

Draft Environmental Assessment
MINNEWAUKAN RELOCATION PROJECT
Minnewaukan, Benson County, North Dakota
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List of Acronyms

AAQM	Ambient Air Quality Monitoring
ADT	Average Daily Traffic
AMSL	Above Mean Sea Level
AST	Aboveground Storage Tank
BCHA	Benson County Housing Authority
BGEP	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
cfs	Cubic Feet Per Second
CIPP	Cured-in-Place-Pipe
CO	Carbon Monoxide
DNL	Day/Night Noise Level
dB	Decibel
EA	Environmental Assessment
EDA	Economic Development Administration

EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
HUD	Housing and Urban Development
KL&J	Kadrmass, Lee & Jackson
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
NAGPRA	Native American Graves Protection and Repatriation Act
NASS	National Agricultural Statistics Service
NDDH	North Dakota Department of Health
NDDOT	North Dakota Department of Transportation
NDPDES	North Dakota Pollutant Discharge Elimination System
NEPA	National Environmental Policy Act
NO ₂	Nitrogen Dioxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O ₃	Ozone
Pb	Lead
PL	Public Law
PM	Particulate Matter
PVC	Polyvinyl Chloride
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Office
SHSND	State Historical Society of North Dakota
SO ₂	Sulfur Dioxide
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank

Chapter 1. Introduction

1.1 Introduction

The President's Council on Environmental Quality (CEQ) has developed regulations for implementing the National Environmental Policy Act (NEPA). These federal regulations, set forth in 40 Code of Federal Regulations (CFR) Parts 1500 to 1508, require an evaluation of alternatives, and a discussion of the potential environmental impacts of a proposed federal action, as part of the Environmental Assessment (EA) process. An EA is an informational document intended for use by both decision-makers and the public. It discloses relevant environmental information concerning the proposed action(s) and the no action alternatives.

This EA has been prepared according to the NEPA as applied to the Federal Emergency Management Agency (FEMA) in 44 CFR Part 10; the Economic Development Administration (EDA) in 13 CFR Part 302; the United States Department of Housing and Urban Development (HUD) in 24 CFR Part 58; and the United States Army Corps of Engineers (USACE) in 33 CFR Part 230. These implementing regulations require the aforementioned agencies to take into account environmental considerations before funding or approving actions. Therefore, EDA, HUD, and USACE have been invited to be "Cooperating Agencies" under Section 101(A) of the NEPA.

1.2 General Project Description

Due to the threat posed by the rising elevation of Devils Lake, the City of Minnewaukan and Minnewaukan Public Schools have submitted applications for FEMA Hazard Mitigation Funds to acquire and/or relocate structures within Minnewaukan, ND that are at the greatest risk for inundation. Benson County Housing Authority (BCHA) submitted a funding application through HUD to relocate structures under their ownership. In order to provide a relocation site and infrastructure for residents, businesses, and the school, the City has applied for funding through the EDA to build infrastructure at a new town site location approximately one mile northwest of the existing town site. The City has also sought funding from the USACE to construct a



Figure 1: Minnewaukan Aerial View of Flooding

new water tower at the proposed town site location, as well as funding from the Drinking Water State Revolving fund to relocate the municipal well line. ***Please refer to the Project Area Location Map in Appendix A.***

1.3 Project Background

The city of Minnewaukan is an incorporated city located on the western shores of Devils Lake and is the county seat for Benson County, North Dakota. A portion of the city, located east of C Avenue, is located on the Spirit Lake Reservation. Over the last 18 years, the lake has tripled in size and has risen over 30 feet in elevation. The city is generally centered on an abandoned railroad bed which is also the high point of town. Past studies by the United States Army Corps of Engineers (USACE) have indicated that all parts of the town are vulnerable to the waters of Devils Lake if the maximum elevation of 1,458.0 feet above mean sea level (AMSL) is attained. Devils Lake generally flows from west to east, with most of the inflow into the basin coming in north of Minnewaukan. Flows travel through the lake similar to a river working from west to east, so there can be one to two-foot variations in calm conditions. Additionally, waves in the Minnewaukan area can reach up to five feet. In a worst case scenario, the slope of the lake, combined with possible wave action, could impact the entire city of Minnewaukan.

The following sections summarize the existing conditions within Minnewaukan as a result of the continued rise of Devils Lake. While the purpose of the project is not to correct the infrastructure concerns within the existing town site, the threat of inundation of these facilities are contributing to the need to relocate or acquire structures in Minnewaukan and provide a new town site with reliable infrastructure.

1.3.1 Existing Conditions

Devils Lake rose 2.6 feet this year (2011) from an elevation of 1,451.6 feet AMSL in March to the current lake elevation of 1,454.2 feet AMSL. The lake is still rising and could go up an additional 6 inches this year due to future precipitation events. This rise in lake elevation poses a threat to residences, businesses, and essential infrastructure within Minnewaukan, as described further below. ***Please refer to Table 1, Conditions as Devils Lake Elevation Rises.***

Table 1: Conditions as Devils Lake Elevation Rises

Lake Elevation (feet AMSL)	Conditions at Lake Elevation
1,454.2	Existing Lake Level; 3,700 feet of well line under the lake; low-lying structures in Minnewaukan at a high risk of inundation
1,454.5	Water at the base of water tower, threatening stability of the tower
1,455.0	Bait shop, construction company, fishing resort, and restaurant are inundated
1,456.5	Municipal well is inundated

Table 1: Conditions as Devils Lake Elevation Rises

Lake Elevation (feet AMSL)	Conditions at Lake Elevation
1,458.0	7,500 feet of associated well line under the lake; Devils Lake naturally overflows into Tolna Coulee
1,460.0	At least 38 residential and commercial structures inundated
1,461.0	Water treatment plant effluent ponds are inundated
1,464.0	Wastewater ponds are inundated

1.3.1.1 Threatened Buildings and Structures

Residential, school district and government building structures have been impacted, or will soon be impacted, by the rising elevation of the lake. The increase in lake elevation also poses risks to the integrity of water and sanitary sewer infrastructure.

The eastern portion of town is home to multiple businesses. An excavation company, bait shop, fishing resort, and restaurant are all located along or east of C Avenue (old Highway 281). These businesses would be threatened by the rising lake level at an elevation of 1,455.0 feet AMSL. In addition to businesses within Minnewaukan, there are approximately 38 residential homes and/or businesses below the elevation of 1,460.0 feet AMSL in Minnewaukan, which places these properties in significant danger of inundation.

The Minnewaukan Public School is a small school located in Minnewaukan that provides PreK-12 education to students throughout the region. The school building is located on the eastern edge of the community near the city's water tower. This spring, the lake encroached into the parking lot east of the school and reached the bus barn. The water is within 50 feet of the base of the water tower.

As a result of the encroaching lake elevation, the Minnewaukan School District initiated a relocation plan in the fall of 2010, and was awarded a \$7.1 million grant from the US Department of Education to demolish and rebuild the school on higher ground. The school has purchased approximately 45 acres of land located to the northwest of Minnewaukan and is scheduled to open in December of 2012. The school budget does not include road access or utility extensions (e.g., sewer and water) that will need to be provided at the new site.

1.3.1.2 Threatened Water, Waste Water, and Road Infrastructure

Over the years, the City has developed and maintained a water and sanitary sewer infrastructure that is now threatened by the rising elevation of Devils Lake. While the City has taken precautions against the rising water of Devils Lake to maintain the integrity of the water and sewer systems, it is anticipated that the continued rise of the lake level will jeopardize the utility infrastructure. City projects have been completed in the past to combat the lake level rise. As additions and modifications have been made to the utility infrastructure over time, it is difficult to estimate the overall historical cost of the systems to the City; however, it is estimated to be in the millions of dollars.

Water System Infrastructure

The current water system consists of supply, treatment, storage and distribution components and has been designed to provide fire flows. The city's water supply is provided by the city's well that is located approximately seven miles north of town. The water plant treats the source water to meet the drinking water primary standards. Water is stored in a 15,000 gallon clear well and is pumped through the transmission and distribution system to the 50,000 gallon elevated storage tank in town. The water treatment plant is at an elevation of 1,473.6 feet AMSL which is well above any projected lake elevations, but the waste ponds for the water treatment plant are at an elevation of 1,461.0 feet AMSL. The distribution system throughout the community consists of 6-inch polyvinyl chloride (PVC) water mains.



Figure 2: Devils Lake Encroaching on Water Tower

Various water system deficiencies are identified that are due to the past and anticipated lake elevation rise. These include:

- Approximately 3,700 feet of well line is currently under the lake and is inaccessible, making it difficult to maintain. If the lake reaches the maximum elevation of 1,458.0 feet AMSL, approximately 7,500 feet of well line will be under the lake. If the well line ruptures, an emergency project to relocate the line to the water treatment plant would be required.

- The well site is located at an elevation of 1,456.5 feet AMSL. At this elevation the well site could be inundated in 2012 given the recent trend in lake elevation.
- The water tower is jeopardized by the rise in the lake level. At lake elevation 1,454.5 feet AMSL, the water would be at the grade elevation of the tower footings/legs, potentially compromising the structure's stability.
- The existing water distribution system will have large sections under the lake at an elevation of 1,458.0 feet AMSL. These areas need to have the water supply disconnected and the hydrants salvaged.

Waste Water System Infrastructure

The current waste water system consists of a collection system, sewage lift stations and stabilization lagoons. There are 8-inch cured-in-place-pipe (CIPP) sewer mains throughout town that are supported by three sanitary lift stations. The primary lift station is located at the northeast corner of town and pumps the sewage to the two-cell total containment stabilization lagoons located approximately one mile northwest of the city. The lagoon dikes are at an elevation of 1,463.0 feet AMSL, protected from the lake levels.

There are various sanitary sewer system deficiencies identified due to the past and anticipated rise lake elevation. These include the following:

- While lift stations in low lying areas were recently raised, the current trend in the rising lake elevation will jeopardize all the lift stations with inundation.
- While the sanitary sewer mainlines are PVC, the sewer service connections to the individual building structures are predominantly clay tile, allowing infiltration and subsequent intermixing of sewer and lake waters.
- The existing force main pumps are located 1.5 miles to the northwest of the existing sewage lagoons. Approximately one mile of the force main is currently under the lake.

If the forecasted lake level rise occurs, it is anticipated that a substantial amount of inflow through the clay tile sanitary services will inundate the three lift stations to a point where they will cease to operate. During the time period of increased pumping, the stabilization lagoons will fill to their design capacity and may lead to a bypass situation that violates the permits for the system.

Portions of the existing sanitary sewer system serving the downtown area not being relocated will be flood-proofed using FEMA HMGP funds. This action was addressed in a separate NEPA document because it is functionally independent and not a connected action.

Road Infrastructure

The road system to the existing community has suffered losses over the years. U.S. Highway 281, which used to go through Minnewaukan, was relocated to higher ground to

the west in 2005. The old highway is underwater directly north of town and is underwater two miles south of town. Various streets within the community have also been inundated by the lake, limiting access within Minnewaukan. As the lake continues to rise, additional roads will go under water.

1.3.1.3 Emergency Levee Construction

In February 2011, the City of Minnewaukan asked the USACE to initiate advanced measures to protect the eastern side of town. The City requested a temporary levee be constructed east of the school and water tower, tying to higher ground to the west. The levee varies from two to eight feet in height, with a top elevation of 1,458.0 feet AMSL. The levee extends north and south of the school (on the east side), going north diagonally past the bait shop and water tower to tie into the old U.S. Highway 281 and extending south from just east of the school and cutting diagonally across the ballpark. This action, in addition to the closure of culverts in the southern side of town, will enable some businesses, the school, and some residents to remain in town as relocation plans are initiated.

The emergency levee was completed in July 2011. The USACE has constructed this levee as a temporary measure and the levee will be removed or breached within two years of completion.

Chapter 2. Purpose and Need of Action

2.1 Purpose and Need

The purpose of this project is to substantially reduce the risk of future damage, hardship, loss, or suffering in Minnewaukan from rising water levels of Devil's Lake. The need exists to protect residential, commercial, and government structures that are in danger of being impacted as the lake elevation continues to rise.

2.2 Description of the Proposed Action

The Proposed Action consists of six separate projects that are considered connected actions under NEPA. The Proposed Action, which is cumulatively referred to as the Proposed Project in this EA, refers to the following:

1. City acquisition of a new town site, as well as infrastructure development to, and within, the new town site;
2. Relocation of the municipal well line;
3. City construction of a new water tower and demolition of the existing water tower;
4. City relocation of 18 residential and/or commercial structures and acquisition of 69 residential and/or commercial structures;
5. Minnewaukan Public Schools relocation of three residential structures; and
6. BCHA relocation of six residential structures.

Minnewaukan Public Schools has acquired a 45-acre tract approximately one mile northwest of the existing town site and proposes to construct a new school on 15 acres of this site through U.S. Department of Education funding as a separate project from the Proposed Action. The City of Minnewaukan is proposing to purchase the remaining 30 acres from the school for the town relocation, which would accommodate the relocation of 27 structures as proposed by the City, School, and BCHA. The City of Minnewaukan is also purchasing an additional 35 acres adjacent to this parcel on the east side of U.S. Highway 281 for future industrial development. ***Please refer to Chapter 3, Alternatives Considered, for a more detailed description of the Proposed Action.***

Chapter 3. Alternatives Considered

3.1 Introduction

This chapter provides information on the development and evaluation of project alternatives. The development of alternatives is directly related to the purpose and need for the project. A no build alternative and one build alternative are under consideration and described in the following sections.

3.2 Alternative A: No Action

Under the No Action alternative (Alternative A), efforts to maintain utility infrastructure within the existing town site, develop new infrastructure at a proposed town site, and relocate and/or acquire school, residential, commercial, and government properties would not be pursued. There would generally be no environmental impacts associated with the No Action alternative; however, the waters of Devils Lake would continue to rise and eventually inundate the existing city of Minnewaukan. Additionally, public health and safety concerns (e.g., not being able to provide basic public services) would occur under this alternative as homes, businesses, and infrastructure are inundated, as well as socioeconomic impacts from loss of Minnewaukan's economy. This alternative would not meet the purpose and need of the project.

3.3 Alternative B: Proposed Action

The following sections summarize the various projects and associated components that are proposed under Alternative B. Construction of Alternative B is anticipated to occur during the 2012 construction season. Alternative B is estimated to cost a total of approximately \$13 million. ***Please refer to the Alternative B: Overview exhibit in Appendix A.***

3.3.1 New Town Site Acquisition and Infrastructure

Alternative B would consist of the City of Minnewaukan acquiring approximately 80 acres of land in the NW¼ of Section 9, Township 153 North, Range 67 West in Benson County, North Dakota. Forty-five acres of this site, located west of U.S. Highway 281, would consist of four industrial lots, four commercial lots, Minnewaukan Public School, and 38 residential lots. Thirty-five acres east of U.S. Highway 281 would be purchased for industrial development.

In order to accommodate proposed relocations to this site, the City would construct infrastructure within and to the new town site as discussed in the following sections. Infrastructure development would primarily be funded with a grant from the EDA, with the exception of the new water tower construction and demolition of the existing water tower, which would be funded primarily by USACE. ***Please refer to the Alternative B: New Town Site and the Alternative B: New Town Site Utilities exhibits in Appendix A.***

3.3.1.1 Drinking Water System

Minnewaukan's water treatment plant is located between the existing and proposed town sites. The City can continue to provide economical drinking water to the community using the existing treatment plant. The distribution system to the new town site would consist of 8-inch and 12-inch distribution mains, valves, fire hydrants, and a new water tower. The existing town site and proposed town site would be connected with 12-inch mains to provide fire protection to both towns. The total length of the new water mains would be approximately 2.3 miles. The City of Minnewaukan is considering connecting to the rural water supply system as an alternative to using the existing well and water treatment system; however, this would be made at a later date and is outside the scope of this EA. If the City decides to connect to the rural water supply system, it would be subject to NEPA and additional detailed analysis would be required.

In addition to a new drinking water distribution system, the existing municipal well line would be relocated approximately 0.5 miles west of its existing location. Approximately 18,000 feet of 6-inch PVC well supply line would be constructed on ground above elevation 1,460.0 feet. Funding for the relocation of the well line would be provided by Drinking Water State Revolving Funds.

3.3.1.2 Road Infrastructure

One 2,600-foot primary road would be constructed traveling north-south within the new town site with approximately 250 feet of east/west approaches to U.S. Highway 281. The primary road and approaches would be funded by the EDA. The road would consist of a 28-foot graded road top with 3:1 in-slopes. The roadway would be paved as funding becomes available. ***Please refer to Appendix A for typical sections for the proposed road infrastructure.*** Additional roadways to access the proposed residential subdivision and industrial park would be developed using separate, private funds.

3.3.1.3 Sewer System

The new town site is located directly west of the existing sewage lagoons. The new town site would provide a gravity sewer collection system consisting of manholes and 8-inch sewer mains. The total length of the sewer mains would be approximately 2.9 miles. The gravity system would empty into a new lift station on the proposed town site that would pump to the existing lagoons.

3.3.2 City Relocations and Acquisitions

Under Alternative B, the City of Minnewaukan would relocate 18 residential and/or commercial structures and acquire 69 residential and/or commercial structures using FEMA Hazard Mitigation funds. Acquisitions would consist of the City buying out the properties through FEMA funds, selling off or demolishing the existing real estate, and placing the

property (Lot) into a deed restricted covenant per applicable federal, state and local requirements.

Proposed relocations would be relocated to the proposed town site in the NW¼ of Section 9, Township 153 North, Range 67 West. A foundation would be laid for the structures at the proposed relocation site and each structure would then be physically relocated to the site. The previous structure site (Lot) would then be restored and placed into a deed restricted covenant. ***Please refer to the Alternative B: Relocations and Acquisitions exhibit in Appendix A, and Appendix B for a list of the properties proposed for relocation and acquisition.***

3.3.3 Minnewaukan Public School Relocations

Under Alternative B, Minnewaukan Public Schools would acquire and relocate three residential structures to the proposed town site using FEMA Hazard Mitigation funds. A foundation would be laid for the structures at the proposed relocation site and each structure would then be physically relocated to the site. The previous structure site (Lot) would then be restored and placed into a deed restricted covenant. ***Please refer to the Alternative B: Relocations and Acquisitions exhibit in Appendix A, and Appendix B for a list of the properties proposed for relocation and acquisition.***

3.3.4 BCHA Relocations

BCHA would relocate one apartment building and five residential structures to the proposed town site using HUD funds. A foundation would be laid for the structures at the proposed relocation site and each structure would then be physically relocated to the site. The previous structure site (Lot) would then be restored and placed into a deed restricted covenant. ***Please refer to the Alternative B: Relocations and Acquisitions exhibit in Appendix A, and Appendix B for a list of the properties proposed for relocation and acquisition.***

3.4 Alternatives Considered but Eliminated from Further Analysis

3.4.1 New Town Site Acquisition

The Minnewaukan Public School District looked at parcels of land near the existing town site for the purposes of relocation. Four alternative sites were considered for relocation of the City. ***Please refer to Table 2, Alternative Relocation Sites, for a summary of locations considered and reasons for elimination.***

Table 2: Alternative Relocation Sites

Alternative	Legal Description	Reason for Elimination
1	NE¼ of Section 16, T153N, R67W	Determined not economically feasible as landowner wants \$10,000 per acre
2	N½SW¼ of Section 9, T153N, R67W	The landowner is not willing to sell and use of eminent domain is the only option
3	NW ¼ of Section 15, T153N, R67W	The landowner is not willing to sell and use of eminent domain is the only option
4	NW ¼ of Section 22, T153N, R57W	The site was determined to have limited availability for expansion, and other sites analyzed would allow the city room for growth. Additionally, landowner is unwilling to sell and eminent domain is the only option.

3.4.2 Relocations and Acquisitions

Property owners using FEMA Hazard Mitigation funds had the discretionary authority to determine whether their property would be acquired or relocated; therefore, while other alternatives were considered for the acquisition and relocation of properties (i.e., an alternative to relocation would be acquisition), only the alternatives selected by the property owner are presented in this EA.

3.4.3 Drinking Water System (Individual Wells)

Individual drinking water wells for each residence and business within the new town site were considered. However, the alternative was eliminated because well water quality in the area may not meet the drinking water standards established by the Environmental Protection Agency (EPA). Additionally, the cost associated with installing an individual well for each home (approximately \$2,000 per home) was not deemed economically feasible for the City.

3.4.4 Sewer System

Individual septic systems were also considered at the new town site. However, this option would require a minimum of 40,000 square-foot (0.92 acre) lots, roughly tripling the size of each lot and requiring the town to acquire additional land to meet the current needs.

3.4.5 Permanent Embankment

Another alternative considered was the construction of an embankment around the city to prevent flooding as lake waters rise. Such an embankment would be about two miles long and would also require pump stations to remove interior drainage water. This alternative was not selected because it is likely that ground water levels would further rise on the landward side of the embankment, leading to increased water intrusion and structural

problems for protected homes. There are already such problems attributed to rising lake levels, and they would be expected to worsen as lake levels continue to rise because an embankment would not reduce ground water movement. Wet conditions in homes may also lead to mold problems, and associated health risks. Finally, it is also unlikely that the City of Minnewaukan would be able to afford the ongoing cost of operating and maintaining the pump stations needed for such a project. ***Please refer to Appendix P, USACE Minnewaukan Flood Risk Reduction Alternative Analysis.***

3.5 Future Phases of the Relocation

Future development of the new town site (beyond the approximately 80-acre site), additional utilities construction, and/or relocation or acquisition of properties beyond what is described herein is outside the scope of this EA. Future phases of the relocation, including connection to the rural water supply system, shall be subject to applicable federal, state, and local regulations and requirements.

Chapter 4. Affected Environments and Environmental Impacts

4.1 Introduction

This chapter describes the existing conditions within the study area. ***Please refer to the Project Area Location Map in Appendix A to view the study area.*** The existing conditions, or affected environment, are the baseline conditions that may be affected by the proposed action. This chapter also summarizes the positive and negative direct environmental impacts of the project alternatives, as well as cumulative impacts. Indirect impacts are discussed in impact categories where relevant. Information regarding the existing environment, potential effects to the environment resulting from the proposed alternatives, and mitigation measures for adverse impacts are included. Please note that, while the construction of a new public school at the proposed town site is being implemented separate from the Proposed Action, it is included in the impact assessment due to its location within the new town site.

4.2 Geology and Soils

The study area is located within the Williston basin, where the shallow stratigraphy consists of glacial drift deposits known as the Coleharbor Formation. According to the United States Geological Survey (USGS), the Coleharbor Formation dates to the Quaternary Period (2.5 million years ago to present time) and consist of “sandy, silty clay with pebbles of limestone, dolomite, granite, gneiss, and basalt; nonorganic bedded clay, silt, sand, and gravel” (2006c).

The topography within the study area is primarily part of the USGS-identified Drift Plains, which are part of the larger Northern Glaciated Plains Ecoregion. According to the USGS, the Drift Plains are characterized by “undulating topography and a thick mantle of glacial till...Because of the productive soil and level topography, this ecoregion is almost entirely cultivated with many wetlands drained or simply tilled and planted” (2006c).

The Natural Resource Conservation Service (NRCS) Soil Survey of Benson County dates from 1979, with updated information available online through NRCS Web Soil Survey. The study area consists of 24 different soil map units that are predominantly loams. The following four soil map units cumulatively comprise over half of the study area: Great Bend-Overly silt loams (22%), Overly silt clay loam (17%), Balaton Wyard loams (16%), and Barnes-Buse loams (11%). The remaining 20 soil map units each comprise 6% or less of the study area. The primary soils in the study area have low to moderate susceptibility to sheet and rill erosion. In addition, these soils can tolerate high levels of erosion without loss of productivity. The majority of the soils are moderately well drained to well drained.

4.2.1 Geology and Soil Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact soils or geology.

Alternative B (Proposed Action)—Implementation of the Proposed Project would not adversely impact the geological setting. Soil impacts resulting from Alternative B would be localized, and best management practices (BMPs) would be implemented to minimize these impacts.

Surface disturbance caused by relocation activities and utilities construction would result in the removal of vegetation from the soil surface. This can damage soil crusts and destabilize the soil. As a result, the soil surface could become more prone to accelerated erosion by wind and water. BMPs used at the site to reduce these impacts could include erosion and sediment control measures during and after construction, segregating topsoil from subsurface material, establishing vegetative cover on disturbed areas immediately after construction activities are completed, the use of construction equipment appropriately sized to the scope and scale of the project, maintaining proper drainage, and other standard practices deemed appropriate to the setting.

4.3 Land Use and Planning

4.3.1 Land Use

Land cover within the eastern portion of Benson County consists largely of fields tilled with wheat, small grains, sunflowers and alfalfa. High concentrations of temporary and seasonal wetlands create favorable conditions for waterfowl nesting and migration. The study area is located within a predominately rural setting containing farmsteads, developed roadways, and the current city of Minnewaukan. According to National Agricultural Statistics Services (NASS) data, land within the study area is primarily urban/developed, grasslands, and cultivated lands. *Please refer to Table 3, Land Use, and the Land Use exhibit in Appendix A.*

Table 3: Land Use

Land Classification	Acreage	% of Study Area
Cultivated	118.3	29.2
Grasslands	83.3	20.6
Open Water	3.4	0.8
Wetlands	14.8	3.7
Woodlands	0.2	< 0.1
Urban/Developed	185.0	45.7
TOTAL	405.0	100.0

Source: NASS, 2010

4.3.1.1 Land Use Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impact on land use. Land uses would change regardless of any action, as the existing town site is anticipated to become inundated and lost to the rising waters of Devils Lake.

Alternative B (Proposed Action)—As shown in **Table 4, Land Use Impacts**, Alternative B would result in the permanent conversion of approximately 80.0 acres of land from present use to a mix of community-related uses (i.e., a new town). An additional 10.9 acres of permanent impacts would be the result of existing properties being acquired and, if not inundated, may result in a permanent conversion of these residential or commercial parcels into other community-related uses. Alternative B would also result in the temporary conversion of approximately 30.8 acres of land from present use to utility corridors. Areas of temporary disturbance would be returned to pre-construction conditions following the completion of construction. Due to the rural surroundings of the project area and the primarily agricultural-driven economy, it is unlikely that land uses within the study area would significantly change following the Proposed Project.

Table 4: Land Use Impacts

Land Classification	Permanent Impacts (Acres)	Temporary Impacts (Acres)
Cultivated	58.2	12.1
Grasslands	14.1	14.1
Open Water	0.0	0.0
Wetlands	2.1	2.0
Woodlands	0.0	0.0
Urban/Developed	16.5	2.6
TOTAL	90.9	30.8

4.3.2 Zoning

The study area is located in a rural portion of Benson County, North Dakota, comprised primarily of cultivated lands and grasslands, as well as urban/developed land within Minnewaukan and along roadway corridors. The City of Minnewaukan has recently resumed control of zoning from Benson County. Currently, the study area is zoned according to the Benson County Zoning Ordinance (2003), which identifies the whole of the county as an

Agricultural District. Within this district is also an industrial/manufacturing district, which allows agricultural development.

4.3.2.1 Zoning Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impact on zoning.

Alternative B (Proposed Action)—Alternative B would permanently convert approximately 80.0 acres of actively farmed land into commercial, residential, government, and industrial uses.¹ The proposed town site is currently zoned agricultural and would need to accommodate the use of the proposed town site. Utility construction to the new town site would not impact zoning within the study area.

4.4 Prime Farmland

The Farmland Protection Policy Act (FPPA) of 1981 (7 U.S.C.4201 et seq.) provides protection to prime and unique farmlands. Prime farmlands are those that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, oilseed crops and are also available for these uses (i.e., not developed land or water). It has the soil quality, growing season, and moisture oversupply needed to economically produce sustained high yields of crops when treated and managed, including water management (irrigation), according to acceptable farming methods. Unique farmland is land that is used for production of specific high value food, feed, and fiber crops. Section 658.5 of the FPPA provides criteria for federal agencies to identify and take into account the adverse effects of federal programs on the protection of farmland. Federal agencies are to consider alternative actions, as appropriate, that could lessen adverse effects; and to assure that such federal programs, to the extent practicable, are compatible with state, unit of local government, and private programs and policies to protect farmland.

4.4.1 Prime Farmland Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impact to prime, unique, or statewide important farmland.

Alternative B (Proposed Action)—Alternative B would permanently convert approximately 62.0 acres of prime and unique farmland and 17.6 acres of statewide important farmland into a mix of residential, commercial, government, and industrial uses at the proposed town site. The Proposed Project would also temporarily impact approximately 15.3 acres of potential prime farmland and 7.0 acres of potential statewide important farmland during

¹ Please note that reference to 80.0 acres of actively farmed land is a general classification of the proposed town site's present use and does not use NASS data for assessment, but rather in-the-field observation. Therefore, there is a discrepancy between the quantification of cultivated lands in this section and Sections 4.3.1 and 4.3.1.1 due to the latter sections using NASS data for baseline conditions discussion and impact assessment, which provides more specific classifications of land use.

utility line construction to the new town site; however, upon completion of construction, these areas would be returned to pre-construction conditions.

A Farmland Conversion Impact Rating Form AD-1006 has been completed and resulted in a total score of 161 out of 260. Scores over 160 require assessment of alternative project sites; however, correspondence with the Natural Resources Conservation Service indicated that finding other suitable sites in proximity to the existing town site with less total points is unlikely, so an alternative proposal is not expected. Therefore, no alternative sites have been assessed. **Please refer to Appendix C, Farmland Conversion Impact Rating AD-1006 Form.**

Since the reclamation of acquired properties and the physical removal of structure relocations would occur within the city limits, the FPPA does not apply to those construction activities.

4.5 Floodplain Encroachment

Executive Order 11988 (Floodplain Management) requires federal agencies to take actions to minimize occupancy of and modifications to floodplains. Specifically, Executive Order 11988 prohibits federal agencies from funding construction in the 100-year floodplain (or 500-year floodplain for critical facilities) unless there are no practicable alternatives.

Per FEMA Flood Insurance Rate Map (FIRM) for Benson County (Community ID 38005) and correspondence with the North Dakota State Water Commission, the majority of the Proposed Project area is within Zone X, an area of minimal flood hazard, and Shaded Zone X (500-year floodplain), an area with a 0.2% annual chance of flood, and are not located within a mapped floodplain or floodway identified as a Special Flood Hazard Area (SFHA). Portions of the utility corridors are located within Zone AE (100-year floodplain), an area within the SFHA having a 1% annual chance of flooding for which base flood elevations have been established. **Please refer to the Floodplains exhibit in Appendix A.** There are no practicable alternatives to locating the Proposed Action in the floodplain. Impacts and mitigation are described below. The public has been duly notified of the Proposed Action. The 8-step decision-making process for Executive Order 11988 has been completed.

4.5.1 Floodplain Impacts/Mitigation

Alternative A (No Action)—Alternative A would not encroach upon or impact a designated floodway or floodplain.

Alternative B (Proposed Action)—The majority of Alternative B is located outside of an identified floodplain or floodway. Properties within the existing town site being acquired and demolished or relocated are outside the SFHA in Zone X or Shaded Zone X and would be removed from the area with the potential for future flooding. Properties being relocated to the new town site and ancillary permanent improvements would be placed entirely within Zone X. While portions of the new utility corridor accessing the proposed town site are

located in Zone AE, utilities would be placed underground or elevated on power poles and are not anticipated to raise flood elevations. Disturbance would be temporary in nature and all disturbed areas will be restored to their pre-existing condition.

In addition, all waste material associated with the project will be disposed of properly and not placed in identified floodway areas. No floodplain development permits would be required. As a result, FEMA has determined that the Proposed Action does not have the potential to adversely affect or be affected by a floodplain as defined in FEMA's implementing regulation 44 CFR Part 9.8 (b).

4.6 Traffic Circulation, Volume and Parking Access

The existing structures within the city of Minnewaukan occur along B Street, C Street, D Street E, 3rd Street, 4th Street, 5th Street, Main Street, C Avenue, and West Avenue. Traffic within Minnewaukan is low volume. On-street parking is generally allowed on these roadways, with the exception of C Avenue which is the primary north-south route through town.

U.S. Highway 281 crosses the middle of the proposed town site diagonally from the southeast to the northwest. A county gravel road, 47th Street Northeast (Toso Road), runs along the north border of the site and an additional gravel surface road, 62nd Avenue, runs along the west border of the site.

Additionally, the nearest FAA-controlled civil airport is the Devils Lake Municipal Airport, located more than 16 miles northeast of the proposed town site.

4.6.1 Traffic Circulation, Volume and Parking Access Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impact on traffic circulation, volume, or parking access or to airport operations.

Alternative B (Proposed Action)—Within the existing town site, streets would be closed during relocation, demolition, and reclamation activities, as needed. The contractor would provide circulation for emergency vehicles around the work zones. The work zone would be signed, as appropriate, during construction. No immediate impacts to traffic circulation, volume, or parking access would result from this alternative; however, relocation and/or acquisition of 96 structures in Minnewaukan are anticipated to result in lower volumes of traffic within town. Minor changes in traffic patterns are also likely to result after road infrastructure is constructed in the new town site.

To facilitate access to the school, commercial and residential areas, a rural gravel road would be constructed within the proposed town site. Construction/relocation of buildings and construction of utility lines may result in delays along the roadways within and adjacent to the project area. If delays are anticipated, work zone traffic control would be planned. It may

also alter traffic patterns as structures are relocated to the proposed town site. Prior to infrastructure construction within U.S. Highway 281 right-of-way, a right-of-way permit will be obtained from the NDDOT.

Additionally, the North Dakota National Guard operates Camp Gilbert C. Grafton to the south of the study area. Solicitation of the Guard identified that Camp Gilbert C. Grafton is/was scheduled to receive shipments of equipment necessary for training activities in 2011 and 2012. Currently, Highways 19, 20, and 57 are used for equipment transport by the Guard. With these routes remaining open, the Proposed Project is not anticipated to adversely affect the Guard's shipments. However, with the rising water of Devils Lake, these routes are at threat for inundation. If these roadways become inundated, U.S. Highway 281 within the study area would be used for transport of the equipment. Should this happen, the Proposed Project may have an indirect adverse effect on the Guard's equipment shipments in 2012. Coordination with Camp Gilbert C. Grafton will occur prior to construction activities.

Lastly, the proposed new town site is sited well over 2,500 feet from any identified airport runways and, therefore, would comply with 24 CFR Part 51, Subpart D (*Siting of HUD Assisted Projects in Runway Clear Zones at Civil Airports and Clear Zones and Accident Potential Zones at Military Airfields*).

4.7 Public Health and Safety

Public health and safety are affected by public and private institutions and infrastructure, including a safe and reliable roadway and utility network, access to energy, clean water, hygienic food, waste water treatment, police and fire protection, medical treatment, public education, and many other goods and services. Public health and safety are also dependent upon the public's ability to protect itself from repeat or prolonged flooding, hazardous materials, and other threats.

4.7.1 Public Health and Safety Impacts/Mitigation

Alternative A (No Action)—Alternative A would not provide relocation or acquisition assistance to Minnewaukan Public Schools, the residential property owners, and BCHA for the structures that are threatened/affected by the rising elevation of Devils Lake. The health and safety of individuals and/or families residing in these homes and apartments would likely be negatively affected by flooding within the area. In addition, if identified properties are not acquired or relocated, these residences may not have functioning water or sewer systems due to the likelihood of these systems to be inundated by floodwaters following removal or breach of the temporary levee. Individuals and families residing in the area would be negatively affected if flooding of the local roadways were to cut off access to necessary goods and services.

In the long-term, it is unlikely that the necessary resources to ensure public health and safety (e.g., energy, utilities, water and waste, medical, education, law enforcement, and fire

protection) would remain locally available to residents and businesses in the existing town site.

Alternative B (Proposed Action)—Alternative B would develop infrastructure at a new town site at a high enough elevation to remain unaffected by Devils Lake flooding and would provide property owners with financial assistance to relocate to the new town site. Property owners not wishing to relocate would be bought out (i.e., acquired) by the City and can relocate to a location of their choosing, which is likely to provide adequate public services although availability of services would be dependent on where they relocate. The development of a new town site at an elevation that would be unaffected by Devils Lake floodwaters would allow for the City of Minnewaukan to provide public services to residents and businesses in the long-term.

4.8 Socioeconomic Issues

Socioeconomic conditions depend on the character, habits, and economic conditions of people living within or near the Proposed Project area. Business, employment, transportation, utilities, etc. are factors that affect the social climate of a community. Other factors that distinguish the social habits of one particular area from another include the geography, geology, and climate of the area.

Population decline in rural areas of North Dakota has been a growing trend as individuals move toward metropolitan areas of the state, such as Bismarck and Fargo. Minnewaukan follows these trends with a continual decline in its small population. Some of this may be attributed to the continual rise of Devils Lake since the early 1990s; however, it appears to be largely in keeping with the migration of rural residents to urban areas. The predominant population in the study area is White, while the predominant minority population is American Indian. *Please refer to Table 5, Demographic Trends.*

Table 5: Demographic Trends

Location	Population in 2010	% of State Population	% Change 2000–2010	Predominant Race	Predominant Minority
Minnewaukan	224	< 0.1	-29.6	White (84.8%)	American Indian (11.2%)
Benson County	6,660	1.0	-4.4	American Indian (55.0%)	White (43.4%)
Spirit Lake Reservation	4,238	0.6	-4.4	American Indian (84.6%)	White (13.7%)
North Dakota	672,591	—	+4.7	White (90.0%)	American Indian (5.4%)

Source: U.S. Bureau of the Census, 2010

Minnewaukan has per capita and median household incomes lower than the statewide average. In addition, Minnewaukan has a higher than statewide average of individuals in poverty, as well as a higher average of unemployment. **Please refer to Table 6, Employment and Income.** The U.S. Census Bureau did not have data regarding industries within the town of Minnewaukan; however, the surrounding area is predominantly agricultural. Additionally, Minnewaukan currently has a construction company (Mi-Ty Construction), Benson County maintenance shop, bank, fishing resort and bait shop, hotel, school, and restaurant/bar.

Table 6: Employment and Income

Location	Per Capita Income	Median Household Income	Unemployment Rate	Individual Poverty Rate
Minnewaukan	\$19,955	\$18,750	3.6%	29.2%
Benson County	\$13,726	\$32,815	7.0%	33.7%
Spirit Lake Reservation ²	\$9,475	\$26,118	9.0%	47.8%
North Dakota	\$24,978	\$47,898	2.4%	12.3%

Source: U.S. Bureau of the Census, 2010

The North Central Planning Council, which developed a Comprehensive Economic Development Strategy (CEDS) in 2001, outlined the following objectives for development within the region:

- Business development and retention
- Retain district's population
- Economic development coordination
- Community development
- Flooding and recovery
- Provide EDA support

4.8.1 Socioeconomic Issues Impacts/Mitigation

Alternative A (No Action)—Alternative A is likely to have a negative socioeconomic impact on the city of Minnewaukan. If nothing is done, and the temporary levee is breached or removed, the inundation of residents, businesses, and government buildings, as well as infrastructure, would result in the town being uninhabitable. If Devils Lake continues to rise, as is anticipated, the economy of Minnewaukan would be unable to sustain itself due to inundation, and numerous jobs at the school, Benson County (i.e., county seat employment and maintenance shop), bank, hotel, restaurant/shop, bait shop, and construction company

² Due to the unavailability of complete census data from 2010 for the Spirit Lake Reservation, the American Community Survey five year estimates were used for the reservation.

would be lost. Alternative A would also not meet any of the CEDS objectives identified by the North Central Planning Council.

Alternative B (Proposed Action)—The Proposed Project may initially have a negative impact on the economy of Minnewaukan, as it is likely to take time to establish a new town site and there would be a strain on the City if supporting two town locations simultaneously. There may also be long-term implications as there are currently 69 residents/businesses taking relocation buyouts (i.e., acquisition), reducing the potential for Minnewaukan to sustain its economy due to a lower population. Regardless of the loss of citizens due to acquisition or relocation elsewhere, Alternative B is anticipated to have a positive socioeconomic impact by maintaining the economy (i.e., keeping it in existence). This would result in job retention for individuals working within the city. Additionally, the new town site would be located adjacent to U.S. Highway 281 which may provide an economic boost as the potential for passersby to stop in Minnewaukan would increase, and the proximity to U.S. Highway 281 may make the town more accommodating to commuters.

Alternative B would meet the following North Central Planning Council CEDS objectives, which equate to a beneficial socioeconomic impact:

- *Business Development and Retention:* Mi-Ty Construction would retain 70 jobs, Benson County Road Maintenance would retain 13 jobs, and Minnewaukan Public Schools would save an additional 63 jobs. Additional low lying businesses that are currently not proposed for relocation would have a relocation site should they elect to relocate in the future.
- *Retain the District's Population:* The loss of the existing town would displace residents and employers. Development of the new town site would prevent a portion of the population from relocating outside the region that may otherwise occur due to lack of housing and job availability.
- *Flood Response and Recovery:* Removes at-risk structures from areas prone to flooding. Relocates at-risk structures to areas of higher elevation. Provides new and improved utility infrastructure for businesses, and residents of Minnewaukan.

4.9 Environmental Justice

Per Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, measures must be taken to avoid disproportionately high adverse impacts on minority or low-income communities.

The existing city of Minnewaukan and Benson County contain both minority and low-income populations. U.S. Census Bureau block group data (2000)³ were evaluated in regards to low-income populations within the study area. A “block group” reflects a sampling of

³ The year 2000 census was used for the environmental justice discussion because the 2010 block group and block data is not yet available for Minnewaukan.

households rather than all households. Three block groups are located within the study area: Blocks Group 1, 2, and 3. Block Group 1⁴ begins on the western city limits of Minnewaukan and encompasses the proposed town site and utility corridors. This block group has approximately 11% of its population living below the poverty level. Block Groups 2 and 3⁵ encompass the existing town of Minnewaukan. Block Group 2 is east of C Avenue and contains approximately 35% of the population living below the poverty level. This block group surrounds the portion of Minnewaukan located on the Spirit Lake Reservation. Block Group 3 is west of C Avenue and contains approximately 7% of the population living below the poverty level. **Please refer to the U.S. Census Poverty Data exhibit in Appendix A.**

Census block data (also year 2000) were evaluated in regards to minority populations within the study area. A “block” reflects data collected from all households. In 2000, Benson County had a minority population of 49.2%. Percentage of minority populations within blocks encompassing the proposed acquisitions and relocations are summarized in the **Table 7, Percent Minority Population within Acquisition/Relocation Areas**. None of the acquisitions or relocations are located in blocks that are equal to or exceed the County’s minority population. The highest minority population in a block within Minnewaukan is 66.7% and does not encompass any of the proposed acquisitions or relocations. The remainder of the study area, where the proposed town site and utility corridors are located, contains a less than 5% minority population. **Please refer to Figure the U.S. Census Minority Data exhibit in Appendix A.**

Table 7: Percent Minority Population within Acquisition/Relocation Areas

Percent Minority Population in Block(s)	Number of Acquisitions ⁶	Number of Relocations
< 5%	32	13
5.1 to 10.0%	3	0
10.1 to 15.0%	18	3
15.1 to 20.0%	1	0
20.1 to 25.0%	5	1
25.1 to 30.0%	10	1
> 30.1 %	0	0

4.9.1 Environmental Justice Impacts/Mitigation

Alternative A (No Action)—If no action is taken, residences and businesses are likely to be inundated by the rising waters of Devils Lake. A new town site would not be provided to residences for relocation, and residents are likely to lose public services and utilities should the lake inundate infrastructure within the town. Alternative A would have an adverse impact on the population of Minnewaukan as a whole, but is not anticipated to have

⁴ Block Group 1 is located in Census Tract 9566.

⁵ These block groups are located in Census Tract 9401.

⁶ This is an approximate number. Some structures occur within more than one block.

disproportionately high adverse impacts on minority populations as impacts would be experienced by the entire community. However, if relocation or acquisition assistance is not provided for low-income households, there may be a disproportionately high adverse impact due to inability to finance a relocation outside an area threatened by floodwaters. While a disproportionately high adverse impact may occur to low-income households, no federal action would be taken under Alternative A and, therefore, no compliance with Executive Order 12898 is required.

Alternative B (Proposed Action)—Aside from the existing town site, the study area is largely void of residences. There may be short-term impacts to low-income or minority populations, such as those utilizing HUD housing, as they seek permanent housing elsewhere or require temporary housing during relocation activities to the new town site. However, it is anticipated that those receiving relocation or acquisition assistance would experience long-term benefits from being removed from an area at risk of being inundated by Devils Lake. The choice of relocation or acquisition was also at the discretion of the property owners, with the exception of those renting properties (e.g., apartments). Additionally, the proposed town site is located in a vacant agricultural field and the majority of the utility construction associated with the new town site, which would be a short-term disturbance, is either located in road right-of-way or agricultural fields.

Overall, the Proposed Project is expected to have a long-term beneficial impact on the population of Minnewaukan, including low-income and minority populations, by providing a new town site for relocation, as well as providing financial assistance for relocation to property owners at the highest risk of inundation. This would reduce the threat of additional damage to structures within Minnewaukan due to flooding and, in turn, reduce future public and private expenditures resulting from future property damage. Therefore, while impacts are likely to be experienced by low-income and minority populations, these impacts would be felt by those relocating or being acquired as a whole and is not anticipated to have disproportionately high adverse impacts to low-income or minority populations.

4.10 Air Quality

The Clean Air Act, as amended, requires the EPA to establish air quality standards for pollutants considered harmful to public health and the environment by setting limits on emission levels of various types of air pollutants.

The North Dakota Department of Health (NDDH) operates a network of Ambient Air Quality Monitoring (AAQM) stations. The nearest AAQM station is located in Bismarck, North Dakota, more than 100 miles southwest of the study area. Criteria pollutants tracked under EPA's National Ambient Air Quality Standards in the Clean Air Act include sulfur dioxide (SO₂), particulate matter (PM), nitrogen dioxide (NO₂), ozone (O₃), lead (Pb), and carbon monoxide (CO). In addition, the NDDH has established state air quality standards. State standards must be as stringent as (but may be more stringent than) federal standards. The

federal and state air quality standards for these pollutants are summarized in **Table 8, Federal and State Air Quality Standards & Reported Data for Bismarck Residential.**

Table 8: Federal and State Air Quality Standards & Reported Data for Bismarck Residential

Pollutant	Averaging Period	EPA Air Quality Standard		NDDH Air Quality Standard		Bismarck Residential 2009 Reported Data	
		µg/m ³	parts per million	µg/m ³	parts per million	µg/m ³	parts per million
SO ₂	24-Hour	--	0.140	--	0.099	--	.001
	Annual Mean	--	0.030	--	0.023	--	.002
PM ₁₀	24-Hour	150.0	--	150.0	--	43.0	--
	Annual Mean	50.0	--	50.0	--	12.4	--
PM _{2.5}	24-Hour	35.0	--	35.0	--	15.1	--
	Weighted Annual Mean	15.0	--	15.0	--	6.39	--
NO ₂	Annual Mean	--	0.053	--	0.053	--	.006
CO	1-Hour	40,000	35	40,000	35	--	--
	8-Hour	10,000	9	10,000	9	--	--
Pb	3-Month	1.5	--	1.5	--	--	--
O ₃	1-Hour	--	0.120	--	0.120	--	.076
	8-Hour	--	0.075	--	0.075	--	.058

The Bismarck Residential AAQM station reported ambient air quality measurements well below the state and federal standards. Additionally, North Dakota met standards for all criteria pollutants in 2009. The state also met standards for fine particulates and the eight-hour ozone standards established by the EPA (NDDH 2010).

4.10.1 Air Quality Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact air quality.

Alternative B (Proposed Action)—Construction activities could have a short-term impact on air quality, primarily during site preparation. Dust is the pollutant of primary concern during the construction period. The amount of dust generated would vary throughout the construction season, depending on construction activity and local weather conditions. When excess dust is anticipated to be a problem, effective dust control measures would be implemented in accordance with standard procedures. Dust control would be the responsibility of the contractor. The contractor would be required to obtain a North Dakota Pollutant Discharge Elimination System (NDPDES) Permit from the NDDH prior to

construction. As part of the NDPDES Permit, the contractor must have a plan for erosion and sediment control during and post construction which would minimize dust generated during construction.

Structures to be demolished may contain asbestos. All structures proposed for demolition will be inspected for asbestos by a state-certified individual or entity prior to demolition. Removal of friable asbestos-containing materials will be accomplished in accordance with Section 33-15-13-02 of the North Dakota pollution control rules. The NDDH Division of Air Quality will be notified prior to demolition of structures via completion of an Asbestos Notification of Demolition and Renovation form.

4.11 Noise

The Noise Control Act was enacted in 1972 (P.L. 92-574) and created a national policy for control of noise that may impact human health and welfare. Major sources of noise include transportation vehicles and equipment, machinery, appliances, other products in commerce, climate or recreation. Sounds which disrupt normal activities or otherwise diminish the quality of the environment are designated as noise. Noise can be stationary or transient, intermittent or continuous.

No noise ordinances occur within the city of Minnewaukan. Sensitive noise receptors within the study area are residential homes and businesses. These are currently concentrated within the existing town site. The major noise generator in or near the study area is U.S. Highway 281, which bisects the proposed town site. The nearest airport is located more than 16 miles northeast of the proposed town site (Devils Lake Municipal Airport) and the nearest railroad is approximately 11 miles south of the proposed town site. Numerous local and county roads are additional noise generators within the study area, albeit on a smaller scale than U.S. Highway 281.

4.11.1 Noise Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no noise impacts.

Alternative B (Proposed Action)—Construction and/or demolition within the study area would temporarily increase noise levels within the vicinity of the project. Noise would be generated primarily from heavy equipment used to transport materials and construct the project. Due to the nature of the project (i.e., relocating homes or acquiring and demolishing homes) and lack of residences within the utility corridors, noise impacts during construction are anticipated to be minimal.

Noise was analyzed in accordance with 24 CFR Part 51, Subpart B, to determine the potential for noise impacts at the proposed town site for sensitive receptors, such as residences and businesses, that are proposed for relocation. As previously discussed, U.S. Highway 281 bisects the proposed town site and is the major noise generator in the area. U.S. Highway 281 has a 65 mph posted speed limit and, according to the North Dakota

Department of Transportation (NDDOT) 2010 traffic volume map, has an annual daily traffic (ADT) volume of 1,000 passenger vehicles and 150 large trucks. The proposed town site is located approximately 120 feet from the center line of U.S. Highway 281.

Potential noise impacts at the proposed town site were assessed using HUD's Day/Night Noise Level (DNL) Assessment Tool. The Night fraction of ADT is an average of 3% over a 7 p.m. to 7 a.m. time period based on NDDOT statistics. The peak hourly flow occurs around 6 p.m., which reflects 7.9% of the ADT. This is consistent with NDDOT Rural State major collector roads. Using this data, DNL calculations determined noise levels to be approximately 51 decibels (dB) for cars, 44 dB for medium trucks, and 60 dB for heavy trucks. The overall DNL calculation for the road was 61 dB. Since the roadway does not surpass 65 dB, no noise abatement measures are required to mitigate potential noise impacts at the proposed town site.

4.12 Public Services and Utilities

The City of Minnewaukan utility system is comprised of city operated and private utility companies. The current water system consists of supply, treatment, storage and distribution components and has been designed to provide fire flows. The City's water supply is provided by the City's well that is located approximately seven miles north of the existing town. The water treatment plant treats the source water to meet the drinking water standards and operates at 30% of capacity on a typical day. Water is stored in a 15,000 gallon clear well and is pumped through the transmission and distribution system to the 50,000 gallon water tower in town. The distribution system throughout the community consists of 6-inch PVC water mains.

The current waste water system consists of a collection system, sewage lift stations and stabilization lagoons. There are 8-inch CIPP sewer mains throughout town that are supported by three sanitary lift stations. The primary lift station is located at the northeast corner of town and pumps the sewage to the 2-cell total containment stabilization lagoons located approximately one mile northwest of the city.

The electrical power system is owned and operated by Ottertail Power Company which provides commercial and domestic service to the community. At least two telecommunication companies operate within the city of Minnewaukan. North Dakota Telephone Company provides phone, internet, and cable television. Midcontinent Communications provides high speed internet to the community. The utility lines, where within road right-of-way, follow 47th Street NE, County Road 19, and Main Street within and exiting the existing Minnewaukan town site.

There is not a provider of natural gas for the community. Many residences utilize propane tanks for a fuel source.

4.12.1 Public Service and Utility Impacts/Mitigation

Alternative A (No Action)—If no action is taken, there is a potential for residents and businesses to be left without public services or utilities. If Devils Lake continues to rise to 1,458.0 feet AMSL, large portions of the sewage collection system would be inundated with floodwaters; the lift stations would be located very close to the lakeshore; and access to/maintenance of much of the northeast and south systems would be nearly impossible. Also, a portion of the municipal well line is currently under Devils Lake, and at 1,458.0 feet AMSL, the municipal well site and water distribution system would be under the lake. This would make access to/maintenance likely infeasible, and there is potential for the municipal well line to rupture. If all of these actions occur, and no relocation site with associated infrastructure is undertaken, residents and businesses would not have the basic public services and utilities for an inhabitable town.

Alternative B (Proposed Action)—Alternative B would develop a new town site with the infrastructure to provide basic public services to the residences and businesses proposed to be relocated because they are at the greatest threat of inundation. This site may also provide these public services to future relocations from existing Minnewaukan. Additionally, it would provide buy-outs for residences and businesses to relocate to an area that may have public services and utilities readily available. The Proposed Project would require relocation of some utilities (Note: relocation of telephone, cable, fiber optic and other utilities not described in Chapter 3 are not proposed as part of Alternative B). Mid-Continent identified that the cost to relocate their facilities would be approximately \$1.7 million. No additional utility relocation cost estimates have been received. Coordination with potentially affected utilities will occur prior to construction. Service to the existing town site will continue with minimal disruption.

4.13 Water Resources

The Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977, provides authority to the EPA for establishing water quality standards, controlling discharges into surface and ground waters, developing waste treatment management plans and practices, and issuing permits for discharges of pollutants (Section 402). It also provides the authority to the USACE for issuing permits for discharges of dredged or fill material (Section 404).

4.13.1 Surface Water

The study area is situated in the Northern Great Plains ecoregion, which consists of a flat to gently rolling landscape with high concentrations of temporary and seasonal wetlands. The study area is also located in an area commonly referred to as the prairie pothole region of North Dakota. This region is dotted with wetland basins and water regimes of various sizes.

The majority of the surface waters in the region are associated with Devils Lake and tributaries to Devils Lake.

The study area is located in the Devils Lake basin, meaning surface waters within this basin drain to Devils Lake, within the West Devils Lake Watershed. Surface water generally flows overland until draining into this system. Water elevations in Devils Lake are continuing to rise above historic levels, resulting in flooding concerns throughout the region. Devils Lake immediately borders Minnewaukan to the north and east. ***Please refer to the Watersheds and Drainage exhibit in Appendix A.***

4.13.1.1 Surface Water Impacts/Mitigation

Alternative A (No Action)—Alternative A would not directly impact surface waters. However, as Devils Lake continues to rise and eventually inundates the existing town, it is likely to result in an indirect impact to surface waters through contamination as water inundates homes and other facilities and infrastructure, such as the sewer system, fails.

Alternative B (Proposed Action)—Alternative B is not anticipated to impact surface waters. Properties would be acquired and/or relocated in order to avoid the rising lake elevation of Devils Lake. Improvements proposed under Alternative B would avoid surface waters, with the exception of a number of wetlands as discussed in Section 4.14.1.1. One small unnamed creek and two drainages that are located within utility corridors to the new town site are proposed to be horizontally bored beneath in order to avoid impacts.

Construction activities have the potential to temporarily degrade water quality as a result of sedimentation and soil erosion during construction and construction activities within or adjacent to waterbodies. An increase in turbidity of surface waters due to sedimentation could be detrimental to aquatic life since it may block light transmission and slow biochemical and natural purification processes. The contractor would be required to obtain a NDPDES Permit from the NDDH prior to construction. As part of the NDPDES Permit, the contractor must have a plan for erosion and sediment control during and post construction, which would minimize potential surface water impacts resulting from construction.

4.13.2 Ground Water

There are no aquifers located within the study area; the nearest aquifer is the Spiritwood Aquifer located approximately 1.5 miles east of the study area at the nearest point. No sole source aquifers have been identified within the State of North Dakota. With the exception of a ground water and an observation well within the existing town site, no ground water wells are located within the study area. ***Please refer to the Water Wells and Aquifers exhibit in Appendix A.***

4.13.2.1 Ground Water Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact ground water.

Alternative B (Proposed Action)—The Proposed Project would not result in ground water extraction from an aquifer and would not impact the ground water or observation well identified within the existing town site; therefore, no mitigation is proposed.

4.14 Biological Resources

4.14.1 Wetlands

Wetlands are defined in both the 1977 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act, as those areas that are inundated by surface or ground water with a frequency to support and, under normal circumstances, do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (U.S. Army Corps of Engineers, 1987) and the March 2010 Regional Supplement to the Corps of Engineers [1987] Wetland Delineation Manual: Great Plains Region, are hydric soils, hydrophytic vegetation, and hydrology. Wetlands are an important natural resource serving many functions, such as providing habitat for wildlife, storing floodwaters, recharging groundwater, and improving water quality through purification.

Kadrmaz, Lee & Jackson (KL&J) performed a field wetlands delineation of the proposed town site and utility infrastructure to the proposed town site on May 23 and 24, 2011. **Please refer to Appendix D, Wetland Delineation Summary.** A total of 24 wetlands cumulatively containing approximately 18.92 acres were delineated within the study area; of which, 11 were determined to be under the jurisdiction of the USACE (NWO-2011-734-BIS and NWO-2011-00734-BIS). **Please refer to Appendix E, USACE Jurisdictional Determinations.** Approximately 66% of the delineated wetlands were palustrine, emergent wetlands that are either temporarily or seasonally flooded and are consistent with wetland types typically found within the Prairie Pothole Region, with the majority of the other wetlands being artificial road ditch wetlands. United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data was used to assess the occurrence of wetlands within the existing town site, which identified scattered wetlands throughout the town. **Please refer to the Wetland Delineation Exhibit in Appendix A, which also includes NWI data.** There are no practicable alternatives to locating the Proposed Project within wetlands. Impacts and mitigation are described below. The public has been duly notified of the Proposed Project. The 8-step decision-making process for Executive Order 11990 has been completed.

4.14.1.1 Wetland Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no wetland impacts.

Alternative B (Proposed Action)⁷—As a result of the development of the new town site, approximately 2.11 acres of non-jurisdictional wetlands would be permanently impacted. Additionally, construction of new utilities to the proposed town site would result in temporary impacts to approximately 2.00 acres of wetlands; of which, 1.38 acres are under the jurisdiction of the USACE. A Section 404 permit will be obtained from the USACE for impacts to jurisdictional wetlands prior to construction. The applicant must comply with all permit conditions.

Wetlands that would be temporarily disturbed would be returned to pre-construction contours following construction. Permanent wetland impacts would be mitigated within the proposed town site at two locations on new town site. Proposed wetland mitigation sites would be utilized as storm water detention ponds. The ponds would have a flat bottom that would be one foot lower than the pond outlet. The outlet for the western pond would flow to the U.S. Highway 281 ditch. The eastern pond would flow to the east towards Devils Lake. The design would create a wetland approximately one foot in depth across the entire detention area. During rain events, the pond will store 4 to 5 feet of storm water runoff. The higher depths would not last longer than a few hours during heavy rain events. Mitigation at the proposed town site is anticipated to total approximately 2.59 acres. ***Please refer to Appendix O, Executive Order 11988 & 11990 Compliance.***

4.14.2 Threatened, Endangered, or Candidate Species

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, 50 CFR Part 402, as amended, each federal agency is required to ensure the following two criteria. First, any action funded or carried out by such agency must not be likely to jeopardize the continued existence of any federally-listed endangered or threatened species or species proposed to be listed. Second, no such action can result in the destruction or adverse modification of habitat of such species that is determined to be critical by the Secretary. An endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. A candidate species is a plant or animal for which the USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. While candidate species are not legally protected under the ESA, it is within the spirit of the ESA to consider these species as having significant value and worth protecting.

The USFWS March 2011 online list identified two endangered species (gray wolf and whooping crane), one threatened species (piping plover), and one candidate species

⁷ Section 4.3.1.1, Land Use Impacts/Mitigation, identifies impacts to wetlands. This impact assessment is based on data gathered from NASS and is not based on in-the-field data collection; therefore, a discrepancy occurs between the impact assessment in Section 4.3.1 and Section 4.14.1.1.

(Sprague's pipit) that occur within Benson County. In addition, critical habitat has been designated for the piping plover within the county.

Gray Wolf (*Canis lupus*)

While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. Historically, its preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. Gray wolves live in packs of up to 21 members, although some individuals will roam alone. The project area is located far from other known wolf populations, although unconfirmed sightings of gray wolves have been reported in the Turtle Mountains located approximately 65 miles north of the Proposed Project at the nearest point.

Whooping Crane (*Grus americana*)

Whooping cranes migrate through North Dakota along a band running from the south central to the northwest parts of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. During migration, whooping cranes are often recorded in riverine habitats. At the nearest point, the study area is located approximately three miles east of the Central Flyway where 95% of whooping crane sightings have occurred.

Piping Plover (*Charadrius melodus*)

Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands, and flat, sandy beaches with little vegetation. Critical habitat includes reservoir reaches composed of sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale, and their interface with water bodies. Designated piping plover critical habitat is located approximately 22 miles northwest of the study area at the closest point. This habitat is in the form of prairie alkali lakes. Wetlands within the study area were not identified as being alkaline, with the exception of one wetland that may have alkaline characteristics but was in a highly vegetated area; therefore, it would not provide suitable habitat.

Sprague's pipit (*Anthus spragueii*)

The Sprague's pipit is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes rolling, upland mixed-grass prairie habitat with high plant species diversity. The Sprague's pipit breeds in habitat with minimal human disturbance and is typically found in native prairie of at least 72 acres in size. Portions of the study area, specifically the new utility corridors, may contain native prairie of adequate size to accommodate Sprague's pipits. Coordination with the North Dakota Parks and Recreation Department identified a recorded Sprague's pipit sighting near the project area in 1981.

4.14.2.1 Threatened, Endangered, or Candidate Species Effects/Mitigation

Alternative A (No Action)—Alternative A would have no effect on threatened or endangered species, nor impacts to candidate species.

Alternative B (Proposed Action)—Coordination with the USFWS determined that the Proposed Project would not have significant impacts to threatened, endangered, or candidate species. As the study area is located far from known wolf populations and lacks suitable habitat, the Proposed Project would have no effect on gray wolves. Additionally, due to lack of suitable habitat within the study area, the Proposed Project would have no effect to piping plovers and no impact to designated piping plover critical habitat.

While the Proposed Project is located outside the Central Flyway and contains areas disturbed by human activity, there are semi-emergent wetlands for roosting and cropland for foraging within the area. Construction within cropland food sources, located near wetlands, may disrupt the use of croplands for foraging during migration. Additionally, the project would permanently impact approximately 2.11 acres of wetlands and temporarily impact approximately 2.00 acres of wetlands; these impacts may disrupt the use of these areas during migration. Permanent wetland impacts would be limited to the proposed town site, which is adjacent to U.S. Highway 281. It is unlikely whooping cranes would stop to use wetlands at the proposed town site, as they prefer isolated wetlands located away from human disturbance; therefore, potential impacts to whooping cranes are anticipated to be temporary in nature. For these reasons, the Proposed Project may affect, but is not likely to adversely affect, whooping cranes.

The Proposed Project may contain native prairie of an adequate size to support Sprague's pipits. However, activities within the proposed town site and the existing town site would not disturb potential habitat, as these areas have been disturbed by agricultural activities, residential and business construction, and infrastructure development. Areas that may contain suitable habitat are located near proposed utility corridors for the proposed town site. Impacts to potential habitat would be temporary in nature and disturbed areas would be returned to pre-construction conditions upon completion. Therefore, the Proposed Project may impact individuals or associated habitat of the Sprague's pipit, but the project is not anticipated to adversely affect the population due to the temporary nature of the disturbance. An "effect determination" under Section 7 of the ESA has not been made due to the current unlisted status of the species.

In a letter dated January 26, 2012, the USFWS concurred with the recommendations of effect for the above mentioned species. ***Please refer to Appendix F, USFWS Concurrence.***

4.14.3 Vegetation, Avian Species, and Other Wildlife

4.14.3.1 Vegetation

Vegetation in the study area includes farmland, with a variable mixture of small grain and row crops, as well as grasslands/pastureland and vegetation common to roadway ditches. Within the existing town site, vegetation is primarily associated with residential and commercial lawns.

North Dakota has listed 11 noxious weeds: absinth wormwood, Canada thistle, diffuse knapweed, leafy spurge, musk thistle, purple loosestrife, Russian knapweed, spotted knapweed, yellow toadflax, Dalmation toadflax, and saltcedar. Cities and counties are also able to list additional noxious weeds for control within their jurisdiction. Benson County has not listed any additional species. According to the North Dakota Department of Agriculture 2010 Weed Mapper data, Russian knapweed and leafy spurge were identified within the right-of-way along 47th Street NE (Toso Road) between U.S. Highway 281 and Devils Lake, which borders the proposed new town site location to the north and is within utility line corridors. **Please refer to Table 9, State and County-listed Noxious Weed Distribution.**

Table 9: State and County-listed Noxious Weed Distribution

Common Name	Scientific Name	Benson County Reported Acres
Absinth wormwood	<i>Artemesia absinthium</i> L.	17,050
Canada thistle	<i>Cirsium arvense</i> (L.) Scop.	12,500
Common milkweed	<i>Asclepias syriaca</i>	—
Dalmation toadflax	<i>Linaria genistifolia</i> sp. <i>Dalmatica</i>	—
Diffuse knapweed	<i>Centaurea diffusa</i> Lam	—
Houndstongue	<i>Cynoglossum officinale</i>	—
Leafy spurge	<i>Euphorbia esula</i> L.	19,100
Musk thistle	<i>Carduus nutans</i> L.	10,050
Perennial sowthistle	<i>Sonchus oleraceus</i>	—
Purple loosestrife	<i>Lythrum salicaria</i>	—
Russian knapweed	<i>Acroptilon repens</i> (L) DC.	350
Saltcedar (tamarisk)	<i>Tamarix ramosissima</i>	—
Spotted knapweed	<i>Centaurea maculosa</i> Lam.	—
Yellow toadflax	<i>Linaria vulgaris</i>	—

Source: North Dakota Department of Agriculture, 2010

4.14.3.1.1 Vegetation Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impacts to vegetation.

Alternative B (Proposed Action)—The Proposed Project would permanently disturb approximately 14.1 acres of grassland/pastureland and 58.2 acres of cropland due to development of the proposed town site. Additionally, the Proposed Project would temporarily disturb approximately 14.1 acres of grasslands/pastureland and 12.1 acres of cropland due to utility line construction.

Re-disturbance along areas of known noxious weed infestations, such as 47th Street NE (Toso Road), has the potential to spread invasive species or cause the project area to be more susceptible to the spread of invasive species. The spread of invasive species can have an adverse effect on vegetation within the project area.

All temporarily disturbed areas would be reseeded upon completion of construction to match the surrounding vegetation. BMPs would be implemented to minimize the likelihood of invasive plant species while vegetation is being established.

4.14.3.2 Avian Species and Other Wildlife

Protection is provided for the bald and golden eagle, as well as other migratory birds, through the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). The BGEPA, 16 U.S.C. 668–668d, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. The BGEPA affords protection to all bald and golden eagles. Under the BGEPA, “take” includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb, wherein “disturb” means to agitate or bother a bald or golden eagle to the degree that it interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment. Golden eagle nests and habitat do not occur within or near the study area. Bald eagles are known to nest in the deciduous forest surrounding Devils Lake, which is adjacent to Minnewaukan. As of 2010, there was one two occupied nests on Devils Lake (Johnson 2010).

The MBTA (916 U.S.C. 703–711) regulates impacts to migratory bird species such as direct mortality, habitat degradation, and/or displacement of individual birds. The MBTA defines “taking” to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof, except when specifically permitted by regulations.

Large and small game species, small mammal, reptile, and bird species are expected to occasionally occupy the study area. Consultation with the North Dakota Parks and Recreation Department also identified a State sensitive species, the yellow rail, which may occur within the project vicinity.

4.14.3.2.1 Avian Species and Other Wildlife Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impacts to wildlife.

Alternative B (Proposed Action)—While wildlife, including avian species, may inhabit the area, the study area does not contain high quality wildlife habitat. The existing town site has been highly disturbed by human activity. Areas of deciduous forest surrounding Devils Lake may provide nesting habitat for bald eagles and, as of 2010, there bald eagles nests identified on Devils Lake. Regardless, activities adjacent to Devils Lake would be limited to previously disturbed areas of urban development (city of Minnewaukan) that would not provide habitat for eagles.

The proposed town site is within an area disturbed by agricultural activity and fragmented by U.S. Highway 281, which is a heavily traveled roadway corridor that experiences high levels of human disturbance. Additionally, the utility corridors to the proposed town site are located primarily within existing road rights-of-way or within agricultural fields and impacts within these areas would be temporary in nature. Therefore, while the project may disrupt potential habitat or food sources for wildlife, impacts are anticipated to be minor due to the lack of high quality habitat within the project area.

4.14.4 Areas with Special Designation

4.14.4.1 Section 6(f) Properties

Section 6(f)(3) of the Land and Water Conservation Fund Act of 1965, as amended, specifies that no property acquired or developed with assistance from Section 6(f) funds shall, without the approval of the Secretary of the Interior, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only when: 1) the Secretary finds it to be in accord with the [current] comprehensive statewide outdoor recreation plan and 2) the recreation properties are replaced with other public outdoor recreation properties of at least equal fair market value and/or reasonable equivalent usefulness and location.

Coordination with the North Dakota Parks and Recreation Department identified two Section 6(f) properties within the existing town site, both which occur at the West Bay Recreation Area.

4.14.4.1.1 Section 6(f) Property Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impacts to Section 6(f) properties.

Alternative B (Proposed Action)—The Proposed Project would not occur within the West Bay Recreation Area; therefore, there would be no use or taking of a Section 6(f) property and no mitigation is required.

4.15 Cultural Resources

Section 106 of the National Historic Preservation Act of 1966, as amended, requires that projects needing federal approval and/or federal permits be evaluated for the effects on historic and cultural properties included or eligible for listing on the National Register of Historic Places (NRHP). The Archaeological and Historic Preservation Act of 1974 provides for the survey, recovery, and preservation of significant scientific, prehistoric, archaeological, or paleontological data when such data may be destroyed or irreparably lost due to a federal, federally licensed, or federally-funded project.

The Native American Graves Protection and Repatriation Act of 1990 is triggered by the possession of human remains or cultural items by a federally-funded repository or by the discovery of human remains or cultural items on federal or tribal lands and provides for the inventory, protection, and return of cultural items to affiliated Native American groups. Permits are required for intentional excavation and removal of Native American cultural items from federal or tribal lands.

The American Indian Religious Freedom Act of 1978 requires consultation with Native American groups concerning proposed actions on sacred sites on federal land or affecting access to sacred sites. It establishes federal policy to protect and preserve for American Indians, Eskimos, Aleuts, and Native Hawaiians their right to free exercise of their religion in the form of site access, use and possession of sacred objects, and freedom to worship through ceremonial and traditional rites. The Act requires federal agencies to consider the impacts of their actions on religious sites and objects important to these peoples, regardless of eligibility for listing on the NRHP.

In accordance with 16 U.S.C. 470hh(a), information concerning the nature and location of archaeological resources and traditional cultural properties, and detailed information regarding archaeological and cultural resources, is confidential. Such information is exempt from the Freedom of Information Act and is not included in this EA.

4.15.1 Historic Properties

The State Historical Society of North Dakota (SHSND or SHPO) selected the list of architectural sites to be surveyed further during a reconnaissance of Minnewaukan in February and March of 2011. The SHSND recommended that 29 architectural sites be recorded, documented and evaluated within the existing town site to provide a representative sample of the residences in the town of Minnewaukan that encapsulates the overall look and feel of the town, both as it exists today and how it existed in the past. Of these selected sites, seven structures are proposed to be acquired and/or demolished and three properties are proposed to be relocated as part of the Proposed Project. Aaron Barth Consulting conducted a Class III Architectural Survey of these sites on August 11, 2011, and recorded three more architectural sites and one historic archaeological site lead. The 10 properties that are part of the Proposed Project are all *recommended eligible* to the National Register of Historic Places (NRHP). **Please refer to Table 10, NRHP Eligible Structures**

Proposed for Relocation/Acquisition or Other. Beyond the recordation and evaluation of the 32 architectural sites and one historic archaeological site lead within the existing town site, no other cultural resources were recorded.

Table 10: NRHP Eligible Structures Proposed for Relocation/Acquisition or Other

Site Number	General Description	Location	Proposed Action
32BE35	Cubbison House	240 Main Street	Acquisition and potential demolition
32BE165	Prairie Style Residence	451 B Ave South	Acquisition and potential demolition
32BE173	Bungalow	Corner of 4 th Street and B Avenue	Relocation
32BE179	Gabled T Residence	Near B Street and 3 rd Avenue	Relocation
32BE181	Gable Front Residence	310 Main Street East	Acquisition and potential demolition
32BE184	Water tower	Corner of East Ave and Main Street	Demolition
32BE187	National Folk Hall-and-Parlor and Automotive Garage	211 Main Street East	Acquisition and potential demolition
32BE188	Craftsman-style Residence	Corner of 2 nd Street and C Avenue	Relocation
32BE189	Gable Front Residence	130 C Street	Acquisition and potential demolition
32BE191	Prairie Style Residence	441 B Ave South	Acquisition and potential demolition

4.15.1.1 Historic Property Impacts/Mitigation

Alternative A (No Action)—In the short-term, Alternative A would likely have no impacts to historic properties. However, if nothing is done, many of these historic structures would be lost to the rising waters of Devils Lake.

Alternative B (Proposed Action)—On September 26, 2011, and January 26, 2012, SHPO concurred with FEMA's determination of *No Historic Properties Affected* for acquisition of a new town site, as well as infrastructure development to, and within, the new town site; relocation of the municipal well line; and city construction of a new water tower and demolition of the existing water tower. **Please refer to Appendix G, SHPO Coordination.**

Relocation, acquisition, and/or demolition of the 10 properties eligible for listing on the NRHP is anticipated to have an *adverse effect* to the properties. After coordinating with

SHPO and evaluating the alternatives, FEMA believes the best (most widely accessible and cost-effective) approach to mitigation is a web-based history that captures the tangible and intangible essence of the community by combining existing documentation (and newly produced documents) with a Social Media platform (such as YouTube) that allows individuals to contribute personal recollections of the city's cultural heritage and the relocation process.

The easily-updated website could include items such as:

- Captioned or annotated photographic images that explore and reveal the impact that government, all common modes of transportation (waterways, railroads, roads and highways), agriculture, sports, tourism, and other leisure-time activities, etc., have had on the history and development of Minnewaukan, and comparing those impacts to those occurring in communities of similar size in North Dakota and elsewhere on the Great Plains;
- Annotated maps showing the development of the community and surrounding area from initial settlement to present;
- A summation of the Native American history of the land now occupied by the city, with particular reference to an analysis of the acquisition of tribal lands and the changes occurring thereby to the boundaries of the Spirit Lake Indian Reservation;
- A simple, easily accessed and downloadable presentation (e.g., PowerPoint or similar) on the overall City of Minnewaukan relocation project.

Representatives from the North Dakota Department of Emergency Services (NDDDES) and the City of Minnewaukan have reviewed and agreed to the proposed mitigation measures. SHPO has concurred that implementation of these mitigation measures will resolve *the Adverse Effects to Historic Properties*, and is required as a condition of the federal funding. A Memorandum of Agreement (MOA) will be executed between FEMA, SHPO, NDDDES, and the City of Minnewaukan pursuant to 36 CFR Part 800. ***Please refer to Appendix G, SHPO Coordination.***

4.15.2 Archaeological Resources

KL&J conducted a Class III Cultural Resource Inventory for undisturbed areas within the study area on June 20–23, 2011. KL&J was assisted by tribal monitor Mr. Beau Valandra from the Spirit Lake Sioux Tribe. During the inventory, one previously unrecorded cultural resource was documented and one previously recorded site was encountered along a proposed utility line development area. Both of these sites have been recommended as not eligible for listing on the NRHP. KL&J indicated that there would be no archaeological resources adversely affected by the Proposed Project.

4.15.2.1 Archaeological Resource Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no impacts on archaeological resources.

Alternative B (Proposed Action)—The Proposed Project would have no impacts to archaeological resources. Based on the evaluation of the Class III Cultural Resource Inventory and KL&J recommendation referenced above, FEMA determined, and SHPO concurred with this assessment on September 26, 2011, and January 26, 2012. ***Please refer to Appendix G, SHPO Coordination.***

4.15.3 Tribal Coordination

As noted in Section 4.15.2, Archaeological Resources, the tribal monitor from the Spirit Lake Sioux Tribe participated in the preparation of the Class III Cultural Resource Inventory for undisturbed areas within the study area on June 20–23, 2011. The following tribes have been identified as having an historic interest in the area and were sent scoping letters on October 28, 2011 describing the project and requesting comments and information be provided by November 28, 2011:

- Fort Peck Tribe
- Cheyenne River Sioux
- Crow Creek Sioux
- Lower Brule Sioux
- Lower Sioux Indian Community in the state of Minnesota
- Oglala Sioux Tribe of the Pine Ridge Reservation
- Prairie Island Indian Community
- Santee Sioux Nation
- Standing Rock Sioux

As of January 16, 2012, no comments have been received. ***Please refer to Appendix H, Additional Tribal Scoping.***

4.16 Hazardous Materials and Wastes

KL&J performed a Phase I Environmental Site Assessment between January 6 and January 26, 2011, in conformance with the scope and limitations of American Society of Testing and Materials Practice E 1527-05 on a portion of the proposed town site (NW¼ of Section 9, T153N, R67W). Additionally, a literature review was conducted for the existing town site (April 8, 2011) and the utility corridors (June 8, 2011). During these investigations and literature reviews, no Superfund sites, Resource Conservation and Recovery Act locations, toxic releases, landfills, or other sources of hazardous materials were found on or near the study area. However, records for four underground storage tanks (USTs), two leaking underground storage tanks (LUSTs), and one above ground storage tank (AST) were identified within the existing town site above. The LUSTs have been cleaned up, and the USTs are inactive and have been removed. The AST corresponds to the grocery store in

town. Upon further investigation, it was determined that one 2,000-gallon gas tank exists at the site and another AST (1,000-gallon diesel tank) is located a few blocks away at the existing school.

4.16.1 Hazardous Materials and Wastes Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no hazardous material or waste impacts.

Alternative B (Proposed Action)—The EPA specifies chemical reporting requirements under the Superfund Amendments and Reauthorization Act of 1986, as amended. No materials that would be used or generated by the Proposed Project are on either the Superfund list or on the EPA's list of extremely hazardous substances in 40 CFR 355. Additionally, as no active hazardous materials sites, with the exception of active ASTs, were identified within the study area, the build alternatives are not anticipated to have hazardous material or waste impacts. With the exception of demolition and relocation activities, no construction or siting of residences and businesses would occur near the existing ASTs. Using HUD's Acceptable Separate Distance Electronic Assessment Tool for siting near ASTs, it was determined that the new town site, located more than a mile away from the ASTs, is an acceptable separation distance to protect buildings and individuals from thermal radiation and blast over pressure. Therefore, the Proposed Action complies with 24 CFR Part 51, Subpart C (*Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature*).

The contractor shall ensure that hazardous materials discovered, generated or used during implementation of the relocation project would be stored, handled, and disposed in accordance with applicable local, state, and federal laws.

Structures to be demolished may contain asbestos. All structures proposed for demolition will be inspected for asbestos by a state-certified individual or entity prior to demolition. Removal of friable asbestos-containing materials will be accomplished in accordance with Section 33-15-13-02 of the North Dakota pollution control rules. The NDDH Division of Air Quality will be notified prior to demolition of structures via completion of an Asbestos Notification of Demolition and Renovation form.

4.17 Cumulative Considerations

Cumulative impacts result from the incremental consequences of an action "when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). Effects of an action may be minor when evaluated in an individual context, but these effects can add to other disturbances and collectively may lead to a measureable environmental change. By evaluating the impacts of the proposed action with the effects of other actions, the relative contribution of the proposed action to a projected cumulative impact can be estimated.

4.17.1 Past, Present, and Reasonably Foreseeable Actions

Past actions within or near the study area have largely been related to water control projects on Devils Lake and flood protection efforts within Minnewaukan. The City of Minnewaukan has completed the following projects to protect public services and utilities within the city:

- 1995: Sewage lagoons were relocated
- 2000: Large portions of the city sewer and water system replaced
- 2009: The lift stations and some low lying manholes protected and additional sewer lines rehabilitated

U.S. Highway 281 was the north/south route through Minnewaukan prior to 2005. Due to issues of flooding, U.S. Highway 281 was relocated to the west of Minnewaukan in order to maintain system linkage by constructing on a higher elevation. Also in 2004, the State of North Dakota completed an outlet project on the west end of Devils Lake. The outlet diverts water from Devils Lake and drains it into the Sheyenne River. Originally, the capacity of the outlet was 100 cubic feet per second (cfs) but was increased to 250 cfs in 2010.

As previously discussed, the City of Minnewaukan, in cooperation with the USACE, recently constructed a temporary levee along the eastern edge of town. The levee is anticipated to be breached by August 2013. In the event that it is not breached, it will be removed in two years.

As a result of the encroaching lake elevation, the Minnewaukan School District initiated a relocation plan in the fall of 2010, and was awarded a \$7.1 million grant from the U.S. Department of Education to demolish and rebuild the school on higher ground. The school has purchased approximately 45 acres of land located to the northwest of Minnewaukan and is scheduled to open in December of 2012. Archaeological impacts at the new location are addressed in the survey prepared for the Minnewaukan Town Relocation. The existing school is recommended eligible for listing on the NRHP (Site 32BE185). While not evaluated as part of this EA, discussion of adverse impacts and mitigation measures are included as part of the architectural survey prepared for the downtown acquisition.

The City of Minnewaukan is also initiated one infrastructure improvement in 2011 and is proposing two additional infrastructure improvement projects. The first project raised approximately 1,425 feet of Main Street, beginning west of the West Avenue and Main Street intersection and extending eastward. The project consisted of a 4-foot grade raise, aggregate base, and hot bituminous pavement. It also included the construction of a gravel parking lot for the Benson County Housing Authority near the Main Street and Second Avenue intersection. The grade raise and parking lot were constructed in the fall of 2011 and hot bituminous pavement will be placed in the summer of 2012.

The second infrastructure project would abandon portions of the water system in the existing town and re-route one block of watermain to provide continued water service. Abandoned

portions of town would be disconnected from the system that remains and the fire hydrants would be salvaged. This would be funded by State Revolving Funds and is anticipated to be constructed in 2012.

The third infrastructure improvement project would to raise the northwest lift station, relocate both the northeast and south lift stations to a new location, and relocate the associated piping. Ancillary upgrades include installation of new force main, gate valves and sealed manhole covers. This project is anticipated to begin in 2012.

As Devils Lake levels continue to rise, it is reasonably foreseeable that additional relocations and acquisitions would occur within Minnewaukan. If additional residents or businesses elect to relocate to the proposed town site, expansion of the town site may be required in the future. Tentative discussions regarding future expansion are to expand the site another 80 acres to the west of U.S. Highway 281.

The described actions are related to, but not dependent on, the Proposed Project and are therefore not addressed in this document. These actions are subject to compliance with all applicable federal, state and local laws, regulations, etc. Cumulative impacts to the human environment are not expected to be significant.

4.17.2 Cumulative Impacts

Anticipated cumulative impacts to resources are discussed below. Resource categories not discussed are anticipated to have no cumulative impacts.

Land Use and Planning—As development within the area proceeds, current land uses (e.g., agriculture, grasslands, wetlands) will be converted into residential, commercial, transportation, and utility corridors. However, the proposed town site and infrastructure improvements have been selected to avoid or minimize impacts to the maximum extent practicable. Cumulative impacts to existing land uses as a result of utility line construction are not anticipated, as the impacts would be temporary in nature. While development of the proposed town site, and reasonably foreseeable future development of the site, would require rezoning of the area, this is not anticipated to induce further changes in land use. Due to the rural surroundings of the site and the primarily agriculture-driven economy, it is unlikely that land uses within the area would significantly change following the Proposed Project and future development of the site.

Prime Farmland—The Proposed Project is anticipated to result in a cumulative impact to prime or unique farmland when added to the potential for future expansion of the proposed town site. This may result in the additional conversion of approximately 80 acres of potential prime, unique, or statement important farmland into commercial, residential, and other community-related uses.

Traffic Circulation, Volume, and Parking Access—The relocation and/or acquisition of 96 structures in Minnewaukan is anticipated to result in lower volumes of traffic within town. Future relocations and/or acquisitions are anticipated to further reduce the traffic volume and demand within the existing town site.

Public Health and Safety—The temporary levee construction, infrastructure improvements within the existing town site, and future relocations or expansion of the new town site, when added to the Proposed Project, are anticipated to have a cumulative benefit to public health and safety. The temporary levee is currently keeping numerous structures and infrastructure within town from being inundated or further inundated. This should allow the waste water system improvements and the Main Street grade raise to occur prior to levee breach or removal. This would maintain an important access point to the town and keep basic public services functioning while the City constructs infrastructure at the new town site and relocates or acquires structures with the greatest threat of inundation. Future expansion of the proposed town site would accommodate additional relocations to the site and, at some point, a full relocation of the existing town site. This would permanently remove the threat of public health and safety hazards posed by inundation of Minnewaukan by Devils Lake, which would result in an uninhabitable town.

Socioeconomic Issues—The Proposed Project, when added to past, present, and reasonably foreseeable actions, is anticipated to have a beneficial, cumulative socioeconomic impact. More specifically, the Proposed Project, when added to infrastructure improvements within the existing town site and future relocations to the proposed town site, is anticipated to have a long-term cumulative benefit to Minnewaukan by maintaining its economy and keeping the city's incorporated and county seat statuses.

Environmental Justice—The Proposed Project would have impacts to low-income and minority populations that are anticipated to be beneficial. As low-income and minority populations exist in Minnewaukan, past, present, and reasonably foreseeable projects within Minnewaukan are also anticipated to have impacts to these populations. However, these projects have or would serve the purpose of protecting Minnewaukan from the rising lake elevation and reduce or remove the threat of inundation. Therefore, there is anticipated to be a beneficial cumulative impact to the community of Minnewaukan as a whole as projects are undertaken to maintain public services and utilities within the town, and to relocate or acquire properties within the town to remove the threat of future inundation.

Air Quality—Air emissions related to construction and habitation of the new town site, when added to emissions resulting from the Proposed Project, are anticipated to have a negligible cumulative impact. Benson County is currently compliant with the Ambient Air Quality Standards, and is anticipated that mobile air source contaminants from truck traffic and associated construction activities, for the Proposed Project and other projects would be minor; therefore, the contribution of the Proposed Project to air emissions is not expected to be adverse.

Public Services and Utilities—The Proposed Project, when added to past, present, and reasonably foreseeable Minnewaukan infrastructure projects, is anticipated to have a beneficial cumulative impact. Past infrastructure projects and flood proofing efforts (e.g., Devils Lake outlet), as well as proposed projects at the new town site and within the existing town site, all have or have had the same goal of maintaining public services and utilities for the residents of Minnewaukan.

Historic and Archaeological Resources—The Proposed Project, when added to future relocations or acquisitions of structures eligible for listing on the NRHP, is anticipated to have a cumulative adverse effect to historic resources within Minnewaukan. However, potential adverse effects to historic and cultural resources are addressed in archaeological and architectural surveys and consultations completed for the new town site and the existing downtown area. There would be no cumulative impacts to archaeological resources, as the Proposed Project would not affect archaeological resources.

Threatened and Endangered Species—The potential for cumulative impacts to threatened and endangered species comes to those listed species that may be affected by the Proposed Project or candidate species that may be impacted by the Proposed Project. The Proposed Project occurs three miles east of the Central Flyway through which whooping cranes migrate. Continual development (e.g., agriculture, transportation, and town relocations) within the region has compromised whooping crane habitat both through direct impacts via conversion of potential habitat to other uses and indirect impacts due to disrupting the use of potential stopover and feeding habitats, as whooping cranes prefer isolated areas and are known to avoid large-scale development. However, the proposed action, when added to other development directly and indirectly impacting whooping cranes and their habitat, is not anticipated to significantly contribute to cumulative impacts occurring to the whooping crane population. Additionally, activities associated with the Proposed Project that may impact Sprague's pipits and pipit habitat would be temporary in nature; therefore, no cumulative impacts are anticipated as a result of utility line construction.

Surface Water and Wetlands—Numerous aquatic and wetland habitats have been affected by the ongoing construction activities around Devils Lake. Many of these activities have led to the loss or modification of such habitats. However, the rising lake waters have affected large aquatic and wetland areas by increasing depths and inundating uplands. This has resulted in changes to existing aquatic and wetland habitats, and the development of large areas of new aquatic habitat and wetlands. Relative to the effects of lake rise, the cumulative impacts to aquatic habitat and wetlands as a result of construction activities have been minor. The proposed project would have no direct or cumulative effects on deep aquatic habitats. The proposed project would have a cumulative adverse effect on wetlands, but because these effects would be temporary or compensated, these cumulative impacts are anticipated to be minor.

Vegetation, Avian Species, and Other Wildlife—Development of the proposed town site, when added to future development of the site, would result in cumulative impacts to

vegetation, avian and other wildlife resources. However, the proposed town site is in an area bisected by roadways and is situated within an agricultural field; therefore, it lacks native vegetation and high quality wildlife habitat. Additionally, the construction of the utility lines would result in temporary impacts to vegetation and wildlife resources, and would not result in a cumulative impact. Therefore, cumulative impacts to vegetation and wildlife resources are not expected to be significant.

4.18 Summary of Impacts, Mitigation and Permitting/Approvals

Table 11 summarizes the impacts, mitigation, and permitting/approvals required for all of the proposed alternatives.

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
Geology and Soils	No impacts	No impacts to geology. Soil impacts, such as erosion or compaction, would be localized, and	BMPs would be implemented to minimize these impacts.	An NDPDES permit will be obtained prior to construction, which includes a plan for soil and erosion control.
Land Use	No impacts	Approximately 90.9 acres of land permanently converted from its existing use to a community-related use (new town site) or a vacant lot (existing town site).	Approximately 30.8 acres of temporary disturbance due to utility construction; areas of temporary disturbance would be returned to preconstruction conditions	No permits/approvals required
Zoning	No impacts	Would require the re-zoning of approximately 80.0 acres of land currently zoned agricultural	No mitigation required	Re-zoning of land must be approved by the City of Minnewaukan
Prime Farmland	No Impacts	Alternative B would permanently convert approximately 62.0 acres of prime and unique farmland and 17.6 acres of statewide important farmland into a mix of residential, commercial, government, and industrial uses at the proposed town site.	Completion of a Farmland Conversion Impact Rating Form AD-1006 resulted in a score of 161. Coordination with NRCS determined that no alternative site assessments are required.	No permits/approvals required

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
Floodplain Encroachment	No impacts	Existing downtown and new town site are outside the SFHA. Portions of the new utility corridor accessing the proposed town site are located in Zone AE. Disturbance would be temporary in nature.	Utilities will be placed underground or be elevated on power poles. All disturbed areas will be restored to pre-existing condition. All waste material will be disposed of properly and not placed in the SFHA. No permits required.	No permits/approvals required
Traffic Circulation, Parking, and Access	No impacts	Acquisition/demolition and/or relocation of 96 structures in Minnewaukan is likely to result in lower volumes of traffic within town. Minor changes in traffic patterns are also likely to result after road infrastructure is constructed in the new town site. Temporary road closures and disruption of traffic circulation is anticipated during construction.	If Highways, 19, 20, and 57 are inundated within the 2012 construction season, coordination will occur with Camp Grafton to ensure disruption of their equipment shipments does not occur. Work zone traffic control would be implemented, as appropriate, during construction.	An NDDOT right-of-way permit will be obtained prior to construction.

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
Public Health and Safety	Negative impact by not providing funding assistance for the relocation or acquisition of properties, and no relocation site, which would result in public health and safety impacts as the town may become uninhabitable if inundated by Devils Lake.	Positive impact by developing infrastructure at a new town site located on a high enough elevation to remain unaffected by Devils Lake flooding and would provide property owners with financial assistance to relocate to the new town site or elsewhere.	No mitigation required	No permits/approvals required
Socioeconomics	Negative socioeconomic impact by not maintaining population and economy of Minnewaukan	Initial negative impact socioeconomic impact due to strain of maintaining existing and new town site. Anticipated to result in long-term socioeconomic benefits by maintaining Minnewaukan's economy and as much of its population as is feasible. Potential economic benefit of new town site being located next to U.S. Highway 281.	No mitigation required	No permits/approvals required

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
Environmental Justice	May result in disproportionately adverse effects to low-income populations; however, with no federal action, no compliance with Executive Order 12898 is required.	Expected to have a long-term beneficial impact on the population of Minnewaukan, including low-income and minority populations, by providing a new town site for relocation, as well as providing financial assistance for relocation to property owners at the highest risk of inundation.	No mitigation required	No permits/approvals required
Air Quality	No impacts	No permanent impacts; however, structures proposed for acquisition and demolition may contain asbestos and will be inspected prior to demolition. Temporary impacts may occur due to construction in the form of dust.	If asbestos is identified in any structures proposed for demolition, removal will be accomplished in accordance with Section 33-15-13-02 of the North Dakota pollution control rules. Temporary air quality impacts will be minimized by the implementation of the soil and erosion control plan as part of the NDPDES permit.	If asbestos is discovered, an Asbestos Notification of Demolition and Renovation form will be submitted to the NDDH Division of Air Quality 10 days prior to demolition. An NDPDES permit will also be obtained prior to construction.
Noise	No impacts	No permanent impacts. Noise levels may temporarily increase during construction.	No mitigation required	No permits/approvals required

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
Public Services and Utilities	Public services and utilities may be limited to residences due to likelihood of inundation	Would provide basic public services and utilities at new town site located at an elevation protected from Devils Lake. Would require relocation of some utilities.	Coordination with affected utilities will occur prior to construction	No permits/approvals required.
Surface Water	As Devils Lake inundates existing facilities, surface waters may become contaminated.	No impacts	No mitigation required	No permits/approvals required
Ground Water	No impacts	No impacts	No mitigation required	No permits/approvals required
Wetlands	No impacts	Permanent impacts to 2.11 acres of non-jurisdictional wetlands, temporary impacts to 0.62 acres of non-jurisdictional wetlands, and temporary impacts to 1.38 acres of jurisdictional wetlands.	All unavoidable, permanent wetland impacts will be mitigated on the proposed town site. Wetland areas temporarily disturbed by utility line construction will be returned to pre-construction contours following construction.	A Section 404 Permit will be obtained from the USACE prior to construction.
Threatened, Endangered, and Candidate Species	No impacts	No effect to gray wolves and piping plovers; no impacts to designated piping plover critical habitat; may affect, but not likely to adversely	Re-seed disturbed vegetation in-kind and restore temporarily disturbed wetlands to pre-construction contours following	No permits/approvals required

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
		affect, whooping cranes; and may impact Sprague's pipits and associated habitat, but not anticipated to adversely affect pipits.	construction.	
Vegetation, Avian Species and Other Wildlife	No impacts	Permanent disturbance of 14.1 acres of grassland/pastureland and 58.2 acres of cropland. Temporary disturbance of 14.1 acres of grasslands/pastureland and 12.1 acres of cropland. Has the potential to spread invasive species from existing infestation areas. May disrupt potential habitat or food sources for wildlife, but impacts are anticipated to be minor due to the lack of high quality habitat within the project area.	Disturbed areas will be re-seeded in-kind following construction	No permits/approvals required
Section 6(f) Properties	No use/taking	No use/taking	No mitigation required	No permits/approvals required
Historic Properties	No impacts	Adverse impacts will occur to 10 NRHP eligible structures, but implementation of	A web-based history that captures the tangible and intangible essence of the	Implementation of proposed mitigation measures for "No

Table 11: Alternatives Impact, Mitigation and Permitting Comparison

Resource(s)	Alternative A (No Action)	Alternative B (Proposed Action)	Mitigation/Conditions	Permitting/Approvals
		proposed mitigation measures in MOA will resolve <i>Adverse Effects to Historic Properties</i> . SHPO concurred on December 20, 2011.	community by combining existing and new historic documents allow individuals to contribute recollections of the city's cultural heritage and the relocation process.	Adverse Effect to Historic Properties" determination is required as a condition of the federal funding.
Archaeological Resources	No impacts	No impacts. SHPO concurred September 26, 2011, and January 26, 2012.	No mitigation required	No permits/approvals required
Tribal Coordination	No impacts	Tribal coordination was initiated September 28, 2011 with no response.	No mitigation required	No permits/approvals required
Hazardous Materials and Waste	No impacts	No impacts anticipated.	If hazardous materials are discovered, generated, or used, they would be stored, handled, and disposed of in accordance with applicable local, state, and federal laws.	No permits/approvals required

Chapter 5. Agency and Public Coordination

5.1 Introduction

This chapter also provides information about consultation and coordination efforts with agencies and interested parties, which has been ongoing throughout the development of this EA.

5.2 Agency Coordination

To initiate early communication and coordination, early notification packages to tribal, federal, state, and local agencies and other interested parties were distributed for during a planning phase of the relocation project and for numerous projects that comprise the Proposed Action.⁸ The scoping packages included a brief description of the proposed projects, as well as a location map. Pursuant to Section 102(2) (D) (IV) of the NEPA of 1969, scoping was implemented to ensure that social, economic, and environmental effects were considered in the development of this project.

The planning phase provided a 15-day comment period while the scoping comment period for each project was 30 days. A total of 60 responses were received at the end of the comment periods. These comments provide valuable insight into the evaluation of potential environmental impacts. The comments were referenced and incorporated where appropriate within the environmental impact categories addressed in this document. ***Please refer to Appendix I–M for scoping packages and responses received for the Project.***

5.3 Public Involvement

Numerous public notices, news articles, and meetings were posted or held to notify the public of the Proposed Project and to solicit their feedback. A public meeting was held in the Minnewaukan Public School gymnasium on March 30, 2010. The purpose of the meeting was to discuss the challenges posed by the flooding and the feasibility of the City to meet its cost-share of the relocation efforts. A meeting notice was published in the Benson County Farmers Press on March 15, 2010.

In January 12, 2011, an article entitled *Minnewaukan Plans Partial Move to the West* was published in the Benson County Farmers Press and outlined the preliminary plan for relocation. Following this article, surveys were mailed out to residents within Minnewaukan in order to for the City of Minnewaukan to prioritize properties for relocation and/or acquisition. Corresponding to this survey was a presentation given by KL&J on February 10, 2011, at a City Council meeting which was open to the public. A brief discussion of this

⁸ Please note that, while Benson County Social Services is mentioned in one of the scoping packages, the relocation of the Benson County Social Services building is not a part of the Proposed Action.

meeting, as well as an alert to Minnewaukan residents to complete the written survey, was published in the Benson County Farmers Press on February 16, 2011.

A second meeting was held at the Minnewaukan Public School on February 23, 2011. A meeting notice was published in the Benson County Farmers Press the same day. The purpose of the meeting was to discuss flood insurance with the residents of Minnewaukan and answer questions or concerns of the public. A brief notice of the meeting was also published in the Benson County Farmers Press on March 16, 2011.

A news article, entitled *May Apply for Grant to Purchase Houses*, appeared in the Benson County Farmers Press on March 2, 2011. The article discussed the potential for the City of Minnewaukan to seek funding from the FEMA Hazard Mitigation Program for the relocation or acquisition of structures. A news article in the same paper, entitled *Minnewaukan Residents Should Sign up for Program*, was published on March 23, 2011, and urged residents to sign up for relocation assistance.

In addition to the formal public meetings, numerous discussions/informal presentations have been made by KL&J to the City of Minnewaukan at City Council meetings throughout 2011. These meetings are open to the public. Verbal comments received from the City and citizens have been in support of the Proposed Action with a view that the relocation would benefit the community by relocating away from the encroaching waters of Devils Lake.

A public 'notice of availability' of this draft EA for review and comment was posted in the Benson County Farmers Press and on the FEMA website at <http://www.fema.gov/plan/ehp/envdocuments/ea-region8.shtm>. If no substantive comments are received, this notice will serve as the final public notice.

Please refer to Appendix N for news articles, public meetings and notices.

Chapter 6. Preparers

6.1 Introduction

This chapter identifies the names and qualifications of the principal people contributing information to this EA. In accordance with Part 1502.6 of the Council on Environmental Quality regulations for implementing NEPA, the efforts of an interdisciplinary team comprising technicians and experts in various fields were required to accomplish this study.

6.2 Preparers

Table 12, Preparers, lists the individuals with primary responsibility for preparation of the EA.

Table 12: Preparers

Affiliation	Name	Title	Project Role
Kadrmass, Lee & Jackson, Inc.	Becky Rude	Environmental Planner	Agency Coordination, Senior Review, Principal author
	Shanna Braun	Environmental Planner	Senior Review
	Nick Anderson	Environmental Planner	Agency Scoping
	Rigden Glaab	Archaeologist	Cultural resources survey
	Erik Gilbertson	Principal Engineer	Agency Coordination, Alternatives Development, Senior Review
	Terry Fasteen	Right of Way Specialist	Agency Coordination, Alternatives Development
	Paul Zaharia	Right of Way Specialist	Agency Coordination, Alternatives Development
	Skip Skattum	GIS Analyst	Impact assessment, Exhibit creation
Aaron Barth Consulting	Aaron Barth	Architectural Historian	Architectural Survey
FEMA VIII	Steven Hardegen	Regional Environmental Officer	Review of Draft EA and recommendation to Regional Director regarding FONSI or EIS
	Richard Myers	Deputy Regional Environmental	Review of Draft EA and recommendation to

Table 12: Preparers

Affiliation	Name	Title	Project Role
		Officer	Regional Environmental Officer regarding FONSI or EIS
HUD VIII	David Rigiroszi	Field Environmental Officer	Review of Draft EA
EDA	Jennifer Benz	Regional Environmental Officer	Review of Draft EA
USACE	Roland Hamborg	Project Manager	Review of Draft EA

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