Section 16.0 Biological Conservation Plan

The general habitate of the Sage Creek Valley (Study Area) is comprised of state, federal and privately ownerd lands in between State Highway 310 and the Pryor Mountains within the Sage Creek drainage .

Montana Wildlife, Fish and Parks, U.S. Fish and Wildlife Service, and National Heritage Foundation data bases were reviewed to identify habitat, listed speces and areas of critical habitat in the general vicinity of the Mud Springs Wind Ranch and the associated transmission line. See Attachement 11 for the data base assessment for listed wildlife.

The majority of the Study Area occurs in a highly fractured desert shrub habitat. The habitat is typical of the mountain foothills and mixed sagebrush of the intermountain valley ecotypes of Carbon County. Sage Creek provides riparian areas adjacent to the creek's main channel. Cultivated agriculture in the area consist of several irrigated fields used to grow grass feed. Multiple pipelines, roads, powerlines and pasture fences fragment the area. The project area is in Montana Fish Wildlife and Parks Region 5. The annual precipitation is between 6 and 10 inches per year and elevations greater than 4000 feet are typical. The general elevation in the project area is 4700 feet.

The biological conservation plan has been developed based on a hierarchy of activities to first seek to avoid and minimize impacts and then mitigate for impacts that do occur through on site habitat enhancement programs. Baseline environmental reviews were conducted for the Project area to identify any critical habitate and issues of concern with regard to special status species and the biological conservation plan has incorporated avoidance, best management practices and mitigation programs for these speices.

16.1 Critical Habitat

There are no US Fish and Wildlife Service designated critical habitats with the Project area or general region of the transmission line.

16.2 Habitats of Importance

The project wind turbine facilities avoid riparian habitats, welands, mountain riparian, flowing-water, and wet meadows that occure in the general project area where the wind turbines will be constructed. There are no standing-water areas in the project construction area other than stock ponds. There are no aspen forest or large blocks of juniper forest in the Project area. There are riparian habitats and irrigated pastures and grazed grasslands in the Sage Creek Area of the Bowler Flat Ranch and Loyning Ranche.. Impacts to irrigated pasture or grass hay growing areas will be repaired upon completion of construction and returned to agricultural production.

16.3 Vegetation and Landcover

There are no records of plant communities of concern or threatened or endangered plants with the Project area. Vegetation and habitat types in the Project areas are characterized as sagebrush dominat steppe and areas dominated by non-native grasses. Habitat in the Project area is influenced by factors such as cattle grazing, recationional ATV travel, pipelines, transmission lines, roads, agricultural tilling and mining. The project area is traversed by several dirt roads, gravel roads, multiple pipelines, ATV trails and fencing. The Project area is dominated by invasive annual grasses and mixed sagebrush schurbland. The open space and low intensity land cover is lacking in vegitation land cover and has been moderately to heavily grazed is typical of the Project area. Private lands in the project area upon which the proposed wind facilities are located will continue to be used of grazing of cattle.

The project area and a four-mile area beyond the outermost wind turbine locations was evaluated for Sage Grouse habitat characteristics. (See Attachement 11 for a map of the study area.) The analysis area covered appromimately 133,895 acres (209 sq. miles) and within that area, there are approximately 87,130 acres (136 sq. miles) that are consider Sage Crouse Core Area ("SGCA") (65%). The project's lease area is approximately 24,832 acres in size and consentrated on the private lands along Railbed Road on which the sage brush habitat has been greatly degraded or removed. The lease area represents approximately 28% of the SGCA within the area analysis. The project area is in the northeast corner of the designated SGCA and is a highly fractured habitat area seperated from the primary SGCA by US Highway 310, and the BNSF Railroad. The project area is a highly fractured habitat area within the designated SGCA with five major pipeline routes, multiple roads, and a 230 kV power transmission line. The project's noxious weed management area (See Attachement 8) surrounding the construction impact zone is approximately 2,745 acres which includes a direct impact area of 560 acres of construction area for turbine foundations, roads and underground cable runs and an additional 111 acres of transmission line right of way plus a buffer zone for weed management. Assuming that the 2,745 acre weed management zone (which is 3X the actual impact footprint) represents the degraded habitat within the SGCA used by the project, the direct habitat impact area constitues approximately 2% of the Sage Grouse area analysis containing 133,895 acres.

16.4 Threatened and Endangered Wildlife

In accordance with the U.S. Fish and Wildlife Service's land based Wind Energy Guidelines, Mud Springs Wind Ranch completed a Tier I and Tier II site evaluations for the project area to evaluate risk to wildlife. The process includes identifying species of concern, exclusion areas or critical habitat, areas of wildlife congregation and existing environment. Within Carbon County there are 7 wildlife species federally protected under the Engandgered Species Act which are listed in Table 7.

Table 7
Candidate, Threatened and Endangered Species in Carbon County

Scientific Name	Common Name	Status
Lynx canadensis	Canada Lynx	List Threatened,
Mutela nigripes	Black footed Ferret	Listed endangered
Urus arctor horribliis	Grizzly Bear	Listed Threatened
Centrocercus urophasianus	Greater Sage Grouse	Candidate
Anthus spragueil	Sprague's Pipit	Candidate
Gulo gulo luscus	Wolverine	Proposed
Pinus albicaulis	Whitebark Pine	Candidate
Spiranthes diluvialis	Ute ladies tresses	Listed Threatened

The Canada Lynx, Black footed Ferret, and Gizzly Bear, are not known to utilized the project area. There are no known dens for Wolverine in the Project Area.

The Sprague's pipit is a relatively small passerine endemic to the North American grasslands. The Sprague's pipit is a ground nester that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Project area is not favorable habitat for Sprague's pipit breeding and wintering.

There are no Whitebark Pine in the project area. Ute ladies tresses is a perenneial orchid which is occurs along riparian edges, moist to wet meadws and flood plains. Ute ladies tresses is not know to occur in the project area.

The general project area of the Mud Springs Wind Ranch wind turbines, Collection Substation, 230 kV transmission line route and the Point of Interconnection are within a Greater Sage Grouse Core Management Area.

16.5 Sage Grouse

Current literature on Sage Grouse habitat indicates that habitat loss through fire and fragmentation poses the greatest threats to Sage Grouse. Literature also indicates that noise and human activity may also pose impacts to Sage Grouse wintering and breeding areas (leks). The Applicants mitigation strategy is to compensate for impacts to Sage Grouse habitat that could occur as a result of Project construction and operations through a comprehensive mitigation strategy guiding by the following:

1. Minimize construction within ½ mile of active leks
2. Mitigate for impacts to active leks within 1 mile of the Mud Springs Wind Ranch facilities and transmission line.
3. When possible concentrate Mud Springs Wind Ranch's facilities in areas that have already been fragmented and disturbed by ranching, pipeline construction, transmission line corridors, roads and mining activity and in an area that has a low density of active leks.
4. Direct impacts to federal lands will be avoided.
5. State lands will be considered only for underground and overhead power lines.
6. Ground disturbance to remove vegetative cover in sage brush habitats within ½ mile of an active lek, vegetative removal will occur prior to the spring brooding season (April 1 to July 15). If vegetative removal is required by construction or operations near active leks during the brooding season, ocular surveys would be conducted three days prior to removal of native vegetation areas greater than 1 acre. If no nests are encountered, the Applicants would have a three day window to begin surface disturbing activities or conduct a new survey to maintain the three day timeframe. If Sage Grouse nesting activity is noted, the land clearing activity would cease until Montana Wildlife, Fish and Parks is consulted and a mitigation strategy is formulated or until chicks have fledged and can survive independent of the nest.
7. Sage Grouse habitat lost or impacted due to the construction and operations of the Mud Springs Wind Ranch will be mitigated by either preserving at risk habitat or enhancing degraded habitat.
8. Offsite compensatory mitigation projects will be defined in suitable locations as close to the Sage Creek Valley as possible in order to benefit the local Sage Grouse populations being impacted by project construction and operations.
9. Compensatory mitigation may also be directed to habitats southwest of Warren, Montana where mitigation has greater value in providing long term benefit to Sage Grouse.
10. Mitigation projects will be coordinated with Montana Fish, Wildlife and Parks and will result in:
    a. Habitat conservation or protection in at-risk areas
    b. An increase in long-term habitat availability, and/or
    c. An increase in habitat quality.
11. The Applicants will fund a program of maintenance and monitoring for each compensatory mitigation project to determine the effectiveness of the mitigation and provide guidance for future projects.

Site Selection Screening Analysis: Multiple meteorological towers were used by the Applicants to identify those areas with the highest wind energy potential in the general lease area of eastern Carbon

County from the Wyoming Boarder to Bridger Montana. The wind data indicates that there is a high energy wind resource along the Pole Cat Bench on the Wyoming Boarder south west of Warren, Montana and continues north to Pryor Mountain Road and Black Butte at the north end of the Sage Creek Valley. Preliminary siting studies identified approximately 500 potential turbine locations on private lands and an additional 500 locations on Federal and State lands in this general area of eastern Carbon County.

Most of south eastern Carbon County is considered a Sage Grouse Core Area. The Sage Grouse habitat quality and quantity varies across the landscape in Carbon County. Applicants have selected the project site after consideration of the Sage Grouse habitat characteristics of the area. A primary hierarchy of siting criteria for the Mud Springs Wind Ranch project was avoidance of high quality sage grouse habitat with concentrated areas with multiple active leks. The micro siting criteria focused on private lands which have been historically used for cultivation and or cattle grazing and have been fragmented and impacted by prior agricultural, mining, oil and gas and energy corridor development activities. .

The project development planning focused on the private lands from the Wyoming boarder north to Pryor Mountain Road. Screening evaluations identified a high concentration of Sage Grouse leks on the sage brush covered plateau known as the Pole Cat Bench west of Highway 310 and southwest of Warren, Montana. This area contains the Elk Basin leks 1 through 5, Warren leks, 1 through 4, and the Weatherman Draw lek (See Attachment 11 for a map of lek locations). Planning evaluations determined that the wind turbine facilities should avoid this area. In contrast the Sage Creek Valley was identified as a highly fractured habitat with five pipeline routes, a transmission corridor, Railbed Road, a large limestone quarry and bentonite mines. To avoid the higher quality habitat areas west of State Highway 310, the Mud Springs Wind Ranch facilities were sited primarily along Railbed Road in the Sage Creek Valley where Sage Grouse Habitat has been impacted by prior agricultural, mining, and energy corridor development activities.

Federal lands will be avoided. Project design does not involve any Federal Lands.

State of Montana lands will be considered only for transmission line corridors. Facility locations have, to the extent practical, been located in areas where the sage grouse habitat has been highly modified and large areas of sage brush habitat have been removed or significantly degraded by grazing activity. Historically the private lands that are leased for wind development have been fenced and intensely grazed or used for cultivate fields. The transmission line route from the project area to Park County, Wyoming parallels the existing 230 kV transmission line and to the extent possible located 1 mile form historical leks along the route to minimize impacts on Sage Grouse habitat.

Baseline biology studies found that only one isolated, active lek, Sage Creek 1, may be impacted by the Project. This lek, was observed to be active in 2014 during aerial surveys and is on an isolated parcel of BLM land surrounded by private ranch lands. The private land will be used for wind turbines and associated infrastructure and all Federal lands will be avoided. The Applicants Plan of Development has concentrated the wind energy development in the Railbed Road area, north and east of State Route 310, avoiding the majority of known leks in the lease area. Wind turbines have been placed over ½ mile from active leks. The transmission line has been place in easements that parallel the existing 230 kV transmission line and the transmission line easement will be over 1 mile from known leks.

Sage Grouse Leks: Sage grouse lek data provided by the Montana Natural Heritage Program (see Attachment 11) was used to identify historical leks in Carbon County. There are 67 reported leks in the Carbon County Sage Grouse Core Area. An inventory of locations of historical leks within four miles of any turbine site was used to identify distances from project facilities and the last confirmed activity of leks within 4 miles of the project area. The lek inventory area included 133,760 acres (209 sections). Seventeen (17) historical leks were identified within the analysis area. Seven (7) of the identified leks are

west of the State Highway 310 / BNSF railroad corridor which constitutes a major migration barrier. All 10 of these leks are over one mile from the proposed transmission line route which parallels the existing 230 kV H-frame transmission line.

Ten (10) leks are located east of State Highway 310. Two (2) of the 10 leks in the area analysis that are east of Highway 310 are located south of Quarry Road, a major limestone quarry haul road bringing rock to the rail siding at Warren. These two leks are over 3 miles outside of the Wind Ranch project area and near the active bentonite mining area. Five (5) of the 10 leks in the area analysis that are east of Highway 310 are located north of Pryor Mountain Road and separated from the Wind Ranch Project Area by multiple cultivate fields with pivot irrigation systems and outside of the project area. One (1) of the 10 historic leks east of Highway 310, was found to be on Federal lands over 1 mile west of the project area. One (1) of the 10 leks east of Highway 310, the Sage Creek #1 lek, is located on an isolated Federal land parcel in the Mud Springs Phase II project area, approximately ½ mile from the nearest wind turbine. Recent surveys by the Applicants found that only the Sage Creek lek is considered an active lek in 2014 in the wind turbine development area. All other historic leks in the wind turbine development area were not active in 2014.

The Noise impact model (See Attachment 9) included a cumulative sound level projection for leks within 4 miles of the project facilities. The active lek, Sage Creek #1, will have a projected sound level of 46.8 dB(A) which is below the current guideline threshold of 49 dBA.

16.5.1 Sage Grouse Mitigation Program

It is unknown if Sage Grouse currently utilizing leks within 1 mile of the proposed facilities would be displaced to other lek sites. The intent of the Sage Grouse mitigation program is improve overall Sage Grouse population trends in Carbon County through mitigate for direct and indirect effects of the wind energy facility development may have on local Sage Grouse populations in the Sage Creek Valley. A program of Best Management Practices and habitat mitigation and enhancement has been incorporated into this Plan of Development. The mitigation activities will be conducted in the general lease area and in an area where there is a higher density of breeding leks at a location which is away from the wind energy facilities in Mud Springs Phases I, II and III.

Best Management Practices: The best management practices that will be employed to minimize and avoid impacts to Sage Grouse during construction of the wind energy facility will include:

- Establishing ½ mile buffer from known active leks from wind turbines.
- All vehicles will maintain a 25 MPH speed limit.
- For construction activity within 1 mile of an active lek, ground disturbance to remove vegetative cover in sage brush habitats will occur prior to the spring brooding season (March 15 to July 15). If vegetative removal is required by construction or operations during the brooding season, ocular surveys would be conducted three days prior to removal of native vegetation areas greater than 1 acre. If no nests are encountered, the Applicants would have a three day window to begin surface disturbing activities or conduct a new survey to maintain the three day timeframe. If Sage Grouse nesting activity is noted, the land clearing activity would cease until Montana Wildlife, Fish and Parks is consulted and a mitigation strategy is formulated or until chicks have fledged and can survive independent of the nest.
- All temporarily disturbed areas associates with construction will be restored to perennial native cover including sagebrush.
- All disturbed areas will be managed for to control the spread of noxious weeds and other invasive plants through a weed management plan.

- Precautions will be taken to prevent fires during construction activities. Open burning of debris will not be allowed. A Fire Prevention and Control Plan will be developed by the primary contractor prior to construction.
- Firefighting equipment will be maintained on site during construction activities so that any fires that may occur can be quickly suppressed.
- The number and length of access roads will be limited to that necessary to construct the project.
- Maintenance roads will be gated and locked to limit public access.
- Permanent guyed met towers will be marked with bird flight diverters to minimize collision risk.
- All new and repaired fences will be marked with permanent markers on the top wire in cooperation with the National Conservation Resource Service program for marking fences.
- New power line poles will be equipped with APLIC compliant perch deterrents to discourage the use of power line support structure towers as hunting perches by avian predators.
- To the extent practicable on the private land easements, locate the new 230 kV transmission line parallel to the existing transmission line.
- Power collections systems between wind turbines will be placed underground and trenching areas will be reclaimed and replanted.

Best Management Practices that will be employed to minimize and avoid impacts to Sage Grouse during operations and maintenance of the wind energy facility will include:

- ½ mile buffers will be maintained by maintenance crews around active leks including minimizing use of access roads.
- All vehicles will maintain a 25 MPH speed limit.
- Major maintenance activities will be scheduled to avoid the breeding period from April 15 to June 15 within 1 mile of an active lek.
- All reclamation cover area will be monitored to assure restoration of perennial native cover including sagebrush.
- All disturbed areas will be regularly inspected and managed for to control the spread of noxious weeds and other invasive plants.
- Precautions will be taken to prevent fires during operations activities. Open burning of debris will not be allowed. A Fire Prevention and Control Plan will be developed for operations and coordinated with local firefighting agencies.
- If maintenance work is required during the Sage Grouse mating season, maintenance work within one mile of an active lek will be between 9 a. m. and 6 p.m. to minimize disturbance on leks.

16.5.2 Collaborative Effort: The Sage Grouse habitat conservation program will be a collaborative effort where the Applicants will use experts in the field of mitigation and Sage Grouse ecology, range management from National Conservation Resource Service and advice from Montana Wildlife, Fish and Parks to build a collaborative effort involving the landowners to establish Sage Grouse conservation programs.

16.5.3 Timing for Financing of Mitigation Projects: The Applicants can only finance mitigation for a permitted project with a power purchase agreement. Mitigation funding will be part of construction financing. While the Applicants involved the Mud Springs Wind Ranch development are willing to commit to making an appropriate investment in Sage Grouse mitigation projects the mitigation funding would occur only after all permits required for construction are in hand and project construction financing has been obtained. Mitigation projects will start no later than commencement of construction. The Companies cannot know in advance what mitigation programs will be available in the timeframe between issuance of Carbon County Development Permits and the desired start of construction. Flexibility is therefore required in the identification and implementation of specific mitigation projects.

16.5.4 Mitigation Hierarchy: Mitigation projects will be implemented based on hierarchy of more preferred projects to less preferred projects. The hierarchy of habitat improvement measures will be (most preferable at the top to least preferable at the bottom):

- Fence marking or removal;
- Sagebrush restoration and enhancement;
- Livestock water tank modification
- Noxious weed control;
- Seeding of forbs and bunchgrass understory
- Purchase of conservation easements

16.5.5 Mitigation Projects:

Fence Marking and Removal: Scientific literature on Sage Grouse mitigation indicates that each mile of fence within 2 miles of a lek, can potentially kill up to 53 Sage Grouse per year[1]. (This threat can be eliminated by removing fences or significantly reduced by increasing the visibility of fences. Research by Wyoming Game and Fish Department[1] indicates that marking fences with vinyl reflectors (flight diverters) reduces collision rates up to 74%. Because the Mud Springs Wind Ranch has been located on private lands currently used for cattle grazing, elimination of fences is not always an option and use of fencing to control cattle access to lek areas is preferred. To reduce the threat of collisions, fences near affected leks would be marked with flight diverters to increase fence visibility to Sage Grouse. With land owners consent, when possible, unnecessary fences will be removed. Where removal is not possible, two to three flight diverters would be installed between each fence span at approximately 6 foot spacing. Land owners involved in the Mud Springs Wind Projects have large ranch areas where fence marking may be possible outside of the immediate Mud Springs Wind Ranch project area. With land owners consent, priority areas for fence removal and marking would be:

- Sections of fence known to cause Sage Grouse collisions.
- Fences within 1 mile of leks.
- Fences in areas with low slope and terrain ruggedness
- Fence Segments with post spans greater than 14 feet.

The Mud Springs Wind Ranch will mark fences for the following leks which area within one mile of the proposed facilities::

- Bowler 1, (also called Bowler 2)
- Sage Creek 1,
- Black Butte.

(1) See Fence Marking to Reduce Greater Sage-grouse (Centrocercus urophasianus) Collisions and Mortality near Farson, Wyoming – Summary of Interim Results (2009) by Tom Christiansen Sage-Grouse Program Coordinator, Wyoming Game & Fish Dept.

Sagebrush Restoration and Enhancement: Sagebrush restoration and enhancement creates new habitat for Sage Grouse and can be used to create corridors between existing patches of sagebrush to produce larger contiguous cover habitat for Sage Grouse. The ideal habitat for Sage Grouse would be a mosaic of plant communities dominated by sagebrush and a diverse understory of grasses and forbs. Sagebrush restoration can help establish connectivity in fragmented habitat and increase the quality and quantity of habitat within the general landscape of the project area, contributing to the long term survival and success of the Sage Grouse in Carbon County. Additional habitat for Sage Grouse would be created by establishing sagebrush and understory grasses and forbs in disturbed areas such as:

- Old one track dirt roads;
- Un-reclaimed pipeline corridors;
- Fallow pasture which has had sagebrush mowed;

- Burned areas; and
- Project related disturbed areas such as buried power cable runs and transmission line corridors.

Sagebrush can be seeded, planted as seedlings or transplanted (i.e. containerized stems). Because seeded sagebrush takes a long time to grow to a size that provides habitat for Sage Grouse, planting of containerize stems will be the preferred sagebrush restoration method. Sagebrush restoration and enhancement areas will include seeding for understory grasses and forbs. Where possible, sagebrush planting areas will be strategically placed to decrease habitat fragmentation with the intent of creating connecting corridors between areas of know occupancy. Sagebrush planting will involve planting 10-cubic inch Sagebrush plugs in islands along underground cable trenches and other existing disturbed areas in areas which are within 1 mile known Sage Grouse occurences.

Livestock Water Tank Modification: Watering tanks installed for livestock are often used by wildlife as well. These tanks can be unintentional traps for Sage Grouse resulting in drowning. To provide effective escape opportunity from livestock water tanks near leks within one mile of the project area, the Applicants will work with local land owners to replace or modified existing livestock watering tanks with NRCS approved escape ramps.

Noxious Weed Control: Noxious Weeds are exotic plant species which may render land unfit for agriculture, forestry, livestock, wildlife or other beneficial uses or harm native plant communities and are declared "noxious" by law." Montana Code and Carbon County regulations require all projects to control noxious weeds by using appropriate mechanical, biological and chemical treatments, which meet the requirements of Montana and Federal laws." (Montana Noxious Weed Control Act Title 7, Chapter 22, Part 21.) Noxious weeds have been and are a serious problem in Carbon County. The noxious weeds found in Carbon County were introduced through feed, seed, hay, and vehicles. They have established and continue to spread with the aid of wildlife, domestic animals, wind, water, and people. In the Sage Creek Valley of Carbon County, weed control and site reclamation will be challenging due to arid conditions and sparse vegetation. Prior developments of transmission lines, multiple gas and oil pipeline corridors, and open mining activity have affected this area. The Mud Springs Wind Ranch has submitted, as part of this Plan of Development, a Weed Management Plan in support of the Development Permit application. This plan will be incorporated into all Sage Grouse mitigation programs.

Seeding of Forbs and Bunchgrass Understory: Bunchgrasses are recognized as important component of Sage Grouse nesting and brooding habitats. The structure and abundance of bunchgrasses influence the quality of sagebrush and bunchgrass plant community site value for nesting Sage Grouse. Tall, dense, residual grass in nesting habitat improves hatching success by providing cover for incubating females. Forbs provide cover from predators and are an important food source for Sage Grouse. Seeding native bunchgrasses and forbs into existing sagebrush stands or into adjacent disturbance area will enhance Sage Grouse habitat and potential for nesting and brooding. This mitigation program has a great deal of uncertainty and delayed success rates with relatively higher cost. Seeding native bunchgrasses and fobs into existing sagebrush stands will be conducted after consultation with Montana Wildlife, Fish and Parks, the Natural Resource Conservation Service (NRCS) and landowners to identify areas where success of habitat mitigation will be meaningful. The Companies do not anticipate using forbs and bunchgrass understory seeding mitigation unless a cost effective partnership opportunity arises.

Purchase of Conservation Easements: Conservation easements have been used to remove the treats of specific land uses to Sage Grouse. Project related biological baseline studies indicate that direct impacts to active leks are not expected. If active leks are determined to be significantly impacted by construction, then the Applicants will purchase a conservation easements as mitigation. Conservation easements would focus on areas outside of the immediate wind development where reduction in habitat fragmentation and improvements in habitat quality can be obtained near active leks areas. Conservation easements will

involve cooperating landowners and will be coordinated with the NRCS's Sage Grouse Initiative Project and a selected non-profit partner. The Sage Grouse Initiative relies on voluntary landowners participating with local conservation group partners to conserve and enhance core habitats for Sage Grouse. The Sage Grouse Initiative program provides a holistic approach to conserving Sage Grouse and sustaining working ranches through a program of wildlife habitat improvements and sustainable agriculture.`

Partnerships with Conservation Groups: The success of the broader County wide programs for Sage Grouse habitat conservation can only be assured when local ranchers can rely on range and wildlife conservationist, whom they can trust, to provide technical assistance on range conservation and biology. The Applicant will work with local ranches that are participants in the Mud Springs Wind Ranch project to cooperate with range conservationist to implement conservation easements to help protect Sage Grouse habitat in Carbon County. Including the following actions to help implement conservation programs throughout Carbon County:

- Co-fund through a grant, a two year staff position with the Montana Association of Conservation Districts (MACD) to create a Sage Grouse Initiative staff position in Red Lodge, Montana to assist in the implementation of and monitoring of the success of mitigation programs associated with the Mud Springs Wind Ranch project and lead other voluntary approaches to range conservation with other Carbon County landowners. MACD represents Montana's 58 conservation districts and currently administers three SGI staff stationed in other Montana Counties with Sage Grouse Core Areas.
- Fund a program with the Montana Conservation Crop (MCC) to mark fences with bird diverters near Sage Grouse leks and plant native seeds to help recover Sage Grouse and sustain its habitat. The MCC is a nonprofit organization that empowers young people through hands-on conservation service and gain tangible experience on conservation programs that provide lasting benefits.
- Financially assist local landowners to enter into conservation and stewardship agreements with the Ranchers Stewardship Alliance (RSC) to protect Sage Grouse leks areas in Carbon County. RSC is working with ranchers in Phillips County, Montana to implement Sage Grouse habitat programs. RSC promotes ecological, social and economic conditions that will sustain the biodiversity and integrity of Montana's prairie lands through sustainable conservation, public and private cooperation, landscape stewardship programs designed to maintain profitable ranches and thriving rural communities.

16.6 Eagles Best Management Practices

The Montana Natural Heritage Program data base information was reviewed to determine potential nest locations of golden eagles within a 10 mile analysis area. The U.S. Fish and Wildlife Service (USFWS) recommend a golden eagle use assessment within 10 miles in all directions from the project footprint as a Stage 1 Assessment under the USFWS's Eagle Conservation Plan Guidance Version 2. The Stage 1 Assessment literature research found three (3) historic golden eagle nests within the 10 mile analysis area. See Attachment 11 for a map of the eagle nest locations. Nest locations ranged from 3.2 miles to 7 miles from the nearest potential turbine locations within the Project Area. Stage 2 Assessment included two separate Golden Eagle nest aerial surveys conducted in April and May of 2014. No active nests were found within 10 miles of the project wind turbines, including the historic nest sites.

The closest historic golden eagle nest is 3.2 miles north of the Mud Springs Phase I project area was last confirmed to be active in 2006 and was confirmed inactive in 2014. The second historic nest that is 6.9 miles southwest of the Mud Spring project area has not been active since 1979. The last nest that is 7 miles west of the Mud Springs Phase I project area was last confirmed active in 2011, is currently inactive

and is located near the Yellowstone River valley. The project area is not consider a good "over wintering" habitat because of snow depths.

In Montana, bald eagles are most common during the winter season. The largest wintering populations of bald eagles are commonly found near the valleys of north and central Montana and along reverie habitats near the Yellowstone River to the east of the Project Study Area. Bald Eagles are not known to use the Sage Creek Valley, which encompasses the project area.

To greatest threat to eagles is electrocution from contact with overhead power lines. To minimize potential for electrocution of eagles all collection power lines will be placed underground whenever possible. Other minimizations measured that will be used to reduce threats of collision and electrocution with eagles are:

- Project will use tubular wind turbine towers rather than lattice.
- No lighting on turbines and meteorological towers beyond what is required by FAA rules and regulations
- Permanent met towers, if guyed, will have bird diverters installed
- Lighting of facility buildings will be minimized
- Lighting will be hooded downward and on an auto-off switch.
- No sodium vapor lights will be used on the project.
- Non-operational met towers will be dismantled
- Avoid creation of rock and brush piles that could create habitat for raptor prey
- Litter cleaned up daily and garbage containers will have lids
- Implement carcass removal program for life of project

- Power poles associated with the project 230 kV line will be equipped with perch diverters to discourage the use of power poles as predator perches. All overhead power lines will be designed to minimize the potential for electrocution of birds by following establish guidelines (e.g. Avian Power Line Interaction Committee, APLIC 2006).

16.7 General Wildlife Impact Minimization Measures

In addition to the Best Management Practices outline for Sage Grouse and Eagles, during construction and operation the following minimization measures will be implemented to reduce general impacts to wildlife and habitat:

- Mud Springs Wind Ranch will be institute removal of road kill carcasses from project access roads whenever they are observe. This practice will be coordinated with Montana Fish and Game. Mud Springs LLC will implement a carcass removal plan for the life of the Project
- A speed limit of 25 mph will be posted throughout the site during construction and operations
- Mud Springs Wind Ranch will gate project roads to reduce ATV use of the area.
- All construction and operations personnel will be trained to immediately clean up and disposal off site or in a covered container of any road kills on site or on any of the access roads.
- Rock and brush piles that could create habitat for raptor prey will be removed from turbine areas
- All litter and garbage will be cleaned up daily.
- Internal power collection lines associated with the Projects will either be buried or constructed to meet the Avian Power Line Interaction Committee (APLIC 2006) design criteria for cross arms to minimize risk of electrocution by birds.
- Permanent meteorological towers with guy wires will have bird diverters.