Program for Mitigating Wildlife Impacts Caused by Construction of Libby and Hungry Horse Dams

Five-Year Operating Plan

(Fiscal Years 2010 through 2014)

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by Alan Wood
Wildlife Mitigation Coordinator

Montana Fish, Wildlife & Parks
490 North Meridian Road
Kalispell, MT 59901

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INTRODUCTION

Summary

This plan outlines the history of the wildlife mitigation program for impacts caused by construction of Libby and Hungry Horse Dams, changes in the mitigation program through time, documents past accomplishments, and sets priorities for the next 5 years. Program emphasis for the next 5 years will continue the direction of the previous 5 years, to prioritize maintenance and monitoring of substantial investments made in wildlife habitat enhancement and conservation over the life of the program. We will continue to prioritize any remaining revenues derived from the wildlife mitigation trust fund to encourage partnerships that promote enhancement and conservation of wildlife habitats outlined in this plan. Our emphasis will be on projects that benefit species or habitats identified in the loss assessments (Casey et al. 1984, Yde and Olsen 1984) that are underrepresented in our previous mitigation projects. Under this approach, we continue to focus future projects on wetland/riparian habitats, grizzly bears, terrestrial furbearers, bighorn sheep and Palouse prairie/Columbian sharp-tailed grouse.

This plan does not cover our work in conjunction with the Kootenai Tribe of Idaho, to quantify and mitigate the wildlife impacts caused by operation of Libby Dam. That project is funded directly through contracts with Bonneville Power Administration and not the Wildlife Mitigation Trust Fund, which is the subject of this plan. The operational impact project is subject to input and review through the normal Northwest Power and Planning Council processes.

Habitat Losses Due to Construction

Libby and Hungry Horse Dams flooded 52,600 acres of land in northwestern Montana. An additional 4,100 acres were lost due to road and railroad relocations, and construction of new roads associated with hydroelectric development. These 56,700 acres provided important wildlife habitats for a variety of species.

The two dams flooded 18,600 acres of aquatic and wetland habitat. Riparian zones and other wetlands are one of five terrestrial community types that were identified as the greatest conservation need in Montana's Comprehensive Fish and Wildlife Conservation Strategy (CFWCS, Montana Fish, Wildlife & Parks 2005). Although wetland communities occupy only 4% of the landscape, they support the greatest concentration of plants and animals in our state and serve as a unique transition zone between aquatic and terrestrial communities. Wetlands in northwestern Montana also support 12 of 19 species identified as species in greatest need of conservation actions (Tier 1) in the CFWCS.

Construction of Libby Dam inundated 1,583 acres of Palouse prairie habitat. Grasslands were also identified as one of the 5 Tier 1 terrestrial community types in the CFWCS. High priority bird species such as long-billed curlew and clay-colored sparrow use the Palouse prairie of the Tobacco Plains, not to mention a wintering elk herd. It is also home to the rare Spalding's catchfly, a perennial forb occurring in low elevation grasslands of southeast Washington, northeast Oregon, Idaho, and northwestern Montana. Until recently, it was also home to Columbian sharp-tailed grouse, which are now extirpated from the Tobacco Plains and possibly from western Montana.

About 31,922 acres of coniferous forest were lost due to dam construction. At Libby Dam, there were also 2,000 acres of forest lost due to relocation of the railroad and 2,100 acres lost to construction of Highway 37 and the westside Forest Development Road. The relative abundance of conifer forests in northwestern Montana does not negate their importance. Lost were a wide variety of forest types ranging from dry, open stands of Douglas fir and ponderosa pine to relatively warm, moist cedar forests. Also included were shrubfields, meadows, and upland parks. These communities were ranked as moderate conservation priorities in the state CFWCS, and they are vital for nearly all species identified in the original wildlife impact assessment and mitigation summary for both Hungry Horse (Casey et al. 1984) and Libby (Yde and Olsen 1984) Dams. Several of these forest species were also listed as priority conservation species (Tier 1) in the CFWCS including, grizzly bear, lynx, western toad, Townsend's big-eared bat, flammulated owl, black-backed woodpecker, and olive-sided flycatcher. The following table shows actual acreage losses resulting from construction and inundation of Libby and Hungry Horse Dams (from Casey et al. 1984, Yde and Olsen 1984, respectively).

HABITAT MAPPING UNIT	Hungry Horse	Libby	Total
RIPARIAN/WETLANDS	6,876	11,724	18,600
River/Stream	702	3,285	3,987
Pond/Lake	54		54
Marsh/Slough	147	29	176
Gravel Bar	532	955	1,487
Deciduous Shrub	1,077	667	1,744
Sub-irrigated Grassland	179	3,404	3,583
Floodplain Terrace Grassland	466		466
Deciduous Tree	100	873	973
Mixed Forest	3,619	2,511	6,130
PALOUSE PRAIRIE	0	1,583	1,583
CONIFEROUS FOREST	16,804	15,118	31,922
Upland Grassland	168		168
Upland Shrub	5,713	159	5,872
Warm/Dry Conifer		7,159	7,159
Cool/Dry Douglas Fir		448	448
Cool/Moist Douglas Fir		5,143	5,143
Cold/Dry Subalpine Fir		60	60
Warm/Moist Conifer		2,149	2,149
Dense Seral Lodgepole Pine	229		229
Old Growth Conifer	568		568
Unspecified Conifer	10,126		10,126
OTHER LOSSES	70	4,525	4,595
Talus/Eroded Slopes	70	16	86
Developments		409	409
Highway & Railroad Construction		4,100	4,100
TOTAL ACRES	23,750	32,950	56,700

Early Mitigation Work

Efforts to mitigate the wildlife impacts caused by Libby Dam began in the 1970s and were based on an impact assessment compiled by the Fish and Wildlife Service in 1965 (U.S. Dept. of Interior 1965). The Water Resources Development Act of 1974 (Public Law 93-251) authorized the Army Corps of Engineers to acquire up to 12,000 acres of wildlife grazing lands in mitigation of habitat losses resulting from the Libby Dam project, at a fixed cost not to exceed $2 million. This congressional directive resulted in the acquisition by the Army Corps of Engineers of 2,444 acres and total expenditure of the authorized funds. Title was subsequently transferred to the Montana Fish, Wildlife & Parks Department. The details of this early mitigation work can be found in Yde and Olsen (1984). A summary is provided below:

- The DeRozier Unit consists of 1,417 acres northeast of Eureka in the foothills of the Whitefish Range. Six hundred seventeen acres of forest and pasture lands were credited toward big game losses, while the remaining 801 acres of grassland were credited toward Palouse prairie/Columbian sharp-tailed grouse losses.

- The West Kootenai Unit consists of 920-forested acres west of Lake Koocanusa and adjacent to the United States-Canada border. The entire 920 acres were credited toward forested big game habitat losses.

- The Kootenai Falls Unit consists of 107 acres of floodplain and forested slopes along the north side of the Kootenai River, upstream from Kootenai Falls. The entire 107 acres were credited toward mitigation for losses of open, forested winter and spring range losses for bighorn sheep and mule deer.

- The Army Corps of Engineers funded the Kootenai National Forest to enhance 6,814 acres of forested big game winter range. Manipulations were varied and included logging, thinning, slashing, broadcast burning, and/or seeding. Mitigation credits were assigned for this work based on the expected increases in forage production and the expected duration of that increase, resulting in 601 acres of credit toward mitigation for open, forested big game winter and spring range losses.

- Wetland habitat improvements were completed on 157 acres to increase waterfowl production on five areas. Fencing, seeding, island construction, and dike construction were used in various combinations to provide quality waterfowl nesting and brood rearing habitat. Nest boxes were placed at some of the areas to promote increases in cavity nesting species, resulting in 66 acres of credit toward wetland habitat losses.

Northwest Power Act

In 1980, Congress passed the Pacific Northwest Electric Power Planning and Conservation Act (NW Power Act). This law established the Northwest Power and Conservation Council and charged it with developing a program to protect, mitigate, and enhance fish and wildlife habitat affected by hydroelectric development. The act also stipulates that Bonneville Power Administration (BPA) should fund the mitigation program.

Development of Montana's wildlife mitigation program followed procedures established by the Northwest Power and Conservation Council. The Montana Fish, Wildlife & Parks Department, under contract with BPA, completed assessments of wildlife habitat losses associated with Libby (Yde and Olsen 1984) and Hungry Horse (Casey et al. 1984) Dams. These documents were used to develop the mitigation plans for Libby (Mundinger and Yde 1985) and Hungry Horse (Bissell and Yde 1985). The plans were reviewed, modified, and ultimately included in the Council's 1987 program (Northwest Power Planning Council 1987). The 1987 program targeted key species described in the 1984 loss assessments. Mitigation work under the auspices of the Northwest Power Act began in 1984 and has continued since that time.

Hydropower Allocation

The Northwest Power Act established the Northwest Power and Conservation Council, authority for the mitigation program, and funding from BPA. It also specified that consumers of electric power should only bear the cost of mitigating impacts associated with development and operation of hydropower facilities. Consequently, ratepayers are not obligated to mitigate all wildlife habitat losses because both dams are multi-purpose facilities.

The Northwest Power Planning Council's 1987 Fish and Wildlife Mitigation Program for Libby and Hungry Horse Dams established the portion of dam construction and operation impacts allocated to hydropower production at 79% for Libby and 76% for Hungry Horse based on the Congressional repayment allocation (percent of invested dollars returnable to the Federal Treasury to repay borrowed funds). However, the Council did not believe there had been sufficient discussion of the allocation issue to adopt one method for all cases, so they did not intend their decision to be used as a precedent for other projects. Since 1987, the Council has accepted other mitigation proposals into the program allocating ratepayer responsibility differently. Montana continues to use the Congressional repayment allocation formula as our mitigation goal because that method was the basis for the Montana wildlife settlement.

The 1984 wildlife loss assessments identified 56,700 acres that were affected by dam construction. That number included 86 acres of talus or eroded slopes and 409 acres associated with human developments such as towns, buildings, gravel pits, and other developments. There is no program to mitigate for wildlife habitat losses associated with talus slopes. The U.S. Army Corps of Engineers paid private landowners for their developments and lands that were lost when Libby Dam was constructed. This leaves 56,205 acres of wildlife habitat in the program.

Montana's goal is to accomplish full mitigation with the money provided by BPA under terms of the 1988 Settlement Agreement. However, the legal obligation for mitigation is restricted to the proportionate share of impacts resulting from hydropower development. The following table shows both the total losses and hydro-allocated losses associated with both Libby (79%) and Hungry Horse (76%) Dams:

	Hungry Horse		**Libby**		**Grand Total**	
HABITAT CATEGORY	Hydro	Full	Hydro	Full	Hydro	Full
Riparian/Wetland	5,226	6,876	9,262	11,724	14,488	18,600
Palouse Prairie	0	0	1,251	1,583	1,251	1,583
Upland Forest	12,771	16,804	15,182	19,218	27,953	36,022
TOTAL	17,997	23,680	25,695	32,525	43,692	56,205

Settlement Agreement

Following completion of Montana wildlife mitigation plans, Montana entered negotiations with dam operators, utility interests, federal agencies and conservation groups to craft a mitigation plan that could be adopted into the Northwest Power and Conservation Council's fish and wildlife program. Negotiations ran from April through October 1986 and included a public review process ending in December 1986. Their discussions focused on finding a balance between mitigating hydropower impacts and overall financial impacts to utilities and their customers. One recommendation from this committee to Council was establishment of a trust fund to pay for wildlife mitigation for construction impacts at Libby and Hungry Horse dams. The exact amount of the trust remained under negotiation at the time the wildlife plan was amended into the Council's program in January 1987. However, the parties agreed to an upper cap of $16 million. At the time that Council adopted their 1987 program, BPA had not determined they had authority to establish a trust. However, Council concluded that their Fish and Wildlife program provided for establishment of such a mitigation trust if BPA determines it has such authority (Northwest Power Planning Council. 1987, Appendix C).

The state of Montana and BPA eventually signed the Wildlife Mitigation Agreement for Libby and Hungry Horse Dams in December 1988 (Settlement Agreement). This agreement transferred $12.5 million from BPA to a legislatively established state trust account. Both principal and interest are earmarked to finance the wildlife mitigation program. The 60-year Settlement Agreement established the Wildlife Impact Assessments (Yde and Olsen 1984, Casey et al. 1984) as the basis for Montana's mitigation program. It also specified that the program must be conducted in a manner consistent with the Council's Columbia River Basin Fish and Wildlife Program, and that measures in the Council's program for Libby and Hungry Horse Dams be given priority consideration.

The Settlement Agreement also established a Wildlife Mitigation Advisory Committee to provide advice and guidance to Fish, Wildlife & Parks regarding implementation of mitigation activities. Members decide how to conduct meetings and how they want to function. The Settlement Agreement specifies that the following organizations will be invited to appoint a representative on the advisory committee:

- Montana Fish, Wildlife & Parks, Chair
- Northwest Power and Conservation Council
- Confederated Salish and Kootenai Tribes
- Western Montana Generation & Transmission
- U.S. Bureau of Reclamation
- Pacific Northwest Utilities Conference Committee
- Bonneville Power Administration
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- Montana Electric Cooperative Assoc
- U.S. Army Corps of Engineers

The Pacific Northwest Utilities Conference Committee was an active participant in the Wildlife Mitigation Advisory Committee during the early 1990s, but decided to stop participating because they no longer track these issues (letter from PNUCC to FWP dated 6/25/97). The Northwest Power and Conservation Council has not participated on this committee since 1992 but continues to track mitigation activities by receiving all correspondence, reports, project proposals and plans.

The Settlement Agreement also specifies that Montana may invite other organizations to serve on the advisory committee. The Montana Nature Conservancy, and Flathead and Lincoln County Commissioners currently serve on the committee.

Another important aspect of the Settlement Agreement deals with the required balance and term of the trust fund. Montana is required to maintain at least $8 million in the trust fund for the first 30 years of the agreement, 1989 through 2018. Thereafter, the balance of the trust fund must exceed $4 million. Interest from the account is to be used for the operation and maintenance of past mitigation projects. If trust fund earnings exceed the needs for project maintenance, then we may fund additional projects within the Columbia River Basin of Northwest Montana that "further protect, mitigate, and enhance wildlife and wildlife habitat affected by the development of Libby and Hungry Horse Dams."

MITIGATION CREDITING

Past Accomplishments

From 1970 through fiscal year 2009, we have enhanced or conserved over 218,000 acres of wildlife habitat. About 12,000 acres (6%) of this total was completed from 1970 through the 1980s prior to establishment of the wildlife mitigation trust fund. Mitigation projects completed using the wildlife mitigation trust fund have cost $8.9 million, averaging about $42/acre. Conservation easements and habitat enhancements have dominated project accomplishments. About half (47%) of the 6,405 acres that have been acquired in fee title were purchased prior to 1982: 2,335 acres (20%) were purchased in 2007-2009 using BPA fisheries mitigation and other partnership funds (wildlife mitigation trust fund dollars only provided staff support for those acquisitions). Acreage accomplishments were relatively balanced between the Lower Clark Fork and Kootenai basins, but over half of all expenditures were in the Kootenai watershed.

	1970-2003		**1970-2009**	
Summarized by Watershed	**Acres**	**Cost**	**Acres**	**Cost**
Flathead	9%	8%	17%	12%
Kootenai	41%	43%	43%	56%
Lower Clark Fork	50%	49%	40%	32%
Summarized by Project Type	**Acres**	**Cost**	**Acres**	**Cost**
Habitat Enhancement	15%	22%	19%	19%
Conservation Easement	84%	71%	78%	77%
Fee Purchase	1%	5%	3%	3%
Land Exchange	trace	2%	trace	1%
Totals	**188,758**	**$9,731,945**	**218,016**	**$11,280,586**

Montana Wildlife Credits

Montana completed wildlife loss assessments and signed the settlement agreement with BPA based on acres of wildlife habitat lost at Libby and Hungry Horse Dam. The rest of the Columbia Basin estimated wildlife habitat losses using habitat evaluation procedures (HEP). The Montana settlement agreement and subsequent correspondence established a 1:1 crediting policy for Montana. The state's obligation under the settlement is limited to replacing 100% of hydro-allocated habitat losses with an amount of habitat that has an equivalent biological carrying capacity (letter from Governor Stan Stevens to BPA Administrator Jim Jura dated September 21, 1990).

The Power Planning Council's current mitigation policy directs BPA to complete mitigation agreements that equal 200 percent of the wildlife habitat unit losses (2:1 ratio) for all remaining losses resulting from construction and inundation of the federal hydropower system (NWPPC, 2000 & 2009 Fish and Wildlife Program). However, BPA maintained a 1:1 crediting policy (letter from Stephen J. Wright, Administrator, BPA, to Mr. Larry Cassidy, Chairman

Northwest Power Planning Council, February 2002). The issue within the Columbia River Basin is how much mitigation should be accomplished to fully replace the unannualized habitat losses. The Montana Settlement Agreement transferred responsibility for wildlife mitigation to the state, but limited that obligation to only 100% of the approved hydro-allocated losses. Any further obligation established by Council above a 1:1 crediting rate remains BPA's responsibility (letter from Jim Jura to Stan Stevens dated December 11, 1990).

Montana has explored various approaches for crediting our wildlife mitigation projects in the past. The Libby and Hungry Horse mitigation plans called for 1 acre of credit for every acre of land purchased either through fee title or conservation easement. Those plans also suggested a ratio of 3 habitat enhancement acres to 1 acre of credit. The FWP Riparian/Wetland EIS (Bissell 1996) estimated that on average it would take 1 acre of land purchase and 2 acres of conservation easement to provide an equivalent biological carrying capacity to those habitats lost. These were our standard crediting rates (1:1, 2:1 and 3:1) prior to 2002. There has also been discussion within the Columbia Basin about how much mitigation credit should be allowed on projects only partially funded by BPA. Some argue that BPA should only receive credit for their proportional contribution to the overall project cost (proportional cost crediting). However, this does not recognize the opportunity to leverage BPA funds by encouraging financial partnerships that achieve multiple fish and wildlife objectives for BPA and other conservation programs.

So there are at least three approaches to crediting wildlife mitigation accomplishments that we have considered to track Montana's wildlife mitigation credits: 1) total mitigation, 2) standard crediting and 3) proportional-cost crediting. We have completed, or nearly completed mitigation for hydro-allocated losses under all three scenarios for the forest and prairie losses. However, we have only completed the wetland/riparian mitigation goals under the total mitigation alternative; we remain well below hydropower mitigation goals under either the standard crediting or proportional-cost crediting approaches to wetland mitigation losses.

Crediting Approach	**Forest Mitigation**	**% Completed**	**Wetland Mitigation**	**% Completed**	**Prairie/Ag Mitigation**	**% Complete**
Total	194,098	694%	17,006	117%	6,912	553%
Standard	90,414	323%	9,457	65%	3,857	308%
Proportional	23,243	83%	2,822	19%	1,173	94%
Hydro-loss	27,953		14,488		1,251	

The Riparian/Wetland EIS (Bissell 1996) recognized that the final crediting decision would be made for each project based on the particular situation of that project and input from the Wildlife Mitigation Advisory Committee. The 1985 mitigation plans estimated 1 acre of credit might be appropriate for every 3 acres enhanced, but also left the final ratio to be determined from our intensive monitoring projects. Unfortunately, neither the Libby mule deer and bighorn sheep monitoring project (Stansberry 1996), nor the Hungry Horse elk-monitoring project (Vore 2001) provided clear guidance as to an appropriate rate of credit for habitat enhancement projects.

Montana's wildlife settlement with BPA capped total wildlife mitigation funding at $12.5 million. In addition, both BPA and Montana agreed that the settlement only obligated the state to replace 100 percent of the hydro-allocated acres identified in the original loss statements with projects with an equivalent biological carrying capacity. So by capping total available funding and setting a 1:1 crediting rate, the Montana wildlife settlement effectively eliminated many of the crediting debates that continue with the Northwest Power and Conservation Council's current Fish and Wildlife Mitigation Program. In addition, we discussed crediting with our Wildlife Mitigation Advisory Committee in April 1999, and again in October 2001. The committee members agreed that we should "call it even" and track total project accomplishments toward the mitigation goal.

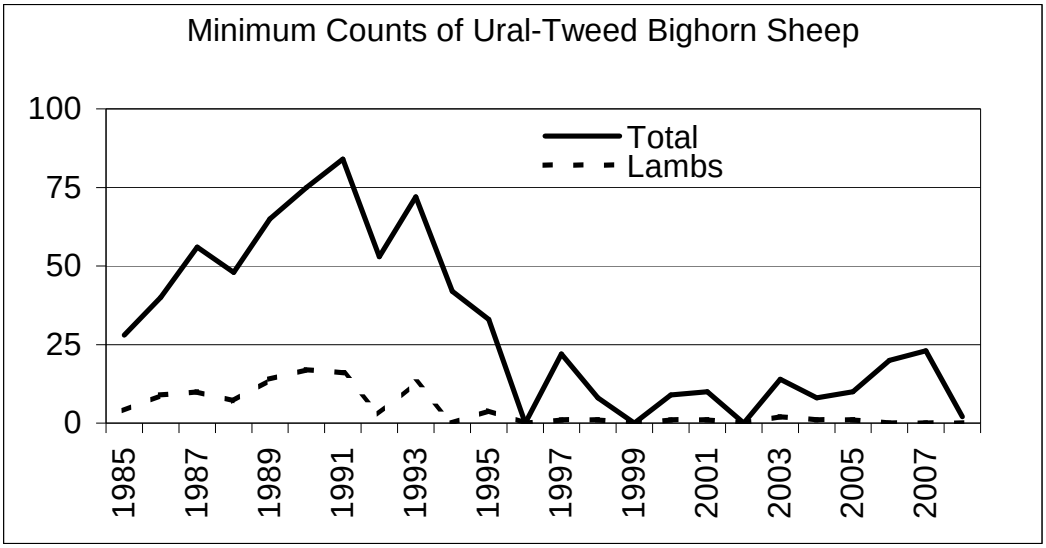
So we now track and report total accomplishments for all mitigation projects that are at least partially funded by the Wildlife Mitigation Trust Fund and are not part of other required mitigation programs. Under this scenario, we have exceeded the hydropower-allocated losses for all habitat groups. Our mitigation projects have protected or enhanced 5 times the total hydro-allocated losses and 3.9 times total losses. Consequently, we believe that we have fully mitigated habitat losses resulting from construction and inundation of Libby and Hungry Horse Dams because: 1) our losses were based on habitat acres, 2) our obligation is one acre for every habitat acre lost, 3) we have completed 5 times the hydro-allocated losses, and 4) the Wildlife Mitigation Advisory Committee supported our recommendation to "call it even".

MAINTENANCE AND MONITORING

Our early monitoring efforts concentrated on completing long-term studies to evaluate the efficacy of improving habitat to increase big game populations. However, existing scientific literature, and our own studies, suggest that an increase in big game populations resulting from winter range enhancement is unlikely to occur. Stansberry (1996) reported that vegetative response varied among our treatment areas along Koocanusa Reservoir. Both mule deer and bighorn sheep responded favorably to vegetative manipulations by increasing use of treatment units. Despite the use of treatment areas, both production and survival rates declined in both ungulate populations following treatments. Results of the Hungry Horse habitat enhancement project (Vore et al. 2007) were much stronger and more clearly negative. Vore et al (2007) found that elk did not use the habitat treatments. Vegetative treatments did not increase forage quantity or quality and loss of forest canopy reduced winter habitat availability. However, Stansberry speculated that forest habitat treatments might maintain favorable habitat structure for bighorn sheep and mule deer whose populations could decline in the absence of these manipulations.

These ambiguous results led us to drop our long-term population monitoring and focus funding on maintenance of past forest habitat work for mule deer and bighorn sheep. Our efforts for elk habitat enhancement shifted to summer range treatments to increase forage quality and quantity in areas and seasons when forest canopy is less important. The wildlife mitigation trust fund has invested $1.75 million to improve big game winter ranges on public lands over the last 18 years and treated over 33,000 acres. Another 8,500 acres were enhanced prior to establishment of the Wildlife Mitigation Trust Fund. We recognize the value of this past work and plan to maintain the mule deer and bighorn sheep habitat projects over the next 5 years.

We continue to monitor the Ural-Tweed bighorn sheep herd along Koocanusa Reservoir. Numbers peaked in 1990 and have remained at very low levels for the past 12 years. One possible reason is potential inbreeding since this herd has been geographically isolated for more than 50 years. The physical appearance of Ural-Tweed bighorns is similar to bighorns along the Kootenai River valley as far north as Golden, British Columbia. These bighorns look slightly different from surrounding herds that were established from populations originating east of the Continental Divide. We contacted Canadian wildlife officials to see if they could supply Kootenai River bighorns for genetic augmentation of our herd. They were willing to give us bighorns, but U.S. officials have banned international importation of wild bovids due to fear Bovine Spongeform Encophalophy that was discovered in domestic cattle in Canada in 2003. So we attempted to move 4 ewes from the Ten Lakes herd northeast of Eureka to Koocanusa. We successfully moved one ewe and on young ram in 2006. Both animals remained in their new areas, but the ram was struck and killed by a vehicle in 2008.



Another issue for the bighorn sheep herd along Koocanusa Reservoir is the potential for genetic mixing with bighorns from other parts of Montana. While it is true that genetic influx from native bighorns originating east of the Continental Divide could provide increased genetic diversity, it would also dilute the genetic strain of bighorns that historically occupied habitat from Libby Dam north along the Kootenai River valley. This is one of only two native bighorn herds in northwest Montana that have not been augmented by animals from other herds in the state. Several bighorn transplants have occurred to the Kootenai Falls area over the last 8 years. Some of these animals have moved east and been observed in the mountains just west of Libby Dam. In recent years, there have been increased reports of bighorn sightings east of Libby Dam and one report of a bighorn on Libby Dam. The possibility exists that bighorns added to the Kootenai Falls herd may have moved into the southern portion of the Ural-Tweed range. This is a situation that we will monitor, and if confirmed, develop a plan for managing the newly integrated herd.

Over the last five years we anticipated an increase in expenses for management and monitoring of lands and conservation easements acquired through the wildlife mitigation program that did not occur. Most mitigation lands were acquired in partnership with other programs that can fund baseline management and monitoring expenses. However, acres of habitat conservation have continued to increase over the last 5 years, adding another 7,200 acres of conservation easement and 3,100 acres of fee ownership. In addition, there are currently other acquisitions being considered that would add another 500 acres or more of fee ownership. The wildlife mitigation program can provide enhanced funding for management and monitoring of mitigation properties that would compliment and enhance existing work on these lands, similar to our contributions to the habitat enhancement partnership on Kootenai and Flathead National Forest lands. We are currently planning to create a new half-time mitigation position to provide increased levels of effort and funding toward management and monitoring of our mitigation lands and conservation easements.

NEW PROJECT PRIORITIES

Even with an increased commitment to management and monitoring as described previously, we would still have some funding available to develop and implement new mitigation projects. The settlement agreement allows for funding of new mitigation projects following completion of hydropower mitigation, if the trust fund generates revenue in excess of that needed to operate and maintain past mitigation projects. The settlement allows that Montana may spend surplus revenues for projects that further protect, mitigate, and enhance wildlife and wildlife habitat affected by the development of the dams.

We discussed this approach with the Wildlife Mitigation Advisory Committee at meetings in April 1999, October 2001 and May 2009. We proposed, and the committee supported, an approach that would continue to fund projects that benefit species and habitats targeted by the original mitigation plans. We propose to continue this approach over the next five years. Our priorities would remain those projects that benefit species and habitats targeted by the original mitigation plans, which are underrepresented in our previous mitigation projects. Those priorities remain the same as they were during the previous five years and include projects that benefit:

- Riparian/wetlands
- Grizzly bears
- Bighorn sheep
- Terrestrial furbearers
- Palouse Prairie/Columbian sharp-tailed grouse

We will continue maintenance of past projects that benefit those species, such as our Forest Service habitat enhancements benefiting bighorn sheep. We will also track and report new project accomplishments even though we have completed hydropower mitigation. Our annual reports will continue to document expenditures and accomplishments of the program.

Our top priority remains management and monitoring of previous mitigation investments. However, consistent with the settlement agreement, our goal for new mitigation projects is to continue funding those that benefit the 5 species and habitat groups listed above to an extent possible with available funds. Leveraging the Wildlife Mitigation Trust Fund money with partnership dollars allows us to complete additional projects. For example, over the previous planning period we accomplished an additional 39,000 acres of important fish and wildlife habitat conservation valued at $43.3 million at a cost of only $1.15 million to the trust fund.

Total Acres	WL Trust Fund	BPA Fish	Other State	Federal	Private
39,130	$1,150,000	$15,740,000	$1,920,000	$19,490,000	$5,000,000

We will continue to emphasize partnerships with other organizations that have overlapping objectives. Our strategy will be to leverage our trust fund money to the maximum extent possible in order to facilitate projects that further protect, mitigate, and enhance wildlife and wildlife habitat affected by Libby and Hungry Horse Dams.

FUNDING AND BUDGET

About $11.7 million remained in the mitigation trust fund as of July 2009. About $9-10 million of that is invested in high quality government or corporate bonds, the remainder in short-term investments. Interest rates on the trust investments have ranged from 4.4% to 4.8% over the past 5 years. However, factoring in the effect of changing interest rates on fair market value of these bonds, our net return on principal has ranged from 0.6-5.2% per year over the last 5 years. At these rates, the trust fund provided an average of $380,000 in net interest payments per year. Over the previous 5-year planning period, our annual expenditures averaged $244,000 (excluding final phase of the Thompson/Fisher project).

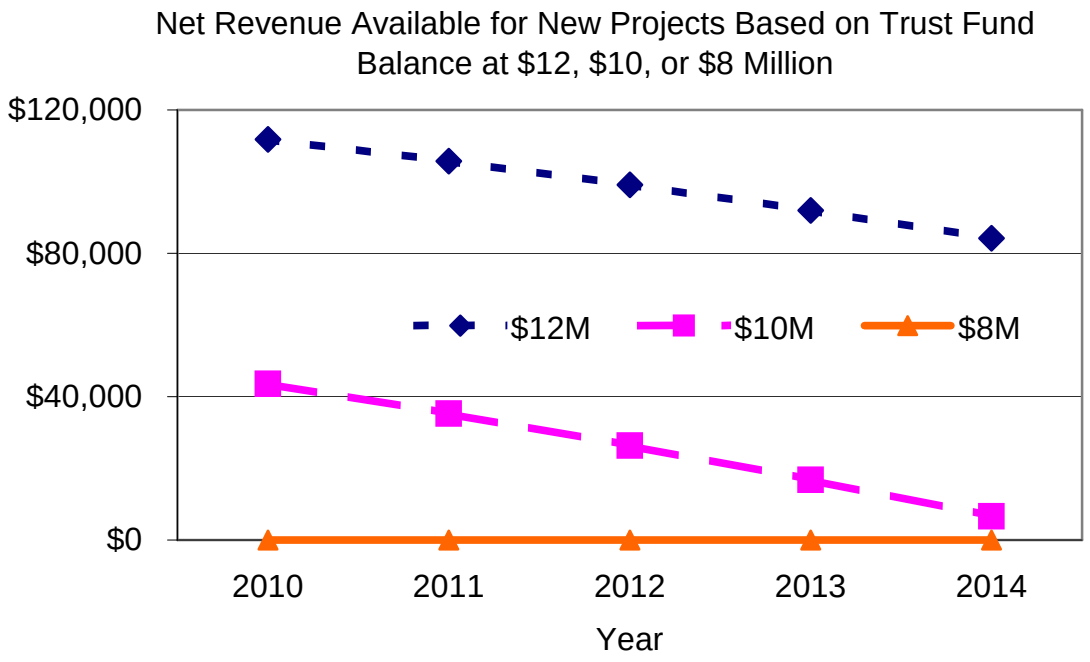
Anticipated budgets for fiscal year 2010 include expenditures in the following categories:

1) **Program costs**: Expenses associated with administration, planning, and coordination of our wildlife mitigation program with other conservation programs in Montana and throughout the Columbia Basin.
2) **Maintenance, management, and monitoring**: Costs of maintaining previous forest enhancements, habitat management, surveys, inventories, access management, conservation easement monitoring, and other ongoing expenses associated with managing our existing mitigation projects.
3) **Ongoing projects**: Costs associated with various partnership projects that help to offset habitat losses caused by dam construction. This has become a very successful portion of our program. Over the last 5 years we have helped other organizations enhance or conserve more than 7,600 acres at an average cost of $29.91/acre.

The following table summarizes the proposed fiscal year 2010 budget. There are likely to be some increases to this budget over the 5-year planning cycle due to inflation. However, this budget would leave roughly $30,000-100,000 per year for new projects in fiscal year 2010-2014. That money could be spent on new projects or left in the trust fund for future expenses.

PROGRAM COMPONENT	2004 BUDGET	2004-08 Average Annual Expenses	2010 BUDGET
Program Planning & Coordination	$75,000	$37,300	$50,000
Maintenance, Management, & Monitoring	$180,000	$57,500	$150,000
Ongoing Projects	$60,000	$68,700	$85,000
New Projects	$285,000	$80,700	$95,000
TOTAL	$600,000	$244,200	$380,000

Over the past 4 years, we have averaged a net increase in the trust fund of about $200,000 per year as a result of bond appreciation and income exceeding expenses. However, annual growth or opportunity for new projects will decline with the proposed increase in spending on maintenance and management costs and continued inflation over the life of this plan. The extent of that decline will depend on the balance remaining in the trust fund.



The proposed 2010 budget would include $80,000 - $120,000 available annually to spend on new projects or remain in the trust if we maintain $12 million in the trust account. We would have only $6,000 - $40,000 available annually if we maintain $10 million in the trust account. However, if we spent the trust fund down to $8 million as allowed in the settlement agreement, and maintained the proposed 2010 budget then we would deplete the trust account by $4,000 - $40,000 per year. Such an approach would not be allowed under the terms of the settlement agreement. We would have to reduce expenses by an equivalent amount to maintain the required minimum $8 million in the trust account.

Although the terms of the Settlement Agreement allow the state to maintain the trust anywhere above $8 million through 2018, at this time we think it is best to retain at least a $10-12 million balance in the trust fund in order to account for inflation through time. In the near-term, we expect the market value of our long-term bonds will decrease as interest rates rise. As with all state accounts, the fund is managed by the Montana Board of Investments to minimize loss of principal. Our long-term investments are currently in government and high-quality corporate bonds. Montana law prohibits invest of state assets in equities.

PROJECT REVIEW AND DECISION PROCESS

Various levels of review are required for proposed mitigation projects. Specific details affecting the review and decision process are provided by previous guidance from the Wildlife Mitigation Advisory Committee; Fish, Wildlife & Parks decisions and approved plans; and the Montana Environmental Policy Act. A summary of our process is provided below.

Projects Costing Less Than $25,000

The Wildlife Mitigation Advisory Committee agreed to exempt from their review most projects that meet our mitigation objectives and cost the wildlife mitigation trust fund less than $25,000. Under these conditions, Fish, Wildlife & Parks will rely on guidance provided by this 5-year plan to complete such projects. However, if these projects require an environmental assessment or environmental impact statement, then we will provide a minimum 30-day period to solicit comments from the Advisory Committee and the public before making a final decision on the project. Accomplishments and expenditures for these projects are documented in the annual report and at the next regularly scheduled meeting of the Advisory Committee.

Projects Costing More Than $25,000

If time is not a factor affecting project completion, Fish, Wildlife & Parks will utilize the normal Advisory Committee review process as described in Addendum 1 to the Wildlife Mitigation Advisory Committee Charter (May 1993). A flowchart from Addendum 1 is duplicated below:

ACTION	Approximate Date
Proponent provides camera-ready project proposal form	Feb 15
Pre-meeting packet with proposal; mailed to Advisory Committee	Mar 15
Proponent presents at Advisory Committee meeting	Apr 15
Technical review	Jun 15
Program evaluation and prioritization	Aug 15
Pre-meeting packet with FWP evaluation and recommendation	Sep 15
Advisory Committee review and comment	Oct 15
FWP Decision	Dec 15

If time is a factor affecting project completion, Fish, Wildlife & Parks will utilize our environmental review process to solicit comments from the advisory committee and the public simultaneously. At a minimum, this includes notification of the proposed project and at least a 30-day comment period on the draft environmental document. Advisory Committee members may also request special meetings or conference calls they feel are warranted to discuss the project.

Fish, Wildlife & Parks is also required to follow a process established in our Statewide Habitat Plan (FWP 1995b) for any project that involves acquiring an interest in land, including leases, conservation easements, and fee-title acquisitions. Decision-making authority rests with

the Fish, Wildlife & Parks Commission. Additional approval is needed from the Montana State Land Board for projects costing more than $100,000. Steps involved in this process are summarized below.

a. Project Proposal. The project proponent develops a project proposal. Fish, Wildlife & Parks staff reviews and then completes a project proposal form for projects deemed worth pursuing. The form includes information on how well the project would meet program goals, consistency with formal agreements and previous program decisions, habitat values, threats to habitat integrity, degree of protection, cost/benefit estimates, potential partnerships, and other criteria.

b. Regional Review. The project is ranked against other current and potential projects, reviewed and approved by the wildlife mitigation coordinator and the regional supervisor for Fish, Wildlife & Parks.

c. Wildlife Division Review. Regional office sends project proposal to Helena for review and approval by the Wildlife Division administrator.

d. Approval to Proceed. We must get approval to enter negotiations with a landowner from the Fish, Wildlife & Parks Commission. If they approve, Fish, Wildlife & Parks initiates negotiations with the landowner regarding price and terms of the agreement. Once a project is preliminarily approved from the Commission, we will notify the Advisory Committee of the Commission's decision. The committee is given the opportunity to become involved with the project at this time. Based on recommendations of committee members, special meetings or conference calls may be arranged in addition to their two regular biannual meetings to allow more involvement in the decision-making process.

e. Project Development. Fish, Wildlife & Parks gets appraisals, title reports, engineering designs, partnerships, or other steps necessary to more fully develop the project.

f. Analysis and Review. Fish, Wildlife & Parks completes a draft environmental and socio-economic analysis and proposed management plan for public review and comment once the landowner and Fish, Wildlife & Parks agree on terms and cost. We host a public hearing on the project during a minimum 30-day public comment period. Advisory Committee members are again invited to provide input on the project at this step.

g. Final Approval. Public and Advisory Committee input is used to modify and finalize the analysis and management plan. This input is used to develop a recommendation for the Fish, Wildlife & Parks Commission on whether to approve, modify, or reject the project. The Commission is provided copies of the final analysis, Fish, Wildlife & Parks' recommendation, and all public comments at least ten days before making their decision.

h. Implementation. The project is finalized once the Commission and the State Land Board give final approval. The conservation easement, lease, baseline inventory, or other documents are finalized. Closing dates are set and the land or easement purchased.

REPORTING REQUIREMENTS

Each project sponsor will prepare an annual report compiled by Fish, Wildlife & Parks and submitted to the members of the Wildlife Mitigation Advisory Committee at the end of each state fiscal year (June 30). The report will include a summary of accomplishments and expenditures for each of the ongoing projects and activities. The annual report will summarize:

- Mitigation and management activities undertaken;
- Wildlife benefits derived;
- Revenues and expenditures in accordance with generally accepted accounting principles;
- Funds currently held in the trust account; and
- Future activities, expected wildlife benefits, and estimated costs.

Each mitigation project is also required to prepare a separate, final report upon completion of the project. The final report will summarize:

- Activities and benefits of the project;
- Work planned and work actually accomplished;
- Biological benefits of the work completed;
- Contribution of the project toward the overall mitigation goals;
- Cost-effectiveness of the project; and
- A recommended course of future action.

MITIGATION REPORTS

Following is a list of documents either used by, or produced as a result of, the Montana Wildlife Mitigation Program.

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Bissell, G. N. 1996. Hungry Horse and Libby Riparian/Wetland Habitat Conservation Implementation Plan. Montana Fish, Wildlife & Parks. 30 pp.

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Bonneville Power Administration and the State of Montana. 1988. Wildlife Mitigation Agreement for Libby and Hungry Horse Dams. 16 pp.

Casey, D. 1996. Nongame Wildlife Monitoring Project. Pages 27-38, In: Montana Wildlife Mitigation Program, Annual Report, FY 1996. Montana Fish, Wildlife & Parks, Kalispell. 39 pp.

Casey, D. and P. R. Malta. 1990. Long-term habitat management plan: Elk and mule deer winter range enhancement, Firefighter Mountain and Spotted Bear winter ranges. USDE, BPA, Final Project Report 87-55. 89 pp.

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Kastler, M.A. 1998. Elk pregnancy, production, and calf survival in the South Fork of the Flathead River, Montana. M.S. Thesis, Mont. State Univ., Bozeman. 60 pp.

Komac, R. and J. Holifield. 1993. Libby Dam Wildlife Habitat Enhancement. BPA Final Report, Project No. 88-43. 21 pp.

Montana Code Annotated. 1987. Fish and Wildlife Mitigation Trust Fund Created. MCA 87-1-611-615.

Montana Fish, Wildlife & Parks. 1995a. Final Programmatic Environmental Impact Statement on the Riparian and Wetland Habitat Conservation Program. MT Fish, Wildlife & Parks, Helena. 44 pp. + appendices.

Montana Fish, Wildlife & Parks. 1995b. Statewide Habitat Plan: Implementation of Fish, Wildlife & Parks Commission Habitat Montana Policy. Montana Fish, Wildlife & Parks, Helena. 44 pp.

Montana Fish, Wildlife & Parks. 2005. Montana's Comprehensive Fish and Wildlife Conservation Strategy. Montana Fish, Wildlife & Parks, Helena, MT, 601 pp + appendices.

Mundinger, J. and C. Yde. 1985. Wildlife and Wildlife Habitat Mitigation Plan for Libby Hydroelectric Project. Montana Department of Fish, Wildlife & Parks, Helena. 50pp. + appendices.

Northwest Power Planning Council. 1987. Columbia River Basin Fish and Wildlife Program. 246 pp.

Northwest Power Planning Council. 1987. Columbia River Basin Fish and Wildlife Program, Appendix C. Council Response to comments, page 20. February 11, 1987.

Northwest Power Planning Council. 2000. Final 2000 Fish & Wildlife Program. 80 pp.

Northwest Power Planning Council. 2009. 2009 Fish & Wildlife Program, Pre-publication copy. Council document 2009-02. 181 pp.

Nyberg, H. E. 1992. Wildlife Mitigation Program Five-Year Operating Plan (FY 1992-1996). Montana Fish, Wildlife & Parks, Kalispell. 28 pp. + appendices.

Pacific Northwest Utilities Conference Committee. 1988. The Council's Fish and Wildlife Program: Libby and Hungry Horse Dams. Unpubl. Internal Report.

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Stansberry, B. J. 1991. Distribution, movements, and habitat use during spring, summer, and fall by mule deer in the North Salish Mountains, Montana. M.S. Thesis, Montana State Univ., Bozeman. 64 pp.

Stansberry, B. 1996. Evaluation of Bighorn Sheep and Mule Deer Habitat Enhancements Along Koocanusa Reservoir. Final Report. Montana Fish, Wildlife & Parks. 112 pp.

U.S. Department of Interior. 1965. A detailed report on fish and wildlife resources affected by Libby Dam and Reservoir Project, Kootenai River, Montana. U.S.D.I. U.S. Fish and Wildlife Service Report, Portland, OR. 51pp + Appendices.

U.S. Department of Interior. 1980. Habitat Evaluation Procedures (HEP). ESM 102, Release 2-80. U.S. Govt. Printing Office. 130pp.

USDA Forest Service. 1990. Firefighter Mountain winter range project Environmental Assessment. Hungry Horse RD, Flathead National Forest, Kalispell, MT.

USDA Forest Service. 1989. Kootenai River Wildlife Habitat Enhancement Project: Environmental Assessment. Kootenai National Forest, Libby, MT. 69 pp.

Vore, J. 2001 Hungry Horse Elk Monitoring – Final Report. Page 22 in Montana Wildlife Mitigation Program Annual Report FY 2001.

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U.S. Dept. of the Interior. 1965. A detailed report on fish and wildlife resources affected by Libby Dam and Reservoir Project, Kootenai River, Montana. USDI, Fish and Wildlife Service Report. Portland, OR. 51pp. + appendices.

Wildlife Mitigation Advisory Committee. 1993. Addendum 1: Protocol for considering proposals for new projects. Addendum to the May 28, 1991, Charter.

Yde, C. 1991. Evaluation Plan for the Koocanusa Long-term Habitat Enhancement Plan. USDE, BPA, Project No. 87-55. 22 pp.

Yde, C., G. Altman, and D. L. Young. 1990. Kootenai River Wildlife Habitat Enhancement Plan. USDE, BPA, Completion Report Projects 84-39 and 87-55. 144 pp.

Yde, C.A. and A.O. Olsen. 1984. Wildlife Impact Assessment and Mitigation Summary. Montana Hydroelectric Projects, Volume I - Libby Dam. MDFWP-USDE, BPA, Final Report Project 83-464. 91 pp.

Yde, C. A., B. Summerfield, and L. Young. 1986. Ural-Tweed Bighorn Sheep - Wildlife Mitigation Project. MDFWP Annual Report, BPA Project Nos. 84-38 and 84-39. 35 pp.

Young, L. and C. Yde. 1990. Ural-Tweed Bighorn Sheep Wildlife Mitigation Project Final Completion Report. BPA Project No. 84-38. 32 pp.

APPENDIX A
WILDLIFE MITIGATION PROJECT PROPOSAL FORM 2010

PROJECT TITLE: _____

Project Cooperator/Implementer: _____

I. PROJECT DESCRIPTION/JUSTIFICATION:

Describe how the proposed project addresses wildlife or wildlife habitat affected by the development of Hungry Horse or Libby Dams. (This section provides the biological basis for the project, how it fits the mitigation program, and why mitigation funds are needed.)

A. Which wildlife species or habitats does this project address?

Riparian/wetlands _____ Bighorn sheep _____
Grizzly bears _____ Terrestrial furbearers _____
Palouse prairie/Columbian sharp-tailed grouse _____

A. Type of project:

Habitat enhancement _____ Conservation Easement _____
Fee Title Purchase _____ Exchange _____ Other (explain) _____

C. Legal description: TOWN____N, RANGE____W, SEC____
(Attach map of project area.)

Number of Acres: _____

D. What is the current ownership status (federal, state, private)?

E. When will the project be completed?

F. What existing land use plans and laws apply in the project area? How does this project conform to those plans?

G. What is likely to happen if the project is not done?

H. If the proponent has a program to protect or enhance habitat, show how this mitigation project complements rather than replaces funding used by the agency or organization fulfilling its normal responsibility.

I. If this project involves land acquisition or a conservation easement, please complete the following:

a. What is the projected cost per acre? (Attach a map showing core and auxiliary parcels.)

b. What development or enhancement measures are needed? (Attach diagram.)

c. Who will manage the easement or the property?

d. Has this project been discussed with the appropriate County Commission or Tribal Council? How will the project address any issues or concerns raised?

e. Provide a brief socio-economic review to show the likely effects of converting this parcel from existing to planned land use.

II. BIOLOGICAL BENEFITS

A. What wildlife species will benefit from the project? (Include both species listed in the mitigation plans, and other species, if appropriate.)

B. How will the project be evaluated, acres of habitat enhanced, or number of animals produced? If species benefits cannot be quantified, describe the benefits as specifically as possible.

III. FUNDING

A. Provide an itemized budget for the project including personal services, operations, maintenance, equipment, and indirect costs. (If the proposal involves habitat protection, show both acquisition and administrative costs (appraisals, title reports, and documentation reports).

B. List any cooperators and their contribution. Contributions may be in the form of funding, personnel, services, or materials.

IV. SPECIAL CONSIDERATIONS/MANAGEMENT IMPLICATIONS

A. What permits will be required (water rights, Corps of Engineers 404 permits, etc.)? Who will acquire them and at what cost?

B. Environmental documentation required? Who will prepare the documents and at what cost?

C. For habitat protection projects, include a narrative description of any factors that need to be considered in the actual purchase of the property on the long-term management (taxes, game damage, weed management, personnel needs, easement monitoring costs).

V. REPORTS

All mitigation projects will be required to prepare annual and final reports. Reports must describe the work planned and accomplished, evaluate the wildlife or habitat benefits provided, and provide an accounting of funds expended.

A. Who will be responsible for preparing these reports?