

### **GNLCC Goal:**

Coordinate, facilitate, promote and add value to large landscape conservation to build resource resilience in the face of climate change and other landscape-level stressors through:

- Support Science Development
- Effect Coordination
- Inform Conservation Action
- Monitor and Evaluate
- Communicate and Educate



A Strategic Conservation Framework



**Great Northern Landscape Conservation Cooperative** Governance Structure Steering Committee **GNLCC Science** LCC Coordinator Advisory Team & Science Staff Community Ad hoc or special committees Cont. Div. Geographic Ecoforums Geographic Area of the Great Northern Landscape Conservation Cooperative Species or issue specific workgroups that transect ecotypes - JV, WGA Columbia Sage Steppe Rocky Mtn Seattle Portland Bozeman Example Example Example Corvallis . Partnerships: Partnerships: Partnerships: Fed Caucus WLCI · GYCC WHCWG CMP Arid Lands + •C3 •BFC SGWC

Denver\*

**GNLCC Partnership Community** 

#### FUNCTIONS

#### Steering Committee or Executive Council

- Set vision, Goals and Priorities for GNLCC
- Provide direction to the GNLCC Coordinator and Staff
- Approve Long-term Strategy and Operations
- Approve GNLCC capacity needs
- Approve funding for annual workplan including priority setting process

#### GNLCC Coordinator and Staff/ Advisory Team

- Promote and communicate long-term vision
- Develop and write longterm strategy and annual workplans
- Coordinate science and information needs
- Develop and implement process for operations
- Develop annual workplan recommendations
- Develop and revise Longterm Strategy
- 7. Coordinate, communicate and provide outreach to Science and Partnership Communities

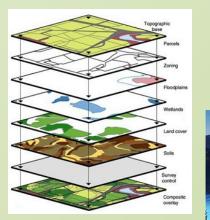
# GNLCC Leadership Steering Committee Participation

	National Oceanographic and Atmospheric
Alberta Sustainable Resource Development	Administration
Alberta Parks Divison	Natural Resource Conservation Service
British Columbia Ministry of Environment	Montana Fish, Wildlife and Parks
B.C. Ministry of Forest, Lands, and Natural Resource	
Operations	Oregon Department of Fish and Wildlife
Bureau of Indian Affairs, Rocky Mountain Region	US Fish and Wildlife Service, Pacific Regional
Bureau of Land Management	US Fish and Wildlife Service, Mountain-Prairie Region
Bureau of Reclamation Pacific NW Region	US Forest Service Intermountain Region
Canadian Wildlife Service, Environment Canada	US Forest Service Northern Region
Columbia Basin Federal Caucus	US Geological Survey
Confederated SalishKootenai Tribes	Waterton Lakes NP, Parks Canada
Confederated Tribes of the Umatilla Indian	
Reservation	Western Association of Fish and Wildlife Agencies
Heart of the Rockies Initiative	Wildlife Conservation Society
Idaho Fish and Game	Wyoming Game and Fish
National Park Service	Yakama Indian Nation
Nez Perce Tribe	



# **GNLCC Science Priorities** 2010 - 2011

- Habitat Connectivity
- Aquatic Integrity
- Climate Change
- Data Integration
- Partnership Development
- Outreach







# A Strategic Approach



A Strategic Conservation Framework



Refine conservation priorities
Identify/employ tools and data
Gap Analysis to identify needs
Conduct needed Science
Coordinate Management Actions
Monitor and Evaluate
Improve, refine, and adjust



# Refined Conservation Priorities

#### **Steering Committee**

#### Sets and approves:

- Vision, goals, and objectives
- Staff direction
- Strategic Framework
- Capacity
- Funding
- Communications

#### **Advisory Team**

#### Coordinates:

- Science needs
- Project funding process
- Strategic framework
- Capacity
- Outreach to science and partnership communities

#### **Great Northern LCC**

Coordinators, Science Coordinators, and Staff

#### Science Community

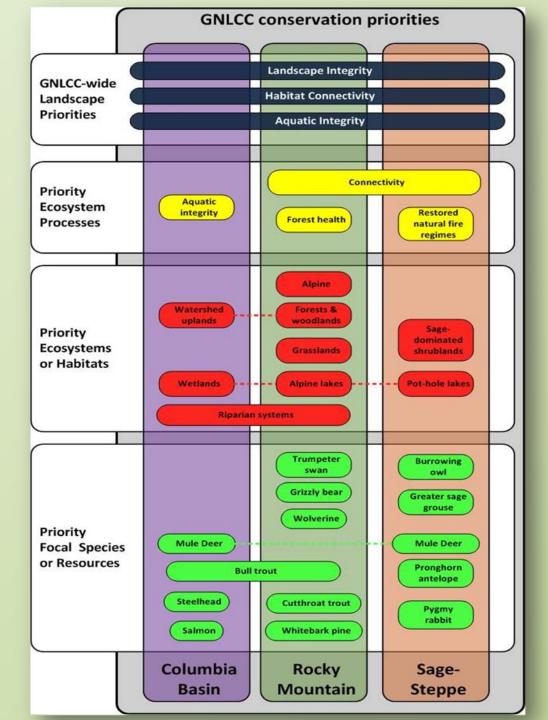
University, government, and NGO scientists and specialized technical expertise:

- Develops or provides specific science needs
- Participates in committees or working groups

#### Partnership Community

Sets priorities for or supports onthe-ground landscape conservation. Organized into three partner forums:

- Columbia Basin
- Rocky Mountain
- Sage Steppe



### **GNLCC** Vision:

The Great Northern Landscape Conservation Cooperative is committed to land, water, and wildlife conservation across the landscape through interorganizational, collaborative science and management.

**GNLCC Goal:** Build resource resilience and inform sustainable resource management in the face of landscape stressors

#### **Strategic Framework:**

- Identifies conservation targets
- Details action plan for goal achievement
- Based on existing planning documents and SC interviews

### **Partner Forums**

#### Columbia Basin

Upper Columbia River, tributaries and river valley ecology

### **Rocky Mountain**

Mountain forests, alpine and high relief ecotypes

Sage Steppe

Arid lands, highelevation prairies and deserts



# **GNLCC Climate-related Projects**

2010-2011, GNLCC funded 14 climate science and data delivery projects totaling \$1.67 million

Title	Funds in thousands
Assemblage, Format and Delivery of Downscaled Climate Data and Projections for the GNLCC	\$ 30
Development of a Regional Stream Temperature Model for Mapping Thermal Habitats and Understanding Effects of Climate Change in Pacific Northwest Streams	\$122
Forecasting the impacts of Climate Change in the Columbia River Basin: Threats to Fish Habitat Connectivity	\$130
Development of a Transboundary Decision Support System to Guide and Implement Conservation, Land Use, Energy, Transportation, and Climate Change Management and Monitoring	\$135
Applying Vulnerability Assessment Tools to Plan for Climate Adaptation: Case Studies in the Great Northern LCC	\$ 95



# **GNLCC Products: Completion Update**

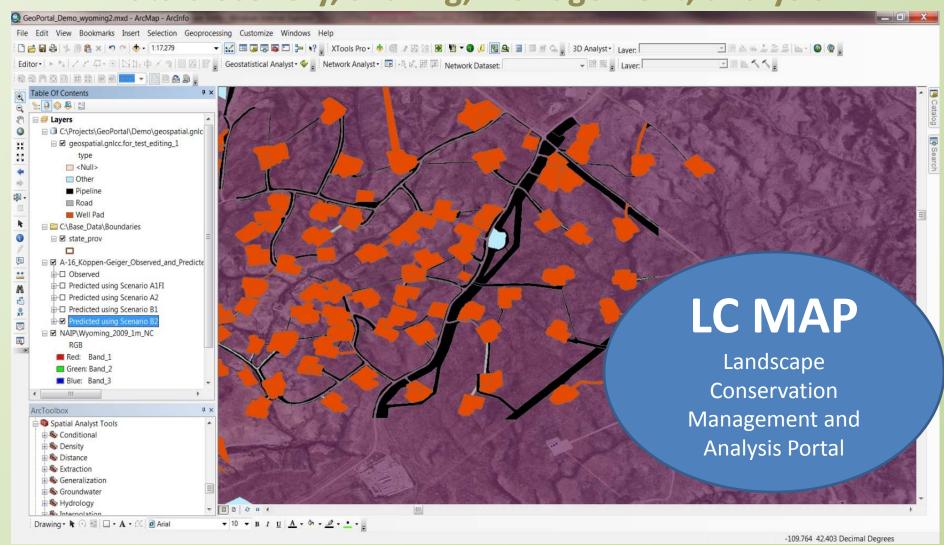
2010-2011, GNLCC funded 28 science projects totaling \$2.4 million

Products (as of 7/15/11)	Funded	Completed
Digital Data		
Spatial data/databases	>325	235
Maps	> 28	19
Tables	6	3
Tools		
Spatial Analysis	6	1
Decision Support	5	
Models	5	
Information / Training	7	1
Reports	29	3
Peer-reviewed Publications	17+	1
Workshops	8	3



# **Tools of Success**

Data discovery, sharing, management, analysis







### **Federal Management Agency**



#### **Network**









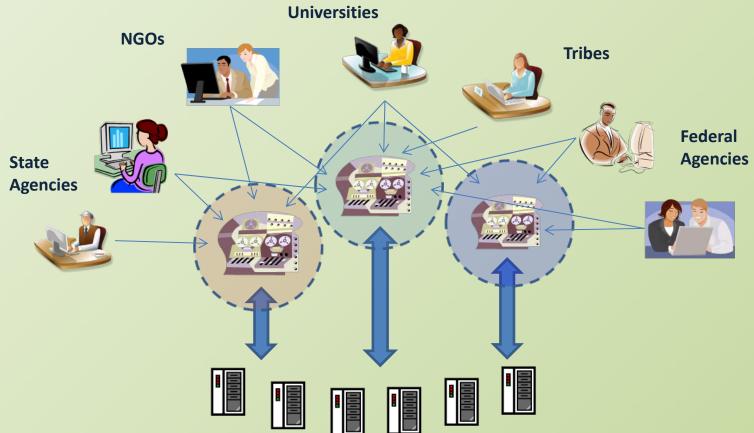
## Firewall



Stakeholder/Partner

# From Paradigm to Practice

An integrated network of people, hardware and software:



that facilitates real-time information sharing, processing, and delivery while honoring the contributions, mandates, and securities of all partners



### LC MAP:

# Conservation through Digital Networking

### **Discovery & Acquisition**

Search broadly for source data

 Access common data themes (lineages, versions)

Efficiently vet data for uses &

limitations

### **Analysis & Modeling**

- Shared work environment for realtime, distributed collaboration
- Supporting communication pieces an "open door"
  - Automated metadata updates

### **Storage & Sharing**

- Data stored/delivered from readily accessible (and replicated) sources
- Common workspaces set up and managed for project-level data
- State-of-the-art documentation and data manipulation tools
- Data security inherent in distributed system

### **Delivery & Outcomes**

- Integrated QA/QC tools
- Fine-tune control of data sharing and publication
- Flexible output formats, easily ingestible by most data viewers
- User-friendly visualization interface (coming soon!)



# How to get Involved

