

Blackfoot Subbasin Plan

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Executive Summary

1.1 Overview

The Blackfoot Subbasin has a strong history of locally-led conservation and restoration. Beginning in the mid 1970s, private landowners developed the Blackfoot River Recreation Corridor Agreement and established two Walk-In Hunting areas near the confluence of the Clearwater and Blackfoot Rivers. In that same timeframe, the first conservation easement in Montana was acquired in the Blackfoot Valley. Thanks to the vision of these landowners, an important foundation was established for public and private partners to work together on restoring and protecting habitat, fish and wildlife populations in the Blackfoot River basin.

Building on this legacy, the Blackfoot Challenge, Trout Unlimited and The Nature Conservancy began the process of developing a subbasin plan for the Blackfoot Watershed in fall 2007. The purpose of the subbasin plan is to create a comprehensive strategy for conserving, restoring and enhancing the natural resources and rural lifestyle of the Blackfoot Subbasin. The Blackfoot Subbasin Plan is one of more than 50 such plans that have been written for tributaries and mainstem segments of the Columbia River under the leadership of the Northwest Power and Conservation Council (NPCC 2000).

The Blackfoot Subbasin Plan was developed collaboratively by a wide range of stakeholders including private landowners and representatives from public agencies and non-government organizations working in the subbasin. This community-based approach to natural resource and conservation planning ensures a local voice and vision for land management and restoration activities in the Blackfoot Subbasin. It also provides opportunities to work across public and private boundaries and to coordinate technical and funding resources.

1.2 Subbasin Planning Process

Based on community, agency and partner interest, four technical work groups were formed in early 2008 to capture in the subbasin plan the local knowledge, professional expertise and on-the-ground experience of people living and working in the Blackfoot Subbasin. Technical work groups held regular meetings between March 2008 and May 2009.

The Blackfoot Subbasin Plan was developed following The Nature Conservancy's Conservation Action Planning process. Conservation Action Planning provides a framework for designing, implementing and evaluating conservation projects at any scale, from small sites to large landscapes such as the Blackfoot Subbasin. Technical work groups used this adaptive framework in the Blackfoot Subbasin to 1) identify key natural and community resources, 2) assess viability of the resources, 3) identify factors that threaten the health and viability of the resources, 4) develop conservation and management strategies to abate critical threats and ensure long-term viability of the resources and 5) incorporate quantitative measures to track effectiveness of the conservation strategies over time.

The Blackfoot Subbasin Plan integrates existing information contained in a variety of planning and management documents, including two key documents that have been cornerstones for conservation and restoration planning and action in the Blackfoot Subbasin: the Blackfoot River Valley Conservation Area

Draft Plan (TNC and BC 2007) and A Basin-Wide Restoration Action Plan for the Blackfoot Watershed (BC 2005a).

1.3 Elements of the Blackfoot Subbasin Plan

1.3.1 Subbasin Assessment

The primary purpose of the Subbasin Assessment is to synthesize and evaluate the biological, physical and socioeconomic characteristics of the Blackfoot Subbasin, forming a scientific and technical foundation for prioritization of restoration and protection strategies for habitat and fish and wildlife populations. The Assessment begins with a broad overview of subbasin geography, geology, soils, climate, water resources, fish and wildlife, vegetation and socioeconomic and land use characteristics, followed by an examination of the subbasin in a regional context. The remainder of the Assessment focuses on the following eight key conservation targets considered by the subbasin technical work groups to be representative of the natural and cultural resources of the Blackfoot Subbasin:

- Native salmonids
- Herbaceous wetlands
- Moist site and riparian vegetation
- Native grassland/sagebrush communities
- Low elevation ponderosa pine/western larch forest
- Mid to high elevation coniferous forest
- Grizzly bears
- Rural way of life

Each conservation target includes one or more “nested targets” that are expected to benefit from conservation of the main targets. Conserving and/or restoring this set of targets will help to ensure the viability of the species, natural systems and rural way of life that make the Blackfoot Subbasin unique and that contribute to the larger-scale significance of the Crown of the Continent Ecosystem.

After selecting the representative list of focal conservation targets for the Blackfoot Subbasin, technical work groups conducted viability and threat assessments for each target. Viability indicates the ability of a conservation target to persist for many generations. All conservation targets within the Blackfoot Subbasin were determined to have a current viability rating of *good*, *fair* or *poor*, suggesting that each conservation target will require some degree of human intervention in order to persist under current conditions. In the subbasin threat assessment, technical work groups identified the most critical factors that currently impact or have the potential to impact target viability over the next ten years. Critical threats to subbasin conservation targets are:

1. Unplanned Residential and Resort Development
2. Climate Change
3. Exotic/Invasive Species
4. Lack of Fire
5. Incompatible Forestry Practices
6. Physical Road Issues
7. Conversion to Agriculture
8. Mining
9. Motorized Vehicle Use

10. Incompatible Grazing
11. Drainage and Diversion Systems
12. Channel Alteration
13. Epidemic Levels of Native Insects and Pathogens
14. Non-motorized Recreational Use
15. Existing Crop Production
16. Filling of Wetlands
17. Lack of Human Tolerance
18. Human-Caused Mortality
19. Altered Wildlife Use Patterns
20. Presence of Bear Attractants

In addition to this list of threats, there are external factors that impact fish and wildlife in the Blackfoot Subbasin including climate change, fish migration barriers, habitat conditions, land use in adjacent subbasins and human population growth at a regional scale. Of the Blackfoot Subbasin conservation targets, bull trout, westslope cutthroat trout and grizzly bears are all wide-ranging species that are particularly vulnerable to threats originating outside of the subbasin.

The cumulative impact of threats results in an overall subbasin threat rank of *very high*, indicating that all of the conservation targets face some threat of degradation or extirpation across portions of the subbasin over the next 10 years. A *very high* rating suggests that, without conservation action, the viability of conservation targets within the subbasin will decline. These threats are viewed both as challenges to sustaining natural and cultural resources in the Blackfoot Subbasin and as opportunities for collaboration and conservation action. Conservation objectives and strategic actions outlined in the Subbasin Management Plan are designed to abate the critical threats in the subbasin, thereby ensuring the long-term viability of conservation targets.

1.3.2 Inventory of Existing Programs and Activities

The purpose of the Subbasin Inventory is to summarize current fish, wildlife and habitat protection and restoration activities in the subbasin. The Inventory includes a description of 1) protected areas in the subbasin, 2) management plans, including endangered species recovery plans, 3) management and funding programs and 4) on-the-ground conservation and restoration projects that target fish, wildlife and habitat in the subbasin. To complete the Inventory, we surveyed a large number of agencies, organizations and individuals involved directly or indirectly in fish and wildlife activities in the subbasin.

This review of existing protections and current management strategies enabled the subbasin planning team to evaluate and identify gaps in conservation and restoration activities in the subbasin, particularly in relation to the threats identified in the Blackfoot Subbasin Assessment. This gap assessment illustrates that, while most of the factors threatening the viability of subbasin conservation targets and associated nested targets have received some level of attention in an effort to abate them, the extent of actions varies widely. While conservation accomplishments in the subbasin have been significant, much work remains to be done.

1.3.3 Management Plan

The Management Plan is the heart of the Blackfoot Subbasin Plan. It consists of five elements: 1) a vision for the subbasin, 2) conservation objectives, 3) strategic actions, 4) research, monitoring and evaluation and 5) consistency with the Endangered Species Act and Clean Water Act. The Blackfoot Subbasin

Management Plan is a living document that is based on a 10-15 year planning horizon. It reflects current knowledge of conditions in the Blackfoot Subbasin and will be updated through an adaptive management process as knowledge of ecological processes and socioeconomic conditions in the subbasin grows. The Blackfoot Subbasin Management Plan, which was developed collaboratively by a wide range of stakeholders, will serve as a guide for partners working to sustain the outstanding ecological, economic and cultural values and resources in the Blackfoot Subbasin.

The Management Plan includes a vision for the Blackfoot Subbasin that describes the desired future condition and incorporates the values and priorities of a wide spectrum of stakeholders. The Blackfoot Subbasin Vision will guide prioritization and implementation of conservation objectives and strategic actions to ensure the continued viability of ecological and human communities in the subbasin.

The vision for the Blackfoot Subbasin is for a place characterized by dynamic natural processes that create and sustain diverse and resilient communities of native fish and wildlife and the aquatic and terrestrial habitats on which they depend, thereby assuring substantial ecological, economic and cultural benefits. The efforts to conserve and enhance those natural resources will be implemented through a cooperative partnership between public and private interests that will seek to sustain not only those natural resources, but the rural way of life of the Blackfoot River Valley for present and future generations.

The core of the Blackfoot Subbasin Management Plan consists of a comprehensive set of conservation objectives and strategic actions designed to abate the critical threats to subbasin conservation targets, resulting in healthy, viable conservation targets. The ten conservation objectives included in the Management Plan are:

Conservation Objective 1 – Maintain the large, intact working landscapes that sustain the natural resources and rural way of life in the Blackfoot Subbasin through support to local communities, counties, and land conservation partners.

Conservation Objective 2a – Maintain and/or restore viable populations of bull trout within the three major population groups in the Blackfoot Subbasin.

Conservation Objective 2b – Maintain and/or restore viable populations of migratory (fluvial and adfluvial) westslope cutthroat trout within each of the three major population groups within the Blackfoot Subbasin.

Conservation Objective 2c – Maintain and/or restore viable populations of resident westslope cutthroat trout within each of the three major population groups within the Blackfoot Subbasin.

Conservation Objective 3 – Control existing noxious and invasive plant species abundance and distribution, and prevent establishment of all new noxious and invasive species in the Blackfoot Subbasin. Emphasis should be placed on protecting the highest quality habitats, which should be identified and prioritized by 2012.

Conservation Objective 4 – Maintain or restore the viability of priority herbaceous wetlands based on historic conditions across the Blackfoot Subbasin.

Conservation Objective 5 – Maintain or restore the viability of priority moist site and riparian vegetation based on historic conditions across the Blackfoot Subbasin.

Conservation Objective 6 – Maintain or restore the viability of priority native grassland and sagebrush communities based on historic conditions across the Blackfoot Subbasin.

Conservation Objective 7 – Maintain or restore the viability of low severity fire regime ponderosa pine and western larch forest communities based on historic stand conditions across the Blackfoot Subbasin.

Conservation Objective 8 – Maintain or restore the viability of mid to high elevation coniferous forest communities based on historic stand conditions across the Blackfoot Subbasin.

Conservation Objective 9a – Maintain functional connectivity for grizzly bears across biologically suitable habitats in the Blackfoot Subbasin.

Conservation Objective 9b – Reduce human-caused grizzly bear mortality in the Blackfoot Subbasin.

Conservation Objective 9c – Improve human acceptance of grizzly bears and wolves by building a community-supported conservation and management process that reflects the interests and values of residents and landowners throughout the Blackfoot Subbasin.

Conservation Objective 10 – Increase public awareness and education about conserving and enhancing the natural resources and rural way of life in the Blackfoot Subbasin.

The Management Plan concludes with a discussion of the Blackfoot Subbasin Monitoring and Evaluation Plan. This plan will be based on the draft monitoring plan contained in the Blackfoot River Valley Conservation Area Plan (TNC and BC 2007) and will incorporate the results of the Blackfoot Subbasin viability assessments that describe the current and desired viability ratings for a variety of indicators for each conservation target. The plan will also incorporate a conceptual plan for restoration effectiveness monitoring in the Blackfoot Watershed, contained in A Basin-Wide Restoration Action Plan for the Blackfoot Watershed (BC 2005).

Completion of the Blackfoot Subbasin Monitoring and Evaluation Plan will: 1) provide a framework for measuring conservation target viability over time, 2) ensure that strategic actions are abating the critical threats to conservation targets and 3) verify that the stresses and threats identified in the Subbasin Assessment are, in fact, the factors that are limiting the viability of each conservation target. Through this process, existing strategies will be modified and new strategies will be developed. The process will also generate a cooperative research agenda to address management uncertainties and fill information gaps related to subbasin objectives and strategies.