

3.4 WETLANDS

3.4.1 Introduction

This section discusses wetland resources in the proposed Project area. The description of wetland 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 and in many instances replicates that information with relatively minor changes and updates. Other information is entirely new or substantially altered from that presented in the Final EIS. Specifically, the following information, data, methods, and/or analyses have been substantially updated in this section from the 2011 document:

- An expanded description of the wetland resources encountered within the proposed Project area is provided and includes figures to illustrate the proposed pipeline route relative to regional ecosystems and wetlands within Montana, South Dakota, and Nebraska. The description of wetland resources is based on information from field surveys, including additional field surveys conducted by TransCanada Keystone Pipeline, LP (Keystone) along the Nebraska portion of the proposed pipeline route, and on information and data provided by government agencies;
- An expanded description of wetland resources of special concern that are known or have potential to occur within the proposed Project area is included; and
- A new section (Section 3.4.4, Federal and State Regulatory Setting) has been added to describe applicable federal and state wetland regulations that may apply to the proposed Project.

3.4.2 Environmental Setting

Wetlands are areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of wetland vegetation typically adapted for life in saturated soil conditions (Cowardin et al. 1979). Wetland ecosystems are dynamic and often have fluctuating levels of water and saturation and a variety of wetland vegetation that includes floating, submerged, and/or emergent (erect, rooted, and herbaceous plants) (Cowardin et al. 1979). Being a dynamic system, not all wetlands are wet year round, and, conversely, not all wet areas qualify as wetlands.

Functions provided by wetlands within the proposed Project area include surface water storage (flood control), shoreline stabilization (wave damage protection/shoreline erosion control), stream flow maintenance (maintaining aquatic habitat and aesthetic appreciation opportunities), groundwater recharge, sediment removal and nutrient cycling (water quality protection), aquatic productivity support (fishing, shell fishing, and waterfowl hunting), production of trees (timber harvest), production of herbaceous growth (livestock grazing and haying), production of peaty soils (peat harvest), and provision of plant and wildlife habitat (hunting, trapping, photography, nature observation, and aesthetics) (U.S. Environmental Protection Agency [USEPA] 2001). The degree to which a given wetland performs these functions depends on a number of factors including wetland type (e.g., wet meadows versus forested), landscape position (association with

rivers versus wet meadows), and level of impairment or impact. Many of the wetlands throughout the proposed Project area have been extensively altered by historical and current agricultural practices. Wetland alterations as a result of farming practices may limit the capacity for individual wetlands to perform certain wetland functions; however, wetlands of significant value do exist throughout the proposed Project area (see Section 3.4.3, Wetlands of Special Concern or Value).

Wetlands are classified according to shared environmental factors, such as vegetation, soils, and hydrology (Cowardin et al. 1979). Wetland systems within the proposed Project area are defined in Table 3.4-1 and are classified as palustrine or riverine / openwater, based on vegetation or surface water cover. These wetlands are composed of a dominance of trees, shrubs, persistent emergent herbaceous vegetation, or open water. Palustrine wetland types occur in various locations in the landscape, including along streams or rivers, adjacent to open water ponds or lakes, on slopes, or within depressions. Subsystems of the palustrine wetland types within the proposed Project area include palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO). Surface water dominated wetland types in the Cowardin et al. (1979) classification system include the scoured areas within river or stream bed systems of riverine wetlands (R) and open water (OW) within ponds or lake systems (lacustrine) (Table 3.4-1).

Table 3.4-1 Description of Wetland Types in Proposed Project Area

Wetland Type	Wetland Code	Description
Palustrine emergent wetland	PEM	Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All water regimes are included except those irregularly exposed. In areas with relatively stable climatic conditions, emergent wetlands maintain the same appearance year after year. In other areas, such as the prairies of the central United States, climatic fluctuations cause them to revert to an open water phase in some years. Emergent wetlands are known by many names, including marsh, wet meadow, fen, prairie pothole, and slough.
Palustrine forested wetland	PFO	Forested wetlands are characterized by woody vegetation that is 6 meters tall or taller. Forested wetlands are most common in the eastern United States and in those sections of the West where moisture is relatively abundant, particularly along rivers and in the mountains. Forested wetlands normally possess an overstory of trees, an understory of young trees or shrubs, and an herbaceous layer. Forested wetlands are most often associated with riparian areas within the proposed Project area.
Palustrine scrub-shrub wetland	PSS	Scrub-shrub wetlands include areas dominated by woody vegetation less than 6 meters tall. Vegetation forms found in this wetland type include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. Scrub-shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable communities. Scrub-shrub wetlands are often associated with riparian areas within the proposed Project area, but occur in non-riparian areas as well.

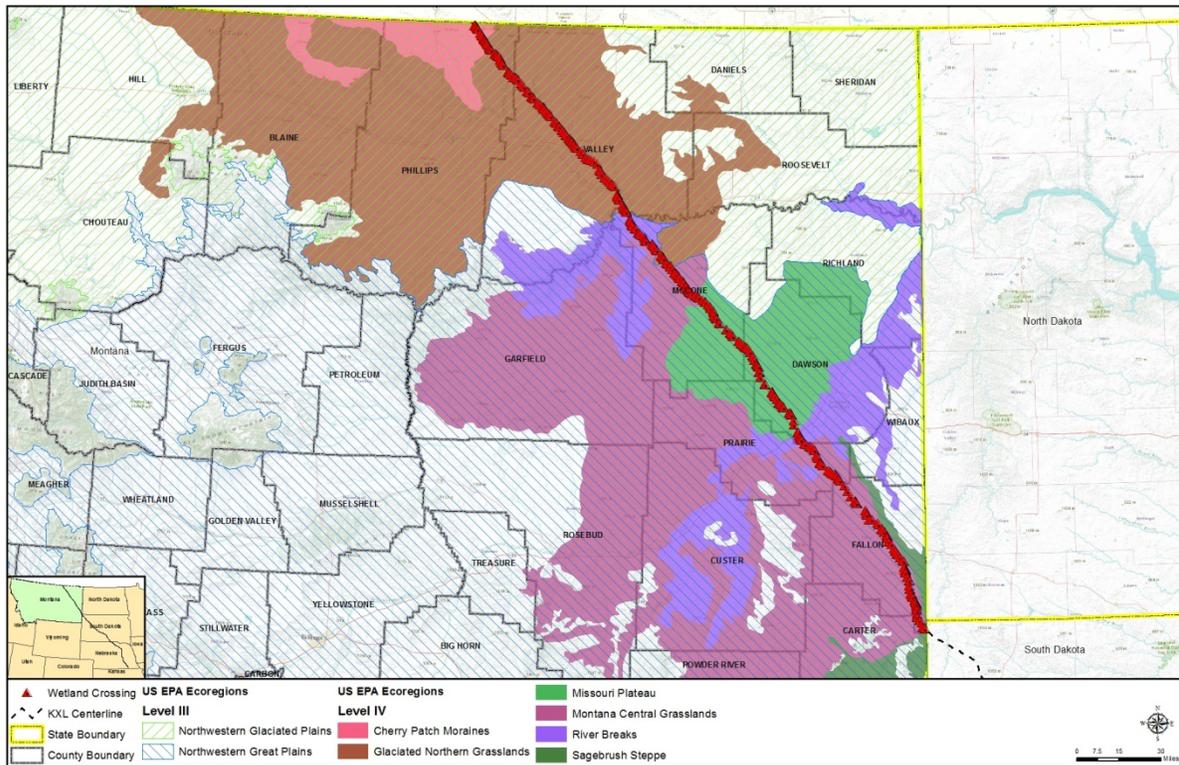
Wetland Type	Wetland Code	Description
Riverine perennial water	R2	The lower perennial subsystem includes low-gradient rivers and streams (riverine system) where some water flows throughout the year and water velocity is slow. The upper perennial subsystem includes high-gradient rivers and streams where some water flows throughout the year, water velocity is high, and there is little floodplain development. Perennial streams have flowing water year-round during a typical year, the water table is located above the stream bed for most of the year, groundwater is the primary source of water, and runoff is a supplemental source of water.
Riverine-intermittent water, ephemeral water	R4	The intermittent subsystem includes channels where the water flows for only part of the year, when groundwater provides water for stream flow. When water is not flowing, it may remain in isolated pools or surface water may be absent. Runoff is a supplemental source of water. Ephemeral streams have flowing water only during, and for a short duration after, precipitation events in a typical year. Groundwater is not a source of water for the stream.
Open water	OW	Open water habitats are rivers, streams, lakes, and ponds (riverine, lacustrine, and palustrine systems, respectively) where, during a year with normal precipitation, standing or flowing water occurs for a sufficient duration to establish an ordinary high-water mark. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered as open waters.

Source: Cowardin et al. 1979.

The following subsections present a general description of the wetland types encountered along the proposed pipeline route through each state. The primary area of focus for the proposed Project is Montana, South Dakota, and Nebraska where the pipeline would be located; however, there are Project-related facilities also located in North Dakota and Kansas.

3.4.2.1 Montana

The proposed pipeline route crosses the eastern plains of Montana, which are characterized by saline/alkaline wetlands, prairie pothole wetlands, and wetlands associated with rivers and streams (Montana Watercourse 2008). The distribution of wetlands identified in Montana is illustrated by ecoregion in Figure 3.4.2-1. “Ecoregion” is defined by the USEPA as “Areas of similarity regarding patterns in the mosaic of abiotic and biotic, aquatic and terrestrial ecosystem components, including geology, physiography, vegetation, climate, soils, hydrology, land use, and wildlife, with humans being considered as part of the biota” (Omernick 1995). The pipeline would pass through two USEPA Level III Ecoregions (USEPA 2010, 2011a, b): Northwestern Glaciated Plains and the Northwestern Great Plains. The Northwestern Glaciated Plains Ecoregion roughly corresponds to a similar U.S. Geological Survey (USGS) region known as the Prairie Pothole Region (USGS 2006a, b). The Prairie Pothole Region is characterized by emergent wetlands, small lakes, and saline/alkaline wetlands that occur within a landscape of glacial debris, rolling hills, depressions, and scars caused by glacial activity (USGS 2006a, b). The Northwestern Great Plains Ecoregion is characterized by pothole-like wetlands, herbaceous wet meadow wetlands, saline/alkaline wetlands, and riparian wetlands associated with streams and rivers.



Source: exp Energy Services Inc. 2012a; USFWS 2012; Fry 2011; USGS 2011; USEPA 2011a, b.

Figure 3.4.2-1 Montana Wetland Crossings and USEPA Ecoregions

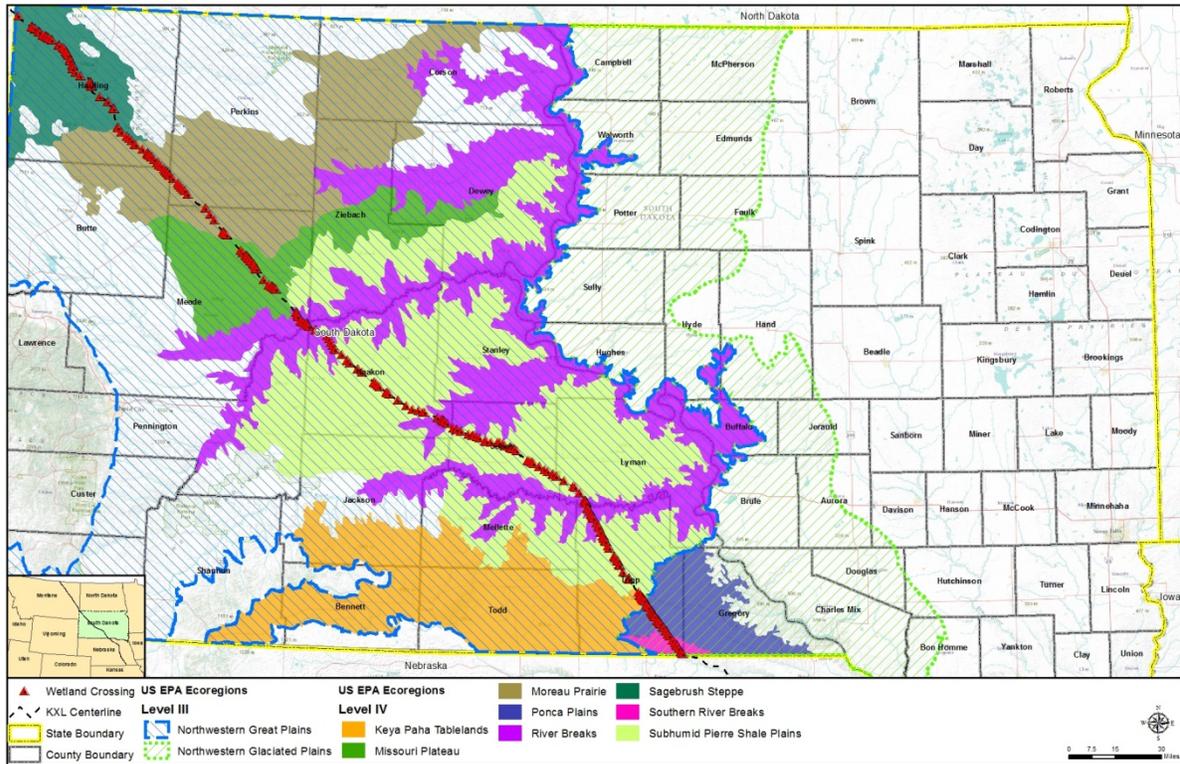
3.4.2.2 North Dakota

The only proposed-Project related facility in North Dakota would be a pipe yard and rail siding located in Bowman County, North Dakota. The pipe yard and rail siding are existing facilities that were previously built for other users and would be used by the proposed Project for the purpose of equipment and materials storage. The footprint for the pipe yard and rail siding would remain the same and no wetlands are located within the existing boundary of these sites.

3.4.2.3 South Dakota

The distribution of wetlands identified in South Dakota is illustrated by ecoregion in Figure 3.4.2-2. The proposed Project would pass through the same USEPA Level III Ecoregions as described for Montana. The majority of the wetlands along the South Dakota portion of the proposed route are associated with the Northwestern Great Plains Level III Ecoregion (i.e. herbaceous wet meadows, saline/alkaline wetlands, riparian wetlands, and pothole-like wetlands). Moving south, the route would pass through the Northwestern Glaciated Plains Level III Ecoregion. Again, this Ecoregion roughly coincides with the Prairie Pothole Region of South Dakota and includes emergent wetlands, small lakes, and saline/alkaline wetlands that occur within a landscape of glacial debris, rolling hills, depressions, and scars caused by glacial activity (USGS 2006a, b). Where the proposed route would pass through the very southern

portion of the state (i.e., Tripp County), shallow water table and near-surface aquifer conditions support wetlands associated with surface water features, such as ponds, lakes, streams, and rivers.



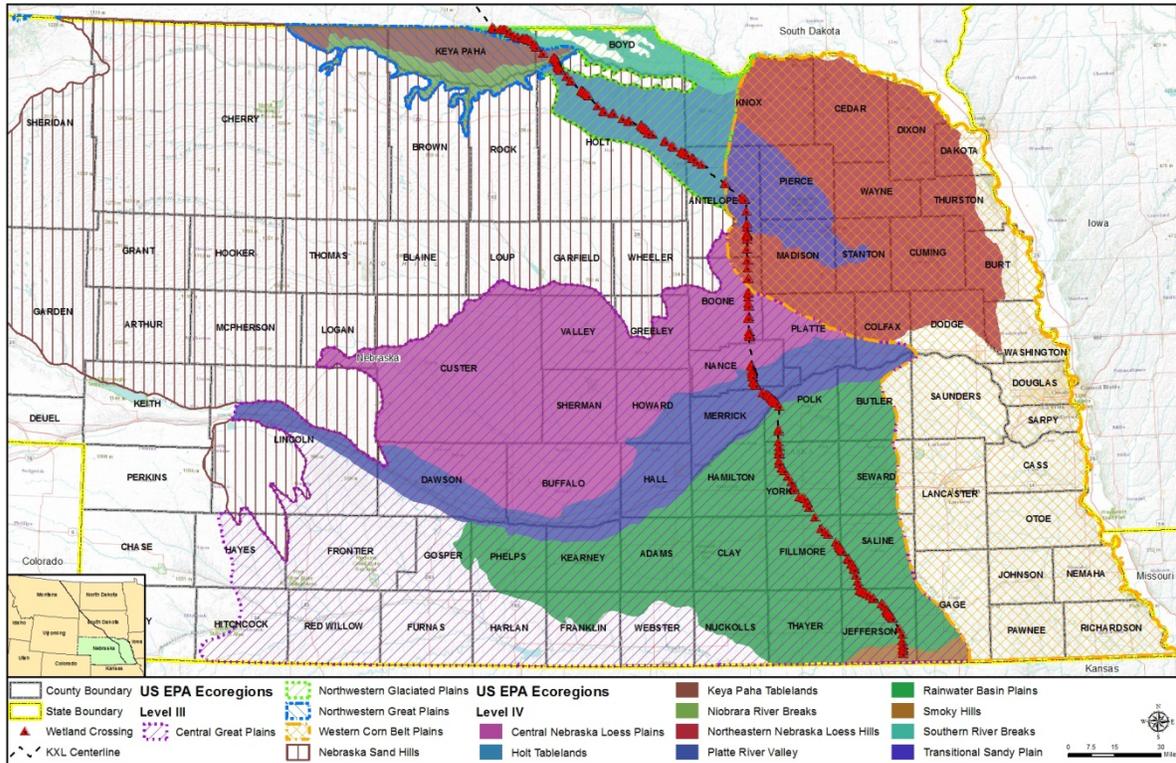
Source: exp Energy Services Inc. 2012a; USFWS 2012; Fry 2011; USGS 2011; USEPA 2011a, b.

Figure 3.4.2-2 South Dakota Wetland Crossings and USEPA Ecoregions

3.4.2.4 Nebraska

The distribution of wetlands identified in Nebraska is illustrated by ecoregion in Figure 3.4.2-3. The following USEPA Level III Ecoregions (USEPA 2010, 2011 a, b) would be crossed by the proposed Project: Northwestern Great Plains, Northwestern Glaciated Plains (i.e. Prairie Pothole Region), Western Corn Belt Plains, and Central Great Plains. Within these broad Ecoregions are several smaller regional complexes that have been referred to in previous Project reports (Final EIS). These smaller regional complexes include the Nebraska Department of Environmental Quality (NDEQ)-identified Sand Hills Region, the Central Table Playas, and the Rainwater Basin (Nebraska Game and Parks Commission [NGPC] 2005) (Figure 3.4.2-3). The NEDQ-identified Sand Hills Region wetlands and wetlands adjacent to this region have similar characteristics and include saturated wet meadows, shallow marshes, and lakes supported by shallow or near-surface aquifer conditions. Central Table Playa wetlands, located in the central portion of Nebraska, are associated with loess (wind-deposited silt) deposits and are typically

small, seasonally flooded wetlands. Wetlands in the Rainwater Basin of south-central Nebraska include wetlands associated with gently rolling loess-covered plains.



Source: exp Energy Services Inc. 2012a, b; NGPC 2011; Fry 2011; USFWS 2012; USGS 2011; USEPA 2011a, b.

Figure 3.4.2-3 Nebraska Wetland Crossings and USEPA Ecoregions

3.4.2.5 Kansas

The proposed Project would require two new pump stations, one in Clay County, Kansas, and another in Butler County, Kansas, in order to maintain the pressure required to transport crude oil at the desired throughput volumes. Based on National Wetland Inventory (NWI) mapping (U.S. Fish and Wildlife Service [USFWS] 2012), there are no wetlands within the footprint or immediate vicinity of either pump station.

Given that there are no known wetlands associated with proposed facilities located in North Dakota and Kansas, the remainder of this section will focus the wetland discussion on Montana, South Dakota, and Nebraska.

3.4.3 Wetlands of Special Concern or Value

The following are wetlands of special concern or value that are located within the proposed Project area.

3.4.3.1 Sensitive Wetland Areas

For the purpose of this analysis, sensitive wetland areas are regional wetlands that have been identified as being important natural resources including the Prairie Pothole Region in Montana, South Dakota, and northern Nebraska; wetlands that are in the vicinity of and with similar characteristics to the NDEQ-identified Sand Hills Region; and the Rainwater Basin Region in Nebraska.

Prairie Potholes Region

The Prairie Pothole Region of North America roughly coincides with the Northwestern Glaciated Plains (Level 3 EPA Ecoregion; USEPA 2010, 2011a), as mapped in Figures 3.4.2-1, 3.4.2-2, and 3.4.2-3. It extends from Canada southeast to Iowa, and also occurs in northern Montana, the eastern half of South Dakota, and the northern portion of Nebraska (USEPA 2010, 2011a, 2012a). This ecoregion is discussed further in Section 3.5, Terrestrial Vegetation.

The landscape of the Prairie Pothole Region is largely the result of glaciation events during the Pleistocene Epoch (about 11,000 to 1.6 million years ago). When the last glaciers retreated, they left a landscape scattered with small depressional wetlands called potholes or sloughs. Prairie potholes receive most of their water through rain and snowmelt. These pothole wetlands are important hydrologic features because of their importance in water movement. Water in these wetlands can move in three ways: from the wetland to the groundwater table (recharge), from groundwater table into wetland (discharge), and through the wetland at the surface of exposed water table (flow-through) (USGS 2006a, b). The USFWS has negotiated wetland easements with private landowners for some prairie potholes in Montana and South Dakota, including some that may be crossed by the proposed Project corridor. Private wetland easements may also potentially exist along the pipeline.

The Prairie Pothole Region is considered to have wetlands of special concern because it contains critical waterfowl breeding habitat that accounts for approximately 10 percent of the waterfowl breeding habitat on the continent (Young 1992). In addition, due to agricultural and commercial conversion, only an estimated 40 to 50 percent of prairie pothole wetlands remain undrained today (USEPA 2012a).

The proposed Project area passes through the Prairie Pothole Region in the following locations:

- Phillips, Valley, and McCone counties in eastern Montana, from milepost (MP) 0 to MP 90 and MP 110 to MP 117 (Figure 3.4.2-1);
- Tripp County in southern South Dakota, from MP 580 to MP 600 (Figure 3.4.2-2); and
- Keya Paha, Boyd, Holt and Antelope counties in Nebraska, from MP 601 to MP 618 (Figure 3.4.2-3).

Pothole wetlands are concentrated in these proposed Project corridor locations, but other depressional wetlands with pothole characteristics are located throughout the proposed Project corridor.

Sand Hill and Sand Hill-Like Wetland Regions

The Sand Hills Region is an NDEQ-identified region in the northern portion of Nebraska (NGPC 2011) that has been avoided by the proposed Project route (Figure 3.4.2-3). Certain portions of the proposed Project corridor, however, may cross through areas with near surface aquifer conditions, sandy soils, and poor revegetation potential (NDEQ 2012a). Wetlands may be present where the proposed Project corridor would pass northeast of the NDEQ-identified Sand Hills Region (NGPC 2011) (Figure 3.4.2-3). These wetlands may be traversed by the proposed Project in Holt and Antelope counties (MP 619 to MP 627, and MP 698 to MP 715). In addition, the NGPC has identified the “Loup/Platte River Sandhills Complex” (not part of the NDEQ-identified Sand Hills Region), near the Platte River in central-eastern Nebraska (NGPC 2005). This region has fragile soils and wetland characteristics and has a similar geographic footprint as the Platte River Valley Ecoregion illustrated on Figure 3.4.2-3. A portion of the proposed Project corridor in Nebraska would cross through this complex in Nance and Merrick counties (MP 762 to MP 776). Keystone has made numerous revisions to the proposed route to avoid known wetlands characterized by fragile and sandy soils.

Rainwater Basin Region

The Rainwater Basin Region in south-central Nebraska (Level 4 USEPA Ecoregion; USEPA 2010) was named for the abundant natural wetlands that formed where clay-bottomed playa depressions occur (Figure 3.4.2-3). These depressions flood quickly during heavy rainstorms and snow melt. The topography within the Rainwater Basin Region is relatively flat, with a poorly developed surface water drainage system. The Rainwater Basin Wetland Management District contains approximately 60 wetland easements in south-central Nebraska, and these are managed by the USFWS and the NGPC. There are approximately 34,103 acres of wetlands remaining in the Rainwater Basin (NGPC 2005), which is only about 10 percent of what historically occurred; the largest threat to these wetlands has been and continues to be habitat loss due to farmland conversion. The NGPC considers these wetlands to be endangered and the USFWS identified the Rainwater Basin wetlands as one of nine areas in the United States of critical concern for wetland losses (NGPC 2005). In addition, the Rainwater Basin Region provides important wildlife habitat for millions of birds, including the endangered whooping crane (see discussion on the wildlife that inhabits the Rainwater Basin Region in Subsection 3.6.2.1). The southern third of the proposed Project corridor in Nebraska, from approximately MP 777 to MP 872, would cross through the Rainwater Basin Plains Ecoregion illustrated in Figure 3.4.2-3.

3.4.3.2 Protected Wetlands

For the purpose of this analysis, wetlands that are protected under easements or agreements through voluntary government programs and resource conservation groups are considered sensitive. Easement-protected wetlands that may occur within the proposed Project area include: USFWS wetland easements, Natural Resources Conservation Service (NRCS) Wetland Reserve Program (WRP) agreements, NRCS Conservation Reserve Program (CRP) agreements, U.S. Department of Agriculture (USDA) Farmable Wetland Program (FWP) agreements, and various easements managed by natural resource conservation groups such as state land trusts, The Nature Conservancy, Ducks Unlimited, Pheasants Forever, and the Audubon Society to name a few.

The USFWS provides compensation to landowners to permanently protect wetlands under USFWS wetland easements (Title 16 of the United States Code Section 668dd[c]). These

wetlands cannot be drained, filled, leveled, or burned. There are several USFWS wetland easements in the Prairie Potholes Region in Montana and South Dakota that may be crossed by the proposed Project. In addition, there are several USFWS wetland easements within the Rainwater Basin Wetland Management District in Nebraska, some of which may be within the proposed Project area.

The WRP is a voluntary program administered by the NRCS. Under this program, NRCS provides technical and financial support to help landowners with their wetland restoration efforts, and in return the wetlands are placed under long-term or permanent protective agreements. The proposed Project would not cross any NRCS conservation agreements, but the proposed Project could affect a number of NRCS financial assistance conservation agreements. No WRP wetlands are known to occur in the proposed Project area, although they may be present.

The CRP is a voluntary program for agricultural landowners administered by the USDA Farm Service Agency. Landowners receive funds to establish long-term, resource-conserving vegetation cover to help prevent topsoil erosion and safeguard the nation's natural resources, including wetland resources. The proposed Project area crosses approximately 39 CRP agreements in Montana, 39 in South Dakota, and 36 in Nebraska (see CRP miles crossed in Table 3.9-4 of the Land Use, Recreation, and Visual Resources section); some of these CRP agreements may include wetlands.

The USDA Farm Service Agency also manages the FWP, which is a voluntary program to restore farmable wetlands and associated buffers. Under the FWP, farmed lands that were once wetlands, or lands that are currently constructed wetlands designed to receive flow for a row-crop agricultural drainage system, would have their hydrology restored to establish vegetative cover. FWP lands are enrolled through the CRP (described above). See Section 3.9.2.3 in the Land Use, Recreation, and Visual Resources section for more information on the CRP.

Natural resource groups such as state land trusts, The Nature Conservancy, Ducks Unlimited, Pheasants Forever, and the Audubon Society may also manage wetland conservation easements or lands that contain important wetland habitat within the proposed Project area.

3.4.3.3 Important Habitat for Wildlife and Threatened/Endangered Species

Wetlands that are of particular importance to wildlife include wetlands associated with migrating and nesting waterfowl; threatened/endangered and candidate species including, but not limited to, whooping crane (*Grus americana*), western prairie (white-) fringed orchid (*Platanthera praeclara*), and piping plover (*Charadrius melodus*); or wetlands that otherwise provide a limited resource for sensitive flora (vegetation) and fauna (animals). Details regarding important habitat for wildlife and threatened/endangered species are included in Section 3.6, Wildlife, and Section 3.8, Threatened and Endangered Species and Species of Conservation Concern.

3.4.4 Federal and State Regulatory Setting

Permits are required for the discharge of fill material into waters of the United States under the authority of Section 404 of the Clean Water Act (CWA). These permits would be obtained prior to construction in wetland areas. Waters of the United States include the area below the ordinary high water mark of stream channels and lakes or ponds connected to the tributary system, including wetlands adjacent to or wetlands with a *significant nexus* to these waters. "Waters have

the requisite significant nexus if they, either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters or interstate waters” (USEPA 2011c, 2012c). The Section 404 permitting process for Montana, South Dakota, and Nebraska is under the jurisdiction of the Omaha District of the U.S. Army Corps of Engineers (USACE).

Isolated waters and wetlands that are not directly linked to navigable or interstate waters, as well as man-made channels and ditches, may be waters of the United States in certain circumstances; this must be determined on a case-by-case basis by the USACE. Under the authority of Section 10 of the Rivers and Harbors Act, USACE permits are required for structures or work in, over, under, or affecting navigable waters of the United States.

All wetlands and waterways crossed by the proposed Project would be evaluated under the preliminary jurisdictional determination process. Under this process, all wetlands are tentatively considered jurisdictional until an approved determination is made by USACE (Regulatory Guidance Letter No. 08-02). The use of preliminary jurisdictional determinations does not imply that approved jurisdictional determinations would also be completed. Unless an approved jurisdictional determination is specifically requested by Keystone, preliminary jurisdictional determinations would be utilized. Where required by USACE, compensatory wetland mitigation (i.e. creating wetlands to offset the proposed loss of wetlands) would be provided by Keystone for permanent losses of jurisdictional wetlands and water resources. Compensatory Mitigation Plans would be developed and carried out in accordance with Title 33 of the Code of Federal Regulations Part 332 (Compensatory Mitigation for Losses of Aquatic Resources). These plans would be developed during the permitting phase when more site specific details are available and incorporated into the Section 404/Section 401 permit applications for review by coordinating agencies prior to approval. Functional assessments for all jurisdictional wetlands would likely be required by the USACE during the Section 404 permitting process. Local and state agencies may require pre- and post-construction functional assessments depending on their agreed-upon mitigation and compensation plans with Keystone. These data would be used to determine restoration, mitigation, and monitoring requirements. Based on the agreed upon restoration, mitigation and monitoring requirements, wetland monitoring plans would be developed to ensure all impacted wetlands are restored or compensated for to acceptable level.

Wetlands are regulated at the state level primarily by state environmental quality agencies. Individual states administer clean water regulations that have been delegated to them from USEPA pursuant to Section 401 of the CWA. States generally have regulatory jurisdiction over a given wetland if it meets their definition of a *waters of the state*. County and municipal governments may also have wetland regulations, although for the purpose of this analysis, wetland regulation is only summarized to the state level.

The Montana Department of Environment Quality (MDEQ) oversees all Section 401 Water Quality Certifications and reviews Section 404 permit applications for compliance with state water laws (MLS 2011). The MDEQ and Native American tribes with authority for administering water quality programs “can review, approve, condition, or deny all Federal permits or licenses that might result in a discharge to State or Tribal waters” (MDEQ 2010). A water of the state in Montana is defined as a “body of water, irrigation system, or drainage system either surface or underground.” Wetlands meeting this definition would be considered a *water of the state* and would therefore be regulated by MDEQ. This definition does not include wetlands associated with lagoons or waste treatment ponds. Nor would it include, for example,

wetlands associated with diverted irrigation water that does not return to a water of the state (i.e., flow ends in a field or sprinkler system) (MLS 2011).

The South Dakota Department of Environment and Natural Resources (SDDENR) oversees all Section 401 Water Quality Certifications and reviews Section 404 permit applications for compliance with state water laws (SDDENR, 2012a and 2012b). The waters of the state definition for South Dakota is similar to that of Montana and Nebraska and include all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state (SDCL 34A-2-2(12)). Wetlands meeting this definition would be considered a *water of the state* and would therefore be regulated by SDDENR. South Dakota excludes wetlands associated with lagoons or waste treatment ponds from their state water definition.

The NDEQ also oversees all Section 401 Water Quality Certification and reviews Section 404 permit applications for compliance with state water laws (NDEQ 2012b). Through an anti-degradation policy, the NDEQ certifies 404 permits under Section 401 (Title 120) and has established water quality standards for *all* surface waters and wetlands, regardless of federal jurisdictional status (Title 117) (ASWM 2011). Wetland mitigation for all wetland impacts is required prior to 401 Water Quality Certification. The definition of waters of the state in Nebraska is an extensive list that includes wetlands and “all other bodies or accumulations of water, surface or underground” (NDEQ 2012c). Wetlands meeting this definition would be considered a *water of the state* and would therefore be regulated by NDEQ.

Throughout the proposed Project development process, consultations have been made with the USACE Omaha district office and state resource agencies. These consultations were used to develop specific wetland and waters of the U.S. information required for permit applications. Consultations would continue with all appropriate agencies during the development of avoidance and minimization strategies for all temporary, short- and long-term, and permanent impacts to wetlands, as well as for the development of mitigation and monitoring requirements. Prior to any potential disturbance within the proposed Project area, all wetland and water resources of the state and U.S. would be delineated and surveyed as required by the USACE, under the review of the USEPA and any applicable state agencies. These detailed wetland and waters data would be used to complete notification and permitting requirements under Sections 401 and 404 of the CWA. Other federal, state, county, or local wetland regulatory oversight may be triggered if a particular wetland area provides critical or limited habitat for federal- or state-listed species or if the wetlands are of particular value or sensitivity.

Wetlands on farmed lands, often referred to as sub-irrigated areas, are common in some areas of the proposed Project area. These wetlands are managed by Section 404 of the CWA and a wetland conservation provision under the Swampbuster provision of the Food Security Act (USEPA 2012c). Fill activity in farmed wetlands is regulated under the Swampbuster provisions of the 1985 and 1990 farm bills to discourage the conversion of wetlands to agricultural use if they receive USDA farm benefits (USACE 2012b). Wetlands on farmed lands fall into two categories: 1) *Farmed wetlands*; and 2) *Prior converted wetlands*.

Farmed wetlands are wetlands that were manipulated before 1985 to support agriculture (e.g., by drainage or leveling), but continue to support wetland habitat (e.g., potholes and playas). *Farmed wetlands* are also regulated by Section 404 of the CWA if they are jurisdictional, and in some

cases at the state level if they meet the state’s definition of a *water of the state* (USACE 2012b). In contrast, *Prior converted wetlands* are former wetland areas that were also manipulated before 1985, but no longer meet hydrologic criteria, and have not been abandoned (defined as inactive farming for five consecutive years). Activities in *Prior converted wetlands* are not subject to the CWA Section 404 or Swampbuster provision, unless production has been abandoned for five consecutive years and wetland conditions return (USACE 2012b).

Commodities planted in wetlands converted by drainage or leveling (or other conversion activities) after December 23, 1985, or where wetlands have been purposely converted to agricultural production, even if a crop is not planted, after November 28, 1990, would result in USDA benefit ineligibility. Section 404 permits are not required when an agricultural activity is exempt (i.e., normal farming activities, such as plowing and seeding); these exemptions must not be associated with the conversion of wetlands to non-wetlands (USACE 2012b). As a result of changes in vegetation species at the time of wetland conversion to farmland, wetland vegetation indicators are often absent and cannot be used for routine wetland determinations. Hydrologic and hydric soil criteria may also be absent or disturbed in converted wetlands.

The NRCS is the lead agency for conducting delineations for Swampbuster and CWA Section 404 on agricultural lands (USACE 2012b); the USACE may require more detailed delineations depending on the activity. The USACE is the lead agency for wetlands on non-agricultural lands or for non-agricultural activities on agricultural lands (e.g., pipeline construction). The NRCS maintains records of converted wetlands that receive USDA benefits; these records may be confidential and require landowner permission to access the environmental history of the land.

Other state or local wetland regulations may apply to wetland fill activity. However, due to the large number of counties and potential municipalities adjacent to or within the proposed Project area, these regulations are not specifically addressed in this section. Local wetland regulations would be consulted during the permitting process. The Section 404 permitting process would address this issue by requesting a “list of all local, state, and federal permits” that have been “issued, waived, denied or [are] pending.” A summary of the federal and state regulatory setting described above is provided in Table 3.4.-2.

Table 3.4-2 Wetland Permitting Summary

	Agency	Regulation / Permit Type	Description
	U.S. Army Corps of Engineers	Section 10 of Rivers and Harbors Act	Placement of structures or work in, over, under, or affecting navigable waters of the U.S.
	U.S. Army Corps of Engineers	Clean Water Act Section 401 Certification (managed by states, see below)	Activities that may adversely affect state water quality standards for "waters of the state". Managed by states.
Federal	U.S. Army Corps of Engineers	Clean Water Act Section 404	Discharge of dredged or fill material into jurisdictional wetlands
	U.S. Environmental Protection Agency	Clean Water Act Section 404(c) (EPA "Veto Authority")	EPA has authority to prohibit, restrict, or deny discharge of dredged or fill material to "waters of the US" (including wetlands) if it will have unacceptable adverse effects on municipal water supplies, fishery areas, wildlife, or recreational areas

	Agency	Regulation / Permit Type	Description
	U.S. Environmental Protection Agency	Federal 'Antidegradation' law (40CFR 131.12)	Each State must develop, adopt, and retain a statewide antidegradation policy regarding water quality standards and establish procedures for its implementation through the water quality management process.
	U.S. Department of Agriculture (USDA) - Natural Resource Conservation Service (NRCS)	Swampbuster provision under the Food Security Act	The USDA-NRCS is the lead agency for wetlands associated with agricultural land. The USDA-NRCS manages <i>farmed</i> wetlands and <i>prior converted</i> wetlands under the wetland conservation provisions defined in the Swampbuster provisions of the Food Security Act.
Montana- State	Dept. of Environmental Quality	Federal Clean Water Act Section 401 Certification	Activities that may adversely affect state water quality standards for "waters of the state" (including wetlands). Managed by states.
	Dept. of Environmental Quality	Federal Clean Water Act Section 404	Reviews all Section 404 permit applications for compliance with state water laws
	Dept. of Environmental Quality	Anti-degradation Clause	Regulates water quality degradation beyond Section 401 (including in wetlands)
South Dakota- State	Dept. of Environment and Natural Resources	Federal Clean Water Act Section 401 Certification	Activities that may adversely affect state water quality standards for "waters of the state" (including wetlands). Managed by states.
	Dept. of Environment and Natural Resources	Federal Clean Water Act Section 404	Reviews all Section 404 permit applications for compliance with state water laws
	Dept. of Environmental Quality	Anti-degradation Clause	Regulates water quality degradation beyond Section 401 (including in wetlands)
Nebraska- State	Dept. of Environmental Quality	Federal Clean Water Act Section 401 Certification	Activities that may adversely affect state water quality standards for "waters of the state" (including wetlands). Managed by states.
	Dept. of Environmental Quality	Federal Clean Water Act Section 404	Reviews all Section 404 permit applications for compliance with state water laws
	Dept. of Environmental Quality	Anti-degradation Clause	Regulates water quality degradation beyond Section 401 (including in wetlands)

3.4.5 Connected Actions

The proposed Project would also include several connected actions including: 1) the Bakken Marketlink Project, 2) the Big Bend to Witten 230-kV Transmission Line, and 3) Electrical Distribution Lines and Substations. Connected actions are more fully addressed in Section 4.4.5, Wetlands, Connected Actions, but are described briefly here. The Bakken Marketlink Project would involve the construction and operation of metering systems, three new storage tanks near Baker, Montana, and two new storage tanks within the boundaries of the proposed Cushing tank

farm. The Big Bend to Witten 230-kV Transmission Line would provide upgrades to the power grid in South Dakota to support power requirements for pump stations in South Dakota. The third connected action is associated with the electrical distribution lines and substations that would be required throughout the length of the proposed Project corridor to support pump stations and other integral Project-related ancillary facilities. All three of the connected actions have potential to affect regional wetland types described in Sections 3.4.2 through 3.4.4 above. Additional wetlands-related information associated with the connected actions is provided in Section 4.4.5, Wetlands, Connected Actions.

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