



January 2012

U.S. Fish & Wildlife Service

# Northwestern Interior Forest Landscape Conservation Cooperative



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## Introduction

Conservation needs in Alaska and across the nation require an unprecedented collaborative effort that links science and conservation with the combined capacities of many conservation partners. Landscape Conservation Cooperatives (LCCs) are self-directed partnerships that provide science support for conservation actions that

address landscape-level challenges or stressors such as climate change. The Northwestern Interior Forest LCC is one of 22 LCCs identified nationally to complete a network approach of conservation across the continent. Rather than providing regulatory authority to manage land, LCCs provide land managers with the necessary tools and

information to do their jobs better in the face of impending and difficult-to-predict change.

By functioning as a network of interdependent units rather than independent entities, LCC partnerships can accomplish more together than any single agency or organization can alone.



The boundaries of the Northwestern Interior Forest LCC encompass parts of Alaska, as well as the Yukon and Northwest Territories, and British Columbia

Landscape Conservation Cooperative core functions include:

- Identifying common science, conservation and management goals and priorities;
- Developing science-based tools and solutions to meet shared conservation and resource management goals;
- Bolstering existing science capacity by building on current science and conservation work;
- Evaluating the effectiveness of scientific information and conservation actions to promote adaptive management;
- Supporting biological planning, conservation design, and adaptive management;
- Providing land and resource managers with the applied science needed to implement on-the-ground conservation management actions.

## Species and Habitats

The geographic boundary of the Northwestern Interior Forest LCC falls within the boreal forest biome and includes Southcentral and Interior Alaska, most of the Yukon Territory, and portions of British Columbia and the Northwest Territories. This vast area includes over 330 million acres, much of which is underlain with permafrost, contains an enormous deposit of immobilized organic carbon. This carbon sink is a vital offset to the ever increasing amounts of carbon dioxide being released to the atmosphere.

The area includes hundreds of millions of acres of northern forest, millions of acres of wetlands, and thousands of miles of rivers including large portions of the Yukon, Kuskokwim, Susitna, and Copper River watersheds. The Interior forest contains vast pristine tracts of vital habitat for songbirds, shorebirds, waterbirds, large and small mammals, Pacific salmon, and many other plant and animal species.

Historically, the area within the Northwestern Interior Forest LCC has provided stable wetland breeding grounds for several species of northern-nesting waterfowl. The boreal zone also provides a valuable alternative wetland habitat for nesting and brood-rearing of southern species such as pintail, canvasback, and mallards during years of prairie drought.

The fish and wildlife in this area support the cultural heritage and provide the basis for the way of life for people who live in the area. A large share of food is locally harvested. Some of the most important resources for harvest include all five species of Pacific salmon, waterfowl, caribou, and moose.

## Climate Change Concerns

Historical data and climate projections indicate that the Interior forest is warming and will continue to become warmer and drier over the next century. Continued warming will ultimately convert the Interior forest from a carbon sink that absorbs more carbon than it releases to a carbon source. A carbon source releases more carbon than it can absorb and increases the potential to alter the rate of global warming.

Warmer and drier temperatures have



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*The Northwestern Interior Forest LCC includes an area of pristine forest, taiga, wetlands, and rivers (Kanuti River within the Kanuti National Wildlife Refuge)*

already resulted in dramatic changes to habitat including: retreating glaciers, thawing permafrost, shrinking wetlands, changing streamflow patterns, changing fire regimes, and expanding populations of invasive species.

Ecosystem models suggest a large-scale conversion from evergreens to other vegetation types. Taken together, these projections suggest that there could be significant impact on Alaska's Interior landscape and to the people who rely on natural resources for their way of life.

The effects of ongoing and expanding human development (e.g. oil and gas, alternative energy, biomass utilization, mining, and transportation corridors) activities are expected to cause significant habitat changes in this region. Climate change will likely exacerbate these effects and challenge both land managers and resource users.

## Partnerships

The success of the Northwestern Interior Forest LCC will depend on a strong collaboration in which partners pool their scientific and technical expertise to work towards common conservation goals. Efficiencies can be realized when partners coordinate their efforts, maximizing effectiveness of available funding and staff expertise. This is especially true within the Northwestern Interior Forest LCC, where vast areas of differing land ownerships intermingle among federal, state, provincial, private, and Native jurisdictions.

This LCC, by virtue of its geographic

scope, presents an outstanding opportunity to foster new collaboration and conservation partnerships at both the regional and international level.

Fortunately, many strong conservation and management partnerships exist within this region, and the Northwestern Interior Forest LCC will build but not duplicate, those efforts by helping to identify and provide science to help inform conservation and management decisions.

## Next Steps

The Northwestern Interior Forest LCC is in its formative stages. An interim Coordinator and Science Coordinator are on staff to focus on forming the LCC's Steering Committee, developing governance, and determining the LCC's science focus.

## Additional information:

For more information on how the Alaska Region is working with others to conserve the nature of America in a changing climate, visit <http://alaska.fws.gov/lcc/index.htm>

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**January 2012**