

United States Department of the Interior  
Bureau of Land Management

Environmental Assessment DOI-BLM-MT-C030-2013-032-EA  
April 10, 2013

**Project Title:** North Dakota Field Office Housing Project and Land Transfer

**Location:** North Dakota Field Office (see Map Attached)





In Reply Refer To:

## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

North Dakota Field Office  
99 23<sup>rd</sup> Avenue West, Suite A  
Dickinson, North Dakota 58601

[www.blm.gov/mt](http://www.blm.gov/mt)



April 10, 2013

Dear Reader:

The Bureau of Land Management (BLM) North Dakota Field Office has prepared an environmental assessment (EA) to analyze the effects from a potential transfer of approximately 10 acres of land located within T.139N. R.96W., Tract 37 and to construct long term government housing for the BLM on those lands.

The purpose of the project is to transfer approximately 10 acres of BOR lands to the BLM for the purpose of construction/placement of long term government housing of Dickinson Reservoir project lands within Tract 37. The project is scheduled for completion by August of 2013.

The EA with an unsigned Finding of No Significant Impact (FONSI) is available for a 15-day public comment period. Written comments must be postmarked by April 24, 2013, to be considered. Comments may be submitted using one of the following methods:

Email: [tthorich@blm.gov](mailto:tthorich@blm.gov)

Mail: Bureau of Land Management  
Montana/Dakotas State Office  
Attn: Tracy Thoricht  
5001 Southgate Drive  
Billings, MT 59101

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – will be available for public review. If you wish to withhold personal identifying information from public review or disclosure under the Freedom of Information Act (FOIA), you must clearly state, in the first line of your written comment, “CONFIDENTIALITY REQUESTED.” While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. All submissions from organizations, from businesses, and from individuals identifying themselves as representatives of organizations or businesses, will be available for public review.

Upon review and consideration of public comments, the EA will be updated as needed. Based on our analysis, the land transfer and government housing decision will be made.

Prior to approval of the project, the Decision Record and FONSI will be finalized

If you have any questions or would like more information about the proposed project or issuance of the EA, Decision Record and FONSI, please contact Tracy Thoricht, Project Lead, at 406-896-5224.

Sincerely,

Rick Rymerson  
Field Manager  
North Dakota Field Office

## **FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

ENVIRONMENTAL ASSESSMENT (EA)

# DOI-BLM-MT –C030-2013-032

North Dakota Field Office Land Transfer and Long Term Housing Project

This unsigned FONSI and the attached EA #DOI-BLM-MT–C030-2013-032 for the North Dakota Field Office Land Transfer and Long Term Housing Project are available for public review and comment for 15 days beginning on April 10, 2013.

Based on the analysis of potential environmental impacts in the attached EA and consideration of the significance criteria in 40 CFR 1508.27, I have determined that with required and proposed mitigating measures the Land Transfer and Long Term Housing Project would not result in significant impacts on the human environment. An environmental impact statement (EIS) is not required.

The decision to approve or deny the North Dakota Field Office Land Transfer and Long Term Housing Project, and if appropriate a signed FONSI with rationale, will be released after consideration of public comments and completion of the EA.

**North Dakota Field Office  
Land Transfer and Long Term Housing Project  
DOI-BLM-MT-C030-2013-032-EA**

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**NORTH DAKOTA FIELD OFFICE  
LAND TRANSFER AND LONG TERM HOUSING PROJECT  
DOI-BLM-MT-C030-2013-032-EA**

**1.0 PURPOSE AND NEED**

**1.1 Introduction**

The Bureau of Land Management is preparing an Environmental Assessment for the potential transfer of approximately a 10 acre tract of land from the Bureau of Reclamation near Patterson Lake for the purpose of constructing long term government housing.

This housing would provide living quarters for employees due to the lack of available or affordable housing in Dickinson. Lack of housing is a serious problem for the BLM in achieving its mission and meeting workload requirements.

The BLM is the lead agency preparing this EA in cooperation with the Bureau of Reclamation, Great Plains Region/Dakotas Area Office. The BLM and the BOR will decide whether to transfer this land for the construction of government housing based on information gathered in the NEPA process. If approved, construction would start around June of 2013.

The portion of this property that will be impacted by construction will be limited to a 10 acre tract on the Western half of Tract 37. The adjacent wetlands will not be affected.

The long term goal is that four duplex-style dwellings will be constructed, with the first to be completed this year.

There may be some use restrictions implemented for the safety and privacy of the dwelling tenants.

This project will be conducted in coordination with local authorities and ordinances governing county access, building and construction.

**1.2 Purpose and Need for the Proposed Action**

The Department of the Interior, Bureau of Land Management, Montana/Dakotas State Office, North Dakota Field Office, in Dickinson, North Dakota, is preparing an Environmental Assessment for the identification and potential transfer of a 10 acre tract of land from the Bureau of Reclamation (Reclamation), Dickinson Reservoir excess project lands, on which to construct long term government housing.

The purpose of the action is to secure a property to provide living quarters for employees due to the expense and limited availability of housing options for BLM employees moving to Dickinson, North Dakota. Lack of available housing has limited the BLM's ability to achieve its mission and meet workload requirements. Prospective employees have declined job offers and new hire employees have abandoned positions because of forced, long commutes to reach adequate, affordable housing.

### **1.3 Conformance with Land Use Plan(s)**

This proposed action is subject to the decisions approved in the North Dakota resource Management Plan, which was approved on April 22, 1988. The plan has been reviewed to ensure that the proposed action is in conformance with the land use plan, terms, and conditions, as required by 43 CFR 1610.5.

### **1.4 Public Scoping and Identification of Issues**

Public scoping for this project was conducted through a public meeting held in Dickinson, ND at the BLM office on December 13, 2012 from 6:00 pm to 9:00 pm. One member of the public attended the meeting and no additional issues were identified.

Coordination with Reclamation has taken place in the completion of this EA in order to prepare the analysis and identify any protective measures.

The BLM consults with Native Americans under Section 106 of the National Historic Preservation Act. The BLM sent letters to tribes in North Dakota at the beginning of the 15-day scoping period informing them of the potential project and inviting them to submit issues and concerns BLM should consider in the environmental analysis. Letters were sent to the Tribal Presidents and the Tribal Historical Preservation Officer (THPO) or other cultural contacts for Three Affiliated Tribes in New Town, North Dakota, Turtle Mountain Band of Chippewa in Belcourt, North Dakota and Standing Rock Sioux Tribe in Fort Yates, North Dakota.

## **2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION**

**2.1 Alternative A – Proposed Action** - The Bureau of Reclamation Great Plains Region is proposing to transfer 10 acres of Reclamation managed lands to the BLM. Once the transfer is complete the BLM would construct, inhabit, and maintain long term government housing on the site. This transfer would reassign administration to the BLM and is in accordance with regulations found at 41 CFR 102-75.80 as implemented through the procedures found in the *Reclamation Supplement to Federal Property Management Regulations, Part 47 Utilization and Disposal of Real Property, Subpart 114S-47.2*. The parcel to be transferred is located in Section 7, Range 96 West, Township 139 North as shown on the attached map. (See attachment 1.) There is no federal mineral estate being considered with this transfer. The area is zoned as agricultural land. The construction of government housing within these 10 acres would result in the permanent closure of public recreational use.

The long term plan is for housing for up to eight units (single houses (1 unit) or duplexes (2 units)). The first two units is a duplex 30 feet wide by 74 feet long.

### **Exterior**

Building designs and exterior finishes would include consideration of visual resource management requirements of the wildlife area and the environmental setting. Exterior design considerations would include exterior finish colors compatible with the surrounding environment and a building design that considers traditional architecture within this rural area. Attached are the modular specifications for the duplex currently under contract for construction (See Attachment 2). Future housing units would be similar in nature. Landscaping would be incorporated with native shrubs and herbaceous vegetation. Fencing could be used for some or

all units and would also include consideration of Visual Resource Management of the wildlife area and the environmental setting.

### **Housing Development Site**

The site to be developed for up to eight family units will be designed and constructed according to BLM Standards, State of North Dakota and local city and county subdivision standards, whichever is the most stringent. Up to 4.6 acres of ground disturbance could be needed to construct 8 housing units and install the necessary utilities and infrastructure (parking, cul-de-sac, etc.)

Once the exact building sites for the housing units are identified, topsoil will be stripped and stockpiled nearby. The site will be leveled and sloped as needed to establish building pads, streets, and parking areas with appropriate grade and drainage. Foundations will be excavated. All dirt produced will be incorporated into onsite landscaping and grading. All disturbed areas would be topsoiled and re-seeded. Stormwater and erosion would be addressed with a valid Storm Water Pollution Prevention Plan and appropriate Best Management Practices would be followed.

### **Access**

The entrance to the site would be from the existing local road (40<sup>th</sup> Avenue SW). The site is within close proximity to the BLM office building and the Dickinson downtown area. A 60' wide road corridor would be developed from the 40<sup>th</sup> Avenue Southwest to the housing development. The access road would have a 26' surfaced finished top. The road would be designed and constructed according to BLM Manual 9113 Roads Manual or local city and county road standards whichever more stringent. Topsoil would be stripped from all cut and fill slopes areas, stockpiled, and replaced upon final construction. The disturbance limits less the roadway top would be seeded back to native vegetation. Stormwater and erosion would be addressed with a valid Storm Water Pollution Prevention Plan and appropriate BMP's. The 60' road corridor would be approximately 1125' long with a 1.55 acre disturbance area.

### **Utilities**

Utility access to the building site will be established via a 12' wide utility disturbance corridor. The disturbance area of the 12' wide utility corridor would be within the 60' wide road access corridor and therefore is already accounted for. This corridor will be located adjacent to the new access road and shall run at approximately a 30' offset and parallel to the center of the new access road starting at the intersection of 40<sup>th</sup> Avenue South and the new access road and running to the development site. Connections to the existing utilities will be designed and constructed by the administering utility. Utility connections that require crossing either County 10 or 40<sup>th</sup> Avenue Southwest would be bored underground in order to not disturb traffic.

Water service would be trenched in to the site from an existing 12" Southwest Water Authority water main that runs parallel to County 10 on the north side of the highway. Connection to this water line will require boring under County 10. From the highway bore and waterline connection, the new waterline will be trenched in southerly at a 6 foot or greater depth parallel to 40<sup>th</sup> Avenue South to the building site. The centerline of this temporary disturbance area for this work will be approximately 60' east of 40<sup>th</sup> Avenue South and no greater than 12' wide. After placement of the waterline and backfill, the disturbance area would be revegetated with native vegetation.

Electrical service would be trenched in to the site from an existing Roughrider Electric COOP underground line approximately 125 feet from the site along the established 12' wide utility corridor within the 60' wide access corridor.

Phone lines would be buried underground from existing communication cable along 40<sup>th</sup> Avenue Southwest.

Natural gas would be brought in from the closest location possible along the 12' wide utility corridor adjacent to 40<sup>th</sup> Avenue Southwest.

The State of North Dakota has jurisdiction over the sewer. The State would allow up to 4 units to be hooked up to one sewer system. BLM preference would be to have separate sewer system for every two units because if one septic fails it would only affect two units. The septic systems will be designed and constructed according to the requirements and standards of the State of North Dakota accounting for the soils present at the site. The disturbance area for the septic systems will be within the boundaries of the disturbed area of the housing development site.

All utility lines would be constructed and connections would be made according to current building codes and industry standards. Connection to utilities would be in accordance with specifications set by the utility companies.

When bringing in utilities to this area, a special use permit may be required to cross any other portions of Bureau of Reclamation lands.

## **2.2 Alternative B - No Action**

Under the No Action alternative, the transfer of lands between the Bureau of Reclamation and the BLM would not occur and the construction of long term government housing would not take place

## **3.0 AFFECTED ENVIRONMENT**

### **3.1 Introduction**

This chapter describes the existing environment (i.e., the physical, biological, social, and economic values and resources) within the analysis area that could be affected by implementation of the alternatives described in Chapter 2.

The existing environment is described by the different resources found throughout the project area. Only those aspects of the existing environment that are potentially impacted by this project are described in detail. The following aspects of the existing environment were determined to not be present or not potentially impacted by this project include: lands with wilderness characteristics, cave and karst resources, fire, forestry, geology/minerals, livestock grazing, wild and scenic rivers; Wilderness Study Areas; Areas of Critical Environmental Concern; hazardous wastes or solids. These resources and resource uses will not be discussed further in this EA.

### **3.2 Cultural Resources**

The project area was surveyed for cultural resources in 1990 by Powers Elevation and reported in "Edward Patterson Lake Cultural Resources Inventory Stark County, North Dakota" by Mervin G. Floodman. No cultural resources were located in the area proposed for transfer and

construction. The original survey covered a much larger area and included almost all of the BOR managed lands surrounding Lake Patterson. The field examination consisted of a thorough pedestrian inventory of the lands and employed systematic parallel pedestrian transects spaced at no more than 15 m intervals. The investigators indicated that visibility over the project areas was generally good to adequate for the recording of cultural sites and averaged between 20-30 percent.

Historically many Native American tribes occupied or visited western North Dakota. It is likely that at least nine distinct tribal groups were present at some time in the historic past. Today there are five reservations in North Dakota representing the Sioux, Chippewa, Cree, Metis, Mandan, Hidatsa and Arikara. Based on the outreach conducted for this proposed project no specific Native American cultural or religious concerns were identified for the project area.

### **3.3 Paleontological Resources**

Fossil (paleontology) resources typically occur in bedrock, usually within sedimentary units. In order to be preserved, the remains of animals and plants that lived in the past must die and have their remains covered by sediment before being completely destroyed. Over extensive periods of time, the sediment with its encased remains can be lithified to varying degrees, preserving the fossils within a geologic unit called a formation. The fossils will remain in the formation until they are exposed through natural erosion or human activity, when they can be eroded away and lost forever.

Given that the environment in which a formation forms will strongly influence its likelihood of preserving fossils, and that not all formations are equally likely to have fossils, the BLM uses a coding system to rank a formation's probability of containing significant fossils. This system is the Potential Fossil Yield Classification (PFYC), a numerical ranking from 1 (low potential) to 5 (very high potential). This system allows land managers to predict where significant fossils might occur in order to make informed planning decisions with regard to fossil resources.

However, several important points about the PFYC system should be kept in mind. Fossils are not evenly distributed throughout a formation, and so even highly ranked formations may produce only occasional fossils in a given locality. Similarly, fossils can be found in unlikely places. Indeed, the discovery of a fossil in a Class 1 rock unit might be all the more significant given its unexpected occurrence. The system is just designed to help in planning, and cannot replace detailed analysis on a case-by-case basis by trained personnel.

The underlying bedrock for the proposed housing development is the Sentinel Butte Formation. Because of the discovery of significant fossil resources within the Sentinel Butte Formation in the past, it has been ranked with the highest PFYC rank of 5. This means that while there is not much bedrock currently exposed at the site, ground disturbing activities associated with the housing development could very well impact the bedrock and thereby expose significant fossil resources. The activities that might impact fossils include, but are not limited to, trenching for utilities, site work that involves more than the top soil in cut and fill work and digging for roadways, foundations and septic systems.

### **3.4 Hydrology**

Review of groundwater data from the North Dakota State Water Commission private contractor logs ([http:// www.swc.state.nd.us/](http://www.swc.state.nd.us/) [accessed 01/23/12]) indicates that there are approximately 70

wells present within one mile of the proposed action. The wells range in depth from 50 to 912 feet and are largely completed in the Tongue River Formation. They are used as sources of domestic, commercial, industrial and irrigation water. The City of Dickinson also has a municipal water well at 1,962 feet completed in the Fox Hills Formation.

The proposed action is located within the Upper Heart River (HUC 10130202) Watershed and drains directly to Edward Arthur Patterson Lake (Dickinson Reservoir). Dickinson Reservoir is a water supply and recreational reservoir that was created by damming the main stem of the Heart River west of Dickinson. Drainages in the area are largely ephemeral in nature and flow as a result of snowmelt or precipitation events. Peak flows generally occur March through June, resulting from melting snow and rainfall. Intense flows of short duration occur throughout the summer following thunderstorms.

Patterson Lake is classified as partially supporting aquatic life and partially supporting recreation and is North Dakota Department of Health listed under §303(d) of the Clean Water Act as impaired due to nutrients, sediment/turbidity, and low dissolved oxygen. The North Dakota §303(d) list did not include any potential sources of these impairments; however, the “Nutrient & Sediment TMDL Development for Patterson Lake, North Dakota” (North Dakota Department of Health 2002) indicates that mining and oil exploration, agriculture, failing septic systems, and natural sources could be contributing to the impairment, although there are no data to support this.

The area of the proposed action contains no 100-year floodplains and is above the level of the Probable Maximum Flood (PMF) for Dickinson Reservoir. The PMF is defined as the maximum runoff condition resulting from the most severe combination of hydrologic and meteorological conditions that are considered reasonably possible for the watershed. The Bureau of Reclamation has determined the level of the PMF at Dickinson Reservoir to be 2,435.3 feet.

### **3.5 Lands/Realty**

The parcel consisting of 9.4 acres in Stark County has no existing structures or facilities built on it. The transfer of this parcel would not create issues. Potential exists for future rights-of-way actions.

### **3.6 Recreation**

Visitor use monitoring has not been conducted on the parcel of land being considered for transfer, however, the opportunity exists for hunting, hiking, camping, fishing, and wildlife viewing. Benefits and experiences enjoyed by recreational users include the opportunities for solitude, spending time with families, enhancing leisure time, improving sport skills, enjoying nature and enjoying physical exercise.

### **3.7 Socio-economics**

Dickinson had an estimated population of about 16,499 people in 2011 and the population increased 4.0 percent between 2010 and 2011. Median household income between 2007 and 2011 was \$54,541 which was higher than the North Dakota state median household income of \$49,415. In 2011, there were 7,883 housing units in Dickinson; 92.0 percent of these were occupied and 9.0 percent were vacant. By comparison the vacancy rate in Dickinson is less than the average rate in North Dakota (11.7%), South Dakota (11.8%) or Montana (15.6%).

Multiple Listing Service (MLS) statistics provide additional insights into the housing market in Dickinson. According to MLS statistics, both the number of homes listed for sale and the average selling prices have gone up over recent years. The number of homes listed for sale was up from 130 in March 2012 to 221 listings on March 3, 2013. Average sale price was also up over the same period from \$213,580 per unit to \$216,829 per unit.

The average length of time to sell a home has also increased, i.e. in March 2012 the time to sell a home was 109 days compared to 126 days on March 8, 2013. (Personal conversation with Barb Lupo, Associations Executive for Badlands Board of Realtors, March 11, 2013.)

Rental units in Dickinson were less affordable than the average in North Dakota, South Dakota or Montana. Gross rent exceeded 30 percent of income in 40.1% of households in Dickinson, 36.5% of households in North Dakota, 35.7% of household in South Dakota, and 39.5% of households in Montana.

Short term rentals (less than 6 month) are difficult to find. According to Larry Nygard of Roers (a development company in Dickinson) his company will work with renters if they rent for at least six months.

Prices have also gone up. Prices for rental units start at \$1,250 per month for a one bedroom; \$1,500 per month for a two bedroom; and \$1,700 per month for three bedroom apartments. Some are more expensive. Mr. Nygard indicated that prices for rental units in 2011 were about \$200 per month less than current prices.

Mr. Nygard acknowledged that housing costs are an issue in Dickinson, especially for entry level salaried positions and wage earners at entry level positions. Many local businesses offer starting wages at \$15 per hour to attract and/or retain employees. Schools, county government, and some businesses are offering housing allowances to attract and retain new employees. Some agencies are teaming with local non-profits that have access to state tax credits that reduce the rent for new and entry level employees.

### **3.8 Soils**

Soils generally developed from residuum and alluvium derived from the Sentinel Butte Formation, forming a Vebar and Manning soil series. Soils are commonly moderately to very deep and well to excessively drained. The principal ecological site is sandy (MLRA 54, 14-18 p.z). Surface textures are typically fine sandy loam. Terrain is gentle. Hydric soils occur around waterbodies. Soils within the project area are resilient to disturbance. Soils within the project area are susceptible to water and wind erosion.

### **3.9 Vegetation**

The project area is located in the Northern Mixed Grass Prairie. The major vegetation communities identified for this parcel are: native mixed grass prairie and other disturbed vegetative communities.

The native mixed grassland community is dominated by perennial grasses. Perennial grasses can be both warm season and cool season grasses and they can also be both tall and short grasses. Some of the more common grasses include: Western wheatgrass (*Pascopyrum smithii*), Needle-and-thread (*Hesperostipa comate*), Green needlegrass (*Nassella viridula*), Blue grama (*Bouteloua gracilis*) and Prairie junegrass (*Koeleria macrantha*).

Other disturbed vegetation communities include human disturbance or alterations to the landscape. These disturbances include, but are not limited to: infrastructure developments (e.g., roads, powerlines, pipelines, and fences), chemical applications, livestock grazing, farming and ranching and industrial and commercial facilities. Invasive, non-native grasses such as Smooth brome, Kentucky bluegrass and Crested wheatgrass are commonly found on these disturbed areas. The proposed parcel is situated between a residential community and an industrial park.

Noxious weeds occur randomly in isolated pockets. No known populations are located within the parcel, but it has the potential for infestation.

### **3.10 Visual Resource Management**

BLM Visual Resource classifications are only applied to BLM surface; as such, the affected environment for visual resources only consists of approximately 10.0 acres of BLM-administered surface in the analysis area.

A Class II VRM area classification means that the character of the landscape has unique combinations of visual features such as land, vegetation, and water. The existing character of the landscape should be retained. Activities or modifications of the environment should not be evident or attract the attention of the casual observer. Changes caused by management activities must repeat the basic element of form, line, color and texture found in the predominant natural features of the characteristic landscape.

A Class III VRM area classification means the level of change to the character of the landscape should be moderate. Changes caused by management activities should not dominate the view of the casual observer and should not detract from the existing landscape features. Any changes made should repeat the basic elements found in the natural landscape such as form, line, color and texture.

A Class IV VRM area classification means that the characteristic landscape can provide for major modification of the landscape. The level of change in the basic landscape can be high. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance and repeating the basic elements.

The North Dakota Field Office does not currently have Visual Resource Classifications established for any lands found within the project area.

### **3.11 Wildlife**

Wildlife surveys and resource studies historically have not been completed on the parcel of land that is being considered for transfer. More recently however, avian and general wildlife surveys have been completed for the parcel of land identified in the proposed action.

Although the parcel of land has never been cultivated for farming, most native plants have been compromised by lack of manipulation by mowing, fire or grazing. Therefore as mentioned in the vegetation section above, the increase of Kentucky bluegrass and Smooth brome grass, the avian or bird community has somewhat shifted as well. The shift has resulted in fewer species that rely on native grasses and forbs to species that are more tolerant of taller denser introduced grasses. Additional land practices such as planting tree rows (shelterbelts) and adding reservoirs to the small natural drainages have further changed the avian and mammalian community. Furthermore

the location of this parcel is situated between a residential community and an industrial park which further alters the natural avian community expected for this parcel.

Avian surveys indicated no nesting raptors were located on the parcel or within the general vicinity of the parcel. However, during annual fall and spring migrations several hawks such as the Red-tailed hawk, Coopers hawk, American kestrel and the Rough-legged hawk may be observed utilizing the area surrounding the project. Migrating and nesting waterfowl have also been observed utilizing the small impoundments near the project area. Dabbling ducks such as Mallards, Pintails, Blue-winged teal and Gadwalls are commonly observed. Other migratory birds that have been observed are Mourning Dove, Common Grackle, Chickadee, Nuthatch, American Robin, Western meadowlark, Rufous-sided Towhee, Brown Thrasher and the House Sparrow. Chinese ring-necked pheasants and White tailed deer are very common on and near the parcel. Other mammals that may utilize the general area could include raccoon, cotton-tail rabbit, skunk and muskrats.

There are no known Threatened or Endangered Species known to be associated with this site.

## **4.0 ENVIRONMENTAL IMPACTS**

### **4.1 DESCRIPTION OF IMPACTS FROM PROPOSED ACTION:**

#### **4.1.1 Cultural**

Under this alternative there would be no impact to known cultural resources as a result of the transfer of land from the BOR to BLM and the subsequent construction of employee housing.

No known Native American cultural or religious concerns will be impacted by this project.

#### **4.1.2 Paleontological Resources**

While there are no current bedrock exposures at the site, and no known fossil localities in the general vicinity of the project, earth moving activities associated with the development could impact significant fossil resources from the PFYC ranked 5 Sentinel Butte Formation. Given this, it is recommended that during times of surface disrupting activity that a qualified paleontologist is on site or nearby to assess, and if necessary mitigate, any fossil resources uncovered.

#### **4.1.3 Hydrology**

Potential impacts to groundwater would be associated with the operation and maintenance of septic systems. Short and long term impacts to groundwater quality include contamination through the addition of nutrients, chemicals and bacteria and would be associated with improperly maintained septic systems.

Short term impacts to surface water quality would be associated with site preparation, grading, and construction activities. These include increased sediment loading and contaminant runoff from construction equipment and materials. These construction related impacts would be temporary and negligible, and they would cease with the end of construction activities and the establishment of vegetation on the site. Long term impacts would result from an increase in the amount of impervious surfaces, which would result in increased runoff. Pollutants contained in runoff may include pesticides and fertilizers used in landscaping, sediment, de-icing chemicals, heavy metals and petroleum products/fluids associated with automobile use and maintenance.

The distance of the Proposed Action from the nearest waterbody would likely render the impacts from these pollutants as negligible. Impacts to surface water quality could include increased nutrient and bacteria concentrations in runoff if septic systems are improperly maintained.

There would be no short or long term impacts to 100-year floodplains.

#### **4.1.4 Lands/Realty**

Currently the area has no existing facilities on the site. Upon the lands being acquired through the transfer from the BOR, the BLM will have an additional 9.4 acres to include in the existing acreages in Stark County. Of the total acres, 4.6 acres would be impacted for the construction of 8 housing units and to install the necessary utilities and infrastructure, as stated below. The issuance of future rights-of-way do exist.

#### **4.1.5 Recreation**

Approximately 10 acres of land would be transferred to the BLM for the construction of long term government housing. Recreational impacts would exist for this project area. Construction, vehicle traffic and the act of residing at the proposed residence would result in the permanent closure of public recreational use on this 10 acre parcel. These impacts would be isolated to the transferred parcel, while the adjacent BOR lands would continue to provide the same recreational use opportunities that currently exist.

Foreseeable changes in recreation use levels include demand for recreational use of public land to increase. Increases could be expected in, but not limited to, hunting, fishing, hiking, camping and wildlife viewing. This could increase the incidence of conflict between recreationists involved in non-motorized activities.

#### **4.1.6 Socio Economics**

The projected housing would assist BLM employees seeking employment in the Dickinson area. The availability of affordable housing in the area is very difficult to secure and with government available housing prospective employees would be able to except employment offers in Dickinson at entry level or mid-level pay scales.

#### **4.1.7 Soils**

Approximately 4.6 acres of soils would be disturbed by facilities and infrastructure construction activities resulting in soil mixing, compaction, and ground cover removal. Soil mixing and ground cover removal would expose topsoil to accelerated erosion by wind and water. Compaction would decrease nutrient cycling and increase overland flow until the site returns to natural rates due to freeze–thaw cycles and root development. Avoiding vehicle use during conditions which lead to ruts greater than four inches deep would reduce soil compaction and mixing by vehicles. Project area soils are particularly susceptible to wind and water erosion; however application of erosion control measures would reduce such impacts. Soils would return to natural rates of erosion and compaction and support stable and productive vegetation within two to five years following disturbance. Hydric soils would be especially susceptible to compaction; however the distance from the disturbance area to existing waterbodies would avoid such impacts. Approximately 1.8 acres of soils would be permanently disturbed where facilities and infrastructure are located.

#### **4.1.8 Vegetation**

Up to 4.6 acres of vegetation would be removed to construct eight housing units and install the necessary utilities and infrastructure. The disturbance would present the opportunity for noxious weeds to become invasive and spread, which would be brought in by natural carriers and/or construction equipment. The BLM would be responsible for weed control on the transferred parcel. Following construction, the disturbed area will be reclaimed and seeded to meet the BLM's requirements to reestablish a vegetation regime that is appropriate for the area. The reclamation measures would help ensure potential impacts from noxious weeds and invasive plants to be minimal.

#### **4.1.9 VRM**

Construction of the eight housing units and necessary infrastructure has the potential to alter the visual character of the landscape, impacting visual resources. To mitigate these impacts, the site development design and construction would implement BLM Best Management Practices for Visual Resource Management regardless of the VRM class. This includes, but would not be limited to, proper site selection, reduction of visibility, minimizing disturbance, selecting color(s)/color schemes that blend with the background and reclaiming areas that are not in active use. Repetition of form, line, color and texture when designing the site would reduce contrasts between landscape and development. Wherever practical, no new development would be allowed on ridges or mountain tops. Overall, the goal would be to maintain the visual qualities or scenic value that currently exists.

#### **4.1.10 Wildlife**

Approximately five acres of native land would be altered to construct the actual housing project with the road included. Construction, vehicle traffic and the act of residing at the proposed residence would result in permanently or temporary displacement of some wildlife species including migratory bird species. Mortality of some relatively small, immobile species may occur as a result of construction. On a landscape basis, the new house and road would contribute to additional habitat fragmentation and dispersion of certain wildlife species. A loss of habitat for nesting, foraging, breeding, and cover for those species of wildlife associated with these habitat types would occur during the life of the project, which may include migratory bird species. The proposed project site is not considered prime habitat for whooping crane feeding or roosting. Because of the lack of Threatened and Endangered species in the proposed area, there would be no known adverse effect to any known federally listed T & E wildlife species.

### **4.2 DESCRIPTION OF IMPACTS NO ACTION ALTERNATIVE**

Under the No Action Alternative the transfer of land from the Bureau of Reclamation to the Bureau of Land Management would not take place and the subsequent construction of long term housing would not occur. As a result, there would be no impacts to resources such as cultural, paleontological, hydrology, lands/realty, recreation, soils, vegetation, VRM and wildlife.

#### **4.2.1 Socio-economics**

Under the no action alternative, providing living quarters for employees would not happen. Housing options for BLM employees moving to Dickinson, North Dakota would continue to be a problem due to the expense and limited availability. The North Dakota Field Office would continue to have problems achieving its mission and meeting workload requirement. Prospective employees would continue to decline job offers and new hire employees will continue to turn down positions offered because of forced, long commutes to reach adequate, affordable housing.

### **4.3 CUMULATIVE IMPACTS**

Cumulative impacts are defined in 40 CFR 1508.7 as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

The level and scale of the cumulative analysis should be commensurate with the proposed project’s potential impacts, scale and other factors. NEPA documents consider those past, present, and future actions that incrementally contribute to the cumulative effects on resources affected by the proposed action.

The long term plan is for housing for up to eight units (single houses (one unit) or duplexes (two units)). The units beyond the initial proposed unit could be built over an extended period of time, depending on funding availability.

There are no other known projects in the vicinity of the Preferred Alternative site.

There are no reasonably linked past actions associated with the Preferred Alternative.

The project would not affect sensitive or critical resources, lead to a wide range of effects, induce population growth, lead to further development, or require expansion of development infrastructure. Impacts from implementation of the Preferred Alternative are expected to be negligible on a cumulative basis, except for the minor localized effects on air quality, noise, and visual resources during construction.

The proposed project site is located between and residential development and an industrial park, which is surrounded by dryland farming and busy city. The placement of the government houses will impact individual wildlife species but will add negligible stress to the population level, however, the result past actions coupled with this action would increase the extent of stressors on the native fauna in the general area. Short term (<5 years) impacts from the proposed action would include soil erosion, reduction in vegetative cover, increased potential for spreading of noxious weeds in the area; additional habitat fragmentation and permanent or temporary displacement of some wildlife species including migratory bird species. Long term (>5 years) cumulative impacts that are reasonably foreseen from existing and proposed activities include an increase in habitat fragmentation on a landscape scale.

### **4.4 MITIGATION**

#### **4.4.1 Paleontology Resources**

Based on the potential for the presence of significant paleontological resources it is recommended that a qualified paleontologist be on site or nearby to assess and if necessary mitigate, any fossil resources uncovered during construction activities.

#### **4.4.2 Hydrology**

Construction would implement Best Management Practices for stormwater management as detailed in an approved Stormwater Pollution Prevention Plan filed with the North Dakota Department of Health.

#### **4.4.3 Soils**

Avoid vehicle use during conditions which lead to ruts greater than four inches deep.

### **5.0 CONSULTATION/COORDINATION**

#### **5.1 Persons, Agencies, and Organizations Consulted**

Bureau of Reclamation  
North Dakota State Historic Preservation Office  
Mandan, Hidatsa and Arikara Nation  
Standing Rock Sioux Tribe  
Turtle Mountain Band of Chippewa Indians

#### **5.2 List of Preparers**

Gary Smith – Archaeologist  
Greg Liggett--Paleontologist  
Tim Zachmeier – Wildlife Biologist  
Shelly Gerhart – NRS  
Chris Robinson – Hydrologist  
Guy Stickney – Engineer  
Linda Gisvold – Realty Specialist  
Kelly McPhillips – BOR NEPA Spec  
Kathy Bockness – BLM NEPA Spec  
Mel Schroeder – Soil Scientist

### **6.0 REFERENCES**

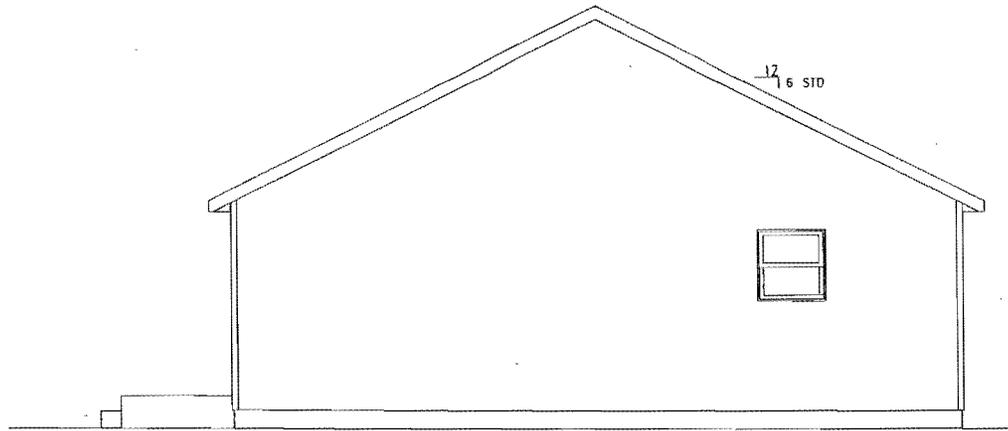
- Floodman, Mervin G.  
1990 Edward Patterson Lake Cultural Resources Inventory Stark County, North Dakota.  
Report to the Bureau of Reclamation. Copy on File Montana State Office, Bureau of  
Land Management.
- Lupo, Barb, Association Executive for Badlands Board of Realtors, personal conversation,  
March 11, 2013.
- Nygaard, Larry, Roers Development Company, personal conversation, March 12, 2013.
- U.S. Census Bureau: State and County QuickFacts, revised January 10, 2013.
- U.S. Department of Commerce, 2012 Census Bureau, American Community Survey Office,  
Washington, D.C.



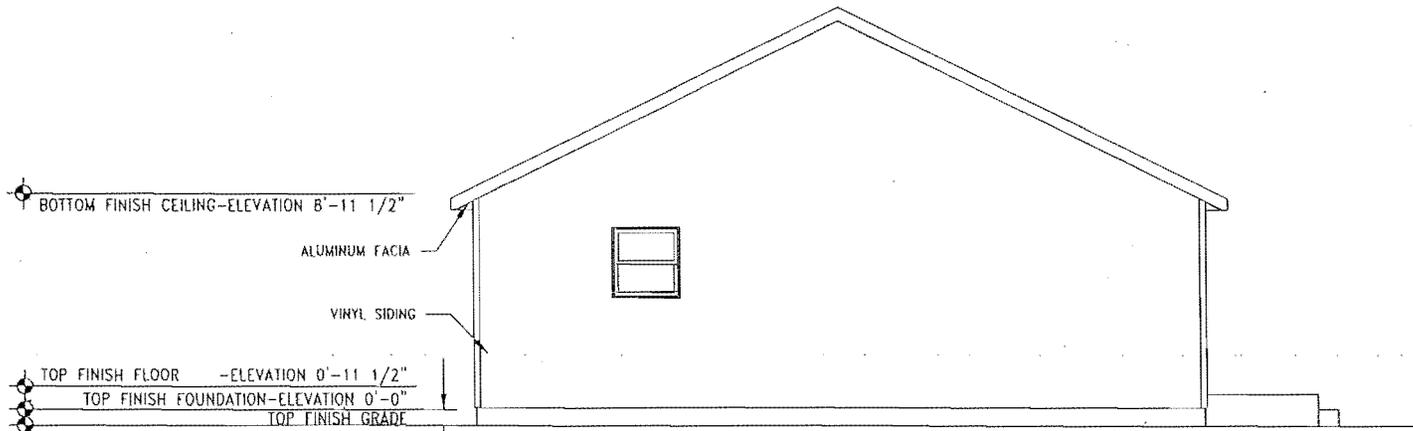
*Proposed Site*

*9.4 Acres*





RIGHT



◊ BOTTOM FINISH CEILING-ELEVATION 8'-11 1/2"  
 ALUMINUM FACIA  
 VINYL SIDING  
 ◊ TOP FINISH FLOOR -ELEVATION 0'-11 1/2"  
 ◊ TOP FINISH FOUNDATION-ELEVATION 0'-0"  
 ◊ TOP FINISH GRADE

CLEARANCE TO GRADE AS REQUIRED BY  
 AUTHORITY HAVING JURISDICTION. (TYPICAL)

LEFT

