

Western Governors' Wildlife Council
Wildlife Pilot Proposal

Pilot Title:

Development of Crucial Wildlife Habitats and Integrated Decision Support System for the Arid Lands of Idaho, Oregon, and Washington.

Project Objective:

Pilot the conceptualization and coordination of a trans-boundary Decision Support System(DSS) for fish, wildlife, and habitats along the Columbia Plateau Ecoregion (Figure 1) in Idaho, Oregon, and Washington. The pilot will focus on the Arid Lands shrub-steppe, high desert, and associated fish, wildlife, and plant species in Bailey's Ecoregion Sections of the Northwest Basin and Range, Snake River basalts, Owyhee Uplands, High Lava Plains, and Columbia basin sections on the Columbia Plateau ecoregion.

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Project Description:

Phase 1 will focus on a subset of the full complement of habitats and species of the Columbia Plateau ecoregion. Scale, data categories, definitions and data availability will be considered when selecting a subset of fish, wildlife, and plant species associated with the focus ecosystems. The set of selected species will include no less than 1 resident sport fish, at least 1 terrestrial game species from each major species group (ungulates, upland game birds, and lagomorphs), and 4-5 Columbia Plateau habitat obligates of Species of Greatest Conservation Need as identified in our respective Comprehensive Wildlife Strategies. A layer identifying unfragmented landscapes and protected habitats will be created based upon agreed upon data definitions and terms. A species richness layer using Land Cover and species associations will also be explored.

In addition Phase 1 of the project will develop and describe a framework and process for identifying landscape connectivity crucial habitat and a framework for incorporating climate change adaptation considerations in determining and prioritizing crucial habitat. The University of Washington will be contracted to develop the climate change framework. We will evaluate connectivity tools and models in collaboration with NatureServe and the Wildlife

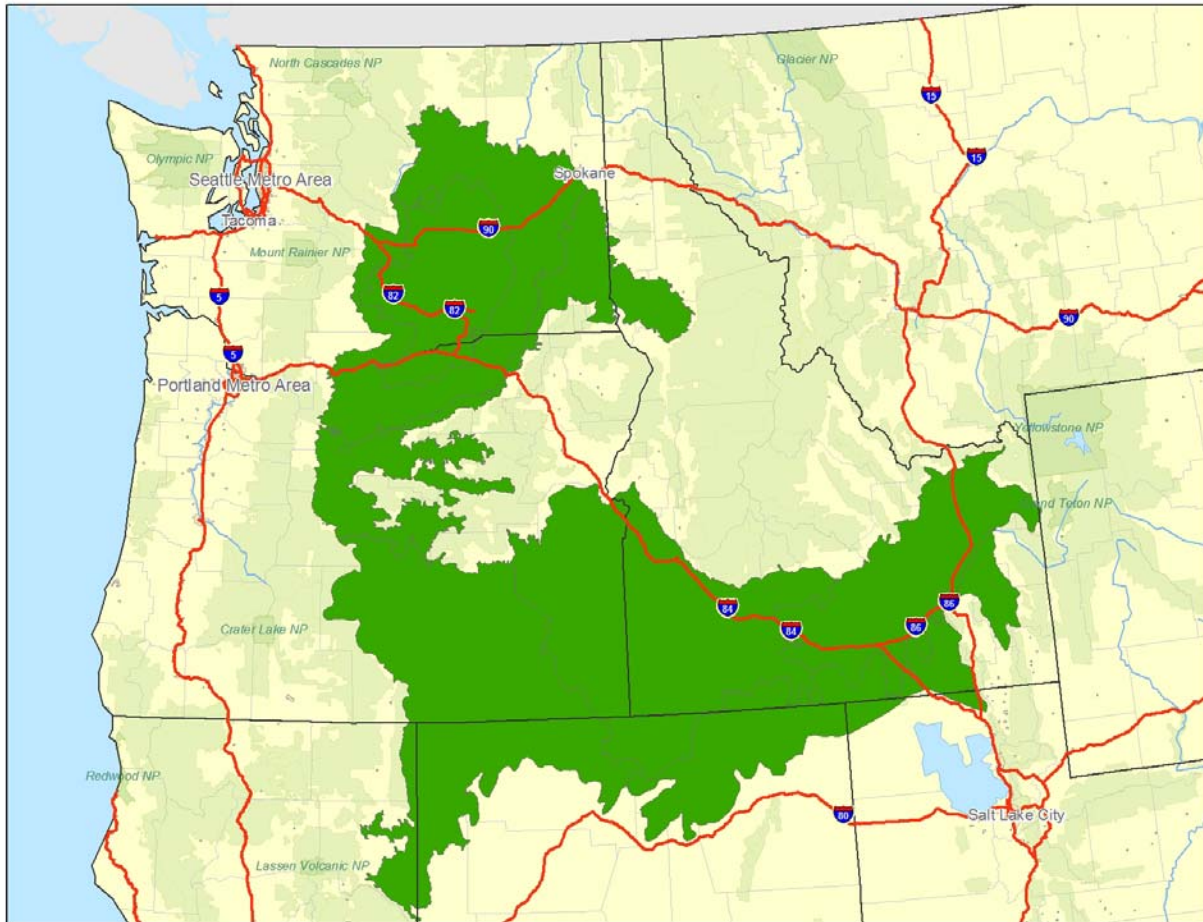


Figure 1. Columbia Plateau Ecoregion, WGA Crucial Habitat Pilot Project Study Area.

Conservation Society's efforts to formulate connectivity best management practices as well as any ongoing connectivity efforts in each state such as the Washington Wildlife Connectivity Working Group (WWHCG). The connectivity assessment will consider resilience, redundancy, species function, and suitability of habitats. Assessment tools, including Corridor Design, FunConn, and Circuitscape, will be evaluated for their relevance to our pilot project situation. A process, data layers, and assessment will be itemized for implementation in Phase 2. The pilot will build off of our previous experiences working on several multi-state coordination activities such as: previous WGA WREZ project; Washington-Oregon connectivity working group meetings; Pacific Northwest Wildlife Connections conference: symposium presentations and informal discussions on cross-

border issues; Washington Wildlife Habitat Connectivity Working Group Transboundary Subcommittee (including Montana, Idaho, Oregon, and WA reps); and a recently held Connectivity and climate change adaptation workshop (OR-WA).

As a result of these previous experiences we have identified several challenges and issues. Many of them are reported in the WGA Science Committee report for the Crucial Habitat and Corridor initiative. Currently different states use different methods for identifying connectivity landscapes – e.g. focal species or landscape integrity. Dataset quality differs from state-to-state. Similarly, a common definition of ‘crucial habitat’ can be difficult to agree – varies between state plans.

Phase 2

The outcomes, processes, and lessons learned from Phase 1 will be used in Phase 2 of our project. Phase 2 will include incorporating the remainder of the species and habitats in the Columbia Plateau ecoregion of Idaho, Oregon, and Washington. Using the processes and lesson learned in Phase 1, we will address scale, categorization, and define all remaining species and habitat data within these sections. Using defined data layers we will assess and categorize information to formulate maps and assessments, up to and including management guidelines, connectivity, climate change, biodiversity, and conservation priorities. Data maps and associated information will be displayed and made available via the mapping service at the end of Phase 2. Funding needs to complete Phase 2 is estimated at approximately \$400,000. Actual funding needs may change depending on our success in securing funds from other sources and in assessing costs and challenges encountered during Phase 1.

Energy Nexus

Recent wind and transmission line development across this ecoregion increases the urgency of carrying out such a pilot project to support siting and mitigation efforts to ensure the connectivity of wildlife across these arid lands. As of June 2009, 1366 MW of wind energy have come online in Washington State since 2001, an additional 812 MW are already approved, and over 2500 MW are in some stage of proposal or permitting (Renewable Northwest Project). Increasingly, there is pressure for such projects to occur on unconverted shrub-steppe habitats. A TNC draft analysis identified just over 8 million acres of lands with possible wind development potential in eastern Washington with 70% posing some threat to wildlife or habitat (Conley et al. 2009). The Bureau of Land Management in Washington State is a large landowner of the Arid Lands area and is taking action to realize capacity to develop renewable energy in such areas. They are entering a plan revision for their lands in eastern Washington, and have expressed an interest in

understanding the intersection of their ownership with important wildlife connectivity areas. In Idaho, the arid lands of the Snake River plain to the west into Oregon are now subject to 2 large transmission line proposals, Gateway West and Boardman/Hemingway, each a 500 kV electric line being developed by Idaho Power. In addition, multiple wind energy projects are proposed, planned or are being built including Cottler Mountain, China Mountain, and numerous private land projects as well as new hydroelectric (Corral Creek South Pumped Storage project). All such power projects are being proposed individually in each state and cumulative impacts at regional and landscape scales are left unaddressed. .

DSS Advancement

- This project will develop a database of crucial habitat for the Columbia Plateau Ecoregion in the three partner states. These data will be designed so they can be in future development of prototype DSS that will be GIS based with Internet interface. The DSS framework would be applicable to all ecoregions in the three states and adaptable useable in landscapes in other western states.
- Products from this project will establish working groups consisting of participants from the three states that will continue data sharing and refinements subsequent to project completion.
- Project plan for identifying crucial habitat and linkages for multiple species, with clearly articulated strategies for incorporating effects of climate change and energy development

Integrate science findings into ongoing conservation prioritization and strategic planning for Arid Lands in the Columbia River Basin and amongst agency and other partners.

Federal and Stakeholder Involvement:

Partners included to date in this overall effort include Washington Department of Transportation, Washington Department of Natural Resources, The Nature Conservancy, Conservation Northwest, the University of Washington, Bureau of Land Management, Wildlife Conservation Society, U.S. Fish and Wildlife Service, U.S. Geological Service and the Washington Habitat Connectivity Working Group

All relevant stakeholders within the pilot area will be contacted at the initiation of the project and be requested to fully participate in terms of expertise, data and information, and comments to formulate the DSS. This list will include but not be limited to:

Conservation Northwest, respective transportation, land management, and environmental quality departments of each state Wildlife Conservation Society, The Nature Conservancy, Nature Serve, and universities.

We will hold at least 3 stakeholder meetings within the landscape we are focusing on for Phase 1. We expect those meetings to be located one in each of the respective pilot states within the Columbia Plateau. We will also convene a technical advisory committee (TAC) consisting of NGO's, Tribes, universities, and others who have technical knowledge, expertise and investment in the area. We will contact and invite participation of all federal and state land management agencies, fish and wildlife managers, environmental managers (EPA, DEQ, DNR). In addition, we will ask each partner to incorporate information about the project on their respective web sites and provide opportunities for public input and involvement via their web sites.

Climate Change

We will incorporate information on the potential impacts of climate change using the best available science related to its effect on and needs for resilience, connectivity, and redundancy in landscapes, habitats, and species functions. Phase 1 climate change steps will include: 1) engaging partners and coordinating across state and regional boundaries; 2) clearly defining goals and objectives in the context of current and future climate conditions; and 3) selection of appropriate spatial and temporal scales for assessing wildlife adaptation needs. Our climate change data development and mapping will be done in coordination with ongoing climate change projects at the University of Washington and the University of Idaho and a Montana Climate Change Working Group. Outputs of these projects, such as vulnerability assessments, as well as consultation with these groups, will be used to form our climate change plan in Phase 1 and implement our climate change layers, mapping, and assessments in Phase 2.

Deliverables

- Complete inventory of GIS data layers for all reference layers and fish, wildlife, and plant data as available in the Columbia Plateau Ecoregion
- A completed data layer defining crucial habitat for selected species and habitats in the focal area.
- Completed connectivity/linkage plan identifying steps, tools, and outcomes for producing a connectivity data layer for the three state project area.
- Completed climate change plan outlining steps, data, vulnerability assessments, and outcomes for producing a climate change assessment and adaptive management plan for climate adaptation and management actions.

Outcomes (24 months)

6 months

- Outline of project schedule, capacity, and processes

- Workshops to establish target species and crucial habitats to address in Phase 1.
- Workshop to initiate development of methods for incorporating climate change into the connectivity landscapes defined as crucial habitat.
- Inventory and description of all applicable datasets, protocols, and QA/QC process
- Prioritized data layers and missing data
- Inventory of applicable models that can be applied to arid lands connectivity
- Inventory of proposed, planned, and implemented energy projects in arid lands

12 months

- Maps of categorized crucial habitats for selected species and/or ecological systems in the Columbia Plateau within the three states, to include a demonstration of cross-border crucial habitat mapping in subset of study area.
- Preliminary framework for DSS , budget and work plan necessary to complete DSS for three states
- A comprehensive plan for future analyses and identification of crucial connectivity landscapes among three states.
- A comprehensive plan for future rigorous, high-resolution analyses for incorporating climate change in the connectivity analysis
- ID necessary protocols and challenges for future merging of data

Constraints

- Contracting administration delays.
- Personnel hiring delays.
- Ability to acquire additional funding to support WGA pilot funding in Phase 1 and 2.
- Timeliness in involving and incorporating input of field biologist expertise and knowledge.
- Phase 2 funding and contracting delays interrupting ongoing work.

Assumptions

- No additional and significant hardware or software costs.
- Additional funding support from non-WGA sources.
- Growing and continuing investment of organizations.
- Public and political support for DSS efforts.

Contracting

Each state will contract directly to WGA for its Phase 1 funding

Reporting

All reporting will be done via Western Governor's Wildlife Council and DSS subgroup.

Budgeting –spreadsheet

Attached