



Project Title: Idaho –Montana Divide

Project Objective: Pilot the conceptualization and coordination of a transboundary Decision Support System(DSS) for fish, wildlife, and habitats along the Idaho - Montana Divide. The pilot will focus on shrub-steppe, high desert, and coniferous forest ecosystems and associated fish, wildlife, and plant species in Bailey’s Ecoregional Sections of the Beaverhead Mountains, Idaho Batholith, Bitterroot Mountains, and Flathead Valley sections (Figure 1).

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Project Description: Each state will initiate the project by doing respective data inventories of all species and habitats, including scale, attributes and valuation. Existing GIS layers in each state that represent other geographic features (streams, elevation, land cover,etc.) will also be inventoried including scale, legend and currency. Differences in projection and scale will be addressed.

Phase 1

Phase 1 will focus on the Beaverhead Mountains section (described above). 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 subset of selected species will include Yellowstone and Westslope Cutthroat trout, at least 1 terrestrial game species from each major species group (ungulates, upland game birds, and forest carnivores), and a group of 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.

Connectivity: Connectivity has recently been recognized as a higher priority due to fragmentation and climate change. Connectivity also offers one of the greatest opportunities to conserve some of the last remaining megafauna in the Rocky Mt. west. Fortunately, there has already been significant and good research on some specific species and in relation to concerns such as transportation. FWP believes that the objective of a connectivity layer is not to favor one or more of these species but adhere to a comprehensive approach that will attempt to include existing information from all sources (NGO and agency) and to include as many stakeholders as possible. The quality of the final product, however, will depend on the cooperation of all groups that have connectivity efforts completed or in progress. Our process will be based on collaboration not consensus.

Phase 1 of the pilot will evaluate connectivity tools and models in cooperation with NatureServe and the Wildlife Conservation Society's ongoing efforts to formulate connectivity best management practices. 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.

A multi-state mapping service will be created that will provide the initial "proof of concept" for an Idaho/Montana DSS and serve as the basis of our final DSS.

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 Beaverhead sections as well as all species and habitats in the Idaho Batholith, Bitterroot Mountains and Flathead Valley sections that overlap the divide between Idaho and Montana. 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.

Energy Nexus

Idaho and Montana's pilot will address energy nexus through gaining knowledge and understanding of the importance of fish, wildlife, and habitat values for several ongoing

projects including: Mountain States Intertie (MSTI), a 500 kV electric transmission line proposed by Northwestern Energy; Chinook, a 500 kV electric transmission line proposed by TransCanada; and Northern Lights (Celillo), a 500 kV electric transmission line undergoing a feasibility study by TransCanada.

DSS Advancement

This project will enhance DSS capacity by enabling existing data and information that is not currently incorporated into GIS and existing information systems to be adapted to such formats to increase best available science into the DSS and it will rectify existing data sets such that they form an edge matched layer that is transboundary to the Idaho-Montana Divide. Updated information will be incorporated into existing models and predictive tools to describe and map wildlife connectivity, linkage, human footprint, conservation priorities, and climate change.

The project will assist in adoption of standards for future data collection and QA/QC that are compatible between the cooperating states and lead, over time, to increasingly seamless fish and wildlife data presented in a spatial context suitable at a local, regional, and landscape levels. All outcomes will be incorporated into and assist with the updating of the Comprehensive Wildlife Conservation Strategies in Idaho and Montana and help insure they seamlessly join, especially where focal habitats and species are concerned.

The project will reach out to all potential sources of fish, wildlife, and plant data and information relevant to the Idaho-Montana Divide project. These will include agencies, universities, Stream Net, research projects, Natural Heritage Programs, NGO's and others who may have or are developing and storing fish and wildlife data and information relevant to this project.

Federal Agency Coordination

All relevant federal agencies 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 for purposes of their use and incorporation of their data. This list will include: the U.S. Forest Service, Bureau of Land Management, Natural Resources Conservation Service, Montana state departments (Transportation, Environmental Quality and Natural Resources) Idaho state departments (Lands, Water Resources, Transportation, Office of Species Conservation, and Environmental Quality).

Stakeholder Involvement

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: Yellowstone to Yukon Conservation Initiative, Spine of the Continent Initiative, Wildlife Conservation Society, The Nature Conservancy, American Wildlands, and universities.

We will hold at least 2 stakeholder meetings within the landscape we are focusing on for Phase 1. We expect those communities to be Island Park and Dillon with potential to expand to additional meetings in Salmon and Wisdom. 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 their consultation 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 (for Phase 1)

- Complete inventory of GIS data layers for all reference layers and fish, wildlife, and plant data as available along the MT-ID divide.
- Transboundary compatible subset of focal species and land cover types for the Beaverhead Mountains Bailey's sections extending from Yellowstone National Park along the ID-MT Divide to Lost Trail Pass.
- A completed data layer defining unfragmented habitats for the focal area.
- Completed connectivity/linkage plan identifying steps, tools, and outcomes for producing a connectivity data layer for the entire ID-MT divide 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)

- Transboundary compatible datasets for all SGCN and socially and commercially important species and habitats.
- Transboundary categorization of crucial habitat areas, including wildlife corridors, common habitats, habitats of unknown significance.
- A list of agreed upon definitions, data protocols, scales, and ranking models associated with transboundary data layers and assessments.
- An initial draft list of best practices and management recommendations for avoiding, minimizing, and mitigating impacts to wildlife corridors and crucial habitats.
- Spatial representations of climate change impacts and recommended management actions for reducing and adapting to climate change for wildlife benefit.
- A list of public comments and input on pilot project efforts.
- The mapping service available through the Montana and Idaho departments web sites for use by public.
- A list of recommendations and input from the Technical Advisory Committee (TAC).

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 organization.

Public and political support for DSS efforts.

Contracting

Each state will contract directly to WGA for its Phase 1 funding. This pilot will include one project with 2 contracts.

Reporting

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

Budgeting - spreadsheet

Attached

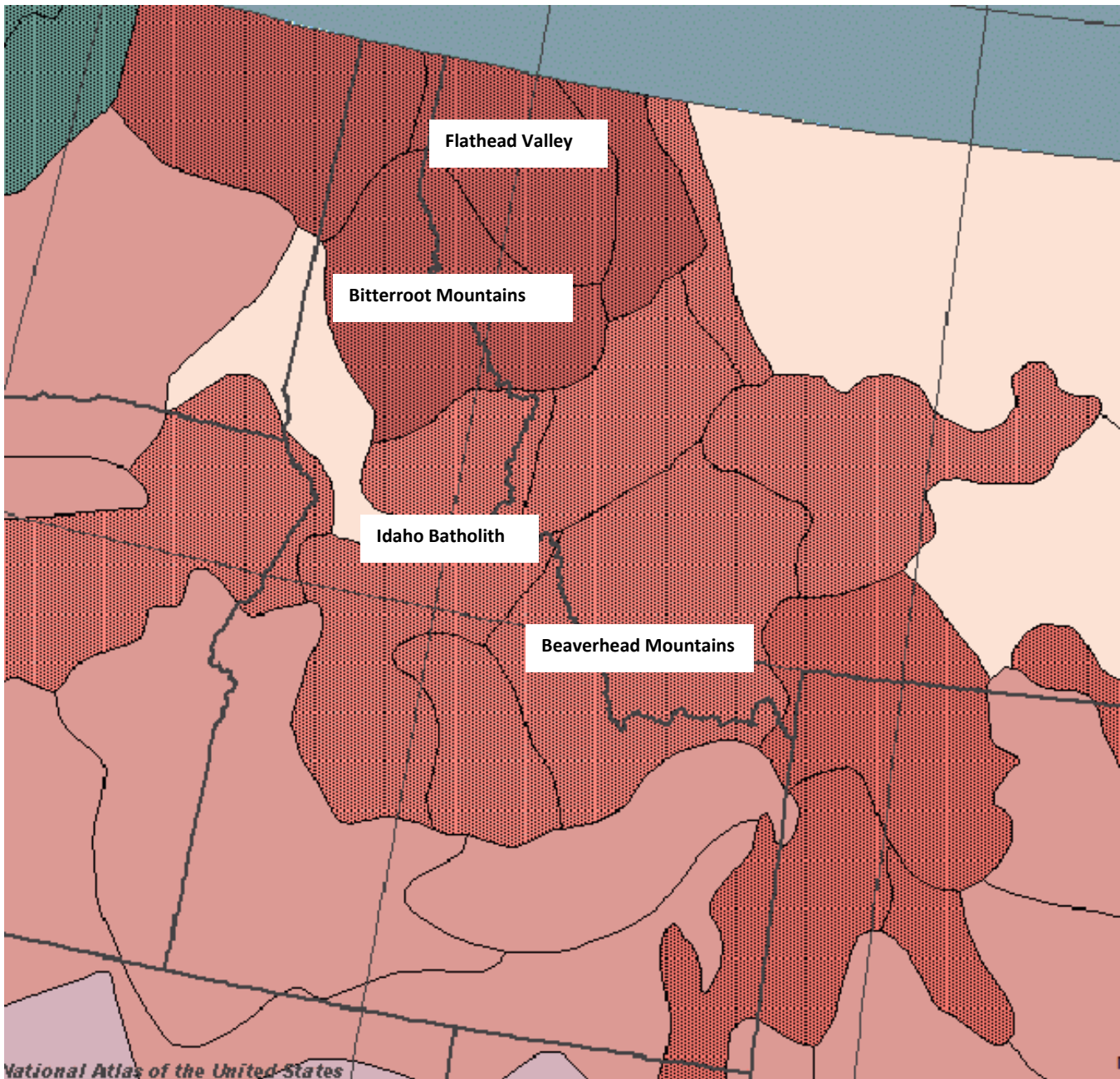


Figure 1. Four Bailey's ecoregional sections comprising the pilot study area for Phase 1 and 2 of the Montana-Idaho Divide Project.