DESCRIPTION OF THE TENTATIVELY SELECTED AND LOCALLY PREFERRED PLAN (LPP)

The ND35k diversion channel is the tentatively selected and locally preferred plan (LPP). The LPP would be a 36 mile long diversion channel that would start approximately four miles south of the confluence of the Red and Wild Rice Rivers and would re-enter the Red River north of the confluence of the Red and Sheyenne Rivers. The LPP would incorporate the existing Horace to West Fargo Sheyenne River diversion channel. The channel bottom width varies on the channel from 100 to 300 feet and has a maximum depth of 29 feet. The plan includes 18 highway bridges, four railroad bridges, and would have a construction footprint of approximately 6,560 acres.

The ND35k diversion would begin approximately four miles south of the confluence of the Red and Wild Rice Rivers. A connecting channel between the Red and Wild Rice Rivers would convey flow from the Red River to the diversion channel inlet on the west side of the Wild Rice River. A combination of control structures on the Red and Wild Rice Rivers at the south end of the project, along with weirs at the west end of the connecting channel and at the entrance to the diversion channel near the Wild Rice River, control the flow split between the Red and Wild Rice River channels and the diversion channel. The diversion would also cross the Sheyenne, Maple, Lower Rush, and Rush rivers. At the Sheyenne and Maple rivers, structures would be necessary to allow base flows to follow the natural river channel. Flows in excess of a 50-percent chance event would be diverted into the diversion channel. The Lower Rush and Rush rivers would have drop structures that would drop the entire flow of those rivers into the diversion channel. Figure 3 shows the alignment of the LPP.

Figure 3 – LPP Diversion Alignment



Draft Fargo-Moorhead Metro Feasibility Report and Environmental Impact Statement May 2010 The total estimated first cost (without interest during construction) of the LPP based on October 2009 price levels is \$1,272,108,000, with the Federal and non-federal shares of total first cost estimated at \$710,666,000 and \$561,442,000, respectively. The flood risk management features have an estimated total first cost of \$1,237,354,000 with the Federal and non-federal shares estimated at \$693,289,000 and \$544,065,000, respectively. The recreation features have an estimated total first cost of \$34,753,000, with the Federal and non-federal shares estimated at \$17,376,000 and \$17,376,000 respectively. The annual operation and maintenance costs are \$3,365,000. The tentatively selected plan has an overall benefit-cost ratio of 2.27 and would provide a level of risk reduction in excess of the 1-percent chance event for the majority of the region. Table 3 shows the breakout of the project first costs, interest during construction, and the project benefit cost ratio. Table 4 shows the breakout of project costs split between the non-federal sponsors and the Federal Government, along with the estimated cash contribution that is required.