

SECTION 3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This section provides a description of the social, natural, and physical environments in the US 2 study area. Information presented in Section 1.0 Purpose and Need also discusses many aspects of the affected environment. Impact assessments and potential mitigation measures are also presented in Section 4.0: Environmental Consequences.

3.2 Social Impacts

Three groups of communities define the social environment affected by this project. The first group is the two major cities just to the west and east of the project termini: Williston and Minot. The second group is the cities adjacent to the project. The final group is communities that are within ten miles of US 2. The remainder of the social environment is comprised of farmsteads located throughout the project corridor. Traveling along US 2, one passes a farmstead approximately every two to three miles.

The study area population is 92,322 predominately of European descent. There are no concentrations of minorities located within the study area. Those people over 60 years of age make up 19 percent of the population. This number is expected to increase to 25 percent within the next 12 years.

Williston, the second largest city in northwestern North Dakota, has a population of 12,512 and is located 14 miles south of the west project termini. Williston is the county seat of Williams County and is the principle trade center for northwestern North Dakota and northeastern Montana. Williston serves as the major hub for the region's oil and gas production businesses. Minot, population 36,567, is the county seat of Ward County. It is located about 15 miles east of the east project termini. Minot is the major trade and medical center for northwestern

and north-central North Dakota. Williston and Minot both have colleges. Williston State College is a junior college that provides technical and associate degrees. Minot State University provides bachelor and graduate degrees. Both cities have numerous parks and recreation facilities. Many recreational opportunities are available for area residents, some of which include golf, hockey, baseball, softball, hiking, gymnastics, and picnicking. The highest percentages of employment in the cities of Minot and Williston are in the service industries, government, and retail trade.

There are four cities adjacent to the project. From west to east, these communities are Ray, Ross, Stanley, and Berthold. They are small-town agricultural communities that provide services for their residents and residents of nearby towns, as well as for rural farm residents of the area. Residents frequently travel US 2 between these towns to obtain basic services not available in their town.

Ray, population 534, provides basic services for its community. These include agricultural-related businesses, banking, and restaurants. The public school provides a kindergarten through 12th grade education. A large portion of this town's business area is located along US 2, as it passes through Ray.

Ross, population 48, is located about seven miles west of Stanley. It provides limited services. The children go to school in Stanley. US 2 passes through Ross along the south side of the city. Most development of businesses and housing is located north of the highway.

Stanley, population 1,279, is the county seat of Mountrail County. Stanley is approximately midway between Williston and Minot and serves as a hub for the area. Services available include medical care, county seat offices, United States Department of Agriculture Offices, a strong business community, and educational and recreational facilities. Medical care facilities include a 25-bed hospital (Mountrail Medical Center) and a 57-bed skilled nursing facility (Bethel Home). These facilities have completed a construction project that has merged the

hospital and the nursing home onto one site. Businesses in Stanley provide the essential services that a community needs. These services include banking, agricultural implement and automobile dealers, motel and campground, pharmacy, restaurants, groceries, legal, insurance, and hardware. Stanley Community Schools provide a K-12th grade education. Public recreational facilities include a nine-hole golf course, a public park with an outdoor swimming pool, and a free camping and tent park. US 2 crosses the south side of Stanley and is presently a four-lane facility through the city. The four-lane segment is a distance of 2.03 miles. A few businesses are located along the highway. The main business community however, is north of US 2 in downtown Stanley along ND Highway 8.

Berthold, population 466, provides some of the basic services for its community. These include agricultural-related businesses, banking, and restaurant. Berthold is approximately 20 miles west of Minot; many of its residents commute there for employment and services. Berthold grew by 14 percent in the 1990s, which caused a housing shortage that led to the development of new residential areas. The public school provides a K-12th grade education. US 2 runs alongside the north edge of Berthold. There are three businesses adjacent to the south side of the highway. The main business community is in downtown Berthold.

There are four communities within about ten miles of US 2. Three of these towns--Epping - population 79, White Earth - population 63, and Palermo - population 77--are similar in makeup to Ross and provide limited services. The fourth town, Tioga - population 1,125, is similar in makeup to Stanley.

Another component to these communities is the Minot Air Force Base. Military personnel servicing the numerous missile sites throughout the project area also become indirect members of the communities. Service women and men frequent many of the convenience stores and restaurants while maintaining and monitoring these sites. These stops and use-of-facilities have become an important part of these service-based businesses.

3.2.1 Relocation

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC 4601 et seq., as amended, 1989), NDDOT has established a uniform and equitable treatment of all persons displaced from their homes, businesses, and farms without discrimination on any basis. NDDOT guidelines for carrying out the provisions of this Act are contained in its Policy Manual (Policy Numbers 9.01, 9.04 and 9.05).

3.2.2 Pedestrian and Bicyclists

There are limited pedestrian facilities along US 2. The city of Ray has an existing crosswalk with a flashing beacon. The posted speed limit will remain the same within Ray; pedestrian safety will remain unchanged from the present condition. No other cities have designated or marked pedestrian crossings.

3.2.3 Cemeteries

Cemeteries were also inventoried throughout the study area. Throughout the 100-mile segment, only one cemetery was located within the APE. The cemetery is located at milepost 52.48 about two miles west of Ray.

3.2.4 Historic and Archeological Preservation**Introduction:**

Laws: To comply with the National Historic Preservation Act (NHPA) of 1966 (as revised) and to properly consider the effects of the project on significant cultural resources for National Environmental Policy Act (NEPA) of 1971 compliance issues, identification and evaluation of cultural resources, which may be affected by the project, was required.

Area-of-Potential-Effects: Following 36 CFR 800.4(a) (1), the area-of-potential-effects (APE) was defined in consultation with the ND State Historic Preservation Office (SHPO) (May 18, 1999, meeting) to be one-fourth mile on either side of the existing highway centerline. This one-half mile wide corridor was chosen early in the planning stage to facilitate a range of alternatives and design options, to ensure that foreseeable effects to cultural resources bordering the highway were identified. Additional consideration in determining the APE included construction easements and material source areas needed for the project. Knowledge of site location within a one-half-mile-wide corridor will allow for planning appropriate locations for these activities.

Since the character of a historic architectural site is conveyed not only through its physical attributes but also by setting and feeling, the APE for the architectural portion of the cultural resource survey was refined to allow consideration of those qualities. In rural areas, sites that were located outside the one-half-mile-wide APE, but whose only access was US 2, were also considered to be inside the APE. In urban areas, the APE was limited to the project right of way and the architectural properties fronting the right of way.

Level of Identification: In accordance with 36 CFR 800.4(b)(1), a cultural resource inventory was undertaken to identify and record Native American and Euro-American archaeological sites from prehistoric and historic contexts and historic architectural sites within the defined APE. The cultural resource inventory approach and methods were designed through consultation between NDDOT and the ND SHPO [May 18, 1999, meeting]. Tribes were also consulted about the proposed identification effort (See Appendix D-18 for documentation of initial tribal contacts).

For the archaeological portion of the inventory, methods decided on through consultation included both reconnaissance and intensive inventory

by archaeologists, as is typical for large projects in North Dakota. It is usually believed that a reasoned approach geared toward focusing the identification effort on areas of high and moderate site potential is the most reasonable from a cost/benefit perspective. All participants believed this approach to be adequate for identification of historic properties in the project APE. It represents a reasonable and good-faith effort to identify cultural resources that may be affected by the project. A reconnaissance inventory, consisting of a literature review, walking at close intervals, and identifying all landforms with a moderate-to-high probability to contain archaeological sites was conducted. The reconnaissance inventory was completed along 64 miles of the project route. An intensive inventory, consisting of a literature review and walking all portions of the APE at close intervals, was completed along the remaining 35 miles of the project route. The latter covered all very high site potential stretches of the project route, and all areas of particular interest identified by the tribes.

Native American Consultation: In accordance with 36 CFR 800.2 (c) (3), 800.4(a) (4), 800.5(a), and 800.6(a) Native American consultation and site interpretation have been an important part of the identification and evaluative efforts. Consultation has been conducted by NDDOT. This consultation process has focused on face-to-face meetings at tribal offices and at the project location. Contact has been maintained through letters and email; however, the important issues have always been discussed in person with the people designated by the tribal government. People contacted include the Tribe Historic Preservation Officer (THPO) or Cultural Resource Program Directors and various tribal elders. Consultation discussions have included a variety of visual aid, including a power point presentation on site locations, types, and avoidance issues. All cultural resource reports have been disseminated to the tribes. Tribes consulted on the project include the Spirit Lake Tribe, the Sisseton/Wahpeton Dakota, the Crow, the Northern Cheyenne, the Three Affiliated Tribes of Mandan, Hidatsa, and Arikara, the Standing Rock

Sioux Tribe, the Dakota and Assiniboine at the Fort Peck Indian Reservation, and the Turtle Mountain Band of Chippewa. The latter six tribes expressed concerns over the project, specifically the effects of the project on stone features, and requested to be consulted during the process. This consultation has been extensive and constant and will continue through construction.

An elder and spiritual man, recognized for his expertise by the Standing Rock Sioux Tribe and the Three Affiliated Tribes, visited all of the potentially affected prehistoric stone feature sites along the entire project. Representatives of the Turtle Mountain Chippewa, the Tribal Historic Preservation Office and Intertribal Reinternment Committee, and an elder, who is looked upon as a spiritual leader visited some of the sites.

All interested tribes have suggested that stone feature sites, in general, are very important to them. These features may be functional in nature (e.g., for use in holding down the edges of tipis) or ceremonial in nature. Regardless, the tribes recognized them all for their spiritual associations. Additionally, the tribes recognize the White Earth valley as a special place. The tribes indicated that we might expect to find a greater concentration of sites in the valley than along the rest of the project route. The valley was used, and continues to be used, by some tribal members for a variety of purposes. Because of landownership and cultural continuity issues, recent use has been limited. None of the Tribal contacts had previous knowledge of any of the stone feature sites prior to our visits.

Detailed Tribal and Specific Site Information

Tribal Consultation - All interested tribes have suggested that stone feature sites are very important to them. These features may be functional (e.g., for use in holding down the edges of tipis) or ceremonial in nature. Regardless, all the stone feature sites appear to be spiritually important to the tribes. Tribal members indicated that in addition to spiritual meaning,

the rocks tell stories of function and association through color and configuration. Designated persons would have placed the rocks in a circle in a specific manner. Because of this spiritual connection, the persons associated with the rocks are still tied to these circular features. Cairns may not contain evidence of human remains, but some of them are still considered commemorative burials sites, which have spiritual connections. These commemorative sites may have been close to where they lost a loved one or close to where they lived. With each visit, another rock would be left in memory of the loved one.

Interpretation of Native knowledge was sought through consultation with tribal elders and spiritual people. In one case, the elder was not aware of any of these sites prior to our visits to the sites. Through knowledge of traditional configurations and use of color (color became important in the last 300 to 400 years), as well as spiritual connections, the elder offered interpretation on the use of some stone feature sites that could potentially be impacted. His interpretation varied from burial sites, female and male coming-of-age ceremonial locations, talking circles to staff locations, and tipi rings. This information was recorded on video, transferred to audiotapes, and transcribed. It will be stored and maintained in all three formats. Due to the sensitive nature of these sites, this information will not be published with the FEIS.

Site Information

Site 32MN105 currently consists of three stone circles and a cairn. The site was first identified in 1977. Six of the seven stone circles that had been identified were tested through excavation of test units. Only four flakes and two deer molars were recovered during this evaluative testing. The site was evaluated as not eligible for the National Register and was then disturbed by construction of US 2 along its present route. The feature nearest to the ROW was tested during the current project evaluative testing program. One flake of Knife River Flint (KRF) was recovered.

The site was evaluated as not eligible for the National Register of Historic Places (National Register). Impact analysis suggests that effects from the project can be avoided through context sensitive design.

Site 32MN106 consists of 35 stone circles, three stone arcs, four stone concentrations, and eight cairns. Twenty-eight stone circles are located south of the existing US 2. The remaining features are north of US 2. The site was first identified in 1978 when four test units were placed within the site. The site was disturbed by the relocation of US 2 after the archaeological investigation. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN109 consists of 12 stone circles, six concentrations, and two cairns. Two of the features are at least partially within the ROW, while five others are within the 50-foot buffer area. Six of the features were tested producing 19 flakes, a core, a biface tip, and two faunal bone fragments. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN110 consists of a single stone feature located about 250 feet south of the existing US 2 centerline. Evaluative testing exposed 85 artifacts and one hearth feature. The hearth dated between the mid-seventeenth and early nineteenth century AD. The site was evaluated as eligible for the National Register of Historic Places (National Register).

Site 32MN111 consists of a stone circle and a cairn, both within the existing ROW. The cairn was identified by a Native American to be a burial site. Both features were tested. No cultural material was recovered from the stone circle. After obtaining concurrence from Native Americans on testing techniques, the cairn was tested using typical archaeological method, which replaced the topsoil at the surface directly underneath the stones. No evidence of a burial was noted from unit excavation over the

cairn. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN113 consists of 13 stone circles and five cairns. One stone circle is within the ROW. This feature and three other stone circles near the possible construction easement were tested. One flake, one biface fragment and two small fragments of medium-to-large mammal bone were recovered. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN116 was originally recorded as having five stone features. Evaluative testing efforts could only locate three stone circles, a stone concentration, and a cairn. One feature is within the ROW and two within possible construction easement (one stone circle and the concentration), while the remaining features are to the south. The two stone circles within the ROW and easement were tested with probes and excavation units. Additional probes were excavated around the feature in the ROW. A total of 42 flakes, four stone tools, and five faunal bone fragments were recovered from the testing effort. The tools include two utilized flakes, a side scraper, and a biface fragment. The site was evaluated as eligible for the National Register of Historic Places (National Register).

Site 32MN117 consists of six stone circles and four cairns. Four stone circles in and near the ROW were tested with probes and excavation units. Additional probes were placed around the feature in the ROW. Five flakes and one piece of fire-cracked rock (FCR) were recovered. The FCR came from the feature in the ROW. The probes around this feature and all other probes within the ROW were negative. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN118 consists of two stone circles. One is within possible temporary easement and one is just to the south. Both features and the nearby ROW were probed. An excavation unit was dug within the ROW. Five flakes and six faunal bone fragments were recovered. While it is clear from testing that the site does not extend into the ROW, adequate testing of the features within the site was not completed. The site was not evaluated for the National Register of Historic Places (National Register).

Site 32MN119 consists of two stone circles and a linear cairn. One of the circles and the cairn are within the ROW and the other circle is within possible temporary easement. The site has been affected by removal of stones for the creation of a recent high school graduation date (01) on the site. A hearth located within the stone circle in the ROW produced a date of 2190+/-40 B.P. (years before present (B.P.) - with “present” being 1950). A total of two flakes, 33 faunal bone fragments, and one piece of red ochre were recovered. No cultural material was associated with the linear cairn. The site was evaluated as eligible for the National Register of Historic Places (National Register).

Site 32MN522 is a stone feature site consisting of two cairns. Eighty-three artifacts were recovered from one excavation unit placed over one of the cairns. Artifacts included faunal material from a variety of mammals, birds, and lithics, including a KRF projectile point base identified as being a variety of Prairie Side-Notched with dated use on the northern plains from 650 AD to 1650 AD. The site was evaluated as eligible for the National Register of Historic Places (National Register).

Site 32MN525 is a buried cultural material scatter site located in a cultivated field on the floodplain of the White Earth River. The portion of the site within the combined alternative right of way was subjected to evaluative testing. The testing plan was designed through consultation between URS, NDDOT, and the ND SHPO. None of the tribes expressed

concern about this site. A total of 140 artifacts and one buried cairn, resting on a paleosol that varied from 60-80 cm below ground surface were discovered during evaluative testing efforts. Charcoal from the base of the cairn dated to 650+/-40 B.P (years before present [B.P.] - with “present” being 1950). The site was evaluated as eligible for the National Register of Historic Places (National Register).

Site 32MN533 consists of two stone circles and a stone arc. The arc is just outside the ROW, while the two stone circles are 20-27 meters south of the ROW. The only feature that produced cultural material in test excavations was the stone circle 27 meters south of the ROW. Artifacts recovered included 41 flakes and one biface, broken during manufacture. The site was evaluated as eligible for the National Register of Historic Places (National Register).

Site 32MN534 consists of two stone circles and two cairns. Both cairns are within the possible construction easement, while the stone circles are well beyond the project area. Testing was confined to the cairns. Two small, unidentified faunal bone fragments were recovered from testing. Our Native American consultant identified one of the cairns as a burial site. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN592 consists of two stone circles, one with a cairn, at its southwestern edge. One feature is within possible temporary easement, while the other (with the cairn) is just to the south. Both circles were tested. A total of six flakes, a core fragment, and two faunal bone fragments were recovered from the 18 probes and two excavation units. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN602 consists of two stone circles, a shallow depression, and a cairn. The cairn and part of one of the stone circles is near the far edge of the possible temporary construction easement. Testing consisted of probes and excavation units distributed across the features. No artifacts were recovered. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN607 consists of four stone cairns, two historic depressions and a historic artifact scatter. Two of the cairns were tested with probes around them and excavation units within them. A possible KRF core fragment was recovered from one of the excavation units. It is possible the cairns are prehistoric, but it is likely they are associated with the historic occupation. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN609 consists of one stone circle within the 50-foot buffer area. Shovel probes and an excavation unit produced a single flake and seven faunal bone fragments from unidentifiable medium-to-large mammals. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN619 consists of two stone circles, one in a low marshy area, and another on a low saddle just to the west, on the north side of US 2. One flake, one end-scraper, and one faunal bone fragment were recovered during testing. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32MN626 consists of at least 20 stone circles north of US 2. Three of the features would be at least partially within a possible 50-foot buffer if the North Alternative were chosen. Seven of the features were included in the evaluative testing program. Excavations produced 17 faunal bone fragments from one feature, and eight flakes and a tool fragment from two

others. The tool is a biface fragment with the tip and base missing. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32WI453 consists of at least 25 stone circles, one arc, three stone concentrations, and two cairns. Three features were tested with probes and an excavation unit. The site was evaluated as not eligible for the National Register of Historic Places (National Register).

Site 32WD20 is a farmstead with five features, including a residence, two storage sheds, and a windmill. A prefabricated residence was once part of the farmstead but was removed. Jack Martin patented the property in 1904. A 1915 Ward County atlas indicates Thomas M. Etter then owned the property, and a structure appears on the map. Mr. Etter lost ownership of the land in 1937. In 1944, Jess M. Joiner and his wife Mary purchased the land. Joiner had farmed in the area since 1912. He helped organize the Nonpartisan League's merger with the Democratic Party and served in the State Legislature from 1939 to 1940. He also helped organize Minot Farmers Union Oil and Berthold Farmers Union Oil companies, as well as the Rural Electric Cooperative Association.

Although Mr. Etter constructed the buildings, Joiner owned them during his period of significance to the local community and the state (1944-1963). Although partially renovated, the house retains integrity and may contribute to the overall significance of the property. NDSHPO believed this site could very likely be eligible for the National Register under Criterion B for its association with Joiner.

Site 32WI462 is a farmstead consisting of a modern house, a 1910s barn, a 1930s stable, a 1910s granary, a 1910s chicken coop, a 1930s smokehouse, a 1940s shed, a 1920s granary, a 1910s granary, and a 1900s house. The latter house has been moved from its original location to the

far south end of the farmstead complex and is resting on portable concrete blocks, not a permanent foundation. This house has a wood frame with wood shake shingles and siding. George Rathke patented the property in 1909. He sold the property to Carl J. Meyer in 1947. Mr. Meyer sold it two years later to Elmer F. C. Tank. By 1965, Mr. Tank had located his farm headquarters in the location of the extant buildings.

In 1994, the property was sold to David and Cheryl Ulven. ND SHPO believes the site is eligible for the National Register of Historic Places under Criterion A as an excellent example of a historic intact farmstead, despite the new house. The components are not individually eligible but qualify collectively in a district. The newer house would be a non-contributing resource. The landscape features of this farm are also contributing elements.

Site 32WI477 is a farmstead consisting of a 1910s house, a 1910s barn, a mid-20th century pole building, an old windmill and a 1930-1940s shed. Horace E. Stevens patented the property in 1909. He retained ownership until 1945 when the property transferred to his heirs. The family still owns the property, although the farmstead appears abandoned. ND SHPO believes the site is not eligible for the National Register of Historic Places under Criteria A, C, or D. Further information was needed on Horace Stevens to determine eligibility under Criterion B.

3.2.5 Utilities

There are many utilities that either cross or parallel US 2 (See Table D-8 and Figure B-9 in appendices). Utilities that are located within the right of way are granted by permit. The permit holder is responsible for all costs when utility relocation is necessary due to roadway reconstruction. The cost of relocating utilities that are outside of the right of way will be paid for as part of the project cost. The types of utilities found throughout the project corridor include telephone, electrical, natural gas, water, and

missile silo cables. Localized petroleum lines also exist throughout the project corridor. These lines connect individual oil wells to a common collection point.

3.3 Economics

The highest percentages of employment in the cities of Minot and Williston are in the service industries, government, and retail trade. These communities are the regional economic centers in the northwest region of North Dakota. Many people commute from the rural areas to these cities for employment opportunities.

The economic viability of the region is dependent upon agriculture, tourism, education, and minerals. US 2 is the primary east-west transportation route across the northern tier of the state. The state relies heavily on the mobility provided by highway transportation systems to meet the needs of agriculture, tourism, and resource industries. This mobility provides the basis of well being for the area.

3.3.1 Agriculture

Agriculture is synonymous with North Dakota. The counties of Williams, Mountrail, and Ward are some of North Dakota's better crop-producing areas. The dominant agricultural crops in the area are spring wheat and durum wheat. Beef cattle are the major livestock industry. Other livestock production in the area is the dairy cattle industry.

Area farmers have found that their lands are well suited for diversification to specialty crops. These include crops such as potatoes, peas, carrots, and lentils. The production of crops meeting organic requirements is increasing.

Sprinkler irrigation is becoming more prevalent in the area between Williston and Minot. This coupled with the flood irrigation of the lower Yellowstone River valley southwest of Williston has led to a larger and more consistent crop production. This increased volume and consistency

has helped the local farmers stabilize their income. Irrigated crops are primarily potatoes, and sugar beets. Farmers in the area have recently started rotating sugar beet crops with onions. This type diversification is creating greater markets for products grown in the area. Due to the location of processing facilities, most of the product is shipped out of the area.

The local trucking industry is extremely important to the movement of agricultural products. The role of trucks and their importance to the local economy is expanding, especially with the changes in railroad operations. Local trucking firms, which are presently hauling grain, will likely see their business increase as the demand increases to move grain and specialty crops to the unit train terminals or processing plants.

3.3.2 Mineral Development

The northwest region of the state has an abundance of natural resources. These resources of oil, natural gas, and coal, contribute to the economy through tax revenue and employment. Oil and gas production in the area has been stable for many years. As the United States strives to increase domestic production, northwest North Dakota will likely experience an increase in oil and gas activity. There are currently 1005 producing oil wells in the study area. This number will rise because of ongoing drilling activities in the study area.

Although the reserves are large, coal has not been mined on a large scale in the area. Coal is expected to become an increasingly important resource in the region. The North Dakota State Geological Survey estimates 250 million ton of recoverable coal in a deposit that is three miles wide and 14 miles long. Recently, the W.H. Chamber Corporation received permits to explore for coal in both Burke and Divide Counties. The primary use for North Dakota's lignite coal is for burning in regional

power plants to produce electrical power or for conversion to anhydrous ammonia, a farm fertilizer. If the region's coal reserves are mined, it will most likely increase the demands on the transportation structure by increasing the amount of coal mined and the number of employees engaged in mining.

3.3.3 Tourism

Tourism has, and will continue to be, a major emphasis area for sustaining and promoting economic activity in North Dakota. According to a study conducted by North Dakota State University Agribusiness, tourism is the second largest industry in North Dakota (slightly behind agriculture). Tourism is the fastest growing industry in the state with a growth rate over 500 percent since 1990. Northwestern North Dakota has a rich culture and heritage on a backdrop of scenic beauty.

Lake Sakakawea, located approximately 25 miles south of US 2, is one of the top sport fishing lakes in the Upper Great Plains. Numerous private resorts and public lands are located along the north shore of the lake. The confluence of the Missouri and Yellowstone Rivers, near Williston, is the nation's premier paddlefish location. Another popular destination located east of the project area along US 2 is Devils Lake. Both lakes are renowned for the fisheries. Many other smaller lakes throughout the area also present great opportunities.

North Dakota has many national wildlife refuges and state-owned wildlife management areas. There are six national wildlife refuges and 14 state wildlife management areas located in the study area. The abundance of these publicly owned lands has become a major attraction.

Eco-Tourists have realized that the Northern Great Plains and North Dakota in particular, are one of the top areas for bird watching.

Because of its geographic location in the migratory flyway, many different unique birds and rare species can be seen. Recently, October 2003, numerous sightings of the endangered Whooping Crane were reported at the Lost Wood Wildlife refuge.

Hunting enthusiasts from across the country are recognizing North Dakota as one of the premier upland and waterfowl game-hunting destinations. The combination of wildlife refuges and open land hunting locations offers limitless opportunities for hunting.

Hiking opportunities are also being developed in the area. The recently completed Maah Daah Hey Trail is a 120-mile hiking, horseback, and mountain bicycle trail that traverses through the scenic and rugged Badlands of North Dakota.

Area residents have benefited from this by establishing bed and breakfasts and on-farm lodging for bird watchers and hunters. Businesses such as motels and restaurants derive a large part of their income from these activities.

Historical tourism is a growing industry in this region. The centerpiece of historic tourism is Fort Union National Historic Site and Fort Buford. The American Fur Company established Fort Union in the 1820s. The National Park Service has reconstructed the palisade and the primary building (Burgois House).

Fort Buford was a United States military post in the late 1800s. The great Lakota Chief, Sitting Bull, gave himself up at Fort Buford. Remaining today are a stone powder magazine, wood-frame officers' quarters, and a wood-frame officer-of-the-guard building, which now serves as a museum. The State Historical Society of North Dakota (SHSND) controls this site and is in the process of reconstructing a barracks.

Adjacent to Fort Buford is Confluence Park where the SHSND recently opened the Missouri Yellowstone Confluence Interpretive Center. This facility, financed in part by NDDOT with Transportation Enhancement funds, will interpret the history of the area with an emphasis on transportation.

3.4 Physical Environment

Topographical features are of importance when considering the distribution of habitats, natural resources, and previous use of the area by humans. The existing US 2 crosses three major topographical regions. Regions from west to east are the Coteau Slope, the Missouri Coteau, and the Missouri Escarpment. The Missouri Coteau and the Missouri Escarpment are located within the prairie pothole region. The Coteau Slope makes up the western portion of the project area and is characterized by gently rolling to hilly topography. It has a simple drainage pattern with few wetland depressions. The Coteau Slope transitions to the hilly Missouri Coteau in the center of the project area. This area, characterized by rolling hills with an irregular drainage pattern, encompasses many wetland depressions or potholes. The eastern part of the project area, the Missouri Escarpment, has a smooth sloping surface that drops roughly 150 feet in elevation to the Drift Prairie region. This area includes the flattest section of the project area.

The steepest slopes in the project area are in the White Earth River Valley (Mile Posts 70-75). The White Earth Valley is sharply defined by large hills and bluffs with some nearly vertical slopes. Another area that is very hilly with steep slopes is located from milepost 107 to 114. The flattest area is from Berthold to the east project limits, milepost 120 to 131.

3.4.1 Land Use

Most of the land through which the project passes is utilized for agricultural purposes. Approximately 90 percent of the land within the study area is utilized for agricultural purposes. This land is used as either cropland or rangeland.

The land use adjacent to US 2 in the communities of Ray, Ross, Stanley, and Berthold is commercial and industrial with a small amount of residential. These communities have been losing population and business over the last 40 years and currently have excess housing, commercial property, or available lots within their city limits.

3.4.2 Farmland

Farmland Classification: Farmland is classified as prime, unique, of statewide importance, or of local importance. Consultation with Natural Resources Conservation Service (NRCS) staff from Williams, Mountrail and Ward Counties and the state NRCS office indicated that only the designation of prime farmland is applicable to the proposed action.

Prime farmland is land that has the best combination of physical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.

Consultation with the NRCS: The NRCS field office has responsibility for addressing prime farmland. The field offices must be contacted if areas identified as prime farmland may be converted directly or indirectly and federal funds and/or federal technical assistance is being used for the project. The federal agency funding the project completes Form AD-1006 and provides site-specific maps to the NRCS showing the areas to be converted.

Prime farmland locations and calculations are based on NRCS Soil Survey data received from their website

(http://www.ftw.nrcs.usda.gov/ssur_data.html). The soil data was updated in 2002 resulting in new calculations of prime farmland. Previous calculations were based on data from 1997.

3.4.3 Wild and Scenic Rivers

There are no wild and scenic rivers in the study area.

3.5 Biological Environment

3.5.1 Noise

The Code of Federal Regulations 23 CFR, Part 772 – Procedures for Abatement of Highway Traffic Noise and Construction Noise was used in this evaluation. Also used in the analysis were NDDOT's Traffic Noise Analysis and Abatement Guidelines.

Traffic Noise Analysis: A representative rural segment of US 2 (between milepost 34 and 35) was analyzed using the Federal Highway Administration's (FHWA) Traffic Noise Model (TNM), Version 1.1 (FHWA, 1998). The existing highway has a moderate grade sloping downhill from east to west and adjacent areas of the highway are relatively flat, resulting in greater predicted noise levels. Due to similarities, the results of the traffic noise analysis were considered for other areas along US 2.

Traffic noise analysis varies in level of depth and complexity. Due to the increase in number of traffic lanes, a traffic noise analysis for the build alternatives was conducted. While the build alternatives change the character of the existing roadway, there are several reasons for the type of traffic noise analysis utilized. The reasons include:

- Most segments of the roadway traverse sparsely populated rural areas connecting several small cities between Williston and Minot.

- The location of US 2 at Ray, Ross, Stanley, and Berthold are largely zoned as industrial or commercial where noise sensitivity is less of a concern and, most importantly, the existing alignment will be utilized.
- The projected traffic volumes will have a minimum impact on traffic noise.

Several assumptions were made regarding the input to the FHWA Traffic Noise Model (TNM) for the rural analysis. First, two roadway designs were considered for analysis: 1) an existing condition design; and 2) a generalized proposed (build) design. The existing condition design represents the US 2 roadway according to its present design with regard to plan and profile between milepost 34 and 35. The existing roadway design is a two-lane roadway with 12-foot driving lanes and a 65-mph design speed.

The generalized build design includes a divided four-lane highway with 12-foot driving lanes, 104-foot centerline lane separation, and a 70-mph design speed. For modeling purposes, the generalized build design has the same profile in each lane as the existing roadway design.

Noise receptors analyzed at one-quarter-mile increments between mileposts 34 and 35, on the north and south sides of the roadway. Four noise receptors, aligned transversely to the longitudinal axis of the highway, were placed at each increment. The noise receptors were spaced at 30-foot increments from the outside of each driving lane and placed out to 120 feet from the shoulder of the roadway (approximate ROW line).

All houses that would remain occupied following construction of the build alternatives would exceed 120 feet from the shoulder of the roadway, with the exception of one house located at milepost 48.30, which would be about 110 feet. The houses, which may represent receptors greater than

120 feet from the shoulder of the roadway, are located at mileposts 42.43, 45.47, 49.74, 54.13, 57.18, 122.87, and 126.63. Twenty-four noise receptors were used in the FHWA TNM.

The peak hourly traffic volume for the existing condition design was assumed equivalent to ten percent of the existing average daily traffic volume (ADT) (1,900 vehicles per day). Therefore, the peak hourly traffic volume was determined to be 190 vehicles per hour. A peak hourly traffic volume for the 20-year projected condition was assumed equivalent to ten percent of the average daily traffic volume of 2,500 ADT and used to evaluate the build alternatives. Therefore, the peak hour traffic volume was determined to be 250 vehicles per hour and comprised of 80 percent automobiles, ten percent medium trucks, and ten percent heavy trucks (NDDOT, 2002).

Potential noise impacts within the city of Ray were also evaluated. Assumptions similar to those for the rural segment of US 2 were used; i.e., receptors were placed transverse to the highway at multiple locations. However, the analysis was modified to reflect the typical section for Ray (Figure 2-3), a posted speed limit of 25 mph, and the presence of buildings adjacent to the roadway.

3.5.2 Air Quality

US 2 traverses a predominantly rural environment situated in a region of prevailing winds that has been left unaffected by human influences characteristic of major metropolitan areas. The primary air contaminants of the region are of natural origin and associated with agriculture. These contaminants include windblown soil, pollen, and agricultural odors. According to an annual report published by the North Dakota Department of Health (NDDH, 2000), North Dakota is in attainment of all federal and state ambient air quality standards.

3.5.3 Water Quality

3.5.3.1 Surface Water

The NDDH Water Quality Division and the NRCS have prepared a Unified Watershed Assessment (UWA), as called for by the Clean Water Action Plan (CWAP). The UWA combines the Clean Water Act (CWA), Section 303(d), and 305(b) reports for North Dakota, the NRCS Natural Resources Inventory (NRI), and the North Dakota Agricultural Statistics into a single planning document. The UWA describes the current water quality condition of rivers, lakes, and reservoirs within North Dakota, including those along US 2. Future assistance for watershed restoration will be based on strategies established by the state and federal governments in accordance with the CWAP. The document also describes the restoration efforts and plans to improve water quality by watershed.

Watersheds, Streams and Coulees: US 2 passes through portions of three watershed, including the Little Muddy River Watershed (Hydrologic Unit Code [HUC] 10110102) from milepost 32 to 46, the Lake Sakakawea Watershed (HUC 10110101) from milepost 46 to 119, and the Upper Souris Watershed (HUC 09010001) from milepost 119 to 131. Runoff from the Little Muddy Watershed drains across the existing ROW to the Little Muddy Creek at milepost 33.3. The Little Muddy Watershed was classified within the UWA as a watershed with insufficient data to make an assessment (Category IV) with regard to restoration need.

The UWA classified the Lake Sakakawea Watershed as in need of restoration (Category I). This watershed primarily drains the area where the White Earth River crosses the ROW at milepost 73.2 and to a lesser extent where the Little Knife River crosses

the ROW at milepost 91.4 near Stanley. Beaver Creek, which is not well defined as it crosses US 2, has a watershed area located between mileposts 51 and 62. There are additional intermittent streams and coulees present west of the White Earth River. Category I watersheds were further characterized into three priority rankings (low, medium or high) within the UWA. The Lake Sakakawea Watershed was ranked as a medium priority.

The UWA classified the Upper Souris Watershed as Category I. Lonetree Coulee bisects US 2 within the Upper Souris Watershed at milepost 129. Other streams exist east of Berthold as tributaries of the Des Lacs River. In general, the major streams and rivers of the Upper Souris Watershed occur east of where construction would end. The Upper Souris Watershed was ranked as a high priority.

303(d) Listed Waters: Section 303(d) of the CWA requires states to submit lists of water quality limited water bodies to the Environmental Protection Agency (EPA). A water body is considered water quality limited when it is known that the water quality does not or is not expected to meet applicable water quality standards (NDDH, 1988). The White Earth River and the Little Knife River are 303(d) listed water bodies.

The White Earth River is listed from Smishek Lake to Lake Sakakawea. The impaired use for this water body is recreational. The Little Knife River watershed is listed from Lake Sakakawea to the Stanley Reservoir and includes tributaries. The impaired use for this water body is also recreational.

The water quality parameter of concern for both of these rivers, which causes the impaired use, is bacteria. Bacteria sources are

generally associated with inputs from warm-blooded animals (e.g., animal feedlots or wastewater inputs).

3.5.3.2 Ground Water

Consultation with the North Dakota State Water Commission for groundwater resources was performed. A list containing the location of wells throughout the project corridor was supplied. There were no sole source aquifers or wellhead protection areas identified in the project corridor.

3.5.4 Aquatic and Terrestrial Habitats and Species

The biological communities are composed of both aquatic and terrestrial habitats. The aquatic communities include wetlands, rivers, streams, coulees, and associated riparian areas. Terrestrial habitats include native prairie, wooded areas, grasslands, rangeland, and cropland. These habitats provide food, water, shelter, and a travel corridor for a variety of animals.

3.5.4.1 Wetland Habitats and Species

Within the three counties, that the 100-mile study segment crosses, National Wetland Inventory (NWI) maps indicate there are approximately 309,600 acres of wetlands (Mountrail – 135,500 acres, Ward – 101,700 acres, and Williams – 72,400 acres). NWI maps indicate approximately 7,000 wetland acres in a corridor one mile either side of the study route and 20,200 wetland acres within three miles. On-site wetland delineation performed for the proposed project determined that there are a total of 315 acres of wetlands in 382 wetland sites within the wetland study corridor (300 feet either side of the current roadway centerline).

In general, wetland habitats range from emergent wetlands with a seasonal to semi-permanent water regime, to open water wetlands with a permanent water regime. Seasonally wet areas are used for agricultural production during dry periods. Wetlands are scattered throughout the area and include wet meadows, shallow marshes, deep marshes, scrub shrub, and forested wetlands. The most abundant type of wetland habitat is isolated depressional basins in the Missouri Coteau region.

These basins are part of the northern flyway area and provide habitat for waterfowl during spring and fall migration periods. Typical waterfowl include mallards, teals, pintails, and northern shovelers. Common diving ducks include redheads, bluebills, and canvasbacks. Snow geese, Canada geese, tundra swans, and whooping cranes also migrate through the northwest region. These wetland areas are also habitat to non-water fowl species such as blackbirds, sparrows, purple martins, and other bird species. Mammals typically found around wetlands include raccoons, beavers, muskrats, and mink. Coyotes and fox also frequent wetlands seeking prey. Big game species, white tail deer, mule deer, and pronghorn antelope often frequent these areas to utilize the water source and for cover.

Emergent Wetlands:

Emergent wetlands include areas delineated as wetlands with permanent water that have seasonal to semi-permanent water

regime. Cattails, bulrushes, spikerushes, and other emergent vegetation characterize emergent wetlands. The wetland vegetation in these areas may be used for agricultural use when conditions allow. Agriculture producers either use these areas for grazing purposes or bail the vegetation for winter feeding purposes.

Open Water Wetlands:

Open water wetlands are typically composed of submergent vegetation such as pondweeds and floating vegetation such as duckweed. These areas have permanent water that has sparse emergent vegetation because of water depth. Emergent vegetation is located along the perimeter of these wetlands when conditions allow.

Scrub Shrub Wetlands

Scrub-shrub wetlands are the least abundant type in the area. Typical shrub species that dominate these wetlands are black willow, red-osier dogwood, and sandbar willow.

3.5.4.2 Rivers, Streams, and Reservoirs

The remaining types of aquatic habitat include rivers, streams, and reservoirs. Rivers and streams located within the project area are typically characterized by intermittent flows. The rivers and reservoirs provide habitat for fish and invertebrates, as well as wildlife that pass through the river and adjacent riparian areas.

Rivers and Streams

The White Earth River provides recreational fishing opportunities in the spring as game fish move upstream from

Lake Sakakawea. Northern pike are commonly harvested from the river.

Reservoirs

The Ray Reservoir provides recreational fishing and is periodically stocked with bluegill, northern pike, and yellow perch. Most reservoirs located in the study area were designed as stock dams. These dams may exhibit characteristics of wetlands; however, they are not included in wetland delineation.

3.5.4.3 Terrestrial Habitats and Species

The most abundant type of wildlife habitat in the corridor is the terrestrial habitat. The most frequent type of terrestrial habitat is the open grassland and cropland. These areas consist mostly of agricultural fields, field edges, native prairie, rangeland, and road ditches. Vegetative species in the cropland areas and native or nonnative herbaceous plants in the open grassland areas attract numerous wildlife species. Native prairie, rangeland, and nonnative grasslands are also habitat to numerous species of small, big, and upland game. These species include ruffed, sharp-tailed, and sage grouse, Hungarian partridge, mourning dove, sand hill crane, snipe, woodcock, ring-necked pheasant, and tree squirrel. Big game found in the open grasslands and croplands are white tail deer, mule deer, and pronghorn antelope. These species often feed on crops and other grass species while remaining close to wooded areas or shelterbelts for coverage.

Native Prairie

The extent of the native prairie communities is defined by the amount of annual precipitation. The western part of the project area is dominated by short grass prairie, which tolerates the lower precipitation amounts of a semi-arid climate. A mixed grass prairie dominates the more humid eastern portion of the area. The center of the project area is a mixture of vegetation as the two prairie types overlap. Over the last century, changes in land use have altered the landscape such that much of the native grasslands in this area have been cultivated.

The native prairie includes areas that have escaped heavy grazing pressure and tillage and have a notable assemblage of native prairies species. Native prairie identified along the project is limited to several small, well-drained, remnant parcels where fences or steepness have prevented heavy grazing and cultivation. Most areas are located (between mileposts 74 to 111) within the existing ROW and are adjacent to rangeland. Dominant species within the native prairie cover include grasses such as little bluestem, side-oats grama, blue grama, slender grama, three-awn, and needle grass among others. Forb species may include various species of blazing star, purple or white prairie clover, purple coneflower, and yellow coneflower. The low growing trailing juniper may be present in sparse shrub stratum within native prairie.

Rangeland

Rangeland areas are those that are dominated by native short grass prairie plant species or nonnative species such as Kentucky bluegrass or smooth brome grass. Native prairie tracts and rangeland were identified in the field by evidence of relative grazing intensity. Direct evidence of grazing intensity included

the presence of livestock, manure, or abundant cattle paths. Indirect evidence of heavy livestock use was determined through observation of the relative abundance of nonnative or invasive plant species that tend to increase with increasing grazing pressure. Rangeland may include areas once used as cropland but has been reseeded with native and introduces species. These areas do not include cropland that has been placed into the Conservation Reserve Program.

Nonnative grassland habitats

Nonnative grassland includes grassed road medians and embankments in areas generally not subject to agricultural pasturage or cropping, though some roadside haying may occur. Dominant species may include, but are not limited to, Kentucky bluegrass or smooth brome grass.

Upland Forests and Wooded Habitats

The occurrence of most tree and shrub species historically in the prairies was low because of fire and the relative lack of precipitation. Native trees and shrubs grew only along river, stream, and coulee banks. This habitat type is typically associated with larger river systems such as the White Earth River. Upland forests include forested areas along rivers (riparian forest) and areas in sheltered ravines (woody draws). These areas are found in the White Earth River Valley and between Stanley and milepost 115. The dominant species include aspen, green ash, and box elder. Mammals typically found in these areas include antelope, mule deer, white-tailed deer, porcupines, raccoons, coyotes, and beaver. Bird species include sharp-tailed grouse, ring-necked pheasant, and owls.

While there have been no documented sightings, these areas are also considered habitat for eagles.

Farmsteads also planted trees for windbreaks and erosion control. These areas of woody vegetation provide habitat and travel corridors for many wildlife species. Tree species comprising windbreaks include aspen, cottonwood (various species), Austrian pine, box elder, eastern red cedar, green ash, maple (various species), plum, Russian olive, Siberian elm, spruce (various species), and willows (various species). The dominant shrub is typically Siberian pea shrub.

3.5.5 Flood Plains

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program. This program is designed to offset taxpayer costs for flood disaster relief. There is one FEMA-regulated floodplain located within the project corridor. Known as Lonetree Coulee, it is located at milepost 128.9 (T156N, R85W, Sec. 21) east of Berthold.

3.5.6 Threatened and Endangered Species

Threatened and endangered species are plants or animals that have been identified by the USFWS in accordance with the Endangered Species Act of 1973. All federal agencies were required to undertake programs for the conservation of endangered and threatened species and were prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat. The state of North Dakota has also identified special status species.

3.5.6.1 Definitions

Endangered species (E): A species in danger of extinction throughout all or a significant part of its range.

Threatened species (T): A species likely to become endangered within the near future throughout all or a significant part of its range.

Candidate species (C): Plant and animal species considered for possible addition to the list of endangered and threatened species. These species had enough information on biological vulnerability and threat(s) to propose the species addition to the list, but the proposal is currently overridden by higher-priority listing actions.

3.5.6.2 Threatened and Endangered Species

The USFWS lists seven species as threatened or endangered within in the three-county area (See Table 3.5). Habitats similar to breeding habitat of two of the species were observed in the project area during fieldwork. Breeding habitat similar to that of the piping plover (*Charadrius melodus*) was observed. The critical nesting habitat for the piping plover includes alkali wetlands (Northern Prairie Wildlife Research Center, 1999). Three wetlands were observed with alkali deposits (See Figure B 10 in Appendices). However, the USFWS has indicated that it is unlikely these areas are piping plover breeding habitat.

The USFWS has requested in a letter dated August 17, 1999, daily observations of denuded construction areas for piping plover activity (Kriel, 1999). Past USFWS experience shows that piping plovers can utilize areas that have been stripped of vegetation during construction activities. A monitoring plan for

the piping plover will be prepared by NDDOT for approval and concurrence by the USFWS prior to construction of US 2, between Stanley and the Ward/Mountrail County line, as requested by USFWS dated October 09, 2002. The monitoring plan will specify the types of construction areas requiring monitoring, monitoring hours, and any reporting requirements.

Breeding habitat similar to that of the whooping crane (*Grus Americana*) was observed in the area. The whooping crane migrates through North Dakota, and no breeding populations are known to exist in the state. No adverse impacts are anticipated to federally protected species by the build alternatives.

**Table 3.5
Federally Listed¹ Threatened and Endangered Species
Mountrail, Ward, and Williams Counties, ND**

| Species | Status | Habitat Notes² |
|---------------------|---------------|---|
| Interior Least Tern | Endangered | The principal habitat for the least tern in North Dakota is the sandbars on the Missouri River. Current estimates indicate less than 40 pairs exist in North Dakota. |
| Whooping Crane | Endangered | This species is migratory through North Dakota. No breeding populations are known to exist in the state. Fall migration starts in September when small flocks begin their migration from the Wood Buffalo National Park in Canada to Aransas National Wildlife Refuge in Texas. They arrive in late October to mid November. In April, they begin the 2,600-mile trip back to Canada. |
| Gray Wolf | Endangered | Only an occasional wolf is seen in North Dakota. These sightings are most likely the result of population fluctuations and strife within packs from populations in Canada and Minnesota. |

¹ Federal listing information provided by USFWS, Bismarck, ND. Letter received November 13, 2003.

² All habitat notes unless otherwise noted are summarized from the USFWS Website, available at (<http://www.fws.gov/>).

Table 3.5 (cont.)

**Federally Listed³ Threatened and Endangered Species
Mountrail, Ward, and Williams Counties, ND**

| Species | Status | Habitat Notes⁴ |
|-----------------|---------------|--|
| Pallid Sturgeon | Endangered | This species generally needs faster streams for reproduction. Its present range seems to be restricted principally to the Missouri River, the Lower Yellowstone River, and the lower Mississippi River. Most recent reports from North Dakota come from the flowing stretch of the Missouri River between Garrison Dam and the headwaters of Lake Oahe. |
| Bald Eagle | Threatened | Since 1988, the bald eagle has successfully nested in North Dakota. The USFWS has documented eight active bald eagle nesting territories on the Missouri River between Garrison Dam and Lake Oahe. Additional known active territories are located in the Devils Lake and Grand Forks area |
| Piping Plover | Threatened | The key habitat is alkaline wetlands. It nests on sand and pebble beaches of alkali lakes and on bare sandbars of the Missouri River. |
| Dakota Skipper | Candidate | Found in native prairie containing a high diversity of wildflowers and grasses. Habitat includes two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needle grass, pale purple and upright coneflowers, and blanket flower. |

3.5.6.3 State Rare/Sensitive Species

The NDPRD lists 173 state rare species. Sixteen species occur within Ward, Mountrail, and Williams Counties (See Figure B 10 in Appendices). Fourteen state rare species are listed as occurring within the counties traversed by US 2, but they are not listed as Federal T & E species. State species are not afforded

³ Federal listing information provided by USFWS, Bismarck, ND. Fax received July 21, 1999.

⁴ All habitat notes unless otherwise noted are summarized from the USFWS Website, available at (<http://www.fws.gov/>).

special protection within North Dakota and have no regulatory status.

The 1999 field survey identified two rare plant species along US 2; i.e., the alkali sacaton (*Sporobolus airoides*) and the purple-leaved cinnamon willow herb (*Epilobium coloratum*). There were also several occurrences of the saw-toothed sunflower (*Helianthus grosseserratus*), a species recently removed from the state rare list.

The NDPRD lists 173 state rare species. Sixteen species occur within Ward, Mountrail, and Williams Counties (See Figure B 10 in Appendices). Fourteen state rare species are listed as occurring within the counties traversed by US 2, but they are not listed as Federal T & E species. Although considered under NEPA, state species are not afforded special protection within North Dakota and have no regulatory status.