the Adirondacks



July, 2011

A product of The Staying Connected Initiative

Leslie Karasin
Wildlife Conservation Society
(518) 891-8872
lkarasin@wcs.org

Monica Erhart
The Staying Connected Initiative
(802)431-5061
monica.erhart@gmail.com

### **About this document**

The following pages comprise a synthesis intended to capture the nature and locations of land-focused organizations and their scope of work within the geographical area identified by the Staying Connected Initiative as the "Adirondacks—Southern Green Mountains Linkage," roughly comprising the Southern Lake Champlain Basin and surrounding area in Vermont and New York. This is an area of habitat critical for maintaining healthy wildlife populations, as it is one of very few places where forest habitat is uninterrupted between the two mountain ranges. This area between the Adirondacks and Green Mountains has been identified through a connectivity analysis by Two Countries, One Forest as one of six priority wildlife linkage areas important for maintaining wildlife connectivity across the Northern Appalachian Ecoregion from the Tug Hill Plateau to the Canadian Maritimes. Of course, this area also confers a wide range of local ecological benefits and community values.

The goal of this document is to enhance the work of the many groups and organizations engaged in habitat connectivity and water quality protection work in this geographic area by identifying common themes, opportunities for collaboration, and gaps in our collective efforts. Ultimately, this document is meant to provide the background needed for building capacity to maintain, restore, or enhance connectivity and a healthy system of natural resources throughout the region.

This synthesis is by no means comprehensive. Information on these pages was collected during a meeting held on January 28, 2011, in Whitehall, New York, and via email follow-up with others who did not attend. Some relevant organizations may not have responded or were accidentally excluded and are therefore not represented on these pages. In other cases, efforts that clearly support the goals of the Staying Connected Initiative take place outside the specified geography and are not included in the following pages. For example, a number of organizations have made significant progress in restoring and conserving an area of important wildlife habitat in a parallel corridor of connected habitat in the Split Rock Wildway, north of this document's identified geography. Similarly, many of the partners of the Staying Connected Initiative (listed in Appendix B) are engaged in region-wide work that takes place in a geography that is too broad to be specifically captured by the maps presented on the following pages. We have made every effort to fill as many of these gaps as possible so as to capture a reasonably comprehensive view of the work accomplished within the region to maintain a healthy landscape; however, we recognize that some gaps remain.

While this document may not be updated in the future, the Staying Connected Initiative will continue to pursue communication and potential collaboration with other organizations in this region. We welcome additional feedback, participation, or opportunities for maintaining connectivity in the area as the Initiative moves forward.

Funding for this project was provided by the Lake Champlain Basin Program's *Opportunities for Action* program, augmenting the work undertaken by the Staying Connected Initiative as described in Appendix B.

### **Contents**

Guide to the maps	4
Map 1: Organizational Geography	6
Map 2: Wildlife and Natural Resource Science	7
Map 3: The Intersection of Roads and the Natural Landscape	8
Map 4: Technical Assistance to Municipalities	9
Map 5: Land Management and Natural Resource Protection	10
Map 6: Aid or Assistance to Landowners	11
Appendix A: Gaps and opportunities	12
Appendix B: About the Staying Connected Initiative	14

### **Guide to the maps**

On the following pages, the first map depicts the geographical focus areas of landscape-focused organizations working within the region. Organizations that work throughout the target geography or throughout either the state of Vermont or the state of New York are listed on the right; focus areas of those organizations working only within a portion of the identified geography are depicted with colored outlines on the map.

The remaining five pages represent a more detailed account of the projects or activities accomplished by each organization. In order to better analyze where opportunities for collaboration and sharing exist, as well as where there may be topical and geographical gaps in the work, we have divided these activities into five categories:

- Wildlife and Natural Resource Science
- The Intersection of Roads and the Natural Landscape
- Technical Assistance to Municipalities
- Land Management and Natural Resource Protection
- Aid or Assistance to Landowners

The locations of organizational names and activities have been placed loosely over a map of the region. While an attempt was made to represent each entity over an appropriate geography, limited space sometimes caused a modification of the placement of words on the maps. Also, the activities captured by this activity represent a wide variety of scales. Some activities are specific to a particular location, some are generalized across the landscape, and most are practiced within an intermediate scale. Placement on the map therefore represents geography of the activity only nominally.

### Organizations appearing on these maps include the following:

- Agricultural Stewardship Association
- Champlain Area Trails
- Champlain Valley Conservation Partnership
- Champlain Valley Natural Heritage Partnership
- Champlain Watershed Improvement Coalition of New York
- Cornell Cooperative Extension, Warren County
- Empire State Future
- Lake Champlain Basin Program
- Lake Champlain-Lake George Regional Planning Board
- Lake George Association

- Lake George Land Conservancy
- Middletown Springs Conservation Commission
- Nancy Kimball, Wildlife Rehabilitator
- National Wildlife Federation
- Natural Resources Conservation Service
- New England Forestry Foundation
- New York Department of Environmental Conservation
- New York Department of State
- New York Department of Transportation
- Northeast Wilderness Trust

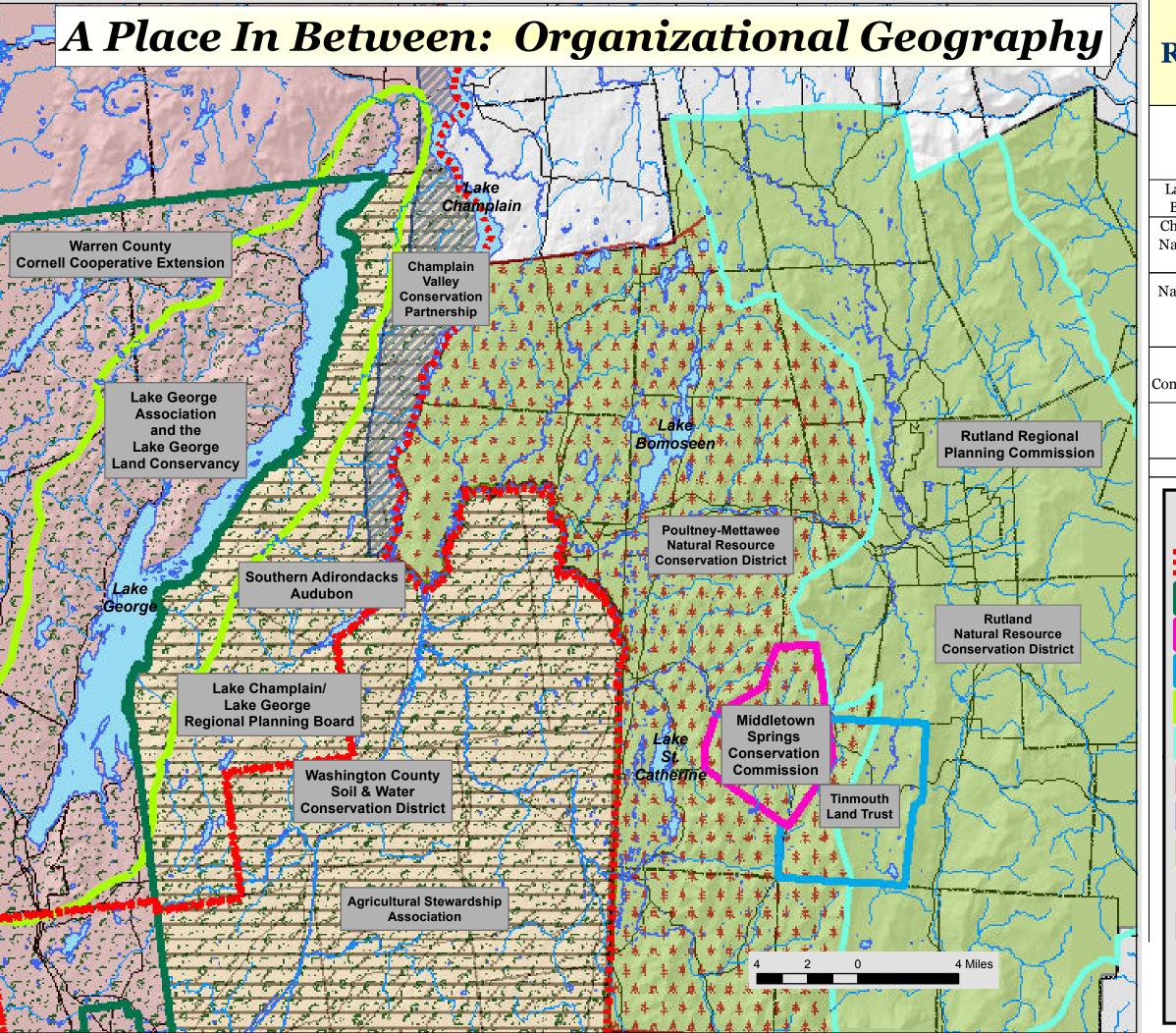
- Poultney-Mettawee Natural Resources Conservation District
- Rutland Natural Resource Conservation District
- Rutland Regional Planning Commission
- Salisbury Conservation Commission
- Southern Adirondacks Audubon
- The Nature Conservancy (New York and Vermont chapters)
- Tinmouth Keeping Track
- Tinmouth Land Trust
- Trust for Public Land
- Two Countries, One Forest
- Vermont Agency of Transportation

- Vermont Coverts
- Vermont Department of Environmental Conservation
- Vermont Department of Fish and Wildlife
- Vermont Department of Forests, Parks, and Recreation
- Vermonters for a Clean Environment
- Vermont Land Trust
- Vermont Natural Resource Council
- Vermont Reptile and Amphibian Atlas
- Washington County Soil & Water Conservation District
- Wildlands Network
- Wildlife Conservation Society

Information was requested but not received from the following additional groups. These groups do not appear on the maps, despite their involvement in associated work. In some cases, lack of response was due to a lack of strong overlap in focal area.

- Addison County Planning Commission
- Adirondack Council
- Audubon New York
- Capital District Regional Planning Commission
- · Conservation Fund
- Darrin Freshwater Institute
- Ducks Unlimited
- Cornell Cooperative Extension, Essex County
- Cornell Cooperative Extension, Washington County
- Elan Design
- Essex County Planning Department
- Fund for Lake George
- Green Mountain National Forest
- Lake Champlain Ecosystems Team
- Lake Champlain Research Consortium
- Lakes to Locks
- Mohawk Hudson Land Conservancy

- New York Department of Safety
- New York Natural Heritage Program
- Open Space Institute
- Queensbury Land Conservancy
- Rensselaer Land Trust
- Rutland Audubon
- Saratoga County Planning Department
- Saratoga PLAN
- Silver Bay Association
- Smart Growth Vermont
- Trout Unlimited
- Vermont Audubon
- Vermont Woodlands Association
- Warren County Planning Department
- Warren County Soil & Water
- Washington County Planning Department
- Washington County Sportsmans Federation



Region-	State- wide	State- wide
wide	(VT)	(NY)
The Nature Conservancy	Vermont Land Trust	New York Department of Environmental Conservation
Lake Champlain Basin Program	Vermont Agency of Transportation	Empire State Future
Champlain Valley National Heritage Program	Vermont Department of Fish & Wildlife	Nancy Kimball, Wildlife Rehabilitator
National Resource Conservation Service	Vermont Department of Environmental Conservation	Wildlife Conservation Society
The Staying Connected Initiative	Vermont Reptile and Amphibian Atlas	New York Department of State
	New England Forestry Foundation Vermont Coverts	



Lake Champlain Lake George RPB

### ADIRONDACKS

### Wildlife Conservation Society

- ◆Annual loon census
- ◆Moose genetics study
- ◆Studies impacts to wildlife from low-density development

### **Cornell Cooperative Extension, Warren** County

- ◆Various forestry projects (with State Extension Forester Pete Smallidge)
  - ♦ Woody biomass projects

### Lake George Land Conservancy

♦ Winter tracking/habitat surveys, animal inventory, and bird studies on conserved lands

### Wildlife and Natural Resource Science

### **New York Department of Environmental** Conservation

**◆**Endangered species monitoring and recovery planning

### Nancy Kimball, **Licensed Wildlife** Rehabilitator

**♦**Public programs with educational (nonreleasable) raptors.

### **Vermont Department** of Fish & Wildlife

- **◆**Community Wildlife Program
- ◆Assistance with connectivity mapping

### **Vermont Department of Environmental Conservation**

- ◆Natural resource inventories and assessments, biological monitoring, natural resource planning (surface water based)
- ◆River Management Program does river assessments and corridor planning

### **The Nature Conservancy**

- ♦ Natural resource and wildlife modeling
- **♦**Research on restoration techniques

**♦**Potential grant opportunities

Lake Champlain Basin

Program/Champlain

**Valley National** 

**Heritage Partnership** 

### Two Countries. One Forest

**♦**Ecoregion-scale modeling work and datasharing platform

### Southern Adirondack Audubon

◆Peregrine falcon monitoring

## **Resource Conservation District**

♦Wildlife habitat assessment

# **Poultney-Mettawee Natural**

### Wildlands Network

**♦**Connectivity science at a general or regional scale

### **Tinmouth Keeping Track**

**♦**Wildlife monitoring program

### **Salisbury Conservation** Commission

- ◆Education and advocacy for the conservation of natural resources.
- ◆Presentations, field trips, etc. for local citizens
- ♦ Wildlife corridor workshop to share efforts with other towns.

GREEN

### Vermonters for a Clean Environment

**◆**Environmental study on impacts of big wind projects

### **Vermont Reptile** and Amphibian **Atlas**

**♦**Online information. field trips, presentations, a DVD, posters, courses, and direct interaction to promote the conservation of reptiles and amphibians

### Lake George **Association**

- **♦**Citizen science turtle monitoring project in Lake George
- ◆Coordination of annual loon census on Lake George
  - ◆Water quality monitoring
  - ♦ Wildlife education for children

## The Intersection of Roads and the Natural Landscape

### **Champlain Watershed Improvement Coalition of New York**

- ◆Roadside erosion and sediment control
- **♦**Culvert assessments

### The Nature **Conservancy & New York Department of Transportation**

ADIRONDACKS

**♦**Flimination of barriers for aquatic connectivity

### Lake Champlain Basin Program/Champlain **Valley National Heritage Partnership**

**♦**Potential grant opportunities

### **Lake George Association**

◆Administration of project to deal with issues related to stormwater runoff and roads

### **Washington County** Soil & Water **Conservation District**

◆Culvert installations for fish passage

### **Vermont Agency of Transportation**

◆Environmental permit review for all road, rail, and air projects

## **Department of** Fish & Wildlife

**♦**With Vermont Agency of Transportation, creation of a new database for monitoring wildlife road crossings and roadkill

# Vermont

Salisbury

Conservation

Commission

**♦**Amphibian migration

monitoring program (with

Otter Creek Audubon)

◆Roadside wildlife tracking program to identify critical

movement corridors in and

### **Rutland Regional Planning** Commission

through Salisbury

- **◆**Transportation planning technical assistance
- ◆Route 22A corridor management planning project currently underway

### Vermont **Department of** Forests, Parks, and Recreation

**♦**Work within intersections of log/forest/access roads

### Vermont **Department of Environmental** Conservation

**♦**Culvert and bridge projects related to aquatic organism passage

### Vermonters for a Clean Environment

**♦**Advocacy for minimizing effects of new roads on ridgelines for wind projects

### **Vermont Reptile and Amphibian Atlas**

**♦**Education of Vermont Agency of Transportation employees and the general public about the effects of transportation systems on reptile and amphibian populations.

### Wildlife Conservation Society

- ◆ Make Room For Wildlife planning brochure
- ◆Offers presentations and support for communities interested in exploring how to protect wildlife through local planning

# Cornell Cooperative Extension, Warren County

→Helps municipalities to understand natural resource issues and concerns

### Lake George Association

◆Stormwater runoff program to protect the water quality of Lake George

### Lake Champlain-Lake George Regional Planning Board

◆Grant writing and administration for water quality projects

## Technical Assistance to Municipalities

# Champlain Valley Conservation Partnership/Champlain Area Trails

◆Creates trails, protects natural habitat and scenic vistas, and promotes outdoor recreation to enhance the local economy.

# Vermont Department of Forests, Parks, and Recreation

- ◆Management of area town forests.
- ◆Planning assistance for additional public lands.

# Vermont Department of Environmental Conservation

- ◆Looks at stormwater problems that exacerbate flooding and general non-point source identification and mitigation.
  - ◆Helps towns in conducting illicit discharge detection and elimination of sanitary sewer discharges into surface waters
- ◆River Management Program works with towns to adopt zoning ordinances that regulate development in the fluvial erosion hazard area.

# The Staying Connected Initiative

◆Assistance in connecting municipalities to available planning and conservation resources

## Vermont Natural Resources Council

◆Assistance with town planning and bylaws for natural resources protection

### Poultney-Mettawee Natural Resource Conservation District

♦Is in the process of identifying conservation priorities through a wildlife habitat assessment

### Salisbury Conservation Commission

- ◆Provides information to town and regional planning commissions.
- ◆Shares methods with representatives of other towns and organizations.
- ♦ Website designed to be useful to other towns

# Rutland Regional Planning Commission

♦Offers planning assistance to towns

# Vermont Department of Fish & Wildlife

- **◆**Community WIIdlife Program
- ◆Identification of local natural resources for use in the town planning process

### Vermont Reptile and Amphibian Atlas

- ♦ Website, publications, DVD, and posters are available as municipal resources.
- ◆Jim Andrews is available for consultation (may be some cost involved, depending on the project)

### New York Department of State

◆Local Waterfront Revitalization
Program enhances public access to
waterways and state lands,
promotes sustainable economic
development, protects and
improves water quality, and
revitalizes hamlets and downtowns
◆Provides assistance for waterfront
revitalization, re-use of abandoned
buildings, and watershed
management

+Administers revitalization grants

### **Empire State Future**

→Implementation of Smart Growth policy for land use planning

### Champlain Watershed Improvement Coalition of New York

- **◆**Erosion and sediment control
- ◆Watershed management and stormwater retrofitting

# New York Department of Environmental Conservation

◆Permitting programs for wetlands, streams, and water quality

## Lake George Land Conservancy

◆Conserves land via acquisition and conservation easements

## ◆Stormwater management Stowards

◆Combatting invasive species (mostly, but not entirely, aquatic)

**Lake George Association** 

## West Brook Conservation Initiative (Partnership)

◆Land acquisition and easements

### Lake Champlain/Lake George Regional Planning Board

◆Stormwater erosion & sediment control, invasive species management, native plantings, and shoreline buffers

# Land Management and Natural Resource Protection

# Vermont Department of Forests, Parks, and Recreation

◆Use Value Appraisal program keeps large tracts of working forest undeveloped

### Champlain Valley Conservation Partnership/CATS

◆Land acquisition and easements, along with partner organizations.

### Lake Champlain Basin Program/Champlain Valley National Heritage Partnership

◆Potential grant opportunities (but not for land or easement purchase)

# Agricultural Stewardship Association

◆Agriculture and forestry easements

### Washington County Soil & Water Conservation District

- ◆Culvert installations for fish passage
- ◆Water chestnut harvesting
  - ◆Riparian buffers

## Vermont Department of Fish & Wildlife

- ◆Administers Farm Bill programs, including cost-share incentives, conservation easements, forest management, and habitat management
- ◆Landowner Incentives Program helps with management costs for landowners with rare, threatened, or endangered species on their land.

### Vermont Department of Environmental Conservation

- ♦With other organizations, implementation of programs/resources to enhance surface water protection (e.g. conservation easements, buffer establishment, fluvial erosion hazard mapping/planning, etc.)
- ◆Corridor conservation projects in conjunction with partners to obtain permanent channel management rights to a priority section of river and require a 50' unmanaged buffer.

### **The Nature Conservancy**

- ◆Land protection through acquisition and easements
  - ◆Clayplain forest restoration

### Natural Resource Conservation Services

◆Offers programs to landowners, including cost-share incentives, conservation easements, aid with forest management, and aid with habitat management

### Rutland and Poultney-Mettawee Natural Resource Conservation

- ◆Provides land management information and resources to landowners, especially with regard to water quality issues
  - ◆Aids in administration of Farm Bill programs

# New England Forestry Foundation

- ◆Ownership and sustainable management of properties for wildlife and wood products
  - ◆Holds conservation easements

## Salisbury Conservation Commission

◆Field trips, presentations, website, and other resources related to land management and natural resource conservation

### **Vermont Land Trust**

◆Conserves land via acquisition and conservation easements

## Rutland Regional Planning Commission

- ◆Transportation planning technical assistance
- ◆Route 22A corridor management planning project currently underway

# Vermonters for a Clean Environment

◆Advocacy for minimizing impacts from commercial/industrial enterprises, such as big wind or mining projects

### Vermont Reptile and Amphibian Atlas

◆Educational activities with land and natural resource management goals.
Reptiles and amphibians are the wildlife vehicle.

## Tinmouth Land Trust

◆Land protection through conservation easements

### Wildlife Conservation Society

◆Landowner brochure about managing land for wildlife

### Cornell Cooperative Extension, **Warren County**

ADIROND

- ♦ Woody biomass education for forest landowners
- ◆Programs for forest land owners and managers ◆Outreach to forest industry (including landowners) about forest invasive pests.

### Lake George Land Conservancy

◆Nature walks

### Aid or Assistance to Landowners

Vermont

**Department of** 

Fish & Wildlife

◆Technical assistance

with WHIP/EQIP programs

### **Champlain Valley** Conservation Partnership/Champlain

**♦**General conservation outreach to landowners

**Area Trails** 

### Lake George **Association**

- ◆Native plantings of buffers and rain gardens
- **♦**Lake-friendly living education with a focus on water quality
- ◆Aid in dealing with nuisance Canada geese

### Vermont Coverts

◆Course in managing land for wildlife

# The Staying

**♦**Assistance in connecting landowners with available management and

### Vermont Lake Champlain Basin **Department of** Program/Champlain Forests, Parks, **Valley National** and Recreation

- ♦ Walking properties with landowners in administration of Use Value Appraisal program.
  - ◆General technical assistance visits
  - ♦Occasional insect & disease calls.

### Vermont Reptile and **Amphibian Atlas**

♦ Website with resources to help identify and protect reptiles and amphibians

### Salisbury Conservation Commission

**♦**Connecting of landowners to land conservation resources

### Connected Initiative

conservation resources.

### **♦**Surface water conflict resolution

Vermont

**Department of** 

**Environmental** 

Conservation

◆River management program helps some landowners with restoration projects or corridor easements

### **Vermont Land Trust**

◆Stewardship and technical assistance for owners of conserved land

- **♦**Landowner technical assistance

### Lake Champlain-**Lake George** Regional Planning **Board**

**♦**Cost-share program for septic improvement

### **Natural** Resource Conservation Service

**Heritage Partnership** 

**♦**Potential grant

opportunities for public

◆Incentives programs for land management

### **New England Forestry** Foundation

◆Education about land protection resources

### **Appendix A: Reflections, Gaps and Opportunities**

Following is a brief reflection on the previous maps, with a particular focus on the geographic and topical gaps where there may be opportunities for enhanced collaboration, more effective or more geographically widespread delivery of natural resource-related services, or needs that are currently going unmet. This discussion is a collection of observations offered by the participants during the meeting held on January 28, 2011, in Whitehall, New York and feedback solicited after the event. It is not intended to be a comprehensive analysis but rather to offer reflections on the maps and serve as a starting point for further discussion. Observations are offered on a map-by-map basis.

### Organizational geography

- There are relatively few organizations that work within the Adirondacks Southern Greens linkage area on *both* sides of the New York/Vermont state border. Most organizations focus their work in one state or the other. This offers a challenge for promoting connectivity thinking across the linkage area.
- Nevertheless, opportunities for cross-border collaboration exist and should be explored. One idea for an organized network of cross-border organizations and entities was discussed during the January 28<sup>th</sup> meeting. The network may meet or communicate regularly, or there may simply be a brochure listing the services offered by regional organizations working to maintain healthy landscapes.
- The Lake Champlain Basin Program and its watershed planning approach offers one model and opportunity for cross-border collaboration.
- Granville, Whitehall and Hampton seem to have fewer conservation-focused resources compared with the Lake George and Green Mountain regions. The Taconic mountains may similarly have fewer resources.

### Wildlife and Natural Resource Science

• Much of the activity taking place on this topic appears to be region-wide—more so than other topics covered in this synthesis that focus more closely on specific areas. Although this could offer advantages, it also suggests that there may be finer-scaled, place-based needs in terms of on-the-ground monitoring work that are going unmet.

### The Intersection of Roads and the Natural Landscape

- Transportation work is inherently state-based because of the DOT/AOT structure.
- There may be opportunities for greater collaboration between DOT/AOT, state Fish and Wildlife agencies, and other organizations in the region, but there are temporal challenges to realizing this opportunity. For example, the planning process for road projects often takes place  $\sim 10$  years prior to the start of construction. For other organizations to weigh in on the transportation planning process, they will similarly need to think far into the future—a process which many organizations are not currently set up to do.

### **Technical Assistance to Municipalities**

- This topic in general is an area of opportunity; relatively little is currently taking place in this arena.
- There are challenges and capacity issues on both sides of this equation (the organizational side and the municipal side) that are challenging to overcome in terms of providing this type of assistance.
- The organizations that offer technical assistance to municipalities are generally set up exclusively for this purpose, and these are able to work closely with towns on a regular basis.

### Land Management and Natural Resource Protection

• This area seems the most thoroughly covered of our topics, although that may be a byproduct of who was engaged in providing feedback and participation. The topic itself is also quite broad and leaves a large range of opportunity for involvement.

### Aid or Assistance to Landowners

• There may be some potential for groups within the region to combine outreach efforts. Currently, landowners are often approached separately by different entities, each of which can provide the landowner with a land-based resource. This can be overwhelming or confusing to a landowner. If several entities instead provided joint outreach, the landowner could get a spectrum of options or opportunities at one time.

### **Appendix B: About the Staying Connected Initiative**

Staying Connected is an initiative to help safeguard wide-ranging and forest-dwelling wildlife such as bear, moose, lynx, marten and bobcat from the impacts of habitat fragmentation and climate change by maintaining and restoring landscape connections across the Northern Appalachians region. The initiative helps individuals and communities to choose actions that will sustain wildlife and local community values such as hunting, fishing, and other outdoor recreation in a rapidly changing world. While this document focuses only on a single habitat linkage between the Adirondack Mountains and the Green Mountains, the initiative as a whole focuses on seven priority areas across the Northern Appalachians where landscape connections for wildlife movement are at risk due to development and roads:

- 1 Tug Hill Plateau ⇔ Adirondack Mountains (NY)
- 2 Adirondack Mountains ⇔ Green Mountains (NY-VT)
- 3 Taconic Mountains ⇔ Southern Green Mountains (NY-VT)
- 4 Northern Green Mountains (VT-Canada)
- 5 Worcester Range ⇔ Northeast Kingdom (VT)
- 6 Northeast Kingdom ⇔ Northern NH ⇔ Western Maine Mountains (VT-NH-ME)
- 7 Maine's North Woods ⇔ Quebec's Gaspe Peninsula (ME-Canada)

Within these landscapes, project partners and communities are identifying the key areas of local connectivity that allow wildlife to successfully move through intact and fragmented landscapes. We are engaging landowners, organizations and municipalities to protect, restore, maintain, and enhance habitat blocks and the connections among them. And we are working with state transportation agencies and local communities to reduce the dangers to wildlife seeking to cross well-traveled roads.

*Staying Connected* is a collaboration of twenty public and private entities working together to maintain landscape connections across the northern forest region. Partners include:

Maine Audubon	New Hampshire Fish & Game Department	Tug Hill Commission
Maine Department of Inland Fisheries &	New York Department of Environmental	Tug Hill Tomorrow
Wildlife	Conservation	Two Countries, One Forest
Maine Department of Transportation	New York Department of Transportation	Vermont Agency of Transportation
National Wildlife Federation	Northeast Wilderness Trust	Vermont Department of Fish & Wildlife
New Hampshire Audubon	The Nature Conservancy (NY, VT, NH, &	Vermont Land Trust
New Hampshire Department of	ME)	Wildlands Network
Transportation	Trust for Public Land	Wildlife Conservation Society

**The Staying Connected Initiative** is one of only 12 projects funded nationwide in 2009 through the U.S. Fish & Wildlife Service's Competitive State Wildlife Grants Program – the country's core program for preventing wildlife from becoming endangered in every state. Additional funding comes from the Wildlife Conservation Society's Wildlife Action Opportunities Fund, established with support from the Doris Duke Charitable Foundation, and from project partners.