
Programmatic Environmental Assessment

Conservation Reserve Enhancement Program Agreement for Montana's Upper Clark Fork River Basin



**Farm Service Agency
United States Department of Agriculture**

FINAL
June 2006

Final Finding of No Significant Impact

Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve Enhancement Program Agreement

June 2006

Introduction

The United States Department of Agriculture Farm Service Agency has prepared a Programmatic Environmental Assessment (PEA) to evaluate the environmental consequences associated with implementing Montana's Upper Clark Fork River Basin (UCFRB) Conservation Reserve Enhancement Program (CREP) Agreement. The UCFRB CREP Agreement covers the Upper Clark Fork River Basin within Butte Silver Bow, Deer Lodge, Granite, Powell, and Missoula Counties.

The specific goals identified for the UCFRB are to:

- Restore and enhance riparian, fishery/avian habitat, and water quality within the project area through a partnership with the Watershed Restoration Coalition, Federal and State agencies, non-profits, and private producers.
- Restore native prairie/range within the project area.
- By 2016, increase enrollment within the project area by up to 10,082 acres through establishment of:
 - 6,695 acres of riparian buffers;
 - 2,387 acres of native wildlife habitat;
 - 1,000 acres of wetland restoration; and
 - associated fencing, off-stream livestock water, seeding, and best management practices.

Preferred Alternative

The preferred alternative is also the Proposed Action alternative. Under this alternative, current agricultural production practices would be discontinued on up to 10,082 acres of eligible agricultural land within the Upper Clark Fork River Basin. Approved conservation practices (CPs) would be established on those lands, and producers would receive annual rental payments and incentive awards in accordance with the UCFRB CREP Agreement.

Reasons for Finding of No Significant Impact

In consideration of the analysis documented in the PEA and the reasons outlined in this Finding of No Significant Impact, the preferred alternative would not constitute a major Federal action affecting the human and natural environment. Therefore, an Environmental Impact Statement will not be prepared. The determination is based on the following:

The preferred alternative as outlined in the PEA would improve wildlife habitat, improve water quality, increase species viability, and improve recreational opportunities associated with wildlife. The potential effects of implementation of the preferred alternative would be to improve water quality and enhance wildlife resources.

Both beneficial and adverse impacts of implementing the preferred alternative have been fully considered within the scope of this PEA.

The preferred alternative would not affect any unique characteristics which includes historic and cultural resources, parklands, wetlands, wild and scenic rivers, or ecologically critical areas.

The preferred alternative would not involve effects to the quality of the human environment that are likely to be highly controversial.

The preferred alternative would not impose highly uncertain or involve unique or unknown risks.

The preferred alternative would not establish a precedent for future actions and does not represent a decision in principle about a future consideration. The intended outcome of the preferred alternative is to improve water quality, improve wildlife habitat, reduce nutrient loading, and increase species viability.

The preferred alternative would not adversely affect floodplain management. None of the proposed CPs would develop facilities or promote incompatible development in floodplains.

The preferred alternative is not related to other actions with individually minor but cumulatively significant impacts.

The preferred alternative would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or cause loss or destruction of scientific, cultural, or historical resources.

The preferred alternative would not have adverse effects on threatened or endangered species or designated critical habitat. In accordance with section 7 of the Endangered Species Act, the effects of implementing the preferred alternative on threatened and endangered species and designated critical habitat were addressed in the PEA. Further consideration and consultation will occur as appropriate on a case-by-case basis in accordance with FSA policy.

The preferred alternative does not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Determination

On the basis of the analysis and information contained in the PEA and this document, it is my determination that adoption of the preferred alternative does not constitute a major Federal action affecting the quality of the human and natural environment.

APPROVED: _____

Signature

Date

COVER SHEET

Proposed Action: The United States Department of Agriculture (USDA), Commodity Credit Corporation (CCC) and the State of Montana have agreed to implement the Montana Conservation Reserve Enhancement Program (CREP), a component of the Conservation Reserve Program. USDA is provided the statutory authority by the provisions of the Food Security Act of 1985, as amended (16 U.S. Code 3830 et seq.), and the Regulations at 7 Code of Federal Regulations (CFR) 1410. In accordance with the 1985 Act, USDA/CCC is authorized to enroll lands through December 31, 2007. The Farm Service Agency (FSA) of USDA proposes to enter into a CREP Agreement with the State of Montana. CREP is a voluntary land conservation program for agricultural producers.

Type of Document: Programmatic Environmental Assessment

Lead Agency: USDA, FSA

Sponsoring Agency: Montana FSA

Cooperating Agency: USDA, Natural Resource Conservation Service

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Comments: This Programmatic Environmental Assessment was prepared in accordance with USDA FSA National Environmental Policy Act (NEPA) implementation procedures found in 7 CFR 799, as well as NEPA of 1969, Public Law 91-190, 42 U.S. Code 4321-4347, 1 January 1970, as amended. Once this document is finalized a Notice of Availability will be printed in newspapers in the CREP areas and FSA will provide a public comment period prior to any FSA decision. A copy of this Programmatic Environmental Assessment can be found at:
<http://www.fsa.usda.gov/dafp/cepd/epb/assessments.htm>

Written comments regarding this assessment shall be submitted to:

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EXECUTIVE SUMMARY

This Programmatic Environmental Assessment describes the potential environmental consequences resulting from the proposed implementation of Montana's Upper Clark Fork River Basin Conservation Reserve Enhancement Program Agreement. The environmental analysis process is designed: to ensure the public is involved in the process and informed about the potential environmental effects of the Proposed Action; and to help decision makers take environmental factors into consideration when making decisions related to the Proposed Action.

This Programmatic Environmental Assessment has been prepared by the United States Department of Agriculture, Farm Service Agency in accordance with the requirements of the National Environmental Policy Act of 1969, the Council on Environmental Quality regulations implementing the National Environmental Policy Act, and 7 Code of Federal Regulations 799 Environmental Quality and Related Environmental Concerns – Compliance with the National Environmental Policy Act.

Purpose and Need for the Proposed Action

The purpose of the Proposed Action is to implement Montana's Conservation Reserve Enhancement Program Agreement. Under the Agreement, current agricultural production practices would be discontinued on eligible farmland in the Upper Clark Fork River Basin and approved conservation practices, such as establishing vegetative cover and restoring wetlands, would be implemented. Producers would receive annual rental payments and would be eligible for one-time payments to support the implementation of conservation practices.

Montana's Conservation Reserve Enhancement Program Agreement is needed to meet the following goals:

- improve water quality,
- protect drinking water,
- control soil erosion,
- protect threatened and endangered species, and
- assist the State in complying with environmental regulations that are related to agriculture.

Proposed Action and Alternatives

The Proposed Action would implement Montana's Conservation Reserve Enhancement Program Agreement. Current agricultural production practices would be discontinued on up to 10,082 acres of eligible farmland in the Upper Clark Fork River Basin from production and establish approved conservation practices on the land.

Producers would enroll eligible farmland by entering into contracts of up to 15 years with the Farm Service Agency. Conservation practices would be established and maintained on enrolled lands for the contract duration. Producers would receive annual rental payments for the duration of the contracts as well as financial and technical support for implementing and maintaining the practices. For lands enrolled in the program, annual rental payments would be the sum of the base soil rental rate, an incentive payment, and an annual maintenance rate. Eligible lands exclude riparian acres that are currently targeted for Superfund remediation and restoration due to water quality degradation due to historic mining operations.

This Programmatic Environmental Assessment documents the analysis of the Proposed Action and the No Action Alternative. Under the No Action Alternative, no lands would be enrolled in the Conservation Reserve Enhancement Program. None of the conservation practices or rental payments described above would be implemented.

Summary of Environmental Consequences

It is expected that there would be both positive and temporary minor negative impacts associated with implementation of the Proposed Action. A summary of the potential impacts is given in Table ES-1.

Table ES-1 - Summary of Environmental Consequences

| Resource | Proposed Action | No Action Alternative |
|-----------------------------|---|---|
| Biological Resources | Beneficial long term impacts to biological resources are expected to occur. The Proposed Action is expected to contribute to vegetation and wildlife diversity and to reduce the incidence of exotic and invasive species. Grassland birds and other wildlife would benefit from additional habitat. Fisheries would benefit from increased water quantity and quality. Long term positive impacts to threatened and endangered species, species of concern, and their habitats are expected. It is possible that temporary minor impacts to vegetation, wildlife, and protected species could occur during activities associated with establishing conservation practices. | Continued use of lands for range and pastureland would decrease the quality of fisheries through degraded water quality and quantity. Further habitat loss through conversion of habitat into agricultural uses decreases available habitat for wildlife, vegetation and protected species. Habitat fragmentation and land disturbing activities would continue and encourage the spread of exotic species. |

Table ES-1 - Executive Summary (cont'd.)

| Resource | Proposed Action | No Action Alternative |
|---------------------------|--|---|
| Cultural Resources | <p>Archaeological resources and traditional cultural properties could be affected by the installation of the proposed conservation practices if ground disturbance associated with these activities is beyond what is normally disturbed by agricultural practices currently in use. Impacts to architectural resources are not anticipated as none of the proposed conservation practices would alter structures listed on or eligible for listing on the National Register of Historic Places. Contracts would require inspection for cultural resources prior to implementation of conservation practices.</p> | <p>No change in impacts to cultural resources would occur under the No Action Alternative if agricultural practices remain unchanged. If there were a change in agricultural lands or if lands not previously grazed or planted were converted to agricultural production, impacts to cultural resources could occur.</p> |
| Water Resources | <p>Beneficial long term impacts to surface and groundwater quality are expected as a result of reduced runoff, sedimentation, and use of agricultural chemicals and waters for irrigation. Wetlands acreages are expected to increase as a result of the implementation of the proposed conservation practices. The proposed practices are expected to stabilize floodplains through the establishment of vegetation. Temporary minor localized impacts to existing wetlands and localized surface water quality may result from runoff during activities associated with the installation of the proposed conservation practices.</p> | <p>Current land use practices are expected to continue and would negatively impact water quality, quantity and wetlands over the long term.</p> |

Table ES-1 - Executive Summary (cont'd.)

| Resource | Proposed Action | No Action Alternative |
|----------------------------------|---|---|
| Soil Resources | Positive impacts to localized topography and soils are expected to result from implementation of the Proposed Action. The proposed conservation practices would stabilize soils thereby decreasing the potential for soil erosion and impacts to topography on enrolled lands. | Continued use of targeted lands for range and pastureland is expected to result in continued reductions in soil moisture, erosion and runoff thus accelerating soil erosion. |
| Recreational Resources | Positive long term effects on recreational resources are expected. The proposed conservation practices are expected to increase habitat for terrestrial and aquatic game and non-game species thus improving opportunities for fishing, hunting, wildlife observation, and other outdoor recreational activities. | Continued use of lands for cropland and pastureland would decrease the quality of fisheries through degraded water quality and quantity. Further habitat loss through conversion of habitat into agricultural uses would decrease available habitat for wildlife and would thus impact recreation associated with wildlife. |
| Socioeconomics | A slight benefit to the local economy is expected to result from the monies associated with the establishment and maintenance of the proposed conservation practices and the rental payments made to producers. These impacts are considered minor in the context of the regional influence. | Socioeconomic conditions would continue to follow the trends associated with the region and surrounding States. Farmland would continue to be sold for development rights; unique and prime farmland areas would continue to be targeted for purchase of conservation easements. |
| Environmental Justice | The project area is considered neither an impoverished area nor an area of concentrated minority population. Therefore, disproportionate impacts to such populations would not occur. | If the Proposed Action were not implemented, there would be no environmental justice concerns. |
| Other Protected Resources | Montana's Conservation Reserve Enhancement Program is expected to benefit other protected lands through positively affecting wildlife habitat, surface water quality, and air quality. | Continued agricultural practices would affect other protected lands by indirectly affecting wildlife populations, air quality, and water quality. |

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ACRONYMS AND ABBREVIATIONS

| Acronym or Abbreviation | Term |
|-------------------------|--|
| BLM | Bureau of Land Management |
| BMP | Block Management Program |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CP | conservation practice |
| CREP | Conservation Reserve Enhancement Program |
| CRP | Conservation Reserve Program |
| CWA | Clean Water Act |
| EI | Erodibility Index |
| EO | Executive Order |
| EPA | Environmental Protection Agency |
| ESA | Endangered Species Act |
| Farm Bill | Farm Security and Rural Investment Act of 2002 |
| FEMA | Federal Emergency Management Agency |
| FSA | Farm Service Agency |
| FWS | U.S. Fish and Wildlife Service |
| MDEQ | Montana Department of Environmental Quality |
| MDNRC | Montana Department of Natural Resources and Conservation |
| MFWP | Montana Fish, Wildlife, and Parks |
| NRHP | National Register of Historic Places |
| NEPA | National Environmental Policy Act |
| NF | National Forest |
| NPS | National Park Service |
| NRCS | Natural Resource Conservation Service |
| PEA | Programmatic Environmental Assessment |
| PEIS | Programmatic Environmental Impact Statement |
| ROI | region of influence |
| SHPO | State Historic Preservation Office |
| SNMNH | Smithsonian National Museum of Natural History |
| TCP | traditional cultural property |
| TMDL | total maximum daily load |
| UCFRB | Upper Clark Fork River Basin |
| USACE | U.S. Army Corps of Engineers |
| USBR | U.S. Bureau of Reclamation |
| USCB | U.S. Census Bureau |
| USDA | U.S. Department of Agriculture |
| USFS | U.S. Forest Service |
| WHIP | Wildlife Habitat Incentive Program |
| WRC | Watershed Restoration Coalition |
| WRP | Wetland Reserve Program |

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1.0 INTRODUCTION

The United States Department of Agriculture (USDA) Farm Service Agency (FSA) proposes to implement a Conservation Reserve Enhancement Program (CREP) Agreement for the State of Montana. This Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential environmental consequences associated with implementation of the Proposed Action or its alternatives.

1.1 Background

Regulatory Compliance

This PEA is prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) (Public Law 91-190, 42 U.S. Code § 4321 et seq.); implementing regulations adopted by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] §1500-1508); and FSA implementing regulations, Environmental Quality and Related Environmental Concerns – Compliance with NEPA (7 CFR §799). The intent of NEPA is to protect, restore, and enhance the human environment through well informed Federal decisions. A variety of laws, regulations, and Executive Orders (EO) apply to actions undertaken by Federal agencies and form the basis of the analysis prepared in this PEA. These include but are not limited to:

- National Historic Preservation Act
- Endangered Species Act
- Clean Air Act
- Clean Water Act
- EO 11514, Protection and Enhancement of Environmental Quality
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- EO 11988, Floodplain Management
- EO 11990, Wetlands

The Farm Service Agency and Conservation Reserve Program

FSA was established during the reorganization of USDA in 1994. The mission of FSA is to “ensure the well being of American agriculture, the environment and the American public through efficient and equitable administration of farm commodity programs; farm ownership, operating and emergency loans; conservation and environmental programs; emergency and disaster assistance; domestic and international food assistance and international export credit programs.”

FSA’s Conservation Reserve Program (CRP) is the Federal government’s largest private land environmental improvement program. CRP is a voluntary program that supports the implementation of long term conservation measures designed to improve the quality of ground and surface waters, control soil erosion, and enhance wildlife habitat on environmentally sensitive agricultural land.

Conservation Reserve Enhancement Program

CREP was established in 1997 under the authority of CRP. The purpose of CREP is to address agriculture related environmental issues by establishing conservation practices (CPs) on agricultural lands using funding from State, Tribal, and Federal governments as well as non-government sources. Federal funding is provided through the Commodity Credit Corporation. CREP addresses high priority conservation issues in specific geographic areas such as watersheds. Like CRP, CREP is a voluntary program. Owners of lands eligible for inclusion in CREP receive annual rental payments in exchange for implementing approved CPs. In addition, producers may receive monetary and technical support for establishing these practices.

Statewide CREP Agreement proposals are developed by teams that can consist of State, Tribal, Federal and local government agency representatives, producers and other stakeholders. CREP proposals are submitted to FSA by the State's Governor. An intra-agency panel then reviews the Agreement. A final CREP Agreement is set into practice through a Memorandum of Agreement between USDA and the Governor. CREP programs are limited to 100,000 acres per State.

The environmental impact of this program shift was studied in the 2002 Programmatic Environmental Impact Statement (PEIS). The Final PEIS for CRP was published in January 2003 and provides FSA decisionmakers with programmatic level analyses that provide contexts for State specific EAs. The Record of Decision for the PEIS was published in the Federal Register on May 8, 2003 (68 FR 2487-24854).

Under Montana's Upper Clark Fork River Basin (UCFRB) CREP Agreement current agricultural production practices would be discontinued on up to 10,082 acres of eligible farmland Upper Clark Fork River Basin and approved CPs would be established on that land. The proposed Montana CREP Agreement would restore and enhance wildlife, bird, aquatic, and fisheries habitat and improve water quality. Specific lands which would be enrolled in the program have not yet been identified. Once eligible lands are identified, site specific environmental reviews and consultation with and permitting from other Federal agencies would be completed as appropriate.

Upper Clark Fork River Basin

The Upper Clark Fork River Basin is located in western Montana in Butte Silver Bow, Deer Lodge, Granite, Powell, and Missoula Counties (Figure 1.1). The area is characterized by steep mountain complexes, ranging in elevation from 3,000 to 10,000 feet. The Clark Fork River, when it exits Montana at the Idaho border, is the largest river by volume in Montana, draining an extensive region of the Rocky Mountains in western Montana and northern Idaho. It begins in the mountain tributaries along the Continental Divide near Butte and flows northwest 320 miles to Lake Pend Oreille, Idaho's largest lake. The Upper Clark Fork River is bordered on the north by the Garnet Range and the Flint Creek Range to the south. In some areas the Upper Clark Fork River meanders and in others it flows through steep narrow canyons. The average annual precipitation ranges from 12 to 14 inches, half of which falls during the months of May, June, and July. The mean annual temperature of the area is 55.9 degrees Fahrenheit.

The basin is widely contaminated by metals from past mining, milling, and smelting activities. The Clark Fork is a degraded river, but it remains important to the economy, culture, and natural resources of western Montana and northern Idaho. The basin provides water to an important segment of Montana's agricultural economy, including extensive livestock production. The riparian areas provide critical winter cover and calving grounds for livestock as well as wildlife species.

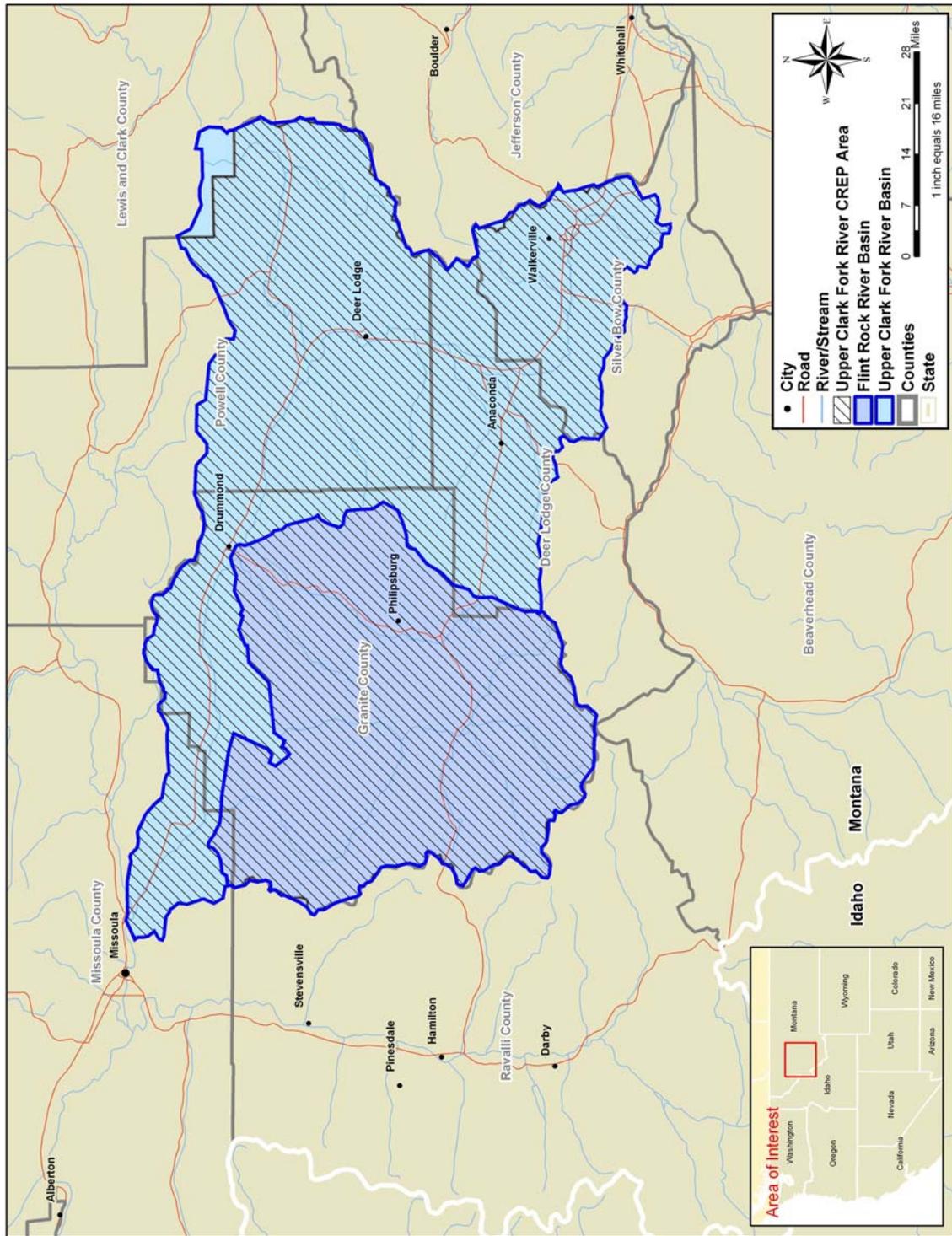


Figure 1.1 - Upper Clark Fork River Basin

1.2 Purpose and Need

The purpose of the action is to implement Montana's UCFRB CREP Agreement. Under the Agreement, current agricultural practices on eligible irrigated land would be discontinued and approved CPs would be implemented. Producers would receive annual rental payments and would be eligible for one-time payments to support the implementation of CPs.

The need for the Proposed Action is to meet the overall goals of CREP, specifically, improve water quality, protect drinking water, control soil erosion, protect threatened and endangered species, and to assist the State in complying with environmental regulations that are related to agriculture in specific geographic regions.

1.3 Montana CREP Objectives

CREP Agreements are designed to meet specific regional conservation goals and objectives related to agriculture. The UCFRB CREP Agreement has the following specific goals and objectives:

- Restoration and enhancement of riparian, fishery/avian habitat, and water quality within the project area through a partnership with the Watershed Restoration Coalition (WRC), Federal and State agencies, non-profit organizations, and private producers;
- Restoration of native prairie/range within the project area; and
- By 2016, increase enrollment in CRP within the project area by 10,082 acres through establishment of:
 - 6,695 acres of riparian buffers,
 - 2,387 acres of native wildlife habitat,
 - 1,000 acres of wetland restoration,
 - Associated fencing, off-stream livestock water sources, seeding, and best management practices.

1.4 Organization of PEA

This PEA assesses the potential impacts of the Proposed Action and the No Action Alternative on potentially affected environmental and economic resources. Chapter 1.0 provides background information relevant to the Proposed Action, and discusses its purpose and need. Chapter 2.0 describes the Proposed Action and alternatives. Chapter 3.0 describes the baseline conditions (i.e., the conditions against which potential impacts of the Proposed Action and alternatives are measured) for each of the resource areas while Chapter 4.0 describes potential environmental consequences on these resources. Chapter 5.0 includes analysis of cumulative impacts and irreversible and irretrievable resource commitments. Chapter 6.0 discusses mitigation measures. Chapter 7.0 is a list of the preparers of this document and Chapter 8.0 contains a list of persons and agencies contacted during the preparation of this document. Chapter 9.0 contains references.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Proposed Action

FSA proposes to implement Montana’s UCFRB CREP Agreement by enrolling lands within the Upper Clark Fork River Basin (Figure 2.1) to address several environmental issues of agricultural producers in Montana. The UCFRB CREP Agreement would enroll 10,082 acres of environmentally sensitive agricultural lands in a five county region over the next several years. The five counties are Butte Silver Bow, Deer Lodge, Granite, Powell, and Missoula.

The Proposed Action would include establishing contracts with producers of eligible lands in order to implement approved CPs. Producers would receive support for the costs of installing and maintaining such practices as well as annual rental payments for lands enrolled in the program. The UCFRB CREP Agreement is a proposed partnership between four Montana conservation districts (Mile High, Deer Lodge, Granite, and Missoula) under WRC, FSA, the Natural Resources Conservation Service (NRCS), and numerous State and Federal agencies and non-government organizations.

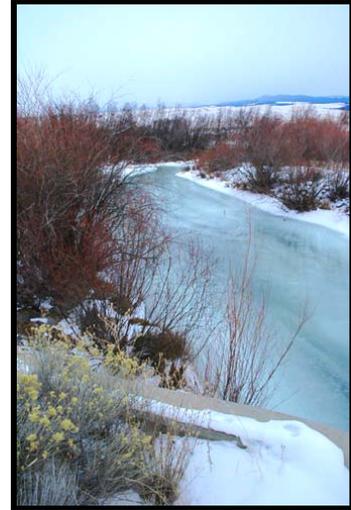


Figure 2.1 - Upper Clark Fork River

Eligible Lands

Table 2.1 shows the acreage of eligible agricultural land in the proposed UCFRB CREP area. The location, size, and number of tracts that would be enrolled in CREP would be determined by individual contracts. Once eligible lands are identified, site specific environmental reviews would be completed by FSA prior to entering into the contract. The UCFRB CREP project area would not include the riparian corridors that have been impacted by historical mining and mineral processing, which will be addressed through planned Superfund Program remediation and restoration efforts. The UCFRB CREP Agreement would focus on the river corridor and tributary streams from the headwaters above the City of Butte to Milltown Dam.

Table 2.1 - Acreage of Private Agricultural Land Eligible for Enrollment in UCFRB CREP

| Agricultural Land | Acres |
|-------------------|------------------|
| Mixed Rangeland | 467,801 |
| Brush Rangeland | 351,688 |
| Crop/Pasture | 226,552 |
| Grass Rangeland | 92,241 |
| Total | 1,138,282 |

Lands within these counties eligible for enrollment in the proposed UCFRB CREP would be required to meet the cropland eligibility criteria in accordance with policy set forth by the Farm Security and Rural Investment Act of 2002 (Farm Bill) and detailed in the FSA Handbook: Agricultural Resource Conservation Program for State and County Offices (2003). Eligible cropland must have been planted or considered planted to agricultural commodity during four of the six crop years from 1996 through 2001, and be physically and legally capable of being planted in a normal manner to an agricultural commodity, as determined by County Committee. In addition, eligible cropland must fall into one or more of the following secondary categories:

- Cropland for a field or a portion of a field if the weighted average Erodibility Index (EI) for the three predominant soils of the new land on the acreage offered is eight or greater.
- Land currently enrolled in CRP scheduled to expire September 30 of the fiscal year the acreage is offered for enrollment.
- Land enrolled in Water Bank Program with contracts that expired in 2000, 2001, or 2002 is eligible if it meets the following:
 - The acreage is not classified as naturally occurring shallow marsh, deep marsh, shallow open water, shrub swamp, or wooded swamp, as determined by NRCS or Technical Service Provider, including acreage protected by Federal agency easement or mortgage restriction, and
 - Enrollment in CRP would enhance the environmental benefits of the site.

Establish Conservation Practices

CREP CPs that are proposed for implementation under Montana's UCFRB CREP are listed in Table 2.2. Descriptions of the CPs are available in Appendix C. CPs may have additional land eligibility requirements. Preparation of lands for the installation of CPs may include the following approved actions:

- planting of temporary vegetative cover;
- application of nutrients, minerals, and seed (grassland and woodland);
- application of approved herbicides and pesticides;
- installation of a permanent water source for wildlife;
- grading, leveling, and filling;
- planting of tree and shrub seedlings;
- seeding firebreaks, fuelbreaks, or firelanes;
- application of temporary irrigation system and plastic mulch;
- installation of rock-filled trenches to induce subsurface flow;
- installation of water gaps, bridges, or other livestock crossing facilities;
- installation of vegetative damage control devices such as tree shelters, netting, and plastic tubes;
- breaking tile to restore natural water flows;
- installation of structures designed to regulate flow such as pipe, flashboard risers, gates, chutes, and outlets to restore hydrology to rare and declining habitat;

- removal of existing vegetation or rocks;
- construction of structures where concentrated flow continues to degrade water quality; and
- installation of fencing, pipelines, and watering facilities.

Table 2.2 - Proposed Conservation Practices

| Conservation Practice | Contract Duration (years) |
|---|----------------------------------|
| Riparian Buffers (6,695 acres) | |
| CP 10: Vegetative Cover – Grass Already Established | 15 |
| CP 22: Riparian Buffer | 15 |
| CP 29: Wildlife Habitat Buffer – Marginal Pastureland | 15 |
| Native Grassland/Shrubland Seeding (2,387 acres) | |
| CP 2: Establishment of Permanent Native Grasses | 15 |
| CP 4D: Permanent Wildlife Habitat | 15 |
| CP 5: Field Windbreak Establishment | 15 |
| CP 10: Vegetative Cover – Grass Already Established | 15 |
| CP 16: Shelterbelt Establishment | 15 |
| CP 25: Rare and Declining Habitat | 15 |
| Wetland Restoration (1,000 acres) | |
| CP 9: Shallow Water Areas for Wildlife | 15 |
| CP 23: Wetland Restoration | 15 |
| CP 30: Wetland Buffer – Marginal Pastureland | 15 |
| Source: MDNRC and WRC, 2005 | |

Provide Financial Support

Producers enrolled in Montana’s UCFRB CREP would enter into 15-year contracts that stipulate implementation of approved CPs to receive financial and technical assistance. Enrolled program acres are removed from production and converted into suitable habitat. These producers are eligible for annual rental payments for the duration of the contract. Annual rental payments are calculated based on the number of acres enrolled in CREP. Additionally, one-time cost sharing and incentive payments are available to participants to assist in establishing CPs.

The estimated cost of implementing the proposed UCFRB CREP Agreement is \$53,096,529, with an estimated Federal commitment of \$38,777,320 (73 percent) and State and local contributions of \$14,319,209 (27 percent) (Table 2.3).

Table 2.3 - Estimated Cost of UCFRB CREP Implementation

| Program Components | Federal Contribution | State and Local Contributions | Total |
|--------------------------------------|-----------------------------|--------------------------------------|-------------------|
| CREP land rental payments | 29,098,692 | 0 | 29,098,692 |
| Habitat restoration and Improvements | 9,678,628 | 10,369,209 | 20,047,838 |
| Public Outreach/Technical Assistance | 0 | 2,950,000 | 2,950,000 |
| Monitoring/Reporting | 0 | 1,000,000 | 1,000,000 |
| Total | 38,777,320 | 14,319,209 | 53,096,529 |
| Source: MDNRC and WRC, 2005 | | | |

2.2 Scoping

Discussion

Scoping is a process used to identify the scope and significance of issues related to a Proposed Action. Scoping is also used to involve the public and other key stakeholders in developing alternatives and weighing the importance of issues to be analyzed. Those involved in the scoping process include Federal, State and local agencies, and any other interested persons or groups. One function of scoping is to resolve any issues prior to publication of a proposed analysis. The input gathered from scoping efforts is considered during development of the proposed project.

Montana's UCFRB CREP Agreement interdisciplinary planning team includes representatives from the following agencies and organizations:

- FSA
- Montana Department of Natural Resources and Conservation
- Montana Natural Resource Damage Program
- Montana Department of Fish, Wildlife and Parks
- Montana Association of Conservation Districts
- Local Conservation Districts:
 - Deer Lodge Conservation District
 - Granite Conservation District
 - Missoula Conservation District
 - Mile High Conservation District
- NRCS
- U.S. Fish and Wildlife Service (FWS)
- U.S. Forest Service (USFS)

Resources Eliminated from Analysis

CEQ regulations (40 CFR§1501.7) state that the lead agency shall identify and eliminate from detailed study the issues which are not important or which have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief presentation of why they would not have a dramatic effect on the human or natural environment. In accordance with §1501.7, issues eliminated from detailed analysis in this PEA include the following:

Traffic and Transportation

The Proposed Action or alternative would not increase or decrease the demand for traffic and transportation at or adjacent to the project area nor would it affect existing roadways or other transportation networks.

Noise

Implementing the Proposed Action or alternative would not permanently increase ambient noise levels at or adjacent to the project area. Increased noise levels associated with implementing CPs would be minor, temporary, and would cease once implementation of the approved CPs were completed.

Air Quality

The Proposed Action is not expected to impact either local or regional air quality. Temporary minor impacts to local air quality as a result of soil disturbance during installation of CPs would not differ measurably from those resulting from continued use of the land for agriculture, would not exceed ambient air quality standards, and would not or violate the State Implementation Plan.

Human Health and Safety

Enrolling lands in CREP is not expected to appreciably affect human health and safety.

Coastal Zones

The proposed UCFRB CREP area lies within the interior of the United States and does not include any coastal zones.

2.3 Alternatives Eliminated from Analysis

Implementation of portions of Montana's UCFRB CREP Agreement was considered but eliminated from analysis. Partial implementation of the UCFRB CREP Agreement would be inconsistent with new enrollment guidelines and would not contribute to meeting the acreage enrollment goals required by the Farm Bill or the purpose and need outlined in Section 1.2. Additionally, other CPs were considered but were deemed inadequate for meeting Montana's program objectives.

2.4 Alternatives Selected for Analysis

Alternative A – Preferred

Under Alternative A, Montana's UCFRB CREP Agreement would be fully implemented as described above. Up to 10,082 acres of eligible lands in five counties in the Upper Clark Fork River Basin would be enrolled in CREP. Current agricultural production practices would be discontinued and CPs would be established on those lands and producers would receive one-time and annual rental payments.

Alternative B – No Action

Under the No Action Alternative, the State of Montana’s UCFRB CREP Agreement would not be implemented. No land would be enrolled in CREP and the goals of CREP would not be met. Though eligible lands could be enrolled in CRP or other conservation programs, the benefits of CREP – targeting land in Montana’s watersheds for enrollment, providing financial incentives to producers, using non-Federal financial resources – would not be realized. This alternative does not satisfy purpose and need but will be carried forward in the analysis to serve as a baseline against which the impacts of the Preferred Alternative can be assessed.

2.5 Comparison of Alternatives

Table 2.4 provides a summary of the environmental consequences to all resources associated with implementing those alternatives carried forward for detailed analysis and indicates that only the Proposed Action would meet the established purpose and need for the Proposed Action. As demonstrated in Table 2.4, none of the alternatives carried forward for detailed analysis is expected to result in major impacts to the environment.

Table 2.4 - Alternatives Comparison Summary

| Resource | Proposed Action | No Action Alternative |
|-----------------------------|--|---|
| Biological Resources | Beneficial long term impacts to biological resources are expected to occur. The Proposed Action is expected to contribute to vegetation and wildlife diversity and to reduce the incidence of exotic and invasive species. Grassland birds and other wildlife would benefit from additional habitat. Fisheries would benefit from increased water quantity and quality. Long term positive impacts to threatened and endangered species, species of concern, and their habitats are expected. It is possible that temporary minor impacts to vegetation, wildlife, and protected species could occur during activities associated with establishing CPs. | Continued use of lands for range and pastureland would decrease the quality of fisheries through degraded water quality and quantity. Further habitat loss through conversion of habitat into agricultural uses decreases available habitat for wildlife, vegetation and protected species. Habitat fragmentation and land disturbing activities would continue and encourage the spread of exotic species. |

Table 2.4 Alternatives Comparison Summary (cont'd.)

| Resource | Proposed Action | No Action Alternative |
|---------------------------|---|--|
| Cultural Resources | Archaeological resources and traditional cultural properties could be affected by the installation of the proposed CPs if ground disturbance associated with these activities is beyond what is normally disturbed by agricultural practices currently in use. Impacts to architectural resources are not anticipated as none of the proposed CPs would alter structures listed on or eligible for listing on the National Register of Historic Places. Contracts would require inspection for cultural resources prior to implementation of CPs. | No change in impacts to cultural resources would occur under the No Action Alternative if agricultural practices remain unchanged. If there were a change in agricultural lands or if lands not previously grazed or planted were converted to agricultural production, impacts to cultural resources could occur. |
| Water Resources | Beneficial long term impacts to surface and groundwater quality are expected as a result of reduced runoff, sedimentation, and use of agricultural chemicals and waters for irrigation. Wetlands acreages are expected to increase as a result of the implementation of the proposed CPs. The proposed practices are expected to stabilize floodplains through the establishment of vegetation. Temporary minor localized impacts to existing wetlands and localized surface water quality may result from runoff during activities associated with the installation of the proposed CPs. | Current land use practices are expected to continue and would negatively impact water quality, quantity and wetlands over the long term. |
| Soil Resources | Positive impacts to localized topography and soils are expected to result from implementation of the Proposed Action. The proposed CPs would stabilize soils thereby decreasing the potential for soil erosion and impacts to topography on enrolled lands. | Continued use of targeted lands for range and pastureland is expected to result in continued reductions in soil moisture, erosion and runoff thus accelerating soil erosion. |

Table 2.4 Alternatives Comparison Summary (cont'd.)

| Resource | Proposed Action | No Action Alternative |
|-------------------------------|--|---|
| Recreational Resources | Positive long term effects on recreational resources are expected. The proposed CPs are expected to increase habitat for terrestrial and aquatic game and non-game species thus improving opportunities for fishing, hunting, wildlife observation, and other outdoor recreational activities. | Continued use of lands for cropland and pastureland would decrease the quality of fisheries through degraded water quality and quantity. Further habitat loss through conversion of habitat into agricultural uses would decrease available habitat for wildlife and would thus impact recreation associated with wildlife. |
| Socioeconomics | A slight benefit to the local economy is expected to result from the monies associated with the establishment and maintenance of the proposed CPs and the rental payments made to producers. These impacts are considered minor in the context of the regional influence. | Socioeconomic conditions would continue to follow the trends associated with the region and surrounding States. Farmland would continue to be sold for development rights; unique and prime farmland areas would continue to be targeted for purchase of conservation easements. |
| Environmental Justice | The project area is considered neither an impoverished area nor an area of concentrated minority population. Therefore disproportionate impacts to such populations would not occur. | If the Proposed Action were not implemented, there would be no environmental justice concerns. |
| Other Protected Lands | Montana's Conservation Reserve Enhancement Program is expected to benefit other protected lands through positively affecting wildlife habitat, surface water quality, and air quality. | Continued agricultural practices would affect other protected lands by indirectly affecting wildlife populations, air quality, and water quality. |

2.5.1 Identification of Geographical Boundaries

The proposed Montana UCFRB CREP Agreement targets eligible lands within the Upper Clark Fork River Basin in five counties: Butte, Silver Bow, Deer Lodge, Granite, Powell, and Missoula. The vast majority of the private lands are used for agriculture, including the forested area.

2.5.2 Temporal Boundaries

Producers enrolled in Montana's UCFRB CREP enter up to 15-year contracts that stipulate implementation of CPs to receive financial and technical assistance. These enrolled program acres would be converted into habitat.

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3.0 AFFECTED ENVIRONMENT

3.1 Biological Resources

3.1.1 Definition of Resource

Biological resources include plant and animal species and the habitats within which they occur. For this analysis, these resources are divided into three categories: vegetation; terrestrial and aquatic wildlife; threatened, endangered, and sensitive species and their defined critical habitat. Vegetation and wildlife refer to the plant and animal species, both native and introduced, which characterize a region. Threatened, endangered, and sensitive species refer to those species that are protected by the Endangered Species Act (ESA) or similar State laws. Critical habitat is designated by the FWS as essential for the recovery of threatened and endangered species and like those species, is protected under ESA.

3.1.2 Affected Environment

Vegetation

Ecoregions are defined as areas of relatively homogenous ecological systems, i.e., those with similar soils, vegetation, climate, and geology. North America is divided into four levels of Ecoregions based on level of detail and these ecoregions are further divided into divisions and provinces. The proposed UCFRB CREP area lies within the Dry Domain Ecoregion, Mountain Provinces Division, and Middle Rocky Mountain Steppe-Coniferous Forest-Alpine Meadow Province (Bailey 1995). On a finer scale it lies within the Beaverhead Mountains subregion (McNab 1994).

The Beaverhead Mountains area includes steep mountain-valley complexes. High alpine terraces and alluvial floodplains are present as a result of historic and present erosion. Elevations range from 2,500 feet in the valleys to 10,000 feet at the mountain peaks. Climate is cold and snowy for the fall, winter and spring. Summers are dry with a growing season of 45 to 100 days. Tree growth on south and west aspects is limited due to insufficient soil moisture, but shortgrass prairie extends from the valley floors to near the mountaintops. Potential vegetation of the sagebrush steppe areas includes: big sagebrush (*Artemisia tridentata*), fescues (*Festuca* spp.), wheatgrasses (*Agropyron* spp.) and needlegrass (*Achnatherum* spp.). Tree species include Douglas-fir (*Pseudotsuga menziesii*), limber pine (*Pinus flexilis*), and lodgepole pine (*Pinus contorta*)(Bailey 1995).

The UCFRB CREP area has three distinct vegetation regimes: the riparian areas, the grasslands, and the montane areas. The riparian vegetation is dominated by cottonwood (*Populus* spp.) stands mixed with willow (*Salix* spp.) and other riparian shrubs such as dogwood (*Cornus* spp.) and alder (*Alnus* spp.). The grasslands in between the riparian and montane areas are dominated by fescues and wheatgrass. The mountain slopes, mid to high elevation in the north and low to high elevation in the south, are stocked with ponderosa pine (*Pinus ponderosa*), Rocky Mountain juniper (*Juniperus scopulorum*), and Douglas-Fir (Montana Department of Natural Resources Conservation [MDNRC] & WRC 2005).

There are 58 known invasive species that are found within the five counties that hold the UCFRB CREP area (Appendix G) (UM-M 2006). Most of these plants originated from Europe or Asia either accidentally or as planted ornamentals and food crops and have escaped. Invasive or non-native plants can spread at alarming rates and can displace native plant populations because insects, diseases, and animals that would normally control them are not found in North America.

Wildlife and Fisheries

Wildlife and fisheries refer to the animals and fish that inhabit the project area and the habitats in which they live. The Montana Fish, Wildlife, and Parks has legal authority over Montana's fish and wildlife, which includes almost 500 native species, including mammals, birds, fish, reptiles, amphibians, mollusks, and crustaceans. Approximately 80 species are pursued recreationally through activities such as hunting and fishing, hence are classified as game wildlife. Non-game species are also of interest for uses such as nature study, photography, and bird watching (Montana Fish Wildlife and Parks [MFWP] 2005).

The wildlife within the bounds of the UCFRB CREP area includes 58 mammals, 82 birds, 14 fish, 5 reptiles, and 8 amphibians (Smithsonian National Museum of Natural History [SNMNH] 2006, USFS 1992, Knotek 2006, U.S. Geological Survey [USGS] 2003, MFWP 2005). Appendix G provides a list of these species.

Protected Species and Habitat

Protected species refer to those species that are protected under ESA or similar State laws. Protected habitat is generally associated with protected wildlife or vegetation species. If habitat is associated with a Federally protected species it is designated by the FWS as Critical Habitat, since it is essential for the recovery of threatened and endangered species. Like those species, Critical Habitat is protected by ESA.

In Montana, there are seven Federally threatened and six endangered species. Four additional species are Federal candidates for listing (FWS 2005a). Of these 17 species, eight occur within the UCFRB CREP area. One Federally endangered species, gray wolf, and five Federally threatened species: Canada lynx, grizzly bear, bald eagle, bull trout, and water howellia occur in the proposed UCFRB CREP area. Canada lynx and bull trout have listed Critical Habitat within the UCFRB CREP area (FWS 2005b). In addition to the Federally listed species there are six species State listed as Special Concern in Montana (MNHP 2004). See Appendix G for the full listing of protected species in the UCFRB CREP area.

3.2 Cultural Resources

Cultural resources consist of prehistoric and historic sites, structures, districts, artifacts, or any other physical evidence of human activities considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. Cultural resources can be divided into three major categories: archaeological resources (prehistoric and historic), architectural resources, and traditional cultural properties (TCPs). Archaeological resources are locations and objects from past human activities. Architectural resources are those standing structures that are usually over 50 years of age and are of significant historic or aesthetic importance to be considered for inclusion in the National Register of Historic Places (NRHP). Traditional cultural resources hold importance or significance to American Indians or other ethnic groups in the persistence of traditional culture.

The significance of such resources relative to the American Indian Religious Freedom Act, the Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, EO 13007, and/or eligibility for inclusion in the NRHP is considered a part of the EA process. The regulations and procedures in 36 CFR 800, which implements Section 106 of the National Historic Preservation Act (NHPA), requires Federal agencies to consider the effects on properties listed in or eligible for inclusion in the NRHP. Prior to approval of the Proposed Action, Section 106 requires that the Advisory Council on Historic Preservation be afforded the

opportunity to comment. In the State of Montana, the State Historic Preservation Office (SHPO) is located at the Montana Historical Society in Helena.

3.2.1 Archaeological Resources

3.2.1.1 Description

Human habitation in what is now Montana is thought to have begun about 12,000 years ago. Present scientific theories place Montana directly in the path of one or more of the earliest migrations of humans into the New World from Eurasia. The earliest peoples who migrated were sustained by its rich wildlife, plant life, and mineral resources. Archaeological evidence shows that social and cultural adaptations occurred over millennia although many cultural elements persisted for centuries at a time. These included hunting of large game animals such as bison and antelope, gathering of wild plants, manufacturing stone and bone implements, and settlement patterns based upon natural seasons and life cycles. Various native cultures existed in the region for thousands of years while others were short-lived; as such, some cultures contributed more to the Indian tribes present at the time of European contact than others (SHPO 2005).

Historically, the purchase of the Louisiana Territory from France by the United States in 1803 reflected an expansionist policy set forth by the American people. Initiated with the Lewis and Clark Corps of Discovery between 1804 and 1806, the European expansion resulted in the ultimate clash with American Indians that irrevocably changed human interaction with the Montana landscape. The first of several historic heritage themes identified in the Montana Historic Preservation Plan (2003-2007)—Western American Expansion—has left associated resource types including early campsites and portages, sites associated with early cattle operations, fur trapping, trading and gold mining, as well as early forts and missions. The period from 1864 when Montana became U.S. Territory, leading to statehood in 1889, is encompassed under the Montana Territory heritage theme. Other heritage themes pertaining to the historical development of Montana include American Indian Culture, Hard Rock Mining, Timber, Agriculture and Homesteading, Coal and Oil/Gas, Federal Government, Transportation, State and Local Government, Community Building, Tourism and Recreation, and Post World War II.

There are more than 40,000 cultural resource properties in the Montana State Inventory, approximately 60 percent of which are prehistoric archaeological sites and 40 percent historic (SHPO 2005). Each year, between 1,000 and 1,500 new properties are added to the State inventory. In terms of prehistoric sites, there are nearly 12,000 lithic scatters, 5,000 stone circle sites (tipi rings), and 3,000 rock cairns and alignments, as well as several hundred buffalo kill sites, rock quarries and rock art sites (pictographs and petroglyphs), and stone tool quarries where stone tools were made. Archaeological resources associated with the historical themes include hard rock mining and milling sites, historic logging trails and camps, early homestead sites, military forts, posts, and battlefields, dams and portages, early recreation sites, trails, and abandoned railroad corridors.

Although there are 1,000 historic properties in Montana listed in the NRHP, only a small fraction constitutes archaeological sites, including two National Historic Landmarks: the Hagan site, a rare earth lodge in Dawson County, and Pictograph Cave in Yellowstone County. However, there are more than 3,000 additional historic properties, including hundreds of prehistoric and historic archaeological sites that have been formally determined eligible for listing in the NRHP, but lack the level of documentation required for nomination. These resources are however treated as if they were listed in the NRHP for the purposes of compliance with Federal and State preservation laws. It is estimated that only 4 million acres of the State's 93 million acres of land (4.2 percent) have been surveyed for archaeological resources (SHPO 2005).

3.2.1.2 Affected Environment

There are no NRHP listed archaeological sites in Deer Lodge, Granite, Powell, or Silver Bow counties (Table 3.1). In Missoula County, the Fort Fizzle site is listed on the NRHP and consists of a reconstructed 200-foot long earth and log breastwork originally built by the U.S. military in 1877 to block the path of the Nez Perce Indians. The total number of NRHP eligible (but not listed) archaeological sites in the proposed UCFRB CREP area counties is twenty-eight.

**Table 3.1 - National Register of Historic Places and State Register
Archaeological Sites Located in UCFRB CREP Counties**

| County | NRHP Listed Archaeological Sites | NRHP Eligible Archaeological Sites |
|---------------------------|-------------------------------------|---------------------------------------|
| Deer Lodge | 0 | 3 |
| Granite | 0 | 5 |
| Missoula | 1 | 5 |
| Powell | 0 | 13 |
| Butte Silver Bow | 0 | 2 |
| Total | 1 | 28 |
| <i>Source: MNRHP 2006</i> | | |

3.2.2 Architectural Resources

3.2.2.1 Description

Montana historic architectural resources include homesteads, forts, missions, wickiups and crib-log structures, mining ore houses and mills, logging cabins and sawmills, grain elevators, barns, farmhouses, Federal buildings, banks, stores, schoolhouses, churches, and more recently, twentieth-century military bases and missile silos, all of which reflect diversity of the State's heritage. As indicated in the previous section, these historic resources are organized into heritage themes that reflect Euro-American presence in the region from the early nineteenth century to the post World War II era. The themes include Western American Expansion, Montana Territory, American Indian Culture, Hard Rock Mining, Timber, Agriculture and Homesteading, Coal and Oil/Gas, Federal Government, Transportation, State and Local Government, Community Building, Tourism and Recreation, and Post World War II. NRHP eligible architectural resources may also be organized into Historic Districts, which can contain a collection of individual properties reflecting a common historic theme within a defined geographical boundary.

3.2.2.2 Affected Environment

There are 19 Historic Districts and 126 individual NRHP properties located in the UCFRB CREP counties (Table 3.2). Missoula County has the highest number of NRHP eligible historic properties; however, all but nine of these are located in the city of Missoula. There are an unknown number of NRHP eligible architectural resources in the UCFRB CREP counties but, as indicated above, there are hundreds of architectural resources State-wide that are formally eligible but not listed.

Table 3.2 - Numbers of National Register of Historic Places Listed Historic Districts and Individual Historic Properties in UCFRB CREP Counties

| County | NRHP Listed Historic Districts | NRHP Listed Properties | NRHP Eligible Properties |
|---------------------------|---------------------------------------|-------------------------------|---------------------------------|
| Deer Lodge | 3 | 29 | Unknown |
| Granite | 1 | 9 | Unknown |
| Missoula | 9 | 66 | Unknown |
| Powell | 3 | 10 | Unknown |
| Butte Silver Bow | 3 | 12 | Unknown |
| Total | 19 | 126 | Unknown |
| <i>Source: MNRHP 2006</i> | | | |

3.2.3 Traditional Cultural Properties

3.2.3.1 Description

A TCP is defined as a property that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. In most cases, TCPs are associated with American Indians but may also be associated with other sociocultural or ethnic groups. TCPs may be difficult to recognize and may include a location of a traditional ceremonial location, a mountaintop, a lake, a stretch of river, or culturally important neighborhood (U.S. Department of the Interior 1998).

3.2.3.2 Affected Environment

TCPs in Montana may include vision quest sites, scarred (cambium-peeled trees) in western Montana, historic Indian trails, treaty localities such as Council Grove near Missoula and Council Island at the confluence of the Missouri and Judith Rivers, battlefields, and former Indian Agency sites, such as the Blackfoot "Old Agency" north of Choteau (SHPO 2005).

There are seven Federally recognized tribal entities in Montana, with whom TCPs may have NRHP significance. It should be noted that TCPs that may be of significance to tribal entities may be located at any given location in Montana, not necessarily restricted to the reservation. The tribal entities in Montana consist of (FR, July 12, 2002, Volume 67, No. 134):

1. Assiniboine and Sioux Tribes of Fort Peck Indian Reservation, Montana;
2. Blackfeet Tribe of the Blackfeet Indian Reservation of Montana;
3. Chippewa-Cree Indians of Rocky Boys's Reservation, Montana;
4. Confederated Salish and Kootenai Tribes of the Flathead Reservation;
5. Crow Tribe of Montana;
6. Fort Belknap Indian Community of the Fort Belknap Reservation of Montana; and
7. Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana

3.3 WATER RESOURCES

The Clean Water Act (CWA), the Safe Drinking Water Act, and the Water Quality Act are the primary Federal laws that protect the nation's waters including lakes, rivers, aquifers, and wetlands. For this analysis, water resources include surface water, groundwater, aquifers, wetlands, and floodplains.

3.3.1 Surface Water

3.3.1.1 Description

Surface water includes streams and rivers, lakes, and reservoirs. Impaired waters are defined by the Environmental Protection Agency (EPA) as those surface waters with levels of pollutants that exceed State water quality standards (EPA 2006b). The CWA requires States to report on water quality of waterbodies located within the States and their attainment of beneficial uses. Under Section 303(d) of the CWA, States are required to identify and establish a priority ranking of all waterbodies not meeting State water quality standards and to biennially develop a Water Quality Limited Segments List (commonly called the 303(d) List). Total maximum daily loads (TMDL) of pollutants must be established and approved by EPA for impaired streams (EPA 2006a). The Montana Department of Environmental Quality (MDEQ) is responsible for administering Federal and State laws pertaining to water.

3.3.1.2 Affected Environment

The UCFRB CREP project area encompasses two sub basins, the Upper Clark Fork Basin and the Flint Rock Basin. The total area of the basin is 2,366,522 acres. The Clark Fork River is the largest river in Montana by volume. It drains an extensive region of the Rocky Mountains in western Montana and northern Idaho and flows northwest eventually emptying into Lake Pend Oreille in northern Idaho. Major tributaries of the Clark Fork include Rock Creek, Flint Creek, Silver Bow Creek, Little Blackfoot River, Mill Creek, and three branches of Willow Creek. The proposed area, however, does not include the mainstem of the Clark Fork River between Warm Springs Ponds and Garrison Junction, the mainstem of Silver Bow Creek, portions of Warm Springs, Mill Creek, or Willow Creek, which are part of separate remediation actions.

Beneficial uses of surface water that are assessed by the MDEQ are aquatic life, cold water fisheries, recreation, drinking water, agriculture, and industry. In 2004, the majority of stream segments in the UCFRB CREP area were listed as not supporting or only partially supporting aquatic life use, coldwater fisheries, and drinking water supplies. In addition, 44 stream segments (totaling 515 miles) and one lake (totaling 20 acres) in the Upper Clark Fork Basin were listed as impaired on the 303(d) List (MDEQ 2004). Flow alteration, riparian degradation, siltation, and the presence of excess nutrients and metals were the major causes of impairment.

Agriculture was the largest source of impairment in terms of miles of impacted streams; over 400 miles of stream were reported as impacted by agriculture. Within the basin, approximately 121,000 acres are irrigated, consuming close to 296,450 acre-feet of water per year, most of which is from surface water sources (USGS 2006a). Agriculture-related causes of impairment include stream channel incensement, nutrient enrichment, bank erosion, siltation, sedimentation, riparian and fish habitat degradation, flow alteration, dewatering, and thermal modification. Resource extraction was the second largest source of impairments to surface waters and along with abandoned mining, impacted nearly 600 miles of rivers and streams in the Upper Clark Fork Basin.

An acre-foot is the quantity of water required to cover an acre of land to the depth of one foot. It is equivalent to 43,560 cubic feet.

3.3.2 Groundwater

3.3.2.1 *Description*

Groundwater refers to subsurface hydrologic resources that are used for domestic, agricultural, and industrial purposes. Groundwater is stored in natural geologic formations called aquifers. In areas with few or no alternative sources to the groundwater resource, an aquifer may be designated as a sole source aquifer by EPA, which requires EPA review of any proposed projects within the designated areas that are receiving Federal financial assistance (EPA 2005).

3.3.2.2 *Affected Environment*

The groundwater systems in the Upper Clark Fork River watershed are generally characterized by a combination of surficial stream-valley alluvium or basin fill aquifers that consist of unconsolidated deposits of sand and gravel (USGS 2006a). In the Upper Clark Fork valley, basin fill aquifer systems provide domestic water to almost all area residents, including the municipal supplies for Anaconda and Deer Lodge. The basin fill aquifers are generally productive and considered to contain abundant water, though groundwater levels and artesian pressures have declined significantly in some places as a result of excessive withdrawals by wells. Domestic use, lawn irrigation, and agriculture are the largest uses of groundwater (Clark Fork River Basin Task Force 2005).

Groundwater quality in the surficial aquifers in the Upper Clark Fork Basin is generally good and can be used for public and private water supplies (Montana Water Information System 2006). However, groundwater quality in portions of the UCFRB CREP area has been compromised by past mining and smelting operations and arsenic levels five times the current EPA standard for drinking water occur. High levels of arsenic (50 parts per billion or greater) have been recorded in groundwater throughout much of the Upper Clark Fork Basin (USGS 2006b) and in the northwest portion of the Flint Rock Basin area near Milltown (Missoula County 2006). Specific local water quality problems have also led to the designation of Warm Springs Ponds and Rocker groundwater areas as Controlled Groundwater Areas (Clark Fork River Basin Task Force 2005).

The northwest portion of the Flint Rock Basin in the UCFRB CREP area is underlain by the Milltown to Hellgate Aquifer, which is hydrologically connected to the Missoula Valley Aquifer (Missoula County 2006). The Missoula Valley Aquifer is the designated sole source aquifer for the residents in the Missoula Valley (EPA 2006b).

3.3.3 Wetlands

3.3.3.1 *Description*

Wetlands are defined by the U.S. Army Corps of Engineers (USACE) as areas which are characterized by a prevalence of vegetation adapted to saturated soil conditions (USACE 1987). Wetlands can be associated with groundwater or surface water and are identified based on specific soil, hydrology, and vegetation criteria defined by USACE.

3.3.3.2 *Affected Environment*

The Clark Fork River Basin contains a variety of riparian wetlands and still-water wetlands. Riparian wetlands are wetlands associated with running water systems found along rivers, streams, and drainageways. These wetlands have a defined channel and floodplain. Features associated with a river or floodplain, such as beaver ponds, seeps, springs, and wet meadows are considered part of the riparian wetland. Still-water wetlands are associated with depressions and

other frequently flooded areas without an obvious channel. Prairie potholes, ponds, marshes, lakes, fens, and bogs are types of still-water wetlands (University of Montana 2006).

Over 19,000 acres in the Clark Fork River Basin are mapped as wetlands (Table 3.3) (Montana Natural Resources Information System 2006b). Wetlands generally occur as complexes of forested (woody) and emergent wetlands that are interspersed with uplands. The proposed UCFRB CREP Agreement would create or restore approximately 1,000 acres of wetlands and 6,695 acres of riparian buffers.

Table 3.3 - Wetland Acreage in the Clark Fork and Flint Rock Basins

| | Upper Clark Fork | Flint Rock |
|---|-------------------------|-------------------|
| Herbaceous Wetlands | 5,220 | 757 |
| Woody Wetlands | 10,418 | 3,268 |
| Total | 15,638 | 4,025 |
| <i>Source: Montana Natural Resources Information System 2006b</i> | | |

3.3.4 Floodplains

3.3.4.1 Description

EO 11988, Floodplain Management, addresses concerns over the potential loss of the natural and beneficial functions of floodplains. Federal agencies are required to avoid, to the extent possible, adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development. For this analysis, floodplains are defined as 100-year floodplains, designated by the Federal Emergency Management Agency (FEMA) as those low lying areas that are subject to inundation by a 100-year flood, a flood that has a 1 percent chance of being equaled or exceeded in any given year.

3.3.4.2 Affected Environment

In accordance with EO 11988, Federal agencies must review FEMA flood insurance rate maps (FIRMs) or other available floodplain maps to determine whether a proposed action is located in or will impact 100-year floodplains. FIRMs are generally developed for developed and densely populated areas with flood potential and are not available for much of the CREP area. Scanned digital versions of the FIRMs are currently available for much of the UCFRB CREP project area (Montana Natural Resources Information System 2006a) although detailed flood plain studies have not been completed for every river.

Flood events are typically associated with the spring snow melt. The flood season generally begins in April, peaks in May/June and ends in July. Efforts to reduce flood damage such as river channelization, diking, and dam construction, and other historical and current land use practices such as mining, diverting water, and grazing have limited and degraded natural floodplains. In recent years however, efforts have been made by State, Federal, and private organizations to restore natural stream flow and riparian vegetation in floodplains throughout the Clark Fork River Basin (Clark Fork Coalition 2006, Clark Fork Symposium 2006).

3.4 Soil Resources

3.4.1 Description

For this analysis, soil resources are defined as topography and soils. Topography describes the elevation and slope of the terrain, as well as other visible land features. Soils are assigned to taxonomic groups and can be further classified into association.

3.4.2 Affected Environment

Topography

Southwestern Montana lies within the Middle Rocky Mountain Steppe – Coniferous Forest – Alpine Meadow Province. Landforms include steep mountain complexes, ranging in elevation from 3,000 to 10,000 feet. These ranges are drained by rivers and associated floodplains (Bailey 1995). Erosion over time has created terraces above the rivers in the proposed UCFRB CREP area of older materials, which are transported downstream. Within this province the EPA has broken down the area into six ecoregions: The Rattlesnake-Blackfoot- South Swan-Northern Garnet-Sapphire Mountains, Southern Garnet Sedimentary-Volcanic Mountains, Flint Creek-Anaconda Mountains, Alpine Zone, Elkhorn Mountains-Boulder Batholith, and the Deer Lodge-Phillipsburg-Avon Grassy Intermontane Hills and Valleys. In general these areas are underlain by Tertiary-Cretaceous igneous rock and/or Mesozoic-Paleozoic sedimentary rock. There are unique areas of exposed jagged peaks, talus, glacial lakes, volcanic materials, alluvial plains, and mineral deposits (Woods et al. 2002).

Soils

Soils in southwestern Montana vary by elevation, with Mollisols occurring below 2,000 feet and Alfisols above (Bailey 1995). Mollisols are “prairie” soils made of decomposed organic matter, which support many kinds of grasses. Mollisols have a loamy to clayey texture and accumulate organic matter. Alfisols are commonly forest soils, in this case supporting coniferous forests. These soils are loamy to sandy in texture and may contain partially decomposed rock (McNab 1994). There are scattered inclusions of Inceptisols, or newer soils showing little differentiation, formed by weathering processes (Bailey 1995). In general, the valley soils are deep and will readily grow vegetation. Mountain soils tend to be shallow and support a narrower spectrum of plants (MDNRC & WRC 2005).

3.5 Recreation

3.5.1 Description

Recreational resources are those activities or settings either natural or manmade that are designated or available for recreational use by the public. In this analysis, recreational resources include lands and waters utilized by the public for hunting, fishing, hiking, birding, canoeing and other water sports, and water-related activities.



3.5.2 Affected Environment

Because the lands that could be enrolled in the UCFRB are privately held, producers control access to these lands for recreational activities. However, there are numerous public lands available for recreation in the proposed UCFRB CREP area. Within the proposed counties there are five State Wildlife Management Areas encompassing approximately 80,000 acres, and four State Parks encompassing approximately 1,050 acres (MFWP 2005). In addition, there are parts of six National Forests (NF) and seven National Forest Wilderness Areas (USFS 2004). Most, if not all of these public lands provide recreational activities such as hunting, fishing, wildlife viewing, camping, hiking, and water sports.

The State of Montana permits hunting for mule and white-tailed deer, elk, pronghorn antelope, moose, bighorn sheep, mountain goat, black bear, mountain lion, mountain grouse (includes Ruffed Grouse, Blue Grouse, and Spruce Grouse), Ring-necked Pheasant, Gray Partridge, Sage Grouse, Mourning Dove, Wild Turkey, Common Snipe, and waterfowl, and trapping of furbearers. Hunting regulations (season and take) may differ on certain State and Federal lands (MFWP 2005).

Montana hosts the Block Management Program (BMP) which provides a cooperative between public and private lands and offers hunters the ability to access private lands and adjacent or hard to reach public lands. This program was created to help private producers manage hunting on their properties. Statewide there are more than 1,250 producers and 8.5 million acres enrolled in the program (MFWP 2005).



There are two types of BMPs, Type 1 and Type 2. Type 1 BMPs offer self-registration and do not limit hunter numbers. Type 2 BMPs require landowner permission and generally limit the number of hunters. In Montana Region 2, where the proposed UCFRB CREP area lies, there are 58 BMP cooperators amounting to 356,000 acres. These BMPs focus on deer and elk hunting, with a few areas offering waterfowl hunting opportunities. Special permits are required to hunt mule deer bucks (MFWP 2005).

Hunting is responsible for over \$250 billion in salaries and over 5,500 jobs in Montana (International Association of Fish and Wildlife Agencies [IAFWA] 2002). Each non-resident non-guided hunter spends \$1,600 per trip, while non-resident guided hunters spent \$3,800 per trip (Gadbow 2004). Wildlife watching brought in over \$350 million in total expenditures in 2001, with over half that being contributed from non-residents of Montana.

Montana permits fishing on its lakes, rivers, and reservoirs. The Montana Stream Access Law states that public use of rivers and streams is allowed up to the normal high water mark. This does not allow the crossing of private lands to access these waters. There are six State fishing access sites in the proposed UCFRB CREP area. Certain waters on Federal land have special regulations and information on these can be found at local Federal land offices. Both warm and cold water fishing opportunities abound. Over 80 percent of all fishing occurring in Montana is on waters containing trout (Sharpe 2003). Montana supports 85 species of fish, 55 of which are native. There are 18 species of concern that have special regulations (catch and release, etc.) associated with them.

Montana non-resident fishing license sales have increased 19 percent since 1990, and the use of State fishing access sites has risen by 30 percent from 1996 to 2000, a gain of 1.1 million visitors.

It is estimated that visitors hiring outfitters directly adds more than \$10 million to Montana's economy yearly. The Clark Fork and Bitterroot rivers earn \$1 million yearly from outfitters and their clients (Gadbow 2004).

3.6 Socioeconomics

3.6.1 Definition of Resource

For this analysis, socioeconomics includes investigations of farm and non-farm employment and income, farm production expenses and returns, and agricultural land use. The region of influence (ROI) for analysis of impacts to socioeconomics includes the four counties where lands eligible for enrollment in the proposed UCFRB CREP are located, namely, Deer Lodge, Granite, Missoula, and Powell Counties. In addition, the ROI includes the consolidated city of Butte-Silver Bow which for presentation of data is treated as a county.

3.6.2 Affected Environment

3.6.2.1 Non-Farm Employment and Income

The 1990 and 2000 civilian labor force within the ROI grew from 63,052 in 1990 to 78,991 in 2000 (United States Census Bureau 1993, USCB 2003). Non-agricultural industries employed 60,454 and 75,332 persons in 1990 and 2000 respectively (USCB 1993, USCB 2003). The unemployment rate within the ROI in 2004 ranged between 4.0 percent in Missoula County and 6.3 percent in Deer Lodge County (BLS 2004). In 1989, median household income ranged between \$18,278 in Granite County to \$21,621 in Powell County. In 1999, Powell County enjoyed the highest median household income at \$30,628 and Deer Lodge County was at the lower end of the range at \$26,305 (USCB 2003).

3.6.2.2 Farm Employment and Income

In 2002, there were 1,035 farm workers on 1,319 farms within the region accounting for a payroll of \$6,603,000 million (USDA 2004). Table 3.4 lists the hired farm and contract labor costs per county within the ROI and labor costs as a percentage of total production costs. In 2002, 1,282 farms within the ROI had sales less than \$250,000 classifying them as small farms, while 37 large farms had sales greater than \$250,000 (USDA 2004). Realized net farm losses were in excess of \$3.08 million in 2002 (USDA 2004). Total government payments to farms within the ROI were \$718,000 in 2002, an increase of \$266,000 (58 percent) over the 1997 government payments to farms within the ROI (USDA 1999).

Table 3.4 - Farm Labor as a Percentage of Total Production Expenses

| Area | 2002 | | | | 1997 | | | |
|--------------------|--------------------------|------------------------|-----------------------------------|---|--------------------------|------------------------|-----------------------------------|---|
| | Hired Farm Labor (\$000) | Contract Labor (\$000) | Total Production Expenses (\$000) | Labor as a Percent of Total Production Expenses | Hired Farm Labor (\$000) | Contract Labor (\$000) | Total Production Expenses (\$000) | Labor as a Percent of Total Production Expenses |
| Deer Lodge | 474 | 88 | 4,813 | 11.68% | 560 | 37 | 4,128 | 14.46% |
| Granite | 1,534 | 621 | 11,644 | 18.51% | 1,045 | 92 | 8,235 | 13.81% |
| Missoula | 1,025 | 145 | 11,029 | 10.61% | 1,055 | 112 | 11,160 | 10.46% |
| Powell | 3,327 | 262 | 20,685 | 17.35% | 2,387 | 161 | 13,850 | 18.40% |
| Butte – Silver Bow | 243 | 15 | 3,229 | 7.99% | 309 | 17 | 2,402 | 13.57% |
| Total | 6,603 | 1,131 | 51,400 | 15.05% | 5,356 | 419 | 39,775 | 14.52% |

Source: USDA 2004

3.6.2.3 Farm Production Expenses and Returns

In 2002, farm production expenses exceeded \$51 million within the ROI an increase of over 29 percent over 1997 (USDA 2004). Using the 2002 acreage in active farm production (1,171,255 acres), the average farm production expense per acre within the ROI in 2002 was \$256.81 (USDA 2004). Using 2002 cropland, the cost per acre of agricultural chemicals inputs, including fertilizers and lime, was \$10.80 (USDA 2004). Average net cash income (loss) from operations within the ROI was (\$2,341.93) per farm in 2002 (USDA 2004). Table 3.5 lists the average farm production expenses and return per dollar of expenditure from 1997 within each of the counties within the ROI. Table 3.6 lists the average value of land and buildings and the average value of machinery and equipment per farm within each of the counties within the ROI.

Table 3.5 - Average Farm Production Expense and Return Per Dollar of Expenditure

| Area | Average Size of Farm (acres) | Average Total Farm Production Expense (\$) | Average Cost Per Acre (\$) | Average Net Cash Income/Farm (\$) | Average Net Cash Income/Acre (\$) | Average Return / \$ Expenditure |
|--------------------|------------------------------|--|----------------------------|-----------------------------------|-----------------------------------|---------------------------------|
| Deer Lodge | 1,239 | 44,156 | 193.36 | -2,596 | -11.37 | -0.06 |
| Granite | 2,021 | 83,171 | 302.19 | \$36 | 0.13 | 0.00 |
| Missoula | 403 | 17,206 | 252.85 | -2,505 | -36.82 | -0.15 |
| Powell | 2,258 | 75,493 | 267.80 | -3,120 | -11.07 | -0.04 |
| Butte – Silver Bow | 476 | 20,832 | 267.86 | -2,258 | -29.03 | -0.11 |
| ROI | 1,279.4 | 38,969 | 256.81 | -2,342 | -15.73 | -0.06 |

Source: USDA 2004

Table 3.6 - Average Value per Farm of Land and Buildings and Machinery and Equipment

| Area | Average Size of Farm (acres) | Average Value of Land & Buildings (\$ per farm) | Average Value of Machinery & Equipment (\$ per farm) |
|--------------------|------------------------------|---|--|
| Deer Lodge | 1,239 | 698,856 | 59,034 |
| Granite | 2,021 | 1,439,578 | 77,608 |
| Missoula | 403 | 608,634 | 37,745 |
| Powell | 2,258 | 1,385,954 | 61,308 |
| Butte – Silver Bow | 476 | 563,305 | 40,503 |

Source: USDA 2004

3.6.2.4 Current Agricultural Land Use Conditions

In 2002, 1.17 million acres of land within the ROI were actively used for agricultural purposes including cropland, hay land, and pastureland, this was an increase of approximately 0.8 percent from the 1997 figures (1.16 million acres) (USDA 1999). Table 3.7 lists the acreage for different agricultural land uses in 2002 and 1997 and the percent change during the period.

Table 3.7 - Agricultural Land Use Acreage within the ROI

| Land Use | 2002 Acreage | 1997 Acreage | Percent Change |
|---|--------------|--------------|----------------|
| Cropland ¹ | 196,336 | 213,428 | -8.01% |
| Hay land ² | 122,118 | 122,695 | -0.47% |
| Pastureland ³ | 852,801 | 825,889 | 3.26% |
| Woodland ⁴ | 302,410 | 314,469 | -3.83% |
| House lots, ponds, roads, wasteland, etc. | 17,451 | 19,740 | -11.60% |
| CRP & WRP ⁵ | D | D | D |
| Active Agriculture ⁶ | 1,171,255 | 1,162,012 | 0.80% |
| Total Land in Farms ⁷ | 1,368,698 | 1,373,436 | -0.35% |

¹ Cropland excludes all harvested hayland and cropland used for pasture or grazing

² Hay land includes all harvested cropland used for alfalfa, other tame, small grain, wild, grass silage, green chop, etc.

³ Pastureland includes all pasture, including cropland, grazed woodland, and rangeland not considered cropland or woodland

⁴ Woodland excludes all wooded pasture lands

⁵ CRP & WRP acreages are included as active agricultural lands

⁶ Active agricultural lands include the sum of cropland, hay land, and pastureland

⁷ Total land in farms include the sum of cropland, hay land, pastureland, woodland, and house lots, etc.

D Not Disclosed

Source: USDA 2004

3.7 Environmental Justice

3.7.1 Description

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires a Federal agency to “make achieving environmental justice part of its mission by identifying and addressing as appropriate, disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” A minority population can be defined by race, by ethnicity, or by a combination of the two classifications.

According to CEQ, a minority population can be described as being composed of the following groups: American Indian or Alaska Native, Asian or Pacific Islander, Black, not of Hispanic origin, or Hispanic and exceeding 50 percent of the population in an area or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population (CEQ 1997). The U.S. USCB defines ethnicity as either being of Hispanic origin or not being of Hispanic origin. Hispanic origin is further defined as “a person of Cuban, Mexican, Puerto Rican, South or Central America, or other Spanish culture or origin regardless of race” (USCB 2001).

Each year the USCB defines the national poverty thresholds, which are measured in terms of household income and are dependent upon the number of persons within the household. Individuals falling below the poverty threshold are considered low-income individuals. USCB census tracts where at least 20 percent of the residents are considered poor are known as poverty areas (USCB 1995). When the percentage of residents considered poor is greater than 40 percent, the census tract is considered an extreme poverty area.

3.7.2 Affected Environment

3.7.2.1 Demographic Profile

The total population within the ROI was 149,835 persons in 2000, which was an approximately 13.45 percent increase over the population of 1990 (USCB 1993, 2003). Approximately one-fourth of the population (27.95 percent) was located within urban areas or urban clusters (USCB 2003). Only 734 persons (0.49 percent of the total population) resided on farms. This was a decrease of approximately 3.82 percent from the 1990 farm population (USCB 1993).

Demographically the ROI population was 94.4 percent White, non-Hispanic; 0.2 percent Black or African American, non-Hispanic; 2.2 percent Native American or Alaska Native, non-Hispanic; 0.8 percent Asian, non-Hispanic; 0.07 percent Native Hawaiian or Pacific Islander, non-Hispanic; 0.76 percent all other races or combination of races, non-Hispanic; and 1.46 percent Hispanic (USCB 2003). The total minority population within the ROI was 8369 persons or 5.59 percent of the total ROI population (USCB 2003). The ROI is not a location of a concentrated minority population.

In 2002, there were 43,342 farm operators running 27,870 farms in Montana; of these, Hispanics operated 14 farms within the ROI; Black or African Americans operated 0 farms; and Native Americans operated 19 farms (USDA 2004). The ROI accounts for 4.45 percent of all minority farm operators within the State of Montana, while these 33 farms account for 2.5 percent of the 1319 farms within the ROI (USDA 2004).

3.7.2.2 Income and Poverty

In 1989, median household income ranged between \$18,278 in Granite County to \$21,621 in Powell County. In 1999, Powell County enjoyed the highest median household income at \$30,628 and Deer Lodge County was at the lower end of the range at \$26,305. (USCB 2003). The household poverty rate in the ROI ranged from 13.9 percent (Granite County) to 8.8 percent (Missoula County) in 2000 (USCB 2003). None of the counties within the ROI would be considered poverty or high poverty areas.

3.8 Other Protected Resources

3.8.1 Description

For this analysis Other Protected Resources are those lands within the proposed UCFRB CREP area that are managed by the Federal government for the purpose of conservation, recreation, or research. Other Protected Resources include lands managed by the Bureau of Land Management (BLM), the USFS, FWS, and the National Park Service (NPS). BLM managed lands include Wilderness Areas, National Monuments, and National Conservation Areas. The USFS manages National Forests, National Grasslands, National Recreation Areas, Wilderness, and Wilderness Study Areas. National Wildlife refuges are managed by the FWS. The National Park Service manages National Parks, National Landmarks, National Historic Sites, and National Wild and Scenic Rivers.

3.8.2 Affected Environment

The UCFRB CREP area includes lands managed by the BLM, NPS, and USFS. USFS lands are the most extensive of the Federal lands in the area. These include the Beaverhead-Deerlodge, Bitterroot, Flathead, Lolo, Lewis and Clark, and Helena NFs. Designated Wilderness within these NFs include the Anaconda Pintler Wilderness in the Beaverhead-Deerlodge and Bitterroot NFs; the Bob Marshall Wilderness in the Flathead, Lewis and Clark, and Lolo NFs; Mission Mountains Wilderness in the Flathead NF; the Rattlesnake Wilderness in the Lolo NF; the Scapegoat Wilderness in the Lolo and Helena NFs; the Selway-Bitterroot Wilderness in the Bitterroot and Lolo NFs; and the Welcome Creek Wilderness in the Lolo NF. Other USFS managed areas in the area are the Rattlesnake National Recreation Area in the Lolo NF and the Sapphire Wilderness Study Area in the Beaverhead-Deerlodge NF.

Other Federal lands within the UCFRB CREP area include the BLM managed Hoodoo Mountain, Humbug Spires and Wales Creek Wilderness Study Areas and the NPS manage Grant-Kohrs Ranch National Historic Site.

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4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Biological Resources

Impacts to biological resources would be considered significant if implementation of the proposed UCFRB CREP Agreement resulted in reducing the wildlife or fisheries population to a level of concern, removing land with unique vegetation characteristics, or incidental take of protected species or their habitat.

4.1.1 Wildlife and Fisheries

4.1.1.1 *Alternative A – Preferred*

Implementation of Alternative A would result in long term beneficial impacts to the wildlife and fisheries within the proposed UCFRB CREP area and to fish and other aquatic wildlife downstream from the area. The agricultural and pastureland eligible for enrollment in the proposed UCFRB CREP Agreement consists of previously disturbed landscapes. Wildlife populations have been reduced or displaced on these lands, and wildlife and fish habitats have been degraded by agricultural activities.

Associated with improved habitat conditions, wildlife diversity would increase from implementation of the proposed UCFRB CREP Agreement. In comparison to the existing conditions on most of the eligible cropland and riparian habitat, wildlife habitat would improve and wildlife diversity would increase after establishment of each CP. Grassland birds would benefit primarily from establishment of native grasses (CP 2). In addition, the establishment of native grasses would be beneficial to ungulate, small mammal and predator populations. Nongame and game wildlife would benefit primarily from establishment of permanent wildlife habitat (CP 4D), shallow water areas for wildlife (CP 9), riparian buffers (CP -22), wetland restoration (CP 23) and marginal pastureland wildlife habitat buffers (CP 29). Increasing of riparian habitat reduces habitat fragmentation by improving wildlife corridors. This habitat connectivity allows for easier wildlife movement between patches of habitat. In addition, establishment of native wildlife populations in the UCFRB CREP area would displace some of the exotic wildlife species in the area.

Aquatic biodiversity in the proposed UCFRB CREP area would benefit from reduced levels of nutrients, sediment, organic matter, pesticides, and other pollutants from surface runoff from agricultural activity that would result after implementation of the UCFRB CREP Agreement. In particular establishment of riparian buffers (CP 22), wetland restoration (CP 23), and marginal pastureland wetland buffers (CP 30) would enhance aquatic biodiversity in the UCFRB CREP area and downstream. See Section 4.3 for a discussion of impacts to surface water quality.

4.1.1.2 *Alternative B – No Action*

Under the No Action Alternative the proposed UCFRB CREP Agreement would not be implemented. Lands that would have been eligible for enrollment would remain in agricultural production. The continued use of land for agriculture or the conversion of land to another type of agricultural production would reduce wildlife habitat by removing native species and increasing susceptibility to invasion by exotic species. The runoff of agricultural chemicals, animal wastes, and sediment would continue to degrade water quality, threatening aquatic biodiversity.

4.1.2 Vegetation

4.1.2.1 *Alternative A – Preferred*

Every CP that is proposed for implementation under the UCFRB CREP Agreement would contribute to vegetation diversity and long term benefits in the proposed area. In particular, establishment of permanent native grasses (CP 2), permanent wildlife habitat (CP 4D), riparian buffers (CP 22), and wetland restoration (CP 23) would benefit vegetation resources in the proposed UCFRB CREP area. Establishment of native plant communities would help to reduce occurrences of exotic plant species and would provide habitat for wildlife. Establishment of vegetation would act as a buffer to agricultural and other runoff, improving water quality and benefiting aquatic species. See Section 4.3 for a discussion of impacts to water resources.

4.1.2.2 *Alternative B – No Action*

Under the No Action Alternative the proposed UCFRB CREP Agreement would not be implemented. Lands that would have been eligible for enrollment would remain in agricultural production. The continued use of land for agriculture or the conversion of land to another type of agricultural production would reduce vegetative diversity, increasing susceptibility to invasion by exotic species, thus reducing wildlife habitat. The runoff of agricultural chemicals, animal wastes, and sediment would continue to degrade water quality, threatening aquatic biodiversity.

4.1.3 Protected Species and Habitat

4.1.3.1 *Alternative A – Preferred*

Implementation of the proposed UCFRB CREP Agreement would have long term positive impacts on protected species and habitat. All proposed CPs under the UCFRB CREP would have positive impacts, particularly the restoration of rare and declining habitat (CP 25). Benefits to protected aquatic species would be realized after implementation of CPs and would increase in the long term. The bull trout, a Federally threatened species, and the westslope cutthroat trout, a State species of special concern, like other aquatic species would benefit from implementation of the CPs in this area. Benefits to protected species and habitat in terrestrial environments would be minimal in the short term as vegetative communities developed. However, the greatest benefits to terrestrial species and habitats in this category would be expected in the long term following implementation of the proposed CPs. Reestablishment of riparian buffers and other habitats would benefit species such as the Bald Eagle, a Federally threatened species, and the Yellow-billed Cuckoo, a candidate species for listing under the ESA. Temporary minor negative impacts could occur during the preparation of lands for CPs as a result of noise or other disturbance.

4.1.3.2 *Alternative B – No Action*

Under the No Action Alternative the proposed UCFRB CREP Agreement would not be implemented. Lands that would have been eligible for enrollment would remain in agricultural production. The continued use of land for agriculture or the conversion of land to another type of agricultural production would continue to have negative impacts on threatened, endangered, and sensitive species by reducing or degrading available habitat and degrading water quality through the runoff of agricultural chemicals, animal wastes, and sediment, threatening aquatic species.

4.2 Cultural Resources

An impact would be significant to cultural resources if implementation of the UCFRB CREP Agreement resulted in:

- the destruction or alteration of all or a contributing part of any NRHP eligible cultural or historic property without prior consultation with the SHPO;
- the isolation of an eligible cultural resource from its surrounding environment;
- the introduction of visual, audible, or atmospheric elements that are out of character with a NRHP eligible site or would alter its setting;
- the neglect and subsequent deterioration of a NHRP eligible site; or
- the disturbance of important sites of religious or cultural significance (TCPs) to American Indians.

4.2.1 Archaeological Resources

4.2.1.1 *Alternative A – Preferred*

Due to the rich cultural and archaeological history of the UCFRB CREP Agreement area, the potential for encountering archaeological resources during implementation of CPs is considered high. CPs that are ground disturbing beyond what is normally disturbed from agricultural plowing have the potential to impact known and yet unknown archaeological resources. Such practices include earthmoving for installation of filter strips, firebreaks, fencing, and roads, as well as construction of dams, levees, and dikes in wetland restoration areas and excavation of potholes or other structures to regulate water flow.

In order to determine whether proposed ground disturbing practices would impact archaeological resources listed in or eligible for listing in the NRHP, an archaeological survey of proposed impact areas would be required prior to implementation of the contract. The archaeological survey should at a minimum meet survey guidelines set forth by the Montana Historic Preservation Office. Results and recommendations from the survey should receive concurrence from the SHPO prior to project implementation.

4.2.1.2 *Alternative B – No Action*

Under the No Action Alternative, farming practices in the proposed UCFRB CREP area would continue. Though the continued use of these previously disturbed areas as pasture and rangeland is not expected to impact archaeological resources, a change in farming practices that would disturb previously undisturbed areas could result in impacts to known or unknown archaeological resources.

4.2.2 Architectural Resources

4.2.2.1 *Alternative A – Preferred*

The UCFRB CREP Agreement area contains a rich architectural history related to early settlement and heritage themes of Montana's history. Should proposed CPs include the removal or modification of historic architectural resources, a historic architectural resources survey would be required in order to determine whether such resources are eligible for inclusion in the NRHP. Results and recommendations from the survey should receive concurrence from the SHPO prior to project implementation.

4.2.2.2 Alternative B – No Action

Under the No Action Alternative, farming practices in the proposed UCFRB CREP area would continue. Though the continued use of these previously disturbed areas as pasture and rangeland is not expected to impact architectural resources, a change in farming practices that would disturb previously undisturbed areas could result in impacts to known or unknown architectural resources.

4.2.3 Traditional Cultural Properties

4.2.3.1 Alternative A – Preferred

Because the areas that would be enrolled in the UCFRB CREP are not yet defined, no American Indian sacred sites or TCPs are identified. Once these areas are defined, consultation with American Indian tribes or tribal entities that have traditional ties to the lands may be needed to determine whether such properties exist on affected lands. Federally recognized tribal entities to be contacted may include the (Federal Register, July 12, 2002, Volume 67, No. 134):

1. Assiniboine and Sioux Tribes of Fort Peck Indian Reservation, Montana;
2. Blackfeet Tribe of the Blackfeet Indian Reservation of Montana;
3. Chippewa-Cree Indians of Rocky Boys's Reservation, Montana;
4. Confederated Salish and Kootenai Tribes of the Flathead Reservation;
5. Crow Tribe of Montana;
6. Fort Belknap Indian Community of the Fort Belknap Reservation of Montana; and
7. Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana

4.2.3.2 Alternative B – No Action

Under the No Action Alternative, farming practices in the UCFRB CREP area would continue. Though the continued use of these previously disturbed areas as pasture and rangeland is not expected to impact TCPs, a change in farming practices that would disturb previously undisturbed areas could result in impacts to TCPs.

4.3 Water Resources

Impacts to water resources would be considered significant if implementation of the proposed UCFRB CREP Agreement resulted in changes to water quality or supply, threatened or damaged unique hydrologic characteristics, or violated established laws or regulations.

4.3.1 Surface Water

4.3.1.1 Alternative A – Preferred

Implementation of the proposed UCFRB CREP Agreement would have long term positive effects on surface water quality and quantity. The CPs listed in Section 2.1 are designed to improve water quality. Establishing native grasses and wildlife habitat (CP 2 and CP 4D) would stabilize soils and reduce soil erosion and the runoff of nutrients and chemicals associated with agriculture. The establishment of riparian buffers (CP 22) installed adjacent to watercourses would stabilize stream banks and provide areas for the retention of sediment and nutrient runoff from adjacent

lands. Additionally, a reduction in the use of fertilizers and pesticides through the retirement of up to 10,082 acres is expected to occur as a result of the proposed UCFRB CREP Agreement, resulting in reductions in nitrogen, phosphorous, and other agricultural chemicals in runoff.

Activities such as vegetation clearing and soil disturbance may occur during the installation of CPs. These activities could result in temporary and minor negative impacts to surface water quality resulting from runoff associated with these activities. Use of filter fencing or similar practices would reduce these impacts.

4.3.1.2 Alternative B – No Action

Under the No Action Alternative, the CPs described in Section 2.1 would not be implemented. The use of land for agriculture or conversion of lands to other types of agricultural production could result in the continued degradation of water quality from runoff of agricultural chemicals, animal waste, and sediment.

4.3.2 Groundwater

4.3.2.1 Alternative A – Preferred

Implementation of the proposed UCFRB CREP Agreement would result in long term positive effects on groundwater quality and quantity. Reductions in nitrogen and phosphorous fertilizers are expected to occur as a result of the Proposed Action. Implementation of the proposed UCFRB CREP Agreement would reduce depletions of the surficial aquifers.

4.3.2.2 Alternative B – No Action

Under the No Action Alternative, the CPs described in Section 2.1 would not be implemented. The use of land for agriculture or conversion of lands to other types of agricultural production could result in the continued degradation of water quality from fertilizers and agricultural chemicals. No reduction in the decline of the groundwater level in the surficial aquifers would occur.

4.3.3 Wetlands

4.3.3.1 Alternative A – Preferred

Implementation of the proposed CP 9 (Shallow Water Areas for Wildlife), CP 23 (Wetland Restoration), CP 22 (Riparian Buffer), and CP 30 (Wetland Buffer-Marginal Pastureland) is expected to restore or enhance the acreage of wetlands and riparian habitat in the proposed UCFRB CREP area by as much as 1,000 acres. The positive impacts of restoring wetlands and riparian areas on wildlife and aquatic species is discussed in Section 4.2, biological resources.

4.3.3.2 Alternative B – No Action

Under Alternative B, the No Action Alternative, the CPs described in Section 2.1 would not be implemented and no change to existing wetland acreage would occur. Continued runoff of agricultural chemicals, erosion of soils, and the impacts of these to wetlands would be expected if the No Action alternative were implemented.

4.3.4 Floodplains

4.3.4.1 *Alternative A – Preferred*

Implementation of Alternative A would result in positive effects to floodplains. Minor improvements in floodplain areas and stream profiles would occur from implementation of CP 22, CP 23 and CP 30. These CPs would increase floodwater storage capacity through restoring wetlands, stabilizing floodplains, and improving habitat through restorative plantings, and install structures within existing floodplains.

4.3.4.2 *Alternative B – No Action*

Implementation of Alternative B would have not change existing floodplains. Under this alternative, the CPs described in Section 2.1 that would have beneficial effects on floodplain conditions would not be implemented.

4.4 Soil Resources

Impacts to soil resources would be considered significant if implementation of the proposed UCFRB CREP Agreement resulted in increased erosion and sedimentation, or affected topographical or unique soil conditions.

4.4.1 *Alternative A – Preferred*

Under Alternative A, long term positive impacts to earth resources are expected to occur. Implementation of the proposed CPs would result in localized stabilization of soils and topography as a result of reduced erosion and runoff. In pasturelands, exclusion of cattle from streams and riparian areas bordering streams would reduce stream bank destabilization, resulting in reduced rates of sedimentation and subsequent improvements to water quality (see Section 4.3 for a discussion of surface water quality). Establishing permanent vegetation on former croplands would reduce erosion by wind and water. Short term disturbance to soils during implementation of CPs could include tilling, or installation of various structures such as fences, breakwaters and roads. These activities may result in temporary minor increases in soil erosion.

4.4.2 *Alternative B – No Action*

Under the No Action Alternative, the CPs would not be implemented and no change to existing soil conditions would not occur. Erosion of soils by wind and water is expected to continue on lands that remain in production.

4.5 Recreation

Impacts to recreation would be considered significant if they drastically increased, reduced or removed available public lands designated for recreation. Impacts to environmental conditions such as air, water, or biological resources within or near public recreational land in such a way to affect its use would also be considered significant.

4.5.1 *Alternative A – Preferred*

Implementation of Alternative A would have a positive long term impact on recreational resources by increasing hunting, fishing and watchable wildlife species. Installation of the

proposed CPs would increase wildlife habitat for species including white-tailed deer, elk, Ring-necked Pheasant and Wild Turkey. An increase in water quality and quantity would allow for an improvement in habitat conditions for aquatic species that in turn would increase populations of game fish. A short term negative impact to recreational activities may occur during the installation of the proposed CPs due to unsightly construction activities or displacement of game species.

4.5.2 Alternative B – No Action

Under Alternative B, the No Action Alternative, the CPs described in Section 2.1 would not be implemented and no change to existing recreational activities would occur. Continued fragmentation of habitat quality would be expected, resulting in continued declines of populations of game and watchable wildlife species of birds, fish, and mammals. This in turn would result in continued declines in recreational expenditures. Continued degradation of water quality would be expected, affecting water related recreational opportunities.

4.6 Socioeconomics

Significance of an impact to socioeconomics varies depending on the setting of the Proposed Action, but 40 CFR 1508.8 states that indirect effects may include those that are growth inducing and others related to induced changes in the pattern of land use, population density, or growth rate. Under CEQ regulations, a socioeconomic impact, in and of itself, does not indicate that preparation of an Environmental Impact Statement is warranted.

4.6.1 Alternative A - Preferred Action

Implementing the Preferred Action would have slight, beneficial impacts to the economy of the ROI. The Proposed Action calls for expenditure of \$53.09 million for the implementation of the UCFRB CREP.

For the ROI, the average net cash income (loss) was (\$15.73) per acre in 2002. The value of the sales of agricultural products sold averaged \$234.37 per acre. The sales for fertilizer and chemicals (Chemical Input [CI]) averaged \$10.80 per acre. The average annual expenditures on labor (hired and contract) averaged \$29.41 per acre. The average annual wage for persons engaged in agricultural employment within the ROI was \$28,015 during this period (BEA 2002). [Note: Wage data for Deer Lodge County unavailable – average agricultural wage calculated on other four counties only.]

Absent any payments under the UCFRB CREP, the loss of 10,082 acres from production, could be anticipated to result in reduction of sales of agricultural products of \$2,362,918.34, and diminishing of net farm income (loss) of (\$158,589), a reduction in CI expenditures of \$108,885 for CI not purchased for agricultural use, and a reduction in labor expenditures of \$296,512, representing 11 jobs at the prevailing wages within the ROI. The 11 jobs represent a small fraction of agricultural employment in the ROI; current estimates indicate that agriculture employs 1,035 persons in the ROI.

However, the inclusion of 10,082 acres in the UCFRB CREP would result in the expenditure of \$53.09 million in Federal, State, and local funds to implement and support the program. As shown in a simplified flowdown model, this results in a net present value of over \$10.5 million for the UCFRB CREP after considering employment loss and reduced sales and purchase of chemical inputs.

4.6.2 Alternative B – No Action

Under the No Action Alternative, the UCFRB CREP Agreement would not be implemented within the ROI. Socioeconomic conditions would continue to follow the trends associated with the ROI and southwestern Montana and surrounding States. Farmland would continue to be sold for development rights; unique and prime farmland areas would continue to be targeted for purchase of conservation easements.

4.7 Environmental Justice

Environmental justice is achieved when everyone, regardless of race, culture, or income, enjoys the same degree of protection from environmental and health hazards and has equal access to the decision-making process. Significant environmental justice impacts would result if access to decision-making documents was denied or if any adverse environmental effects occurred that would disproportionately affect minority or low-income populations.

4.7.1 Alternative A – Preferred

The UCFRB CREP area is neither an area of concentrated minority population nor an impoverished area. Therefore no disproportionate impacts to such groups would occur were the Preferred Alternative implemented.

4.7.2 Alternative B – No Action

Under the No Action Alternative, none of the proposed UCFRB CREP Agreement would be implemented and no environmental justice impacts would occur.

4.8 Other Protected Lands

Impacts to other protected lands would be significant if an action interfered with the ability of the agency managing protected lands to carry out the conservation, recreation, or research mission of those lands. For example, an action that would interfere with public access or experience at a National Park would be considered a significant impact.

4.8.1 Alternative A - Preferred

Implementation of the preferred alternative would result in the establishment of CPs on 10,082 acres of environmentally sensitive range and pasture land in Powell, Butte-Silver Bow, Deer Lodge, Granite, and Missoula counties. No negative impacts to other protected lands in the UCFRB CREP area are expected to result from the action. Restoration of prairie, wetlands, wildlife habitat, and water quality in the UCFRB CREP area may positively affect natural lands set aside for conservation, research or recreation by complementing and enhancing their missions. Restoration of previously fragmented or degraded habitat would be expected to result in improved water quality, healthier wildlife populations, increased opportunities for wildlife observation, and a reduction in the occurrence and spread of non-native plants and weeds associated with such agricultural lands.

4.8.2 Alternative B – No Action

Under the No Action Alternative, the proposed CPs would not be implemented. The land proposed for enrollment in UCFRB CREP under the preferred alternative would remain as range

and pastureland. No changes to existing conditions on nearby protected lands is anticipated if the CPs are not implemented. If farming practices change or if land not currently used as range and pasture is converted within the area, negative impacts to water quality, native vegetation and wildlife populations could occur, potentially impacting the other protected lands.

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5.0 CUMULATIVE EFFECTS

5.1 Introduction

CEQ regulations stipulate that the cumulative effects analysis consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present and reasonably foreseeable actions regardless of what agency or person undertakes such other actions.” CEQ guidance in Considering Cumulative Effects affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the Proposed Action. The scope must consider geographic and temporal overlaps among the Proposed Action and other actions. It must also evaluate the nature of interactions among these actions.

Cumulative effects most likely arise when a relationship exists between a Proposed Action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in proximity to the Proposed Action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide, even partially, in time tend to have potential for cumulative effects.

In this PEA, the affected area for cumulative impacts is those counties where lands are eligible for enrollment in UCFRB CREP Agreement. For the purposes of this analysis, the goals and plans of Federal programs designed to mitigate the risks of degradation of natural resources are the primary sources of information used in identifying past, present, and reasonably foreseeable actions.

5.2 Past, Present, and Reasonably Foreseeable Actions

In addition to CREP, the State of Montana maintains and implements numerous Federal programs authorized under the Farm Bill to conserve and enhance the natural resources of the area. These programs include, but are not limited to, CRP, Wildlife Habitat Incentives Program (WHIP), EQIP, and the WRP. Table 5-1 shows the acreages enrolled in each of these programs by county in the proposed UCFRB CREP area. Additionally, State conservation efforts include agencies and programs such as.

Table 5.1 - Land (acres) Enrolled in USDA Programs by County in the UCFRB CREP Area

| County | CRP | WHIP | EQIP | WRP |
|--------------|------------|------------|----------------|-----------------|
| Silver Bow | 0 | 0 | 19,503 | 0 |
| Deer Lodge | 0 | 0 | 18,470 | 582.30 |
| Granite | na | 130 | 48,034 | 340.55 |
| Missoula | na | 0 | 3,681 | 82.90 |
| Powell | 128 | 425 | 75,469 | 114.00 |
| TOTAL | 128 | 555 | 165,157 | 1,119.75 |

na – not available
Source: personal communication Carry Mosley and Glen Patrick, MT USDA

Conservation Reserve Program

CRP is the largest private land environmental improvement Federal program. This voluntary program supports the implementation of long term conservation measures designed to improve the quality of ground and surface waters, control soil erosion, and enhance wildlife habitat on environmentally sensitive agricultural land. Producers can receive annual rental and maintenance payments, incentive payments, and cost-share support for the establishment of conservation measures.

Wildlife Habitat Incentives Program

The WHIP offers opportunities to private and Tribal producers to improve and protect wildlife habitat. Through the program, the NRCS provides technical and financial assistance to producers to develop upland, wetland, riparian, and aquatic habitat areas on their property. Cost sharing reimburses up to 75 percent of costs, not to exceed \$15,000 per contract.

Environmental Quality Incentives Program

EQIP supports production agriculture and environmental quality as compatible goals. The program offers technical and financial assistance to farmers and ranchers who face serious threats to soil, water, and related natural resources. NRCS may pay up to 75 percent of the costs (up to \$450,000) of certain CPs such as grassed waterways, filter strips, waste management facilities, grade stabilization structures, and other practices important to improving and maintaining the health of natural resources.

Wetlands Reserve Program

WRP is a voluntary program which provides technical and financial assistance to producers who enhance wetlands and retire marginal agricultural lands. Under WRP, lands can be enrolled in permanent conservation easements, 30-year conservation easements, or restoration cost-share agreements. NRCS supports 75 to 100 percent of the cost of wetland restoration and easement payments for permanent and 30 year conservation easements.

5.3 Cumulative Effects Matrix

The incremental contribution of impacts of the Proposed Action, when considered in combination with other past, present, and reasonably foreseeable actions, is expected to result in positive impacts to water, earth, biological, and recreational resources both in the proposed UCFRB CREP area and in waters downstream. Table 5.2 summarizes cumulative effects of the Proposed Action and No Action Alternative and other Federal programs.

Table 5.2 - Cumulative Effects Matrix

| Resource | USDA Programs CRP, WHIP, WRP, EQIP | Other Federal and State Programs | Cumulative Effects of Preferred Alternative and other USDA, Federal, and State Programs |
|-----------------------------|--|--|--|
| Biological Resources | Protection and enhancement of wildlife habitat are the goals of WHIP and CRP. These programs restore native vegetation resulting in positive impacts to wildlife and protected species. Through their goals of enhancing wetlands and supporting agricultural production and environmental quality as compatible goals, the WRP and EQIP also benefit vegetation, wildlife and protected species by providing habitat and improving water quality. | Wildlife, fisheries, vegetation and protected species are benefited through programs that protect species and habitat; restore habitat; and improve quality and quantity of water. | CREP compliments other conservation programs of the State of Montana and together they can produce long term positive benefits on biological resources. CREP protects, enhances, and restores habitat thus benefiting vegetation, wildlife, and protected species. The Proposed Action is expected to contribute to vegetation and wildlife diversity. Fish and aquatic wildlife will benefit from increased water quantity and quality. Positive impacts to threatened and endangered species, species of concern, and their habitats are expected. |
| Cultural Resources | Cultural Resources could be affected by activities that result in ground disturbance beyond that which was disturbed by agricultural practices, alter a NRHP listed or eligible structure, or involve activities affecting TCPs. Cultural Resources identified on lands enrolled in these programs would be protected and preserved through the consultation process with the SHPO and Tribal governments. | Like the USDA programs, other Federal and State programs could affect known or unknown Cultural Resources if they resulted in the disturbance of previously undisturbed ground, alteration of a NRHP listed or eligible structure, or involve activities affecting TCPs. Cultural Resources identified on such lands would be protected and preserved through the consultation process with the SHPO and Tribal governments. | Like other USDA, Federal, and State programs, the proposed UCFRB CREP Agreement could result in impacts to Cultural Resources if the activities associated with them resulted in the disturbance of previously undisturbed ground, alteration of NRHP listed or eligible structure, or affected TCPs. As with the other programs, appropriate consultation with the SHPO and Tribal governments would ensure protection of Cultural Resources and would eliminate potential negative impacts, both incremental and cumulative. |

Table 5.2 - Cumulative Effects Matrix (cont'd.)

| Resource | USDA Programs CRP, WHIP, WRP, EQIP | Other Federal and State Programs | Cumulative Effects of Preferred Alternative and other USDA, Federal, and State Programs |
|------------------------|--|---|---|
| Water Resources | All of these USDA programs could result in long term positive impacts to water quality. WRP is specifically designed to enhance wetlands, CRP goals also target improving water quality. Both programs would be expected to improve surface and ground water quality, increase wetland function and stabilize floodplains. EQIP and WHIP practices that result in reduced runoff, use of agricultural chemicals, and reductions in irrigation could also have positive impacts to surface and ground water quality as well as contributing to the health of wetlands and the stability of floodplains. | Several programs, groups, and agencies main focus is the improvement of water resources in Montana. | The proposed UCFRB CREP Agreement, along with other USDA, Federal, and State Programs, are expected to result in positive long term cumulative impacts to surface water quality, groundwater quality and quantity, wetland acreage and function, and floodplain stabilization. |
| Soil Resources | All of these USDA programs could result in long term positive impacts to soil resources. Programs that establish permanent vegetation result in stabilizing soils, reducing erosion, and preserving localized topographic features. | Soil resources are benefited through other conservation programs that protect and restore habitat by decreasing land affected by increased levels of soil erosion. | The proposed UCFRB CREP Agreement would complement other programs and together are expected to result in long term positive cumulative impacts to soil resources on the lands enrolled in the program. |
| Recreation | Recreational opportunities are indirectly benefited through USDA conservation programs that protect and restore habitat. The associated increases in fish and wildlife populations are expected to positively impact recreational activities such as hunting, fishing, bird and other wildlife watching. | Like with other USDA programs, recreational opportunities are indirectly benefited through other Federal and State conservation programs that protect habitat and restore habitat, resulting in improved wildlife-related recreational opportunities. | CREP protects, enhances and restores habitat for fish and wildlife. Additionally, it increases water quantity and quality. This will indirectly benefit recreational opportunities. These aspects of CREP compliment other conservation programs and benefit recreation in the UCFRB CREP area and surrounding areas. |

Table 5.2 - Cumulative Effects Matrix (cont'd.)

| Resource | USDA Programs CRP, WHIP, WRP, EQIP | Other Federal and State Programs | Cumulative Effects of Preferred Alternative and other USDA, Federal, and State Programs |
|------------------------------|--|---|--|
| Socioeconomics | USDA conservation programs generally offer monetary compensation for restoration and retirement of agricultural lands. The loss of agricultural lands may adversely affect economies from a small decrease in agricultural production and its associated economic benefits. Increased recreational opportunities from increases in wildlife and fisheries would benefit economies. | Other conservation programs that offer monetary compensation for restoration and retirement of agricultural or other lands may result in economic impacts similar to those described for USDA programs. | CREP monetarily compensates for restoration and retirement of agricultural lands. The loss of agricultural lands may adversely affect economies from a small decrease in agricultural production and its associated economic benefits. Increased recreational opportunities from increases in wildlife and fisheries would benefit economies. These aspects of CREP are additive to the affects of other conservation programs and are not expected to produce appreciable cumulative impacts. |
| Environmental Justice | The area affected by this proposal is not considered impoverished or an area of concentrated minority population. Therefore no Environmental Justice issues are anticipated. | The area affected by this proposal is not considered impoverished or an area of concentrated minority population. Therefore no Environmental Justice issues are anticipated. | The area affected by this proposal is not considered impoverished or an area of concentrated minority population. Therefore, the Preferred Alternative will have no individual or cumulative Environmental Justice impacts. |
| Other Protected Lands | All of these USDA programs result in positive impacts to nearby Other Protected Lands through positively affecting wildlife habitat and air and water quality. | In addition to USDA programs, other Federal and State conservation programs which result in benefits to wildlife are expected to positively affect Other Protected Lands in proximity to the program areas. | The proposed UCFRB CREP Agreement is expected to complement other Federal and State programs in positively impacting Other Protected Lands by enhancing wildlife habitat, reducing the incidence and spread of exotic species, improving the quality of surface and ground waters. |

5.4 Irreversible and Irretrievable Commitment of Resources

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources has on future generations. Irreversible effects primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action. For the Proposed Action, no irreversible or irretrievable resource commitments are expected.

6.0 MITIGATION MEASURES

6.1 Introduction

The purpose of mitigation is to avoid, minimize, or eliminate negative impacts on affected resources to some degree. CEQ Regulations (40 CFR 1508.20) states that mitigation includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

6.2 Roles and Responsibilities

CEQ Regulations state that all relevant reasonable mitigation measures that could improve a project should be identified, even if they are outside the jurisdiction of the lead agency or the cooperating agencies. This serves to alert agencies or officials who can implement these extra measures, and will encourage them to do so. The lead agency for this Proposed Action is FSA.

6.3 Mitigation Matrix

There are no negative impacts associated with the Proposed Action; therefore, there are no mitigation measures. A mitigation matrix is not needed.

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APPENDIX A: GLOSSARY

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Alluvial - Of, relating to, or found in alluvium.

Aquifer - An underground bed or layer of earth, gravel, or porous stone that yields water.

Biodiversity - The number and variety of organisms found within a specified geographic region.

Conservation Practice – NRCS approved agricultural practices and management methods used to treat natural resource problems on agricultural lands (soil, water, air, plants, and animals).

Critical Habitat - The specific areas within the geographical area occupied by the species on which are found those physical or biological features that are both essential to the conservation of federally threatened and endangered species. Critical Habitat is designated by USFWS and is protected under the ESA.

Endangered species - Any species that is in danger of extinction throughout all or a significant portion of its range, other than an officially designated insect pest. Endangered species are so designated by USFWS and are protected under the ESA.

Environmental Justice – Federal government requirement to identify and address disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Erodibility Index - A numerical value that expresses the potential erodibility of soil in relation to its soil loss tolerance value without consideration of applied conservation practices or management. (*Defined at 7 CFR 12.2*)

Extreme Poverty Area – One where the percentage of residents with incomes below the poverty level is greater than 40 percent.

Floodplain – Low-lying land subject to inundation from overflow of the rivers or lakes with which they are associated.

Habitat fragmentation - The breaking up of habitat into discrete islands through modification or conversion of habitat by management activities.

Invasive species - Any species that is not native to a given ecosystem, and whose introduction causes or is likely to cause economic or environmental harm and/or harm to human health.

Minority Population – Defined by race, ethnicity or a combination of the two. Per CEQ can include American Indian or Alaska Native, Asian or Pacific Islander, Black, not of Hispanic origin, or Hispanic and exceeding 50 percent of the population in an area or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population.

Pivot corners – The areas not covered by a center-pivot irrigation system if the pivot circle is contained inside a square whose length equals the diameter of the circle.

Poverty Area - USCB census tracts where at least 20 percent of the residents are have incomes below the poverty level.

Riparian - Of, on, or relating to the banks of a natural course of water.

Saturated – State of soil when all pore spaces are full.

Sedimentary – Rock formed from materials deposited from suspension or precipitated from solution and usually being more or less consolidated. The principal sedimentary rocks are sandstones, shales, limestones, and conglomerates.

Sensitive species – Plant or animal species which are susceptible to habitat changes or impacts from activities; used as a term for species of special concern by some States.

Traditional Cultural Property – A property that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are rooted in that community's history, and are important in maintaining the continuing cultural identity of the community. In most cases, traditional cultural properties are associated with Native Americans but may also be associated with other sociocultural or ethnic groups.

Threatened species - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range so designated by FWS and protected by the ESA.

Watercourse – A natural or artificial channel through which water flows.

Watershed - The whole region or extent of country which contributes to the supply of a river or lake.

Wetland - Areas that are saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (*Defined at 33 CFR 320-328.3*)

APPENDIX B: CREP AGREEMENT

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Final-Draft-Final

**Montana's Conservation Reserve Enhancement Program
Targeting the Upper Clark Fork River Basin**

Prepared by the Montana Department of Natural Resources and Conservation
and the Watershed Restoration Coalition of the Upper Clark Fork (WRC)
April 1, 2005

Section 1 – Abstract

Montana's Conservation Reserve Enhancement Program proposes to re-establish riparian woodland and other native habitats within the Upper Clark Fork River Basin (UCFRB) in order to restore and enhance wildlife, bird, aquatic, and fisheries habitat and improve water quality. Montana proposes to increase enrollment in the Conservation Reserve Program (CRP) by 10,082 acres. This will be accomplished by compensating agricultural producers for land rental through an economically sound market-based approach, which offers a price high enough to attract landowners to the program and considers the public benefits associated with this stream corridor restoration effort. The cooperating Montana entities propose to establish conservation practices necessary to restore wildlife, livestock, fisheries and human habitat, improve water quality and provide for the needs of threatened and endangered species. The total cost of this proposal is estimated to be \$53 million.

Section 2 – Existing Conditions

The Upper Clark Fork River corridor and its tributaries are resources of considerable significance in Montana. The Clark Fork is the largest river (by volume) in Montana. It rises out of the mountains along the Continental Divide near Butte and flows west 320 miles to Lake Pend Oreille, Idaho's largest lake. Along the way, it gathers waters from such fabled tributaries as the Flathead, Big Blackfoot, and Bitterroot rivers.

Today, because of decades-old mining, ailing dams, and rapid growth in traditional agricultural lands, the Clark Fork is not a healthy river. Yet it remains the economic, cultural, and biological backbone of western Montana and northern Idaho. In fact, an important part of the region's future resides with this river and conserving the natural resources.

This is a spectacular region with a fascinating history. Nearly 16,000 years ago, a lobe of glacial ice flowed from Canada to block the river. Backed behind this 2000-foot-high ice dam, the water rose, flooding the valleys of western Montana and forming an ancient inland lake geologists call Lake Missoula. At its largest, the lake once held over 500 cubic miles of glacial meltwater.

1

When the dam broke, this water rushed toward the Pacific at 60 miles-per-hour, covering Idaho and half the state of Washington in a matter of days, scouring hundreds of miles of canyons and valleys and creating history's largest known waterfall.

Dates and settlement patterns are uncertain, but people probably first colonized western Montana around the time of this flooding. These first inhabitants found abundant wildlife. Many thousands of years later, when Lewis and Clark, the first Americans to survey the region, passed through western Montana on their way to the Pacific, three groups of people called the Clark Fork watershed home—the Salish, Pend d'Orielle and Kutenai nations. Native knowledge of the river and its fish helped keep the expedition alive.

With European arrival, these native people and the region's ecology quickly began to change. Beaver were nearly exterminated by intensive trapping, and the resulting deterioration of their dams changed the character of many mountain streams. As railroads cut across the mountains, European settlers began extracting natural resources—cutting timber, mining, and harvesting wildlife, including the abundant salmon, to meet the demand of a growing Western population.

Time passed, and these settlers' influence grew to include construction of massive dams and many deep mines. Today, salmon no longer run the upper river, and trout fishing must be carefully regulated to manage the fisheries.

Toxic wastes from mining operations have impacted the river and the surrounding agricultural lands, which dominate the landscape. The area from Butte to Milltown Dam is the nation's largest Superfund site. Ironically, the area's fish are more threatened now by human actions than they once were by one of history's most cataclysmic floods.

Miners came to the area as early as the 1860s. In 1867, the peak of the placer boom had the city of Butte's population at 500. It halved to 250 over the next two years. Then quartz deposits were discovered on the "rich city on the hill." Mining barons shortly became the state's first millionaires.

Marcus Daly gathered investors from around the country to get behind his Anaconda Company. In the 1880s, Butte was the world's biggest copper producer. It was spurred on by the arrival of the railroad in 1881. Smelters followed soon after to more efficiently extract copper from ore. The smelters soon fouled Butte's air. The Anaconda Company fixed the problem by building a huge smelter in Anaconda, to the west of Butte. Today, only its huge smokestack remains; drivers can see it from Interstate 90.

In 1899, Marcus Daly merged with Rockefeller's Standard Oil Company to create the Amalgamated Copper Mining Co. It bought up smaller mining companies and

by 1910 changed its name to the Anaconda Copper Mining Company, the largest power in Butte and Montana. In 1917, Butte's population was about 100,000. It was a thriving mining city, the biggest between St. Louis and Seattle. It dominated local politics and business in the state. Until the 1950s it owned every newspaper in the huge state.

Families came from all over the country to work in the mines (which were dangerously deep below the ground). The Irish came in droves and soon became the city's largest ethnic group. Today Butte is still known for its raucous St. Patrick's Day celebrations.

It wasn't until the 1950s that the Anaconda Copper Company moved away from labor-intensive underground mining. It began open pit mining, creating the largest landmark and legacy of Butte's mining days: the Berkeley Pit. To make room for open pit mining, the Company bought and leveled whole neighborhoods -- hundreds of homes and stores that once made up Butte's East Side.

In 1982, mining ceased in the pit. Today the pit is over a mile long, nearly a mile wide and 1800 feet deep. It is filling up with acidic water. The Atlantic Richfield Company (ARCO), which bought the Anaconda Copper Company's holdings in Butte in the 1970s, is the primary responsible party working with the USEPA and State of Montana to cleanup the surrounding soils, groundwater, Silver Bow Creek and Clark Fork River. Today, Butte has just over 30,000 residents, a far cry from its 1917 population.

The Clark Fork River fishery has improved from some cleanup of the historic mine wastes, and although it is not a pristine river, it does offer sufficient habitat to support a Class II fishery below Warm Spring ponds and the confluence of Silver Bow Creek, and below Milltown Dam, at the lower end of the project area according to the Montana Dept. of Fish, Wildlife and Parks (FWP). With cleanup actions being implemented now and in the future, coupled with improvements in the Clark Fork River and tributary riparian corridor, the red ribbon fishery has a chance to once again be a blue ribbon trout fishery (Class I outstanding fishery resource) it once was along selected reaches.

Rock Creek is a pristine stream with high quality water described by the Montana FWP as a Class I fishery along its entire reach, and is one of the larger tributaries to the Clark Fork River. According the FWP, Rock Creek is the bright spot in the Upper Clark Fork. It supports good populations of migratory bull and cutthroat trout as well as rainbow and brown trout. Their efforts in Rock Creek are focused on developing restoration opportunities and supporting other agency efforts to do the same to manage this splendid recreational fishery. Overall, the spectacular scenery, wildlife, fishery resources, and bull trout and water quality restoration work result in significant attention given to the Clark Fork River and tributary streams, such as Rock Creek.

According to the US Fish and Wildlife Service (USFWS), and based upon the average statewide fishing expenditure per day, angling is worth 244 million dollars per year to the state of Montana. Based on an area analysis, about \$2.4 million is spent in the UCFRB by anglers between food, lodging, transportation, equipment, and rentals. This represents a minimal estimate since Rock Creek and the area below Warm Spring Ponds have some of the greatest angling pressure and daily angling uses of Montana streams.

Twenty-eight FWP fishing access sites and/or stream corridor campgrounds are located in the project area from the headwaters to Missoula. The Anaconda-Pintler Wilderness Area, with numerous peaks over 10,000 above sea level along the continental divide, as well as nearby Georgetown Lake and Discovery Ski Area, attract back county anglers and outdoor enthusiasts from across Montana and other states. Other attractions include the Welcome Creek Wilderness, scenic Sapphire Mountains and Lone Mountains that drain into Rock Creek, and the Flint Creek Mountains, towering over 10,000 feet, that drain into the Clark Fork River. Hunters, hikers, and anglers alike take advantage of the area natural resources and recreation opportunities.

The Clark Fork River and tributaries provides habitat for the bull trout, a listed species under the Endangered Species Act. These fish only exhibit a remnant of their original population Clark Fork River, and extensive bull trout restoration is being implemented in key areas of the basin to increase bull trout population and restore habitat according to the area USFS fishery biologist Steve Gerdes. Pure strain westslope cutthroat trout, which are found in only 1% of their historic range, also inhabit the Clark Fork River basin. The westslope cutthroat is a state species of special concern, and will directly benefit from this project.

The UCFRB CREP area lies within an important segment of Montana's agricultural economy, including limited small grain and extensive livestock production. The riparian areas within the UCFRB CREP project provide critical winter cover and calving grounds for livestock as well as wildlife species. This emphasizes the importance and significance of the broad based partnership and proposed conservation practices encompassed in the Montana CREP proposal.

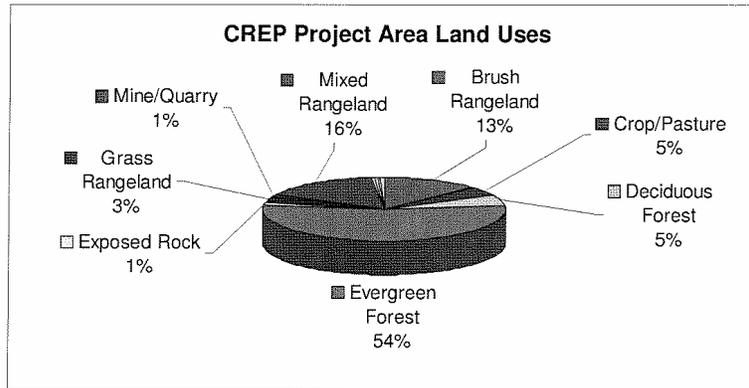
Map

A map of the UCFRB CREP project area and ownership is in Appendix A. The river corridor and tributary streams from the headwaters above the City of Butte to Milltown Dam on the downstream end was selected because of the combination of resource needs and restoration potential, state and national significance, and the source of matching funds from Montana Natural Resource Damage Program and other funding sources. The CREP project area would not include the riparian corridors that have been impacted by historical mining and mineral processing, which will be addressed through the planned Superfund remediation and restoration efforts. Those areas mainly include the mainstem of

Silver Bow Creek, main stem of the Clark Fork River between Warm Springs Ponds and Garrison Junction, and portions of Warm Springs Creek, Mill Creek, and Willow Creek that are contaminated with mine tailings. These areas are excluded from the CREP proposal because they will be remedied and restored under a separate program through the U.S. EPA's remediation process and the Natural Resource Damage Program's restoration process.

Land Use

Private land in the five counties included in this proposal covers over 1.13 million acres (about 50 percent of the total) along about 743 miles of streams and rivers adjoining private land with perennial flow greater than 1 cubic foot per second (cfs) (Appendix A). The five counties are Butte Silver Bow, Deer Lodge, Granite, Powell, and Missoula counties. The vast majority of the private lands are used for agriculture, including the forested area. Table 1 summarizes land use acreage for the UCFRB:



As a percentage, land cover in the UCFRB is 54 percent forest, 32 percent various rangeland, 5.9 percent crop and pasture, and 7 percent other categories. Most of the evergreen forest is used for grazing allotments on private, state, and federal managed lands (Appendix A and Table 1).

Table 1. Agricultural Land in Private Ownership

| | |
|--|-----------------|
| Mixed Rangeland | 467,801 acres |
| Brush Rangeland | 351,688 acres |
| Crop/Pasture (cropland & marginal pasture) | 226,552 acres |
| Grass Rangeland | 92,241 acres |
| Total | 1,138,282 acres |

Farm Demographics

Montana's number 1 industry, agriculture, out produces other industry sectors by \$896 million per year. Nationally, Montana ranks sixth in beef cow production, sixth for total calf crop, third for sheep, fifth for wool, third for all wheat and ninth for alfalfa production.

There are 59.6 million acres of farm and ranch land in Montana (second in U.S. behind Texas). This represents 63 per cent of the total land base. Montana's 27,500 farms and ranches average 2091 acres in size. Total farm and ranch acreage averages 64.8% range and pasture, 30.1% cropland and 3.5% woodland. Total farm and ranch assets are \$19.9 billion. Agricultural production within the UCFRB is dominated by hay and livestock production with 82 percent of the private lands linked to agriculture based analysis of Geographical Information System (GIS) databases for Montana available through NRIS.

Relevant Environmental Factors

Geology

Geology is highly variable throughout the UCFRB. The Belt Supergroup dominates much of the Clark Fork River basin, especially on the lower end of the project area. The Belt Supergroup metamorphosed Precambrian shale and quartzite formations, and some limestone formations, were formed by an ancient sea and later sutured to the continent creating a mountainous setting along the fold and thrust belt. The Madison Limestone Formation of the Mississippian geologic period crop out in the project area, along with granitic Cretaceous intrusives associated with the Boulder Batholith, and Cretaceous and Tertiary volcanics, in the middle and upper reaches of the project area.

These bedrock formations are the parent material for Tertiary and Quaternary valley fill sediments that dominate the riparian corridors, especially on private lands in project areas. The high benches and terraces above the Clark Fork River and larger tributaries are typically older sediments down-cut by stream flow. On the valley floor and narrow stream and river corridors, younger sediments, often composed of unconsolidated sand, gravel, cobble and boulders dominate the geologic setting. In the valley bottom settings, there are often an exchange between surface water and groundwater creating conditions ideal for riparian wide corridors.

Also of interest is glacial geology of the area. As outlined earlier, nearly 16,000 years ago, a lobe of glacial ice flowed from Canada to block the river. Backed behind this 2000-foot-high ice dam, the water rose, flooding the valleys of western Montana and forming an ancient inland lake geologists call Lake Missoula. When the ice broke, the area experienced horrendous flows out of the basin leaving tell tale signs in the sediment record of a natural disaster.

Soils

Soils within the UCFRB reflect the varied parent materials. The Clark Fork River and tributaries have formed stratified fluvaquents within the floodplain. A variety of aridisols, mollisols, inceptisols and entisols occurs on adjacent terraces, benches, fans, foothills, mountain slopes, dissected plains and river breaks. Floodplain soils within the corridor are generally deep and well suited for establishment of riparian vegetation, except for mining impacted areas currently targeted for remediation and restoration. Adjacent upland soils are highly variable. Most cropped areas are suitable for reestablishment of native prairie and woodland vegetation.

Precipitation

The NOAA climatological station number 242273 in Deer Lodge provides a long-term data set for characterizing the climate in the project area. A second station, Deer Lodge 3W, is nearby and also used to analyze climate patterns in the project area. The stations are located at an elevation of about 4,500 feet and precipitation in the area occurs as both rainfall and snowfall. The average annual precipitation ranges from 12 to 14 inches, half of which falls during the months of May, June, and July. The climate in the highlands on US Forest Service managed lands is considerably more moist, and able to sustain a hardy conifer and limited aspen vegetative community. However, the lowland range is indicative of a dryer, semi-arid climate. Moving downstream, the climate is slightly wetter in the Missoula area.

According to NOAA and the Western Regional Climate Center, the average annual precipitation for the period of record from 1893 to 1959 is 10.62 inches (Figure 2-1) and from 1959 to 2000 to 10.69 inches, with the maximum annual precipitation of 19.04 inches (1980) and minimum at 6.46 inches (1979) for the recent period of record. Most precipitation falls in the month of June (Figure 2-1).

The mean annual temperature of the area is 55.9 degrees Fahrenheit. The highest temperatures occur in July, with a mean temperature of 82 degrees Fahrenheit. The lowest temperatures occur in January, with a mean temperature of 10.1 degrees Fahrenheit (Figure 2).

Vegetation

Riparian vegetation throughout the UCFRB is dominated by cottonwood gallery forests with large amounts of willow species and other shrubs in the understory, especially on the tributary streams. Other species, such as dogwoods and alders, along with sedges, are common in the riparian corridors, and sagebrush, prickly pear cactus, and herbaceous cover are common adjacent to the riparian corridors in the upper basin. Grasslands adjacent to the riparian habitat are characterized by species such as Idaho and rough fescue, bluebunch wheatgrass and western wheatgrass in the project area. Ponderosa pine, Rocky

Mountain juniper and Douglas fir dominate the middle and higher elevation settings and rocky terrain in the upper portion of the project area, leaving large open range conditions between the forested landscape and river / tributary corridor. Further downstream, the conifers are commonly found in the lower elevation settings, as well as the higher elevation settings.

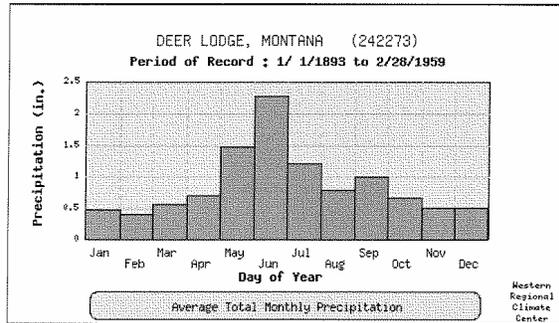


Figure 1. Average Total Monthly Precipitation near Deer Lodge

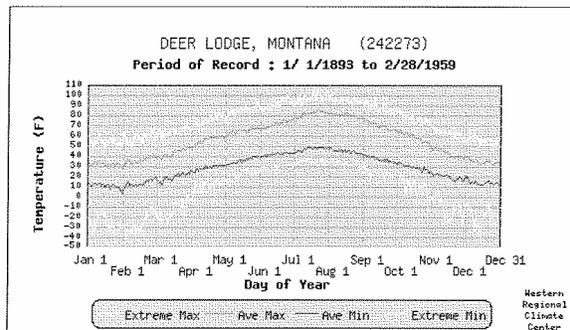


Figure 2. Yearly temperature and precipitation in Deer Lodge

In an assessment that was conducted by the WRC in 2002, nine tributaries were assessed in the Deer Lodge area in 2002 using the same field protocols. Results of the WRC assessment are presented below and support the vast majority of riparian corridors in the project area can be improved. Results clearly demonstrate that improvement in riparian health is needed in the UCFRB.

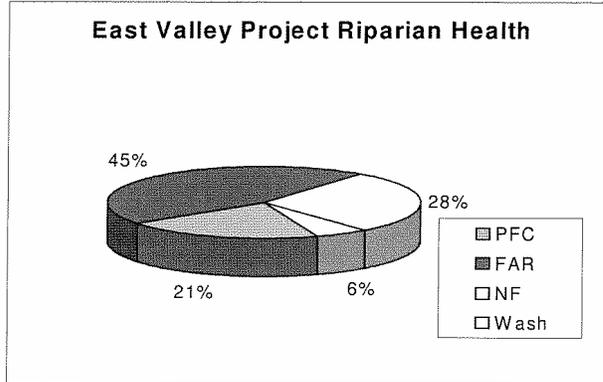


Figure 3. Distribution of riparian functional health categories for inventoried riparian areas on all streams in the East Valley Project, Near Deer Lodge. (PFC = properly functioning condition, FAR = functional at risk, NF= nonfunctional, and Wash = natural absence of riparian corridor). WRC East Valley Watershed Baseline Report dated December 29, 2003.

Air Quality

Air quality is generally very good within the UCFRB. Blowing soil on highly erodible cropland and in mine waste can reduce visibility in isolated cases in the upper basin, and also can be an issue on lands that tilled. Remediation work in the Anaconda area is currently mitigating blowing dust issues that were common in the past. No industrial emissions are present in the project area.

Wildlife

Wildlife resources within the UCFRB are highly varied and economically significant. Montana supports the largest grizzly bear population south of Canada and the largest migratory elk herd in the nation according to http://www.bozemannel.com/hunting/big_game_species.php, <http://www.hedgesoutdoors.com/Hunting.html>, and www.50states.com. Big game species in the project area include moose, elk, mule and white-tailed deer, pronghorn, mountain goat, bighorn sheep, mountain lion, wolves, black bear and grizzly bear. Game birds include the ring-necked pheasant, gray partridge, sharp-tailed/ blue and ruffed grouse and Merriam's turkey. A wide variety of non-game wildlife occur throughout the corridor. Riparian habitat is especially critical for maintaining wildlife species diversity along the Clark Fork River and tributaries, especially for the avian species.

Federally-Listed Threatened and Endangered Species

Montana has fourteen listed fish and wildlife species and three plants on the U.S. Fish and Wildlife Service threatened and endangered species list. Of these, the bull trout, black-footed ferret, bald eagle, Spalding's Catchfly, Ute ladies-tresses, grizzly bear, Canada lynx, and gray wolf could be found within the UCFRB. The westslope cutthroat trout, a species of concern, and the Yellow billed Cuckoo, a candidate species for listing, occur within the basin, along with several other candidate and numerous state-listed species of special concern. Proposed riparian and upland habitat restoration activities under CREP will help prevent listing of these species. The CREP will be a very positive step towards habitat improvement for bull trout restoration and helping keep the westslope cutthroat trout off the threatened and endangered species list.

Section 3 – Agriculture-Related Environmental Impacts

Magnitude of Ag-related Environmental Impacts

The Montana Department of Environmental Quality 303(d) list identifies 60 tributary streams or river segments covering about 838 miles within the UCFRB (Appendix A) as impaired or requiring reassessment, and potentially requiring Total Maximum Daily Load development (TMDL) based on the 2002 303(d) lists.

Agriculture-related causes of impairment include stream channel incision, nutrient enrichment, bank erosion, siltation, streambed sedimentation, riparian and fish habitat degradation/alteration, flow alteration, dewatering and thermal modification. Impacts related to agricultural land use are listed as impacts from grazing, crop cultivation, and flow regulation/modification. The beneficial water uses of most of the streams include aquatic life, cold water fisheries, drinking water, and recreation. The Clark Fork River segments include all these beneficial uses except drinking water.

Livestock grazing practices, absence of best management practices, cropping and haying adjacent to stream banks and stream channelization have, in part, resulted in loss of riparian habitat and water quality impairment. As outlined earlier in pie diagrams, the riparian habitat in the UCFRB is clearly in need of restoration using properly functioning riparian corridor conditions as the desired end point. This CREP proposal could result in dramatic benefits to meet this challenge.

Past and Projected Trends in Agriculture

There is a tendency in Montana toward fewer total farms and ranches and larger average farm and ranch size. Between 1950 and 2003, total farms decreased from 37,200 to 28,000. During the same period, average farm size increased from 1,747 acres to 2,146 acres. Total land in farms and ranches decreased

from 65 million acres to 50.1 million acres. Two factors are primarily responsible for this trend:

1. Increased farm efficiencies resulting from technological advances, economies of scale and consumer demand.
2. The rising value of land for recreation and development purposes. Within the UCFRB, homesites and small recreational acreages have sold for more than \$20,000 per acre. Property taxes increase with land values, which prevents farmers and ranchers from expanding as neighboring land goes up for sale. Many landowners wish to preserve their agricultural way of life and resulting open space but are unable to compete with free market land values. As a result, valuable wildlife habitat is lost to ranchette and suburban development.

There is no indication that the trend toward recreational and suburban development within the UCFRB will slow in the near future. CREP can be a positive force for maintaining open space, water quality and fish and wildlife habitat by providing an economical means for landowners to restore and maintain riparian and other habitats.

Nature of Any Health-Related Agricultural Impacts

Isolated incidents of blowing soil on highly erodible cropland could theoretically represent a minor health hazard for people with respiratory problems. Other than that, agricultural impacts are primarily related to fish and wildlife habitat degradation.

Past, Ongoing and Future Efforts to Address Agricultural Impacts

The following programs and efforts are in place to address agricultural impacts to wildlife habitat and water quality within the UCFRB.

Watershed Restoration Coalition of the Upper Clark Fork & Conservation Districts

Under the WRC's organization framework, four conservation districts have organized to represent natural resource and environmental interests in the UCFRB from the headwaters to Missoula. The WRC advocates grassroots collaboration, education, incentives and voluntary action to conserve resources within the basin. Specific goals are to encourage and promote sound conservation practices, such as best management practices (BMPs), for multiple uses of the river / tributaries and adjoining lands, to facilitate conservation districts' voice in partnerships that affect the river and tributaries, conservation of native range and riparian corridors, improve water quality, to maintain and improve water quantity at critical times and to support bird, fish and wildlife habitat and wildlife programs compatible with agriculture and multiple use.

The WRC is currently very active in implementing three comprehensive watershed scale projects in the UCFRB and one native fishery enhancement project, as well as co-sponsoring this CREP proposal. This entity is currently planning or implementing conservation projects on over 200,000 acres, not including the acreage covered by this CREP proposal. The WRC requests funding from a variety of nonprofit, local, state, and federal agencies. Example funding sources include the Montana Natural Resource Damage Program, Montana Department of Natural Resources and Conservation, and US Environmental Protection Agency.

Natural Resource Damage Program

In 1983, the State of Montana filed its natural resource damage lawsuit against ARCO to recover damages for injuries to the Basin's water, soils, vegetation, fish and wildlife and for the public's lost use and enjoyment of these resources. As part of a 1999 partial settlement, the state received \$215 million, including about \$130 million earmarked to restore or replace the injured resources. The Clark Fork River Operable Unit from Warm Springs to the Milltown Reservoir was not settled and is still subject of litigation.

In early 2000, the State finalized the criteria and procedures for spending the \$130 million. The State established a grant process administered by the Natural Resource Damage Program (NRDP). Under this process, government agencies and private entities and individuals are eligible to apply for funds for projects that will restore or improve the injured natural resources and the recreation opportunities that accompany them, including hunting and fishing. As proposed herein, this state program would provide the majority of the non-federal match required for this proposal via funding of related restoration projects under the regular NRDP grant cycle that are independent of the CREP projects. Technical support cost shared with other entities for CREP implementation will be requested through this program through its grants program.

Clark Fork Coalition

The Clark Fork Coalition was founded in 1985 by local citizens concerned with pulp mill discharge and who have advocated for protection and restoration of the river basin ever since. They took the lead in obtaining Superfund status for the upper basin and helped developed the political muscle to remove Milltown Dam. Over the past few years, the Coalition has broadened its focus to advocate for all aspects of a healthy watershed. Their mission statement has changed from "to protect and restore water quality in the Clark Fork River basin" to the more encompassing "to protect and restore the Clark Fork watershed."

The thirteen-member board includes individuals from a variety of backgrounds including a software engineer, ranch manager, surgeon and an appellate judge for a tribal court.

Kenney Foundation

The Kenney Foundation focuses on a select number of campaigns offering the greatest opportunity to both protect and/or restore key rivers and watersheds, and develop a model for equitable and sustainable water use. In December 2003, the Wm. C. Kenney Foundation selected the Upper Clark Fork River in Montana as its first campaign under the Foundation's strategic plan.

In partnership with the Clark Fork Coalition, the Campaign for the Upper Clark Fork will:

- Ensure exemplary execution of the Superfund cleanup, other government restoration activities and removal of Milltown Dam.
- Initiate and sponsor a long-term economic and cultural restoration plan organized around a sustainable basin-wide vision.
- Create and implement an inclusive campaign and regional focus that supports and responds to the community's social and cultural needs.

The campaign is designed to create a model for conservation work in the region, with on the ground success demonstrating the symbiotic relationship between ecologic, economic and community restoration.

Voluntary Nutrient Reduction Program

In August 1988, the Clark Fork River Voluntary Nutrient Reduction Program (VNRP) was finalized and put into place as an agreement among major parties in the Montana portion of the watershed to significantly reduce nutrient pollution along a 200-mile stretch of the Clark Fork River. The Tri-State Water Quality Council is spearheading the VNRP implementation in partnership with others. The non-profit Council works to carry out the water quality protection measures outlined in the Clark Fork-Pend Oreille Basin Management Plan encompassing western Montana, the Idaho panhandle, and Eastern Washington.

Driven by requirements of the federal Clean Water Act and the immediate need to develop a specific plan of action for reducing nutrient loading, a committee was established to build a foundation for open dialogue and trust as they worked to resolve complex issues and concerns on point and nonpoint source nutrient loading into the Clark Fork River.

The VNRP calls for site-specific measures to be taken by the four major point-source dischargers (Butte, Deer Lodge, and Missoula wastewater treatment facilities and Smufit-Stone Container) and for significant reductions by key non-point sources. Proposed actions in the plan and trends in river water quality will be evaluated every three years during implementation so that revisions can be made if needed.

Upper Clark Fork River Steering Committee

The Upper Clark Fork River Basin Steering Committee represents a large portion of the Clark Fork of the Columbia drainage. This geographic area comprises the mainstem of the Clark Fork River and all tributaries above Milltown dam. This

would include the watersheds of Rock Creek, Flint Creek, Big Blackfoot, and Little Blackfoot Rivers.

The collaborative watershed based planning effort grew out of the looming conflicts that were being developed by the State of Montana's water reservation process in the Clark Fork. Their purpose is to voluntarily negotiate an agreement on water use. Through this process the Committee members and the stakeholders they represented found high value in the Committee as a tool to address problems typically water related and policy related that were not being addressed. In the nearly eight years since the plan's development and after 11 years of operation, the Steering Committee continues to address significant basin issues.

The committee addresses ongoing water management issues. The make up of the committee and its leadership is particularly well adapted to the examination of large-scale water management and water policy issues. Drought planning and inter basin coordination remain of importance.

Montana Partners in Flight

Montana Partners in Flight has identified riparian habitat, particularly cottonwood and shrub communities, as a high conservation priority. They cite that the riparian gallery forests along our major rivers are not only one of our richest bird habitats, with many unique species, but also one of the most threatened habitats in Montana and throughout the West. At least 90 percent of Montana's breeding bird species use riparian habitats during a portion of the year. Over half of these species are dependent on riparian habitats for nesting. Many of these neotropical migrant bird species are experiencing population declines because of habitat loss and degradation both in northern breeding habitats and in Mexican/Central American winter habitats.

Trout Unlimited

Trout Unlimited is implementing the Montana Water project. The mission of the Montana Water Project is simple - keep enough water in Montana rivers and streams to protect and improve Montana's trout fisheries. They use a broad spectrum of tools to accomplish this mission-leasing water rights from willing irrigators, monitoring streams with instream flow protections in place to protect against encroachments by new uses, working for dam operations that will ensure fisheries flows, working with watershed groups to improve stream flows while accommodating local uses, and when necessary, going to court to advocate for instream flows.

For the past year, Trout Unlimited, under an agreement with Atlantic Richfield Company, has taken the lead in calling for water stored in Silver Lake to maintain streamflows in Warm Springs Creek, a key spawning tributary on the upper Clark Fork that has historically suffered from dewatering. This year, the Montana Water Project developed and executed a pilot reservoir operations model for optimal

streamflow restoration. In addition, Trout Unlimited's fisheries and hydrological consultants gathered data to further enhance future flow restoration efforts on Warm Springs Creek and the upper Clark Fork.

Comprehensive Nutrient Management Planning and Conservation Planning

The NRCS has initiated efforts to provide Comprehensive Nutrient Management Planning assistance to producers with animal feeding operations for control of point and non-point source pollution. The NRCS is currently actively working on moving a number of animal feeding operations and concentrated animal feeding operations off the Clark Fork River and its tributaries. In addition, the NRCS is involved with providing technical support and cost share to producers for host of conservation and agriculture management improvement ranging from off-stream development, prescribed grazing plans, weed management, water conservation, and range improvements.

TMDL and Development of Water Quality Restoration Plan

The 1972 Federal Clean Water Act requires states to develop Total Maximum Daily Loads (TMDLs) that set limits on point and nonpoint source pollution loading to water quality-limited waterbodies. Voluntary cooperation by all affected parties in a watershed has been the preferred method of TMDL development and implementation in Montana. Watershed groups are actively organizing to meet Clean Water Act requirements, including the WRC. Montana legislation requires the Department of Environmental Quality to complete TMDLs for all water quality-limited waterbodies by 2012 and develop voluntary control measures for nonpoint source pollution. Sixty waterbodies are listed on the 2002 Montana 303(d) list for the UCFRB as being potentially impaired (Appendix A). Local and state agency efforts are underway to ensure these streams and rivers are properly addressed under the Clean Water Act. Programs such as Section 319 grants and the Environmental Protection Agency Watershed Initiative Programs are being used to assess streams, implement BMPs, and monitor improvements.

Future Fisheries Improvement Program and Montana Fish, Wildlife and Parks

The Future Fisheries Improvement Program, funded by the sale of Montana fishing licenses, provides funding for restoration of essential habitats for the growth and propagation of wild fish populations in lakes, rivers and streams. Funds from this program may be used to restore or protect naturally functioning stream channels, banks or riparian areas. About \$750,000 are spent statewide annually for stream and lake fish habitat enhancement projects. A citizen review panel evaluates applications. The Montana Department of Fish, Wildlife and Parks administers the program. The agency is active in the UCFRB on a number of stream and fishery restoration projects tributary to the Clark Fork River. The FWP is an ad hoc participant in the UCFRB CREP

Upland Game Bird Habitat Enhancement Program

Montana Fish, Wildlife and Parks administers this program designed to give private landowners an opportunity to restore and enhance upland game bird habitat at little or no cost to themselves. About \$800,000 is available annually for habitat work which includes riparian and native prairie restoration and enhancement. Landowners participating in the program are required to allow reasonable public access for upland game bird hunting.

Habitat Montana (HB 526)

This program, administered by Montana Fish, Wildlife and Parks, provides about \$2.8 million annually for the protection and management of native prairie and riparian habitat. HB 526 funds are used to purchase conservation easements and to facilitate sound management of sagebrush grasslands, intermountain grasslands and riparian areas.

Migratory Waterfowl Stamp Program

The Migratory Waterfowl Stamp Program provides funds for the protection, conservation and development of wetland habitat. About \$130,000 per year are available for projects, which may include development of native cover for ground-nesting birds. Project proposals are reviewed by a Wetland Protection Advisory Council, established by the administering agency, Montana Fish, Wildlife and Parks.

Section 4 – Project Objectives

Project Goals:

- 1) Restoration and enhancement of riparian, fishery / avian habitat and water quality within the project area through a partnership with WRC, federal and state agencies, non-profits and private landowners. (Riparian buffers will be established with species native to the site: i.e. cottonwood/ willow gallery forest and/or other overstory with species such as red osier dogwood in the understory).
- 2) Restoration of native prairie / range within the project area

Project Objectives:

By 2016, increase enrollment in the CRP within the project area by 10,082 acres through the establishment of:
6,695 acres of riparian buffers
2,387 acres of native wildlife habitat
1,000 acres of wetland restoration
Associated fencing, off-stream livestock water, seeding, & BMPs

The benefits of the UCFRB CREP include:

1. Restoration and enhancement of riparian, fishery / avian habitat and water quality within the project area.

Riparian habitat restoration under CREP and associated Natural Resource Damage Program restoration projects will help recover candidate species and species of special concern such as bull trout and westslope cutthroat trout. Reestablishment of cottonwood-willow gallery forests will provide in-stream woody material critical for fish habitat structure and macroinvertebrate substrate. Riparian woodlands will also help trap sediment associated with spring flushing flows planned as part of habitat restoration efforts. Resulting sand and gravel bars will provide additional substrate for cottonwood and willow establishment and, potentially, nesting habitat for the endangered avian species. Riparian and native upland prairie restoration will provide critical breeding and migration habitat for numerous neotropical migratory bird species, as well as habitat for large ungulates.

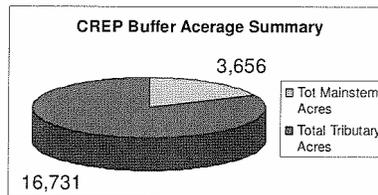
2. Native prairie/range habitat restoration within the project area.

Neotropical migratory birds dependent on riparian and grassland/shrubland habitat have been experiencing significant population declines in recent years. These species, as well as a number of native fish species, will benefit from the proposed habitat restoration partnership as highly erodible cropland is seeded to native vegetation.

Section 5 – Project Description

Overview

The UCFRB CREP project encompasses 1700 miles of Clark Fork River and tributary corridor perennial streams on private lands, as well as highly erodible lands (HEL) upland acres, for a total of about 7,234 private land acres eligible for retirement. Using the cost estimate assumptions, total eligible buffer acreages are projected at 20,388 acres as show below. The estimated enrolled acreage is based on an average 180 to 80-foot wide buffer for each side of the river / stream corridor depending on the size of the waterbody. Total size of the UCFRB is over 2.3 million acres and the actual size of each buffer may be significantly smaller or larger, depending on stream corridor conditions.



The CREP project area would not include the riparian corridors that have been impacted by historical mining and will be addressed through the planned Superfund remediation and restoration efforts. Those areas mainly include the mainstem of the Clark Fork River between Warm Springs Ponds and Garrison Junction, and portions of Warm Springs Creek, Mill Creek, and Willow Creek that are contaminated with mine tailings. These areas are excluded from the CREP proposal because they will be remediated and restored under a separate program through the U.S. EPA's remediation process and the Natural Resource Damage Program's restoration process.

The CREP project is a proposed partnership between four Montana conservation districts (Mile High, Deer Lodge, Granite, and Missoula) under the WRC, the Farm Services Agency, the Natural Resources Conservation Service and numerous state and federal agencies and NGOs.

Montana's UCFRB CREP is designed to maximize the opportunity to leverage federal, private (landowners and non-government organizations (NGO)), and state dollars to achieve cost effective riparian, in-stream and upland habitat restoration and enhancement within the UCFRB corridor. The primary resource concern is the degradation of riparian habitat / flood plain as a result of historic mining practices affecting Silver Bow Creek and Clark Fork River, as well as, the impact of grazing, cropping and haying along the river and tributary streambanks.

The program complements the efforts of agricultural organizations and others seeking to provide environmental enhancement activities within the UCFRB as outlined local watershed restoration plans as well as the nationally recognized programs such as the Lewis and Clark Bicentennial observance. The project area corresponds to Natural Resource Damage Program existing project area in which five to seven million dollars are allocated annually in the basin for fish and wildlife habitat restoration and enhancement work. We propose that an additional \$3 million for water quality monitoring, planning, and implementation that will be spent over the next decade in the basin from other private, local government, state, and federal sources. CREP funding for riparian, wetland and upland habitat restoration will be matched with Natural Resource Damage Program (and other partner) dollars available for riparian and instream habitat work as well as monitoring of fish and wildlife response to the restoration effort.

CRP Conservation Practices to be Adopted

Montana's UCFRB CREP will target the following habitats to achieve restoration goals:

- Riparian woody and understory habitat
- Upland native grassland/shrubland habitat
- Wetland Restoration

Implementation of conservation practices will be consistent with CRP rules and guidelines and CREP policies established by the State Technical Committee. Following is a description of the proposed conservation practices.

Riparian Habitat / Marginal Pastureland

Riparian buffers will be installed according to NRCS Practice Standard 391, Riparian Forest Buffer, and the associated General Specification. Filter strips, if necessary to protect the riparian buffer will be established according to Practice Standard 393, Filter Strip (see costs estimate for a completed listing). Native riparian shrub and tree species will be used for all practices. Buffer width will be determined by local site conditions and landowner objectives. Eligible CRP practices to achieve riparian habitat restoration include, but are not limited to CP21 (Filter strips), CP22 (Riparian Buffer), CP29 (Wildlife Habitat Buffer - Marginal Pastureland), and CP10 (Vegetative Cover - Grass Already Established). USDA will pay 50 percent of the establishment cost, as well as project incentive payment at 40 percent. Landowners and other partners may contribute part or all of the remaining establishment costs. All of the appropriate technical practice code will apply to the CRP practices.

Riparian buffer establishment is the key practice for the Montana UCFRB CREP. Riparian buffers are critical for filtering runoff to maintain and improve water quality and to restore essential wildlife and fishery habitat lost to agricultural practices and impacts from historic mining operations post Superfund Cleanup.

Upland Habitat / Cropped Lands

Many wildlife species depend on both riparian and upland habitats to meet total habitat needs. Highly erodible cropland (HEL) within the UCFRB will be eligible for establishment of native herbaceous and woody vegetation as appropriate. No CRP maintenance treatments will be permitted during the primary nesting season to enhance nesting success for grassland dependent birds. Preference will be given to fields larger than 40 acres to maximize benefits to ground nesting birds. Seeding will be established according to NRCS Practice Standard 550, Range Seeding and Practice Standard 643, Restoration and Management of Declining Habitats (see cost estimate for a complete listing). Eligible CRP practices will include, but are not limited to CP2 (Establishment of Permanent Native Grasses), CP4D (Permanent Wildlife Habitat), CP5 (Field Windbreak Establishment), CP10 (Vegetative Cover - Grass Already Established), CP16 (Shelterbelt Establishment), and CP25 (Rare and Declining Habitat). USDA will cost share 50 percent of the cost of establishment and other partners will cost share part or all of the remaining establishment costs. All of the appropriate technical practice code will apply to the CRP practices.

Wetland Restoration and Creation

Wetland restoration and creation will be done according to NRCS Practice Standards 657, Wetland Restoration and 658, Wetland Creation (see cost estimate for a complete listing). The emphasis will be on developing and

restoring shallow water habitat for wildlife. Eligible CRP practices will include, but are not limited to CP9 (Shallow Water Areas for Wildlife), CP23 (Wetland Restoration), and CP-30 (Wetland Buffer - Marginal Pastureland).

Weeds

Weed must be controlled in the lands retired. A part of this integrated weed management is proposed to control the spread of noxious weeds in these areas including but not limited to spotted knapweed, leafy spurge, Canadian thistle, and hounds tongue. A pilot program will be spearhead by the WRC to use innovative and safe biologic controls including insects and short-duration sheep / goat grazing, as well as traditional chemical application per manufacture specifications, as outlined in the detailed cost estimate.

Acres Proposed to be Contracted in the CREP Agreement

Target acreages for habitat restoration are:

| | |
|---------------------------------------|-------------|
| Riparian buffers: | 6,695 acres |
| Native grassland / shrubland seeding: | 2,387 acres |
| Wetland restoration: | 1,000 acres |

Length of Time for Project Implementation

Montana's CREP will be a continuous signup, closing with the end of the current farm bill. If CREP is extended in the next farm bill, Montana's CREP will take signups for remaining years so that the project can take advantage of the full range of matching funds available from Natural Resource Damage Program and other sources.

Analysis of the Likelihood that Project Objectives will be Met

The Montana UCFRB CREP has multi-organization support, which assures adequate matching funds and technical assistance available for on-the-ground project implementation. The proposal includes rental rates and incentives adequate to attract landowners to the program. Rates are based on thorough opportunity cost analysis, comparison of CREP in similar settings in other locations, and interviews with eligible landowners. Communication with conservation districts, FSA County Committees and individual landowners has provided a good indication of landowner support and interest in the UCFRB CREP.

Interagency Coordination

The UCFRB CREP interdisciplinary/intergovernmental planning team will draw upon a much larger work group for proposal development and implementation. Input will be solicited from the following agencies and private organizations: Montana Governor's Office, Montana Natural Resource Damage Program,

Montana Department of Environmental Quality, Montana Department of Agriculture, Montana Department of Transportation, Five Valleys Land Trust, Conservation Fund, Montana Natural Heritage Program, individual conservation districts, Montana Stockgrowers Association, Montana Graingrowers, Montana Farm Bureau, Montana Audubon, Pheasants Forever, Ducks Unlimited, American Bird Conservation Initiative, Partners in Flight, Trout Unlimited, National Wildlife Federation, Rocky Mountain Elk Foundation, American Rivers, The Nature Conservancy, Montana Land Reliance, River Network and Montana Upland Game Bird Association.

The UCFRB CREP interdisciplinary/intergovernmental planning team includes representatives from the following agencies and organizations:

U.S. Farm Services Agency
Montana Department of Natural Resources and Conservation
Montana Natural Resource Damage Program
Montana Department of Fish, Wildlife and Parks
Montana Association of Conservation Districts
Local Conservation Districts:
-Deer Lodge Conservation District
-Granite Conservation District
-Missoula Conservation District
-Mile High Conservation District
U.S. Natural Resources Conservation Service
U.S. Fish and Wildlife Service
US Forest Service

Ad Hoc Representatives

Montana Department of Environmental Quality
Montana Bureau of Mines and Geology
The Conservation Fund
Clark Fork Coalition
Tri-states Water Quality Council (TSWQC) VNRP
Five Valleys Land Trust
Landowner Don Ueland
University of Montana
Upper Clark Fork River Steering Committee (UCFRSC)

The Montana Department of Natural Resources and Conservation, in cooperation with FSA and NRCS, will continue to coordinate proposal development and implementation of the UCFRB CREP project. The USDA Farm Services Agency, Natural Resources Conservation Service and local conservation districts, through the WRC, will receive CREP applications from landowners interested in CREP sign up. The WRC will provide technical support services to prepare conservation plans which will then be submitted to the WRC's

Technical Advisory Committee (TAC) and other project partners for technical support and potential matching funding if needed.

Conservation districts and FSA County Committees will play a key role in the success of Montana's UCFRB CREP. Familiarity with local resources and an existing relationship with private landowners make conservation districts and FSA County Committees invaluable for conservation planning and public relations. CD supervisors will interact with the WRC's TAC to help put together appropriate partnerships for habitat restoration projects.

Summary of the Application Process

1. FSA county offices receive CREP signup requests
2. WRC technical support staff, NRCS staff, and other partners determine eligibility and develop conservation plans
3. CREP proposals are submitted to WRC TAC and other partners for agreements

Section 6 – Cost Analysis

CREP funding will be used primarily to restore riparian and wetland habitat and, secondarily, to seed highly erodible cropland to native grasses and shrubs. The Montana Natural Resource Damage Program, per existing and future commitments that are related to but independent of CREP activities, along with other funding sources, will participate in restoration projects. The WRC will fund public outreach and all entities will participate in extensive monitoring efforts. No CREP costs are proposed on stream reaches on Silver Bow Creek, the Clark Fork River, and other tributaries that are identified for cleanup under the EPA / MDEQ cleanup program.

The following table summarizes estimated expenditures for the UCFRB CREP:

Table 2. Cost Summary (see also the detailed cost in Appendices)

| Program Components | USDA Expenditure | Natural Resource Damage Program* | Other Non-Federal Expenditures | Total Program Expenditures |
|--------------------------------------|---------------------|----------------------------------|--------------------------------|----------------------------|
| CREP Land Rental Payments | \$29,098,692 | \$0 | \$0 | \$29,098,692 |
| Habitat Restoration & Improvements | \$9,678,628 | \$8,570,441 | \$1,798,768 | \$20,047,838 |
| Public Outreach/Technical Assistance | \$0 | \$2,000,000 | \$950,000 | \$2,950,000 |
| Monitoring/Reporting | \$0 | \$500,000 | \$500,000 | \$1,000,000 |
| Total | \$38,777,320 | \$11,070,441 | \$3,248,768 | \$53,096,529 |
| % Total Cost | 73% | 21% | 6% | 100% |

*NRDP costs will provide this minimum match. Actual match based on estimates of NRDP funds that will be spent on restoration projects independent of CREP is estimated to be closer to \$5,000,000 to \$7,000,000 per year during the 10-year CREP project, or \$50,000,000 to \$70,000,000.

Itemization of Non-Federal Costs

Habitat Restoration and Monitoring

Watershed Restoration Coalition of the Upper Clark Fork

The WRC spends about \$180,000 per year on habitat restoration and monitoring activities. Of this, an estimated \$ 90,000 is assumed available annually, on average, as match for habitat restoration and monitoring in the UCFRB, or \$900,000, over a 10-year period. Example projects include riparian and upland habitat restoration, moving feedlots away from waters of the state, water efficiency projects, grazing system development, wetland restoration and in-stream fisheries work, watershed assessments and long-term monitoring. The WRC will also apply for funding through a variety of federal and nonfederal funding sources to provide outreach services and cost-share technical support with the NRCS for CREP implementation.

Natural Resource Damage Program

As proposed, the Natural Resource Damage Program would contribute matching funds by funding restoration projects that are independent of the CREP projects over the 10 year CREP period for \$8,570,441, or a little less than \$1,000,000 per year. In the past four years, the Governor has approved about \$6 million per year on restoration grant projects. Thus, we have conservatively predicted that, through the existing NRPP grant process, \$8.5 million would be dedicated to projects that will improve aquatic, riparian, and upland habitat and water quality in the Basin. While it is anticipated that the Governor will approve substantially more NRD funds for restoration in the Basin in the next ten years; this potential additional match will not be tracked past the proposed match of \$8.5 million. In addition, the NRDP will be funding significant monitoring of the Basin's resources over the life of the project.

Landowners

The landowners will cost share the restoration project funded by UCFRB CREP at ten percent or \$898,768 for the CREP related restoration and improvement funds.

Technical Assistance and Public Outreach

Watershed Restoration Coalition of the Upper Clark Fork

WRC will commit 0.25 staff years (valued @ \$30,000) annually to the public outreach and technical assistance work for a total of \$300,000 for the 10-year project.

Natural Resource Damage Program

We also propose to use the funds the NRDP expends to administer and implement its restoration projects in the Basin as a match. The NRDP spends about \$200,000 per year in staff efforts dedicated to restoration activities in the Basin, thus their contribution to this effort is estimated at \$2 million over the life of the project. The WRC will submit a funding request to the NRDP to cost share technical support services for CREP implementation through their annual long form grant funding program.

Clark Fork Coalition

Clark Fork Coalition will commit .25 staff years (valued @ \$30,000) annually to the public outreach and technical assistance work for a total of \$300,000 for the 10-year project.

Montana Department of Natural Resources and Conservation

Montana DNRC estimates that .5 staff years (valued at \$30,000) will be required annually to assist conservation districts with the CREP effort. This equates to \$300,000 over the life of the project. The WRC will submit a funding request to the DNRC to cost share technical support services for CREP implementation through their bi-annual grant funding program.

Conservation Districts

Each of the four conservation districts within the UCFRB will require an estimated 0.10 staff years (\$5,000 per staff year total all conservation districts) annually to conduct public outreach and conservation planning activities associated with the Montana CREP. This will contribute \$50,000 over the ten-year effort (this includes estimated staff years of CD employees and supervisors as well as equipment and expenses).

Other Non-Federal Sources

In addition to the above agencies and groups, the following will be contacted as potential sources of project, monitoring, technical assistance and public outreach funds and technical assistance: Montana Department of Environmental Quality,

Tri-State Water Quality Council VNRP, Montana Department of Agriculture, Montana Department of Transportation, Montana Natural Heritage Program, Montana Audubon, Pheasants Forever, Ducks Unlimited, American Bird Conservation Initiative, Partners in Flight, Trout Unlimited, Walleyes Unlimited, National Wildlife Federation, Rocky Mountain Elk Foundation, The Nature Conservancy, Montana Land Reliance, River Network and Montana Upland Game Bird Association.

Sources of potential federal CREP partnerships include the US Forest Service, US Environmental Protection Agency, Bureau of Land Management, Bureau of Reclamation, Army Corps of Engineers and U.S. Fish and Wildlife Service.

Justification for Incentive Payments

Three methods were evaluated to determine what the payment to participants should be. These include opportunity costs foregone, producer's willingness to participate, and similar costs for other approved CREP projects.

Costs and returns for irrigated / sub-irrigated land cattle production was calculated for the Clark Fork River and tributaries. Prices for products sold were based on \$1.00 per pound selling price, which is conservatively low, based on 2004 selling prices. Typical weight gain for livestock ranges from 1.75 to 2.2 pounds per day over the 150 days of irrigated / sub-irrigated grass production season, which extrapolates to about 250 to 330 pounds over the growing season. Each animal is calculated to have an increased value of \$115.94 and each acre of irrigated / sub irrigated ground should support 2 calves. Total value of the acre of irrigated and sub-irrigated acre has a net value of \$660 per acre minus improvements, labor, and other operation costs (fixed and variable). These costs are \$214 per head or \$428 per riparian acre.

Returns for irrigated / sub-irrigated land are estimated to yield \$225 to \$275 per acre as irrigated / sub-irrigated pasture once operational costs are considered. An economic analysis was completed and included in to support a rental rate of \$250/ac per year (Appendix C). If the land were used solely for hay production, the returns would be \$200 per acre. This does not include costs of hauling replacement hay to the operation. Dry land crop returns were also calculated in a similar way. The returns were \$18.00 per acre.

Producers were interviewed in the proposed CREP area to determine what rental rate would be required to entice them to participate. The current dry land rental rate under continuous CRP ranges from \$30 to \$44 per acre. There has been little interest given that rental rate. Producers feel that a rental rate of \$50 per acre is needed for Highly Erodible Cropland and \$250 per acre is needed for irrigated or sub irrigated land (riparian buffers). The \$50 per acre rate for highly erodible cropland and the \$250 per acre rate for irrigated and sub-irrigated are the proposed rental rates. Note that \$250 per acre rate is actually a \$125 rental

rate and 100% incentive payment totaling \$250 per acre. These rates will apply throughout the UCFRB.

A cost comparison of approved CREP projects was completed to help determine if the proposed western Montana rental rates are reasonable. Comparisons were made for multiple locations where CREP cost information could be easily analyzed (Appendix A). The Montana Missouri and Madison River Corridor (MMRC) approved CREP for eastern Montana (\$150 / acre riparian buffers and \$50 / acre HEL) and the Washington statewide CREP (\$113 to \$284 per acre on average) have merit in this analysis (Table 3). In general, the cost comparison analysis supports the proposed rental rates for the UCFRB. In particular, Western Washington rental rates are similar to the proposed western Montana rates for the UCFRB although Washington rental rates are on average about 12% higher.

Cost Analysis

The Montana UCFRB CREP will enhance an on-going effort to restore riparian and fisheries habitat, as well as water quality, within the basin by giving private landowners an economically attractive tool for implementing conservation plans. Current efforts under the CRP Continuous Sign-up have proven ineffective because rental rates and incentives are not competitive with other alternatives.

Recreational property values in parts of the UCFRB top \$20,000 per acre emphasizing the need for attractive incentives for CREP participation. CREP payments, described above, will offer a market-based alternative intended to persuade landowners to enter the program to have demonstration projects that show how to protect land and conserve natural resources that preserve the natural heritage of the UCFRB.

The long-established relationship between NRCS/FSA and WRC with landowners, combined with CREP payments, will result in more habitat restoration on the ground than possible under existing efforts alone. Leveraging CREP on already existing Natural Resource Damage Program dollars, and other sources of matching funds, will allow a complete program of habitat restoration, including an extensive monitoring effort.

Section 7 – Monitoring Program

Methods

Monitoring the success of the Montana UCFRB CREP will involve a multi-organizational effort funded, primarily by WRC, Natural Resource Damage Program, Montana Department of Environmental Quality, and US Environmental Protection Agency working on Silver Bow Creek and the Clark Fork River. Environmental Protection Agency monitoring responsibilities are detailed in

Appendix B, where WRC and Natural Resource Damage Program monitoring is completed on a project by project basis as they are implemented.

The State CREP Working Group and WRC TAC will submit annual reports including the number of acres treated by CREP conservation practices, federal, state and private cost-share funds expended and total rental payments made.

These reports will be submitted to FSA National Headquarters through FSA's Montana State Office.

Monitoring Responsibilities

NRCS and / or WRC will conduct annual status reviews of all CREP contracts throughout the establishment period. Practices failing to establish will be re-applied. Part of this effort will involve establishing permanent photopoints on riparian buffer projects to monitor the success and time frame associated with putting this practice on the ground.

The US Environmental Protection Agency, Natural Resource Damage Program, in collaboration with the multi-agency TAC will monitor water quality, aquatic life, and fish and wildlife population response to habitat restoration activities along the mainstem of Silver Bow Creek and the Clark Fork River. The WRC and TAC are committed to update monitoring plans every three years as part of UCFRB CREP. Effects of all projects on threatened and endangered species and species of special concern will be emphasized in the monitoring effort.

Table 3. Analysis of Washington State Approved CREP Costs for Eastern and Western Districts

| WA District | Contracts | Total Acres | Acres Per Contract | Miles | Average Width - feet | Average Rental Rate | Total Rent Per Year |
|---------------|------------|---------------|--------------------|---------------|----------------------|---------------------|---------------------|
| Asotin | 26 | 1095.5 | 42.13 | 55.07 | 167.63 | \$89 | \$105,157 |
| Chelan | 2 | 4.5 | 2.25 | 0.45 | 83.9 | \$61 | \$275 |
| Clark | 4 | 52.4 | 13.1 | 3.56 | 118.61 | \$145 | \$8,201 |
| Clallam | 6 | 34.5 | 5.75 | 1.89 | 155.22 | \$165 | \$5,197 |
| Columbia | 58 | 1426.7 | 24.6 | 70.47 | 164.66 | \$122 | \$167,730 |
| Cowlitz | 2 | 14.8 | 7.4 | 0.77 | 158.94 | \$167 | \$2,427 |
| Garfield | 47 | 950.3 | 20.22 | 71.2 | 117.02 | \$114 | \$104,671 |
| Grays Harbor | 6 | 50.2 | 8.37 | 3.05 | 138.47 | \$204 | \$9,914 |
| Jefferson | 12 | 108 | 9 | 6.57 | 134.87 | \$218 | \$23,786 |
| King | 3 | 34.9 | 11.63 | 1.59 | 181.36 | \$281 | \$11,617 |
| Kitsap | 1 | 5 | 5 | 0.43 | 95.65 | \$200 | \$998 |
| Klickitat | 3 | 30.5 | 10.17 | 2.33 | 116.24 | \$111 | \$3,548 |
| Lewis | 19 | 470.1 | 24.74 | 25.85 | 154.35 | \$201 | \$95,369 |
| Mason | 6 | 37.3 | 6.22 | 1.82 | 161.88 | \$190 | \$7,150 |
| Okanogan | 8 | 33.9 | 4.24 | 2.4 | 104.95 | \$85 | \$2,670 |
| Pacific | 5 | 100.2 | 20.04 | 4.35 | 182.66 | \$211 | \$22,002 |
| Pierce | 2 | 3 | 1.5 | 0.17 | 144.47 | \$337 | \$997 |
| Skagit | 68 | 459.6 | 6.76 | 26.41 | 144.84 | \$275 | \$123,258 |
| Snohomish | 7 | 82.2 | 11.74 | 4.64 | 139.73 | \$221 | \$17,151 |
| Thurston | 4 | 21.4 | 5.35 | 1.36 | 121.98 | \$220 | \$4,739 |
| Underwood | 1 | 17 | 17 | 0.78 | 180 | \$110 | \$1,870 |
| Wahkiakum | 5 | 87.6 | 17.52 | 4.5 | 147.73 | \$217 | \$18,730 |
| Walla Walla | 81 | 1707.2 | 21.08 | 89.33 | 155.45 | \$115 | \$197,472 |
| Whatcom | 107 | 1114.1 | 10.41 | 64.25 | 144.47 | \$350 | \$389,059 |
| Yakima | 4 | 158.9 | 39.73 | 8.01 | 153.65 | \$105 | \$17,610 |
| TOTALS | 487 | 8099.8 | 16.63 | 451.26 | 146.99 | \$204 | \$1,341,597 |
| Eastern WA | 229 | 5407.5 | 23.61 | 299.25 | 148.34 | \$113 | \$599,133 |
| Western WA | 258 | 2692.3 | 10.44 | 152.01 | 145.78 | \$284 | \$742,433 |
| | | | | | Avg. East & West | \$189 | |

Annual Reports

The WRC, in collaboration with the WRC TAC, will prepare annual monitoring reports for water quality and fish and wildlife response to habitat activities starting on the third year of CREP implementation and extending through at least the tenth year. The State CREP Working Group and WRC TAC will submit annual reports as per "Methods" above. NRCS and WRC will prepare annual status reports for all CREP practices throughout the establishment period.

Adaptive Project Management

The WRC TAC support services are predicated on the concept of adaptive management. Results of habitat restoration activities will be used to modify future methods as improved technologies in fisheries, wildlife and water quality science become available. NRCS, in collaboration with FSA and WRC, will use the results of annual CREP status reviews to modify methods of practice and implementation as necessary.

Section 8 – Public Outreach and Support

The WRC, local conservation districts and FSA County Committees will take the lead in public outreach for the UCFRB CREP. The WRC will sponsor public listening sessions to educate landowners about the program. The Conservation Districts Bureau of the Conservation and Resource and Development Division, DNRC, will provide support to the WRC and districts. Montana's FSA and NRCS Public Affairs Specialists will assist with preparation of news releases for local newspapers and Clark Fork Coalition, a non-profit conservation organization dedicated to protecting and restoring rivers, will assist with outreach to individual landowners.

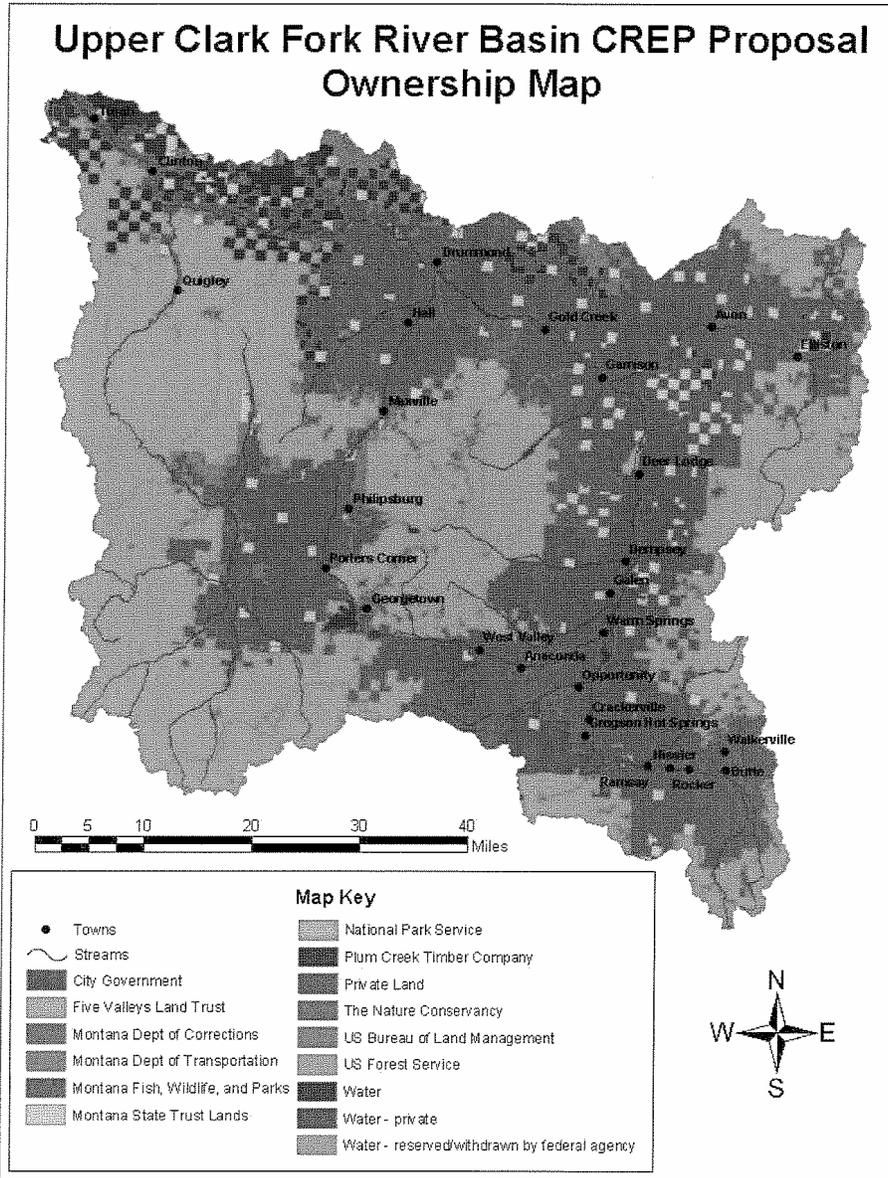
Montana's Department of Environmental Quality is active in educating landowners about voluntary Best Management Practices for meeting Clean Water Act mandated TMDLs. Buffer practices available through CREP will be an important component of this effort. Also, as cleanup and restoration on Silver Bow Creek and the Clark Fork River move forward, buffer practices available through CREP for tributary streams and other areas not subject to Superfund remediation will be important to enhance cleanup efforts and aid restoration projects the Natural Resource Damage Program, U.S. Environmental Protection Agency, and Montana Department of Environmental Quality are working on over the next 10 years on the mainstem of Silver Bow Creek and Clark Fork River.

Section 9 – Compliance with Other Laws

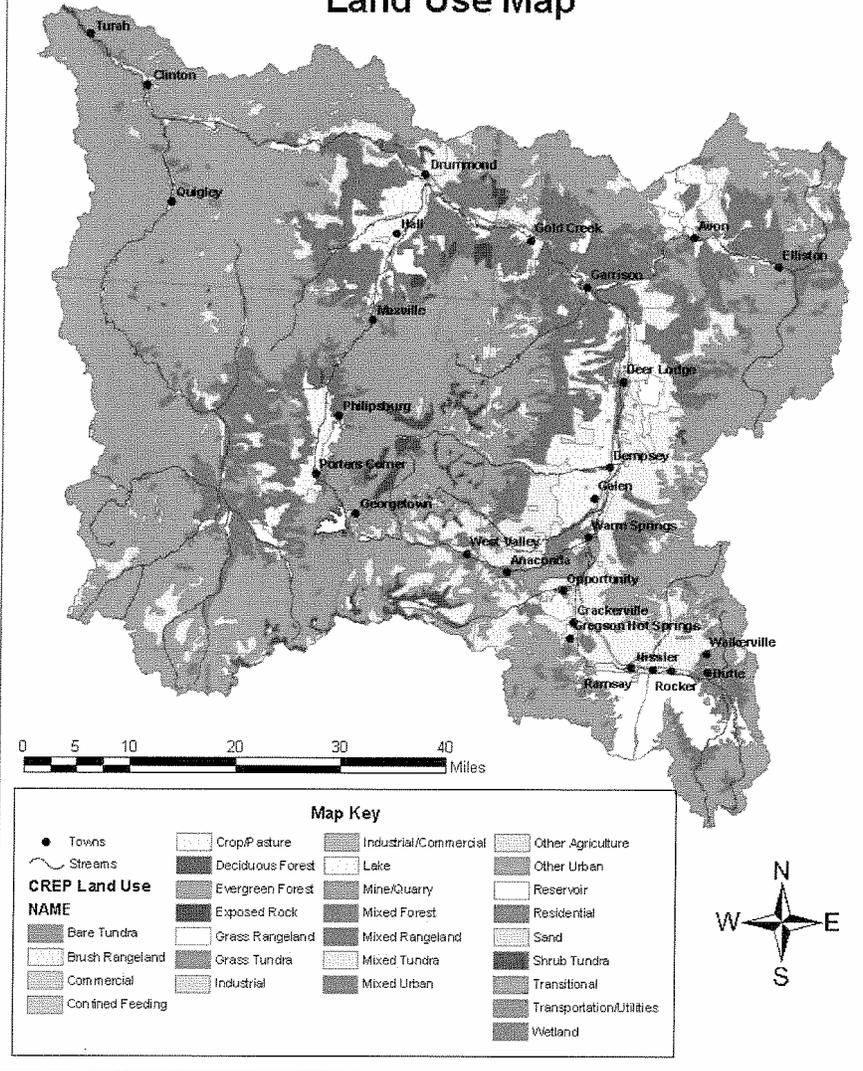
Montana CREP procedures will comply with all relevant state and federal laws including the Federal Power Act, National Environmental Policy Act, the Montana Natural Streambed and Land Preservation Act and the Clean Water Act, Section 404.

Appendix A Maps

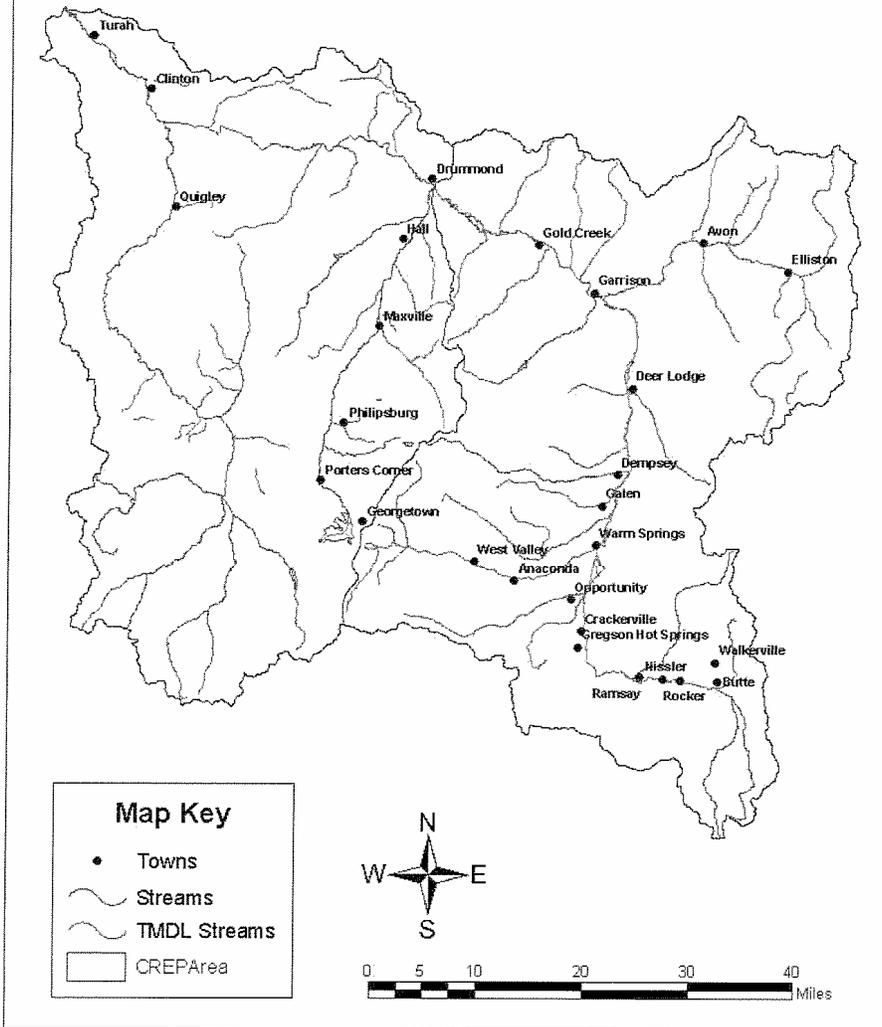
Upper Clark Fork River Basin CREP Proposal Ownership Map



Upper Clark Fork River Basin CREP Proposal Land Use Map



Upper Clark Fork River Basin CREP Proposal Impaired Streams



Appendix B Upper Clark Fork River and Tributary Monitoring

Appendix C Economic Analysis, Supporting Studies and Reports

***CREP Comments
June 3, 2004 Version***

Comments from USFWS

1. How did you come up with the acreage proposed for contract? I'd be especially interested in the 1000 acres of wetlands restoration proposed?

Response: Total retirement acres are based on making assumptions similar to the Madison Missouri River Corridor (MMRC) CREP. The total number of private stream miles is assigned a percentage for eligibility in CREP (e.g., impaired riparian corridor) and also a percentage of how many landowners that are eligible will participate in the program. The CREP cost estimate spreadsheet works through an alternative analysis similar to the MMRC application where the percentages are adjusted. As for the 1,000 acres of wetlands, this was proposed based on the MMRC proposing 1,000 acres of wetland restoration.

2. Page 17, project goals 1) line 6. I'm not sure that riparian buffers should include green ash/box elder. I've never seen them along the river or tribs.

Response: Agreed. Native woody species will be targeted.

3. Page 24, landowners, I interpret the 10% to be of only the actual Habitat Restoration and Improvements row of USDA expenditures in Table 3. If so, shouldn't the amount be \$781,163?

Response: No correction needed. \$781,163 is from landowners, \$900,000 is from the WRC, and \$100,000 is from the FWP.

Comments from the Conservation Fund

1. I believe the Lewis and Clark Bicentennial is overemphasized. I suggest it should not even be mentioned at all. I might be wrong, but as far as I know, the LC Expedition were only on the Clark Fork from the Missoula area up to big Blackfoot River, at which point they went up the Blackfoot. So I just don't see any LC tie here.

Response: Agreed.

2. Was there really salmon in Clark Fork at one time?

Response: According to TU, yes they did.

3. I know you are not trying to emphasize the mining stuff. But in the history section, it might help to mention in 1-2 sentences the Butte mining history.

Response: Agreed.

4. Warm Springs was capitalized in most places, but not one. Can't remember where. Maybe do global check.

Response: Agreed.

5. Are there really 28 FWP sites in the basin. The way it reads, it sounds like there are 28 sites along the rivers and tributaries.

Response: The FWP web site was searched and its for the mainstem and tributaries.

6. Page 5. First line. Change "then" to "than".

Response: Agreed

7. In Land Use section it says this CREP is in four counties. Are the four counties listed anywhere in application?

Response: They will be listed.

8. Land Use. It is confusing, as there are two pieces of information. The Table and the pie chart, and the land types are not the same. The Table seems a little odd, as it lists stuff like tundra. I don't think anyone would consider the clark fork basin as having tundra. I would just stick with pie chart.

Response: Agreed. FYI, high alpine conditions in the Flint Creek Mountains support tundra vegetation.

9. Page 7. It is prickly "pear" cactus.

Response: Agreed.

10. Page 10. Black footed ferret have potential to be here?

Response: According to the web search, yes the black footed ferret has the potential to be in the project area. If a wildlife expert can be found, they could provide better information.

11. Page 11. Move the Partners in Flight discussion under agriculture, to the wildlife section.

Response: Agreed.

12. Page 12. I wouldn't mention Rattlesnake Creek. It is not in the CREP area.

Response: Agreed.

13. Page 19. We were looking to add CP 29 and CP30 to the riparian buffer practices with MMRC.

Response: This needs to be an agenda topic. My reference does not include CP 29 and CP 30, meaning other conservation practices may be applicable but not considered.

14. Page 22. Partners. Five Valleys "Land" Trust. Please add The Conservation Fund, because in reality that is who I am representing. Walleyes Unlimited probably not, as no walleyes in this section of Clark Fork, but they were big in Missouri River.

Response: Agreed.

15. A few places it mentions that riparian buffers are the primary goal of this CREP. However, when you look at the acreage breakout, it doesn't seem to jive. It appears that upland habitat is primary goal. Maybe needs some explanation.

Response: Agreed, but further discussion is warranted. This is a good Agenda Topic.

16. Section 6. Introduction paragraph. Doesn't talk about costs as much as a repetition of stuff in previous sections.

Response: Agreed.

17. Page 29. I know the State of Sonora thing was related to the Madison-Missouri CREP. Is it really going to happen with the Clark Fork one as well?

Response: Agreed.

Comments from the NRDP

Attached are the NRDP's hand-written edits on the June 3, 2004 draft CREP proposal. Most are minor editorial cleanup-type comments.

Response: Changes are made.

The following are our two substantial comments: **Response:** Changes are made.

Replacement language for section on Natural Resource Damage Program (pp. 12-13)

In 1983, the State of Montana filed its natural resource damage lawsuit against ARCO to recover damages for injuries to the Basin's water, soils, vegetation, fish and wildlife and for the public's lost use and enjoyment of these resources. As part of a 1999 partial settlement, the state received \$215 million, including about \$130 million earmarked to restore or replace the injured resources. The Clark Fork River Operable Unit from Warm Springs to the Milltown Reservoir was not settled and is still subject of litigation.

In early 2000, the State finalized the criteria and procedures for spending the \$130 million. The State established a grant process administered by the Natural Resource Damage Program (NRDP). Under this process, government agencies and private entities and individuals are eligible to apply for funds for projects that will restore or improve the injured natural resources and the recreation opportunities that accompany them, including hunting and fishing. As proposed herein, this state program would provide the majority of the non-federal match required for this proposal via funding of related restoration projects under the regular NRDP grant cycle that are independent of the CREP projects.

Additional language regarding area to be covered under CREP: For "map" section on p. 4 and the "overview" section on p. 18, plus anywhere you deem appropriate:

The CREP project area would not include the riparian corridors that have been impacted by historical mining and will be addressed through the planned Superfund remediation and restoration efforts. Those areas mainly include the mainstem of the Clark Fork River between Warm Springs Ponds and Garrison Junction, and portions of Warm Springs Creek, Mill Creek, and Willow Creek that are contaminated with mine tailings. These areas are excluded from the CREP proposal because they will be cleaned up and restored under a separate program through the U.S. EPA's remediation process and the NRDP's restoration process.

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APPENDIX C: CONSERVATION PRACTICES

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National CRP Practices

A summary of the CRP Practices proposed in the Montana CREP Agreement is provided below. Requirements, policy, and other detailed information for each practice can be found in the FSA Handbook: *Agricultural Resource Conservation Program*.

| Practice | Title | Purpose |
|-----------------|---|--|
| CP2 | <i>Establishment of Permanent Native Grasses</i> | The purpose of this practice is to establish a vegetative cover of native grasses on eligible cropland that will enhance environmental benefits. |
| CP4D | <i>Permanent Wildlife Habitat, Noneasement</i> | The purpose of this practice is to establish a permanent wildlife habitat cover to enhance environmental benefits for the wildlife habitat of the designated or surrounding areas. |
| CP5A | <i>Field Windbreak Establishment, Noneasement</i> | The purpose of this practice is to establish windbreaks to improve the environmental benefits on a farm or ranch to: <ul style="list-style-type: none"> ▪ Reduce cropland erosion below soil loss tolerance ▪ Enhance the wildlife habitat on the designated area |
| CP9 | <i>Shallow Water Areas for Wildlife</i> | The purpose of this practice is to develop or restore shallow water areas to an average depth of 6 to 18 inches for wildlife. The shallow water area must provide a source of water for wildlife for the majority of the year. <i>Exception:</i> For areas west of the 100 th meridian that receive less than 25 inches of annual precipitation, the shallow water area must provide a source of water for wildlife for a minimum of 4 months of the year. <i>Note:</i> This is not a pond development or wetland restoration practice. However, this practice may be constructed on suitable hydric and nonhydric soils. |
| CP10 | <i>Vegetative Cover – Grass – Already Established</i> | This practice code is used to identify land: <ul style="list-style-type: none"> ▪ under CRP-1, if a grass cover approved for the applicable signup is already established <i>Note:</i> Contract management activity may be required as determined by COC, according to paragraph 239. <ul style="list-style-type: none"> ▪ not under CRP-1, with a grass cover approved for the applicable signup |

| Practice | Title | Purpose |
|--------------|---|---|
| | | <p>already established.</p> <p><i>Note:</i> Contract management activity may be required as determined by COC, according to paragraph 239.</p> |
| CP16A | <i>Shelterbelt Establishment, Noneasement</i> | <p>The purpose of this practice is to establish shelterbelts on a farm or ranch to:</p> <ul style="list-style-type: none"> ▪ enhance the wildlife habitat on the designated area ▪ save energy ▪ protect farmsteads or livestock areas. |
| CP21 | <i>Filter Strips</i> | <p>The purpose of this practice is to remove nutrients, sediment, organic matter, pesticides, and other pollutants from surface runoff and subsurface flow by deposition, absorption, plant uptake, denitrification, and other processes, and thereby reduce pollution and protect surface water and subsurface water quality while enhancing the ecosystem of the water body.</p> |
| CP22 | <i>Riparian Buffer</i> | <p>The purposes of this practice are to:</p> <ul style="list-style-type: none"> ▪ remove nutrients, sediment, organic matter, pesticides, and other pollutants from surface runoff and subsurface flow by deposition, absorption, plant uptake, denitrification, and other processes, and thereby reduce pollution and protect surface water and subsurface water quality while enhancing the ecosystem of the water body. ▪ create shade to lower water temperature to improve habitat for aquatic organisms. ▪ provide a source of detritus and large woody debris for aquatic organisms and habitat for wildlife. |
| CP23 | <i>Wetland Restoration</i> | <p>The purpose of this practice is to restore the functions and values of wetland ecosystems that have been devoted to agricultural use. The level of restoration of the wetland ecosystem shall be determined by the producer in consultation with NRCS or TSP.</p> |
| CP25 | <i>Rare and Declining Habitat</i> | <p>The purpose of this practice is to restore the functions and values of critically endangered, endangered, and threatened habitats. The extent of the restoration is determined by the specifications developed at the State level.</p> |

| Practice | Title | Purpose |
|-------------|---|--|
| CP29 | <i>Marginal Pastureland Wildlife Habitat Buffer</i> | The purpose of this practice is to remove nutrients, sediment, organic matter, pesticides, and other pollutants from surface runoff and subsurface flow by deposition, absorption, plant uptake, denitrification, and other processes, and thereby reduce pollution and protect surface water and subsurface water quality while enhancing the ecosystem of the water body. By restoring native plant communities, characteristics for the site will assist in stabilizing stream banks, reducing flood damage impacts, and restoring and enhancing wildlife habitat. |
| CP30 | <i>Marginal Pastureland Wetland Buffer</i> | The purpose of this practice is to remove nutrients, sediment, organic matter, pesticides, and other pollutants from surface runoff and subsurface flow by deposition, absorption, plant uptake, denitrification, and other processes, and thereby reduce pollution and protect surface water and subsurface water quality while enhancing the ecosystem of the water body. The practice will enhance and/or restore hydrology and plant communities associated with existing or degraded wetland complexes. The goal is to enhance water quality, reduce nutrient and pollutant levels, and improve wildlife habitat. |

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APPENDIX D: AGENCY CORRESPONDENCE

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March 31, 2006

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1400 South 19th
Bozeman , MT 59718

COPY

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
Enhancement Program (CREP) Agreement

Dear Sir or Madam,

An electronic version of the Draft PEA for the Proposed Implementation of Montana's
Clark River Basin Conservation Reserve Enhancement Program (CREP) Agreement is
now located at the following internet address:

<http://www.fsa.usda.gov/dafp/cepd/epb/assessments.htm>

Please forward your comments by May 3, 2006 to the following address:

Montana CREP Comments
Mel Yost, State Environmental Coordinator
FSA Montana State Office
P.O. Box 670
Bozeman, Montana 59771-0670

Thank you in advance for your input. It will greatly assist us in our planning.

Sincerely,

Randy Johnson
Montana State Executive Director

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March 31, 2006

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COPY

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Montana State Executive Director

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Stan Wilmoth, Ph.D.
Acting State Historic Preservation Officer
PO Box 201202
Helena, MT 59620

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RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
Enhancement Program (CREP) Agreement

Dear Stan,

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Montana State Executive Director

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Steve Schmitz
Montana Department of Natural Resources and Conservation
PO Box 201601
Helena, MT 59620-1601

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RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
Enhancement Program (CREP) Agreement

Dear Steve,
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Sincerely,

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Montana State Executive Director

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Heidi Lindgren
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Helena, MT 59620

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
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Dear Heidi,

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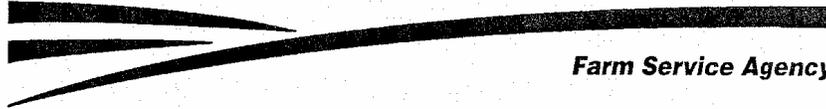
Montana CREP Comments
Mel Yost, State Environmental Coordinator
FSA Montana State Office
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Bozeman, Montana 59771-0670

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Bill Olsen
U.S. Fish and Wildlife Service
100 N. Park, Suite 320
Helena, MT 59601

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RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
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Dear Bill ,
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Montana State Executive Director

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RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
Enhancement Program (CREP) Agreement

Dear Glen,

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Missoula Field Office
3255 Fort Missoula Road
Missoula, MT 59801

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
Enhancement Program (CREP) Agreement

Dear Sir or Madam,

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now located at the following internet address:

<http://www.fsa.usda.gov/dafp/cepd/epb/assessments.htm>

Please forward your comments by May 3, 2006 to the following address:

Montana CREP Comments
Mel Yost, State Environmental Coordinator
FSA Montana State Office
P.O. Box 670
Bozeman, Montana 59771-0670

Thank you in advance for your input. It will greatly assist us in our planning.

Sincerely,

Randy Johnson
Montana State Executive Director

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Farm Service Agency

March 31, 2006

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Montana State
FSA Office
P.O. Box 670
Bozeman, MT
59771-0670

Farm Loan
Programs

Phone:
(406)587-6850

Fax:
(406)587-6871

E-Mail
mel.yost@mt.usda.gov

Beaverhead/Deer Lodge National Forest
420 Barrett St
Dillon, MT 59725

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US Army Corps of Engineers
10 West 15th Street, Suite 2200
Helena, MT 59626

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Montana Environmental Informational Center
107 W. Lawrence St. #N-10
PO Box 1184
Helena, MT 59624

COPY

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mel.yost@mt.usda.gov

Montana Audubon
PO Box 595
Helena, MT 59624

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
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FSA Montana State Office
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Bozeman, Montana 59771-0670

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Farm Service Agency

March 31, 2006

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E-Mail
mel.yost@mt.usda.gov

Deer Lodge Valley Conservation District
1002 Hollenback Road
Deer Lodge, MT 59722

COPY

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FSA Montana State Office
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Bozeman, Montana 59771-0670

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Farm Service Agency

March 31, 2006

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E-Mail
mel.yost@mt.usda.gov

Carol Fox
Montana Natural Resource Damage Program
Old Livestock Building
1310 East Lockey Ave
Helena, MT 59620-1425

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
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Dear Carol,

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Mel Yost, State Environmental Coordinator
FSA Montana State Office
P.O. Box 670
Bozeman, Montana 59771-0670

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Sincerely,

Randy Johnson
Montana State Executive Director

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Farm Service Agency

March 31, 2006

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mel.yost@mt.usda.gov

Watershed Restoration Coalition of the
Upper Clark Fork
1002 Hollenback Road
Deer Lodge, MT 59722

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Mel Yost, State Environmental Coordinator
FSA Montana State Office
P.O. Box 670
Bozeman, Montana 59771-0670

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Sincerely,

Randy Johnson
Montana State Executive Director

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Farm Service Agency

March 31, 2006

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mel.yost@mt.usda.gov

Clark Fork Coalition
PO Box 7593
Missoula, MT 59807-7593

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Mel Yost, State Environmental Coordinator
FSA Montana State Office
P.O. Box 670
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Sincerely,

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Montana State Executive Director

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Farm Service Agency

March 31, 2006

United States
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Gerald Mueller
Upper Clark Fork River Steering Committee
440 Evans
Missoula, MT 59801

COPY

RE: Draft Programmatic Environmental Assessment (PEA) for Proposed
Implementation of Montana's Upper Clark Fork River Basin Conservation Reserve
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Dear Gerald,

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APPENDIX E: RELEVANT LAWS AND REGULATIONS

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Federal Regulations

CEQ Implementation Regulations

(40 CFR 1500)

Resource Area: General

A comprehensive listing of regulations for implementation of NEPA-related activities that includes: Purpose, Policy and Mandate; NEPA and Agency Planning; Environmental Impact Statement; Commenting; Predecision Referrals to the Council of Proposed Federal Actions Determined to be Environmentally Unsatisfactory; NEPA and Agency Decision-making; Other Requirements of NEPA; and Agency Compliance.

Clean Air Act of 1970

(42 U.S.C. 7401-7671)

Resource Area: Air Quality

The Clean Air Act (CAA), originally adopted in 1955, was amended in 1970 to establish the core of the clean air program known today. The primary objective of CAA is to establish Federal standards for air pollutants from stationary and mobile sources and to work with States to regulate polluting emissions. The Act is designed to improve air quality in areas of the country which do not meet Federal standards and to prevent significant deterioration in areas where air quality exceeds those standards. The U.S. Environmental Protection Agency (EPA) administers the CAA and is responsible for developing and enforcing regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health.

Though there are few explicit references to wildlife or its habitats in the CAA, acid rain and other forms of air pollution affect wildlife and wildlife habitat, and the CAAs comprehensive provisions on emission standards, source permitting, ozone depletion, acid rain regulation, and other matters are intended to protect and improve air quality for wildlife as well as for human health. The CAA identifies air pollutants and sets primary and secondary standards for each. The primary standard protects human health, while the secondary standard is based on potential environmental and property damage.

Community Efforts along American Heritage Rivers

EO 13061

Resource Area: Water resources

Signed in 1997 by President Bill Clinton, this Executive Order aims to “to protect and restore rivers and their adjacent communities.”

Following the objectives set out in the American Rivers Initiative, natural resource and environmental protection, economic revitalization, and historic and cultural preservation, the EO requires that Federal agencies coordinate within the law and their missions to “preserve, protect, and restore rivers and their associated resources important to our history, culture, and natural heritage.”

The order also calls for cooperation between Federal, state, tribal and local governments to ensure that different opinions and needs are taken into account. Federal agencies must consult American Heritage River communities as to their goals and objectives, and “ensure that their actions have a positive effect on the natural, historic, economic, and cultural resources.”

The order also sets up the process of American Heritage River nomination and required selection criteria.

Endangered Species Act of 1973

(7 CFR 355; 50 CFR 17, 23, 81, 222, 225-227, 402, 424, 450-453)

Resource Area: Biological Resources

The Endangered Species Act (ESA) passed in 1973, replaced laws passed in 1966 and 1969. The ESA has been reauthorized eight times, with significant amendments enacted in 1978, 1982, and 1988. The ultimate purpose of ESA is to save species of fish, wildlife, and plants from extinction, by conserving the ecosystems upon which threatened or endangered species depend and by conserving and recovering listed species.

Under law, a species may be listed as either threatened or endangered. Endangered means a species is in danger of becoming extinct throughout all or a significant portion of its natural range. Threatened means a species is likely to become endangered within the foreseeable future. All species of animals and plants, with the exception of pest insects, are eligible for listing under the ESA.

The U.S. Department of the Interior’s Fish and Wildlife Service (FWS) and the U.S. Commerce’s Departments National Marine Fisheries Service (NMFS) jointly administer the ESA. FWS administers terrestrial, fresh water species, and migratory birds, while NMFS administers marine species. Under the ESA all Federal agencies must consult with FWS and/or NMFS when any activity permitted, funded, or conducted by that agency may affect a listed species or designated critical habitat, or is likely to jeopardize proposed species or adversely modify proposed critical habitat. Critical habitat is defined by the ESA as areas that are essential to the conservation of listed species. Under Section 7 of the ESA, project areas must be checked against FWS and State listings of critical habitat and threatened and endangered species.

The ESA prohibits the following activities involving threatened and endangered species:

- Importing into or exporting from the U.S.;
- Taking (includes harassing, harming, pursuing, hunting, shooting, wounding, trapping, killing, capturing, or collecting) within the U.S. and its territorial seas;
- Taking on the high seas;
- Possessing, selling, delivering, carrying, transporting, or shipping any such species unlawfully taken within the U.S. or on the high seas;
- Delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce in the course of a commercial activity; and
- Selling or offering for sale in interstate or foreign commerce.

Farmland Protection Policy Act of 1981

7 U.S.C. 4201-4209, 7 CFR 658

Resource Area: Land use

The Farmland Protection Policy Act is meant to stop the conversion of farmland to nonagricultural land use by, or relating to, Federal programs. These programs are required to coincide with state, local and tribal government objectives to protect farmland. It does not give the Federal government the right to regulate non-Federal land. Cropland not currently used to grow crops, such as forest land and pasture, is included in the Act.

Federal Agency assistance includes: Acquiring or disposing of land, providing financing or loans, managing property, providing technical assistance.

Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations (1994)

EO 12898

Resource Area: Environmental Justice

EO 12898 mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

EO 12898 created an Interagency Working Group on Environmental Justice (Working Group) to provide guidance to Federal agencies. The specific purpose of the Working Group is to:

- Provide guidance to Federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;
- Coordinate with, provide guidance to, and serve as a clearinghouse for each Federal agency as it develops an environmental justice strategy;
- Assist in coordinating research by, and stimulating cooperation among the EPA, Department of Health and Human Services, Department of Housing and Urban Development, and other agencies conducting research or other activities;
- Assist in coordinating data collection;
- Examine existing data and studies on environmental justice;
- Hold public meetings; and
- Develop interagency model projects on environmental justice that evidence cooperation among Federal agencies.

Federal Water Pollution Control Act (Clean Water Act) of 1972

(33 U.S.C. 1251-1376)

Resource Area: Water/Biological Resources

The Federal Water Pollution Control Act, popularly known as the Clean Water Act (CWA) was originally enacted in 1948. The Act was amended numerous times until it was reorganized and expanded in 1972. CWA is the principal law governing pollution of the Nation's surface waters; it does not deal with groundwater or water quantity issues. The CWA employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are aimed at the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters so that they can support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. The EPA implements and enforces the CWA.

Prior to 1987 amendments, CWA programs were principally directed at point source pollution (wastes discharged from discrete and identifiable sources). Little attention was given to non-point source pollution, such as storm water runoff from agricultural lands, forests, construction sites, and urban areas. The 1987 amendments authorized measures to address non-point source pollution, which affects agricultural activities.

Provision of the CWA, which may affect agricultural activities, include:

- **Clean Lakes Program (Section 314)**, authorizing EPA grants to states for lake classification surveys, diagnostic/feasibility studies, and for projects to restore and protect lakes;
- **Nonpoint Source Pollution Program (Section 319)**, requires states to prepare reports and propose management plans for the control of non-point source pollution for approval by EPA, and encourages the development of plans on a watershed-by-watershed basis;
- **National Estuary Program (Section 320)** authorizes a state/Federal cooperative program to nominate estuaries of national significance and to develop and implement management plans to restore and maintain the biological and chemical integrity of estuarine waters;
- **National Pollutant Discharge Elimination System Permit Program (Section 402)**, controls point source discharge from treatment plants and industrial facilities (including large animal and poultry confinement operations); and
- **Dredge and Fill Permit Program (Section 404)** regulates dredging, filling, and other alterations of waters and wetlands, including wetlands owned by farmers. This program is typically administered by the U.S. Army Corps of Engineers, however, under an administrative agreement, the Natural Resources Conservation Service has authority to make wetland determinations pertaining to agricultural land.

Food Security Act of 1985

16 U.S.C. 3801-3862

Resource Area: Water resources

The Food Security Act discourages the conversion of wetland to farmland by discontinuing Federal farm program benefits to those landowners guilty of such practices. It has been amended twice since 1985. In 1990, the Food, Agriculture, Conservation and Trade Act enhanced the original act by making landowners ineligible for benefits in the year of and subsequent years after an infraction. The 1996 Farm Bill modified it to include the option of mitigation and enhancement credits. The Conservation Reserve

Program gives authorization to the Federal government, through contracts with agricultural landowners, to remove highly erodible land from production. The Wetland Reserve Program is a similar program that permanently or temporarily sets aside wetlands for protection and restoration.

Floodplain Management (1977)

EO 11988

Resource Area: Water Resources

EO 11988 requires Federal agencies to avoid contributing to adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development if a practical alternative exists.

In the course of fulfilling their respective authorities, Federal agencies "shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains."

Before proposing, conducting, supporting or allowing an action in a floodplain, each agency is to determine if planned activities will affect the floodplain and evaluate the potential effects of the intended actions on its functions. Agencies shall avoid siting development in a floodplain "to avoid adverse effects and incompatible development in the floodplains,"

Each Federal agency is responsible for preparing implementing procedures for carrying out the provisions of the EO 11988. Federal agencies consult with FEMA concerning implementation of this EO.

National Environmental Policy Act of 1969

42 U.S.C 4321-4347

Resource Area: General

The National Environmental Policy Act (NEPA) requires all Federal agencies to:

- Assess the environmental impacts of major Federal projects, decisions such as issuing permits, spending Federal money, or actions on Federal lands;
- Consider the environmental impacts in making decisions; and
- Disclose the environmental impacts to the public.

Under NEPA, Federal agencies prepare three types of environmental reviews:

- Environmental Impact Statements (EIS) are prepared for proposed actions with the potential for significant impacts;
- Environmental Assessments (EAs) are prepared for proposed actions when the agency needs to study the issues before determining whether an EIS is necessary; and
- Categorical Exclusions for small, routine projects where the agency has a record that demonstrates that these types of projects characteristically do not result in significant environmental impacts.

National Historic Preservation Act of 1966

16 U.S.C. 470

Resource Area: Cultural Resources

The National Historic Preservation Act (NHPA) was enacted in 1966 and amended in 1970 and 1980. The Act created the Advisory Council on Historic Preservation (ACHP), an independent Federal agency, to advise the President and Congress on matters involving historic preservation. The ACHP is authorized to review and comment on all actions licensed by the Federal government which will have an effect on properties listed in the National Register of Historic Places (National Register), or eligible for such listing. The National Register is an inventory of the U.S. historic resources and is maintained by the National Park Service. The National Register includes districts, sites, buildings, structures, and objects significant to American history, architecture, archaeology and culture. The listed properties are not necessarily significant nationally rather most are significant primarily at the state or local level.

NHPA is composed of two major components, Section 106 and 110. Under section 106, Federal agencies are to consider the effects of their undertakings (including the issuance of permits, the expenditure of Federal funding, and Federal projects) on historic resources that are either eligible for listing or are listed on the National Register. The Federal agency must confer with the State Historic Preservation Officer (an official appointed in each state or territory to administer the National Historic Program) and the NHPA. Section 110 imposes another obligation on Federal agencies that own or control historic resources. Under this section, Federal agencies must consider historic preservation of historic resources as part of their management responsibilities.

Protection and Enhancement of Environmental Quality (1970)

EO 11514

Resource Area: General

Executive Order (EO) 11514 requires the Federal government to provide leadership in protecting and enhancing the quality of the Nation's environment. The EO directed Federal agencies to initiate measures needed to direct their policies, plans, and programs to meet national environmental goals. To achieve the national environmental goals, agencies were directed to:

- Monitor, evaluate, and control on a continuing basis their activities so as to protect and enhance the quality of the environment;
- Encourage timely public information processes to foster understanding of Federal plans and programs with environmental impacts;
- Insure that information regarding existing or potential environmental issues be shared and coordinated with other Federal agencies; and
- Comply with the regulations issued by the Council on Environmental Quality.

Protection of Wetlands

EO 11990 (DOT Order 5660.1A, 23 CFR 777)

Resource Area: Water Resources

President Jimmy Carter signed EO 11990 in 1977, “in order to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.”

This order requires Federal agencies to, “provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities.” These responsibilities include: “Acquiring, managing, and disposing of Federal lands and facilities”; “providing Federally undertaken, financed, or assisted construction and improvements”; and “conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.”

The order, in conjunction with NEPA, specifies that a Federal agency, “shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors.”

Safe Drinking Water Act

42 U.S.C. 300F-300J-6, FAPG Subpart E

Resource Area: Water resources

The Safe Drinking Water Act was passed in 1974 to protect the Nation’s health by regulating the water supply. The act was amended in 1986 and 1996, and has jurisdiction over all public bodies of water. Private wells serving fewer than 25 individuals do not apply. The 1996 amendments added source water protection, operator training, funding for improvement and public education provisions. The act authorizes the EPA to set standards of water quality to prevent natural and man-made contaminants from affecting the public health.

USDA Department Regulation 9500-3

Resource Area: Land use

Created in 1983 this departmental regulation ensures compliance with USDA policy regarding land use practices and prevention of land conversion to uses that would degrade the Nation’s ecosystems, while recognizing state and local land use rights within their jurisdiction. The regulation reinforces the agencies responsibilities “to (a) assure that the United States retains a farm, range, and forest land base sufficient to produce adequate supplies, at reasonable production costs, of high-quality food, fiber, wood, and other agricultural products that may be needed, (b) assist individual landholders and State and local governments in defining and meeting needs for growth and development in such ways that the most productive farm, range, and forest lands are protected from unwarranted conversion to other uses; and (c) assure appropriate levels of environmental quality.”

Wild and Scenic Rivers Act

16 USC 1271-1287. 36 CFR 297

Resource Area: Water resources

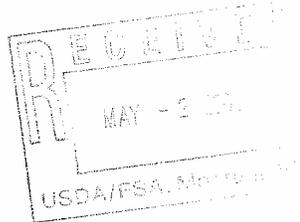
The Wild and Scenic Rivers Act was approved by Congress in 1968 and established the National Wild and Scenic Rivers System and criteria to add rivers to the system. The Act preserves and protects these rivers and associated ecosystems. All Federal programs which affect or could affect these rivers or their associated ecosystems are covered. The Department of the Interior and the Department of Agriculture, along with state agencies, coordinate project proposals and reports. Later amendments have allowed for the installation and operation of control facilities for lamprey eel, and the management of non-Federal lands in the Columbia River Gorge Wilderness Area.

**APPENDIX F: COPIES OF PUBLIC COMMENTS
WITH AGENCY RESPONSES**

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**Montana Fish,
Wildlife & Parks**



| | |
|------|-------------------|
| FLP | |
| Date | 5/2/06 |
| RJM | |
| HRY | <i>[initials]</i> |
| HJM | |
| WLT | <i>[initials]</i> |
| PJK | <i>[initials]</i> |
| CRG | <i>[initials]</i> |

Region 2 Office
3201 Spurgin Road
Missoula, MT 59804-3101
406-542-5500
May 2, 2006

Mel Yost, State Environmental Coordinator
FSA Montana State Office
PO Box 670
Bozeman, MT 59771-0670

Dear Mr. Yost:

Reference: Draft Programmatic Environmental Assessment for the proposed
implementation of Montana's Upper Clark Fork River Basin
Conservation Reserve Enhancement Program Agreement

We have reviewed the Draft PEA for this CREP agreement, and we support this program
as a means of improving habitat for fish and wildlife. Thank you for providing the
opportunity for MFWP to comment on this project.

Sincerely,

Mack Long
Regional Supervisor

ML/sr



MONTANA HISTORICAL SOCIETY

225 North Roberts ♦ P.O. Box 201201 ♦ Helena, MT 59620-1201
♦ (406) 444-2694 ♦ FAX (406) 444-2696 ♦ www.montanahistoricalsociety.org ♦

Wednesday, April 05, 2006

MONTANA CREP COMMENTS
MEL YOST STATE ENVIRONMENTAL COORDINATOR
FSA MONTANA STATE OFFICE
POB 670
BOZEMAN MT 59771-0670

RE: DPA UPPER CLARK FORK CREP AGREEMENT

Dear Mel:

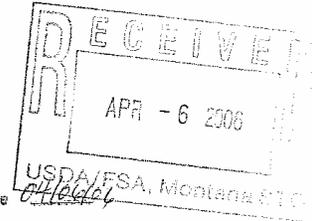
Thank you for requesting our comments regarding the above referenced document. We agree with all sections regarding cultural resources including the cumulative effects matrix (5.3). FSA lead for National Historic Preservation considerations under the proposed FSA action are critical in the identification, possible evaluation and avoidance of cultural resources as indicated in the Effects and Mitigation matrixes.

Early consultation with the MT SHPO using our file search request form and referencing the FSA CREP program is a good way to start case-by-case review for each application to FSA. We will review any inventory reports submitted by FSA (or its federal partners such as NRCS) with a request for our comments in a timely manner.

Please feel free to contact Damon Murdo (SHPO Records Manager) or me with any questions. I hope we can assist FSA in this important effort.

Sincerely,

Stan Wilmoth, PH.D.
State Archaeologist/SHPO, Acting



FLP _____
Date *4/5/06*
RJM _____
MRY _____
MJM _____
WLT _____
PJK _____
CRG _____

 STATE HISTORIC PRESERVATION OFFICE ♦ 1410 8th Ave ♦ P.O. Box 201202 ♦ Helena, MT 59620-1202
♦ (406) 444-7715 ♦ FAX (406) 444-6575

APPENDIX G: SPECIES LISTS

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| Invasive Species Known to Occur in the UCFRB CREP Area | |
|--|-----------------------------------|
| Common Name | Scientific Name |
| Absinth Wormwood | <i>Artemisia absinthium</i> |
| Baby's Breath | <i>Gypsophila paniculata</i> |
| Black Henbane | <i>Hyoscyamus niger</i> |
| Blueweed | <i>Echium vulgare</i> |
| Buffalobur | <i>Solanum rostratum</i> |
| Bull Thistle | <i>Cirsium vulgare</i> |
| Canada Thistle | <i>Cirsium arvense</i> |
| Clustered Dodder | <i>Cuscuta approximata</i> |
| Common Burdock | <i>Arctium minus</i> |
| Common Tansy | <i>Tanacetum vulgare</i> |
| Cowcockle | <i>Vaccaria hispanica</i> |
| Cultivated Rye | <i>Secale cereale</i> |
| Dalmation Toadflax | <i>Linaria dalmatica</i> |
| Diffuse Knapweed | <i>Centaurea diffusa</i> |
| Dyer's Woad | <i>Isatis tinctoria</i> |
| Field Bindweed | <i>Convolvulus arvensis</i> |
| Field Horsetail | <i>Equisetum arvense</i> |
| Giant Knotweed | <i>Polygonum sachalinense</i> |
| Hair Whitecrop | <i>Cardaria pubescens</i> |
| Herb Robert | <i>Geranium robertianum</i> |
| Himalaya Blackberry | <i>Rubus discolor</i> |
| Hoary Cress | <i>Cardaria draba</i> |
| Houndstongue | <i>Cynoglossum officinale</i> |
| Japanese Knotweed | <i>Polygonum cuspidatum</i> |
| Jointed Goatgrass | <i>Aegilops cylindrica</i> |
| Kochia | <i>Kochia scoparia</i> |
| Leafy Spurge | <i>Euphorbia esula</i> |
| Longspine Sandbur | <i>Cenchrus longispinus</i> |
| Meadow Hawkweed | <i>Hieracium pratense</i> |
| Meadow Sage | <i>Salvia pratensis</i> |
| Musk Thistle | <i>Carduus nutans</i> |
| Orange Hawkweed | <i>Hieracium aurantiacum</i> |
| Oxeye Daisy | <i>Chrysanthemum leucanthemum</i> |
| Perennial Pepperweed | <i>Lepidium latifolium</i> |
| Perennial Sowthistle | <i>Sonchus arvensis</i> |
| Poison Hemlock | <i>Conium maculatum</i> |
| Puncturevine | <i>Tribulus terrestris</i> |
| Purple Loosestrife | <i>Lythrium salicaria</i> |
| Quackgrass | <i>Agropyron repens</i> |
| Reed Canarygrass | <i>Phalaris arundinacea</i> |

| Invasive Species Known to Occur in the UCFRB CREP Area | |
|---|-----------------------------|
| Common Name | Scientific Name |
| Rush Skeletonweed | <i>Chondrilla juncea</i> |
| Russian Knapweed | <i>Centaurea repens</i> |
| Scentless Chamomile | <i>Matricaria maritima</i> |
| Small Bugloss | <i>Anchusa arvensis</i> |
| Spotted Knapweed | <i>Centaurea maculosa</i> |
| St. Johnswort | <i>Hypericum perforatum</i> |
| Sulfur Cinquefoil | <i>Potentilla recta</i> |
| Syrian Beancaper | <i>Zygophyllum fabago</i> |
| Tall Buttercup | <i>Ranunculus acris</i> |
| Tamarix complex | <i>Tamarix spp.</i> |
| Velvetleaf | <i>Abutilon theophrasti</i> |
| White Bryony | <i>Bryonia alba</i> |
| Wild Carrot | <i>Daucus carota</i> |
| Wild Four O'clock | <i>Mirabilis nyctaginea</i> |
| Wild Proso Millet | <i>Panicum miliaceum</i> |
| Yellow Fieldgrass | <i>Rorippa sylvestris</i> |
| Yellow Toadflax | <i>Linaria vulgaris</i> |
| Yellowflag Iris | <i>Iris pseudacorus</i> |
| <i>Source: UM-M 2006</i> | |

| UCFRB CREP Area Wildlife Species | |
|----------------------------------|---------------------------------|
| Common Name | Scientific Name |
| Mammals | |
| American Badger | <i>Taxidea taxus</i> |
| American Beaver | <i>Castor Canadensis</i> |
| American Black Bear | <i>Ursus americanus</i> |
| American Marten | <i>Martes Americana</i> |
| American Pika | <i>Ochotona princes</i> |
| Big Brown Bat | <i>Eptesicus fuscus</i> |
| Bighorn Sheep | <i>Ovis Canadensis</i> |
| Bobcat | <i>Lynx rufus</i> |
| Bushy-tailed Woodrat | <i>Neotoma cinerea</i> |
| California myotis | <i>Myotis californicus</i> |
| Canada Lynx | <i>Lynx Canadensis</i> |
| Cinerus Shrew | <i>Sorex cinereus</i> |
| Columbian Ground Squirrel | <i>Spermophilus columbianus</i> |
| Cougar | <i>Puma concolor</i> |
| Coyote | <i>Canis latrans</i> |
| Deer Mouse | <i>Peromyscus maniculatus</i> |
| Elk | <i>Cervus elaphus</i> |
| Ermine | <i>Mustela erminea</i> |
| Golden-mantled Ground Squirrel | <i>Spermophilus lateralis</i> |
| Grey Wolf | <i>Canis lupus</i> |
| Grizzly Bear | <i>Ursus arctos horribilis</i> |
| Hoary Bat | <i>Lasiurus cinereus</i> |
| Hoary Marmot | <i>Marmota caligata</i> |
| Little Brown Bat | <i>Myotis lucifugus</i> |
| Long-eared Myotis | <i>Myotis evotis</i> |
| Long-legged Myotis | <i>Myotis volans</i> |
| Long-tailed Vole | <i>Microtus longicaudus</i> |
| Long-tailed Weasel | <i>Mustela frenata</i> |
| Meadow Vole | <i>Microtus pennsylvanicus</i> |
| Montana Shrew | <i>Sorex monticolus</i> |
| Montane Vole | <i>Microtus montanus</i> |
| Moose | <i>Alces alces</i> |
| Mountain Cottontail | <i>Sylvilagus nuttalii</i> |
| Mule Deer | <i>Odocoileus hemlonus</i> |
| Muskrat | <i>Ondatra ziberthicus</i> |
| North American Porcupine | <i>Erethizon dorsatum</i> |
| Northern Flying Squirrel | <i>Glaucomys sabrinus</i> |
| Northern Pocket Gopher | <i>Thomomys talpoides</i> |
| Northern Raccoon | <i>Procyon lotor</i> |

| UCFRB CREP Area Wildlife Species | |
|----------------------------------|----------------------------------|
| Common Name | Scientific Name |
| Mammals | |
| Red Fox | <i>Vulpes vulpes</i> |
| Red Squirrel | <i>Tamiasciurus hudsonicus</i> |
| Red-tailed Chipmunk | <i>Tamias ruficaudus</i> |
| River Otter | <i>Lontra Canadensis</i> |
| Silver-haired Bat | <i>Lasionycteris noctivagans</i> |
| Snowshoe Hare | <i>Lepus americanus</i> |
| Southern Red-backed Vole | <i>Clethrionomys gapperi</i> |
| Spotted Bat | <i>Euderma maculatum</i> |
| Striped Skunk | <i>Mephitis mephitis</i> |
| Townsend's Big-eared Bat | <i>Corynorhinus townsendii</i> |
| Water Shrew | <i>Sorex palustris</i> |
| Water Vole | <i>Microtus richardsoni</i> |
| Western Jumping Mouse | <i>Zapus princeps</i> |
| Western Small-footed Myotis | <i>Myotis ciliolabrum</i> |
| White-tailed Deer | <i>Odocoileus virginianus</i> |
| White-tailed Jackrabbit | <i>Lepus townsendii</i> |
| Wyoming Ground Squirrel | <i>Spermophilus elegans</i> |
| Yellow-pine Chipmunk | <i>Tamias amoenus</i> |
| Yuma Myotis | <i>Myotis yumanensis</i> |
| Birds | |
| American Coot | <i>Fulica Americana</i> |
| American Kestrel | <i>Falco sparverius</i> |
| American Robin | <i>Turdus migratorius</i> |
| American Tree Sparrow | <i>Spizella arborea</i> |
| Bald Eagle | <i>Haliaeetus leucocephalus</i> |
| Bank Swallow | <i>Riparia riparia</i> |
| Barn Swallow | <i>Hirundo rustica</i> |
| Belted Kingfisher | <i>Ceryle alcyon</i> |
| Black-billed Magpie | <i>Pica hudsonia</i> |
| Black-capped Chickadee | <i>Poecile atricapilla</i> |
| Blue Grouse | <i>Dendragapus obscurus</i> |
| Blue-winged Teal | <i>Anas discors</i> |
| Brewer's Blackbird | <i>Euphagus cyanocephalus</i> |
| Brown-headed Cowbird | <i>Molothrus ater</i> |
| Calliope Hummingbird | <i>Stellula calliope</i> |
| Canada Goose | <i>Branta Canadensis</i> |
| Chipping Sparrow | <i>Spizella passerine</i> |
| Chukar | <i>Alectoris chukar</i> |

| UCFRB CREP Area Wildlife Species | |
|----------------------------------|-----------------------------------|
| Common Name | Scientific Name |
| Birds | |
| Cinnamon Teal | <i>Anas cyanoptera</i> |
| Clark's Nutcracker | <i>Nucifraga Columbiana</i> |
| Common Merganser | <i>Mergus merganser</i> |
| Common Nighthawk | <i>Chordeiles minor</i> |
| Common Snipe | <i>Gallinago gallinago</i> |
| Common Yellowthroat | <i>Geothlypis trichas</i> |
| Dark-eyed Junco | <i>Junco hyemalis</i> |
| Double-crested Cormorant | <i>Phalacrocorax auritus</i> |
| Downy Woodpecker | <i>Picoides pubescens</i> |
| Eastern Kingbird | <i>Tyrannus tyrannus</i> |
| European Starling | <i>Sturnus vulgaris</i> |
| Evening Grosbeak | <i>Coccothraustes vespertinus</i> |
| Gray Partridge | <i>Perdix perdix</i> |
| Great Blue Heron | <i>Ardea herodias</i> |
| Great Horned Owl | <i>Bubo virginianus</i> |
| Green-winged Teal | <i>Anas crecca</i> |
| Hairy Woodpecker | <i>Picoides villosus</i> |
| House Finch | <i>Carpodacus mexicanus</i> |
| House Sparrow | <i>Passer domesticus</i> |
| House Wren | <i>Troglodytes aedon</i> |
| Killdeer | <i>Charadrius vociferous</i> |
| Lewis's Woodpecker | <i>Melanerpes lewis</i> |
| Long-billed Dowitcher | <i>Limnodromus scolopaceus</i> |
| Mallard | <i>Anas platyrhynchos</i> |
| Marsh Wren | <i>Cistothorus palustris</i> |
| Mourning Dove | <i>Zenaida macroura</i> |
| Northern Flicker | <i>Colaptes auratus</i> |
| Northern Harrier | <i>Circus cyaneus</i> |
| Northern Shoveler | <i>Anas clypeata</i> |
| Pied-billed Grebe | <i>Podilymbus podiceps</i> |
| Pine Siskin | <i>Carduelis pinus</i> |
| Red Crossbill | <i>Loxia curvirostra</i> |
| Red-breasted Nuthatch | <i>Sitta Canadensis</i> |
| Redhead | <i>Aythya Americana</i> |
| Red-necked Phalarope | <i>Phalaropus lobatus</i> |
| Red-tailed Hawk | <i>Buteo jamaicensis</i> |
| Red-winged Blackbird | <i>Agelaius phoeniceus</i> |
| Ring-necked Pheasant | <i>Phasianus colchicus</i> |

| UCFRB CREP Area Wildlife Species | |
|----------------------------------|--------------------------------------|
| Common Name | Scientific Name |
| Birds | |
| Rock Dove | <i>Columbia livia</i> |
| Rough-legged Hawk | <i>Buteo lagopus</i> |
| Ruby-crowned Kinglet | <i>Regulus calendula</i> |
| Ruffed Grouse | <i>Bonasa umbellus</i> |
| Rufous Hummingbird | <i>Selasphorus rufus</i> |
| Savannah Sparrow | <i>Passerculus sandwichensis</i> |
| Semipalmated Plover | <i>Charadrius semipalmatus</i> |
| Snow Goose | <i>Chen caerulescens</i> |
| Song Sparrow | <i>Melospiza melodia</i> |
| Spotted Sandpiper | <i>Actitis macularia</i> |
| Spruce Grouse | <i>Falciennis Canadensis</i> |
| Tree Swallow | <i>Tachycineta bicolor</i> |
| Tundra Swan | <i>Cygnus columbianus</i> |
| Vesper Sparrow | <i>Pooecetes gramineus</i> |
| Warbling Vireo | <i>Vireo gilvus</i> |
| Western Meadowlark | <i>Sturnella neglecta</i> |
| Western Tanager | <i>Piranga ludoviciana</i> |
| Western Wood-pewee | <i>Contopus sordidulus</i> |
| White-breasted Nuthatch | <i>Sitta carolinensis</i> |
| Wild Turkey | <i>Meleagris gallopavo</i> |
| Willow Flycatcher | <i>Empidonax traillii</i> |
| Wilson's Phalarope | <i>Phalaropus tricolor</i> |
| Wood Duck | <i>Aix sponsa</i> |
| Yellow Warbler | <i>Dendroica petechia</i> |
| Yellow-headed Blackbird | <i>Xanthocephalus xanthocephalus</i> |
| Yellow-rumped Warbler | <i>Dendroica coronata</i> |
| Fish | |
| Brown Trout | <i>Salmo trutta</i> |
| Bull Trout | <i>Salvelinus confluentus</i> |
| Largescale Sucker | <i>Catostomus macrocheilus</i> |
| Longnose Dace | <i>Rhinichthys cataractae</i> |
| Longnose Sucker | <i>Catostomus catostomus</i> |
| Mottled Sculpin | <i>Cottus bairdi</i> |
| Mountain Whitefish | <i>Prosopium williamsoni</i> |
| Northern Pikeminnow | <i>Ptychocheilus oregonensis</i> |
| Peamouth | <i>Mytocheilus caurinus</i> |
| Pygmy Whitefish | <i>Prosopium coulteri</i> |
| Rainbow Trout | <i>Oncorhynchus mykiss</i> |

| UCFRB CREP Area Wildlife Species | |
|----------------------------------|------------------------------------|
| Common Name | Scientific Name |
| Fish | |
| Redside Shiner | <i>Richardsonius balteatus</i> |
| Shorthead Sculpin | <i>Cottus confuses</i> |
| Westslope Cutthroat Trout | <i>Oncorhynchus clarkii lewisi</i> |
| Reptiles | |
| Common Garter Snake | <i>Thamnophis sirtalis</i> |
| Gopher Snake | <i>Pituophis catenifer</i> |
| Racer | <i>Coluber constrictor</i> |
| Rubber Boa | <i>Charina bottae</i> |
| Western Terrestrial Garter Snake | <i>Thamnophis elegans</i> |
| Amphibians | |
| Boreal Toad | <i>Bufo boreas</i> |
| Chorus Frog | <i>Pseudacris maculate</i> |
| Columbian Spotted Frog | <i>Rana luteiventris</i> |
| Long-toed Salamander | <i>Ambystoma macrodactylum</i> |
| Northern Leopard Frog | <i>Rana pipiens</i> |
| Pacific Tree Frog | <i>Pseudacris regilla</i> |
| Rocky Mountain Tailed Frog | <i>Ascaphus montanus</i> |
| Tiger Salamander | <i>Ambystoma tigrinum</i> |

| UCFRB CREP Area Protected Species | | |
|---|------------------------------------|---------|
| Common Name | Scientific Name | Status |
| Mammals | | |
| Canada Lynx | <i>Lynx canadensis</i> | T/S3 CH |
| Gray Wolf | <i>Canis lupus</i> | E/S3 |
| Grizzly Bear | <i>Ursus arctos horribilis</i> | T/S2S3 |
| Spotted Bat | <i>Euderma maculatum</i> | S2 |
| Townsend's Big-eared Bat | <i>Corynorhinus townsendii</i> | S2 |
| Birds | | |
| Bald Eagle | <i>Haliaeetus leucocephalus</i> | T/S3 |
| Lewis's Woodpecker | <i>Melanerpes lewis</i> | S2 |
| Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | C/S1S2 |
| Fish | | |
| Bull Trout | <i>Salvelinus confluentus</i> | T/S2 CH |
| Montana Arctic Grayling | <i>Thymallus arcticus montanus</i> | C/S1 |
| Westslope Cutthroat Trout | <i>Oncorhynchus clarki lewisi</i> | S2 |
| Amphibians | | |
| Boreal Toad | <i>Bufo boreas</i> | S2 |
| Northern Leopard Frog | <i>Rana pipiens</i> | S1 |
| Plants | | |
| Water Howellia | <i>Howellia aquatilis</i> | T |
| E = Federally Endangered T = Federally Threatened C = Federal Candidate for Listing CH = Federal Critical Habitat S1 = State High Risk S2 = State At Risk S3 = State Potential Risk | | |
| Sources: FWS 2005a and MNHP 2004 | | |