**The Mandaree Needs Research**

**Helping Mandaree Community Plan for the Future**

**By**

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**Research Methods**

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**ABSTRACT**

The Mandaree needs research has been conducted to inform decision-makers about the magnitude and severe impacts of the oil and gas development in Mandaree, North Dakota. Even before the oil and gas development, the Mandaree community has all ways had great needs.

**INTRODUCTION**

**PURPOSE**

 The purpose of the Mandaree needs research is to document and demonstrate permanent ongoing needs in Mandaree. The proposal plan discussed later will develop models that best reflect achievable goals for the likely future of the ongoing needs of Mandaree.

The Bakken/Three Forks oil and gas play is very dynamic and its potential is not yet fully known. Due to this oil and gas development, families and individuals are returning to Mandaree for work and families are growing. While the economic future is bright, cities in the region are struggling to manage their population growth. Mandaree must act to accommodate a sustainable population by addressing Mandaree needs such as expanding the number of housing units and renovating existing housing units.

“The Bakken Formation is located in western North Dakota, eastern Montana, and southern Saskatchewan, Canada as a subsurface formation with in the Williston Basin. The Bakken Formation lies between the overlying Lodgepole formation (FM), which is conformable in most areas, and the underlying Three Forks Formation, which is unconformable. The Bakken Formation is both Devonian and Mississippian in age as the chronostratigraphic contact lies approximately within the upper portion of the middle member. The Bakken Formation was deposited approximately 360 million years ago *(Bakken: Bakken Formation)*.”

Mandaree wasn’t included in the recent North Dakota Communities Acutely Impacted by Oil and Gas Development: Williston Housing Demand Analysis. However, there are two items that support this request. This past spring, a petition to keep the Mandaree Post Office was circulated by concerned citizens. Six hundred and ninety eight residents signed that petition (estimated one thousand). This number of residents is nearly double the 2010 Census count of 596 residents in 150 households. *(US Census 2010)*

Also this spring, is the needs assessment that was conducted by the Mandaree Community Volunteers and Mandaree Community Board.

The figures of this assessment reflects’ what is actually happening in Mandaree. Children grow up, some marry and most of these young adults are unable to find adequate affordable housing and have to remain in their parents’ homes. People are returning from other states to Mandaree to retire or due to the poor national economy and they are living with their relatives for the same reason – lack of housing. Some people are returning to Mandaree to work in the oil fields.

**METHODOLOGY**

The Mandaree Community Volunteers Needs Assessment has been completed on August 9, 2012. With these results we will implement into the Mandaree Strategic Plan written with the Vision West ND Project.

In November 2012 the Mandaree Post Office was in the process of being permanently closed by the US Postal Service. The Mandaree leaders were asked, “what they were going to do about it?” they stated, “it’s a done deal”. The Mandaree Community Volunteers and Walter DeVille Sr. (Mandaree Community Board Member) initiated a Grass Roots Petition Drive. While collecting 698 signatures by going door to door and listening to resident’s concerns and issues the Mandaree Community Volunteers Needs Assessment was created and a report written on oil and gas impact in Mandaree. The Mandaree Post Office remains open. With the Mandarees People concerns and issues the Mandaree Volunteers Needs Assessment was created.

**DISCUSSION**

**Mandaree Community Interviews on the Impact of Oil and Gas Development, *(Mandaree People Interviews, November 2011 to January 2012)***

This is an attempt to present a comprehensive overview of the major issues of impact by the Mandaree community. This is done with the understanding that defining the categorizing these areas is a dynamic process.

Oil and Gas development has been on the Fort Berthold Reservation for a few years that has made a huge impact on our lives. Mandaree is one of the towns on Fort Berthold Reservation in the heart of the oil and gas development. From highways to houses, and from business growth to oil exploration the communities are seeing increase of development and this brings an increase of people, increase of activity, and increase of traffic. This also causes strain on infrastructure. Keeping up with demand is a challenge. This development is mainly due to the development of the Bakken approximately 2 miles deep formation as noted by geological review:

The Mandaree People were interviewed. To prevent Mandaree from becoming an unsustainable development area, these general categories should be addressed:

**Environment**

Environment, water, air and land will be affected from the energy development by the need for the land to drill oil, build infrastructure, all wildlife will need to adapt to this change. Limiting migration patterns and pollution will be major factor.

* Water pollution, the threat of hydraulic fracturing may involve the injection of toxic chemicals into or close to drinking water supplies. Once the fractures have been created, fracturing fluids begin to flow back to the surface. Storm water runoff during construction from well pads can introduce sediment and toxic chemicals in to nearby rivers and streams. Storage and disposal of drilling and production wastes in pits can contaminate groundwater and surface water.
* Air pollution, many air contaminants are released throughout the oil and gas development process. Flaring of gas causes health concerns. There is a lack of adequate air monitoring.
* Soil pollution, oil and gas industry wastes may contain toxic chemicals that have the potential to cause soil pollution, and prevent the growth of vegetation. Contaminants that enter the soil do not stay in one area, they can move down through the soil and contaminate groundwater, or up through the soil and be released to air. Waste fluids stored in pits may contaminate soil surface or groundwater if pits leak or overflow. This also threatens wildlife. Oil and Salt water spill may contaminate many sites on the reservation. Vegetation does not grow.
* The effects on wildlife, from oil and gas development is that wildlife become scarce. Their habitat has been invaded. The timing of breeding cycles and seasonal migrations. Oil spill into the lake contaminates the water affecting the marine life and birds. Also with the increase in traffic many of the wildlife are killed on the road. Need signs up informing the people of wildlife crossing.
* Garbage Disposal/Waste, this is a huge concern. The trash containers in and around Mandaree are filled with oil field garbage disposal/waste. Garbage fall out from vehicles while driving is becoming common on highway 22 has much litter in the ditches. This may now require constant monitoring.

**Drilling Process, Completion and Stimulation**

Would like information and better understanding in this area.

**Laws and Policies**

Laws and policies related to oil and gas development must be implemented and strictly enforced. Tribal government needs to regulate all oil & gas development through tribal codes, ordinances, and constitutions. Need to consider local, federal, and state laws and policies. Several tribes in other states have laws and policies from previous development but none exist today for Fort Berthold Reservation should trigger applications of environmental justice actions.

**Social Issues**

Social issues are all affected because of adapting to the fast life. There are many different people coming to find work and eventually to live, make their home on the Fort Berthold Indian Reservation and the surrounding towns. People will bring their different values such as drugs, alcohol, and alternative lifestyles. Children being affected.

**Post Office**

Mandaree Post Office is in the process of possibly being closed on May 15, 2012. This will cause hardship for the Mandaree Community residents due to increase in traffic dangerous for all to drive especially for the elders, no gas in Mandaree, round trip for some will be 120 miles to pick up mail from one of the surrounding communities such as New Town and Watford City. In the winter season driving is dangerous.

**Population**

The surrounding towns have grown at least by 10.9 %. With the increasing population there are demands for all needed necessities for life (Census 2010: North Dakota). New comers are younger. More attention will need to be commanded the needs of younger households than older households. Mandaree community has also grown. Census states 500 residents but according to the Mandaree Post Office Petition there are 690 residents. Families wanting to move back to Mandaree are unable too, due to the unavailability of housing.

**Infrastructure**

The need to build roads, bridges, electrical grid, homes, water resources, waste disposal, waste water, sewer and other utilities must be continuous to meet the growing population. Infrastructure is very important to meet the demands of the population growth.

**Roads**

Road damage caused by overweight trucks carrying water to and from oil rigs, oil from rigs to pipelines elsewhere in the state, transporting salt water to designated disposal sites, and movement of work over rigs, fracturing rigs, cranes, and utility vehicles. What use to be half hour drive to one of the three local towns now takes 45 minutes on a good day when traffic is heavy it takes one hour.

**Housing**

There is a severe shortage of affordable housing. Lack of housing for temporary workers and need more permanent housing for families who relocate to the oil to support the growing population. Creative housing solutions of all types are needed. In order to build homes infrastructure and land is needed to support new development. Also the low rental existing housing and BIA Teacher/Educators housing is very old (50+) and in substandard conditions. Man camps, who controls? Once the pipelines are completed and oil and gas development is complete there will be nothing but empty units and wasted land.

**Workforce**

Jobs are readily available. Changes in the workforce demand, such as workers leaving community based jobs to higher paying oil and gas development jobs.

**Education**

Student enrollment continues to increase. The need for more teachers/educators is growing. The demand for housing is great. The BIA teacher/educator housing is very old (50+ years) and substandard. There is a need for college instructors and student housing who commute from 30 to 60 miles.

**Health Care**

Emergency medical services, medical responders and ambulance services have increased. Most emergency medical responders are volunteers. Impacting response reliability, causing response delays and increasing stress on emergency medical services. This crisis presents dangers to patients, EMS workers, and the public.

**Law Enforcement and Traffic**

Law enforcement and traffic, traffic and crime have increased. Due to high traffic and driver fatigue there is an increase in traffic fatalities. It is rare that the local communities hear of crimes such as abductions and homicides. Sex Offenders, drugs, and human trafficking are also a concern. There are serious concerns about enforcement of criminal violations which require off the reservation officers to process DUIs and other offenses. There are many instances where due process is not in effect and requires the attention of professionally trained legal system personnel.

**Economic Growth**

The demand for groceries and gas has increased revenue for local stores. Rapid increase in oil and gas development is bringing great economic benefit and pressuring others to leave due to high rent and higher goods and services which are being unaffordable to some elderly and families.

**Statement from Mandaree Resident**

“Today, we are seeing the results of failure to prepare for the full onslaught of impacts on tribal members and on the allottee and tribal lands. Already we see the increasing environmental damages caused by deliberate spills by operators, 70-plus acre fire resulting from careless or negligent workers, oil truck-trailer fire at Bear Den, an overturned oil truck abandoned by the driver on the state highway near Mandaree, fly ash contamination of allottee surface land near New Town, and toxic chemical spills in both Parshall and Mandaree are only a few instances of direct impacts to public safety on Fort Berthold.

A very minimal infrastructure exists, if any, to adequately protect the health and safety of individual tribal members. Inadequate tribal policing capability, reportedly little or no coordination between TERO compliance officers and the tribal 'Homeland Security,' lack of tribal emergency personnel, and lack of adequate federal monitoring and compliance enforcement has significantly lowered the standards for oil companies and their sub-contractors operating on Fort Berthold*.” (Annonimous Mandaree Resident 2012)*

The process of prioritizing the categories is now under review by members of the community and Fort Berthold Community College. This dynamic process will allow for public input an oversight. These categories were conceived in order to allow for the development of appropriate actions of policies which will be the operational safeguards for the issues. It was noted that other tribal governments and other governmental organizations have effective laws and policies and enforcement procedures. Addressing these issues should be in effect soon or the risk major and possibly un-repairable consequences are at stake. The MHA Nation has had previous impacts from epidemics, eminent domain, and rapid social, economic and political challenges; the impending development is now the current challenge.

**Itemized areas of impact, *(FBCC Environmental Science Students 2012)*:**

1. Environmental (Contaminate Problems):
* Air
* Water
* Land - Soil
* Spills – Pollution
* Wildlife
1. Laws and Policies:
* Local
* Federal
* State
* Environmental Laws
1. Emergency Services:
* Fire Response Team
* Natural Disaster Response Team
1. Health:
* EMT
* Lack of Health Services
* Environmental – Dust Control
1. Law Enforcement:
* Fatalities
* Criminal Acts (Community alert services)
* Abductions
* Sex Offenders
1. Economic Growth:
* Keeping up with demand
* Infrastructure
* Other Services
1. Infrastructure:
* Houses
* Roads
* Utilities
* Waste Management
1. Education:
* Facilities
* More Teachers
* More Housing
1. Social Issues:
* Fast Life
* Change in Values (drugs & prostitution)
1. Work Force:
* Jobs available
* High demand

**RESULTS**

**Listed below are a few highlighted results from the Mandaree Community Volunteers Needs Assessment. *(Mandaree Community Volunteers Needs Assessment, 2012)***

Housing:

68.5 % of Mandaree residents live in overcrowded conditions.

74.1 % Mandaree homes are in need of renovation/repair.

55.6 % Mandaree homes have safety or sanitation issues.

Education:

50.0 % Mandaree School not preparing children for any type of post-secondary training.

87.1 % daily school attendance is important to families.

61.6 % new housing for teachers and employees is a must have.

Health Care:

 89.7 % permanent 24 hour physician needed.

 97.1 % new clinic needed.

 87.2 % Dialysis Center needed.

Law Enforcement:

72.5 % of traffic speed control effectiveness by Fort Berthold Law Enforcement is poor.

55.8% school safety effectiveness by Fort Berthold Law Enforcement is poor.

79.7 % of response time by Fort Berthold Law Enforcement is poor.

Community Safety:

61.3 % of Mandaree residents feel less safe in the past 2 years.

81.9 % vandalism is a problem.

89.9 % Mandaree families are concerned for their family’s safety due to new “man camps”.

Environmental:

71.9 % visible pollution in the air is a problem.

75.5 % oil field resident’s garbage is a problem.

85.5 % trucks dumping or spilling unknown liquids on road is a problem.

85.5 % Mandaree residents would participate in a recycling program.

79.1 % Mandaree air quality and water quality is extremely important.

91.3 % say it is extremely important that land in Mandaree be free of spills and damages from oil and gas development.

Mandaree oil and gas tax revenue to cover services:

95.8 % to improve streets and roads.

95.1 % to improve emergency services.

Economic Development:

52.2 % feel zoning (planning for land use) needs to be implemented throughout the entire

Mandaree area.

97.9 % would like to see a convenience Store that sells gas in Mandaree.

84.5 % would like to see a Laundromat in Mandaree.

Infrastructure:

 75.5 % outdated sewer system is a problem.

 72.7 % outdated water system is a problem.

**The Vision West ND Project**

The Vision West ND Project Mandaree Steering Committee met with Brian Cole, President of Building Communities, Shirley Brentrup, Executive Director, Lisa DeVille Consortium T.A.T Representative on August 10 and 11, 2012 at the Mandaree School Music Room. T.A.T departments were invited.

With the results from the Mandaree Community Volunteers Needs Assessment we were able to identify together the Qualities of Life and Strategies for the Mandaree Strategic Plan. With that the Introduction and purpose was written for this plan that reads;

“For generations, our story has been one of sacrifice.

The story of how Native Americans lost their land in the 17th, 18th, and 19th Centuries is well known throughout the world. What few people understand is how our people at Elbowoods sacrificed in the 20th Century.

How our homeland was flooded. On purpose.

Today, we are in the center of the fastest growing economy in the United States, yet we share our homes three families at a time.

We are right in the middle of the Bakken Oil Boom, and yet we cannot afford to fix our schools.

Oil companies are paying millions each month in royalty payments, and yet our roads crumble.

People are moving from thousands of miles away to work and live near us, and yet the economy passes us by.

Within just a few miles of the community of Mandaree on the Fort Berthold Reservation operate more oil drilling rigs than anywhere else on the North American continent. For the first time ever, our nation is on the path to energy independence. Yet those of us living here that are sacrificing our land, our water, and our air are not gaining our own economic independence.

We are not complaining. We are convening.

We are not retreating. We are renewing.

What this plan is all about is how we overcome our circumstances in the 21st Century.

Mandaree wants to be a part of a new vision for the Mandan, Hidatsa, and Arikara Nations. We want to set a new plan in place, work with our tribal leaders, and shape our new circumstance into a better tomorrow. We appreciate how our neighboring counties have come together to build this Regional Plan for Sustainable Development. After all, this is what we believe in. Sustainability.

The very conditions that are most negatively affecting our lives today are the same conditions that give us a renewed hope. For the first time since our people were required to leave the fertile lands of Elbowoods in 1953, we can see a glimpse of a better time ahead.

Royalties paid to our Tribe have amassed a Trust Fund that has accumulated over $100 million just in the last three years. While we have yet to see the benefits of potential investment from these funds—funds that have largely been generated from oil activity in our very community—we believe that this plan will set the stage for this investment in a way that is smart in the short term and visionary in the long term.

Yes, our story remains a story of sacrifice. But today, with this plan, our story is one of hope as well. Hope for better schools to serve our future generations. Hope for better roads to serve our people and our temporary guests. Hope for better health care to serve a population that needs healthy food and healthy habits. Hope for all of our people that simply want to live the way that our forefathers did—independent and self-sufficient.” *(Vision West ND Project Mandaree, 2012)*

**CONCLUSION**

The decision makers need to monitor oil and gas activity, infrastructure and construction projects, and other new industries, and be prepared to act depending on the scenario than unfolds. The Bakken/Three Forks is dynamic and the future is still uncertain.

Although much of the world depends on the production or the trade of oil to fuel its economies, these activities can cause severe damage to the environment, either knowingly or unintentionally. Oil production, and/or transportation, can disrupt the human population, and the animal and fish life. Oil waste dumping, production pollution, and spills wreak havoc on the surrounding wildlife and habitat. It threatens the extinction of several plants, and has already harmed many land, air, and water animal and plant species.

The Mandaree Needs Research, Helping Mandaree Community Plan for the Future contains a wealth of data that can help the decision makers understand and plan for the future of Mandaree.

With this as a guide, fitting solutions can be crafted for many of the challenges facing Mandaree.

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