

Scope of Work 2014 Marine Hwy Ferry Feasibility Study For June 2015 to June 2016

The REAP Investment Fund, Inc. received a Rural Business Opportunity Grant (RBOG) from USDA Rural Development. The following Scope of work will be used to measure the performance of the **Lake Sakakawea Marine Highway Feasibility Study**.

1) Description of the proposed project:

PROJECT DESCRIPTION

The proposed project is evaluating the feasibility of operating a car ferry that crosses Lake Sakakawea near Twin Buttes off of old ND Hwy 8 on the South Side of the Lake and near Parshall off of ND Hwy 1804 on the North Side of the Lake. The project would include evaluating the infra-structure needs including accessibility to the Lake, parking facilities, docks, and amenities, operating costs, travel times, operating schedule and boat options. The Feasibility Study will be approximately 45 pages in length and could have the following information included:

Ferry Feasibility Study Outline-

Executive Summary

- Previous Ferry Initiatives
- Study Corridor
- Study Corridor Growth
- Alternatives Studied
- Ferry Service Plan
- Conclusions
- Corp of Engineers Support Request Letter
- Tribal – Fort Berthold Support Request Letter
- Dunn County Support Request Letter
- McLean County Support Request Letter
- North Dakota Department of Transportation Support Request Letter
- Environmental Protection Agency Support Request Letter

Chapter 1 - Introduction

- Purpose
- Previous Ferry Initiatives
- Study Corridor
- Study Corridor Growth
- Study Corridor Travel
- Need

Chapter 2 – Market Potential

- Demographic-Based Ferry Market Potential
- Travel-Based Ferry Market Potential
- Summary

Chapter 3–Preliminary Development of Ferry Service Alternatives

- Potential Termini

Potential Routings
Market Potential
Travel Time
Capital Costs
Transportation Demand Management Potential
Environmental Considerations
Terminal Accessibility
Summary and Conclusions

Chapter 4 – Design Year Travel Demand Forecasts

Study Area
Current Future Year Travel
Ferry Service
Access and Distribution
Travel Forecasting Methodology
Patronage Forecasts for "Reasonable" Scenarios
Impacts on Highway Travel
Summary and Conclusions

Chapter 5 – Landside Infrastructure Analysis

Approach Highway
Site Evaluation
Access to Public Transportation
Environmental Impacts
Necessary Improvements
Tribal Approvals
Storage Yard
Site Evaluation
Summary and Conclusions

Chapter 6 – Waterside Operation Analysis

Vessel Specifications
Potential Boat Manufacturing Yards
Oversight Agencies
U.S. Coast Guard
State of North Dakota
Navigational Aids
Waterside Operational Issues
Environmental Impacts of Waterside Operations
Summary and Conclusions

Chapter 7 – Ferry Service Modeling

Service Profiles
Patronage Projections
Landside Capital Needs and Costs
Waterside Capital Needs and Costs
Operating Costs and Optimum Fare Structures
TDM Benefits
Vehicle Ferry Potential
Summary and Conclusions

Chapter 8 – Ferry Service Plan

Service Levels
Infrastructure Needs and Costs
Patronage Projections
Financial Projections
Operating Authority
Summary and Conclusions

Chapter 9 – Public Involvement Activities

Study Brochure
Regional Market Survey
Technical Information Meeting
Meetings with Private Sector, Agency and Government Representatives
Press Advisories
Newspaper Advertisement
Citizen Information Meeting

Chapter 10 – Conclusions and Recommendations

Background
Study Findings
Study Conclusions
Recommendations

2) Details of the proposed actives or tasks to be accomplished and time frames for the completion of each task.

Task	Estimated start date	Estimated completion date
Finalize the Elements of the Proposed Study and Timelines	June 2015	January 2016
Meetings with Three Affiliated Tribes to review proposed study elements and processes.	March 2015	June 2015
Kick Off Meeting with Entire Stakeholder Working Group to accept study elements and notification to proceed	June 2015	June 2015
Gather, Develop and Research Feasibility Elements	July 2015	September 2015
Compile Feasibility Study, Address Concerns and Finalize Study with the Stakeholder Working Group	December 2015	January 2016 to June 2016

Written Narrative

Explanation as to why the proposed project is needed:

PROJECT PURPOSE

The purpose of operating a car ferry includes:

- a. Re-establish a traffic route that was closed when Garrison Dam was built.
- b. Establish a cross connection transportation option within Fort Berthold Reservation.
- c. Provide for a short route to emergency services.
- d. Reduction of traffic on the State Highway system resulting from the oil production impact.
- e. Provide a faster method to get from one side of the lake to the other.
- f. Provide a parks and recreation attraction to the area.

Explanation of the benefits of the proposed project:

The flooding of the Garrison Dam created Lake Sakakawea in the middle of the Fort Berthold Reservation. The Highway 8 bridge was no longer there - isolating the Twin Buttes Segment on the south shore; New Town, Four Bears and White Shield Segments on the north shores; and the Mandaree Segment on its southwestern shores. The small ferry boats operating on the Missouri River and the Little Missouri River prior to the creation of the dam also shut down further eliminating transportation options and connections between those Segments. This is especially hard for tribal members as the central tribal offices and tribal meetings are located in New Town. Since the 1950's, the Twin Buttes Segment membership must drive 110 miles around the lake to New Town and vice versa. The proposed ferry provides transportation options for tribal members. It would also provide a shorter seasonal route for emergency service providers.

In the past five years, energy development increased traffic on all highways serving the Fort Berthold Reservation and northwestern North Dakota. A ferry system would benefit many travelers moving in or out of that general area and reduce traffic on the *only* two north/south highways serving the area- Highway 85 and Highway 22. Using the ferry would reduce the driving time around the lake by 110 miles and may provide a safer alternative.

One thing that hasn't been done in the energy fields is the addition of new routes for transportation. The marine highway provides a new 5.5 mile route at a fraction of the price with minimal maintenance and repair.

There are currently three state parks in the vicinity of the proposed docking areas. The marine highway will positively influence those parks and tourism for the lake areas.

Ferry systems often see the creation of amenities at their docking areas. Ferry systems around the nation have concessions and recreation amenities on or nearby their docks. This would increase access to Lake Sakakawea and therefore increase tourism and recreation opportunities.

At this time, there is tremendous local interest from around the state, the Three Affiliated Tribes, area cities, and area counties to investigate the feasibility of a ferry service. There is also at least one private entity that has stated an interest in operating such a ferry on Lake Sakakawea. The feasibility study will

determine and answer many of the questions in relationship to such a business including its startup needs and it's sustainability over time.

Not knowing the outcomes of the feasibility study, we can address the excellent chances of sustainability by looking at the other ferry systems operating in 24 states. These have several different ownership options. In some cases, the shore line docks are owned by the Department of Transportation and the ferries are owned by private companies. In some, all facets of the operation are privately owned and/or leased. In North Dakota, the shoreline is federally owned and managed by the Corp of Engineers. It is likely shoreline service operations would lease the land from the Corp. They would build and operate under the rules and supervision of the Corp. Throughout the nation, the Corp of Engineers works with many marine highway systems on federally owned/managed waterways.

Given the heavy increase in truck traffic in this area, there is every reason to believe the ferry system will be a profitable venture if startup costs are not unreasonable. Overall, truck traffic alone has increased on local highways in and surrounding the Fort Berthold Reservation from 500 to 1,000 trucks per day in 2008 to 1,500 to 3,000 trucks per day in 2013. (See pages 77 & 78 in the attached portion of the Vision West ND Regional Plan, ND Average Daily Truck Traffic, NDDOT)

1. Improvements in the Quality of Economic Activity

This proposed project will improve the economic activity in the service area through higher wages, improved benefits, greater career potential, and/or the use of higher level skills than are currently typical. The wages paid should be competitive with other jobs in the area *not* including some oil or coal based jobs.

We find from other similar ferry services, the business would employ 6 people on the ferry boat running two shifts daily for approximately nine months each year. There would be an additional four people on two shifts daily on each shore to direct incoming and exiting traffic, provide maintenance and collect fees. There would be at least one full-time year-round administrator/public information officer/bookkeeper.

One Business – Ferry Operations - Jobs Created:

Position	Wage/Month	Number of Months/Year	Total Annual Wages
Administrator (1)	\$3,500	12	\$ 42,000
Ferry Operators (6)	\$4,000	9	\$216,000
Dock Side Coordination (4)	\$3,000	9	\$108,000
Totals – 11 jobs			\$366,000

Construction of the boat docks or landings is estimated to be in the range of \$4 million and would temporarily employ construction workers. Highways leading to the landing would need to be updated as well. The operation of a marina on both sides would also create two seasonal businesses, jobs and service industry opportunities.

It should be noted that initial funding of \$5,000 for a Document of Intent was contributed by the Consortium Membership of Vision West ND. This Consortium is a 28 member group representing western North Dakota including the Three Affiliated Tribes, 19 counties, 4 universities, and three regional councils. Vision West ND is a HUD Regional Sustainability project.

Ulteig Engineering identified the scope of the Preliminary Feasibility Study as follows:

1. Executive Summary – includes
 - a. Study Corridor
 - b. Ferry Service Plan
 - c. Conclusion
 - d. List of Stake Holders
2. Chapter 1 – Project Purpose and Need
3. Chapter 2 – Description of Ferry Service Operation
4. Chapter 3 – Travel Demand Forecasts and Impacts to Highway Travel
5. Chapter 4 – Landside Infrastructure needs assessment
6. Chapter 5 – Waterside Operations Analysis
7. Chapter 6 – Ferry Service Modeling
8. Chapter 7 – Ferry Service Plan
9. Chapter 8 – Conclusions and Recommendations for type, size and location.
10. Chapter 9 – Project cost estimate

Information that will be incorporated into the Preliminary Feasibility study will include information supplied by Vision West that Mark Resner gathered as part of his preliminary investigation.

1. Boat Specifications
2. Potential Boat Manufacture
3. Oversight Agencies
4. U.S. Coast Guard
5. State of ND
6. Navigational Aids
7. Waterside Operations
8. Environmental Impacts of Waterside Operations.
9. Infrastructure needs and costs,
10. Patronage Projections.
11. Service Levels
- 12. Operating Authority**