

SECTION 4. UCFRB TERRESTRIAL RESOURCES RESTORATION PLAN

This section constitutes the State's final terrestrial resources restoration plan for the UCFRB. Section 4.1 provides the State's analysis of restoration alternatives for terrestrial resources based on achieving restoration goals and on evaluation criteria specified in federal natural resource damage regulations and identifies the State's preferred alternative. Section 4.2 describes how the State further developed the preferred alternative into a proposed set of restoration actions and budgets.

4.1 Evaluation of Alternatives

4.1.1 Terrestrial Restoration Goals

As explained in Section 2.2, restoration of terrestrial resources and services to baseline condition is not possible in the UCFRB due to the widespread injury to natural resources associated with the release of hazardous substances from the mining and mineral processing activities in the Basin. However, the State's previous restoration planning efforts, which are summarized in Section 2.2, make it clear that significant progress can be accomplished with restoration efforts. The *2011 Terrestrial Prioritization Plan* focused on the areas and types of projects most likely to derive the greatest terrestrial benefits for the UCFRB, and in so doing, restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources of the UCFRB. The areas and types of projects set forth in the *2011 Terrestrial Prioritization Plan*, and included in the *2012 Process Plan*, are based not solely on hazardous substances, but are also based on the predicted effectiveness of wildlife habitat protection and enhancement activities to benefit terrestrial resources in the UCFRB. The State used the knowledge gained from terrestrial assessments conducted in 2009¹ to help determine the recommended types of restoration actions and the priority terrestrial areas for UCFRB restoration work identified in the *2011 Terrestrial Prioritization Plan*.

The *2011 Terrestrial Prioritization Plan* identified priority areas for wildlife habitat protection and enhancement activities based on the following terrestrial wildlife restoration or replacement goals:

- Restore the injured terrestrial resources and associated ecological and recreational services (lost hunting, wildlife viewing, bird watching, and other wildlife-related outdoor recreation) covered under the State's natural resource damage lawsuit (*Montana v. ARCO*).
- Replace injured terrestrial wildlife resources by protecting and enhancing grassland, shrub-steppe, riparian, wetland, and conifer forest habitats in the UCFRB that are similar to those

¹Upper Clark Fork River Terrestrial Assessment Final Report, prepared by FWP and NRDP, April 2010; available on NRDP website at: <https://dojmt.gov/wp-content/uploads/2011/06/2010ucfrbterrestrialresourceassessment.pdf>

injured. This involves maintaining or improving wildlife species diversity, natural ecological functions, and habitat connectivity in grassland, forest, and riparian ecological systems.

- Replace lost hunting, wildlife viewing, bird watching, and other wildlife-related outdoor recreational opportunities by enhancing wildlife habitat, and consequently, wildlife populations, and ensuring public access to these wildlife resources.

These goals are all considered to be of substantially equal importance, recognizing that both restoration and replacement are appropriate strategies for increasing wildlife populations and recreational opportunities to compensate for what was lost.

To achieve these goals, the *2011 Terrestrial Prioritization Plan* indicates the following key elements for future wildlife habitat protection and enhancement in the priority areas.

- a) A few large projects are generally preferred to many smaller projects because of the lower cost per area and larger footprint on the landscape. Clustering of projects will improve their effectiveness.
- b) Other things being equal, projects adjacent to public lands or conservation easements are preferred to projects surrounded by unprotected private land or isolated from good wildlife habitat by large expanses of compromised habitats.
- c) Projects that provide protection and enhancement of several targeted habitats are generally preferred over projects that only contain a single habitat.
- d) Other things being equal, projects that meet some or all the fisheries restoration goals are preferred to projects that lack benefits to fisheries.
- e) Access for wildlife-related recreation needs to be managed to ensure that increased recreational use does not negatively impact wildlife resources or compromise restoration and enhancement efforts.

These key elements are also reiterated in the guidance for terrestrial restoration provided in the *2012 Process Plan*. To help further distinguish among the riparian, wetland, and aspen communities in the UCFRB, which are all classified as Priority 1 areas, the *2012 Process Plan* added the following key element:

- f) Projects targeting wetland and riparian habitats, but surrounded by low priority uplands, should preferably include no less than 25 percent wetland or riparian habitat with the surrounding low-priority uplands dominated by native upland habitat.

Combined, these key elements translate to a preference for projects that have a large conservation footprint, that adjoin public lands or lands under conservation easement, that target several habitats, that complement fisheries goals, and for which recreational use does not compromise conservation values. Similar to the methodology used to identify priority areas for wildlife resource protection and enhancement, these core principles are driven by a preference for habitat enhancement at a landscape scale. Projects that cover small areas, however, can be of high value if they provide connections between landscapes or enhance or protect key habitats.

As discussed in Section 2.2, the *2011 Terrestrial Prioritization Plan* was adopted as part of the *2011 Long Range Guidance Plan*, which focused future restoration to the priority areas identified in *2011 Terrestrial Prioritization Plan* and the terrestrial injured resource areas for which the State made its restoration claims. The *2012 Process Plan* further narrowed the universe of terrestrial restoration alternatives by focusing restoration alternatives in terrestrial injured resource areas and in the high Priority 1 and Priority 2 terrestrial areas, consistent with the approach advocated in the *2011 Terrestrial Prioritization Plan*.

As part of the development of a restoration plan, alternatives are considered in selecting a preferred alternative for the plan. As explained above, this process began with the restoration planning efforts that occurred prior to adoption of the *2011 Long Range Guidance Plan*. The previous restoration plans and other pertinent evaluations that contain alternative analyses are described in Section 2.2. The State, through these efforts, has already considered many alternatives for restoration of the injured groundwater, aquatic, and terrestrial resources in the UCFRB.

4.1.2 Description of Alternatives

The State analyzed no action, and two alternative geographic approaches for terrestrial restoration actions in the Basin.

Alternative 1. Alternative 1 is the no action alternative. It is a required alternative under state and federal law and allows for comparison to other alternatives. The no action alternative leaves the terrestrial resources of the UCFRB in its current condition, allowing only natural processes to restore the terrestrial resources and recreational opportunities.

Alternative 2: Restoration of High Priority 1 Terrestrial Areas in the UCFRB. The *2012 Process Plan* required that terrestrial restoration alternatives focus on the high Priority 1 and Priority 2 Terrestrial Areas, consistent with the *2011 Terrestrial Prioritization Plan*. Alternative 2 focuses on restoration of the terrestrial resources in Priority 1 Terrestrial Areas, including priority injured mainstem areas within the UCFRB, as shown on Figure 2-2, and further described in the *2011 Terrestrial Prioritization Plan*. Alternative 2 also includes recreational components associated with the Priority 1 Terrestrial Areas.

Alternative 3: Restoration of Priority 1 and 2 Terrestrial Areas in the UCFRB. As the *2012 Process Plan* required terrestrial restoration alternatives to focus on the high Priority 1 and Priority 2 Terrestrial Areas, Alternative 3 focuses on restoration of the terrestrial natural resources of the combined Priority 1 and Priority 2, as shown on Figure 2-2, and further described in the *2011 Terrestrial Prioritization Plan*. Specifically, Alternative 3 creates nine Priority Landscape Areas that encompass all Priority 1 and 2 Terrestrial Areas of similar ecological characteristics, similar priority ranking, and proximity to each other, including priority injured mainstem areas, to better improve wildlife resources, as shown in Figure 4-1. Alternative 3 also includes recreational components associated with Priority 1 and Priority 2 Terrestrial Areas.

4.1.3 Evaluation of Alternatives

Under the DOI NRD regulations, a Trustee’s restoration plan needs to evaluate a reasonable number of alternatives for restoring, rehabilitating, replacing, or acquiring the equivalent of injured natural resources based on all relevant considerations, including the DOI legal criteria.² Below, the three restoration plan alternatives are evaluated using the ten evaluation criteria set forth in the *2012 Process Plan*. Those include eight legal criteria, seven of which represent the criteria set forth in the U.S. Department of the Interior’s NRD assessment regulations,³ which Trustees use when selecting the restoration plan alternatives. The other legal criterion addresses the additional factors the State is to consider under a Memorandum of Agreement with the Confederated Salish and Kootenai Tribes and the Department of the Interior. In addition to these legal criteria, there are two policy criteria of special interest to the State.

The evaluations below provide a summary description of each criterion and how each of the three alternatives meets that criterion. Section 4.1.5 provides an overall summary of these criterion-specific analyses and identifies the State’s preferred alternative based on the collective analysis of the ten criteria.

Technical Feasibility: Under this criterion, the State evaluates the degree to which an alternative employs well-known and accepted technologies and the likelihood that the alternative will achieve its objectives. Application of this criterion focuses on an evaluation of the alternatives’ relative technological feasibility.

² 43 CFR §11.93, §11.81, and §11.82.

³ 43 CFR §11.82(d). These regulations provide a list of “factors” to consider when selecting the alternative to pursue; those factors are referred to as DOI legal criteria in this document.

Alternative 1 (the no action alternative) is technically feasible. Alternative 2 (Priority 1 Terrestrial Areas) and Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) would both employ the encouraged activities set forth in the *2012 Process Plan*, which are well-known and accepted technologies, with a reasonable chance of successful completion in an acceptable period of time and are therefore also technically feasible. For Alternative 2, there is a minor uncertainty that enough access will be allowed on private lands to sufficiently effectuate implementation, since work depends on a willing landowner, and in the case of acquisitions and easements, acceptable title conditions and appraisals. The same minor uncertainty exists for Alternative 3, but to a lesser extent, due to the larger geographical area available for actions and better ability to integrate actions through the Priority Landscape Areas.

Relationship of Expected Costs to Expected Benefits: Under this criterion, the State examines whether an alternative's costs are commensurate with the benefits it provides. In doing so, the State will need to determine the costs associated with the alternative, and the benefits that would result from the plan.

For this criterion, Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) is superior to Alternative 1 (the no action alternative) and Alternative 2 (Priority 1 Terrestrial Areas). For Alternative 1, there would be no benefit, and no costs would be incurred. As past mining and mineral processing activities have resulted in widespread injury to natural resources in the UCFRB a lack of benefit would be an unacceptable outcome. Natural recovery would progress slowly at individual injured areas and some injured areas would likely never reach pre-existing conditions. Arid habitats would likely take over 100 years to recover to pre-existing conditions. The Opportunity Ponds are unlikely to fully recover to pre-existing conditions under any length of time due to the magnitude of the impacts. Services normally provided by wildlife resources would continue to be zero or greatly reduced. Without the proposed conservation easements and acquisitions, terrestrial wildlife habitats would likely decline in the UCFRB due to other human development over the long-term, possibly to the point where limited gains made by natural recovery may be negated.

Alternative 2 offers net expected benefits compared to expected costs, by providing terrestrial resources improvement as well as related services (e.g., hunting, birding, and other recreational services) in Priority 1 Terrestrial Areas. However, Alternative 3, by providing terrestrial resources improvement and related services within the Priority Landscape Areas, will provide significantly more terrestrial resources improvement and related services through its integrative approach (since greater benefits and cost efficiencies can be achieved than would occur by addressing resources separately), offer a greater opportunity for partnerships and for coordination with aquatic resource projects, and cover a larger geographic area of priority habitat within the UCFRB (325,000 acres, versus 178,000 acres in Alternative 2) for the same costs as Alternative 2, thereby providing higher net expected benefits compared to expected costs.

Cost-Effectiveness: Under this criterion, the State evaluates whether the alternative accomplishes its goal in the least costly way possible. In evaluating this criterion, the State considers whether the alternative is consistent with the guidance for aquatic and terrestrial restoration and recreation projects provided in the 2012 Process Plan,⁴ as well as the likelihood of matching funds, which can enhance cost-effectiveness.

For this criterion, Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) is superior to Alternative 1 (the no action alternative) and Alternative 2 (Priority 1 Terrestrial Areas). Alternative 1 is cost-effective, as no costs would be incurred. However, there is considerable precedent in the UCFRB for cost-sharing with other entities in UCFRB restoration activities. This ability to accomplish more restoration through the use of matching funds is lost under Alternative 1.

Alternative 2 and Alternative 3 are similar in that both would require necessary evaluations, designs, and other project development efforts, such as appraisals and title work related for land acquisitions and easements, before implementing the encouraged activities set forth in the *2012 Process Plan*. Both are consistent with the terrestrial and recreational projects guidance set forth in the *2012 Process Plan*, and not inconsistent with the aquatic guidance.

However, Alternative 3 offers greater opportunities for matching funds due to its greater opportunity for partnerships, and larger geographical area available for actions. In addition, Alternative 3 offers superior cost-effectiveness to Alternative 2 through its integrative watershed approach (which creates efficiencies to reduce costs), plus its larger geographic area offers more selectivity in determining specific locations for actions in order to improve cost-effectiveness. Also, as set forth below, Alternative 3 can also be expected to lessen the recovery period for the UCFRB through its Priority Landscape Areas, thereby leading to further restoration at less cost.

Results of Response Actions: Under this criterion, the State considers the results or anticipated results of response actions underway, or anticipated, in the UCFRB. Numerous response actions are ongoing and additional response actions are scheduled to begin in the next several years, continuing for many years into the future.

Alternative 1 (the no action alternative), Alternative 2 (Priority 1 Terrestrial Areas), and Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) do not interfere with planned response actions, however, Alternative 1 does not enhance planned response actions. Alternative 2 enhances planned response actions, while Alternative 3 offers further enhancement by addressing its Priority Landscape Areas, and a larger portion of the UCFRB watershed.

⁴This guidance is provided in Attachments 5-2, 5-3, and 5-4 of the *2012 Process Plan*.

Adverse Environmental Impacts: Under this criterion, the State weighs whether, and to what degree, the alternative will result in adverse impacts to both the physical and human environment. Specifically, the State will evaluate significant adverse impacts, which could arise from the alternative, short- or long-term, direct or indirect, including those that involve resources that are not the focus of the project.

Temporary impacts are anticipated for Alternative 2 (Priority 1 Terrestrial Areas) and Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) due to construction activity. However, these temporary impacts would be offset by positive impacts as projects are fully implemented. Protective measures would be required to assure that impacts to human health and safety would be limited to the extent practicable. There are no adverse environmental impacts associated with implementation of Alternative 1 (the no action alternative), but lack of restoration would result in some adverse environmental impacts due to the permanent loss of terrestrial wildlife resources.

Recovery Period and Potential for Natural Recovery: Under this criterion, the State evaluates the merits of the alternative considering whether the resource is able to recover naturally and, if a resource can recover naturally (i.e., without human intervention), how long that will take. (The term “recovery” refers to the time it will take an injured natural resource to recover to its “baseline,” i.e., pre-injury condition.)

As noted in the *1995 Restoration Determination Plan*⁵, natural recovery to baseline would be anticipated to take thousands of years. Some areas such as the Opportunity Ponds, likely will never fully recover to pre-existing conditions. Therefore, Alternative 1 (the no action alternative) would result in an indefinite recovery period, and extremely poor potential for natural recovery. This would be an unacceptable result.

Alternative 2 (Priority 1 Terrestrial Areas) would advance the recovery period and enhance potential for natural recovery by addressing restoration needs in the Priority 1 Terrestrial Areas, through habitat protection and enhancement in mainstem injured areas and areas in proximity to injured areas. This should significantly shorten the time of recovery for the UCFRB terrestrial resources. Replacement of resources through offsite protection and enhancement actions will offset resources in areas where natural recovery is unlikely. Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) would be expected to further advance the recovery period and enhance potential for natural recovery through its expanded and integrated approach of addressing the UCFRB through actions within the Priority Landscape Areas.

⁵ *Restoration Determination Plan for the Upper Clark Fork River Basin*, prepared by the NRDP, with assistance from Rocky Mountain Consultants, Inc., dated October 1995.

Federal, State, and Tribal Policies, Rules, and Laws: Under this criterion, the State considers the degree to which the alternative is consistent with applicable policies of the State of Montana and applicable policies of the federal government and Tribes (to the extent the State is aware of those policies and believes them to be applicable and meritorious). In addition, projects must be implemented in compliance with applicable laws and rules, including the consent decrees. As part of the evaluation of this criterion, the State assesses whether the alternative would potentially interfere, overlap, or partially overlap with the restoration work covered under current or planned consent decrees or restoration plans.

All alternatives are compliant with applicable law. The State would require or obtain all needed permits and authorizations.

Resources of Special Interest to the Tribes and DOI: Pursuant to the State’s Memorandum of Agreement (MOA) with the Department of Interior and Confederated Salish and Kootenai Tribes (Tribes), the State is to pay particular attention to natural resources of special interest to the Tribes and/or DOI, including attention to natural resources of special environmental, recreational, commercial, cultural, historic, or religious significance to either the Tribes or the United States.⁶ The MOA also provides for the State to pay particular attention to “Tribal Cultural Resources” or “Tribal Religious Sites,” as those terms are defined in the MOA.

Alternative 1 (the no action alternative) does not address resources of special interest to the Tribes and DOI. Alternative 2 (Priority 1 Terrestrial Areas), and Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) likely enhance resources of special interest, with Alternative 3 expected to provide further enhancement. Alternative 2 and Alternative 3 have the potential for site disturbance of tribal cultural sites, and appropriate evaluation and coordination would be required.

Normal Government Function: The State will not fund restoration activities for which a governmental agency would normally be responsible or that would receive funding in the normal course of events. With this criterion, the State evaluates whether a particular alternative would be implemented if recovered natural resource damages were not available. The Restoration Fund may be used to augment funds normally available to government agencies to perform a particular action if such cost sharing would result in the implementation of a restoration action that would not otherwise occur through normal agency function.

Alternative 2 (Priority 1 Terrestrial Areas), and Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) do not replace normal government functions, as the State is prohibited from funding restoration activities for which a governmental agency would normally be responsible or that

⁶ This MOA, dated November 1998, is available from the NRDP website at <https://dojmt.gov/wp-content/uploads/2011/06/1998moatribes.pdf>

would receive funding in the normal course of events. However, Alternative 2 and Alternative 3 may augment normal government function, if funding is normally available to a government agency to perform a particular action, and such cost sharing would result in the implementation of a restoration action that would not otherwise occur through normal government function. This criterion is inapplicable to Alternative 1 (the no action alternative).

Price: Under this criterion, the State evaluates whether the land, easements, water rights, or other property interests proposed to be acquired are being offered for sale at or below fair market value.

Alternative 2 (Priority 1 Terrestrial Areas), and Alternative 3 (Priority 1 and Priority 2 Terrestrial Areas) are equivalent, as all land, easements, water rights, or other property interests proposed to be acquired under Alternative 2 and Alternative 3 will require evaluation to assure that all interests are being offered for sale at or below fair market value. Any acquisition or easement effort would normally include a State appraisal and other due diligence, and negotiation of a purchase price at or below fair market value. This criterion is inapplicable to Alternative 1 (the no action alternative).

4.1.4 Evaluation Summary

The criteria that are most influential in this analysis are cost: benefit relationship and cost-effectiveness. Under the no action alternative (natural recovery), any wildlife resource benefits derived from the proposed terrestrial restoration actions in the Basin would not occur. Natural recovery would progress slowly at individual injured areas, and some injured areas would likely never reach pre-existing conditions. Arid habitats would likely take over 100 years to recover to pre-existing conditions. The Opportunity Ponds are unlikely to fully recover to pre-existing conditions under any length of time due to the magnitude of the impacts. Services normally provided by wildlife resources would continue to be zero or greatly reduced. Without the proposed conservation easements and acquisitions, terrestrial wildlife habitats would likely decline in the UCFRB due to other human development over the long-term, possibly to the point where limited gains made by natural recovery may be negated.

Alternative 3 provides for restoration actions over 325,000 acres in nine separate landscape areas in the UCFRB, whereas Alternative 2 provides for restoration actions on 178,000 acres in only five landscape areas of the UCFRB. Greater benefits would be gained to wildlife resources and the public's use and enjoyment of those resources as a whole from allocating restoration actions over the larger area, as proposed in alternative 3, compared to alternative 2. Greater benefits and cost efficiencies gain be gained by addressing Priority 1 and 2 areas together rather than addressing only Priority 1 areas. Alternative 3 also provides for more coordination with aquatic restoration projects that will benefit both aquatic and wildlife resources over a greater area compared to alternative 2. Alternative 3 encompasses more concept proposals submitted by the public, providing greater opportunities for partnerships (which may increase cost-effectiveness).

Alternative 3 also does better than Alternative 2 based on the results of response actions and potential natural recovery criteria. Alternative 3 offers further enhancement and protection of planned response actions by addressing a larger portion of the UCFRB watershed than Alternative 2. Alternative 3 would be expected to further advance the recovery period and enhance potential for natural recovery through its expanded and integrated approach of addressing the UCFRB through actions within the fourteen priority watersheds than Alternative 2.

Based on the better results for Alternative 3 reflected for the four criteria summarized above, the State selects Alternative 3 as the Preferred Alternative. For the other six NRD criteria, Alternative 2 and 3 are comparable.

4.2 Preferred Alternative

4.2.1 Terrestrial Landscape Areas

As set forth in the *2012 Process Plan*, these terrestrial resources restoration plan targets restoration work in terrestrial injured areas and in Priority 1 and 2 areas identified in the *2011 Terrestrial Prioritization Plan*. The Priority 1 and 2 areas are shown on Figure 2-2. Terrestrial-related recreational projects are addressed separately in Section 5.0.

For the preferred alternative, the Priority 1 and Priority 2 areas, plus the Clark Fork River mainstem injured area are grouped into priority landscape areas, based on geography and similarity of restoration opportunities. The nine priority landscape areas are: Philipsburg West, Lower Flint Creek, Garnets, Avon North, Deer Lodge North, Deer Lodge South, East Flints, Anaconda, and Clark Fork Mainstem (Garrison to Milltown). Landscape areas are discussed individually in the sections that follow.

Figure 4-1 shows the nine priority landscape areas in the UCFRB. Table 4-1 provides estimated acreage of Priority 1 and 2 resource areas for each of the nine landscape areas. The amount of land currently protected under conservation easements is estimated for each landscape area using GIS analysis (completed by FWP in cooperation with the Montana Natural Heritage Program in 2012) and shown in Figure 4-1 and Table 4-1. GIS analysis is also used to summarize the land-cover types for each landscape area, to help in the development of terrestrial actions and inform budget estimates for each area (Table 4-2). Riparian information from the National Wetland Inventory (NWI) is incorporated into the delineation of these nine areas, showing the existence of more wetland/riparian habitat in the landscape areas than shown in the *2011 Terrestrial Prioritization Plan*.

Figure 4-1 also shows United States Forest Service lands that adjoin priority landscape areas. The UCFRB also contains State lands, including lands within the Silver Bow Creek, Smelter Hill Area Uplands, and the Clark Fork River injured areas. These State lands are described in the *2011 Terrestrial Prioritization Plan* (Attachment A to Appendix B).

Landscape area boundaries are simplified due to the groupings of Priority 1 and Priority 2 areas and are approximate. As a result, landscape areas may include within their boundaries some housing developments, ranch homesteads, irrigated agriculture, or features not eligible or targeted for terrestrial actions. In addition, some small areas of Priority 1 or Priority 2 habitats may fall outside the landscape area boundaries (such as small patches or stringers of riparian and wetland habitats), but still eligible for action. As the boundaries are approximate, areas adjacent to boundaries may still be included for action based on cost effectiveness and contribution to restoration goals, including acquisition of an entire property that includes primarily priority areas.

Figure 4-1. UCFRB Priority Landscapes.

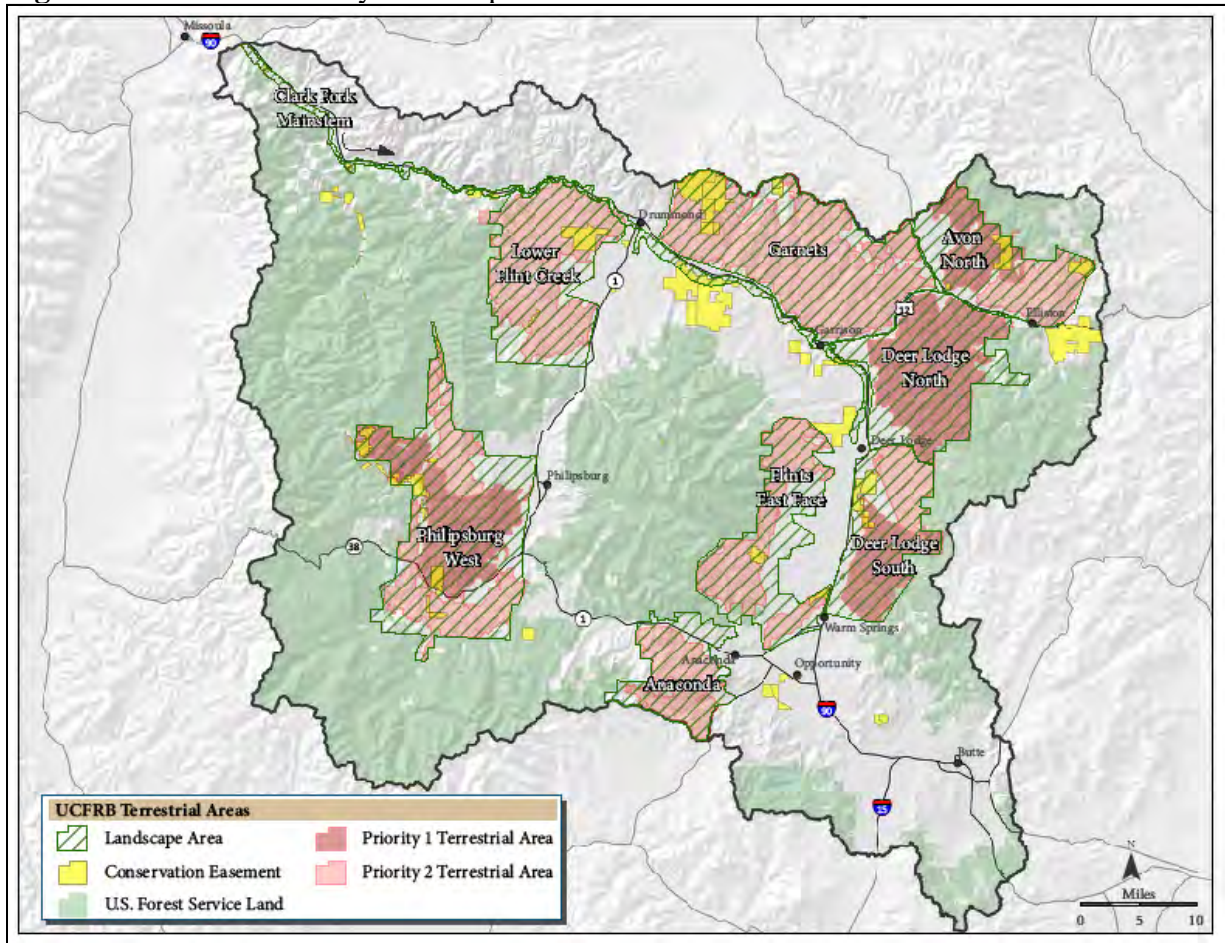


Table 4-1. Priority 1 and 2 acres and conservation easement acres (in 2012) by landscape area

Landscape Area	Total Area (acres)	Priority 1 Acres	Priority 2 Acres	Total Priority 1&2 Acres	Total Priority 1&2 (%)	Conservation Easement acres
Philipsburg West	137,909	51,751	44,828	96,579	70%	6,718
Lower Flint Creek	85,660	0	66,738	66,738	78%	3,852
Garnets	126,735	0	106,470	106,470	84%	9,323
Avon North	62,384	23,416	22,818	46,234	74%	3,958
Deer Lodge North	84,263	63,967	8	63,975	76%	-
Deer Lodge South	59,123	26,290	15,491	41,781	71%	3,454
East Flints	71,752	0	41,751	41,751	58%	1,712
Anaconda	43,592	0	27,005	27,005	62%	-
Clark Fork Mainstem	22,381	12,223	201	12,424	56%	2,777
Totals	693,799	177,647	325,310	502,957	72%	31,794

Table 4-2. UCFRB Land-cover type acreage for terrestrial landscape areas

LANDSCAPE AREA									
LAND-COVER TYPE	Philipsburg West	Lower Flint Creek	Garnets	Deer Lodge North	Deer Lodge South	East Flints	Anaconda	Avon North	Clark Fork Mainstem
Developed	741	450	259	544	1,183	1,542	778	54	1,324
Agriculture	7,822	4,684	1,731	3,618	2,491	3,650	302	4,865	3,021
Cliffs, Bedrock, and Badlands	151	39	20	24	0	286	2,320	37	20
Alpine Bedrock and Ice	0	0	0	0	0	1	630	0	0
Alpine Low Vegetation	0	0	0	0	0	0	2,568	0	0
Subalpine Montane Mesic Meadow	4,106	4,302	1,781	2,840	952	682	792	828	29
Total	12,820	9,475	3,791	7,026	4,626	6,161	7,390	5,784	4,394
Montane Dry Mesic Mixed Conifer Forest	966	5,345	1,103	0	0	0	0	0	258
Montane Subalpine Mesic Mixed Conifer Forest	0	0	2	0	0	24	1,054	0	5
Limber Pine Juniper Woodland	838	18	318	98	24	18	2	201	23
Lodgepole Pine Forest	20,118	3,354	17,102	4,624	1,754	6,580	9,697	6,663	3
Ponderosa Pine Woodland and Savanna	2,682	3,792	8,296	2,344	494	618	302	2,342	308
Subalpine Spruce Fir Forest and Woodland	3,420	242	864	233	33	916	2,854	264	0
Douglas Fir Forest and Woodland	9,726	1,967	16,012	13,845	3,857	3,580	4,592	4,584	76
Total Conifer Forest	37,750	14,719	43,697	21,144	6,162	11,735	18,501	14,054	672
Harvested Forest	3,967	4,828	13,324	3,046	144	939	962	1,407	8
Deciduous Shrubland	1,539	2,377	1,971	930	266	467	310	357	12
Montane Sagebrush/Shrub Steppe	41,301	8,768	38,348	38,104	23,393	22,915	8,995	25,943	412
Big Sagebrush Steppe	0	5165	877	0	0	0	0	0	95
Lower Montane Foothill and Valley Grassland	9,477	34,356	20,107	9,755	18,732	21,510	1,536	10,759	4,565
Upper Montane and Subalpine Grassland	13,856	1,075	960	813	708	1,056	1,299	569	0
Total Grassland & Sagebrush	64,634	49,364	60,292	48,672	42,833	45,481	11,830	37,271	5,072

LAND-COVER TYPE	Philipsburg West	Lower Flint Creek	Garnets	Deer Lodge North	Deer Lodge South	East Flints	Anaconda	Avon North	Clark Fork Mainstem
Aspen Forest and Woodland	2,486	228	997	268	438	434	2,481	343	2
Water	2	1	11	18	34	84	13	20	167
Riparian Woodland and Shrubland	3,917	1,826	209	248	332	359	231	250	1,822
Wet Meadow	689	34	77	60	69	40	14	111	90
Emergent Wetland	14	4	0	0	0	3	0	0	12
NWI Freshwater Emergent Wetland	6,872	1,451	884	1,468	1,871	1,613	412	1,514	3,047
NWI Freshwater Forested Wetland	9	16	0	3	4	4	8	0	6
NWI Freshwater Forested Shrub Wetland	0	0	0	0	0	0	0	0	169
NWI Freshwater Pond	132	32	44	38	56	245	71	43	345
NWI Freshwater Scrub Shrub Wetland	1,136	614	326	500	599	868	824	498	822
NWI Lake	0	154	26	16	121	54	42	42	62
NWI Riparian Emergent	496	35	111	2	30	2,383	2	15	442
NWI Riparian Forested	466	328	291	329	397	387	133	319	2,438
NWI Riparian Scrub Shrub	400	110	261	419	803	371	317	196	1,074
NWI River	566	57	49	70	325	119	42	81	1,308
NWI Riverine	0	0	0	0	0	0	0	0	419
Total Riparian & Wetland	14,699	4,661	2,288	3,171	4,642	6,531	2,110	3,089	12,224
TOTAL ACRES*	137,895	85,652	126,360	84,257	59,111	71,748	43,584	62,305	22,384

* Total landscape area acres generated from land-cover raster layer may not exactly match acreage generated from other methods.

4.2.2 Terrestrial Actions

In assessing restoration needs and determining proposed actions for the nine landscape areas, the State identified measures common among the landscape areas that best meet terrestrial restoration goals.

The protection of high priority lands through perpetual conservation easements or public acquisitions is the clear dominant component of the terrestrial restoration alternative, with an estimated 75% of all terrestrial restoration funding. The *2011 Terrestrial Prioritization Plan* focused primarily on enhancement of private lands, as private lands often provide critical habitat connectivity that cannot be protected by maintaining existing public land. In addition, the overwhelming majority of the terrestrial abstracts submitted in response to the NRDP solicitation for restoration concept proposals involved conservation easements or public acquisitions. Private lands are expected to provide some of the best opportunities for enhancement and protection. As made clear below, any conservation easement or public acquisition will require a subsequent funding decision prior to project implementation. The term “public acquisitions” in this Restoration Plan includes ownership by a State agency, such as DNRC, FWP, DEQ or NRDP, as well as partnerships with partner organizations that may hold the property on behalf of the State.

The measures applied to each of the nine landscape areas, as applicable, are:

1. Protection of high priority lands through perpetual conservation easements or public acquisitions. In portions of the UCFRB, wildlife habitat is threatened by development, primarily residential subdivision, and the conversion of native grasslands to crop production. Perpetual conservation measures can conserve large blocks of high priority habitats and maintain landscape connectivity and provide replacement of resources by offsetting future losses from development. Gaining access for wildlife-related recreational use is also important.
2. The State may perform project development efforts for Priority Landscape Area projects that the State determines may meet the established criteria. For most proposed easement or acquisition efforts included in this plan, significant project development efforts are still needed to accomplish such projects. This includes completion of natural resource inventories, other necessary due diligence, title work, and State appraisals for all potential easement/acquisition parcels. Unless otherwise indicated in this Plan, project development efforts for the proposed easement and acquisition efforts would be funded. However, a subsequent funding decision on project implementation would be subject to public comment, consideration by the Advisory Council and Trustee Restoration Council, and final approval by the Governor, as well as any other necessary approvals required under state law, as indicated in Section 6 on Restoration Plan Implementation. The majority of terrestrial actions will fall under this category.

2. Enhancement of riparian and wetland habitats to benefit wildlife by restoring habitat structure, processes, and functions. Riparian widths that provide sufficient protection for fisheries resources are generally not ideal for providing benefits to terrestrial wildlife species. Therefore, enhancement of riparian and adjacent native habitats extending over 300 feet from streams is recommended for terrestrial wildlife enhancement. Riparian enhancements include fencing livestock out of riparian areas, removal of nonnative vegetation, planting native trees or shrubs, and/or the implementation of grazing systems that reduce or eliminate livestock impacts in riparian areas. Along larger streams, removing unused barriers or diversions to restore the natural stream channel will help restore natural processes that enable the establishment and maintenance of riparian vegetation. In some tributaries and headwaters, restoration of beaver into suitable areas can improve riparian habitat condition and create wetlands that provide amphibian breeding sites, waterfowl brood rearing areas, and waterbird feeding sites. Pulling hayfields and agricultural fields away from riparian areas and wetlands provides larger buffers that can enable expansion of riparian vegetation and provide nesting cover for waterfowl. Wetlands can be enhanced in some places through the protection or enhancement of off-stream oxbow ponds, conversion of deeper water fishing ponds to shallow water wetlands, exclusion of livestock grazing, or restoration of previously drained wetlands by providing water.

Since the UCFRB is a relatively dry landscape, most wetland restoration or enhancement opportunities are in or adjacent to riparian habitats. Potential activities include protection or enhancement of off-stream oxbow ponds, conversion of deeper water fishing ponds to shallow water wetlands, management of livestock in wetlands, restoration of previously drained wetlands by water, or the creation of wetlands by reintroducing beaver or installing small dams and water control structures. Such dams/structures would be designed so that they are not an impediment to fish passage.

For most priority landscape areas, there are significant gaps in the State's needed knowledge on the condition of the riparian and wetland areas that would be addressed by the proposed actions included in this Plan. More data is needed on this condition to allow the State to better focus activities. Unless otherwise specified herein, proposed actions to enhance riparian areas will first involve further data collection and other information gathering to determine the specific types and locations of these actions prior to implementation.

3. Enhancement of grasslands and shrub-grasslands for wildlife by improving habitat condition. Enhancement activities may include implementation of grazing systems, reducing livestock densities, resting pastures for longer periods of time, restoring native vegetation on heavily degraded sites, and conducting necessary weed management associated with these actions. Standard livestock fences can impair the movement of

wildlife or result in direct mortality from entanglement or collision. Removing unneeded fences and modifying existing fences to more wildlife-friendly designs will benefit wildlife, especially ungulates, songbirds, and raptors. Managing grasslands across the landscape to provide a variety of cover conditions and vegetation height will help maintain a wider diversity of wildlife species.

For most priority landscape areas, there are significant gaps in the State's needed knowledge on the condition of the grasslands and shrub-grasslands that would be addressed by the proposed actions included in this Plan. More data is needed on this condition to allow the State to better focus activities. Unless otherwise specified herein, proposed actions to enhance grassland and shrub-grassland areas will first involve further data collection and other information gathering to determine the specific types and locations of these actions prior to implementation.

4. Enhancement of forests in priority landscapes for wildlife benefits. Actions include encouraging aspen growth with the use of prescribed fire or excluding livestock, managing forested areas for wildlife by converting industrial timber lands to conservation properties, protecting large-diameter trees from commercial harvest, maintaining large-diameter snags, reducing or removing livestock grazing from forested habitats, active management of conifer forests to reduce the impacts of insect outbreaks and management to recruit and maintain large diameter trees on the landscape over the long-term.

For most priority landscape areas, there are significant gaps in the State's needed knowledge of the condition of the forested area that would be addressed by the proposed actions included in this Plan. More data is needed on this condition to allow the State to better focus activities. Unless otherwise specified herein, proposed actions to enhance forested areas will first involve further data collection and other information gathering to determine the specific types and locations of these actions prior to implementation.

5. Management activities. A variety of management activities can be implemented to benefit wildlife across all habitats, including removal of roads and trails that are causing resource damage, removal of abandoned fences, providing for properly managing recreational access, and reducing illegal off-road vehicle use. Though the State completes some of these actions as part of normal operations, expensive up-front investments in infrastructure are often needed to allow for success over the long-term. The State does not routinely budget for removing abandoned roads or fences.

For most priority landscape areas, there are significant gaps in the State's needed knowledge on optimum management activities. More data is needed to allow the State to better focus terrestrial activities. Unless otherwise specified herein, proposed management

actions will first involve further data collection and other information gathering to determine the specific types and locations of these actions prior to implementation.

6. Priority Landscape Area Information Gathering. As stated above, the terrestrial actions will greatly benefit from better data on the condition of grassland, shrub grassland, riparian and wetland habitats, forested areas, and on the distribution and abundance of nongame species. All projects will incorporate a biological inventory to help address any Priority Landscape Area gap and provide baseline data to monitor the effectiveness of each project.

4.2.3 Analysis of Priority Landscapes

The State conducted the following steps to develop these proposed actions for each the nine Priority Landscapes:

1. In 2011, the State performed an assessment of each of the nine Priority Landscapes, focusing on terrestrial resource values, current habitat conditions, and current level of habitat protection, and compared existing conditions to the terrestrial restoration goals. For each landscape area, this assessment took into consideration the lands already acquired through the past NRD grant process (Table 4-3) and an analysis of lands protected through existing easements (Table 4-1).
2. The State then assessed the individual concept proposals submitted through the public scoping process to determine whether the concept proposals fit with and addressed the terrestrial restoration goals and key elements, listed in Section 4.1.1. Concept proposals that met all or most of these were incorporated into the State's proposed actions. Alternatively, concept proposals that met no or only a few of these elements were not incorporated.
3. The State then identified what areas and activities should be added to further meet restoration needs, beyond those covered through the public scoping process (terrestrial gaps).
4. With the results of steps 2 and 3, the State proposed the UCFRB terrestrial restoration alternative, comprised of terrestrial measures and associated budgets for each Priority Landscape.
5. Separately, as identified in the *2012 Process Plan*, the State assessed the habitat protection and enhancement restoration needs for existing FWP Wildlife Management Areas (WMAs) within the UCFRB, and State lands acquired with NRD funds (Section 4.2.4), and then proposed actions as part of the UCFRB terrestrial restoration alternative beyond

the routine operation and maintenance activities for which the State is normally funded through its biennial legislative funding.

6. Lastly, as provided for in the *2012 Process Plan*, the State developed a list of necessary monitoring activities and associated budget, which is described in Section 4.2.5.

The nine landscape analyses in Section 4.2.6 provides a summary of the proposed actions and budget for each of the landscape areas.

Table 4-3. Funded Acquisition/Easement Projects

Project Name	County	Acreage	Year Funded	Amount	Owner*
Z-4 Ranch Conservation Easement	Granite	2,100	2000	\$10,000	FVLT
Manley Ranch Conservation Easement	Powell	3,416	2000	\$608,048	FWP
Watershed Land Acquisition (Garrity I & II)	Deer Lodge	8,969	2000, 2001	\$5,831,904	FWP
Stuart Mill Bay Acquisition	Deer Lodge	363	2002	\$2,000,000	FWP
Big Butte Property Acquisition	Silver Bow	350	2005	\$687,842	B-SB
Duhamé Property Acquisition	Silver Bow	1,800	2005	\$1,668,557	FWP
Madsen Easement	Missoula	157	2006	\$25,000	FVLT
Stucky Ridge/Jamison Property Acquisition	Deer Lodge	296	2008	\$265,335	FWP
Milltown Land Acquisition	Missoula	415	2008	\$595,628	FWP
Blue-eyed Nellie Moore Acquisition	Deer Lodge	30	2009	\$142,500	FWP
Peterson Ranch Conservation Easement	Granite	3,775	2009	\$334,125	FVLT
Paracini Pond Property Acquisition	Powell	272	2009	\$1,201,905	DEQ
Spotted Dog Acquisition	Powell	28,616	2010	\$16,574,009	FWP
Confluence Project at Rock Creek	Missoula	202	2013	\$400,000	FVLT
Garrity WMA RY addition	ADLC	640	2014	\$1,280,000	FWP
DLR & DCC Ranches Conservation Easements	Powell	3,396	2018	\$2,810,000	CFC
Buxbaum Conservation Easement	Granite	1,193	2018	\$200,000	FVLT
Graveley Conservation Easement	Powell	8,276	2019	\$3,500,000	FVLT
Clark Fork River Ranch	Powell	2,650	2019	\$5,000,000	NRDP
Garrity WMA—YT Addition	Deer Lodge	154	2019	\$266,296	FWP
Garrity WMA—Stumptown Addition	Deer Lodge	600	2020	\$1,545,600	FWP
Additional Acquisitions Involving Acquisitions and other Activities					
Thompson Park Improvement Project	Silver Bow	81	2002, 2004, 2005	\$925,712	USFS
Thompson Park Improvement Project	Silver Bow	40	2007	\$988,402	B-SB
Silver Bow Creek Greenway	Silver Bow	370	2000-2002; 2005-2009	\$15,564,924	GSD
Old Yellowstone Trail Acquisition	ADLC	107	2018	\$160,000	Powell Co
*Guide to Owner Category					
FVLT - Five Valleys Land Trust	DCC - Dry Cottonwood Creek	DEQ - Montana Department of Environmental Quality			
FWP - Montana Fish, Wildlife and Parks	DLR – Deer Lodge River	GSD - Greenway Service District			
B-SB - Butte-Silver Bow	MLR - Montana Land Reliance	ADLC - Anaconda Deer Lodge County			
CFC - Clark Fork Coalition					

4.2.4 Priority Landscape Area Plans

4.2.4.1 Proposed Actions for the Philipsburg West Priority Landscape

Priority Landscape Description

The landscape west of Philipsburg, Montana is defined by the Flint and Rock Creek watersheds and contains Priority 1 lands in the Antelope foothills at the southern periphery of the John Long Mountain Range as well as Priority 2 lands at the headwaters of Rock Creek. Due to its important riparian habitat, extensive high quality native grasslands, and a low level of landscape fragmentation, 51,751 acres (38% of lands in the area) are designated as Priority 1 lands. They account for almost a third (31%) of all Priority 1 lands in the UCFRB.

The West Fork, Ross' Fork, Middle Fork, and East Fork of Rock Creek are the headwaters for Rock Creek. Upper Willow Creek is a major tributary to Rock Creek. Wetlands along its length and sagebrush grasslands in the adjoining foothills are home to sandhill cranes, mountain lion, black bear, bighorn sheep, mule deer, and elk. The streams and associated riparian habitats in this landscape provide important fish habitat, critical nesting/foraging habitat for riparian associated birds, yearlong moose habitat, and water for many species. Prairie pothole wetlands, unique for the generally dry Upper Clark Fork watershed, are found at Potato Lakes.

With 11% of the landscape classified as riparian or wetland, only the Clark Fork River has more riparian habitat than Philipsburg West. Critical winter range for over 1,500 elk lies on private lands south and west of Philipsburg. Private lands near Philipsburg, the West Fork Buttes, along the tributaries of Rock Creek, and in the Upper Willow Creek drainage, provide critical winter ranges or movement corridors for big game and support a high diversity of riparian and wetland bird species; yet are especially vulnerable to development.

Restoration Needs/Objectives

Over 6,500 acres are protected from development by conservation easements (Table 4.2), but most of the area, including the core Priority 1 area, is unprotected. Grassland and riparian habitats in this landscape are in fair to excellent condition. Most of this landscape is composed of large private ranches. Subdivision risk is highest south of Highway 38 (the Skalkaho Highway), and north of Highway 348 (the Marshal grade).

Terrestrial habitats will benefit from the conservation of extensive areas of native grasslands, and by protecting, and enhancing, riparian and wetland habitats. Upper Willow Creek, the Potato Lakes, and the Antelope Hills contain rough fescue grasslands, riparian, and emergent wetlands—all of which are priority habitats targeted for conservation. Conservation of these lands will ensure terrestrial habitats benefit and help meet the goals of this restoration plan.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect high priority habitats through conservation easements or acquisitions. Perpetual land conservation within the landscape west of Philipsburg will conserve high priority lands and – if large enough – would be cost effective with high net benefits.
2. Enhance riparian areas for wildlife benefits. Riparian enhancements could include excluding livestock from stream banks, planting riparian trees and shrubs, or the implementation of better grazing systems.
3. Enhance native grasslands for wildlife benefit.

The concept proposals submitted by the public for this area included riparian habitat protection and enhancement along Flint Creek (abstract #8); the development and implementation of conservation easements, or acquisitions, in the John Long Mountains (abstract #49); the improvement of wildlife winter range through removal of conifers and weed control (abstract #74), and Zeke's Meadow acquisition proposed by the Rocky Mountain Elk Foundation (2015 abstract). The State's proposed actions cover the concepts suggested in two of these abstracts (abstracts #8 and 49), but with lower costs and allocation of effort than proposed. These concepts fit well with the State's priorities and guidance.

The State does not propose actions involving proposed conifer removal and weed control to improve winter range as proposed in abstract #74. Depending on the site and prescription, conifer removal may, or may not, benefit elk winter range and may adversely impact other wildlife species. Since juniper has an important ecological role wholesale prescription of its removal may not be the most appropriate. Weed control is only considered appropriate for restoration funding when done in conjunction with other approved restoration actions, and when the intensity is beyond weed control actions normally completed by managing agencies. Another concept proposal (abstract #67) suggested an investigation of the impacts from mercury contamination caused by scattered abandoned mines the Flint Creek drainage. This concept proposal is addressed in the section on terrestrial monitoring (Section 4.2.6).

In addition to the areas and actions suggested through the public scoping process, the State identified the upper reaches of Rock Creek and its tributaries, including Upper Willow Creek, as an area to pursue the development and implementation of riparian enhancements.

Restoration Budget

Riparian enhancement costs in Philipsburg West will be funded with both the aquatic and terrestrial restoration funds since both resources will benefit. Due to the large amount of Priority 1 terrestrial lands and riparian habitat west of Philipsburg, the State recommends up to \$3.2 million

dollars for actions within this landscape, including \$127,000 for riparian habitat enhancements on Flint Creek that are further outlined in Section 3.2.2.7. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, conservation easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.2 Proposed Actions for the Lower Flint Creek Priority Landscape Priority Landscape Description

This landscape area west of Hall is defined by Lower Willow Creek and its tributaries. It is lower in elevation than other landscapes in the UCFRB and as a result supports productive range and agricultural lands. It has the highest acreage—34,345—acres, of lower montane foothill and valley grasslands, and the second highest acreage of Ponderosa pine woodlands. Ranches are smaller in north Granite County than in the south, yet, still contain relatively un-fragmented grasslands. Seventy eight percent of the area – 66,738 acres – has been designated as Priority 2 lands for restoration planning.

Long billed curlews, grassland songbirds, and wintering elk reside in the areas' grasslands. Riparian habitats support painted turtles, beavers, white-tailed deer, moose, black bear, and a high diversity of birds. Around five hundred wintering elk are typically observed during winter elk survey flights. Mule deer, white-tailed deer, mountain lion, and wolf are present. Flint Creek is considered to be Priority 2 for aquatic resource conservation.

Restoration Needs/Objectives

Residential development in this area is mostly confined to the Highway 1 corridor and traditional ranches. Since at this time the area is not well known by recreationists, and is lightly settled, there may be reasonably inexpensive opportunities to purchase conservation easements, or lands outright, for the benefit of wildlife. On some ranches, grazing intensity has been strong and sustained, and range would benefit from implementation of grazing systems. There are 3,852 acres held under a conservation easement and Forest Service lands adjoin the area to the south and west. Former industrial timber lands in the area were conveyed into private ownership.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect high priority lands through conservation easements or, where appropriate, public acquisitions. Avoiding the subdivision of the landscape or conversion of native grasslands to crops or hay production will conserve high priority native habitats.
2. Enhance riparian habitats for fish and wildlife benefits. Many of the riparian areas near Lower Willow Creek are narrow due to the impact of cattle grazing or farming to their edge. The greatest benefit to wildlife will accrue where protections exceed 300 feet on either side of the stream or wetland.
3. Enhance native grassland habitats by implementing grazing systems that provide better habitat for wildlife. Range in declining or degraded condition may benefit from rest or weed control were associated with other terrestrial activities.

Three of the concept proposals offered for Lower Flint Creek and Philipsburg West – Flint Creek Aquatic Habitat Conservation (abstract #8), John Long Mountain Terrestrial Habitat (abstract #49), and Granite County Wildlife Winter Range Replacement (abstract #74) – included both landscapes. Two proposals – the Mentzer Ranch Conservation Easement (abstract #51) and the Henderson Ranch Conservation Easement (abstract #53) – are outside of the priority landscape area but include some riparian areas.

The conservation of Flint Creek (abstract #8) and lands near the John Long Mountains (abstract #49) are congruent with the State's proposed actions and are included. The Mentzer and Henderson Ranch proposals (abstracts #51 and #53) do not meet guidance from the *2012 Process Plan* that: when a project is not located in a priority 1 or 2 area, 25% of the project area be riparian or wetland habitat. These projects would have a small conservation footprint because they do not adjoin other conserved lands, would only conserve one targeted habitat, and have a small geographic scope in an area dominated by non-native habitats. As such, these proposals are not deemed to be cost-effective.

Direct habitat alteration like conifer removal and weed control (abstract #74) will only be considered appropriate for restoration funding when done in conjunction with other approved actions, such as riparian enhancements and land acquisitions/easements.

Conservation of terrestrial habitats west of Hall and along Flint Creek were identified by the public as being important. The enhancement and conservation of Lower Willow Creek and its tributaries is also a restoration need in this landscape and priority for the State (abstract #G15). Another gap, consistent with restoration goals, is to enhance wildlife related outdoor activities and provide for public access to them. Public access for wildlife viewing, fishing, and hunting to public and private

lands in Lower Willow Creek is low, and declining, and as such public access to enhanced wildlife resources will be important to secure in this landscape.

Restoration Budget

Lower Flint Creek has productive native grasslands, exceptional ponderosa pine woodlands, moderate landscape fragmentation, and few formal habitat protections: 66,738 acres are classified as Priority 2 and there has been no investment of NRDP restoration funds in the area so far. Actions in the Lower Flint Creek South will occur on Priority 2 habitat lands and along riparian areas in this landscape. The State recommends up to \$1.4 million dollars for actions within this landscape, including \$127,000 for riparian enhancements in lower Flint Creek that are further outlined in Section 3.2.2.7. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost: benefit, rather than on concept proposal estimates.

4.2.4.3 Proposed Actions for the Garnet Priority Landscape

Priority Landscape Description

The eastern portion of the Garnet Mountains lies northeast of Drummond and northwest of Avon. At 126,735 acres, it is the second largest landscape prioritized by the State and 84% of it is classified as Priority 2 for restoration planning. The Little Blackfoot River and mainstem of the Clark Fork River form its southern boundary. Multiple creeks – Bert, Hoover, Carten, Brock, and Warm Springs – run from the crest of the Garnets southwest to the Clark Fork River.

Habitats and land-use follow an elevational gradient with developed/cultivated lands transitioning to grasslands/shrub grasslands into conifer forest/harvested forest. Drainages incise this landscape and form numerous ridges and benches. Pockets of aspen and deciduous shrubs are interspersed throughout. Coniferous forest is more extensive here (43,697 acres) than in any other landscape. Montane sagebrush steppe and juniper woodlands are prevalent on the southern face of the Garnets and provide key habitat for the largest concentration of wintering mule deer in the Upper Clark Fork.

Bird diversity is high due to the presence of multiple habitat types (aspen/riparian, coniferous forest, deciduous shrublands, grasslands, and sage brush steppe). Rattlesnakes, found in cliffs and rocks along the river, are unique to this landscape. All big game species in Montana are present except mountain goat (bighorn sheep are transient), including black bear, mountain lion, and wolf. Grizzly bears dispersing south from the Blackfoot watershed also live in the Garnets. The landscape connects the Blackfoot and Upper Clark Fork watersheds, the Flint Creek and Garnet

Mountain Ranges, the Continental Divide, and the Spotted Dog Hills. Elk from both the Blackfoot and the Clark Fork watersheds winter on south face of the Garnets below Saddle Mountain and Limestone Ridge.

Restoration Needs/Objectives

The Garnets comprise a large landscape with a diversity of habitats. Private lands dominate the lower elevations – though there are some sections owned by the Department of Natural Resources (DNRC) – with Bureau of Lands Management (BLM) land at higher elevations to the north. Subdivision of land has occurred at the head of Hoover Creek, north of Garrison as well as close to the Clark Fork River and Interstate 90. It is especially important to maintain landscape connectivity for wildlife movement between watersheds and priority landscapes here.

It is feasible to protect a large portion of this landscape through a combination of existing and future conservation easements and public acquisition of private timber land. Stimson Timber Company owns 9,587 contiguous acres northeast of Drummond in close proximity to conservation easements held by the Rocky Mountain Elk Foundation (RMEF) and Montana Fish, Wildlife and Parks. Saddle Mountain, which is a critical elk winter range, is situated between Stimson lands in Hoover Creek and 9,323 acres held under conservation easement. The eastern part of the Garnets is northwest of the Spotted Dog WMA and the Little Black Foot River which is a priority for both terrestrial and aquatic conservation.

Purchase of conservation easements, or land, in either the western or eastern portion of the Garnet landscape would conserve a large area adjoining other protected areas and conserve multiple habitats.

In the uplands grazing and forest management could improve habitat for wildlife. Conservation of the sagebrush steppe and juniper woodlands which distinguish the Garnet foothills from other areas in the Upper Clark Fork is a priority. Many of the creeks would benefit from riparian enhancements. Enhancements to riparian and aquatic habitat in the Little Blackfoot River may be especially beneficial to the UCFRB since it is a major tributary to the Upper Clark Fork River.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect large blocks of high priority lands using conservation easements or where appropriate public acquisitions.
2. Enhance riparian habitats for fish and wildlife benefits. Work along the Little Blackfoot River is a priority for both aquatic and terrestrial benefits.
3. Enhance grasslands and shrub/grassland habitats for wildlife benefit.
4. Enhance forests for the benefit of wildlife.

In the Garnets placement of a conservation easement on two ranches north of Garrison encompassing 8,300 acres was the only concept project proposed by the public for the uplands (abstract #50). Two projects were proposed that with a variety of tools would enhance riparian habitat along the Little Blackfoot River (abstracts #30 and #43). These concept proposals align with both terrestrial and aquatic actions proposed by the State. Elements of the two proposals for the Little Blackfoot River would be combined during implementation, but with lower costs and allocation of effort than proposed.

Purchase of conservation easements on the western end of the Garnets near Saddle Mountain, or purchase of Stimson Lands in Hoover Creek, were not suggested by the public during scoping, but fit with the State's restoration goals. Landowners and conservation partners have expressed a shared interest in working north of Drummond and terrestrial efforts there would fill a gap (abstracts #G7 and #G8).

Restoration Budget

Actions in the Garnet landscape area will occur within 106,470 acres of Priority 2 habitat lands. The State recommends up to \$2.2 million dollars for actions within this landscape, including riparian habitat enhancements on the Little Blackfoot River that are further outlined in Section 3.2.2.10. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.4 Proposed Actions for the Avon North Priority Landscape

Priority Landscape Description

The Avon North priority landscape consists of grasslands and foothills rising to the Continental Divide, northeast of Avon. This landscape priority area includes a patch designated Priority 1 and another Priority 2; some adjacent grasslands were designated a lower priority due to interspersed with agricultural fields. Native grasslands bisected by narrow riparian stringers dominate the western half of this landscape. Patches of conifer forest on north-facing slopes are found in the western portion. The higher elevations in the eastern portion of this area are dominated by conifer forest. Riparian habitats dominate the Little Blackfoot at the southern border of this area.

This landscape is lightly altered from ranching, farming, and some past mining activity. It is a very important area for connectivity. High-quality grasslands provide connectivity between the Deer Lodge Valley, the upper Blackfoot Valley, and lands east of the Divide over McDonald Pass. The

forests and riparian stringers provide connectivity between mountain ranges to the north and south of Highway 12 and to the Garnets farther west.

The high-quality grasslands in this area support large grassland birds such as long-billed curlew, upland sandpiper, and short-eared owl. Grizzly bears use the Continental Divide corridor and the rolling grasslands near Avon and Birdseye as spring-fall habitat and as a north-south travel corridor. The area includes elk and deer winter range with on average 200 to 250 elk counted during spring aerial surveys. Mule deer, moose, black bears, mountain lions, mountain grouse, and wolves are also common and provide important public hunting opportunities.

Most at risk from subdivision are lands along the Little Blackfoot River and along the highway corridors. Subdivisions have been expanding from Avon and Elliston in part from commuters who work in Helena. Past mining activities have damaged some of the riparian areas. The condition of riparian areas ranges from good to poor with most impacted in varying degrees by livestock grazing. The potential for residual contamination from past mining activities in this area is unknown. The condition of the grassland habitat overall appears to be good, but little of it has been surveyed.

There are significant gaps in the State's knowledge of this landscape. More information on wildlife and on-the-ground assessments of grassland habitat condition would allow the State to better focus terrestrial activities.

Restoration Needs/Objectives

The majority of the landscape is private land, with only a few state school sections scattered within. Three properties totaling 3,962 acres are protected by conservation easements within this area. Thousands of acres are annually enrolled in FWP's Block Management Program which facilitates public hunting access to private land. Preserving the dominant land use of livestock grazing would likely protect the grasslands of this area. Riparian habitats would benefit from both protection and enhancement through better livestock management.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect extensive grassland habitats through conservation easements or acquisitions.
2. Protect and enhance riparian and wetland habitats for wildlife, especially along the Little Blackfoot River.
3. Enhance native grassland habitats.

Two concept proposals were submitted by the public for this landscape: Dog Creek Riparian and Aquatic Habitat (abstract #31) and Little Blackfoot River Riparian Protection and Enhancement (abstract #43). The Dog Creek Riparian proposal is on the far east of this priority area. Only the livestock grazing management portion of this proposal would yield benefits for terrestrial wildlife and is therefore included. The Little Blackfoot River Riparian Protection and Enhancement proposal would likely yield significant benefits to riparian habitats and associated terrestrial wildlife species along the Little Blackfoot River, including the portion within this landscape area, and is part of the proposed actions. Purchase of land or conservation easements in Priority 1 and 2 habitats north of Avon will be pursued (abstract #G9).

Restoration Budget

Actions in the Avon North landscape will occur within 23,400 acres of Priority 1 habitat and 22,800 acres of Priority 2 habitat lands. The State recommends up to \$1.4 million dollars for actions within this landscape, including \$360,000 for riparian habitat enhancements on the Little Blackfoot River and Dog Creek that are further outlined in Section 3.2.2.10. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction once it is fully developed by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.5 Proposed Actions for the Deer Lodge North Priority Landscape

Priority Landscape Description

The North Deer Lodge priority landscape includes all FWP's Spotted Dog WMA as well as DNRC, USFS, and private ranchlands. North Deer Lodge sits between the Garnet, North Avon, and South Deer Lodge priority areas and as such it is a focal point for landscape connectivity. Spotted Dog, and its tributaries, flow north into the Little Blackfoot River; Fred Burr, Jake, Freeze-out, and O'Neill Creeks drain east to the Clark Fork River.

North Deer Lodge is characterized by extensive foothill grasslands, broken by Douglas fir forests, riparian stringers, and pockets of aspen. Of the 9 priority landscapes, the highest proportion of acres within Priority 1 is found in Deer Lodge North. Antelope bitterbrush – high quality forage for wintering elk and mule deer – is found to the north near Beck Hill. North Deer Lodge is predominately rangeland though extensive timber harvest has occurred in the last decade. Livestock have been on the landscape for over a century in significant numbers.

The area supports the highest concentration of wintering elk in the UCFRB, with 1,578 observed during winter surveys in 2012. Mule deer, white-tailed deer, moose, and antelope, plus the full

range of terrestrial predators are found in the vicinity. Grizzly bears have been documented and multiple wolf packs have used the area for over a decade. The area supports golden eagles, long-billed curlews, and numerous songbird species.

Restoration Needs/Objectives

The conservation goals for Deer Lodge North are retaining and enhancing native grasslands, ensuring the migratory movement of elk, retaining landscape connectivity, protecting a large central block of native habitats, and providing for wildlife related recreation. The purchase and conveyance of 28,616 acres from Rock Creek Cattle Company to FWP in 2009 protected the core of the area and its ecological attributes. Residential development from the north and east, and potentially within the core of the landscape, may compromise landscape conservation.

The purchase of in-holdings, or development rights, within Spotted Dog WMA, would protect the interior of Spotted Dog WMA from subdivision or conflicting management goals. [In 2023, FWP again highlighted the importance of purchasing inholdings within the Spotted Dog WMA. Given that a road has been opened through the interior of the WMA the threat of subdivision within Spotted Dog has been increased and acquisition of inholdings is critical to maintain uniform management across the boundaries of the WMA and to retain the values for which the WMA was acquired.](#)

Range management on both the uplands and riparian areas would enhance terrestrial resources. Most riparian areas, especially Trout Creek, would benefit from riparian fencing to exclude cattle. Portions of the Little Blackfoot River that adjoin or run through this landscape area and would also benefit from riparian enhancement.

[NRDP and FWP are conducting wetland/riparian area restoration actions within the Spotted Dog WMA pursuant to the 2019 State Wetlands/Riparian Areas Plan, which is required under the 1999 Streamside Tailings Operable Unit & Federal & Tribal Consent Decree. This plan includes restoration of riparian areas along Upper Spotted Dog Creek, South Fork Spotted Dog Creek, and Trout Creek. The 2019 State Wetlands/Riparian Areas Plan allocated \\$1,000,000 to Spotted Dog Creek and Trout Creek. Restoration actions conducted under this plan are subject to concurrence by the US Fish and Wildlife Service and documented in Annual Reports. By the end of 2022, approximately \\$250,000 remained for Spotted Dog. NRDP anticipates updating this plan in 2023 and adding approximately \\$150,000 to Spotted Dog Creek restoration and \\$250,000 to Trout Creek restoration.](#)

Proposed Actions

The State's proposed actions for this area are to:

1. Protect the core of North Deer Lodge by purchasing private holdings or conservation easements.
2. Enhance riparian habitats for fish and wildlife benefits.
3. Enhance grasslands and shrub/grassland habitats for wildlife benefit.

One idea (abstract #29) was presented by the public for North Deer Lodge, as proposed riparian and aquatic habitat as well as water flow would be improved on 6 miles private land along Lower Spotted Dog Creek. This proposal makes sense given the identified need to improve riparian habitat. Two conceptual proposals (abstracts #30 and #43) put forth for riparian enhancement in the Little Blackfoot River are addressed within the Garnet and North Avon plans. The State finds that habitat enhancement work within the Spotted Dog WMA is a gap (abstract #G10) within restoration planning.

Restoration Budget

Deer Lodge North has 63,967 acres of Priority 1 habitat. This is by far the highest acreage of Priority 1 habitat in the UCFRB; however, the landscape has also had the greatest investment of restoration funds as a result of the purchase of the Spotted Dog WMA. The WMA provides FWP management and public use on almost half of the landscape. Since Deer Lodge North has already received significant funding from NRDP, the State recommends only \$1.2 million be allocated to terrestrial actions for actions within this landscape. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.6 Proposed Actions for the Deer Lodge South Priority Landscape

Priority Landscape Description

The South Deer Lodge priority landscape has 26,290 acres of Priority 1 and 15,491 acres of Priority 2 habitats with 7,640 acres of DNRC lands intermixed with private ranchlands. ~~Warm Springs Ponds, which are managed jointly by FWP and ARCO, and the The~~ Clark Fork River ~~are is~~ adjacent to this landscape and enhance its value to wildlife. ~~These large wetlands support nesting waterfowl, grebes, herons, cormorants, and osprey. They provide the most important bird~~

~~migration stopover habitat in the UCFRB. On any given day 5,000 to 7,000 birds use Warm Springs Ponds during migration, including waterfowl, shorebirds, coots, and grebes.⁷~~

South Deer Lodge is bounded by the Deer Lodge North priority landscape and the Clark Fork River to the west. A series of creeks and gulches – Dry Cottonwood, Sand Hollow, Orofino, Caribou, Peterson, and Cottonwood – drain west into the Clark Fork River. Between these drainages are long benches of native grasslands and shrub grasslands – 43,099 acres in total. There is a high interspersion of plant communities within these habitats with a mix of rabbit brush, sage brush, native grasslands, and weeds not uncommon. Grassland communities range from very dry at the low elevations, to mesic in higher elevations.

About 200 antelope, along with mule deer, elk (400 elk are observed some years on winter range) and white-tailed deer use this area. Wolves and grizzly bears have been sighted. Avian species and small mammals tied to grasslands and sagebrush grasslands are present.

Restoration Needs/Objectives

The conservation goals for Deer Lodge South are conserving native habitats, retaining, and enhancing native shrub grasslands, enhancing riparian area condition and integrity, and providing for wildlife related recreation. Better grazing management on both the uplands and riparian areas is especially important in this area.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect native grasslands and grass/shrub lands by purchasing private holdings or conservation easements.
2. Enhance riparian habitats for fish and wildlife benefits.
3. Enhance grasslands and scrub/grassland habitats for wildlife benefit.

Two concept projects (abstracts #52 and #73) were initially submitted for this area. The Dry Cottonwood Neighbors' Conservation project would protect via conservation easement up to 11,844 acres within the South Deer Lodge priority landscape. The Anaconda Sportsmen's Association suggested purchase of the 10,964-acre Big Easy Ranch. The purchase of conservation easements – or land – is a priority terrestrial action within this area. The Dry Cottonwood

⁷~~Swant, G. 2009. Fall Shorebird, Waterbird, and Waterfowl Migration Counts at Warm Springs Wildlife Management Area in 2009. Go Bird Montana LLC; for Montana Fish, Wildlife & Parks. 32 pp.~~

Neighbor's Conservation project is in a Priority 1 area; while the Big Easy Ranch is just to the south. Based on equivalent resources within the Big Easy Property, its immediate proximity to a Priority 1 area, and the fact that protection of the ranch would address all the State's guidance relative to encouraged terrestrial actions, purchase of the Big Easy, or placement of a conservation easement on the property is appropriate and could be considered a unique circumstance. Enhancement of grassland habitats is a restoration need not addressed by the public and is included this terrestrial action.

Restoration Budget

The State recommends up to \$1.4 million dollars for actions within this landscape. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.7 Proposed Actions for the Anaconda Priority Landscape

Ongoing Efforts

The State acknowledged the significant restoration needs of the Smelter Hill Area Uplands injured area and the Opportunity Ponds injured area in the State's 1995 *Restoration Determination Plan*. For the Smelter Hill Area Uplands injured area, separately funded integrative remediation / restoration actions are either occurring or completed, and include removal, re-vegetation, stabilization, and/or treatment actions, which should jump start recovery of vegetation conditions, with further natural recovery to occur over time. These actions are summarized in Appendix B of the *2011 Terrestrial Prioritization Plan*.

~~Based on current information, the State believes that the specific settlement funding for the Smelter Hill Area Uplands injured area should continue to be used to address terrestrial restoration needs, without a requirement for further action under this Anaconda priority landscape plan. In April 4, 2023, the EPA and NRDP, with concurrence from DEQ, certified that remedial actions required in the 2008 Consent Decree on state-owned lands on the Stucky Ridge and Mount Haggin injured areas were complete. With that benchmark met, NRDP has begun working on an amendment to the Draft Conceptual Smelter Hill Uplands Resources Restoration Plan (2007) which will guide how up to \$4 million of Uplands Restoration Funds may be used to complete additional restoration actions on County lands. The funds allocated to the Anaconda Priority Landscape could complement restoration actions under the Smelter Hill Uplands Plan.~~ The Opportunity Ponds injured area, the injury is so severe that the injured riparian and wetland resources cannot be cost-effectively returned to a baseline condition. Further terrestrial actions

during ongoing remediation are not warranted, and it remains unclear whether any actions would be cost-effective in the future. For those reasons, there is no requirement for further action under this Anaconda priority landscape plan. The State has also, through its restoration grant process, already acquired large areas for conservation purposes within this landscape, for example Garrity Mountain.

Priority Landscape Description

The Anaconda priority landscape is 43,592 acres of which 27,005 (62%) is classified as Priority 2. It differs from other priority areas because it is higher in elevation, includes less private property, and adjoins an urban area. FWP owns four WMAs (Garrity Mountain, Stucky Ridge, Blue-eyed Nellie, and Mount Haggin) that lie partly or entirely within this area. Anaconda has three times as many aspen woodlands as the average landscape area (2,481 acres vs. 854 acres) and is the only landscape with a higher percent cover of coniferous forest than grasslands and shrub grass lands.

The Continental Divide is the southern boundary and USFS lands form the western boundary. Mill Creek and Warm Springs Creek flow east towards the Clark Fork River confluence at Warm Springs. Residential subdivision exists adjoining Anaconda and in Anaconda's West Valley. Subdivision of the foothills below Stucky Ridge has increased over the last decade. Residential development, recreational use, and some timber harvest and grazing occur in the Anaconda area.

Below Mount Haggin there is an extensive aspen forest, and patches of aspen woodland occur throughout the landscape. Cultivated lands and homes are in the valley, grass shrub lands in the foothills, and coniferous forests lead to the alpine zone. Abundant wildlife populations, Mount Haggin, and Hearst Lake, all in proximity to a city, make the Anaconda area unique.

Big game species include bighorn sheep, mountain goat, elk, mule deer, white-tailed deer, mountain lion, and black bear. Wolves use the area intermittently. Avian species found in aspen and coniferous forest are present. Wintering elk numbers in and adjoining Anaconda range from 250 to 450 and the bighorn sheep population ranges from 50 to 300 sheep.

Restoration Needs/Objectives

The primary conservation goals for Anaconda are to secure protections for priority habitat and maintain access to wildlife related recreational activities. While riparian and terrestrial enhancements are important everywhere, this landscapes' proximity to Anaconda, high elevation habitats, and presence of FWP managed lands allow the State to focus on public acquisition of wildlife habitat. With local support for FWP ownership of land, there are opportunities to complete projects with a large geographic footprint, adjoining protected lands that encompass multiple habitats, that have a benefit to fisheries, and that provide for recreational use.

Proposed Actions

The State's proposed action for this area is:

1. Protect native habitats, from subdivision and other development, via the acquisition of lands on properties adjoining or complementing existing areas managed for wildlife and natural resources.

The Anaconda Sportsmen's Association presented two concept proposals (abstract #73) for conservation in this area as well as a concept for the Flints and a concept for lands to the south of Deer Lodge. The later proposals are discussed in the plans for the East Flints and Deer Lodge South. The Sportsmen's Association request that the State purchase, or encumber with a conservation easement, the Hearst Lake (4,744 acres) and/or Brickley (720 acres) properties. Abstract #5b proposes the creation of a Block Management Area for the Hearst Lake property for public use and management of the area. The properties adjoin the Garrity WMA, provide winter range for elk and deer, provide opportunities for wildlife related recreational use, and contain native grasslands and aspen forest. These proposals are in line with state restoration goals and guidance and appropriate for restoration funding.

Anaconda-Deer Lodge County estimated that \$6.7 million for re-vegetation of smelter impacted lands is needed here (abstract #69). Restoration needs [on ADLC County lands](#) in the area are expected to be covered by [up to \\$4 million of 2008 settlement funding](#) for the Smelter Hill Area Uplands injured area, as discussed above. A State identified gap in restoration planning is purchase of 88 acres of private land adjoining the Blue-eyed Nellie WMA (abstract #G12). Acquisition of this parcel would protect NRDP's investment in the Blue-eyed Nellie WMA by avoiding development of bighorn sheep winter range adjoining an existing WMA and maintain connectivity through this area in the face of increasing housing development. The Montana Wild Sheep Foundation proposes to acquire 224 acres from YT Timber adjacent to the Garrity Mountain WMA (2015 abstract).

[In 2023, the Anaconda Sportsman's Association submitted project abstract #121 supporting projects conserving wildlife habitat in the Anaconda priority landscape area. They noted the value and importance of conserving the Stucky foothills \(west of the Stucky Ridge WMA\), Fifer Gulch \(the Hearst Lake corridor\) and the Blue-eyed Nellie area. Anaconda Deer Lodge County also submitted a letter emphasizing the importance of conserving the Stucky foothills and Fifer Gulch.](#)

Restoration Budget

The Anaconda area is small, and consequently has less priority acreage than other landscapes. It also has unique resources in proximity to Anaconda and at the headwaters of the UCFRB. These

factors have led the State to recommend more funding than the acreage of priority lands would suggest. The State advises that up to \$1 million be available for the conservation of habitat in the Anaconda Landscape area. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.8 Proposed Actions for the East Flint Priority Landscape

Priority Landscape Description

On the east side of the Flint Creek Mountain Range is the East Flint landscape which totals 71,752 acres of which 58% are Priority 2 for restoration planning. The area is bounded roughly by Rock Creek to the north, Lost Creek to the south, and the Flint Mountains to the west. It has the second highest proportion of riparian/wetlands and the second highest proportion of grasslands/shrub grasslands of the nine landscapes. A total of 6,447 acres are classified as riparian/wetlands with 2,383 acres of riparian emergent wetlands. Lost, Racetrack, and Dempsey Creeks flow east from the Flint Mountains to the Clark Fork River.

Much of the landscape is privately owned, with rangeland, cultivated crops, remediation activities, residential development, recreation, and timber harvest all influencing terrestrial resources. FWP owns Lost Creek WMA (1,403 acres) and Lost Creek State Park. There are 1,126 acres held in conservation easement by the RMEF. Residential subdivision is encroaching on wildlife habitat with the result being direct and indirect loss of habitat and conflicts between homeowners and wildlife.

Native grasslands transition into Douglas fir and lodge pole forests as elevation increases, down-slope lands either degrade into weedy pastures or become productive cultivated fields and wetlands. A mix of land uses results in a mix of habitat types and range condition. Public access to both public and private land for recreation is a source of contention with large groups of wintering elk sometimes within view of hunters, but inaccessible.

Up to 1,400 elk have been observed on winter range within in the East Flint foothills during FWP survey flights. The Anaconda bighorn sheep herd resides in this area as do mule deer, white-tailed deer, moose, black bear, and mountain lion. Wolves have been reported in the last five years. Avian species associated with grasslands, shrub grasslands, coniferous forests, and riparian/wetlands live in this landscape. Although more waterfowl use occurs on the Warm Springs Ponds to the east, multiple species of waterfowl, including sand hill cranes, rear young, and stage here during fall migration on the Warm Springs WMA and adjacent wetlands.

Restoration Needs/Objectives

In the East Flint landscape, the State's goals are to minimize additional habitat fragmentation, retain and enhance native grasslands, retain, and enhance riparian and wetland habitats, keep migratory corridors for elk and other species open, and provide for wildlife related recreation. Residential development, weed infestation, and land compromised by smelter emissions are some of the barriers to meeting these goals.

The potential exists to conserve an over 11,000-acre block of grasslands and forest that would protect critical elk winter range, allow for elk migration, and provide significant recreational opportunity. In addition, there are several smaller parcels whose protection via acquisition, or the placement of conservation easements, would allow for continued movement of wildlife from the uplands to riparian areas and wetlands. The purchase of lands adjoining the Lost Creek WMA would protect winter range for elk, bighorn sheep, and mule deer. Range management on both the uplands and riparian areas would enhance terrestrial resources.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect by purchase or with conservation easements, parcels of high priority native grasslands, shrub grassland, and riparian and wetland habitats.
2. Enhance riparian habitats for fish and wildlife benefits.
3. Enhance grasslands and shrub/grassland habitats for wildlife benefit.

An individual and a sportsman's group proposed conservation actions for the East Flints. Conservation easements, weed control, biological monitoring, and research were all mentioned (abstract #75). Purchase, or encumbrance with a conservation easement, was proposed for the 11,197-acre Letica Ranch by the Anaconda Sportsmen (abstract #73). Elements of these actions overlap with the State's proposed actions and will be included, but with lower costs and allocation of effort than proposed. Purchase of land would be the most cost-effective way, over the long term, to assure conservation, enhancement of, and public access to land. Conservation easements and cooperative projects with landowners to enhance habitat would also benefit natural resources.

The State has identified terrestrial gaps in the East Flints. Foremost is a long-term plan for management of the Dutchman wetlands which is currently owned by ARCO. This issue is outside of the scope of this planning effort; however, it may benefit from FWP management in a manner similar to the Warm Springs Ponds WMA. ARCO lands whose public acquisition may be beneficial are 1,922 acres near Modesty Creek as well as USFS and private lands adjoining the Lost Creek WMA. ARCO, USFS, and private landowners have all expressed interest in land transfers within this area (abstracts G13 and G14).

Restoration Budget

As in most priority landscapes, the cost of completing all terrestrial actions will exceed the available funds. Currently the State proposes an allocation of \$1.4 million for actions within this landscape. The State anticipates that purchase of land will be the most desired outcome by the public. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.4.9 Proposed Actions for the Clark Fork Mainstem Priority Landscape Ongoing Efforts

The State acknowledged the significant restoration needs of the Upper Clark Fork River mainstem injured area and the Silver Bow Creek mainstem injured area in the State's 1995 *Restoration Determination Plan*. For both of these injured areas, separately funded integrative remediation / restoration actions are either occurring or completed, and include major removal, re-vegetation, stabilization, and/or treatment actions, which should jump start recovery of vegetation conditions, with further natural recovery to occur over time. These actions are summarized in Appendix B of the *2011 Terrestrial Prioritization Plan*. There have also been significant land acquisition efforts successfully implemented within the Silver Bow Creek mainstem injured area to protect these areas and offer recreational opportunities, as discussed in Section 5.2.1.

Based on current information, the State believes that the specific settlement funding for each of these injured areas should continue to be used to address terrestrial restoration needs, without a requirement for further action under the Terrestrial Plan, except as provided below for the Clark Fork River mainstem injured area.

For the Clark Fork River mainstem injured area, the vast majority of the integrative remediation / restoration for the Clark Fork River mainstem injured area will occur above Deer Lodge. For this reason, the priority landscape plan focuses its actions on the Clark Fork River from Deer Lodge to Milltown.

Priority Landscape Description

The Clark Fork Mainstem priority landscape consists of the Clark Fork River bottom and associated riparian and wetland habitats from Deer Lodge downstream to Milltown. This landscape priority area was designated to focus actions on critical riparian habitats in the UCFRB. Over half of this landscape area is designated as Priority 1 riparian and wetland habitat. Confluences at major

tributaries of Rock Creek, Flint Creek, and the Little Blackfoot River increase the width of riparian habitat in those areas and provide connectivity with riparian habitats up those tributaries. The Clark Fork River below Deer Lodge has sections that retain much of its natural function and channel migration area, while other sections have been severely constricted by roads, railroads, housing developments. Although the discussion and actions for this landscape are focused from Deer Lodge to Milltown, some actions are appropriate upstream of Deer Lodge, particularly land acquisition/easements.

This priority landscape area has been impacted by human activities. It is a major transportation corridor, supporting an interstate highway, frontage roads, ranch roads, and both abandoned and active railroad beds. Subdivisions impinge into portions of the landscape area. Despite increasing urban sprawl fueled by proximity to Missoula, most of the landscape area is in agricultural production. All sections of the Clark Fork are vulnerable to further subdivision, with the area from Rock Creek to Missoula especially vulnerable.

In spite of high human impacts, the Clark Fork landscape area near Drummond supports some of the best cottonwood riparian habitats in the UCFRB. The Clark Fork River channel is active in places, supporting a wide river bottom with numerous side channels and islands. In contrast, most of the tributary streams support narrower riparian zones with fewer side channels and islands. A number of small oxbow ponds and wetlands remain in areas where they were cut off from the main river channel by road or railroad construction. Some of these ponds provide excellent riparian and wetland habitat and function as important breeding sites for amphibians or feeding sites for great blue herons and other birds in this dry watershed.

The Clark Fork landscape area supports most nesting bald eagles, osprey, and great blue herons in the UCFRB. Numerous migrating and wintering bald eagles use the river corridor. The wide diversity of riparian and wetland types found in this area supports a high diversity of songbirds. Waterfowl and other waterbirds that use the Clark Fork for nesting, wintering, or migrating include Canada geese, mallards, sandhill cranes, American white pelicans, trumpeter swans, and a wide variety of ducks. This area supports a high density of white-tailed deer and smaller populations of moose and black bear. Elk use the Clark Fork River bottoms at various times of year and high numbers can be found in some areas during calving season. Aquatic furbearers include beaver, muskrat, mink, and a recovering otter population. The dense vegetation in the bottom in places provides secure travel corridors between mountain ranges for bear, lions, and other large mammals.

Restoration Needs/Objectives

Protection of riparian habitat from subdivision is the most important need in this area. As most of the Clark Fork landscape area remains under private ownership and is at high risk of future subdivision or other habitat conversion.

Land values in this landscape area are relatively high due to the desirability of river frontage property and the productivity of river bottom lands for hay and livestock production. Current agricultural use of the Clark Fork has for the most part maintained riparian and wetland habitats along with livestock and hay production. However, without the permanent protection afforded by easements or acquisition, habitat enhancement activities are unlikely to be sustained over the long term on private lands in this area. Therefore, protection from subdivision by conservation easements or acquisition will provide the most cost-effective benefits to riparian and wetland habitat and contribute the most towards meeting restoration goals over the long term, even though it will be the most expensive activity in terms of up-front costs.

Protection of undeveloped habitat between Milltown State Park and Turah is important to protect cottonwood nesting birds and add value to habitat restoration efforts at the former Milltown Reservoir area. Other critical areas to protect include the confluence areas and other large wide patches of riparian and wetland habitat that remain undeveloped, especially in river sections that are the least constricted. Protection for areas as small as 30 acres can provide significant value to wildlife if located adjacent to other protected lands, but protection of habitat blocks over 90 acres in size is most desirable. In addition to the main river channel, some oxbow wetland ponds would benefit from riparian enhancement activities. There may be opportunities to create or enhance emergent wetlands in former hayfields in the river bottom.

Proposed Actions

The State's proposed actions for this area are to:

1. Protect riparian and wetland habitats through conservation easements or acquisitions, especially in the river sections described above.
2. Enhance riparian and wetland habitats for wildlife in areas that are protected from subdivision.
3. Manage public use in specific areas to protect riparian vegetation or wildlife from damage or disturbance by improper or excessive public use.

Two concept proposals were submitted for the Clark Fork landscape area that could protect riparian habitat. The Confluence Project at Rock Creek (abstract #48) proposes to protect riparian habitat along the Clark Fork River and a small area along Rock Creek, as part of a 201-acre conservation acquisition. The Clark Fork Meadows Ranch Land and Water Conservation project (abstract #7) would conserve, via purchase of the land or a conservation easement, 151 acres, with 70 acres of wetlands, along $\frac{3}{4}$ of a mile of the Upper Clark Fork River while also increasing water flow to the Clark Fork River and implementing riparian protections. Both concept projects would contribute towards meeting restoration needs in this landscape and are included. The State has identified the

need to protect additional riparian habitat in the river section above Milltown State Park, and to solicit partners for additional riparian habitat protection in other portions of the Clark Fork (abstract #G6).

The concept proposal submitted by Montana Tech for restoring native plant diversity along Silver Bow Creek and the Clark Fork River (abstract #47), is not included as a proposed action because revegetation along both Silver Bow Creek and the Clark Fork River is expected to be competitively procured as has been done for the last decade, with expected lower costs and allocation of effort than as proposed in the abstract.

Restoration Budget

The State proposes to allocate \$2.5 million for habitat protection and enhancement work in this landscape, which included up to \$0.8 million for the Confluence and Clark Fork Meadows acquisitions (abstracts #48 and #7). The conservation needs of this area exceed the available funding, so developing projects that have other funding sources and partners will be essential for protecting a significant amount of riparian habitat along the Clark Fork River. As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, easements or acquisitions will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council. As also indicated in Section 6, funding of individual projects within terrestrial landscape areas will be based on cost-effectiveness and cost:benefit, rather than on concept proposal estimates.

4.2.5 Terrestrial Habitat Enhancement

Separately and as identified in the 2012 *Process Plan*, the State assessed the habitat protection and enhancement restoration needs for existing FWP Wildlife Management Areas (WMAs) and other lands already acquired with NRD funds within the UCFRB.

Funding for habitat protection and enhancement is earmarked for existing FWP WMAs or other lands already acquired with NRD funds in the UCFRB. These areas and approximate acreage include:

- Spotted Dog WMA: 28,616 acres.
- Garrity Mountain WMA: 10,363 acres
- Blue-eyed Nellie WMA: 194 acres
- Stucky Ridge WMA: 296 acres
- Warm Springs WMA: 1,337 acres
- Mount Haggin WMA: 25,000 acres (part of WMA within UCFRB)
- Lost Creek WMA – 1,405 acres

The proposed actions for these areas are those that are beyond the routine operation and maintenance activities for which the State is normally funded on a routine basis through its biennial funding. These activities include riparian fencing, riparian restoration, acquisition of key private in holdings, biological and other weed control, road removal, wetland restoration and enhancement. The amount of terrestrial funding allocated for these efforts is \$2 million.

As indicated in Section 4.2.2 and Section 6, following completion of needed project development efforts, any easements or acquisitions project that would enhance these WMAs will require a subsequent approval of the proposed transaction, once it is fully developed, by the Trustee, following consideration of input from the public, Advisory Council, and Trustee Restoration Council.

4.2.6 Terrestrial Resource Monitoring

Monitoring is a critical component of terrestrial resource restoration to ensure that: terrestrial projects are completed as planned; projects deliver the intended benefits to wildlife, and projects are properly managed over time to maintain those benefits. Monitoring is necessary for adaptive management of projects to ensure that implementation or management can be changed if needed to address unforeseen problems.

Monitoring will be focused primarily on acquisitions, conservation easements, and terrestrial habitat projects. Terrestrial wildlife monitoring may be needed on some recreation projects to assist with development of management plans for those areas, to ensure that wildlife resources, such as important bird nesting areas or big game wintering areas are not negatively impacted by recreational use.

Habitat availability and condition are primary factors that determine population density and diversity for most wildlife species, so vegetation monitoring will be an important component of terrestrial resource monitoring. Monitoring will be coordinated with other monitoring efforts in the UCFRB to prevent duplication of effort. These proposed monitoring activities will be in addition to the terrestrial wildlife survey and monitoring activities conducted annually by FWP for setting hunting seasons and other purposes.

Terrestrial resource monitoring proposes to accomplish the following objectives:

1. Compliance monitoring on individual projects to ensure they are completed and maintained as specified or modified if needed to achieve project goals.
2. Habitat monitoring, including vegetation type and habitat condition assessments, to ensure that targeted habitats are maintained or enhanced over time.

3. Wildlife monitoring, to document changes in wildlife diversity and population size, to ensure that wildlife benefits from restoration activities.
4. Contaminant monitoring of biota, water, or sediments in specific areas as needed to ensure that project sites are clean from contamination that could prevent wildlife populations from responding to restoration efforts.

Monitoring activities will be conducted annually, but the intensity, focus and locations will shift from year to year in response to planning and completion of terrestrial projects. For example, more intensive sampling may be conducted on a new acquisition to establish baseline conditions. Some areas, such as the Spotted Dog WMA, were not sampled adequately for vegetation condition and wildlife species during the terrestrial wildlife assessment, due to lack of ground access allowed by prior landowners. These areas will require more intensive baseline surveys than project areas that were sampled during the terrestrial wildlife assessment. Necessary monitoring of conservation easements will be incorporated into the easement terms.

Habitat Monitoring

Habitat monitoring will be done at various scales to characterize vegetation extent and condition over time. Standardized methods will be employed, including a combination of vegetation sampling plots, photo points, watershed level condition assessments for riparian areas, and wetland condition assessments. Exclosures may be installed and monitored on one or more WMAs, to assess the impacts of big game herbivory on habitat condition.

Wildlife Monitoring

Terrestrial wildlife monitoring methods will generally follow methods used during the terrestrial wildlife assessment, with some differences. Most wildlife monitoring will be focused on specific project sites, rather than the entire UCFRB.

FWP proposes to monitor the following wildlife species or groups as part of terrestrial resource monitoring:

1. Big game species distribution and habitat selection in relation to terrestrial projects. Monitoring for big game species will be more intensive than the annual surveys typically done by FWP to inform season-setting for these species.
2. Songbird diversity and relative abundance. Songbirds are very useful indicators of habitat quality and quantity, since most species are territorial, have small territories and are tied to specific habitats during the nesting season. They are easy to survey using standard point count methods. The State proposes songbird point count monitoring to determine changes in songbird populations over time on terrestrial projects.
3. Raptor nest monitoring focused on bald eagles and osprey in the UCFRB.

4. Waterbird monitoring, focused on great blue heron rookeries in the UCFRB, and on waterbird and waterfowl use of wetland projects.
5. Aquatic furbearer monitoring along the Clark Fork River and major tributaries. FWP proposes to monitor river otter in the UCFRB, to ensure that otter populations continue to expand in response to improving fish populations and habitat conditions. Also beaver populations can be good indicators of riparian condition.
6. Amphibian distribution and occurrence especially breeding sites.
7. Bat activity and species occurrence.
8. Small mammal monitoring may be conducted at specific terrestrial sites.

Contaminant Monitoring

Contaminant monitoring of biota, water, or sediments may be needed in specific areas, to ensure that project sites are clean from contamination that could prevent wildlife populations from responding to restoration efforts. For example, mercury contamination from past mining activities in the Flint Creek drainage may be impacting osprey production in some portions of the UCFRB. Further studies are needed to determine the extent of mercury contamination and determine if impacts on osprey and other fish-eating birds are limiting production in these areas.

Public concept proposals related to monitoring include a mercury study (abstract #67),⁸ and a mapping study of suitable habitat where beavers could be transplanted for passive stream restoration purposes (abstract #54) are included for restoration funding. The beaver habitat suitability study could provide a metric to compare beaver presence in relation to their expected distribution.

Conservation Reserve Enhancement Program (CREP)

In 2016, the Farm Service Agency approved a CREP for the UCFRB. This Farm Service Agency program requires matching state funding of 25% for the implementation of various conservation practices on all private land within the UCFRB. In 2018, \$500,000 from the Terrestrial allocation is budgeted to provide matching funds for the implementation of CREP projects in Priority 3 and 4 areas identified in the 2011 Terrestrial Prioritization Plan and areas outside of these priority

⁸ NRDP staff contacted representatives of the DEQ TMDL, State Superfund, and Abandoned Mine Programs as to whether their programs had plans and or funding to conduct further investigation into the mercury contamination issues that have been documented through water and osprey tissue sampling. NRDP has contracted with Granite County and this effort has successfully launched a sampling program for mercury contamination in the Phillipsburg area and has resulted in the allocation of DNRC funding for this investigation.

areas. Within Priority 1 and 2 areas aquatic and terrestrial funding will be used as matching funds on projects described in these Restoration Plans. The State estimates the Farm Service Agency match to the State funding will be approximately \$10 million initially. The CREP provides payment to landowners for their participation in the implementation of conservation practices. [Farm Service Agency is the lead agency in implementation of this program. NRDP will continue to focus on development of projects consistent with the Restoration Plans and highlight the opportunities for CREP funding as an additional incentive to land-owners.](#)

Monitoring Implementation and Budget

The State estimates a terrestrial monitoring budget of \$360,000 to be spent throughout the UCFRB over 10 years. The State will produce a biennial terrestrial monitoring plan that provides the scope and budget for monitoring. This document will specify how the State would accomplish the specified activities. In some cases, it is best to have an independent entity conduct monitoring activities; so, while, some work would be conducted by the State, other work could be conducted by university entities, by other governmental entities, or by competitively procured contractors under State oversight.

4.2.7 Summary of Terrestrial Restoration Budget

The Terrestrial Budget Allocation totals about \$18 million, after deduction of the terrestrial recreation service allocation (Section 5.2).⁹ Following is a breakdown of this budget for each landscape area, along with the budget for habitat enhancements at FWP wildlife management areas (Section 4.2.4) and terrestrial monitoring (Section 4.2.5). The total funding for proposed actions in the nine landscape areas is approximately \$16 million.¹⁰ As further explained in Section 6, final allocations for each landscape area may vary as projects are considered.

- Philipsburg West Landscape Area\$3.2 million
- Lower Flint Creek Landscape Area\$1.4 million

⁹See Section 2.3 and Table A-3 in Appendix A.

¹⁰ Funding is allocated by quantity of Priority 1 and 2 lands in each Landscape area. In most areas, Priority 1 lands were given a higher qualitative percent of allocation than Priority 2 lands. Final allocations for each landscape area may vary as projects are considered. Because conservation easements and public acquisitions are dependent upon a willing landowner, the State will evaluate any property that becomes available for sale or a conservation easement within the Priority 1 or Priority 2 areas.

- Garnets Landscape Area\$2.2 million
- Avon North Landscape Area\$1.4 million
- Deer Lodge North Landscape Area\$1.2 million
- Deer Lodge South Landscape Area\$1.4 million
- Anaconda Area Landscape Area.....\$1.0 million
- East Flint Landscape Area\$1.4 million
- Clark Fork River Landscape Area\$2.5 million
- Habitat Enhancements and Monitoring ..\$2.36 million¹¹

TOTAL\$18.36 million

Table 4-4 summarizes the proposed actions and budgets for each landscape area.

¹¹ Funding for monitoring and habitat enhancement is estimated to occur over a 10-year period.

Table 4-4. Summary of proposed actions for priority landscape areas

Landscape Area	Priority Level (% of Landscape Area)	Primary Existent Habitat Values	Current Level of Protection	Proposed Actions	<u>2012</u> Restoration Budget
Philipsburg West	Priority 1-38% Priority 2-32%	Extensive native grasslands, pothole wetlands, habitat is in good condition.	A few conservation easements are in place. The core of the landscape area is unprotected.	Land protection by acquisitions or easements Riparian enhancement Grassland enhancement	\$3.2 M
Lower Flint Creek	Priority 2-78%	Native grasslands, riparian, ponderosa pine woodlands.	One conservation easement is located in the area, mostly protecting native grassland.	Land protection by acquisitions or easements Riparian Enhancement Grassland Enhancement	\$1.4M
Garnet	Priority 2-84%	Native grasslands, forests, riparian, landscape connectivity.	Several conservation easements are in place, abutting a large block of unprotected Stimson timber land.	Land protection by acquisitions or easements Riparian enhancement Grassland enhancement Forest management	\$2.2M
Avon North	Priority 1-38% Priority 2-37%	Native grasslands, riparian along Little Blackfoot River. Landscape connectivity.	Three small conservation easements around fringes of area, and very little public land. Core of area is unprotected.	Land protection by acquisitions or easements Riparian enhancement Grassland enhancement	\$1.4M
Deer Lodge North	Priority 1-76%	Large un-fragmented landscape area, native grasslands, riparian habitat, landscape connectivity.	Much of the landscape area has been protected by the purchase of Spotted Dog WMA.	Riparian enhancement Land protection by acquisitions or easements Grassland enhancement	\$1.2M
Deer Lodge South	Priority 1-44% Priority 2-26%	Native grasslands. Aspen stands. Riparian stringers. Adjacent to Warm Springs Ponds.	There are two NRDP supported conservation easements.	Land protection by acquisitions or easements Grassland enhancement Riparian enhancement	\$1.4M
Anaconda	Priority 2-62%	High diversity of wildlife values, more timber and aspen, higher elevation.	Large amount of public land, several wildlife management areas form the core of protected areas.	Land protection by acquisitions or easements	\$1.0M

Landscape Area	Priority Level (% of Landscape Area)	Primary Existent Habitat Values	Current Level of Protection	Proposed Actions	<u>2012</u> Restoration Budget
East Flint	Priority 2-58%	High amount of riparian and wetland habitat adjacent to Warm Springs, native grasslands.	Montana State Prison owns extensive acreage, but it is not managed for wildlife. Some land under conservation easement.	Land protection by acquisitions or easements Riparian and wetland enhancement or restoration Grassland enhancement	\$1.4M
Clark Fork Mainstem	Priority 1-56%	The most extensive riparian and wetland habitat in the UCFRB, including wide cottonwood gallery reaches. Except for the areas of worst contamination between Warm Spring Ponds and Garrison, this area has very high species diversity.	Several conservation easements protect about 12% of the area. Little public land is in this area.	Land protection by acquisitions or easements Riparian enhancement Wetland enhancement and restoration	\$2.5M