3.9 LAND USE, RECREATION, AND VISUAL RESOURCES

3.9.1 Introduction

This section discusses land use, land ownership, recreation, and visual resources in the proposed Project area. The descriptions of these resources is based on information provided in the 2011 Final Environmental Impact Statement (Final EIS) as well as new circumstances or information relevant to environmental concerns that have become available since the publication of the Final EIS, including the proposed reroute in Nebraska. The information that is provided here builds on the information provided in the Final EIS as well as the 2013 Draft Supplemental EIS and, in many instances, replicates that information with relatively minor changes and updates; other information is entirely new or substantially altered.

Specifically, the following information, data, methods, and/or analyses have been substantially updated in this section from the 2011 document:

- Land ownership and land use types crossed by the pipeline have changed, with the majority of changes occurring in Nebraska due to changes in the proposed Project route.
- The recreation and special interest areas crossed by the proposed pipeline have changed, with the majority of changes occurring in Nebraska due to changes in the proposed Project route.
- The number and type of conservation easements and stream crossings have changed due to changes in the proposed Project route.

In addition, the discussion of National Historic Trails (NHTs) as well as waterbodies with special designations, including National Scenic River, Wild and Scenic River (WSR), and National Recreational River (NRR), was substantially expanded in this section from the 2013 Draft Supplemental EIS.

Summary

The proposed Project route would affect approximately 875 linear miles of land and water; of that total, approximately 770 miles (88 percent) are privately owned while the remaining approximately 105 miles are owned by federal, state, or local government (see Figure 3.9.1-1). Rangeland comprises approximately 557 miles of the pipeline route (64 percent), agricultural land comprises approximately 291 miles (33 percent of the total), and the remaining approximately 27 miles (3 percent) are a mixture of forest, developed land, water, and wetlands (see Figure 3.9.1-2). The proposed Project route would cross approximately 26 miles of land subject to U.S. Fish and Wildlife Service (USFWS), U.S. Department of Agriculture (USDA), and other easements, as well as approximately 73 miles of the USFWS-managed Rainwater Basin Wetland Management District. The proposed Project route would also cross approximately 106 miles of recreation and special use areas, including five NHTs, 45 miles of federal land in Montana, and 34 waterbodies for which recreation is a designated use.

Connected actions include the Bakken Marketlink Project, the Big Bend to Witten 230-kilovolt (kV) Transmission Line, and electrical distribution lines and substations. The type and distribution of land ownership and land use affected by the connected actions would be similar to the proposed Project except for the proposed electrical distribution lines, which would cross a larger share of federal land.

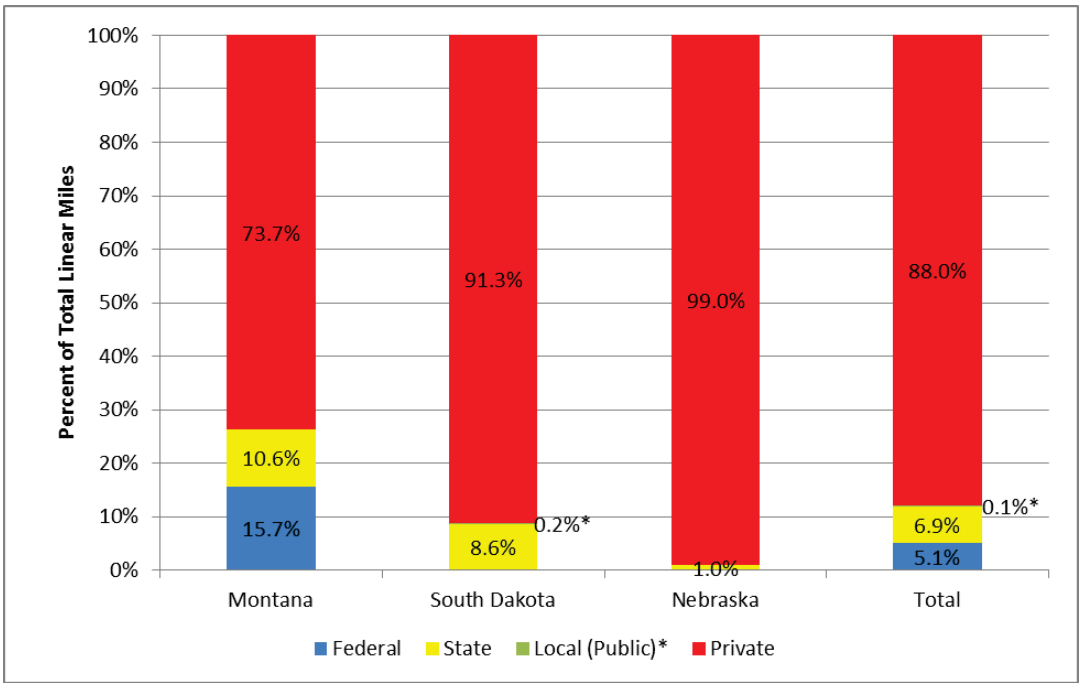

Figure 3.9.1-1 Land Crossed by the Proposed Project Route (% by Ownership)[1]

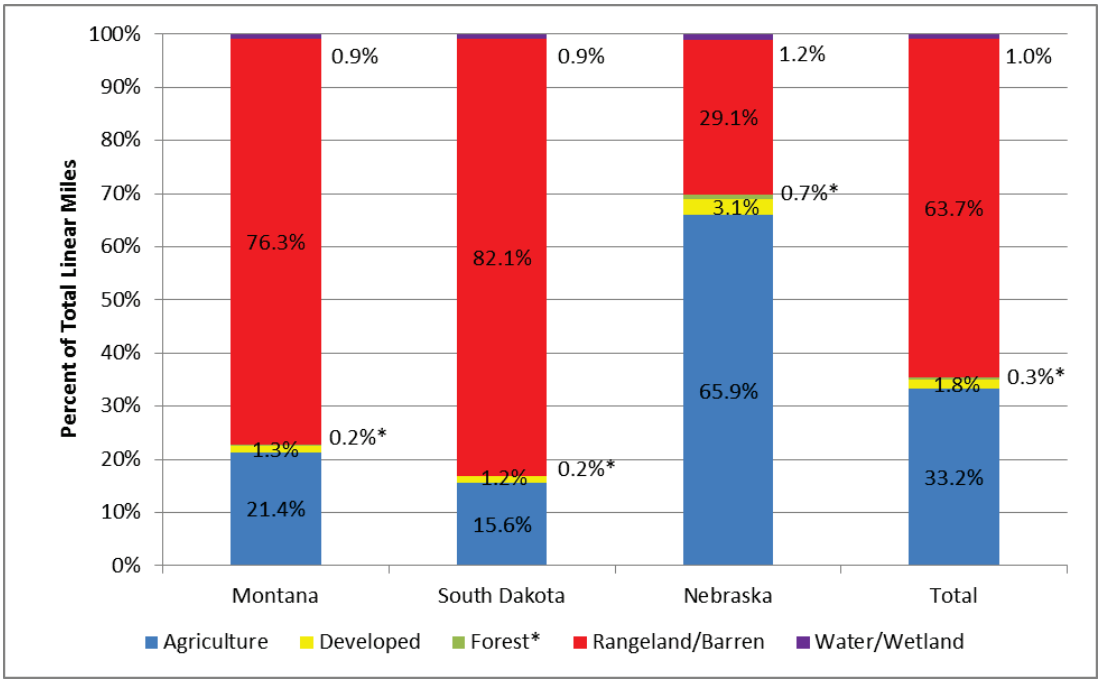

Figure 3.9.1-2 Land Crossed by the Proposed Project Route (% by Use)

[1] Ancillary facilities (e.g., access roads, pump stations, and construction camps) in North Dakota and Kansas are discrete facilities and are not associated with proposed Project pipeline mileage. Accordingly, they are not included in Figures 3.9.1-1 and 3.9.1-2.

3.9.2 Environmental Setting

3.9.2.1 *Land Ownership*

The proposed Project would cross approximately 875 linear miles of land (see Table 3.9-1), including approximately 285 miles in Montana, approximately 316 miles in South Dakota, and approximately 274 miles in Nebraska. Ancillary facilities (e.g., access roads, pump stations, and construction camps) not adjacent to the proposed Project's pipeline would also be built in North Dakota and Kansas. The land crossed by the proposed Project is primarily private land (approximately 770 miles). In addition, the proposed route would cross approximately 45 miles of federal land, all of which is managed by the Bureau of Land Management (BLM), and 60 miles of state- or local government-owned land.

The location of a proposed construction camp in northern Nebraska and the locations of four proposed pump stations (pump stations 22 to 25) have not been determined at this time, but would each occupy an additional 5 to 15 acres of land. The camp would occupy approximately 50 to 100 acres, with an ideal location being near the midpoint of Construction Spread 8 for the proposed pipeline (exp Energy Services Inc. 2012a).

Table 3.9-1 Land Ownership along the Proposed Project Route (Miles)

	Land Ownership Status				
State	**Federal**	**State[a]**	**Local (Public)[b]**	**Private**	**Total[c]**
Montana	44.8	30.2	0.0	210.4	285
South Dakota	0.0	27.1	0.5	288.7	316
Nebraska	0.0	2.8	0.0	271.2	274
Total[d]	**44.8**	**60.1**	**0.5**	**770.3**	**875**
Percent of Total	**5.1%**	**6.9%**	**<0.1%**	**88.0%**	**100%**

Sources: ERM, exp Energy Services Inc. 2012a; exp Energy Services Inc. 2012b

[a] Excludes state highway right-of-way (ROW).
[b] Excludes county and local road ROW.
[c] Totals may not match due to rounding.
[d] Ancillary facilities in North Dakota and Kansas are discrete facilities and therefore are not associated with proposed Project pipeline mileage. The pipe yard and rail siding located in North Dakota would occupy approximately 56 acres of private land. The two pump stations in Kansas would each occupy approximately 15 acres of private land.

3.9.2.2 *Land Use*

Agricultural Land Use

Based on the mileage of land crossed as shown in Table 3.9-2, agricultural land constitutes approximately 33 percent of the land crossed by the proposed Project route. Crop type along the proposed pipeline route is estimated using statewide statistics. Table 3.9-3 shows the acreage devoted to crops, by principal crop type, in the states in which proposed Project facilities are located.

Table 3.9-2 Land Use Crossed by the Proposed Project Route (Miles)

	Land Use Type							
State	**Agriculture**	**Developed**	**Forest**	**Rangeland**	**Barren**	**Water**	**Wetland[a]**	**Total[b]**
Montana	61.0	3.6	0.6	217.9	0.1	0.3	1.9	285
South Dakota	49.4	3.7	0.5	259.5	0.4	0.3	2.8	316
Nebraska	180.5	8.5	1.9	79.8	0.0	0.7	2.5	274
Total[c]	290.9	15.8	3.0	557.2	0.5	1.3	7.2	875
Percent of Total	**33.2%**	**1.8%**	**0.3%**	**63.7%**	**<0.1%**	**0.1%**	**0.8%**	**100%**

Source: exp Energy Services Inc. 2012a; exp Energy Services Inc. 2012b

[a] The designations in Table 3.9-2 reflect mapping of actual use of the land surface. Some wetland areas that are part of (and used as) cultivated fields, forests, rangeland, or developed areas may not be included in the wetlands category. As a result, the values for wetlands and waterbodies in Table 3.9-2 may differ from values in Section 3.3, Water Resources; Section 3.4, Wetlands; and Section 3.5, Terrestrial Vegetation.
[b] Totals may not match due to rounding.
[c] Ancillary facilities in North Dakota and Kansas are discrete facilities and therefore are not associated with proposed Project pipeline mileage. The pipe yard and rail siding located in North Dakota would occupy approximately 56 acres of private land. The two pump stations in Kansas would occupy approximately 15 acres of private land.

Table 3.9-3 Statewide Harvested Acreages of Most Commonly Harvested Principal Crops, 2012[a]

State	**Crop**	**Harvested Acres of Principal Crops by State (1,000s)b**	**Percent of Total (by State)b**
Montana	Wheat for Grain, All	5,585	63.2%
	Hay and Forage, All	2,200	24.9%
	Barley for Grain	790	8.9%
	Other Principal Crops	258	2.9%
	Total Principal Cropland[c]	**8,833**	**100%**
North Dakota	Corn for Grain	3,460	15.3%
	Wheat, All	7,760	34.3%
	Barley for Grain	1,010	4.5%
	Soybeans	4,750	21.0%
	Hay, All	2,190	9.7%
	Other Principal Crops	3,472	15.3%
	Total Principal Cropland	**22,642**	**100%**
South Dakota	Corn for Grain	5,300	31.5%
	Soybeans	4,750	28.2%
	Hay, All	3,100	18.4%
	Wheat for Grain, All	2,235	13.3%
	Other Principal Crops	1,458	8.7%
	Total Principal Cropland	**16,843**	**100%**

State	Crop	Harvested Acres of Principal Crops by State (1,000s)b	Percent of Total (by State)b
Nebraska	Corn for Grain	9,100	48.2%
	Soybeans	3,835	20.3%
	Hay, All	2,570	13.6%
	Wheat for Grain, All	1,300	6.9%
	Other Principal Crops	2,091	11.1%
	Total Principal Cropland	**18,896**	**100%**
Kansas	Corn for Grain	3,950	17.6%
	Wheat for Grain, All	9,100	40.6%
	Sorghum for Grain	2,100	9.4%
	Soybeans, All	4,000	17.8%
	Hay, All	2,750	12.3%
	Other Principal Crops	520	2.3%
	Total Principal Cropland	**22,420**	**100%**

Source: USDA 2013

[a] 2012 is the most recent year for which agricultural census data are available.
[b] Totals may not match due to rounding.
[c] Principal crops include corn, sorghum, oats, barley, rye, winter wheat, Durum wheat, other spring wheat, rice, soybeans, peanuts, sunflower, cotton, dry edible beans, potatoes, canola, proso millet, sugarbeets, all hay, tobacco, and sugarcane. The Principal cropland total is not the grand total of all cropland in each state.

Developed Land

As stated in the Final EIS, the proposed Project route was surveyed in spring 2009 to determine the number of inhabited or abandoned buildings within 25 to 500 feet of the construction right-of-way (ROW) and to develop site-specific crossing plans and procedures for residences in close proximity of the ROW. The Nebraska portion of the proposed ROW, as well as other route modifications in Montana and South Dakota, were surveyed in spring/summer 2012. Based on aerial photography review, and as discussed in the Section 3.12.3, Noise (as shown in Table 3.12-8), 14 structures (but no residences [i.e., homes, mobile homes, and cabins]) were identified within 25 feet of the proposed construction ROW, and an additional 426 structures (including 36 residences) were identified within 500 feet of the proposed construction ROW (these figures exclude ancillary facilities in North Dakota and Kansas). The closest residences are located approximately 150 feet from the proposed construction ROW. Over 70 percent (318) of the structures identified within 500 feet and, 29 of the 36 residences, are located in Nebraska.

3.9.2.3 *Conservation Programs*

Table 3.9-4 details the conservation easements that would be crossed by the proposed Project route. As stated in the Final EIS, these easements are managed by either the USDA or the USFWS. Most of the easement miles crossed are associated with the Rainwater Basin Wetland Management District in Nebraska.

Table 3.9-4 USFWS, USDA, and Other Easements and Agreements Crossed by the Proposed Project Route

Easements[a]	Miles Crossed
Montana	
Cornwell Ranch Conservation Agreement (FWP)[b]	3.4
Philips County USFWS Wetland Easement	0.8
CRP[c] Agreement Land (consists of 39 easements)	9.4
South Dakota	
CRP Agreement Land (consists of 39 easements)	8.4
Nature Conservancy	0.5
Nebraska	
CRP Agreement Land (consists of 36 easements)	3.9
Rainwater Basin Wetland Management District (USFWS)	72.5

Source: MFWP 2008; USFWS 2007; exp Energy Services Inc. 2012a; exp Energy Services Inc. 2012b

[a] Ancillary facilities in North Dakota and Kansas are discrete facilities and therefore are not associated with proposed Project pipeline mileage.
[b] FWP = Farmable Wetlands Program
[c] CRP = Conservation Reserve Program, see description in text

USDA Programs

The Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS), both part of the USDA, manage various types of government land conservation, cost-sharing, and financial programs. FSA programs include the Conservation Reserve Program (CRP) and the Farmable Wetlands Program (FWP). The FWP enrolls land through the CRP, which is one of the largest conservation programs in the country. Landowners with CRP contracts are provided rental payments and cost-sharing to develop long-term conservation vegetative covers on eligible farmland (including vegetative covers that enhance wetland function on FWP land). The program goals are to reduce erosion, improve water quality, enhance forest and wetland resources, and establish wildlife habitat. Landowners are encouraged to plant grasses, trees, and other vegetation on highly erodible cropland.

NRCS programs are voluntary private land conservation programs. They include easement programs to protect and restore wetlands and agricultural working lands, as well as, financial assistance programs to help farmers and ranchers improve the condition of the natural resources on their lands. The Grassland Reserve Program is implemented by both the FSA and NRCS, and provides rental and easement options. Both easements and rental contracts for these programs are available for a variety of durations, and some easements could be made in perpetuity. The proposed Project would not cross any NRCS conservation easements. It would, however, affect a number of NRCS financial assistance conservation program agreements, as well as, a number of FSA, CRP, and FWP agreements.

USFWS Programs

A USFWS wetland easement is a legal agreement that provides compensation to landowners to permanently protect wetlands. Wetlands covered by an easement cannot be drained, filled, leveled, or burned. When these wetlands dry up naturally, they could be farmed, grazed, or hayed. The easements typically allow localized, low-intensity, or broad extraction of natural resources (e.g., logging or mining). The proposed Project route would cross a USFWS wetland

easement in the vicinity of Mileposts 4 and 5. It would also cross portions of the Rainwater Basin Wetland Management District (WMD). The Rainwater Basin itself is a "complex of wetlands scattered throughout a 17-county area" south of the Platte River in south-central Nebraska (USFWS 2012a). The Rainwater Basin wetlands are used by migratory birds in the spring and fall. The Rainwater Basin WMD is a public entity. Within the WMD, designated and enrolled wetlands and some surrounding lands are managed jointly by the USFWS and the Nebraska Game and Parks Commission to maintain wetland function and wildlife habitat. While the proposed Project route would cross through the WMD, it would not cross any wetlands or other lands managed by the USFWS or the State of Nebraska.

Recreation and Special Interest Areas

The proposed Project route would cross approximately 106 miles of recreation and special interest areas in Montana, South Dakota, and Nebraska (see Table 3.9-5). These areas would include local, state, or federal public lands, recreational waterbodies, state parks and forests, NHTs, wildlife management areas, and wildlife refuges.

The proposed Project would not affect any national parks or national forests; however, the proposed Project route would cross five NHTs. The National Park Service (NPS) manages but does not own these NHTs, which "commemorate historic (and pre-historic) routes of travel that are of significance to the entire Nation" (NPS 2012). The proposed Project route would cross NHTs both at the site of the *actual* trail (i.e., the documented or likely route that the NHT commemorates, often on private land or on rivers) and at public roads designated as NHT driving routes, which approximate the actual trail, at the following locations:

- Lewis and Clark NHT, actual trail: Yellowstone and Missouri Rivers in Montana
- Lewis and Clark NHT, driving route: Interstate 94 near Fallon, Montana; Montana Route 200 near Circle, Montana; and US Route 2 near Fort Peck, Montana
- California NHT, actual route: Platte (one crossing) and Loup (two crossings) Rivers in Nebraska
- California NHT, driving route: Nebraska Route 193 and US Route 30 near Clarks, Nebraska
- Oregon and Pony Express NHT, actual route: approximately 2 miles north of the Steele City terminus of the proposed Project
- Oregon and Pony Express NHT, driving routes (shared road segment): Nebraska Route 8 near Steele City
- Mormon Pioneer NHT, actual route: Loup River in Nebraska
- Mormon Pioneer NHT, driving route: NE Route 22 near Fullerton, Nebraska

Table 3.9-5 Recreation and Special Interest Areas Crossed by the Proposed Project Route

State	Name/Ownership	Miles Crossed
Montana	Montana State Trust Lands	30.2
	Bureau of Land Management	15.1
	US Forest Service Bankhead-Jones Land (managed by BLM)	29.7
	Missouri River (Milepost [MP] 89); Yellowstone River (MP 196)	0.2
	Lewis and Clark National Historic Trail	<1
South Dakota	Spring Creek (MP 347); Cheyenne River (MP 426); Sarah Laribee Creek (MP 465)	0.4
	State School Land	27.1
	Mni Wiconi Rural Water Supply System (MWRWSS)	<1
Nebraska	Bureau of Reclamation—canal	0.1
	Nebraska Board of Education Lands & Funds	2.8
	Cowboy Hiker/Biker Trail (state)	<1
	Outlaw Scenic Byway (state)	<1
	Mormon Pioneer National Historic Trail	<1
	Pony Express National Historic Trail	<1
	California National Historic Trail	<1
	Oregon National Historic Trail	<1
Total[a]		**105.6**

Source: exp Energy Services Inc. 2012a; exp Energy Services Inc. 2012b

[a] Excludes trail crossings. Ancillary facilities in North Dakota and Kansas are discrete facilities and therefore are not associated with proposed Project pipeline mileage.

BLM field offices are required to manage federally owned public lands that would be crossed by the proposed Project route according to the following resource management plans, all of which are for lands in Montana: Big Dry, Powder River, and Judith Valley Phillips (BLM 1996, 1985, and 1992, respectively). These federal lands are primarily composed of grasslands leased to farmers with livestock. Planned construction and operation of the proposed Project would be consistent with existing leases, management plans, and current land uses.

As discussed in the Section 3.3.3, Surface Water, the proposed Project route would cross 1,073 waterbodies in Montana, South Dakota, and Nebraska, including 56 perennial streams or rivers. Existing water-based recreational use likely takes place on or near these perennial waterbodies. State environmental agencies have listed recreation as a designated use for 34 of these waterbodies (including some waterbodies other than perennial streams and rivers), as shown in Table 3.9-6.

Table 3.9-6 Perennial Waterbodies with Recreational Use Designations[a]

Montana	South Dakota[b]	Nebraska
Frenchman River	Little Missouri River	Keya Paha River
Buggy Creek	South Fork Grand River	Niobrara River
Cherry Creek	Clarks Fork Creek	Big Sandy Creek
Milk River	North Fork Moreau River	North Branch Eagle Creek
Missouri River	South Fork Moreau River	Middle Branch Eagle Creek
Middle Fork Prairie Elk Creek	Pine Creek	South Branch Verdigre Creek
East Fork Prairie Elk Creek	Cheyenne River	Elkhorn River
Redwater River	Bad River	Beaver Creek
Yellowstone River	Williams Creek	Loup River
Pennel Creek	White River	Platte River
Sandstone Creek		West Fork Big Blue River
Little Beaver Creek		
Boxelder Creek		

Source: See sources for Tables 3.3-3, 3.3-5, and 3.3-7 in Section 3.3.3, Surface Water.

[a] Ancillary facilities in North Dakota and Kansas are discrete facilities and therefore are not associated with proposed Project pipeline mileage.
[b] All listed waterbodies in South Dakota are designated for *limited contact recreation* except for Williams Creek, which has no such limitation.

None of the waterbodies that would be crossed have been designated by federal, state, or local authorities as wild and/or scenic. The proposed Project would cross the Niobrara River approximately 12 miles downstream (waterbody centerline distance) from the eastern (downstream) terminus of the Niobrara National Scenic River segment, and approximately 46 miles (waterbody centerline distance) upstream of a reach of the Niobrara that is designated as both a WSR and an NRR. The proposed Project would cross Big Springs Creek (a tributary to Verdigre Creek, which in turn is a tributary to the Niobrara just upstream from its confluence with the Missouri River) approximately 29 miles (waterbody centerline distance) upstream from the reach of Verdigre Creek designated as both a WSR and NRR. The proposed Project would cross other tributaries of Verdigre Creek and the Niobrara more than 29 miles (waterbody centerline distance) upstream from the special-designation reaches.

3.9.2.4 *Visual Resources*

Visual resources are the visible physical features of a landscape that have an aesthetic value to viewers from viewpoints such as residences, recreation areas, rivers, and highways. All land has inherent visual values that warrant different levels of management. Aesthetic judgment, especially related to landscape views, is often considered subjective.

As a federal land-management agency, BLM is charged with managing the scenic resources of public lands through the Federal Land Policy and Management Act of 1976, as amended. As a result of that responsibility, the BLM's Visual Resource Management (VRM) methodology has been developed to identify and evaluate scenic resources under its jurisdiction and develop management objectives for those resources. The system classifies resources based on scenic quality, viewer sensitivity to visual change, and viewing distance (BLM 1980, 1984, and 1986).

Regulatory Framework

BLM Visual Resource Management

Montana is the only state in which the proposed Project route crosses through federal lands. These lands are managed by the BLM and are thus subject to BLM's VRM objectives. The system includes four visual inventory classes (BLM 1986): Classes I and II are the most valued, Class III represents a moderate value, and Class IV is of least value. Management objectives for each class are tailored to the inherent visual value of the respective landscape. The Class I objective is to "preserve the existing character of the landscape" (BLM 1986), including the natural ecological qualities, although some very limited management activity (i.e., alteration to the visual environment, such as tree removal or creation of roads, for the purpose of achieving other BLM objectives) is permitted. The Class II objective is to preserve the existing character of the landscape while keeping landscape changes to a minimum. Whatever landscape changes occur should reflect the ambient colors, textures, and form of the surrounding features. The Class III objective is to keep landscape changes moderate while retaining some portion of the existing character of the landscape. Landscape changes should reflect the basic features found in the landscape character and should not attract much attention or dominate the view. The Class IV objective allows management activities that require major alterations to the existing character of the landscape that may dominate the view, although "every attempt should be made to minimize the impact of these activities through careful location [and] minimal disturbance" (BLM 1986).

With respect to the proposed Project, visual resource analysts for the Malta and Miles City BLM Field Offices conducted land inventories within their respective jurisdictions in Montana. Both offices recognize that federal lands are intermingled among private lands along the proposed route. While BLM cannot enforce VRM provisions on lands that they do not manage, non-federal property adjacent to federal land is often managed and maintained in a manner that is compatible to the VRM classifications. As described above, resource management plans for the Big Dry (BLM 1996), Powder River (BLM 1985), and Judith Valley Phillips (BLM 1992) Resource Areas contain additional information on VRM classifications.

National Historic Trails and National Scenic Rivers

The NPS manages the five NHTs crossed by the proposed Project route (see Table 3.9-5 and the discussion in the section titled Recreation and Special Interest Areas above). Visual resources on NHT property are governed by the regulations of the federal, state, local, or private entity that owns each trail segment. For example, visual resources on trail segments that cross federal land are managed under BLM VRM provisions. In addition, the National Trails System Act (P.L. 90-543, as amended through P.L. 111-11, March 30, 2009, also found in United States Code, Volume 16, Sections 1241-1251) indicates that "Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act are included as Federal protection components of a national historic trail." Visual resources on private land trail segments are managed through the legal agreement between the landowner and NPS or state agencies (if any exist). There are no specific NPS regulations or guidelines related to visual resources for the trails as a whole (NPS 1999), and NPS does not own or manage any of the NHT segments crossed by the proposed Project route. One NHT crossing occurs on (or adjacent to) federal land: the crossing of the Lewis and Clark NHT Missouri River segment near the confluence of the Missouri and Milk

Rivers. Otherwise, all NHT crossings occur on private, state, or locally owned property. Crossings of waterbodies with Scenic (i.e., WSR) designations are described above in the section titled Recreation and Special Interest Areas.

BLM Scenic Byways

The proposed Project route would cross one scenic byway: the Big Sky Back Country Byway in Montana (designated by the BLM in 2000). BLM's Byways Program is a component of the National Scenic Byways Program (BLM 2012); visual resources along BLM-owned byways are managed according to VRM requirements.[2]

State Guidance

South Dakota and Nebraska do not have formal guidelines for managing visual resources for private or state-owned lands. Montana's Major Facility Siting Act regulates visual impacts, but exempts pipeline projects (Montana Environmental Quality Council 1985). The prevailing landscape characteristics for land within and surrounding the proposed Project area are discussed below.

Existing Visual Setting

The proposed Project route crosses a variety of landscapes, including wetlands, waterways, floodplains, grassland/rangeland, and upland forest. The most common landscapes that would be affected during construction of the proposed Project consist of grasslands, rangelands, upland forest, and riparian areas (some of which are forested). Nighttime visual conditions are notable for the relative absence of manufactured sources of light, such as street lamps or the glow from major urban areas (U.S. Department of the Interior 2013).

Portions of the proposed Project route would follow existing utility ROWs and roads, while other segments would require a new ROW. The BLM manages all federal lands that the proposed Project route crosses—approximately 45 linear miles in Montana—and no federal lands are crossed by the route in other states. NHTs are managed by NPS, but are not necessarily federal lands. Visual resources for these trails are managed in accordance with the regulations of the agency or entity that owns the land that the trail traverses. Table 3.9-7 summarizes the BLM VRM classifications for federal lands crossed by the proposed Project route in Montana.

Table 3.9-7 VRM Classifications of Land Crossed by the Proposed Project Route in Montana

VRM Class (Linear Miles Crossed)[a]				
Class I	**Class II**	**Class III**	**Class IV**	**Total**
0	10.2	2.4	15.2	27.7

Source: BLM 2012

[a] Reflects only the Big Dry and Powder River Resource Areas. VRM data for the Judith Valley-Phillips Resource Area were not available.

[2] BLM Byways Handbook (8357-1) provides specific direction for BLM's Byways program.

3.9.3 Connected Actions[3]

This section describes the baseline conditions for land affected by actions connected to the proposed Project. There are three connected actions of the proposed Pipeline route:

- Bakken Marketlink Project;
- Big Bend to Witten 230-kV Transmission Line; and
- Electrical Distribution Lines and Substations.

3.9.3.1 *Bakken Marketlink Project*

Construction and operation of the Bakken Marketlink Project would consist of a 16-inch pipeline approximately 5 miles in length, additional piping, booster pumps, meter manifolds, and two 250,000-barrel tanks that would be used to store crude from connecting third-party pipelines and terminals. The Bakken Marketlink Project facilities would be located within private land currently used as pastureland and hayfields (see Table 3.9-8). A survey of the property on which the Bakken Marketlink Project would be located indicated that there were no waterbodies or wetlands on the property. The pipeline portion of the Bakken Marketlink Project would cross Sandstone Creek, which has a recreational use designation (see Table 3.9-6), but is not near any other recreational resources similar to those described in Section 3.9.2, Environmental Setting. The visual setting of the Bakken Marketlink Project is similar to that of the proposed Project in this area.

Table 3.9-8 Land Use Crossed by the Bakken Marketlink Project

	Land Use (miles)					
	Agriculture	**Developed**	**Forest**	**Rangeland**	**Water/Wetland[a]**	**Total[b]**
Length	1.1	0.1	0	3.9	0	5.1
Percent of Total	21.4%	1.9%	0	76.6%	0	100%

Source: exp Energy Services Inc. 2012c; USGS 2006

[a] See footnote a for Table 3.9-2. The values for wetlands and waterbodies in this table may differ from values in Section 3.3, Water Resources; Section 3.4, Wetlands; and Section 3.5, Terrestrial Vegetation.
[b] Totals may not match due to rounding.

3.9.3.2 *Big Bend to Witten 230-kV Transmission Line*

This section discusses the land use, recreation, and visual resources potentially affected by the proposed Big Bend to Witten 230-kV Transmission Line Project. The Big Bend to Witten 230-kV Transmission Project is located in Lyman and Tripp counties in south-central South Dakota. The project would consist of replacing the existing Big Bend-Fort Thompson No. 2 230-kV Transmission Line Turning Structure on the south side of the Big Bend Dam on Lake Sharpe; constructing a new double-circuit 230-kV transmission line for approximately 1 mile southwest of the dam; and constructing a new Lower Brule Substation south of the dam.

[3] Connected actions are those that 1) automatically trigger other actions which may require environmental impact statements, 2) cannot or will not proceed unless other actions are taken previously or simultaneously, 3) are interdependent parts of a larger action and depend on the larger action for their justification.

The existing Witten Substation would be expanded immediately to the northeast to accommodate the new 230-kV connection.

Land Ownership and Land Use

The Applicant Preferred Route of the 76 mile Big Bend to Witten 230-kV Transmission Line in South Dakota would cross approximately 9 miles of the Lower Brule Sioux Reservation. The remainder of the route would be on private land. Table 3.9-9 summarizes the land use categories that would be crossed by the Applicant Preferred Route.

Table 3.9-9 Land Use Crossed by the Big Bend to Witten 230-kV Transmission Line Applicant Preferred Route

	Land Use (miles)					
	Agriculture	**Developed**	**Forest**	**Rangeland**	**Water/Wetland[a]**	**Total[b]**
Length	24.4	7.1	0.2	43.7	0.4	75.8
Percent of Total	32.2%	9.4%	0.3%	57.7%	0.5%	100%

Source: Basin Electric Power Cooperative Big Bend to Witten 230-kV Transmission Project Routing Report (see Appendix J), USGS 2006

[a] See footnote a for Table 3.9-2. The values for wetlands and waterbodies in this table may differ from values in Section 3.3, Water Resources; Section 3.4, Wetlands; and Section 3.5, Terrestrial Vegetation.
[b] Totals may not match due to rounding.

Recreation and Special Interest Areas

The potential alternative corridors for this connected action would be located within or near five identified recreation areas managed by the Lower Brule Indian Reservation in the Lake Sharpe area. The Good Soldier Creek Recreation Area and the Trailwaters Recreation Area are east and west of State Highway 47, and the proposed transmission line would parallel Highway 47 in this vicinity. The Counselor Creek Recreation Area is approximately 3 miles west of the transmission line corridors (which are close together in this location). The Fort Thompson Recreation Area and North Shore Recreation Area are on the north shore of Lake Sharpe, also near the point where the alternative corridors would cross the lake.

Year-round recreation opportunities in these areas include shore fishing, hiking, picnicking, camping, boating, horseback riding, all-terrain vehicle riding, snowmobile and dirt bike riding, cross-country skiing, wildlife viewing, and photography. Recreational access permits are required for all non-tribal members using these recreation areas and all other tribal lands.

Water-based recreational opportunities are present at perennial and intermittent stream crossings and on Lake Sharpe. The Applicant Preferred Route crosses three perennial streams and runs parallel to and within 100 feet of a perennial stream for approximately 5.3 miles (see Appendix J, BEPC Routing Report) (see Section 4.3.5.2, Big Bend to Witten 230-kV Transmission Line).

Visual Resources

The Big Bend to Witten 230-kV Transmission Line alternatives would pass through sparsely populated areas in Lyman and Tripp counties. Communities within the alternative corridors include Reliance and Hamill, with 2010 populations of 191 and 11, respectively (U.S. Census Bureau 2010). The Lower Brule Indian Reservation is located at the proposed northern terminus.

3.9.3.3 *Electrical Distribution Lines and Substations*

Multiple private power companies or cooperatives would construct distribution lines to deliver power to 20 pump stations located along the length of the pipeline in the United States. These distribution lines would range in length from approximately 0.1-mile to 62 miles, with the average being 13 miles long, and are estimated to extend about 377 miles, combined. The distribution lines would range in capacity from 69 kV to 240 kV, but the majority would have a capacity of 115 kV. The lines would be strung on a single-pole and/or on H-frame wood poles. This section describes the baseline conditions in areas that could potentially be affected by distribution lines from existing external power lines to facilities of the proposed Project. The pipe yard and rail siding in North Dakota would not require construction of electrical distribution lines or substations. At this time, the precise locations of four pump stations in Nebraska have not been determined.

Land Ownership

Table 3.9-10 shows the ownership of land that the distribution line ROWs would cross in Montana and South Dakota. Private land comprises the majority of the land crossed by these ROWs.

Table 3.9-10 Land Ownership along the Proposed Power Distribution Line ROWs (Miles)

State[a]	Federal	State	Local	Private	Total[b]
Montana	38.6	7.5	1.2	90.9	138.2
South Dakota	6.1	12.7	3.1	139.1	161.0
Total, MT and SD	44.7	20.2	4.3	230.0	299.2
Percent of MT and SD Total	14.9%	6.8%	1.4%	76.9%	100%

Source: exp Energy Services Inc. 2012b

[a] The location of electrical distribution lines in Nebraska and Kansas have not been determined.
[b] Totals may not match due to rounding.

Land Use

Land use categories along the proposed power distribution line ROWs include developed land, agricultural land, rangeland, forest land, and waterbodies and wetlands (see Table 3.9-11). The descriptions of these uses are similar to those for lands that would be crossed by the proposed Project route, as discussed in Section 3.9.2, Environmental Setting. There would be 14 existing buildings within 50 feet of the power lines in Montana and 48 in South Dakota (exp Energy Services Inc. 2012b).

Table 3.9-11 Land Use along the Proposed Power Distribution Line ROWs (Miles)

State[a]	Land Use Type						Total[c]
	Agriculture	Developed	Forest	Rangeland	Water	Wetland[b]	
Montana	25.8	2.7	0.5	107.6	1.3	0.5	138.4
South Dakota	42.5	17.4	0.5	97.9	1.6	1.1	161.0
Total, MT and SD	68.3	20.1	1	205.5	2.9	1.6	299.4
Percent of MT and SD Total	22.8%	6.7%	0.3%	68.6%	1.0%	0.5%	100%

Source: exp Energy Services Inc. 2012b

[a] The locations of electrical distribution lines in Nebraska and Kansas have not been determined.
[b] See footnote a for Table 3.9-2. The values for wetlands and waterbodies in this table may differ from values in Section 3.3, Water Resources; Section 3.4, Wetlands; and Section 3.5, Terrestrial Vegetation.
[c] Totals may not match due to rounding.

Recreation and Special Interest Areas

The proposed power distribution lines would likely cross recreation and special interest areas, as described in Table 3.9-12. No recreation or special interest areas would be crossed by these features in Nebraska.

Table 3.9-12 Recreation and Special Interest Areas Likely to be Crossed by Power Distribution Lines

State[a]	Name/Ownership	Miles Crossed
Montana	BLM: Resource Management Area, Malta District	17.1
	U.S. Forest Service (USFS): Bankhead-Jones Lands[b]	18.5
	USFWS: Charles M. Russell National Wildlife Refuge	2.1
	Montana State Trust Lands	7.7
South Dakota	USFS: Custer National Forest	2.6
	South Dakota State Trust Lands	10.1

Source: exp Energy Services Inc. 2012b; USGS 2011

[a] The locations of electrical distribution lines in Nebraska and Kansas have not been determined.
[b] These lands are administered by USFS under the provisions of the Bankhead-Jones Farm Tenant Act of 1937 (7 United States Code 1000). This law "directs the Secretary of Agriculture to develop a program of land conservation and utilization in order to correct maladjustments in land use and thus assist in such things as control of soil erosion, reforestation, preservation of natural resources and protection of fish and wildlife" (USFWS 2012b).

Visual Resources

The BLM uses the VRM system (see the Existing Visual Setting subsection above) to manage visual resources on its lands, while the USFS uses the Scenery Management System (SMS) to manage visual conditions on its lands. The SMS is comparable to the VRM system; Agriculture Handbook 701 (1995) provides guidance for implementation of the SMS. Within SMS, lands are determined to have High, Medium, or Low Scenic Integrity Objectives (USDA 1995). The specific VRM and SMS classes crossed by the power distribution lines would be dependent on the final alignment of those lines.

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