Northeast Conservation Framework

What is it and why do we need it?

National LCC Workshop
Denver CO
March 2012
Northeast Conservation Framework

- History
- Context
- Future
NA Landscape Conservation Cooperative

Regional Partnerships

- NEAFWA
- ACJV
- AFC
- PARC
- EBTJV
- ACFHP
- Etc...

And others…
Major Challenge:

How do we organize our separate agencies, organizations and missions to collectively achieve the conservation outcomes that society wants and expects from us?
What is a Conservation Framework?

• What are we trying to achieve?
• What are the steps necessary to get there?
• Who is going to do what?
• How will we know when we get there?

*A framework helps to organize and prioritize the work to best contribute to the outcome*
Regional Conservation Needs Plan
2006

RCN 1
Develop NE Base Maps
#47, 56, 71

RCN 2
ID High Priority NE SGCN
#3, 8, 20, 28

RCN 3
ID NE SGCN Data Gaps, Design Data Collection Protocols, and Collect Data
#6, 10, 45, 46, 50, 54, 59, 64, 66

RCN 4
GIS Data Analyses and Mapping for NE SGCN
#4, 12, 18, 19, 49, 60, 63

RCN 5
Design and Implement Conservation Strategies for NE SGCN
#15, 21, 26, 27, 29, 31, 32, 33, 38, 43, 44, 49, 57, 67, 68

RCN 6
Design and implement Monitoring Programs for NE SGCN
#2, 13, 46, 54, 64, 73

RCN 7
Identify and Address Emerging Threats Contributing to the Regional Declines of NE SGCN
Climate change, White Nose Syndrome, etc.

Numbers in the box refer to the conservation action as listed in the list of 73 actions at Albany 2006 meeting. However, only the top 41 actions are included in the flow chart.

Bold and underlined numbers refer to the top eleven priority conservation actions.
North Atlantic LCC
Science Needs Assessment

• Request for Science Needs (Jan – Feb 2011)
• 207 needs submitted

Needs by component
  – Monitoring - 34
  – Ecological Planning - 39
  – Conservation Design - 68
  – Research - 46
  – Demonstration Project - 5
  – Information Management - 15
Northeast Regional Conservation Framework Workshop

“Albany II”

June 14-16, 2011
Crowne Plaza Hotel, Albany, New York

Hosted by
Northeast Association of Fish & Wildlife Agencies
North Atlantic Landscape Conservation Cooperative

Photo Credit: James Weliver/USFWS
Session objectives:

1. Agreement on goals and need for a regional framework to achieve resource conservation incorporating ecological and human needs;

2. An understanding of how completed, ongoing and proposed RCN/LCC projects fit into a framework;

3. An understanding of how the elements in this framework will inform decision-making by the conservation community; and

4. An understanding on how future science needs fits into the framework.
Regional Conservation Needs Goal/Vision:
The objective of the Northeast RCN Grant Program is to address landscape-scale, regional wildlife conservation issues by combining resources, leveraging funds, and prioritizing conservation actions identified in State Wildlife Action Plans.

LCC Goal/Vision (North Atlantic example):
Landscapes that sustain our natural resources and cultural heritage in a healthy state through active collaboration of conservation partners and partnerships in the North Atlantic Region.

LCC Fundamental Objective:
To define, design, and deliver landscapes that can sustain natural and cultural resources at desired levels.
LCC Fundamental Objective:

To define, design, and deliver landscapes that can sustain natural and cultural resources at levels desired by society.
Role: Landscape Conservation Cooperative

- facilitate planning at a scale and scope beyond the reach or resources of any one organization
- leverage funding, staff, and resources
- agree on common goals
- develop tools and strategies to inform landscape-level management decisions and link science to management
- provide a forum for exchange between partners.
Role: Partners

- define and share their individual landscape-level priorities
- help shape a common landscape level conservation framework, targets, priorities, and science and conservation tools needed across the region by multiple partners
- use the tools developed, such as maps of priority areas to aid in their implementation of conservation actions
- provide feedback to the LCC on the utility and effectiveness of LCC products and approaches
North Atlantic Landscape Conservation Cooperative Framework Elements

- **Conservation targets/population goals** – at a regional level
- **Species/habitat models** – regional levels – across species distribution
- **Landscape design** – combine multiple species, resource and cultural needs into landscape designs that support regional goal levels
- **Habitat change over time** – assess with respect to stressors such as sprawl and climate change – incorporate into landscape designs
- **Conservation “translation” tools** – translate the science foundation into landscape patterns easily conveyed to public and landowners – work at community levels
- **Information management**
- **Monitoring** - serve as a “community of practice” for conservation partners – what have we learned, what works and what doesn’t?
There are many Models for a Conservation Framework...

Figure 1. An iterative approach to adaptation planning and implementation (Adapted from The Heinz Center (2008), Gluck et al. (2009), Heller and Zavaleta (2009), Cross et al. (in review)).
The Strategic Habitat Conservation Approach

Within an Ecoregion

1. Select Focal Species
2. Formulate Population Objectives
3. Identify Limiting Factors
5. Develop Species Habitat Decision Support Tools
6. Assess Current State of Focal Species Populations
7. Combine Appropriate Species Decision Support Tools
8. Designate Program Priority Areas
9. Formulate Habitat Objectives

Feedback Loop: Assess Net Progress Toward Population Objectives
Feedback Loop: Assess Program Accomplishments
Feedback Loop: Target Research at Key Assumptions

Monitor Site-scale Effects of Management Actions on Populations

Revise Models Accordingly

Conservation Design

Monitoring and Research

Biological Planning

Delivery of Conservation Actions

Strategic Habitat Conservation and the 8 Elements of State Wildlife Action Plans

Element 1: Species status assessment
Element 2: Habitat status assessment

Element 5: Manage data to:
- detect changes
- assess effectiveness
- adapt management

Element 5: Monitor species, habitats, outcome of actions

Elements 7&8: Coordinate implementation

Element 3: Evaluate problems & solutions

Element 4: Prioritize actions

Element 4: Prescribe actions

Element 4: Implement and monitor actions
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<thead>
<tr>
<th>Strategic Habitat Cons. Element</th>
<th>Sub-element</th>
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<tbody>
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<td>Biological Planning</td>
<td>Biological Planning Units</td>
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<td>Priority Species</td>
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<td>Decision Support Tools</td>
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<td>Integrate Multiple Species Objectives</td>
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<td>Keyfactor/Sensitivity Analyses</td>
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<td>Spatial Data Analyses</td>
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Population Goals in the Context of a Conservation Framework

- **Survey & Monitoring (status/trends)**
- **Species habitat models & rangewide habitat assessment (limiting factors)**
- **Climate change and land use models (risk factors)**

**Species Population goals**

- **Population >= target?**
  - yes → **Mgmt action A (continue current)**
  - no → **Is pop stable or increasing?**
    - yes → **Is future habitat at risk?**
      - yes → **Habitat conservation**
      - no → **Is habitat limiting or at risk?**
        - yes → **Landscape habitat needs How much/where? Species w/similar habitat needs? (landscape habitat design)**
        - no → **Research other limiting factors**
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Northeast Conservation Framework

**GOAL-SETTING**
Which species/resources to conserve?
At what levels?
Who decides?

**BIOLOGICAL ASSESSMENT**
What do we know about the status of priority wildlife and resources?

**CONSERVATION DESIGN**
What should landscapes look like to conserve all species and resources at levels that society wants?

**PRIORITIES**
Which species/resources demand immediate attention?

**INFORMATION MANAGEMENT**
How will we manage the demand for and creation of data?

**SCIENCE TRANSLATION TOOLS**
How do we make science solutions useful?

**MONITORING, EVALUATION, RESEARCH**
What new information will we gather to support conservation?

**CONSERVATION ADOPTION**
How do we get communities and landowners engaged in conservation?

**CONSERVATION DELIVERY**
How will we most efficiently put conservation on the ground?
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CONSERVATION DELIVERY
How will we most efficiently put conservation on the ground?
How are we using it now?

- The framework is the foundation for the NA LCC strategic plan – i.e. what we will do
- Existing science, information, and translation tools can be organized so that what is available vs what is needed is clear
- Science, information, and translation tool needs are arranged in a way that partners can see stepwise progression towards the goals
Also,

-The conservation framework is a communication tool

-The framework helps to organize our individual capacities, responsibilities, and expertise – where can each partner organization contribute?
The framework represents a direction for the partnership and a willingness of the partners to collectively and intentionally work in an organized fashion towards a larger landscape conservation vision.
Swainson's Warbler

Goals And Objectives Of Sustainable Landscapes Exceed The Operational Reach Of Individual Programs, Agencies, And Organizations.
Appalachian LCC
- approx. **205K sq. mile** region

- 15 States (*NY-AL; IL-VA*)
- 3 FWS Regions
- 4 NPS Regions
- 3 USGS Areas
- 1 OSM Region
- 2 FS Regions + 2RS
- 2 EPA Regions
- 4 NRCS/ARS Areas
- 1 USACE Region
<table>
<thead>
<tr>
<th>Draft Outline of A SECAS:</th>
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<td><strong>Conservation Targets</strong> –</td>
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<td>• Species, Habitats, Ecological Functions and Processes</td>
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<td>• Defines How Much, How Much More, Where</td>
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<td><strong>Ability to “See” The System</strong></td>
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<td>• Current and Alternative Futures</td>
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<td><strong>Science-based Adaptive Management</strong></td>
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<td>• Learning Is An Explicit Objective</td>
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<td><strong>Horizontally Integrated Conservation Science Assessment Capacity</strong></td>
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<td>• Landscape Ecology</td>
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<td><strong>Monitoring Systems and Capacity</strong></td>
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<td>• Assessing Uncertainty</td>
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<td>• Testing Underlying Assumptions</td>
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<td><strong>Engaging The Public</strong></td>
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<td>• Quantify Conservation Values and Recreation Attitudes of Societal Sectors Grassroot Conservation Delivery Enterprise</td>
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What is a Conservation Framework?

• What are we trying to achieve?
• What are the steps necessary to get there?
• Who is going to do what?
• How will we know when we get there?

*A framework helps to organize and prioritize the work to best contribute to the outcome*
How will we know when we’re there?

- Articulate a **vision** for the landscape to support and sustain natural and cultural resources.
- Assess the current condition of our nation’s landscapes and waterscapes to support those resources.
- Express **how much, how much more, and where** to prioritize conservation actions across the landscape.
- Ability to quantify impacts conservation actions (reforestation, permit, fish passage, etc) have on the sustainability of natural and cultural resources.
- Ability to quantify impacts development actions (housing, civil works, mining, biofuel etc) have on the sustainability of natural and cultural resources.
- Ability to forecast alternative future conditions to the sustainability of natural and cultural resources as a function of urban growth models, climate change scenarios, energy development.
LCC Fundamental Objective:

To define, design, and deliver landscapes that can sustain natural and cultural resources at levels desired by society.
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