PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

Montana's Missouri – Madison River Corridor Conservation Reserve Enhancement Program





United States Department of Agriculture Farm Service Agency

> *Final* January 2008

COVER SHEET

- **Proposed Action:** The United States Department of Agriculture (USDA), Commodity Credit Corporation and the State of Montana have agreed to implement the Addendum to Montana's Missouri-Madison River Corridor Conservation Reserve Enhancement Program (CREP) Agreement, a component of the Conservation Reserve Program. The Farm Service Agency of USDA proposes to enter into a CREP agreement with the State of Montana. CREP is a voluntary land conservation program for State agricultural landowners.
- Type of Document:
 Programmatic Environmental Assessment
- Lead Agency: USDA, Farm Service Agency
- **Sponsoring Agency:** Montana Farm Service Agency
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- Comments: This Programmatic Environmental Assessment was prepared in accordance with USDA Farm Service Agency National Environmental Policy Act implementation procedures found in 7 Code of Federal Regulations 799, as well as the National Environmental Policy Act of 1969, Public Law 91-190, 42 U.S. Code 4321-4347, 1 January 1970, as amended. Farm Service Agency will provide a public comment period prior to any decision. Once this document is finalized a Notice of Availability will be printed in the Federal Register. A copy of this Programmatic Environmental Assessment can be found at: http://www.fsa.usda.gov/FSA/webapp?area=home&subject=ecrc&to pic=nep-cd; and http://public.geo-marine.com

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EXECUTIVE SUMMARY

This Programmatic Environmental Assessment describes the potential environmental consequences resulting from the proposed implementation of Montana's Missouri-Madison River Corridor Conservation Reserve Enhancement Program (MMRC CREP) Agreement. The environmental analysis process is designed to ensure the public is involved in the process and informed about the potential environmental effects of a Federal action and to help decision makers take environmental factors into consideration when making decisions related to an 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 action is to implement the MMRC CREP. The MMRC CREP was first implemented in 2004 and in 2007 an Addendum to the CREP was proposed. Under the CREP, current agricultural production practices on eligible agricultural land would be discontinued and approved Conservation Practices (CPs) would be implemented. Producers would receive annual rental payments and would be eligible for one-time incentive payments in return for establishing approved CPs.

The need for the Proposed Action is to meet the overall goals of the MMRC CREP, specifically, to improve water quality and enhance fish and wildlife habitat within a 2-mile wide corridor around the Missouri and Madison River system.

Proposed Action and Alternatives

Under the Proposed Action, current agricultural practices on up to 26,000 acres of eligible lands in Madison, Gallatin, Broadwater, Lewis and Clark, Cascade, Chouteau, Blaine, Fergus, and Phillips counties in the MMRC would be discontinued. CPs would be established and maintained on those lands and producers would receive one-time and annual rental payments. Under the Preferred Alternative, the Addendum to the MMRC CREP would be implemented. The Addendum would make four additional CPs available to program participants and would expand the width of the riparian buffers from 180 to 1320 feet.

The No Action Alternative would be the continuation of the current program without the proposed Addendum. Under this alternative, fewer CPs would be available.

Summary of Environmental Consequences

It is expected that there would be long term positive impacts to a number of resources associated with the implementation of the Proposed Action. Temporary minor negative impacts to some

resources may occur during preparation of lands for the establishment of CPs. Potential negative impacts to cultural and biological resources would be mitigated by consultation with regulatory agencies. A summary of the potential impacts is given in Table ES-1.

Table ES-1 Summary of Environmental Consequences						
Resource	Preferred Alternative	No Action Alternative				
Biological Resources	Long term positive impacts to vegetation, wildlife, and threatened and endangered species are expected to occur as a result of implementing the Preferred Alternative. Benefits from an increase in riparian buffer widths would also improve water quality which is expected to positively impact wildlife and protected species and their habitats. Potential negative impacts associated with establishing CPs in threatened or endangered species habitat would be mitigated through informal consultation with U.S. Fish and Wildlife Service	The existing CREP allows for the establishment of CPs that provide long term positive impacts to threatened and endangered species and wildlife habitats. The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Preferred Alternative. Under the No Action Alternative, the proposed Addendum would not be implemented and the benefits to biological resources from implementing the additional CPs would not be realized.				
Cultural Resources	The potential for encountering archaeological and traditional cultural resources along riverine systems is high. Ground disturbing practices beyond what is normally disturbed by agricultural activities have the potential to impact such resources. If it is determined through consultation with the Montana State Historic Preservation Office that such resources are present, archeological surveys may be required prior to implementing site-specific ground- disturbing activities.	Under the No Action Alternative, the existing MMRC CREP would remain in place and the Addendum would not be implemented. The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Preferred Alternative.				

Resource	Preferred Alternative	No Action Alternative
Water Resources	Long term positive impacts to surface and groundwater quality and quantity are expected to occur as a result of the implementation of the Preferred Alternative. The CPs would allow for restoration and enhancement of more wetland communities where agricultural production currently occurs. It is expected that the discontinuation of agricultural production would further reduce runoff of sediment, nutrients, and agricultural chemicals, and would decrease the withdrawal of waters from aquifers. During the establishment of CPs, activities that remove vegetation or disturb soil may result in temporary minor increases in runoff which may temporarily affect surface water quality.	The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Preferred Alternative. The existing CREP would provide long term positive impacts to surface water, wetlands, and floodplains through the restoration of wetlands and establishment of filter strips and riparian buffers. Under the No Action Alternative the additional benefits to water resources that are expected to result from the CPs proposed by the Addendum, such as the creation of more buffer acreage from wetlands and habitat restoration would not occur.
Earth Resources	Long term positive impacts to topography and soils are expected to result from the implementation of the Preferred Alternative. The proposed CPs under the existing CREP and the Addendum would further stabilize stream banks and reduce erosion by wind and water.	The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Preferred Alternative. The existing CREP allows for the establishment of CPs that provides long term positive impacts to earth resources. Under the No Action Alternative, the proposed Addendum would not be implemented and the additional benefits to earth resources such as reduced erosion of stream banks would not be realized.

Table ES-1 Summary of Environmental Consequences (cont'd.)

Resource	Preferred Alternative	No Action Alternative
Recreation	Implementation of the Preferred Alternative is expected to have long term positive impacts on recreational resources such as hunting, fishing, and wildlife watching through improvements to water quality and restoration of wetlands and wildlife.	Potential impacts associated with the No Action Alternative are expected to be the same as those described under the Preferred Alternative.
Socioeconomics	The Preferred Alternative is not expected to significantly impact the economy. The financial incentives and annual rental payments are expected to exceed or balance out the losses that result from reduced expenditures on labor, fertilizer, and chemicals.	Since the funding to implement the program would not change, potential impacts associated with the No Action Alternative are expected to be the same as those described under the Preferred Alternative.
Environmental Justice	There are no concentrated minority populations in the proposed counties. Blaine county meets the definition of impoverished, however, significant adverse environmental impacts are not expected to result from the Preferred Alternative, therefore no disproportionate impacts to impoverished populations are expected to occur.	Potential impacts associated with the No Action Alternative are expected to be the same as those described under the Preferred Alternative.
Other Protected Resources	Implementation of the Preferred Alternative is expected to benefit other protected lands by positively affecting wildlife habitat, and surface water quality.	Potential impacts associated with the No Action Alternative are expected to be the same as those described under the Preferred Alternative.

Table ES-1 Summary of Environmental Consequences (cont'd.)

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Acronyms and Abbreviations

Acronym or Abbreviation	Term
BLM	Bureau of Land Management
BMP	best management practice
CCC	Commodity Credit Corporation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
СР	Conservation Practice
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
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
GRP	Grassland Reserve Program
MCL	Maximum Contaminant Level
MDEQ	Montana Department of Environmental Quality
MFWP	Montana Fish, Wildlife, and Parks
MGPD	million gallons per day
MMRC	Missouri-Madison River Corridor
MNHP	Montana National Heritage Program
MRBA	Missouri River Basin Association
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NF	National Forest
NPS	National Park Service
NRCS	Natural Resources Conservation Service
OIF	Outdoor Industry Foundation
PEA	Programmatic Environmental Assessment
SHPO	State Historic Preservation Office
ТСР	Traditional Cultural Property
ТНРО	Tribal Historic Preservation Officer
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USBLS	U.S. Bureau of Labor Statistics

Acronyms (cont'd.)

Acronym or Abbreviation	Term
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USFS	U.S. Forest Service
WRC	Watershed Restoration Coalition
WRP	Wetlands Reserve Program

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 BACKGROUND

The United States Department of Agriculture (USDA) Farm Service Agency (FSA) proposes to implement an Addendum to Montana's Missouri-Madison River Corridor Conservation Reserve Enhancement Program (MMRC CREP) Agreement. This Programmatic Environmental Assessment (PEA) has been prepared to examine the potential environmental consequences associated with implementation of the various components of the MMRC CREP.

The USDA FSA administers the Conservation Reserve Program (CRP), 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.

The CREP was established in 1997 under the authority of the CRP 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. The CREP addresses high priority conservation issues in defined geographic areas such as watersheds. Producers who enroll their eligible lands in CREP receive financial and technical assistance for establishing CPs on their land as well as annual rental payments. Once eligible lands are identified, site-specific environmental reviews and consultation with and permitting from other Federal and State agencies are completed as appropriate.

1.2 THE PROPOSED ACTION

The proposed action is to implement the MMRC CREP on 26,000 acres of eligible cropland in Madison, Gallatin, Broadwater, Lewis and Clark, Cascade, Chouteau, Blaine, Fergus, and Phillips counties. The MMRC CREP was first implemented in 2004 and in 2007 an Addendum to the CREP was proposed. The MMRC is an area of State and National significance. Portions of the Missouri River are designated as Wild and Scenic and the Madison River is one of the premier trout fisheries in the world. The proposed CREP Agreement is designed to enhance water quality and fish and wildlife resources of these river systems.

Under the proposed CREP Agreement, farmers and ranchers would voluntarily enter into contracts with the Federal government for 10 to 15 years, agreeing to remove portions of their land from agricultural production and establish approved CPs. Removing these lands from production would augment in-stream fishery and water quality restoration activities planned by PPL Montana and a variety of partners. Table 1.2-1 contains acreages of crops by county.

CREP Agreements are designed to meet specific regional conservation goals and objectives related to agriculture. The MMRC CREP carries forward these specific objectives as described in the Montana CREP and the Addendum:

Counties	Wheat (irrigated)	Wheat (non- irrigated)	Corn Sileage (irrigated)	Oats (irrigated)	Oats (non- irrigated)	Barley (irrigated)	Barley (non- irrigated)	Dry Beans (irrigated)	Dry Beans (non- irrigated)	Hay (irrigated)	Hay (non- irrigated)	Potatoes	Safflower	Total
Blaine	6,300	182,800			3,300	6,700	13,800			34,000	23,000			269,000
Broadwater	11,600	27,300				3,200	900	1,600	1,600	32,500	1,500			80,200
Cascade	3,200	138,900		200	900	10,600	18,600			73,000	19,000			264,400
Chouteau		506,900			700	1,000	31,500		1,500	8,000	27,000		1,300	613,400
Fergus		184,200		100	1,900	1,000	24,900		800	22,500	48,500			283,900
Gallatin	19,500	36,200	800		600	8,500	13,400		1,400	60,000	15,000	3,900		159,300
Lewis and Clark	5,400	11,200		800	300	6,700	2,400			33,500	8,500			68,800
Madison	9,400	3,600		1,800	100	4,800	200			61,500	2,500	730		84,630
Phillips	4,200	126,700		3,000	3,700	2,600	16,400		6,100	27,500	22,500			212,700
Source: USDA 2002 No data available														

 Table 1.2-1
 Acreages of Crops Grown in Each County in the MMRC CREP Area

- Establish, restore, and improve up to 11,000 acres of riparian buffers along approximately 524 miles of the Missouri and Madison Rivers and their tributaries.
- Establish and improve up to 14,000 acres of permanent, native wildlife habitat within a 2-mile wide corridor of the Missouri and Madison Rivers.
- Restore up to 1,000 acres of degraded wetlands within a 2-mile wide corridor of the Missouri and Madison Rivers.

1.3 PURPOSE AND NEED

The purpose of the proposed action is to implement the MMRC CREP on eligible cropland. The need for the proposed action is to meet the overall goals of the MMRC CREP, specifically, to improve water quality and enhance fish and wildlife habitat within a 2-mile wide corridor of the Missouri and Madison River system.

1.4 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 Water Act
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands

1.5 ORGANIZATION OF THE PEA

This PEA assesses the potential impacts of the Proposed Action and the No Action Alternative on potentially affected environmental and socioeconomic 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 alternatives are measured) for each of the potentially affected resources. 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.

Appendices include the Montana CREP Agreement; descriptions of the CPs; and agency coordination letters.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 PROPOSED ACTION

The FSA proposes to implement the MMRC CREP Agreement by enrolling up to 26,000 acres of environmentally sensitive agricultural lands within a 2-mile wide corridor of the Missouri and Madison Rivers in Madison, Gallatin, Broadwater, Lewis and Clark, Cascade, Chouteau, Blaine, Fergus, and Phillips Counties, Montana (Appendix A). Because program participation is voluntary, the locations and sizes of specific parcels that would be enrolled is not known. Landowners who enroll lands in MMRC CREP would receive support for the costs of installing and maintaining CPs as well as annual rental payments for those specific lands enrolled in the program.

2.1.1 Eligible Lands

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 contracts. Lands enrolled in the designated counties 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 (FSA 2003). Eligible cropland must have been planted or considered planted with an agricultural commodity during four of the six crop years from 1996 through 2001, and must be physically and legally capable of being planted in a normal manner to an agricultural commodity as determined by County Committee. Additionally, no more than 25% of the cropland in a county may be enrolled in CRP.

2.1.2 Establish and Maintain Conservation Practices

The CPs that are proposed for implementation under the MMRC CREP and proposed Addendum are shown in Table 2.1-1. Descriptions of the CPs are available in Appendix B.

Installation and maintenance of CPs may include the following actions:

- Removal of existing vegetation
- Use of equipment to prepare seedbed including disk, harrow, cultipacker, roller or similar equipment
- Application of nutrients, minerals, and seed, including shrubs and trees
- Installation of fencing, or other animal damage control devices
- Construction of structures to regulate flow and restore hydrology
- Construction of livestock stream crossing structures
- Establishment of pipelines and water facilities outside the riparian buffer
- Application of approved herbicides and pesticides
- Removal of brush

	MT CREP Agreement	Proposed Addendum
Acreage	26,000	No change
Geographic Area	Lands within a 2-mile corridor of the Missouri and Madison Rivers in Madison, Gallatin, Broadwater, Lewis and Clark, Cascade, Chouteau, Blaine, Fergus, and Phillips Counties	No change
Conservation Practices	 CP2 Establishment of Permanent Native Grasses CP4D Permanent Wildlife Habitat CP9 Shallow Water Areas for Wildlife CP10 Vegetative Cover-Grass Already Established CP21 Filter Strips CP 22 Riparian Buffer CP23 Wetland Restoration CP25 Rare and Declining Habitat 	 Addition of: CP1 Introduced Grasses and Legumes (not to exceed 3,000 acres) CP23A Wetland Restoration-Non- floodplain CP29 Wildlife Habitat Buffer- Marginal Pastureland CP30 Wetland Buffer-Marginal Pastureland
Conservation Practice Details	CP22 Riparian Buffer up to 180ft wide	CP22 Riparian Buffer up to 1320ft wide
Funding	State and Federal funding for incentives and rental payments up to \$57.5 million	No change
Contract Duration	10 to 15 years	No change
Sources: USDA 2004, U	SDA 2007a	

Table 2.1-1Summary of Components of the 2004 Montana CREP Agreement and
the 2007 Proposed Addendum

2.1.3 Provide Financial Support

Producers enrolled in MMRC CREP would enter into contracts for a minimum of 10 and a maximum of 15 years that stipulate implementation of approved CPs to receive financial and technical assistance. Producers are eligible for annual rental payments for the duration of the contract. Additionally, one-time cost sharing and incentive payments are available to participants to aid in establishing certain approved CPs.

The estimated cost of implementing the proposed MMRC CREP Agreement is \$57.5 million with an estimated Federal commitment of \$41.3 million (72%) and State, local and non-government organization contributions of \$16.2 million (28%).

2.2 SCOPING

Scoping is a process used to identify the extent and significance of issues related to a Proposed Action while involving the public and other key stakeholders in developing alternatives and weighing the importance of issues to be analyzed in the PEA. 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 conflicts or concerns (i.e., issues) prior to publication of a proposed project. The input gathered from scoping efforts is used during preparation of the proposed project.

The Montana CREP coordinator is responsible for coordinating programs within the proposed MMRC CREP area. Landowners may be advised through meetings, direct mail or outreach by organizations involved in the project. Several organizations have been involved in development of the MMRC CREP. These include:

- USDA FSA and Natural Resources Conservation Service
- Montana Department of Agriculture and Forestry
- Montana Department of Natural Resources and Conservation
- U.S. Fish and Wildlife Service
- PPL Montana
- MMRC area County Conservation Districts

2.3 ALTERNATIVES SELECTED FOR ANALYSIS

2.3.1 Alternative A – Preferred Alternative

Under Alternative A, the MMRC CREP and Addendum would be fully implemented as described above. Current agricultural practices on up to 26,000 acres of eligible lands in nine counties in the MMRC would be discontinued. CPs would be established and maintained on those lands and producers would receive one-time and annual rental payments.

2.3.2 Alternative B – No Action Alternative

Under the No Action Alternative, the current MMRC CREP for Montana would continue. The proposed Addendum to the MMRC CREP which would make four additional CPs (1, 23A, 29 and 30) available to program participants and expand the width of riparian buffers (CP22) from 180 to 1,320 feet around where lands could be enrolled would not be implemented.

2.4 RESOURCES ELIMINATED FROM ANALYSIS

CEQ regulations (§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:

Noise

Implementing the Proposed Action would not permanently increase ambient noise levels at or adjacent to the project area. Noise from heavy equipment is common on agricultural lands that could be enrolled in CREP. The potential for increased noise levels associated with implementing CPs would be minor, temporary, localized, and would cease once implementation of the approved CPs was completed.

Air Quality

The Proposed Action is not expected to impact 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 use of the land for agriculture, would not exceed ambient air quality standards, and would not violate the State Implementation Plan.

Coastal Zones

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

Traffic and Transportation

The Proposed Action would not affect the demand for traffic and transportation at or adjacent to the CREP area. Existing roadways and other transportation networks would not be affected.

3.0 AFFECTED ENVIRONMENT

3.1 BIOLOGICAL RESOURCES

3.1.1 Definition of Resource

Biological resources include plant and animal species and the habitats in which they occur. For this analysis, biological resources are divided into the following categories: vegetation; wildlife; and protected species. Vegetation and wildlife refer to the plant and animal species, both native and introduced which characterize a region. For this analysis, noxious weeds are not discussed since CREP contracts require conservation plans that include control of such species. Protected species are those Federally designated as threatened or endangered and protected by the Endangered Species Act (ESA). Critical habitat is designated by the U.S. Fish and Wildlife Service (USFWS) as essential for the recovery of threatened and endangered species, and like those species, is protected under ESA.

3.1.2 Affected Environment

3.1.2.1 Vegetation

Vegetation is often described in terms of ecoregions, areas of relatively homogenous soils, vegetation, climate and geology (Bailey 1980 and 1994). There are four levels of ecoregions: domain, division, province and section (also called subregion). Domains are large scale areas of similar climates. There are four domains in the United States. Within domains, there are a number of divisions, delineated by finer-scale climatic differences. Divisions are subdivided into provinces which are differentiated based on vegetation. Provinces are divided into sections based on geology and soils. The MMRC CREP area lies within a two mile corridor along the Missouri and Madison Rivers within nine counties in central Montana. This area lies within the Northwestern Glaciated Plains, the Northwestern Great Plains, and the Middle Rockies provinces (Woods et. al. 2002). The Northwestern Glaciated Plains includes Blaine, Cascade, Chouteau, and Phillips counties and is characterized by a strongly agricultural use with rolling drift plains and glaciated soils. Dominant plant species include grama grass (Bouteloua spp.), needlegrass (Achnatherum spp.), and wheatgrass (Agropyron spp.). Fergus County, along with the southern parts of Phillips and Blaine Counties are in the Northwestern Great Plains. Native vegetation communities within this region are characteristic of shortgrass prairie ecosystems with wheatgrass, needlegrass, little bluestem (Schizachyrium scoparium), and prairie sandreed (*Calamovilfa longifolia*) in flats and lowlands, with ponderosa pine (*Pinus ponderosa*) and Rocky Mountain juniper (Juniperus scopulorum) in woodlands of dry uplands. Broadwater, Gallatin, Lewis and Clark, and Madison counties are found within the Middle Rockies where dominant species include grama grass, needlegrass, and wheatgrass (Woods et al. 2002).

3.1.2.2 Wildlife

The Missouri and Madison River system is home for a number of important recreation fish species, such as Chinook salmon, brook trout, brown trout, walleye, black bullhead, and

shovelnose sturgeon. In addition, the surrounding areas of the Northwestern Glaciated Plains and the Northwestern Great Plains (the Missouri River floodplain) supports such species as Short-tailed Grouse, Sage Grouse, mule deer, pronghorn antelopes, jackrabbits, foxes, coyotes, and Golden Eagles. As the Missouri River enters the Middle Rockies province and meets the Madison River, wildlife supported by the Missouri and Madison valley are Rocky Mountain wolf, fisher, Northern Goshawk, lynx, wolverine, Boreal Owl, and pine marten (Montana National Heritage Program [MNHP] 2007; Montana Fish, Wildlife, and Parks [MFWP] 2007a).

3.1.2.3 Threatened and Endangered Species and Critical Habitat

There are nine species of Federally threatened or endangered plants and animals known to occur in the MMRC CREP counties. Table 3.1-1 lists the species that could occur in the CREP area, the county where each is known to occur, Federal listing status, and descriptions of the habitats (USFWS 2007a). Cascade County does not have any Federally threatened or endangered species.

Because lands eligible for enrollment in Montana's MMRC CREP are farmlands recently or currently in agricultural production, it is likely little to no natural vegetation exists on lands that would be enrolled. Although one Federally protected plant species, Ute lady's-tresses orchid is found within Broadwater, Gallatin, and Madison counties.

The Gray Wolf is found in four counties within the project area, Broadwater, Gallatin, Lewis and Clark, and Madison, although only Lewis and Clark County has endangered status populations. All four counties are included in an experimental area and listed as Non-essential experimental populations (Sime et al. 2007). Non-essential experimental population status indicates that the threatened and/or endangered species population is protected but whose loss would not be likely to appreciably reduce the likelihood of survival of the species in the wild (Section 10(j) ESA). The Gray Wolf is generally found within mountain and forested locations and not reported within the project corridor, but it is still likely that a population can be found within any part of these counties (Sime et al. 2007).

Table 3.1-1	Threatened and Endangered Species That Could Occur in the MMRC
	CREP Area

Species	ESA Status*	County	Habitat
Plant			
Ute Lady's-tresses (Spiranthes diluvialis)	Т	Broadwater, Gallatin, Madison	Moist to very wet meadows along streams or in abandoned stream meanders that still retain ample ground water. Also near springs, seeps, and lakeshores. Occurs from 1300-1600 m in elevations.
Animals			
Canada Lynx (<i>Lynx Canadensis</i>)	Т	Gallatin, Lewis and Clark, Madison	Conifer and/or western spruce-fir forest; subalpine fir, engleman spruce and lodgepole pine.
Black-footed Ferret (<i>Mustela nigripes</i>)	E, C	Blaine (E), Choteau(E), Fergus(E), Lewis and Clark(E), Phillips (E&C)	Eastern Montana. Prairie dog complexes in open grasslands, steppe and shrub-steppe. Estimated that 40-60 hectares of prairie dog colony are required for one ferret.
Brown Bear (Ursus arctos)	Т	Lewis and Clark	Alpine, subalpine coniferous forest; Western Montana
Bull Trout (Salvelinus confluentus)	T, C	Lewis and Clark (T&C)	Cold water rivers, streams and lakes; often in fast currents with temperatures between 45-50 °F.
Gray Wolf (<i>Canis lupus</i>)	E, X	Broadwater (X), Gallatin (X), Lewis and Clark (E&X), Madison (X)	Alpine and tundra conifer/hardwood/mixed forests and woodlands of Western Montana. Requires low road density in semi- wild lands if ungulate prey is available. Raises young in abandoned dens or wolf dug burrows.

Species	ESA Status*	County	Habitat
Pallid Sturgeon (Scaphirhynchus albus)	E	Blaine, Choteau, Fergus, Phillips	Adapted for living close to the bottom of large, silty rivers with swift currents. The preferred habitat is comprised of sand flats and gravel bars.
Piping Plover (Charadrius melodius)	Т, С	Phillips (T&C)	Prefer a wide, sandy beach along coastal shores in areas that have scant vegetation and scattered stones.
Whooping Crane (Grus Americana)	E	Phillips	Wetlands, migrant in eastern Montana.

Table 3.1-1 Threatened and Endangered Species That Could Occur in the MMRC CREP Area (cont'd.)

3.2 CULTURAL RESOURCES

3.2.1 Definition of Resource

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. 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 (National Register). Traditional cultural resources hold importance or significance to Native Americans 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 America Graves Protection and Repatriation Act, EO 13007, and/or eligibility for inclusion in the National Register is considered a part of the NEPA process. The regulations and procedures in 36 CFR 800, which implements Section 106 of the National Historic Preservation Act, requires Federal agencies to consider the effects on properties listed in or eligible for inclusion in the National Register. Prior to approval of the Preferred Alternative, Section 106 requires that 1) the Federal agency consider the effects of its

undertaking from the perspective of the identified resources and 2) the Advisory Council on Historic Preservation be afforded the opportunity to comment.

3.2.2 Affected Environment

3.2.2.1 Archaeological Resources

According to records managed by the Montana Historical Society (serving at the Montana State Historic Preservation Office [SHPO]), there are 13,492 recorded cultural resources properties within the nine counties affected by the CREP agreement (Table 3.2-1). The following sections review the principal prehistoric and historic periods relevant to the overall CREP agreement area, and the types of resources likely to be found.

County	Prehistoric	Historic	Paleontological
Blaine	1,137	382	4
Fergus	343	456	28
Phillips	2,968	644	15
Chouteau	658	295	1
Cascade	229	848	2
Lewis and Clark	552	1,109	20
Broadwater	367	388	25
Gallatin	587	484	11
Madison	828	967	144
Sub-Total	7,669	5,573	250
Total			13,492
Source: Murdo 2007			

Table 3.2-1 Archaeological Sites Identified within the MMRC counties

3.2.2.2 Prehistoric Period

Human habitation in Montana began between 15,000 and 12,000 B.C., marked by one of the earliest migrations into the New World through the North American Great Plains. Although often discussed as a single entity, Great Plains prehistory is neither environmentally nor culturally homogeneous. The project area encompasses the Northern and Northwestern Plains, the prehistory of which is typically divided into four general culture periods – Paleo-Indian, Archaic, Woodland, and Plains Village or Hunter-gatherers – based on technology, subsistence, patterns of settlement, and social features.

Prevailing theory for the origins of Paleo-Indians on the Northern Plains involves substantial evidence for a pre-Clovis culture, generally dating to before 11,500 radio-carbon years before present (Hofman and Graham 1998), with one or more migrations from Eurasia across the Bering Land Bridge culminating with the Clovis culture. Characterized by a heavy-reliance on bone-flaking techniques and stone artifacts temporally associated with extinct mega-fauna, Paleo-Indian culture utilized a broad spectrum of food resources available seasonally, and focused hunting on high-return resources such as mammoth and bison. Excavation of Paleo-Indian sites reveals that most components were occupied for short-duration or that occupations were not commonly repeated, and that sites and areas within sites are documented as displaying discrete segregation of certain activities, such as butchery and food storage (Hofman and Graham 1998). A wide variety of lithic resources found in Clovis tool kits along with widely-shared cultural similarities across the Plains suggest that Paleo-Indians were widely mobile, reflecting a dynamic time of environmental and ecological change and the unique human strategies required for survival.

The beginning of the Archaic Period on the Northwest and Northern Plains appears to coincide with a time of higher temperatures and lower precipitation, as early as 9,000 B.C., resulting in a widening range of variation in projectile-point styles. Archaic social groups included aggregates of family units who came together and dispersed as subsistence efforts required. Quarrying for stone to make stone tools, communal bison kills, and seasonal caching of food-stuffs were occasions when groups would unite under temporary authority, dispersing after the fact to better manage ecological uncertainties.

The period has no widely-defined end-date, but the arrival of the bow and arrow on the Northwest and Northern Plains is the most-utilized division, beginning with some groups as early as A.D. 1, and others still not using the technology by A.D. 500. Some groups maintained Archaic subsistence practices involving bison-hunting and plant-food gathering – until historic times (Frison 1998).

The Woodland Period on the Northern Plains is characterized by pottery, corner-notched projectile points, and burial mounds (Johnson and Johnson 1998). Early points are of two forms, signaling the continued use of the atl-atl as well as the addition of the bow and arrow. Woodland subsistence economies continued to use bison traps and jumps, with occupation sites showing seasonal and repeated use by the large quantities of bison bones, fire-cracked rock, charcoal, pottery and lithic debris. In Montana, evidence for horticulture is lacking, but the sites of several

cultures, including the Besant, demonstrate long-distance trade with horticultural groups, suggesting the choice to reject agriculture. Pottery styles and mound building also reflect relationships with other Woodland groups of the Missouri River Valley (Johnson and Johnson 1998).

Cultures of the Late Prehistoric are characterized as either Plains Villages or Hunter-gatherers dependent upon their main subsistence model. Two main groups occupied Montana during this time: The Arapaho, Assiniboine, Blackfeet, Cheyenne, Crow, and Gros Ventre tribes occupied the plains and the Bannock, Kalispell, Kootenai, Salish, and Shoshone tribes occupied the mountains. The acquisition of horses, control of buffalo herd movement, and continued seasonal transhumance mark the hunter-gatherers of the Northwest Plains. Complex social systems developed from continued interaction with neighboring Middle Missouri influences, and protohistoric rock-art motifs – such as horses with upright manes and warriors bearing shields – attest that interactions were not always peaceful (Hanson 1998).

Prehistoric site types in Montana include archaeological lithic scatters, stone circle/tipi ring sites, and rock cairns. Among other well-known types of prehistoric or possibly early historic Indian sites in Montana, there are 231 buffalo jumps, 120 bedrock quarries, and 596 rock art sites currently recorded in the statewide inventory. Some rare prehistoric site types in Montana include pithouses, sites that can be definitively associated with fishing, and medicine wheels (Montana Historical Society 2003).

3.2.2.3 Protohistoric and Historic Period

Although French trappers were active in Montana beginning in the 1740s, the 1803 Purchase of Louisiana Territory by the United States traditionally marks the beginning of western expansion by European settlers into the area later established in 1864 as the Territory of Montana (Montana Historical Society 2003; Congressional Statute XCV). Initiated by Lewis and Clark's Discovery Expedition between 1804 and 1806, westward expansion resulted in clashes with the Native Americans that culminated in two of the most famous Indian campaigns in American history, the Battle of Little Bighorn in 1876 and the two-day battle at Big Hole that subjugated the Indians fighting with Chief Joseph. Westward expansion was also characterized by missionary activities, cattle ranching, gold mining, and trade and travel by steamboat (Montana Historical Society 2003; Fritz and Hansen 2000).

This surge of industry had two definitive results. First, lawlessness and a surge of population led to the Territory being admitted to the United States as the 41st state on November 8, 1889. Montana's growth was due mostly to the mining industry. Marcus Daly and William A. Clark led the development of Butte copper and the Anaconda Company, which eventually owned an electric power company, built a railroad, constructed dams, and controlled banks and newspapers. The second definitive result was the decimation and ultimate centralization of the Native Americans on reservations, counter to the established social and subsistence cultures of the "semi-migratory tribes [who] occupied expansive home territories, meeting and sharing traditions and innovations, while all the while creating changing rivalries and alliances with other tribes" (Montana Historical Society 2003). The once thriving Indian population was rapidly reduced

through war, disease, forced relocation and the decimation of the bison on the Great Plains to reservations under the Dawes Act of 1887, effectively altering their cultures permanently.

The Great Depression of the 1930s resulted in a reduced demand for Montana's metals, and drought directly affected farm income. Resurgence in the form of government works projects, such as the Fort Peck Dam, brought much needed resources and economic recovery to the State. Followed closely by the meat and metal demands of World War II and then by oil and gas exploration in the 1950s, Montana's economy prospered. Today, agriculture remains the foremost industry, followed closely by coal and metals mining (Montana Historical Society 2003, Fritz and Hansen 2000).

Recorded historic properties range from camps to ferry landings to historic mining remnants to schools and grain elevators. The three most common recorded historic property types are: mining sites, many of which are abandoned, i.e. historical archaeological sites; railroad, stage and other transportation-related properties, including bridges; and rural homesteads/farmsteads, many that also exist now only as historic archaeological sites. Records also exist for over 200 historic districts and approximately 1000 individually documented historic residences. Most historic-age properties in the State inventory are associated with long continuous periods of use; only twenty-five have been identified as predominantly pre-1860 and about three hundred are associated directly with Montana's Territorial Period (1860-1889). The large majority of recorded historic sites were constructed after Montana achieved statehood in 1889, with the most often cited decade being 1930-1939.

3.2.2.4 Historic Architectural Resources

In total, 76 properties are listed on the National Register within the nine CREP area counties (National Park Service 2007). However, many other sites whose National Register eligibilities have not been determined are found throughout the rural areas encompassed by the CREP agreement. In addition to those officially nominated and accepted for listing on the National Register, the Montana Historical Society lists an additional 598 properties in the State inventory that have been formally determined eligible for listing by the Keeper of the Register and 3,163 determined eligible by the SHPO; these eligible sites are treated as if they were listed in the National Register for the purposes of compliance with Federal and State preservation laws (Montana Historical Society 2003).

3.2.2.5 Traditional Cultural Properties

A traditional cultural property is defined as 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 (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Traditional cultural properties may be difficult to recognize and may include a location of a traditional ceremonial location, a mountaintop, a lake, or a stretch of river, or culturally important neighborhood (National Park Service 1998).

Montana's traditional cultural properties include: traditional cultural and spiritual sites, including vision quest sites; scarred (cambium-peeled) trees in western Montana; historic Indian trails;

wickiups and cribbed-log structures; missions; treaty localities; battlefields; Fort Assiniboine; the Nez Perce National Historic Trail; current and former Indian Agency locations; Chief Plenty Coups State Park; tribal historic community halls; Indian allotment homesteads; and many other distinctly Indian properties. At least two Montana properties have been listed on the National Register of Historic Places in the past five years as traditional cultural places important to Indian communities. Many traditional cultural properties are known only to the tribes and therefore known only through involvement of the tribes in the preservation planning process (Montana Historical Society 2003).

3.3 WATER RESOURCES

3.3.1 Definition of Resource

The Clean Water Act, 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 and aquifers, wetlands, and floodplains.

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. Every two years, States must publish a list of those rivers, streams, and lakes that do not meet their designated uses because of excess pollutants (referred to as 303(d) List). Total maximum daily loads of pollutants must be established and approved by EPA for impaired streams (EPA 2007a).

Groundwater refers to subsurface hydrologic resources that are used for domestic, agricultural, and industrial purposes. Groundwater is contained 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 the EPA, which requires the EPA to review any proposed projects within the designated areas that are receiving Federal financial assistance (EPA 2007b).

Wetlands are defined by the U.S. Army Corps of Engineers (USACE) as areas 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.

Floodplains are defined 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 one percent chance of being equaled or exceeded in any given year. 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.

3.3.2 Affected Environment

3.3.2.1 Surface Water

The MMRC is located in two major river basins, the Upper and Lower Missouri, and consists of numerous tributaries of two major rivers, the Missouri and Madison (Montana Department of Environmental Quality [MDEQ] 2007a). The Madison River originates in Wyoming and flows northerly for 140 miles to Three Forks, Montana, where it joins Jefferson and Gallatin Rivers to form the Missouri River. The Madison is one of Montana's leading wild trout rivers (MFWP 2007b). The Missouri River flows approximately 2,500 miles from its headwaters and drains a 530,000 square mile basin (Missouri River Basin Association [MRBA] 2004).

Much of the agricultural land in the MMRC counties produces wheat (62 percent). Production of wheat may impact water quality and surface water flow by contributing nutrients, pesticides, and sediment, and by altering the movement of water through irrigation and drainage practices. Nutrient concentrations for nitrogen and phosphorus for the Missouri River exceed the ecoregion guideline of 1.50 milligrams per Liter (MDEQ 2006) and 90 percent of Montana's surface water pollutants are sediment (Flaherty 2007).

The Missouri is highly engineered; impounded by six large dams in the upper portion and channelized in the lower river for navigation (MRBA 2004). There are 56 segments of rivers and creeks in the Upper Missouri watershed of the MMRC that are on the Montana 303(d) list for impaired waters (EPA 2004). Most waters in the State have not been tested for contaminants however 41 rivers, creeks and reservoirs have fish consumption warnings (MDEQ 2007b).

3.3.2.2 Groundwater and Aquifers

The availability and quality of groundwater in the MMRC varies greatly. The Madison Limestone Aquifer, located in the upper watershed, is the largest artesian aquifer in the U.S. (Baker 2006). The aquifer is within intermontane valleys and often yields large quantities of high-quality water in relatively shallow wells. The main recharge area, located in the eastern portion of the State, is in the Little Belt Mountains. In the Lower Missouri watershed, in the central and western portions of the State, the groundwater quality in the Madison Limestone is generally more mineralized, of poor quality, and only suitable for livestock consumption (Baker 2006, MDEQ 2006).

Groundwater sources provide 2-3 percent (188 million gallons per day [mgpd]), of the 8,290 mgpd used in Montana (MDEQ 2006). The largest uses of groundwater are:

- irrigation 83.0 mgpd
- drinking water 73.4 mgpd
- industrial 31.0 mgpd

Almost all of Montana's groundwater contains arsenic; however most contain concentrations that are below the EPA's Maximum Contaminant Level (MCL) for safe drinking water (MDEQ 2006, EPA 2007c). Aluminum, lead and selenium are present in concentrations above the MCL in one to seven percent of samples statewide (MDEQ 2006).

3.3.2.3 Wetlands

Wetlands in the MMRC are classified by ecoregion and hydrogeomorphology into 2 categories: (1) Riparian Wetlands of the Rocky Mountain Intermountain Valley Ecoregions, which are associated with large springs and watersheds greater than 1,000 acres and (2) Riparian Wetlands of the Plains Ecoregion, which are rare small wetlands associated with streams or springs (MDEQ 2007c).

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.

3.3.2.4 Floodplains

Flood events in Montana 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 Missouri River Basin (MRBA 2004).

3.4 EARTH RESOURCES

3.4.1 Definition of Resource

For this analysis, earth 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 associations.

3.4.2 Affected Environment

3.4.2.1 Topography

Montana has a mean elevation of approximately 3,400 ft and can be divided into two geographic ecoregions (City-Data 2007). Madison, Gallatin, Broadwater, Lewis and Clark, and the western portion of Cascade counties are located in the Middle Rocky Mountain ecoregion (Bailey 1980). The remaining portion of Cascade, Chouteau, Fergus, Blaine and Phillips counties are located in the Northwestern Great Plains (Bailey 1980).

The Rocky Mountain ecoregion of Montana contains high, rugged mountains that rise to more than 9,000 ft. Mountain trenches are covered with flat, grassy valleys that are wider in the north (30 to 40 miles) than in the south (1 to 5 miles). Most of the region has been glaciated and local relief exceeds 3,000 ft (Netstate 2003).

The Northwester Great Plains ecoregion of the MMRC CREP area stretches eastward from the foot of the Rocky Mountains in Gallatin, Broadwater and Cascade Counties to the eastern border

of Phillips County (Bailey 1980). The Great Plains are made of high, gently rolling land interrupted by hills and wide river valleys including the Yellowstone and Missouri Rivers (Netstate 2003). In northern sections of the State, badlands and isolated mountains break the continuity of the plains. Elevation ranges from 2,500 to 5,500 ft and land north of the Missouri River contains young glacial drifts and dissected till plains (Bailey 1980).

3.4.2.2 Soils

A variety of igneous, sedimentary, and metamorphic rocks form mountain masses in the Rocky Mountain Region and soils are mainly cool, moist Inceptisols (Bailey 1980). Loess and volcanic ash deposits have helped form soils in the mountainous foothills. Carbonates accumulate in the lower layers of prairie soils because of decreased rainfall and calcification (Bailey 1980). Soils of the prairies are Mollisols, which have black organic surfaces and a high content of organic bases. Plant roots penetrate soils deeply bringing bases to the soil surface and restoring fertility. Because of this, Great Plains' soils are the most productive of soil groups.

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 and viewing wildlife, fishing, hiking, birding, boating, and other water-related activities.

3.5.2 Affected Environment

The lands that could be enrolled in the MMRC are privately held and the producers control access to these lands for recreational activities. However, there are numerous public lands available for recreation in the proposed MMRC CREP area, including State parks, wilderness areas, wildlife refuges, historical parks and monuments, national forests, and other public lands such as those administered by the Bureau of Land Management (BLM). Many of these public lands provide opportunities for hunting, fishing, wildlife viewing, camping, hiking, and water sports. Outdoor Industry Foundation [OIF] 2006) figures for annual participation in the most common recreational activities are in Table 3.5-1.

The State of Montana created the Block Management Program to promote cooperative agreements between public and private landholders which enables hunters to access private lands, and adjacent or hard-to-reach public lands (MFWP 2007c). Landowner participation in block management is voluntary. Contracts are negotiated annually in the spring and summer, and thus some fluctuations in enrolled acreage occur from year to year. After enrollment is complete, each administrative region publishes a Block Management Hunting Guide, which lists the block management opportunities available for the current season. These regional guides are published on or before August 15, annually.

Camping	Fishing	Hunting	Paddling	Hiking/Climbing	Wildlife Viewing
325,000	205,000	167,000	171,000	352,000	362,000
Source: OIF 2006					

 Table 3.5-1
 Annual Participation in Common Recreational Activities in Montana

Montana permits fishing on its lakes, rivers, and reservoirs, and is famous for its fishing opportunities. A state law permits public use of rivers and streams up to the normal high water mark, and does not allow the crossing of private lands to access these waters. The State maintains public fishing access locations throughout the MMRC CREP area, most originating at bridge crossings and large water bodies such as lakes and reservoirs.

Recreation is important to the economy of Montana. According to the Outdoor Industry Foundation (2006), the industry annually contributes:

- over 2.5 billion to Montana's economy
- supports 34,000 jobs
- generates \$118 million in tax revenue
- produces about \$2 billion in related retail sales and services

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 in the nine Montana counties where lands are eligible for enrollment.

3.6.2 Affected Environment

3.6.2.1 Non-Farm Employment and Income

The civilian labor force within the MMRC CREP area counties grew from 169,662 in 1990 to 178,935 in 2000 (United States Census Bureau [USCB] 1990, USCB 2000). Non-agricultural industries employed 89,626 and 113,665 persons in 1990 and 2000, respectively (U.S. Bureau of Labor Statistics [USBLS] 2006a). County unemployment rates within the MMRC CREP are in Table 3.6-1.

In 2004, median household income of the nine counties in the MMRC CREP ranged from a low of \$27,862 in Blaine County to a high of \$42,498 in Gallatin County (USCB 2004).

County	Unemployment Rate	
Blaine	3.1%	
Broadwater	3.0%	
Cascade	3.1%	
Chouteau	2.6%	
Fergus	3.8%	
Gallatin	2.2%	
Lewis and Clark	2.9%	
Madison	2.9%	
Phillips	3.5%	
Source: USBLS 2006b		

Table 3.6-1 The MMRC 2006 Unemployment Rates by County

3.6.2.2 Farm Employment and Income

There were 6,538 workers on 1,786 farms in the MMRC CREP counties accounting for a payroll of \$36,925,000 (USDA 2002). Table 3.6-2 lists the hired farm and contract labor costs for each county and labor costs as a percentage of total production costs, as well as total labor cost per total farm acre. Average annual compensation for a farm laborer in Montana in 2006 was \$20, 580 (USBLS 2006a). Average total labor expended per total farm acreage was \$4.22/acre in 2002. Realized average net cash farm income of operations in the nine counties of the MMRC CREP area was in excess of \$127,316 (USDA 2002).

Total government payments to farms within the MMRC CREP counties exceeded \$36.5 million in 2002, a decrease of about \$10.6 million (22 percent) over the 1997 government payments to farms within the region (USDA 2002). For those dry states, such as Montana, annual rental payments under CREP are adjusted for more valuable irrigated land. Table 3.6-3 provides the base soil rental rates within the MMRC counties.
		2002					1997			
	Hired Farm Labor (\$1000)	Contract Labor (\$1000)	Total Production Expenses (\$1000)	Labor as a Percent of Total Production Expenses	Total Labor Per Acre* (\$)	Hired Farm Labor (\$1000)	Contract Labor (\$1000)	Total Production Expenses (\$1000)	Labor as a Percent of Total Production Expenses	Total Labor Per Acre* (\$)
Blaine	2,579	549	51,418	6.0%	1.38	1,990	339	39,589	5.8%	1.05
Broadwater	1,406	363	17,631	10.0%	3.77	1,886	219	18,116	2.2%	4.62
Cascade	4,419	498	57,785	8.5%	3.54	4,172	498	52,270	8.9%	3.18
Chouteau	5,960	602	71,332	9.1%	2.85	4,761	1,150	77,389	7.6%	2.63
Fergus	3,082	556	57,405	6.3%	1.59	2,497	726	54,438	5.9%	1.45
Gallatin	9,932	846	66,811	16.1%	15.21	4,877	891	48,469	11.9%	7.37
Lewis and Clark	2,312	208	22,415	11.2%	2.99	1,642	167	17,281	10.4%	2.17
Madison	5,023	388	39,718	13.6%	5.26	3,107	281	31,073	10.9%	3.09
Phillips	2,212	335	36,502	6.9%	1.34	2,293	220	36,285	6.9%	1.30
Totals and Averages	36,925	4,345	421,017	9.8%	4.22	27,225	4,491	345,910	9.1%	2.98
Source: USDA 1997 and 2002 *Acre = Total Farm Acreage										

Table 3.6-2 Farm Labor as a Percentage of Total Production Expenses and Cost Per Acre in the MMRC Counties

		Non-Irrigated				
	Irrigated Cropland	Cropland	Marginal Pastureland Adjacent to Seasonal Streams or Waterbody	Marginal Pastureland Adjacent to Perennial Stream or Waterbody		
Blaine	\$90	\$23.13	\$18	\$85		
Broadwater	\$90	\$19.42	\$34	\$85		
Cascade	\$90	\$25.31	\$26	\$85		
Chouteau	\$90	\$26.33	\$24	\$85		
Fergus	\$90	\$25.93	\$22	\$85		
Gallatin	\$90	\$24.62	\$30	\$85		
Lewis and Clark	\$90	\$24.40	\$28	\$85		
Madison	\$90	\$23.42	\$34	\$85		
Phillips	\$90	\$22.27	\$18	\$85		
Source: MMRC CREP Agr	eement, USDA 2002	, Patrick 2007				

Table 3.6-3 Base Soil Rental Rates/Acre in Montana MMRC Counties

3.6.2.3 Farm Expenses and Returns

Farm production expenses in 2002 exceeded \$42,101,700 within the counties of the MMRC CREP, an increase of 21.7 percent over 1997 (USDA 1997, 2002). The average cost per total farm acres in 2002 was \$26.85 (USDA 2002). Similarly, the average cost per crop acre of agricultural chemical inputs, including fertilizers and lime, was \$22.16 (USDA 2002). Average net cash income from operations within the MMRC CREP counties was \$127,316 per farm in 2002 (USDA 2002). Table 3.6-4 lists the average farm production expenses and return per dollar of expenditure from 2002 within each of the MMRC CREP counties. Table 3.6-5 lists the average value of land and buildings and the average value of machinery and equipment per farm within each of the nine counties.

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
Blaine	3,846	87,149	22.65	26,861	6.98	30.8%
Broadwater	1,684	63,193	37.50	16,172	9.60	25.5%
Cascade	1,339	55,723	41.61	5,947	4.44	10.6%
Chouteau	2,924	90,753	31.03	20,752	7.09	22.8%
Fergus	2,749	69,414	25.25	15,137	5.50	21.8%
Gallatin	660	62,092	94.07	15,710	23.80	25.3%
Lewis and Clark	1,326	34,968	26.37	5,182	3.90	14.8%
Madison	2,005	77,725	38.76	-533	-0.26	.06%
Phillips	3,613	69,263	19.17	22,088	6.11	31.8%
Average	2,238	60,113	26.85	14,146	6.31	23.5%
Source: USDA 200	02; * Acres = Te	otal Farm Acreage				

Table 3.6-4Average Farm Production Expense and Return Per Dollar of
Expenditure in MMRC Counties (2002)

Table 3.6-5	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)		
Blaine	3,846	947,437	108,702		
Broadwater	1,684	771,349	99,468		
Cascade	1,339	603,928	58,769		
Chouteau	2,924	1,265,042	135,216		
Fergus	2,749	1,018,176	97,016		
Gallatin	660	821,164	76,714		
Lewis & Clark	1,326	638,667	49,146		
Madison	2,005	1,209,397	74,770		
Phillips	3,613	811,774	78,517		
Source: USDA 2002					

3.6.2.4 Current Agricultural Land Use Conditions

In 2002, up to 2,145,944 acres of land within the MMRC CREP counties were harvested; this was a decrease of approximately 23 percent from 1997 (2,781,410 acres) (USDA 2002). Table 3.6-6 lists acreage for different agricultural land uses in 1997 and 2002 and the percent change during the period. Conservation programs acreage for 2007 totaled 773,612 acres (USDA 2007b).

Land Use	2002 Acreage	1997 Acreage	Percent Change		
Acres Harvested	2,145,944	2,781,410	-22.8%		
Cropland ¹	4,484,130	3,755,009	19.4%		
Pastureland ²	8,095,421	7,995,176	1.2%		
Woodland ³	55,607	72,395	-23.1%		
CRP ⁴	808,763	611,621	32.2%		
Total Land in Farms ⁵	12,470,436	13,271,363	-6.0%		
¹ Cropland excludes all harvested hayland and cropland used for pasture or grazing					
³ Woodlands not pastured. Some data withheld to avoid individual farm disclosures.					
⁴ CRP acreages are included as active agricultural lands					
⁵ Total land in farms includes cropland, hay land,	pastureland, woodlands and	house lots, etc.			
Source: USDA 2002					

Table 3.6-6 Agricultural Land Use Acreage within the MMRC CREP Area

3.7 Environmental Justice

3.7.1 Definition of the Resource

Executive Order 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. A minority population is established if the combined percent of these groups exceeds 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 USCB defines ethnicity as either being of Hispanic or Latino origin or not being of Hispanic or Latino origin. Hispanic or Latino 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 MMRC CREP area was 244,613 persons in 2000, an increase of approximately 14.1 percent from 1990 (USCB 1990, 2000). The 2000 MMRC CREP county population was 92.5 percent White; 0.49 percent Black or African American; 3.99 percent Native American or Alaska Native; 0.66 percent Asian; 0.06 percent Native Hawaiian or Pacific Islander; 2.2 percent of all other races or combination of races; and 1.65 percent Hispanic (USCB 2000) (Table 3.7-1). The total minority population within the MMRC CREP area was 22,202 persons or 9 percent of the total regional population (USCB 2000). The MMRC CREP area is not a location of a concentrated minority population.

County	White	Black	Native American	Asian	Other	Combination	Native Hawaiian	Hispanic	Total
Blaine	3,685	12	3,180	6	16	108	2	70	7,009
Broadwater	4,255	12	51	5	15	44	3	58	4,385
Cascade	72,897	900	3,394	652	547	1,900	67	1,949	80,357
Chouteau	5,015	5	873	14	14	43	6	40	5,970
Fergus	11,548	10	140	23	34	138	0	96	11,893
Gallatin	65,251	156	598	606	368	809	43	809	67,831
Lewis- Clark	53,046	111	1,137	287	209	898	28	843	55,716
Madison	6,647	3	36	18	52	95	0	130	6,851
Phillips	4,115	7	350	15	17	96	1	53	4,601
Total	226,459	1,216	9,759	1,626	1,272	4,131	150	4,048	244,613
Percent	92.58%	0.49%	3.99%	0.66%	0.52%	1.68%	0.06%	1.65%	100%
Source: USCB 2	Source: USCB 2000								

 Table 3.7-1
 Demographic Profile of MMRC Counties (2000)

In 2002, there were 9,843 primary farm operators running 1,786 farms in the area: 95 percent were operated by Whites; 0.02 percent of Black or African Americans operators; 1.7 percent were run by Native Americans; 0.19 percent were operated by Asians; 1.17 percent was operated by Hispanics; and 0.36 percent were managed by persons of combined ancestry (USDA 2002) (Table 3.7-2). There is no record of natives of Hawaii operating any farms.

County	All	White	Black	Native American	Asian	Hispanic	Combination
Blaine	942	812	0	94	6	5	3
Broadwater	472	442		4		2	1
Cascade	1,610	1,566	2	14	3	28	3
Chouteau	1,213	1,175	0	8	4	20	1
Fergus	1,267	1,251	0	0	0	7	3
Gallatin	1,709	1,644	0	4	1	17	8
Lewis- Clark	1,012	973	0	6	2	29	8
Madison	799	770	0	4	1	5	2
Phillips	819	744	0	33	2	2	6
Total	9,843	9,377	2	167	19	115	35
Percent	100%	95.27%	0.02%	1.7%	0.19%	1.17%	0.36%

 Table 3.7-2
 Farm Operator Racial Composition by County (2002)

3.7.2.2 Income and Poverty

In 2004, median household income of the nine counties in the MMRC CREP ranged from a low of \$27,862 in Blaine County to a high of \$42,498 in Gallatin County (USCB 2004). Table 3.7-3 shows the number and percentage of persons living below the poverty level in each MMRC CREP county in 2004. Blaine County is considered impoverished, with 21% of its residents living at or below the poverty level.

County	Number	Percent		
Blaine	1,434	21.5		
Broadwater	557	12.3		
Cascade	10,700	13.4		
Chouteau	792	14.2		
Fergus	1,523	13.2		
Gallatin	8,093	10.7		
Lewis and Clark	6,551	11.3		
Madison	772	10.9		
Phillips	651	15.5		
Source: USCB 2005; USDA 2006				

Table 3.7-3	Individuals Living Under the Poverty Level by County (2004)
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3.8 OTHER PROTECTED RESOURCES

3.8.1 Definition of Resource

Other protected resources include lands managed by the BLM, USFWS, National Park Service (NPS), and the United States Forest Service (USFS). BLM managed lands include Wilderness Areas, National Monuments, and National Conservation Areas. National Wildlife Refuges are managed by the USFWS. The NPS manages National Parks, National Landmarks, National Historic Sites, and National Wild and Scenic Rivers. The USFS manages National Forests, National Grasslands, National Recreation Areas, Wilderness, and Wilderness Study Areas. For this analysis, other protected resources are those lands within the proposed MMRC CREP counties that are managed by the Federal government for the purpose of conservation, recreation, or research.

3.8.2 Affected Environment

The MMRC CREP counties include lands managed by the BLM, USFWS, NPS, and USFS. Table 3.8-1 lists protected resources for each of the nine counties and the Federal managing agency. In addition to the protected resources listed in the table, that portion of the Lewis and Clark National Historic Trail located adjacent to the Missouri River is managed by the National Park Service.

Resource	County	Managing Agency		
Bob Marshall Wilderness Area	Lewis and Clark	BLM		
Scapegoat Wilderness Area	Lewis and Clark	BLM		
Brenton Lake National Wildlife Refuge	Cascade	BLM		
Bowdoin National Wildlife Refuge	Phillips	BLM		
Benton Lake National Wildlife Refuge	Cascade	BLM		
C.M. Russell National Wildlife Refuge	Blaine, Phillips	BLM		
Upper Missouri Breaks National Monument	Blaine, Chouteau, Fergus, Phillips	BLM		
Bear Paw Battlefield	Blaine	NPS		
Square Butte	Chouteau	NPS		
Middle Fork Canyon	Gallatin	NPS		
Fort Benton National Historic Landmark	Chouteau	NPS		
Virginia City National Historic Landmark	Madison	NPS		
Portage National Historic Landmark	Chouteau	NPS		
Fort Benton National Historic Landmark	Chouteau	NPS		
Lee Metcalf Wilderness Area	Gallatin	NPS		
UL Bend National Wildlife Refuge	Phillips	NPS		
Missouri River (Wild and Scenic River)	Blaine, Chouteau, Fergus, Cascade, Phillips	Secretary of the Interior		
Deerlodge National Forest	Gallatin, Madison	USFS		
Gallatin National Forest	Gallatin	USFS		
Helena National Forest	Broadwater, Lewis and Clark	USFS		
Lewis and Clark National Forest	Broadwater, Cascade, Chouteau, Fergus	USFS		
Beaverhead-Deerlodge National Forest	Gallatin, Madison	USFS		
Gates of the Mountains Wilderness	Lewis and Clark	USFS		
Sources: 16 U.S. Code 431Section 2. 1906; Clinton 2001; NPS 2004; USFWS 2007b; Public Lands Information Center 2007:				

Table 3.0-1 Trolected hesolarces in the mining oner Ale	Table 3.8-1	Protected Resources in the MMRC CREP Area
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Sources: 16 U.S. Code 431Section 2. 1906; Clinton 2001; NPS 2004; USFWS 2007b; Public Lands Information Center 2007; USFS 2007; Wild and Scenic Rivers Act 1968.

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4.0 ENVIRONMENTAL CONSEQUENCES

4.1 BIOLOGICAL RESOURCES

Impacts to biological resources would be considered significant if implementation of an action resulted in reducing wildlife populations to a level of concern, removing land with unique vegetation characteristics, or incidental take of a protected species or critical habitat.

4.1.1 Vegetation

4.1.1.1 Alternative A – Preferred Alternative

Implementing the Preferred Alternative is expected to result in positive impacts to vegetation with the implementation of the MMRC CREP and the Addendum. The establishment of plant communities that would result from acceptable CPs with either natural or introduced species in areas where crops were once grown is expected to result in greater vegetative species diversity, as areas of agricultural monocultures are replaced. Establishment of permanent native grasses (CP2), permanent wildlife habitat (CP 40), riparian buffers (CP22), wetland restoration (CP23), and rare and declining habitat (CP25) are expected to restore native plant communities and reduce the occurrence of exotic species. Establishing filter strips (CP21), widening riparian buffers (CP22) wetland restoration (CP23), and wetland buffers (CP30) are expected to reduce runoff of agricultural chemicals and soils, thus improving the quality of habitats for aquatic plants by decreasing turbidity and enrichment from fertilizers which in turn would allow more sun light to reach submerged rooted plants.

4.1.1.2 Alternative B – No Action Alternative

Under the No Action Alternative the proposed Addendum to the MMRC CREP would not be implemented. Eligible lands could be enrolled in the existing CREP. The potential impacts are expected to be similar as those described under Alternative A but the benefits of the additional CPs, in particular implementing wetland buffers on marginal pastureland (CP30), wildlife habitat restoration (CP29), and widening of riparian buffers (CP22) would not be realized.

4.1.2 Wildlife

4.1.2.1 Alternative A – Preferred Alternative

By replacing existing monocultures with native and non-native vegetation, the MMRC CREP would provide habitat for terrestrial wildlife. With increased plant species diversity, a corresponding increase in animal species diversity is expected. Grassland birds would benefit primarily from the establishment of native grasses (CP2). Additionally, ungulate, small mammal, and predator populations would also benefit from this practice as well as the establishment of permanent wildlife habitat (CP40), rare and declining habitat (CP25), introduced grasses and legumes (CP1), and wildlife habitat buffers (CP 29). Additionally, habitats for aquatic species including recreationally important fish, are expected to improve as runoff of sediment and

agricultural chemicals are reduced as a result of establishing filter strips (CP21), riparian buffers (CP22), wetland restoration (CP23), and wetland buffers (CP30).

4.1.2.2 Alternative B – No Action Alternative

Under the No Action Alternative the proposed Addendum to the MMRC CREP would not be implemented. Eligible lands could be enrolled in the existing CREP and the potential impacts and positive benefits would be similar as described under Alternative A. The added benefits of wildlife habitat buffers (CP29), wetland buffers (CP30), and wider riparian buffers (CP22) would not be realized.

4.1.3 Protected Species

4.1.3.1 Alternative A – Preferred Alternative

Similar to vegetation and wildlife, some threatened and endangered species are expected to experience long term benefits from the improvements in surface water quality both within and downstream of the project area and the establishment of permanent plant communities including native terrestrial habitats. The aquatic habitat used by the pallid sturgeon and the bull trout is expected to improve as a result of reduced runoff of agricultural chemicals and soil erosion. Such water quality improvements are also expected to improve the foraging habitat of the Piping Plover and the Whooping Crane. The gray wolf, which is dependent upon populations of ungulate prey, could be positively impacted by restoration of vegetation which would result in larger tracts of habitat that are not fragmented by agricultural fields and could attract native ungulate populations. In the eastern region of the MMRC CREP, restoration of grasslands could positively affect the black-footed ferret by increasing habitat for the prairie dog. In addition, the Ute ladies'-tresses orchid would benefit from restoration of wetlands (CP23) and the establishment of wetland buffer areas along streams within marginal pasturelands (CP30). It is unlikely that there will be any negative effects on threatened and endangered species by the actions of the MMRC CREP since none of these species benefits from the cropland monocultures or disturbed habitat. There is likely little direct benefit to the Canada lynx and the brown bear from the MMRC CREP, since these species tend to inhabit more alpine and subalpine locations with undisturbed alpine and subalpine coniferous forest. Temporary minor negative impacts could occur during land preparation as a result of noise or other disturbance. Informal consultation with the USFWS is recommended for those areas that support habitats where protected species could occur (Table 3.1.1). Such consultation would verify the presence or absence of protected species and provide mitigation measures to eliminate or reduce potential impacts.

4.1.3.2 Alternative B – No Action Alternative

Under the No Action Alternative the proposed Addendum to the MMRC CREP would not be implemented. Eligible lands could be enrolled in the existing CREP and the potential impacts and positive benefits would be similar to those as described under Alternative A. The additional potential benefits associated with the additional CPs would not be realized.

4.2 CULTURAL RESOURCES

4.2.1 Archaeological Resources

4.2.1.1 Alternative A – Preferred Alternative

Due to the long history of human occupation in the CREP agreement area, and its association with one of the most important perennial water resources in the State (see Chapter 3), the potential for encountering archaeological resources during implementation of CREP contracts is considered high. Conservation practices 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 may include mechanical removal of vegetation and brush, and restoration of local hydrology by removal of crop levees, terraces or other conditions that cause ponding of water and smoothing of rills and gullies. In order to determine whether such proposed ground-disturbing practices would impact cultural resources, FSA would consult with the Montana SHPO prior to implementation of the contract to determine whether an archaeological survey is warranted. Should surveys be required, they would be conducted in accordance with 36 CFR 800 requirements or by utilizing procedures in a State Level Agreement, if one exists. If no cultural resources are present, the Section 106 process is complete. If archaeological resources are present and determined eligible for the National Register, in coordination with SHPO, FSA will determine if they will be adversely affected by the proposed activities

4.2.1.2 Alternative B – No Action Alternative

Under the No Action Alternative, the existing MMRC CREP would remain in place but the proposed Addendum would not be implemented. Potential impacts to archaeological resources and requirements for mitigating such impacts are the same as those described for the Preferred Alternative.

4.2.2 Architectural Resources

4.2.2.1 Alternative A – Preferred Alternative

Although the farming industry comprises one of the greatest contributions to Montana's historic past, the proposed activities do not include modification or removal of structures. Therefore, no impacts to architectural resources are anticipated.

4.2.2.2 Alternative B – No Action Alternative

As with the Preferred Alternative, no impacts to architectural resources are expected to result from the continued implementation of the unamended MMRC CREP.

4.2.3 Traditional Cultural Properties

4.2.3.1 Alternative A – Preferred Alternative

Because the areas of potential effect of CREP actions are not yet defined, no American Indian religious or culturally significant historic properties have been identified. Once these areas are defined, consultation with Native American groups that have traditional ties to the lands would be required to determine whether such properties exist within specific project areas. Consultation would be conducted with Indian Tribes on the basis of a government-to-government relationship. Consultation should follow the guidance established in the Advisory Council on Historic Preservation's "Consulting with Indian Tribes in the Section 106 Process." If no cultural resources are found, the 106 process is complete. If traditional cultural resources are present and determined eligible for the National Register, the FSA will determine if they will be adversely affected by the proposed activities.

Federally recognized tribes currently listed within the geographic boundaries of Montana include (Federal Register 2002):

- Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation,
- Blackfeet Tribe of the Blackfeet Indian Reservation,
- Chippewa-Cree Indians of the Rocky Boy's Reservation,
- Confederated Salish & Kootenai Tribes of the Flathead Reservation,
- Crow Tribe,
- Fort Belknap Indian Community of the Fort Belknap Reservation, and
- Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation.

Additionally, the subsistence, social, and cultural practices of Plains Native American tribes involved movement across artificially-placed State boundaries; tribes from surrounding states – as indicated by the Montana Historical Society – may have traditional ties to specific project areas and must also be consulted prior to any action.

4.2.3.2 Alternative B – No Action Alternative

The potential impacts to TCPs resulting from the continued implementation of the MMRC CREP are the same as those described for the Preferred Alternative.

4.3 WATER RESOURCES

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

4.3.1 Alternative A Preferred Alternative

4.3.1.1 Surface Water

Implementation of the proposed MMRC CREP and its Addendum 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 (CP1, CP 2 and CP 4D) would stabilize soils and reduce soil erosion and the runoff of nutrients and chemicals associated with agriculture. Additionally, the establishment of riparian buffers (CP 22) adjacent to watercourses would stabilize stream banks, provide areas for the retention of sediment and nutrient runoff from adjacent lands, and improve aquatic habitat. Improvements to surface water quality could ultimately lead to removing streams and rivers from the 303(d) list.

Activities such as vegetation clearing and soil disturbance may occur during the installation of CPs. This 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. These impacts would be localized and cease with land preparation activities.

4.3.1.2 Groundwater and Aquifers

Groundwater quality is expected to improve as recharge areas would receive less pollutants since vegetation would trap more nutrients and chemicals and prevent percolation through soil. Withdrawals from the aquifer for agricultural production are expected to be reduced once CPs are in place.

4.3.1.3 Wetlands

Reductions in nitrogen, phosphorous, and other agricultural chemicals in runoff would occur with the retirement of agricultural land. Implementation of CP23A is expected to increase wetland acreage in the MMRC CREP area. Wetlands act as natural filters by containing sediments and nutrients from runoff before releasing to nearby surface waters. Restoring or repairing wetland habitats would also provide quality habitat for wildlife (see Section 4.1).

4.3.1.4 Floodplains

Riparian buffer restoration would provide long-term flood control benefits (CP23, CP23A, and CP 30) as vegetation would trap and slowly release surface water, rain, snowmelt, groundwater and flood waters, and would slow the speed of flood waters to distribute them gradually over the floodplain.

4.3.2 Alternative B No Action Alternative

Under the No Action Alternative the proposed Addendum to the MMRC CREP would not be implemented. Eligible lands could be enrolled in the existing CREP and the potential impacts and benefits to water resources would be similar to those described under Alternative A. Overall improvement to water quality would be similar, but wetland benefits associated with increased riparian buffer width (CP22) specific to the Addendum would not be realized.

4.4 EARTH RESOURCES

Impacts to earth resources would be considered adverse if implementation of the proposed action resulted in permanently increasing erosion and stream sedimentation, or affected topographical or unique soil conditions.

4.4.1 Alternative A - Preferred Alternative

Under the Preferred Alternative, long-term positive impacts to earth resources are expected to occur from localized stabilization of soils and topography. Reduced erosion and runoff as a result of restoration of riparian buffers (CP22) would stabilize stream banks, resulting in reduced rates of sedimentation. Establishing native and introduced grasses (CP1 and CP2) on former croplands would reduce wind and water erosion commonly associated with bare land. Short-term disturbance to soils during implementation of the CREP 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, however they may be mitigated by erosion control and best management practices (BMPs) such as silt fencing and vegetated filter strips.

4.4.2 Alternative B - No Action Alternative

Under the No Action Alternative the proposed Addendum to the MMRC CREP would not be implemented. Eligible lands could be enrolled in the existing CREP and the potential impacts and benefits to earth resources would be similar to those described under Alternative A. However, the positive impacts associated with the expected reduction in erosion from wind and water when riparian buffer widths are increased (CP22) would not be realized.

4.5 RECREATION

Impacts to recreation would be considered significant if they substantially increased, reduced or removed available and accessible public lands designated for recreation. Detrimental impacts to air, water, or biological resources within or near public recreational land that would affect its use is also considered significant.

4.5.1 Alternative A – Preferred Alternative

Implementation of Alternative A would have positive long term impacts on recreational resources by increasing hunting, fishing and watchable wildlife species, and enhancing the visual and aesthetic qualities of recreational lands along the Missouri and Madison rivers and their tributaries. Implementation of the proposed CPs would increase and improve the quantity of wildlife habitat and thus game species. Creating vegetative (CP1) and wetland habitats (CP23A) is expected to reduce erosion and improve water quality (See Section 4.3) that would benefit game fish species. Replacing farmland with permanent vegetation would restore or create habitat for wildlife species and is expected to provide additional opportunities for wildlife-related recreation. Restoration of vegetation and providing buffers along the riverbanks also improves visual quality, enhancing the experience of those recreating on the water. A short term negative impact to recreational activities may occur during the installation of the proposed CPs due to unsightly construction activities or temporary displacement of game species. Access to recreational resources would not be affected by implementation of the CPs on privately held lands, where it is controlled by the individual property owner.

4.5.2 Alternative B – No Action Alternative

As with the Preferred Alternative, positive impacts to recreational resources are expected to result from the continued implementation of the MMRC CREP.

4.6 SOCIOECONOMICS

The significance of an impact to socioeconomics varies with the setting of the Proposed Action, but 40 CFR 1508.8 states that indirect effects may include those that are growth inducing, or induce changes in the pattern of land use, population density, or growth rate. Under CEQ regulations, a socioeconomic impact cannot be a sole cause for the preparation of an Environmental Impact Statement.

4.6.1 Alternative A – Preferred Alternative

Implementing the Preferred Alternative would have a beneficial impact on the economy of the MMRC CREP area. The agreement would result in an expenditure of up to \$57.5 million in the nine counties eligible for enrollment.

The average net cash income within the MMRC CREP was \$6.31 an acre in 2002. Cost of fertilizer and chemicals averaged \$22.16 per acre. The annual expenditure per total farm acre on total labor costs was \$4.22 in 2002. The loss of 26,000 acres in the MMRC CREP area from production would result in a reduction of \$164,060 net cash income, \$576,160 in chemical inputs not purchased for agricultural use, and \$109,720 in labor expense. The average 2006 wage for persons engaged in crop and animal production in Montana was \$20,580 a year (USBLS 2006b). Using these figures, roughly 5.33 jobs at prevailing wages would be lost. Current estimates indicate that agriculture employs 6,538 persons in MMRC CREP counties, thus this loss is not considered significant.

Under the MMRC CREP, irrigated land enrolled in the program would receive a higher annual rental rate based on its value. The total amount to implement the program (\$57.5 million) would not change regardless of the type of land enrolled. CREP is a voluntary program and the land to be enrolled is not known, however, if more irrigated land is enrolled, it is likely that fewer producers could participate in the program.

Flow down models calculate the value of the direct and indirect economic impacts an action would have on a regional economy. The Preferred Alternative would result in the addition of up to \$57.5 million in annual rental payments over the duration of the 15 year contract period. As noted above, it would also result in diminished expenditures on seed and chemical inputs, likely resulting in slight reductions in employment in those industries. On balance, the overall result of the rental payments and reduced expenditures, including a multiplier effect to account for the

flow of such dollars re-circulating through the economy over the years of the expenditure, would have a positive future value. The current worth of that positive future value (its net present value) would be the value of future expenditures (after considering employment loss, reduced sales and purchase of chemical inputs) discounted for inflation and expressed in terms of current dollars. This is the standard method for assessing the impacts of long term projects on economies. It is estimated that the net present value of the direct and indirect economic impacts from implementing the Preferred Alternative is \$57.5 million. Given the net present value, there is no expected impact to the regional economy from implementing the program.

4.6.2 Alternative B – No Action Alternative

Under the No Action Alternative, the socioeconomic effects would be the same as those described for Alternative A. Under this alternative, the same areas of land would be eligible for enrollment in CREP and the financial incentives would remain the same.

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 were denied or if any adverse environmental effects occurred that would disproportionately affect minority or low-income populations.

4.7.1 Alternative A – Preferred Alternative

No concentrated minority population resides in the MMRC CREP counties. Blaine county meets the definition of impoverished with 21% of its residents living under the poverty level. However, no significant adverse environmental impacts are expected to result from the Preferred Alternative, therefore no disproportionate impacts to impoverished populations are expected to occur.

4.7.2 Alternative B – No Action Alternative

As with the Alternative A, no impacts to environmental justice are expected to result from the continued implementation of the MMRC CREP.

4.8 OTHER PROTECTED RESOURCES

Impacts to other protected lands would be adverse 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 an adverse impact.

4.8.1 Alternative A - Preferred Alternative

Implementation of the Preferred Alternative would result in the establishment of CPs on environmentally sensitive range and pasture land in Blaine, Broadwater, Cascade, Chouteau, Fergus, Gallatin, Lewis and Clark, Madison, and Phillips Counties. No negative impacts to other protected lands in the MMRC CREP area are expected to result from this action. The introduction of grasses and legumes (CP1), non-floodplain wetland restoration (CP23A), establishment of wildlife habitat buffers in marginal pastureland (CP29), and wetland buffers in marginal pastureland (CP30) 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 Alternative

Under the No Action Alternative, the proposed Addendum to the MMRC CREP would not be implemented, but the existing MMRC CREP would remain in place. Benefits to other protected resources are expected to be similar to those that would result from implementation of Alternative A.

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5.0 CUMULATIVE EFFECTS

5.1 INTRODUCTION

CEQ regulations stipulate that the cumulative effects analysis within a PEA should 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 Preferred Alternative. The scope must consider geographic and temporal overlaps among the Preferred Alternative 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 environment for cumulative impacts is those counties where lands are eligible for enrollment in CREP. 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, 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, Environmental Quality Incentives Program, Wetlands Reserve Program, and Grassland Reserve Program.

5.2.1 Cumulative Effects Matrix

The incremental contribution of impacts of the Proposed Action, when considered in combination with other past, present, and reasonably foreseeable actions, are expected to result in long term positive impacts to biological, water, soil resources, recreation and other protected resources both in the MMRC CREP area and in waters downstream. Short term negative impacts to biological and water resources may occur during establishment of CPs. Archaeological resources and TCPs may be impacted by installation of CPs that disturbs the ground beyond that which was previously disturbed. No impacts to socioeconomics or environmental justice are expected Table 5.2-1 summarizes cumulative effects.

Resource	Past and Present Actions	Proposed Action	Future Actions	Cumulative Effects
Biological Resources	Long term positive impacts to vegetation, wildlife and protected species are expected to result from the activities identified, which would establish permanent negative communities and create habitat for wildlife.	Long term positive impacts to vegetation, wildlife, and protected species.	Continued enrollment of farmland in programs which would restore habitats is expected to benefit biological resources.	Long term benefits to biological resources are expected to result from CREP and similar USDA programs and other State and Federal conservation programs that aim to restore habitats and improve water quality.
Cultural Resources	Potential to encounter archaeological resources in the region is considered high. It is also possible that TCPs could be affected. Consultation with Tribes and SHPO would ensure no impacts to such resources.	Enrolling more land in conservation programs increases the likelihood that archaeological resources or TCPs would be encountered. Consultation would ensure no impacts occur.	Similar effects as described in the Proposed Action.	Cultural Resources could be impacted if activities resulting in the disturbance of previously undisturbed ground lead to the discovery of archaeological resources or affected TCPs. Appropriate consultation with the SHPO and Tribal governments would ensure protection of Cultural Resources and would reduce the likelihood of negative impacts.

Table 5.2-1 Summary of Cumulative Effects

Resource	Past and Present Actions	Proposed Action	Future Actions	Cumulative Effects
Water Resources	Long term positive impacts to water quality are expected to result from programs that replace agricultural production with conservation measures. The goal of many conservation programs is to improve surface and groundwater quality, restore wetlands and stabilize floodplains.	Long term positive impacts to water quality and wetlands are expected to result from the Proposed Action. Ground and surface water are expected to benefit from reduced runoff of agricultural chemicals and decreased use of groundwater for irrigation. Benefits to floodplains is expected as restored riparian habitats would hold water and slow flood waters.	Continued enrollment of farmland in conservation programs is expected to have positive impacts to water quality, similar to those described for the Proposed Action.	Positive long term cumulative impacts to surface water quality, groundwater quality and quantity, wetland acreage and function, and floodplain stabilization are expected to result from the Proposed Action and other past present and reasonably foreseeable future actions.
Earth Resources	Long term positive impacts to earth resources are expected to result from programs that use conservation measures to replace agricultural land. Permanent vegetative cover results in reduced erosion and preservation of localized topographic features.	Long term positive impacts to soils and topography are expected to result from stabilizing soils by establish- ing permanent vegetation.	Similar to that described for past and present activities. Programs that replace agricultural land with vegetation are expected to result in stabilized soils and topography.	Positive long term impacts to soil resources are expected to result from the Proposed Action and other known and reasonably foreseeable actions.

 Table 5.2-1
 Summary of Cumulative Effects (cont'd.)

Resource	Past and Present Actions	Proposed Action	Future Actions	Cumulative Effects
Recreation	Long term positive impacts to recreation opportunities are expected to result from 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.	Under the Proposed Action, long term positive impacts to water quality will likely benefit aquatic life and positively impact recreational activities such as fishing. Increases in wildlife habitat likely increase game species as well as wildlife watching opportunities.	Enrollment of farmland in conservation programs is expected to have continued positive impacts to recreational opportunities as described for the proposed action.	Like with other USDA programs, long term positive impacts to recreation would occur. Recreational opportunities are indirectly benefited through other Federal and State conservation programs that protect and restore habitat, resulting in improved wildlife-related recreational opportunities.
Socioeconomics	Other programs that offer monetary compensation for restoration and retirement of agricultural lands could positively impact local economies. The loss of agricultural lands may adversely affect economies from a small decrease in agricultural production and its associated economic benefits.	A slight beneficial impact to the economy of the area is expected to result from the Proposed Action. The loss of agricultural lands may adversely affect employment by reducing expenditures associated with farm labor.	Continued enrollment of farmland is likely to have potential impacts similar to those described in past and present actions.	The Proposed Action along with past, present and future actions could result in direct or indirect impacts to the economy of the region. The loss of agricultural lands could adversely affect the economy. The influx of compensation for such programs could result in positive economic impacts.

 Table 5.2-1
 Summary of Cumulative Effects (cont'd.)

Resource	Past and Present Actions	Proposed Action	Future Actions	Cumulative Effects
Environmental Justice	Conservation programs in the area typically have long term positive impacts to the environment and local economy. Minor temporary negative impacts are often associated with implementation of programs during construction projects, however, these are not significant. Therefore, there are no environmental justice concerns.	No impacts to environmental justice because no negative environmental or economic impacts are expected to result from the Proposed Action. No concentrated minority population resides in the MMRC CREP counties. Blaine county meets definition impoverished however, no disproportionate impacts to impoverished populations are expected to occur.	No negative impacts to minority populations would occur because no minority populations exist in the affected counties. Impacts to the impoverished population of Blaine County could occur if there are negative impacts to other resources.	It is possible that impacts to the impoverished populations of Blaine County could occur if the Proposed Action and past, present and future actions resulted in a significant reduction in the availability of employment or environmental affects which disproportionately impact these populations.
Other Protected Resources	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 introduction of CPs may positively affect natural lands set aside for conservation, research or recreation by complementing and enhancing their missions.	The proposed MMRC CREP Agreement is expected to complement other Federal and State programs by enhancing wildlife habitat, reducing the incidence and spread of exotic species, and improving the quality of surface and ground waters.	Restoration of previously fragmented or degraded habitat would be expected to result in improved water quality, healthier wildlife populations, and increased opportunities for wildlife observation.

 Table 5.2-1
 Summary of Cumulative Effects (cont'd.)

5.3 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

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 Preferred Alternative is FSA.

6.3 MITIGATION MATRIX

There are no expected negative impacts associated with implementation of the Proposed Action. Prior to installation of CPs, producers must complete site specific environmental analysis which would reveal any protected resources on or adjacent to the habitat. In those site specific instances where a wetland, threatened or endangered species, or a cultural resource may be present, consultation with the appropriate lead agency would identify specific mitigation measures required to eliminate or reduce the negative impacts to those sensitive resources.

Activities may result in temporary minor increases in soil erosion and increase sediment in surface waters and wetlands, however they may be mitigated by erosion control and best management practices (BMPs) such as silt fencing and vegetated filter strips.

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9.0 REFERENCES

- 16 U.S.C. 431, Section 2. 1906. Antiquities Act of 1906. http://www.cr.nps.gov/locallaw/anti1906.htm. Accessed on Nov 13, 2007.
- Bailey, Robert G. 1980. Description of the Ecoregions of the United States. U.S. Department of Agriculture, Miscellaneous Publication No. 1391: 77 pp.
- Bailey, Robert G., P.E. Avers, T. King, and W.H. McNab (eds.) 1994. Ecoregions and Subregions of the United States Map. U.S. Department of Agriculture, U.S. Forest Service.
- Baker, D. 2006. Water Flows Underground from Little Belt Mountains in Central Montana to Manitoba. <u>http://www.littlebelt.com/geology/gndwater/gndwater.shtml</u>. Accessed November 14, 2007.
- Baumler, M. and A. Olsen. 1989, rev. 2003. Consulting with the Montana SHPO: Guidelines and Procedures for Cultural Resource Review and Consultation under the National Historic Preservation Act and the Montana State Antiquities Act. Montana State Historic Preservation Office Planning Bulletin 21. <u>http://montanahistoricalsociety.org/shpo/archaeology/ consultingwith.asp</u>. Accessed November 20, 2007.
- City-Data 2007. Montana detailed profile/topography. <u>http://www.citydata.com/ states/Montana</u> <u>Topography.html</u>. Accessed on Nov 6, 2007.
- Clinton, William. 2001. Proclamation by the President establishing the Upper Missouri River Breaks National Monument. <u>www.mt.blm.gov/ldo/um/index.html</u> Accessed on Nov 13, 2007
- Congressional Statute XCV. 1864.An Act to Provide Temporary Government for the Territory of Montana. The Statues at Large, Treaties, and Proclamations of the United States of America from December 1863 to December 1865. G.P. Sanger, ed.
- Council on Environmental Quality (CEQ). 1997. Guidance under the National Environmental Policy Act.
- Environmental Protection Agency (EPA) 2004. Section 303(d) List Fact Sheet: Montana. http://oaspub.epa.gov/waters/state_rept.control?p_state=MT. Accessed November 7, 2007.

Environmental Protection Agency (EPA) 2007a. TMDL Definition. http://www.epa.gov/owow/tmdl/intro.html. Accessed November 7, 2007.

- Environmental Protection Agency (EPA) 2007b. Sole Source Aquifer Protection Program. <u>http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=SSA</u>. Accessed November 9, 2007.
- Environmental Protection Agency (EPA) 2007c. Drinking Water Contaminants. <u>http://www.epa.gov/safewater/contaminants/index.html#organic</u>. Accessed November 14, 2007.

- Federal Register 2002. Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs; Notice Part IV. Department of the Interior, Bureau of Indian Affairs. <u>http://www.census.gov/pubinfo/www/FRN02.pdf</u> Accessed November 20, 2007.
- Flaherty, C. 2007. Montana's Water: The Good, the Bad and the Beautiful. <u>http://www.montana.edu/wwwpb/reso/water.html</u>. Accessed November 8, 2007.
- Frison, G.C. 1998. The Northwestern and Northern Plains Archaic. In Archaeology on the Great Plains. W. R. Wood, ed. University Press of Kansas, Lawrence, 140-172.
- Fritz H.W. and K. Hansen. 2000. A Brief History of Montana. <u>http://montanahistoricalsociety.org/education/studentguide/HistoryOfMontana.asp</u> Accessed November 19, 2007.
- Hanson, J.R. 1998. The Late High Plains Hunters. In Archaeology on the Great Plains. W. R. Wood, ed. University Press of Kansas, Lawrence, 456-480.
- Hofman, J.L. and R.W. Graham. 1998. The Paleo-Indian Cultures of the Great Plains. In Archaeology on the Great Plains. W. R. Wood, ed. University Press of Kansas, Lawrence, 87-139.
- Johnson, A.M. and A.E. Johnson. 1998. The Plains Woodland. In Archaeology on the Great Plains. W. R. Wood, ed. University Press of Kansas, Lawrence, 201-234.
- Kay, M. 1998. The Great Plains Setting. In Archaeology on the Great Plains. W. R. Wood, ed. University Press of Kansas, Lawrence, 16-47.
- Missouri River Basin Association (MRBA) 2004. The Missouri River Basin. <u>http://www.mrba-missouri-river.com/interest.htm</u>. Accessed November 7, 2007.
- Montana Department of Environmental Quality (MDEQ) 2006. State of Montana Integrated 303(d)/305(b) Water Quality Report. <u>http://www.deq.mt.gov/CWAIC/wqrep/2006/FINAL_PART_D_GROUNDWATER</u> MONITORING AND ASSESSMENT.pdf. Accessed November 7, 2007.
- Montana Department of Environmental Quality (MDEQ)2007a. Watershed Approach: Major Montana Watersheds. <u>http://www.deq.state.mt.us/wqinfo/swp/watershedApproach.asp</u>. Accessed November 7, 2007.
- Montana Department of Environmental Quality (MDEQ) 2007b. Sport Fish Consumption Guidelines. <u>http://fwp.mt.gov/fishing/regulations/consumption.html</u>. Accessed November 7, 2007.
- Montana Department of Environmental Quality (MDEQ) 2007c. Lakes & Wetlands Classification. <u>http://www.deq.state.mt.us/wqinfo/Wetlands/classification.asp</u>. Accessed November 8, 2007.
- Montana Fish, Wildlife and Parks Division (MFWP) 2007a. Montana Fishing Guide. <u>http://fwp.mt.gov/fishing/guide/q_Madison_River_1115074459269_0_131.90299987793.as</u> <u>px</u>.

- Montana Fish, Wildlife, and Parks Division (MFWP) 2007b. Regional Information Profiles. <u>http://fwp.mt.gov/</u> Accessed 7 November 2007.
- Montana Fish, Wildlife and Parks Division (MFWP) 2007c. Hunting Access: Block Management Program. <u>http://fwp.mt.gov/hunting/hunteraccess/private.html.</u> Accessed November 28, 2007.
- Montana Historical Society 2003. Working Together to Preserve Montana; Montana Historic Preservation Plan 2003-2007. <u>http://montanahistoricalsociety.org/shpo/surveyplanning/HistPresPlan.asp</u> Accessed November 19, 2007.
- Montana National Heritage Program (MNHP) 2007. Animal Field Guide. http://nhp.nris.state.mt.us/animal/index.asp. Accessed 7 November 2007.
- Murado, Damar. Personal Communication with Brandi Carrier-Jones on November 20, 2007.
- National Park Service (NPS) 1998. National Register Bulletin 38: Guidelines for Evaluating Traditional Cultural Properties.
- National Park Service (NPS) 2004. National Natural Landmarks by State. <u>http://www.nature.nps.gov/nnl/Registry/USA_Map/index.cfm</u> Accessed on Nov 13, 2007.
- National Park Service (NPS) 2007. National Register of Historic Places National Register Information System Database. <u>http://www.nps.gov/nr/research/index.htm</u> Accessed November 20, 2007.
- Netstate 2003. The geography of Montana. <u>http://www.netstate.com/states/geography/mt</u> <u>geography.htm</u>. Accessed on Nov 6, 2007.
- Public Lands Information Center 2007. Montana Wilderness Areas. <u>http://www.publiclands.org/explore/spec_agency.php?agency=Wilderness%20Areas&opt1=</u> <u>Y</u>_Accessed on November 13, 2007.
- Outdoor Industry Foundation (OIF) 2006. Active Outdoor Recreation Economy: Montana. http://www.outdoorindustry.org. Accessed November 28, 2007.
- Patrick, 2007. Personal Communication between Glenn Patrick and Robin Ives, November 30, 2007, in reference to FSA Soils Data Management Systems (Soil Rental Rates).
- Sime, Carolyn A., V. Asher, L. Bradley, K. Laudon, M. Ross, J. Trapp, M. Atkinson, L. Handegard, and J. Steuber. 2007. Montana gray wolf conservation and management 2006 annual report. Montana Fish, Wildlife & Parks. Helena, Montana. 96 pp plus appendices. (www.fwp.mt.gov/wildthings/wolf).
- US Army Corps of Engineers (USACE) 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report, Y-87-1. Department of the Army, Waterways Experiment Station, Environmental Laboratory, Vicksburg, Mississippi.
- US Bureau of Labor Statistics (USBLS) 2006a. Occupational Employment Statistics Montana 2006. <u>www.bls.gov/oes/current/oes_mt.htm</u>. Accessed November 28, 2007.

- US Bureau of Labor Statistics (USBLS) 2006b. Bureau of Labor Statistics: Employment Rates by State and County 2006. <u>http://www.bls.gov/pub</u>. Accessed November 28, 2007.
- US Census Bureau (USCB) 1990 State and County Quickfacts. http://quikfacts.census.gov/qfd/states/30/30007.html. November 14, 2007.
- US Census Bureau (USCB) 1995. Poverty Areas Statistical Brief. <u>http://www.census.gov/population/socdemo/statbriefs/povarea.html. Accessed November 28,</u> 2007.
- US Census Bureau (USCB) 2000. Census 2000. http://quikfacts.census.gov/qfd/states/30/30007.html. Accessed November 15, 2007.
- US Census Bureau (USCB) 2001. Overview of Race and Hispanic Origin. Census 2000 Brief. http://www.census.gov/population/www/socdemo/race/racefactcb.html Accessed November 15, 2007.
- US Census Bureau (USCB) 2004. Median Household Income. http://quikfacts.census.gov/qfd/states/30/30007.html. Accessed November 15, 2007
- US Census Bureau (USCB) 2005. Annual Estimates of Population for Counties of Montana: April 1, 2000 to July 1, 2004. <u>http://www.census.gov/popest/counties/tables/co-est2004-01-30.xls</u>. Accessed November 21, 2007.
- US Department of Agriculture (USDA) 1997. Census of Agriculture: 1997. www.nass.usda.gov/census/census02/volume1/mt/index2.htm Accessed November 21, 2007
- US Department of Agriculture (USDA)2002. Census of Agriculture: 2002. . <u>www.nass.usda.gov/census/census02/volume1/mt/index2.htm</u> Accessed November 21, 2007.
- US Department of Agriculture (USDA) 2003. Farm Service Agency Handbook: Agricultural Resource Conservation Program for State and County Offices.
- US Department of Agriculture (USDA) 2004. Montana Missouri-Madison River Corridor Conservation Reserve Enhancement Program Agreement 2004.
- US Department of Agriculture (USDA) 2006. Economic Research Service 2006. http://www.ers.usda.gov/StateFacts/MT.htm. Accessed November 22, 2007.
- US Department of Agriculture (USDA) 2007a. Fact Sheet for Montana Missouri-Madison River Corridor Conservation Enhancement Reserve Program.
- US Department of Agriculture (USDA) 2007b. Conservation Reserve Program Reports for State and County: Monthly Summary of Active and Expiring CREP Acres By County as of 11-02-07. <u>http://content.fsa.usda.gov/cropstorpt/rmepeii_rl/MT.htm</u>. Accessed November 21, 2007.
- US Farm Services Agency 2003. Handbook: Agricultural Resource Conservation Program for State and County Offices.
- US Fish and Wildlife Service (USFWS) 2006. 50 CFR Part 17, Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Contiguous United States Distinct Population Segment of the Canada Lynx; Final Rule. Pp 66008-66061
- US Fish and Wildlife Service (USFWS) 2007a. Endangered, Threatened, Proposed, and Candidate Species, Montana Counties, Endangered Species Act. <u>http://www.fws.gov/montanafieldoffice/Endangered_Species/Listed_Species/countylist.pdf</u> Accessed on October 22, 2007.
- US Fish and Wildlife Service (USFWS) 2007b. Charles M. Russell National Wildlife Refuge. <u>http://www.fws.gov/cmr/</u> Accessed on Nov 13, 2007.
- US Forest Service 2007. Find a Forest by State. http://www.fs.fed.us/recreation/map/state_list.shtml Accessed on Nov 14, 2007.
- Wild and Scenic Rivers Act (PL 90-452, 16 USC 1271-1278). 1968. http://www.rivers.gov/wsract.html Accessed on Nov 12, 2007.
- Woods, Alan J., J. Omernik, J. Nesser, J. Shelden, J.A. Comstock, and S. Azevedo 2002, Ecoregions of Montana, 2nd edition (color poster with map, descriptive text, summary tables, and photographs). Map scale 1:1,500,000.

APPENDIX A Montana CREP Agreement and Addendum

AGREEMENT

BETWEEN

THE U.S. DEPARTMENT OF AGRICULTURE COMMODITY CREDIT CORPORATION

AND

THE STATE OF MONTANA

CONSERVATION RESERVE ENHANCEMENT PROGRAM

I. PURPOSE

This Agreement is between the Commodity Credit Corporation (CCC) of the United States Department of Agriculture (USDA) and the State of Montana (State) to implement a Conservation Reserve Enhancement Program (CREP) to improve water quality and enhance fish and wildlife habitat along the Missouri and Madison Rivers (Exhibit #1 Map).

II. GENERAL PROVISIONS

The Missouri and Madison River corridor is a resource of considerable state and national significance. The entire river corridor is the focus of national attention with the pending Lewis and Clark Bicentennial celebration from 2003 through 2006. Portions of the Missouri River are designated as Wild and Scenic and the Madison River is one of the premier trout fisheries in the world. This CREP Agreement (Agreement) is designed to enhance the water quality and fish and wildlife resources of these river systems.

The Montana CREP will include the restoration of 26,000 acres of cropland and marginal pastureland within one mile on either side of the Missouri and Madison Rivers (Exhibit #2). The program will restore and create natural habitat that will enhance water quality and improve fish and wildlife habitat.



conservation and environmental objectives of a State and the nation. Other authorities may also apply.

The authority for Montana to enter into this Agreement is pursuant to Montana Code AN 2-15-112. Other authorities may also apply.

IV. PROGRAM ELEMENTS

- A. The program will consist of a continuous sign-up CREP and a State of Montana administered incentive program. The Montana CREP will seek to enroll cropland and marginal pastureland within one mile on either side of the Missouri and Madison Rivers (Exhibit #2).
- B. Land that is located within the project area that meets the eligibility criteria set in this Agreement and in Farm Service Agency Handbook 2-CRP procedures may be considered for enrollment under this CREP.
- C. The following CRP practices may be used for enrollment under this CREP:
 - Establishment of Permanent Native Grasses (CP2)
 - Shallow Water Areas for Wildlife (CP9)
 - Permanent Wildlife Habitat (CP4D)
 - Vegetative Cover Grass Already Established (CP10)
 - Filter Strip (CP21)
 - · Riparian Buffer (CP22)
 - Wetland Restoration (CP23)
 - Rare and Declining Habitat (CP25)
- D. All installed practices must be consistent with applicable USDA Natural Resources Conservation Service (NRCS) Field Office Technical Guides (FOTG) and USDA Farm Service Agency Handbook 2-CRP.
- E. In determining CCC's share of the cost of practice establishment, CCC shall use appropriate CRP procedures.
- F. All approved conservation plans shall be consistent with applicable CRP statutes and regulations.
- G. The contracts for land enrolled into the CRP under this CREP will be for a minimum of 10 years, but may not exceed a maximum of 15 years.
- H. Eligible producers will not be denied the opportunity to offer eligible acreage for enrollment during general or continuous CRP enrollment periods.

- No lands may be enrolled under this program until the USDA National CREP Program Manager approves a detailed Montana Amendment to Farm Service Agency Handbook 2-CRP that will provide a thorough description of this program and applicable practices.
- J. For purposes of the Montana CREP, normal CRP requirements for one-year ownership of land shall not apply to the extent consistent with the operation of the normal CRP continuous signup and as otherwise allowed by law.
- K. CRP contracts executed under this Agreement will be administered in accordance with, and subject to, the CRP regulations at 7 CFR Part 1410, and the provisions of this Agreement. In the event of a conflict, the CRP regulations will be controlling.

V. FEDERAL COMMITMENTS

USDA and CCC agree to:

- A. Cost share with producers up to 50 percent of the eligible reimbursable costs of all approved CRP conservation practices according to Farm Service Agency Handbook 2-CRP procedure.
- B. Make annual rental payments under the CRP contract. The payment rate will be based on the land use and irrigation status. The annual rental payment will be comprised of three components. The three components will consist of a base soil rental rate (paragraph C), an incentive payment (paragraph D), and an annual maintenance payment (paragraph E).
- C. Determine the base soil rental rate for the proposed CRP contracts under this CREP. Such rates shall be:
 - for dryland cropland, the base soil rental rate shall be the normal local CRP weighted average soil rental rate for the three predominate soil types using the current posted applicable local soil rental rates;
 - for irrigated cropland, within the project area the base soil rental rate shall be \$90 per acre;
 - 3. for marginal pastureland within the flood plain area adjacent to seasonal streams which supports woody riparian vegetation and is otherwise eligible according to Farm Service Agency Handbook 2-CRP, the base soil rental rate shall be the local posted marginal pastureland rates; and
 - 4. for marginal pastureland within the flood plain area adjacent to perennial stream or permanent water body which supports woody riparian vegetation and is otherwise eligible according to Farm Service Agency Handbook 2-CRP, the base soil rental rate shall be \$85 per acre.

- D. Make, as a part of the annual rental payment for the purpose of subparagraph B, an "incentive payment", as a percentage of the base soil rental rate otherwise applicable to the land to be enrolled in the CREP (as calculated under subparagraph C, without regard to other incentive payments), in the following amounts:
 - 1. for dryland cropland within the project area, the incentive rate is 20 percent;
 - 2. for irrigated cropland within the project area, the rate is 40 percent;
 - for marginal pastureland within the flood plain area adjacent to seasonal streams which supports woody riparian vegetation and is otherwise eligible according to Farm Service Agency Handbook 2-CRP, the rate is 40 percent;
 - 4. for marginal pastureland within the flood plain area adjacent to perennial streams or permanent water body which supports woody riparian vegetation and is otherwise eligible according to Farm Service Agency Handbook 2-CRP, the rate is 40 percent.
- E. Make an annual maintenance payment, referred to in subparagraph B, in an amount consistent with applicable CRP regulations which payments shall be considered a rental payment for payment limitation purposes and all other purposes.
- F. Make a one-time Signing Incentive Payment (SIP) for land enrolled in practices CP21 and CP22, consistent with continuous CRP enrollments, under the terms of the Farm Service Agency Handbook 2-CRP. This payment will be considered to be, and treated as, a rental payment for payment limitation purposes and all other purposes.
- G. Make a one-time Practice Incentive payment (PIP) for practices CP9, CP21 and CP22 under the terms of Farm Service Agency Handbook 2-CRP. This payment will be considered to be, and treated as, a rental payment for payment limitation purposes and all other purposes.
- H. Administer CRP contracts for lands approved under CREP.
- Develop and review CRP conservation plans to address identified natural resource problems by devoting eligible land to approved CRP practices for applicants offering to enroll eligible acreage in the CREP.
- J. Conduct normal annual compliance reviews in accordance with Farm Service Agency Handbook 2-CRP to ensure compliance with the CRP contract.
- K. Provide information to landowners concerning Montana's CREP program.
- L. Permit successors-in-interest to enrolled lands to enroll in CRP agreements under this CREP in the same manner as allowed for under any other comparable CRP contracts.

M. Share appropriate data, in accordance with procedures and restrictions and exemptions established under the Federal Freedom of Information Act, Federal privacy laws and other applicable laws, with the State of Montana to facilitate State monitoring efforts.

VI. STATE COMMITMENTS

The State agrees to:

- A. Contribute not less than 20 percent of the overall annual direct program and in-kind costs of the CREP. The State's contribution shall be deemed to include direct and in-kind contributions made by agencies of the State, political subdivisions of the State, non-profit conservation organizations, the Montana Association of Conservation Districts, private organizations, PPL Montana, and any other person, organization or entity that qualifies as a private partner under this CREP Agreement. A budget report monitoring the State's compliance with its 20 percent cost share commitment under this paragraph will be established and maintained by the State of Montana, Department of Natural Resources and Conservation (DNRC).
- B. Be responsible for:
 - providing or overseeing the state portion of direct cost-share payments to approved participants
 - ensuring, based on available funds, that approved participants receive a state costshare payment on a percentage of the reimbursable cost of installing the eligible practice under normal CRP standards as follows:
 - 50 percent for CP2, CP4D, CP23 and CP25
 - 10 percent for CP9, CP21 and CP22

Reimbursement to CREP participants for practice costs from all sources shall not exceed 100 percent of the out-of-pocket cost of the practices installed.

- assisting NRCS, local Conservation Districts and other Federal and State agencies in providing technical assistance in the development of conservation plans.
- 4. seeking out and providing additional matching funds to be used as an incentive for practices identified under CREP and other non-cost shareable conservation practices determined as needed. Total cost-share payments will not exceed 100 percent of the cost of installing the CRP conservation practice according to Farm Service Agency Handbook 2-CRP.

- participating in the State Core Group that will meet annually to review the CREP, including its functioning and technical aspects, and to make recommendations on ways that the program can maximize participation and environmental benefits.
- assisting conservation districts in implementing a plan for outreach to landowners and provide public information and education regarding CREP.

VII. JOINT AGENCY RESONSIBILITIES

- A. Implement a communication plan for outreach to landowners and provide public information and education regarding CREP.
- B. All Federal and State agencies agree to provide owners of private lands available information on conservation easements offered by private, State and Federal organizations.

VIII. MISCELLANEOUS PROVISIONS

- A. All commitments by USDA and the State are subject to the availability of funds. In the event either party is subject to a funding limitation, it will notify the other party expeditiously and make any necessary modifications to this Agreement.
- B. The State agrees to temporarily release participants from any contractual restriction during the CRP contract period if such release is determined necessary by the Secretary of Agriculture in order to address a national emergency.
- C. All CRP contracts under this CREP shall be subject to all limitations set forth in the regulations at 7 CFR Part 1410, including, but not limited to, such matters as economic use, transferability, violations, and contract modifications. Agreements between owners or operators and the State may impose additional conditions not in conflict with those under the CRP regulations, but only if approved by CCC and FSA.
- D. Neither the State nor USDA shall assign or transfer any rights or obligations under this Agreement without the prior written approval of the other party.
- E. The State and USDA agree that each party will be responsible for its own acts and results to the extent authorized by law and shall not be responsible for the other party.
- F. The Deputy Administrator for Farm Programs, Farm Service Agency, and his/her designee, is delegated authority to carry out this Agreement and, with the concurrence of the Governor of Montana or her designee, may further amend this Agreement consistent with the provisions of the 1985 Act and the regulations at 7 CFR Part 1410.





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FIRST ADDENDUM AGREEMENT

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AGREEMENT

BETWEEN

THE U.S. DEPARTMENT OF AGRICULTURE COMMODITY CREDIT CORPORATION

AND

THE STATE OF MONTANA CONCERNING THE IMPLEMENTATION OF A CONSERVATION RESERVE ENHANCEMENT PROGRAM

I · PURPOSE

The purpose of this amendment to the Conservation Reserve Enhancement Program (CREP) Memorandum of Agreement (Agreement) signed on September 10, 2002, between the U.S. Department of Agriculture, Commodity Credit Corporation, and the State of Montana is to add CRP practices, allow enrollment of established introduced covers and make other administrative changes to facilitate program operations.

II. General Provisions

Section II. General Provisions, Paragraph B is amended to read:

Establish and improve up to 14,000 acres of permanent, native and introduced wildlife habitat within the 2-mile-wide corridor of the Missouri and Madison Rivers. Many wildlife species depend on both riparian and upland habitats. Native and introduced grassland and schrubland habitat establishment will support recovery of these species as well as a number of ground-nesting grassland obligates. In addition, establishment of permanent native and introduced cover on highly erodible cropland will support the water quality and fishery goals of the Montana CREP by reducing sediment inputs to water bodies. The specific measurable criteria of success will be acres of permanent wildlife habitat restored.

Section IV. Program Elements is amended to read:

- C. The following CRP practices may be used for enrollment under this CREP:
 - CP1 Establishment of Permanent Introduced Grasses and Legumes
 - CP2 Establishment of Permanent Native Grasses
 - CP9 Shallow Water Areas for Wildlife
 - CP4D Permanent Wildlife Habitat
 - CP10 Vegetative Cover Grass Already Established

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USDA FSA CEPD

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- CP21 Filter Strips
- CP22 Riparian Buffer
- CP23 Wetland Restoration
- CP23A Wetland Restoration, Non-Floodplain
- CP25 Rare and Declining Habitat
- CP29 Marginal Pastureland Wildlife Habitat Buffer
- CP30 Marginal Pastureland Wetland Buffer

*CP1 is limited to a total of 3,000 acres total for participation in the CREP Program. The cropland and site must meet eligibility and practice requirements according to FSA CRP National Directives, including one of the following criteria:

- the site is located in either a State or National
- Conservation Priority Area; or,
- the site has an Erodibility Index ≥ 8 .
- D. All installed practices must be consistent with applicable USDA polices for similar enrollments, and be consistent with USDA Farm Service Agency Handbook 2-CRP with the exception of the CP22, Riparian Buffer, practice in which the practice will be modified to increase the maximum buffer width that may be enrolled to a maximum average width of 1320 feet within the historic floodplain needed to address the resource needs if needed for water quality or wildlife habitat.

8-21-07

Date

IT IS SO AGREED:

FOR THE UNITED STATES DEPARTMENT OF AGRICULTURE AND THE COMMODITY CREDIT CORPORATION

BY:

John A. Johnson Deputy Administrator for Farm Programs Farm Service Agency Deputy Vice President Commodity Credit Corporation

BY: Mary Sexton, Director Date

Montana Department of Natural Resources and Conservation

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APPENDIX B Descriptions of CPs

National CRP Practices

A summary of the CRP Practices proposed in the MMRC 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
CP1	Establishment of Permanent Introduced Grasses and Legumes (not to exceed 3000 acres)	The purpose of this practice is to establish a vegetative cover of introduced grasses and legumes on eligible cropland that will enhance environmental benefits.
CP2	Establishment of Permanent Native Grasses	The purpose of this practice is to establish a vegetative cover of native grasses on eligible cropland that will enhance environmental benefits.
CP4D	Permanent Wildlife Habitat	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.
СР9	Shallow Water Areas for Wildlife	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	Vegetative Cover – Grass Already Established	This practice code is used to identify land:
		 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.

Practice	Title	Purpose
		 not under CRP-1, with a grass cover approved for the applicable signup already established.
		<i>Note:</i> Contract management activity may be required as determined by COC, according to paragraph 239.
CP21	Filter Strips	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.
CP22	Riparian Buffer	The purposes of this practice are 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.
		 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	Wetland Restoration	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.
CP23A	Wetland Restoration - nonfloodplain	The purpose of this practice is to restore the functions and values of wetland ecosystems

Practice	Title	Purpose
		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.
CP25	Rare and Declining Habitat	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.
CP29	Wildlife Habitat Buffer Marginal Pastureland	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	Wetland Buffer Marginal Pastureland	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.

APPENDIX C Agency Coordination



United States Department of Agriculture

Conservation and Environmental Programs Division 1400 Independence Ave., S.W. Room 4716, MS 0513 Washington, DC 20250 TO: Mr. Mark Wilson, Acting Field Supervisor U.S. Fish and Wildlife Service 585 Shepard Way Helena, MT 59604-6287

FROM: Matt Ponish

December 20, 2007

FSA National Environmental Compliance Manager

SUBJECT: Draft Programmatic Environmental Assessment for Missouri-Madison River Corridor Conservation Reserve Enhancement Program Agreement

Dear Mr. Wilson,

The United States Department of Agriculture, Farm Services Agency is preparing a programmatic environmental assessment (PEA) to assess the impacts of implementing the Missouri-Madison River Corridor (MMRC) Conservation Reserve Enhancement Program (CREP) Agreement in the state of Montana. A CREP is authorized by the Farm Security and Rural Investment Act of 2002 and provides funding to producers who establish conservation practices on their agricultural lands.

The MMRC CREP would permit the enrollment of up to 26,000 acres of eligible farmland in Blaine, Broadwater, Cascade, Chouteau, Fergus, Gallatin, Lewis and Clark, Madison, and Phillips Counties. The goals of the program are to: establish, restore, and improve riparian buffers along the Missouri and Madison Rivers and their tributaries; establish and improve native wildlife habitat; and restore degraded wetlands within a 2-mile corridor of the Missouri and Madison Rivers. Current agricultural production would be discontinued and approved conservation practices including establishing vegetation, wildlife habitat and wetland buffers along the MMRC would be implemented. Producers would receive annual rental payments for enrolled lands and would be eligible for one-time payments to support the implementation of conservation practices.

You may review the draft EA and provide comments at: http://public.geo-marine.com

Please review the proposed program and provide comments on any issues that would be of concern to your office.

We appreciate your review of this material and look forward to receiving your comments. Please provide your comments to me by January 11, 2008.

Sincerely yours,

Matt Ponish



December 20, 2007

United States Department of Agriculture

Conservation and Environmental Programs Division 1400 Independence Ave., S.W. Room 4716, MS 0513 Washington, DC 20250 TO: Mr. Larry Svoboda Regional NEPA Coordinator USEPA Region 8 1595 Wynkoop St Denver, CO 80202-1129

FROM: Matt Ponish FSA National Environmental Compliance Manager

SUBJECT: Draft Programmatic Environmental Assessment for Missouri-Madison River Corridor Conservation Reserve Enhancement Program Agreement

Dear Mr. Svoboda,

The United States Department of Agriculture, Farm Services Agency is preparing a programmatic environmental assessment (PEA) to assess the impacts of implementing the Missouri-Madison River Corridor (MMRC) Conservation Reserve Enhancement Program (CREP) Agreement in the state of Montana. A CREP is authorized by the Farm Security and Rural Investment Act of 2002 and provides funding to producers who establish conservation practices on their agricultural lands.

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You may review the draft EA and provide comments at: http://public.geo-marine.com

Please review the proposed program and provide comments on any issues that would be of concern to your office.

We appreciate your review of this material and look forward to receiving your comments. Please provide your comments to me by January 11, 2008.

Sincerely yours,

Matt Ponish



December 20, 2007

United States Department of Agriculture

Conservation and

Division

Environmental Programs

Room 4716, MS 0513 Washington, DC 20250

1400 Independence Ave., S.W.

TO: Mr. Josef Warhank Montana State Historic Preservation Office 1410 Eighth Avenue PO Box 20102 Helena, MT 59620-1202

FROM: Matt Ponish FSA National Environmental Compliance Manager

SUBJECT: Draft Programmatic Environmental Assessment for Missouri-Madison River Corridor Conservation Reserve Enhancement Program Agreement

Dear Mr. Warhank,

The United States Department of Agriculture, Farm Services Agency is preparing a programmatic environmental assessment (PEA) to assess the impacts of implementing the Missouri-Madison River Corridor (MMRC) Conservation Reserve Enhancement Program (CREP) Agreement in the state of Montana. A CREP is authorized by the Farm Security and Rural Investment Act of 2002 and provides funding to producers who establish conservation practices on their agricultural lands.

The MMRC CREP would permit the enrollment of up to 26,000 acres of eligible farmland in Blaine, Broadwater, Cascade, Chouteau, Fergus, Gallatin, Lewis and Clark, Madison, and Phillips Counties. The goals of the program are to: establish, restore, and improve riparian buffers along the Missouri and Madison Rivers and their tributaries; establish and improve native wildlife habitat; and restore degraded wetlands within a 2-mile corridor of the Missouri and Madison Rivers. Current agricultural production would be discontinued and approved conservation practices including establishing vegetation, wildlife habitat and wetland buffers along the MMRC would be implemented. Producers would receive annual rental payments for enrolled lands and would be eligible for one-time payments to support the implementation of conservation practices.

The activities associated with the proposed action are not expected to be ground disturbing beyond what is normally disturbed by plowing, no historic architectural resources would be altered or removed as part of the proposed action, and no changes in land use that would affect the landscape would occur. As such, it is our recommendation that no formal cultural resources surveys would be required in order to implement the program.

You may review the draft EA and provide comments at: http://public.geo-marine.com

Please review the proposed program and provide comments on any potential historic preservation issues that would be of concern to your office and our recommendations regarding Section 106 compliance.

We appreciate your review of this material and look forward to receiving your comments as part of the Section 106 consultation process. Please provide your comments to me by January 11, 2008.

Sincerely yours,

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Matt Ponish