







State of the LCC A Review of Progress and Next Steps

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North Atlantic LCC Steering Committee Meeting Newport, Rhode Island



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North Atlantic Landscape Conservation Cooperative

Headlines: Where We Are

- LCC has developed the partnerships and capacity to achieve our mission
- LCC has increased the capacity and network to communicate with and deliver science to a variety of key audiences
- LCC and partners have supported priority projects consistent with the northeast conservation framework and strategic plan
- LCC and partner projects are at the stage where products (information and tools) are available to support conservation decisions

Headlines: Where We Are

- "Why does this magnificent applied science which saves work and makes life easier bring us so little happiness? The simple answer: because we have not learned to make sensible use of it." Albert Einstein
- Partners need to be aware of what information and tools are available, why they are relevant, how to access them, how to integrate them and how to use them, and how they can effectively distribute them through their networks.

Headlines: Where We Are

- Information Management
 - Information is being made easily available and useful through data portals and websites
- Science Delivery
 - Information and tools are being delivered through translation and synthesis, training, supporting delivery networks and demonstrating applications
- Conservation Design
 - Collaborative conservation designs are being facilitated to integrate information and assess how much of what conservation actions are needed where to sustain natural and cultural resources across the region and landscapes within the region
 - Connecticut River Landscape Conservation Design Pilot
 - Regional Conservation Opportunity Areas



Headlines: Where We Are Going

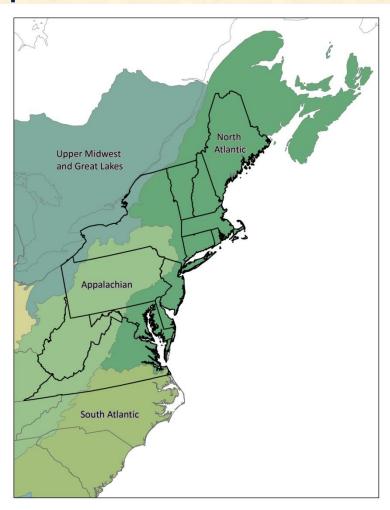
 A fully developed science delivery network that is proactive and responsive partner needs



- Science projects and partnership building to address key gaps
- A clear set of next steps for conservation design across the region based on lessons learned
- A strategic planning update process that engages partners and incorporates all of the components of our work

The North Atlantic Landscape Conservation Cooperative

- Mission, Components, Framework
- Partnership Development & Operational Capacity
- Science Projects & Products
- Science Delivery
- Conservation Design
- Communications & Information Management
- Evaluation
- Next Steps



North Atlantic LCC - Mission

The North Atlantic Landscape Conservation Cooperative provides a partnership in which the conservation community works together to address increasing land use pressures and widespread resource threats and uncertainties amplified by a rapidly changing climate.

The partners and partnerships in the cooperative address these regional threats and uncertainties by agreeing on common goals and jointly developing (and delivering) the scientific information and tools needed to prioritize and guide more effective conservation actions by partners toward those goals.



North Atlantic LCC Components of Mission

- Ecological Planning/Assessment
- Conservation Design
- Science Translation and Conservation Adoption (Science Delivery)
- Monitoring and Evaluation
- Research
- Information Management
- Communication and Outreach
- Coordination and Organization







GOAL-SETTING

Which species/habitats to conserve?

At what levels?

Who decides?

CONSERVATION DESIGN

What do we know about the status of priority wildlife?

BIOLOGICAL ASSESSMENT

What should landscapes look like to conserve species at goal levels

PRIORITIES

Which species and issues demand immediate attention?

INFORMATION MANAGEMENT

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

SCIENCE TRANSLATION

How do we make science solutions useful?

MONITORING, EVALUATION AND 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?



Steering Committee



- 33 Members (14 State, 1 Tribal, 8 Fed., 1 Canadian, 8 NGO, CSC)
- 2014 average meeting attendance = 42 attendees, S.C. attendance 87%
- 2014 average call attendance = 42 attendees, S.C. attendance
 70%
- Meeting frequency (2 in-person, 1 call)
- Critical feedback on how to increase relevancy and delivery



- Science Technical Committee
 - 54 members (10 State, 28 Fed., 2 Can., 10 NGO, 4 LCC)
 - Sub teams: aquatic (12), terrestrial/wetland (16) and coastal/marine (15)
 - Provided strong input and recommendations on science needs
 - Also, project oversight teams, proposal review teams, peer reviewers
- Science Delivery Team
 - 30 members (8 State, 10 Fed., 9 NGO, 3 LCC)
 - Met jointly with technical teams
 - Provided feedback on existing delivery projects, developed consensus recommendations on additional needs
- Regional Conservation Opportunity Area (RCOA) Team with states
 - NEFWDTC appointed RCOA team of states and NGOs
 - Reviewing alternative methodologies for mapping RCOAs



Staff Dedicated to LCC

Position	Agency/Organization	Person
Coordinator	U.S. Fish & Wildlife Service	Andrew Milliken
Science Coordinator	North Atlantic LCC	Scott Schwenk
Science Delivery Coord.	North Atlantic LCC (part-time)	Steve Fuller
Coastal Resiliency Coord.	U.S. Fish & Wildlife Service	Megan Tyrrell
GIS Analyst	North Atlantic LCC	Renee Farnsworth
Communications Coord.	North Atlantic LCC (part-time)	Bridget Macdonald
Pathways Intern	U.S. Fish & Wildlife Service (part-time)	Maritza Mallek
Science Delivery Assist.	North Atlantic LCC (part-time)	Stephanie Cuenoud

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Staff Providing Partial Support to LCC

Position	Agency	Person
Communications	U.S. Fish and Wildlife Service	David Eisenhauer
Coordinator		
Regional GIS	U.S. Fish and Wildlife Service	B.J. Richardson
Coordinator		
Administrative	U.S. Fish and Wildlife Service	Heather Zackaricz
Assistant		
Assistant Regional	U.S. Fish and Wildlife Service	Ken Elowe
Director		
Regional	U.S. Fish and Wildlife Service	Rick Bennett
Scientist/Hurricane		
Sandy		

North Atlantic W Landscape Conservation Cooperative

- Project/contracts administration with WMI
- Provided partnership support
 - Support for meetings, workshops and partner travel
 - LCC Meetings as needed
 - RCOA Workshop
 - GIS Staff Training
 - Technical Workshops
 - Hosted partner websites (SWAP, Atlantic Salmon)
- Annual process, admin. & meetings aligned with NEAFWA to facilitate participation & collaboration

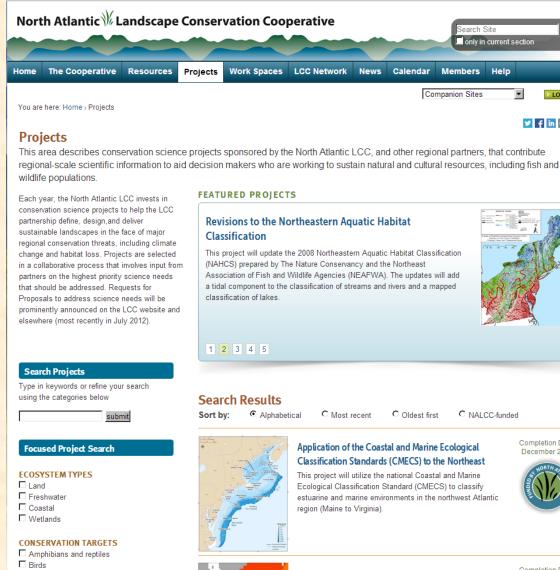
- Budget Allocation within LCC
 - Balanced among:
 - Organizational capacity
 - Ongoing and new science projects
 - Science delivery capacity and projects
- FY 2013-2015 allocations

FY	Capacity	Projects	Total
2013	\$805,365	\$1,135,881	\$1,941,246
2014	\$825,000	\$720,000	\$1,545,000
2015	\$800,047	\$744,953	\$1,545,000

Plus Hurricane Sandy

LCC Science **Projects**

- Over 25 completed or ongoing science projects providing foundational data, assessments and decision support for terrestrial, aquatic and coastal systems
- http://www.northatlanticlcc .org/projects
- **Product pages** coming soon



C Most recent

Completion Date

Application of the Coastal and Marine Ecological Classification Standards (CMECS) to the Northeast



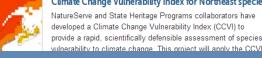
Ecological Classification Standard (CMECS) to classify estuarine and marine environments in the northwest Atlantic region (Maine to Virginia).

This project will utilize the national Coastal and Marine

Climate Change Vulnerability Index for Northeast species



NatureServe and State Heritage Programs collaborators have developed a Climate Change Vulnerability Index (CCVI) to provide a rapid, scientifically defensible assessment of species



FEATURED PROIECTS

Revisions to the Northeastern Aquatic Habitat Classification

This project will update the 2008 Northeastern Aquatic Habitat Classification (NAHCS) prepared by The Nature Conservancy and the Northeast Association of Fish and Wildlife Agencies (NEAFWA). The updates will add a tidal component to the classification of streams and rivers and a mapped classification of lakes.

Work Spaces LCC Network News Calendar



only in current section

Companion Sites

1 2 3 4 5

Search Results

C Oldest first

C NAI CC-funded



☐ Fish ☐ Invertebrates

☐ Mammals

☐ Ecosystems

☐ Plants

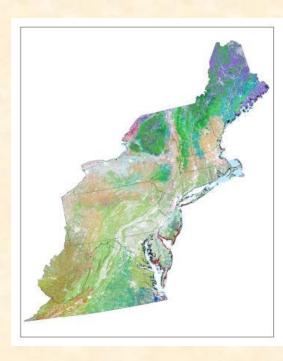
How Projects and Products Fit Together

- These science projects and their resulting products fit together and build towards information, tools and capacity needed to make more informed conservation decisions. The projects include those that develop:
 - foundational information providing the basis for assessing condition of and threats to priority resources;
 - assessments of the condition, major threats and vulnerabilities to these resources; and
 - decision support tools including conservation designs that use the foundational information and assessments to help partners prioritize and decide how much of what conservation actions are needed where to sustain these resources
- Science delivery projects make information and tools available, understood and used by decision makers and demonstrate their applications.

Science Products - Foundational

- Terrestrial Habitat Map (complete)
 - Extension into Canada (ongoing)
- Aquatic Map Revisions (complete)
 - Extension into Canada (proposed)
- NWI Updates (complete)
- Coastal and Marine Classification
 & Map (complete, peer review)
- Compilation of Regional Vernal Pool Data (underway)
- Road Stream Crossings (underway)

Plus many foundational data layers being as part of assessment and design projects



Science Products - Assessments

- Regional Habitat Vulnerabilities to Climate Change (complete)
- Regional Species Vulnerabilities to Climate Change (peer review)
- Piping Plover-Beaches Vulnerability to Sea Level Rise & Increased Storms (complete)



- Marine Bird Mapping and Risk Assessment (peer review)
- Brook Trout-Cold Water Streams Vulnerability to Changing Flow and Temperature (ongoing)
- Road-stream crossings assessing impacts to aquatic connectivity and vulnerability to flooding (ongoing)
- Tidal Marsh Obligate Species Marsh Habitat Vulnerability/Resiliency to Sea Level Rise & Increased Storms (ongoing)
- Integrated resources Designing Sustainable Landscapes (ongoing)
 - linking together landscape change, assessment and design

Science Products – Decision Support including Conservation Design

- Designing Sustainable Landscapes (ongoing)
- Decision Support Tool to Assess Coastal/Aquatic Fish Habitats and Threats (ongoing)
- Forecasting Changes in Aquatic Systems and Resilience of Brook Trout (ongoing)
- Priority Amphibian and Reptile Conservation Areas (ongoing)
- Priority Migratory Bird Stopover Areas (ongoing)
- Permeable Landscapes (submitted)
- Aquatic Connectivity and Resiliency of Road Stream Crossings (ongoing)

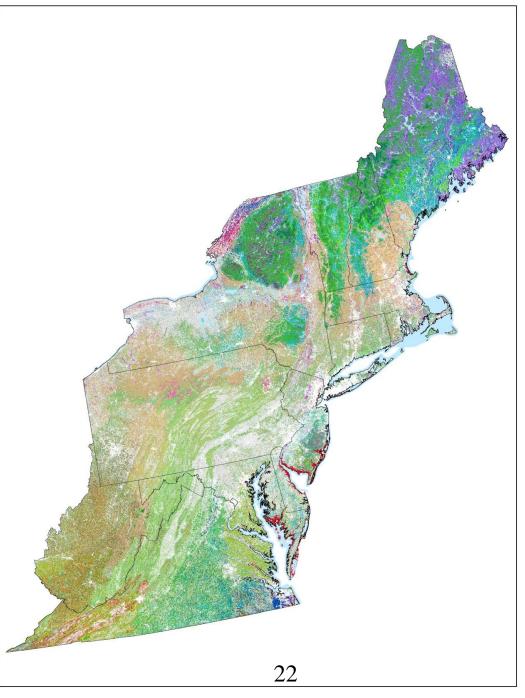


- Increasing Beach Resiliency in the Face of Sea Level Rise and Storms (ongoing)
- Increasing Tidal Marsh Resiliency in the Face of Sea Level Rise & Storms (ongoing)

Consistent data layers

 As a result of LCC, RCN and other regional conservation science projects There are now > 130 regionally consistent spatial data layers available along with tools to use them





LCC Information Management http://nalcc.databasin.org/



ScienceBase Catalog

About Communities Add Item My Items My Tasks Heln Lori Pelech

North Atlantic Landscape Conservation Cooperative **Conservation Planning Atlas**

Search North Atlantic LCC CPA

1

search by geography



powered by DATA BASIN

Browse

Create

My Workspace

What is the North Atlantic LCC **Conservation Planning Atlas** (CPA)?

Get Started

What is the North Atlantic LCC?

What can I do?

How do I start exploring?

The North Atlantic LCC Conservation Planning Atlas is a platform for easy access to high-quality geospatial datasets, maps and information to facilate partner-driven conservation.

Learn more



Get started quickly with the North Atlantic LCC Conservation Planning Atlas

Take a Tour

North Atlantic LCC Galleries...

Terrestrial



Aquatic



Coastal and Marine



Northeast Terrestrial

Habitat and Secured

Lands Map



Dataset

Northeast Secured Lands 2011 Gap

Status 1 and 2 only

Northeast Terrestrial Habitat and



This is a pilot map for the North Atlantic LCC to begin using DataBasin.

ties - LC MAP - Landscape Conservation Management and Analysis

rn Tallgrass Prairie and Big Rivers Landscape Conservation Cooper

Basin Landscape Conservation Cooperative

Northern Landscape Conservation Cooperative

Plains Landscape Conservation Cooperative

Coast Prairie

Coastal Plains and Ozarks Landscape Conservation Cooperative

scape Conservation Cooperative (LCC) Boundaries for the US

Network Boundaries

nal Data: Links and GIS Services

al Resource Data Analysis Tools

America Spatial Data

Atlantic Landscape Conservation Cooperative

Pacific Landscape Conservation Cooperative

and Prairie Potholes Landscape Conservation Cooperative

ern Rockies Landscape Conservation Cooperative

Midwest and Great Lakes Landscape Conservation Cooperative

ern Alaska Landscape Conservation Cooperative



Why is this Information Relevant? Landscape/Regional Context to Guide Conservation Planning and Actions

- Where should we invest in land protection, and how much?
- How should we manage protected lands?
- Where should we invest in ecological restoration?
- Where/how should we focus species protection and restoration?
- Where and how should we influence local land use / open space planning?
- Where should infrastructure go to have least impact?







Specific Products for Specific Needs

Product Type

- Conservation designs
- Conservation plans
- Decision-support tools
- Databases
- Maps
- Spatial datasets
- Models
- Publications
- Reports
- Assessments
- Guidance documents

Resource Type

- Coastal and marine
- Terrestrial and non-tidal wetland
- Freshwater aquatic

Conservation Targets

- Amphibians
- Birds
- Ecosystems
- Fish
- Invertebrates
- Mammals
- Plants
- Reptiles

Direct Conservation Action

- Site/area protection
- Resource and habitat protection
- Site/area management
- Invasive/problematic species control
- Habitat and natural process restoration
- Species management
- Species recovery

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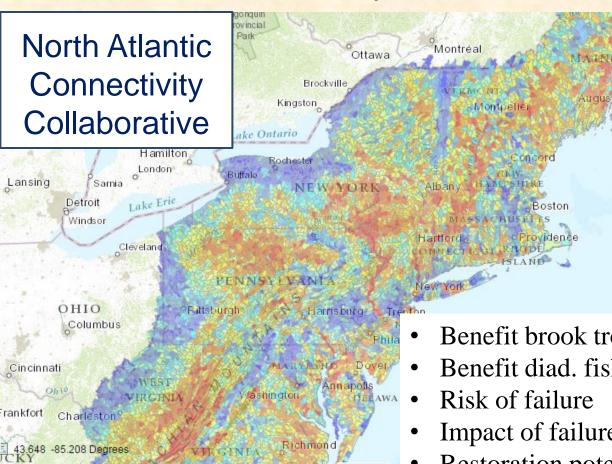
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Habitat Restoration:

Where should we focus effort to restore Aquatic Connectivity and Flood Resilience?







Benefit brook trout

- Benefit diad. fish
- Impact of failure
- Restoration potential

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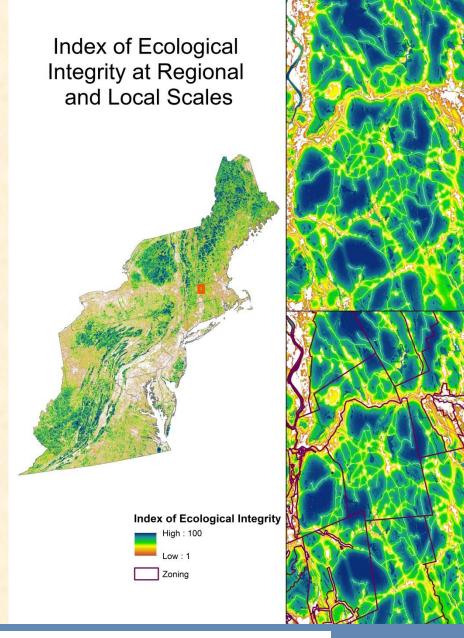
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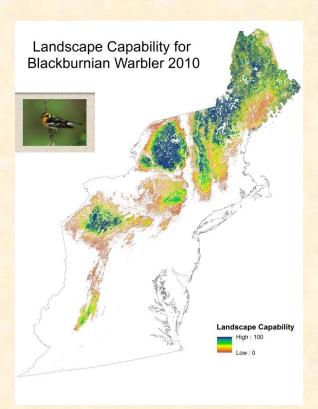
Land Protection
Planning:
Where are regionally important areas for ecological systems (habitat types) in my watershed, state, or town

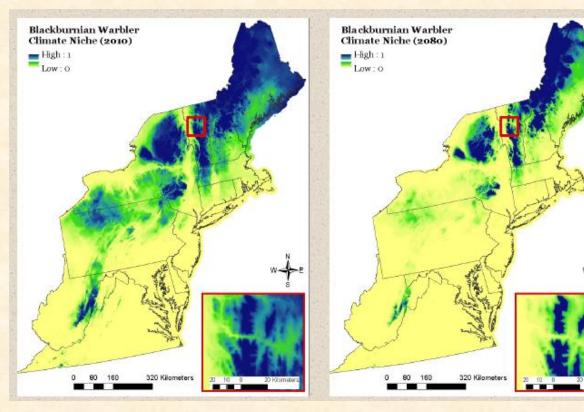


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Land Protection and Management

Where is most suitable habitat for a representative species (and other species using similar habitats) now and in the future?





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Specific Products for Specific Needs

Product Type

- Conservation designs
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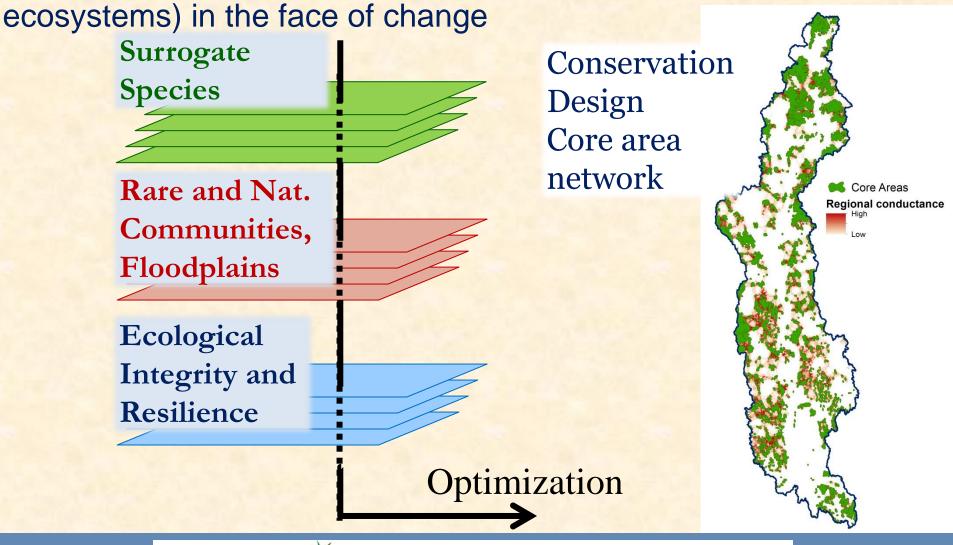
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- Species management
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Land Protection and Management: Where are core areas and connections to sustain biological diversity (species and



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Conservation Design

 Implemented approach and LCC role for conservation planning and design at multiple spatial scales



- Initial landscape scale conservation designs should be focused on in large watersheds or other similar scale ecoregions where there are active partnerships working with an initial pilot in the Connecticut River Watershed
- Initial focus at the regional scale should be a collaboration with state fish and wildlife agencies to support the development of Regional Conservation Opportunity Areas (RCOAs) for State Wildlife Action Plan Updates

Science Delivery

- Expanding Capacity to Deliver Science including:
 - Training, technical assistance and workshops
 - Development of networks
 - Translating science and development of media
 - Development of science applications to support management decisions
 - (Strategic communications)
 - (Information management: user-friendly web/portal access to data/products)
- Grants to partners
 - Demonstration projects
 - Delivery of information through partner networks

Project Management

- Projects include technical and decision-maker oversight and input
- All projects posted on website <u>http://www.northatlanticlcc.org/projects</u>
 - Summaries, quarterly reports and products
- Spatial data products compiled, synthesized and documented
 - Available on Data Basin and LCC nested data website
- All projects get quarterly review and approval by WMI and LCC staff
- Peer review of completed projects
- LCC role in bringing together project P.I.s to increase coordination and reduce redundancy (in 2014)
 - Stream temp. and Eastern Brook Trout P.I.s
 - Tidal Marsh Resiliency P.I.s
 - Land cover crosswalk across Eastern U.S.

Communications

 Completed LCC Communications Framework



- Initiated regular quarterly electronic newsletters
- Hosted project webinars
- Improvements to LCC website
- Worked closely with the NE CSC and other regional LCCs to coordinate messaging and leverage capacity
- Working closely with USGS, NPS and NFWF on Hurricane Sandy project communications.

Self-Assessment, What we Heard in October

Products and Science Delivery

- Need to continue to articulate how projects and products fit together in larger framework and link to specific conservation objectives
- Need to catalogue products by resource, application, and target users
- Need clear documentation on models and tools so that partners can evaluate and use them.
- Need basic info., fact sheets of products including any links to socioeconomic issues for SC and other to use for communications
- Need "extension agents" to help deliver info. and respond to questions

Self-Assessment, What we Heard in October Conservation Design

- Use CTR pilot to learn about the <u>implementation</u> part of the process with stakeholders in the watershed.
- Need to clarify how next steps for conservation design after Connecticut River Pilot fit in with other efforts including Regional Conservation Opportunity Areas.
 - Demonstrations of regional products and designs based on approaches piloted and decisions made in the Connecticut River Watershed would be helpful.
- Need to ensure that conservation design matches and informs decisions at the scale that funding is being spent and areas that are important both locally and regionally
 - Need more consultation with more tribes to ensure that conservation design tools meet their needs/reflect priorities

Self-Assessment, What we Heard Previously

- Overall, LCC is on the right track, is helping accomplish what agencies and organizations could not do on their own; is developing sound science; is providing an important role in developing and integrating science with a broad network of partners.
- Steering committee members need help in getting key messages and information from LCCs to other staff in their states and organizations including basic messages on LCCs and more detailed training.
- Up to the partnership to make things happen and make sure things are on the right track, not just the staff; partners need to provide more funding toward common priorities and engagement in delivery.

Science Invest. and Account. Schedule			
Activity Area	Metrics	Score	
Organization	Engagement and Coordination	1/1	
al Operations	Leveraging Resources	2/4	
	Evaluating Progress – Strategic Plan	2/2	
	Evaluating Progress – Steering Committee Evaluation	2/2	
	Engaged Technical Committee and Dedicated Technical Staff	2/2	
Landscape	Assess Existing Conservation Efforts	4/4	
Conservation	Identify Priority Resources	2/2	
Planning	Collate and Establish Conservation Goals and Measureable	3/4	
Foundation	Objectives		
	Refining Landscape Conservation Planning Foundation –	1/1	
	Process and Timeline		
	Refining Landscape Conservation Planning Foundation –	1/1	

Refining Landscape Conservation Planning Foundation –

1/1

Adaptive Management Framework

Assess Assumptions

Science Invest. and Account. Schedule			
Activity Area	Metrics	Scor	
Landscape	Vulnerability and Landscape Assessments	3/4	
Conservation	Adaptation Strategies	4/4	
Design	Integration of Multiple Priority Resources into Landscape	4/4	
	Conservation Designs		
Informing	Provide Decision Support	4/4	
Conservation	Information Delivery	4/4	
Delivery	Assessment of Information Delivery	4/4	
	Collaborative conservation delivery to realize resource obj.	3/4	
	Tracking Delivery on the Landscape	1/4	

Monitoring Change of the Landscape and Priority Resources

Function as Part of Integrated Network of LCC Partnerships

Research to Support Adaptive Management: Testing Underlying

Collaborative Monitoring

Data Management and Integration

Participation in the LCC Network Enterprise

Assumptions

Decision-

Research

Data

LCC

Network

based Mon.

3/4

4/4

3/4

3/4

3/4

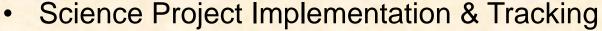
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2015 – Issues to Address and Key Next Steps



- Partnership Development and Operations
 - Strategic planning process to engage partners and incorporate all LCC components
- Science Needs and Projects
 - Focus on addressing key gaps (Canada, plants, floodplains, etc.) and refining existing products
 - Coordinated efforts on conservation design, aquatic connectivity and coastal resilience with neighboring LCCs & Network
- Cultural resource science needs
 - Pilot efforts on cultural resources (with NPS?)

2014 - Issues to Address and Key Next Steps



- More feedback on ongoing projects
- Continue Peer Review Process
- Evaluate options for tracking projects coordinate with SWAP, App LCC database?

Science Delivery

- Learn from demonstration and science delivery projects
- Support continued capacity and grants for science delivery based on user needs and feedback
- Continue to expand network of users
- Training/networks/extension with states, federal agencies

Conservation Design

- Support Regional Conservation Opportunity Areas for SWAPs
- Application of conservation designs in Conn. River Watershed
- Apply lessons learned to other landscapes and regional designs
- Regional Conservation Design Team to guide next steps?





2014 - Issues to Address and Key Next Steps

- Hurricane Sandy Science Coordination
 - Collaborate on implementation of LCC Hurricane Sandy Projects
 - Ensure that products are delivered to key partners
 - Facilitate coordination among funded and competitive science projects
 - Facilitate common metrics for evaluating success of restoration projects
- Communications and Information Management
 - Webinars on ongoing and completed projects
 - Website improvements focus on relevancy and products
 - Data Basin enhancements
 - Engage standing communications team and/or Communicators community of practice
 - Congressional outreach



2014 - Next Steps

- What else?
- Questions?
- · Ideas?



Proposed Strategic Planning Process

Revision to LCC Strategic Plan

- Additional Components/Modifications to Existing Components
 - Identify staff and partners as needed April 2015 October 2015
 - Review and Prioritization by Steering Committee, October 2015
 - Draft products for review by LCC technical and science delivery teams by March 2016
- Update Science Needs
 - LCC staff and technical committees update the plan to reflect completed science projects and identified science needs April 2015 – March 2016
- Approval and Review of draft
 - Draft revision for review and approval by Steering Committee by April 2016
 - Draft provided to larger group of partners after April 2016 meeting to help plan for Northeast Conservation Workshop

Proposed Strategic Planning Process

Northeast Conservation Workshop

- Northeast Conservation Workshop, Fall, 2016 (aka Albany III) developed and hosted jointly with Northeast State Fish and Wildlife Agency and partners
- Review of priorities and framework established in 2011
- Review results of LCC, State and other partner projects since 2011 including regional conservation designs
- Incorporate draft LCC strategic plan
- Incorporate SWAP information from 2015 plans
- Articulate vision for next five years
- Identification of additional priorities for LCC, states and others
- After workshop, finalize LCC Strategic Plan