



Fargo-Moorhead Area Diversion Project Assessment District Amended Engineer's Report Cass County Joint Water Resource District

To: Cass County Joint Water Resource District

From: Eric C. Dodds, AE2S

Date: March 26, 2015

The Fargo-Moorhead (FM) Area Diversion Project (Project) will reduce the flood risk to the metropolitan area, including the North Dakota cities of Fargo, West Fargo, Harwood, Horace, Relies Acres, Frontier, Prairie Rose, Briarwood, and North River, as well as provide reduction in flood risk to some residents of non-metropolitan Cass County including portions of Barnes, Berlin, Harwood, Mapleton, Pleasant, Raymond, Reed, Stanley, Warren, and Wiser Townships. The Project will reduce flood risk through construction of a 36-mile, 20,000 cubic feet per second (cfs) diversion channel that will start approximately three (3) miles south of the confluence of the Red River and the Wild Rice River and extend west and north around the metropolitan area before re-entering the Red River east of Argusville. The Project provides flood risk reduction from the Red River and its North Dakota tributaries, including the Wild Rice, Sheyenne, Maple, Rush, and Lower Rush Rivers. The Project includes an embankment and tie-back levees that will temporarily stage flood waters upstream of the metropolitan area to ensure no downstream impacts. The Project features include gated control structures on the Red River, Wild Rice River, and the inlet to the Diversion Channel. The Project also includes aqueduct structures on the Sheyenne and Maple Rivers as they cross the Diversion Channel. In addition to the Diversion Channel and associated structures, the Diversion Project includes levees along the Red River through Fargo. The In-Town Levees enable flood waters to safely pass through the Red River as well as the Diversion Channel, which helps reduce Project impacts and provide more robust flood risk reduction.

Construction will involve excavation of approximately 50 million cubic yards of earth to form the Diversion Channel. Construction also involves six (6) interstate highway bridges, 12 county and township road bridges, four (4) railroad bridges, three (3) gated control structures, two (2) aqueduct structures, a rock-ramp outlet structure, and other structures.



The total estimated Project cost, per the United States Army Corps of Engineer’s (USACE) Feasibility Study is \$1,781.5 Million. The North Dakota legislature has approved \$175 Million for the Project during the 61st, 62nd, and 63rd legislative sessions. In addition, the North Dakota legislature passed legislative intent to provide an additional \$275 Million over the next four bienniums. The federal government is estimated to provide \$801.5 Million to the Project and the State of Minnesota is estimated to provide \$100 Million. The proposed cost to assess is based on the outstanding commitment from the State of North Dakota (\$275 Million) and the local cost share (\$450 Million). The resulting amount to assess is \$725 Million. The tables below summarize the Project cost and amount to assess.

Project Cost Summary

Total Construction	\$1,164.9M
Planning, Engineering, and Design	+ \$183.9M
Lands, Right-of-Way, and Relocations	+ <u>\$432.7M</u>
Total Estimated Project Cost	= \$1,781.5M

Amount to Assess Summary

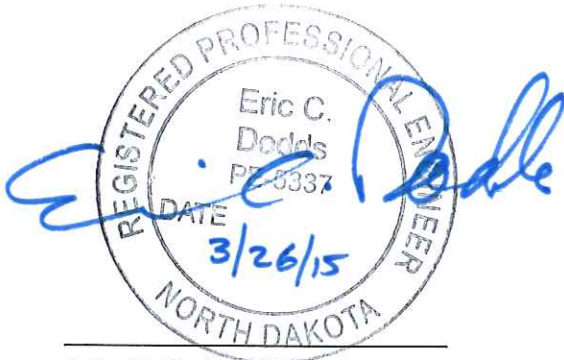
Total Local North Dakota Cost Share	\$450.0M
Outstanding State of North Dakota Funding	+ <u>\$275.0M</u>

Amount to Assess = \$725.0M

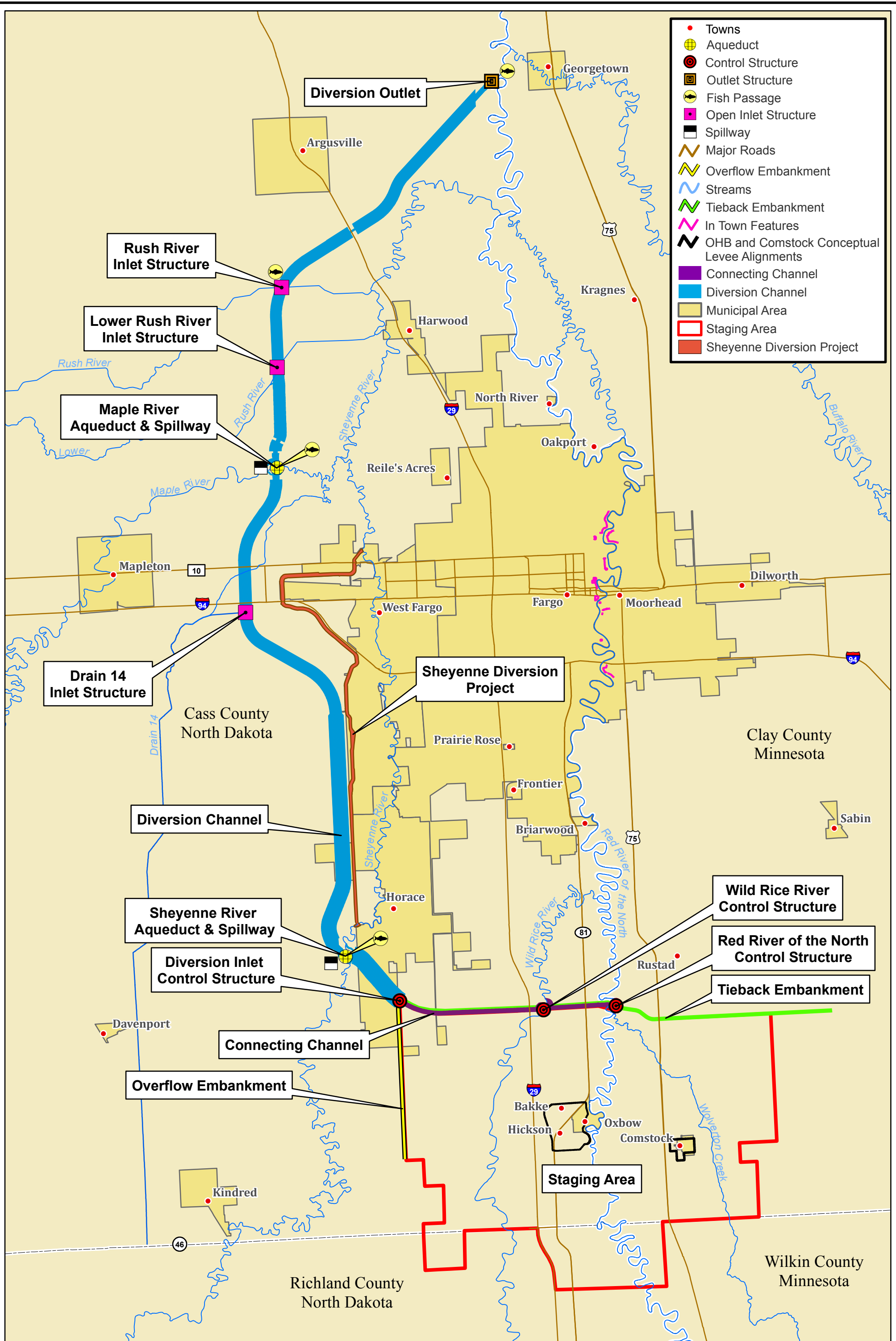
The voters in the City of Fargo and Cass County have approved two sales taxes for funding the Project. The sales tax revenues are expected to provide the funding necessary to meet the local cost share obligation. However, it is clear that the pace of expenditures necessary to construct the Project will exceed the pace of revenue generated by the sales taxes. As such, it is required to finance the Project costs. Securing an attractive financing package (low interest rate, low coverage requirement, etc.), requires providing the bond market a high confidence that we will be able to re-pay the debt. While the City and County have a 20-year history of strong sales tax growth, backing the bond financing on a special assessment district is much more favorable than backing purely on sales tax collections. As such, the concept that has been developed is to establish an assessment district, which will enable lower cost financing to construct the Project. The sales tax proceeds are expected to provide adequate revenue to re-pay the debt, and therefore, actual assessments to property owners are not intended to be levied. In this fashion, the property owners are essentially being asked to co-sign a loan.



A map of the Project is attached to this Engineer's Report. Additional details for the Project and the assessment district can be found at www.fmdiversion.com.



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- Towns
- Aqueduct
- ⊙ Control Structure
- ⊠ Outlet Structure
- ⦿ Fish Passage
- Open Inlet Structure
- ▬ Spillway
- Major Roads
- Overflow Embankment
- Streams
- Tieback Embankment
- In Town Features
- OHB and Comstock Conceptual Levee Alignments
- Connecting Channel
- Diversion Channel
- Municipal Area
- ▭ Staging Area
- Sheyenne Diversion Project



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