

Red River Flood Control: “Billions for a band-aid ... or millions for a solution?”

Background

Fargo, North Dakota and Moorhead, Minnesota have always been threatened by flooding from the Red River of the North. In the last two decades, however, floods have become more frequent and more severe because of a combination of a changing climate and the drainage of thousands of wetlands throughout the Red River Basin.

Prairie wetlands that once soaked up thousands of acre feet of water have been ditched and drained for agricultural production, increasing both the amount of spring melt water and the rate at which it enters the Red.

As both flood peaks and flood frequencies have increased, so, too, has the cost of fighting floods. The communities of Fargo and Moorhead now spend more than \$195 million annually for flood damage. It is clear that something must be done.

To address the threat of flooding, the U.S. Army Corps of Engineers (Corps) has just released a draft Environmental Impact Statement (EIS) that proposes a massive, \$1.4 billion diversion channel to divert Red River flows around Fargo and Moorhead. Before investing huge amounts of money in an environmentally destructive project, the National Wildlife Federation (NWF) believes the Corps must evaluate less expensive, longer term solutions that can protect humans and also benefit water quality and wildlife. Storing water and reducing runoff through wetland restoration and other water detention strategies result in reduced flood peaks and frequencies at a fraction of the cost of the Corps proposal.

A Unique Opportunity

Rather than solving the flood threat through the construction of yet another ditch – the largest and most expensive ever - the NWF is urging the Corps to fully address the potential for flood damage reduction through strategic water storage in the form of wetland restoration, waffling, and other water retention systems. The “Waffle”[®] proposal, for example, would utilize existing roads and fields as temporary basins to store water during large floods. Because this plan slows the movement of water entering the system, flood impacts will be significantly reduced. The University of North Dakota’s Energy Environmental Research Center, which developed the “Waffle”[®] concept, estimates the system could be implemented throughout the Red River Basin at a cost of around \$160 million. Not only would such a system reduce the flood crests by as much as four feet, it would also provide sustaining economic benefits to participating landowners while also improving water quality and providing fish and wildlife habitat.

Wetland Restoration and the “Waffle”[®] Approach: A Better Answer

The University of North Dakota Energy and Environmental Research Center (EERC) has been studying the “Waffle”[®] concept for years. The basic plan is simple – existing roads serve as levees to store water in farmer’s fields. One square mile, one foot deep, would store more than 200 million gallons of water. The combination of the waffle concept and wetland restoration would provide a long -term, environmentally beneficial flood protection plan.

- \$160 million to implement
- Basin-wide flood protection
- Positive environmental impacts
- Recharge the aquifer
- Farmers are compensated for water storage
- For more information visit www.undeerc.org

Wetland restoration is another option that must be examined. Wetland drainage in the Red River Basin has been occurring continuously for more than a century. More than 85% of the wetlands in the Minnesota portion of the Basin have been drained and significant wetland destruction has also occurred in North and South Dakota. In Minnesota alone, more than 28,000 miles of ditches



Band-Aid: A similar Corps ditch. The Red River project actually requires a 36-mile-long channel, 100-300 feet in width, with a maximum depth of 29 feet. (Photo © U.S. Army Corps of Engineers)



Solution: Agassiz Field Trial Site at Full Storage. (Photo © University of North Dakota)



Wetland restoration will provide increased sportsmen opportunities along the river. (Photo © USFWS)

in the Red River Basin now drain what was once one of the richest prairie wetland environments in the world. With virtually no natural storage left on the land, and greatly accelerated run-off, the Red River has experienced 8 of the 10 all-time record flood crests in the past 30 years.

Wetland restoration will provide important habitat for migratory birds, improve water quality, and increase recreational opportunities.

The Army Corps of Engineers Approach

Instead of restoring natural systems, the Corps proposal calls for more concrete and more environmental damage to stop the Red River from flooding the Fargo/Moorhead area. The Corps proposes to build a 36-mile-long diversion canal around Fargo/Moorhead. The ND35K alternative in the Corps EIS (35,000 cubic ft. / second CFS capacity) is the Locally Preferred Plan (LPP). The LPP would be an earthen diversion channel 100-300 feet in width with a maximum depth of 29 feet and a construction footprint of 6,560 acres. The cost for the project is more than \$1.2 billion, but some estimates are now reaching as high as \$1.4 billion and certainly much more by the time the project is estimated to be completed in 2020. With this kind of a price tag, it is irresponsible for the Corps not to consider more responsible, but similarly effective, solutions that do not have the long-term effects on the tributaries and streams of the Red River. The full Feasibility Study and EIS can be found at

www.internationalwaterinstitute.org/feasibility/.

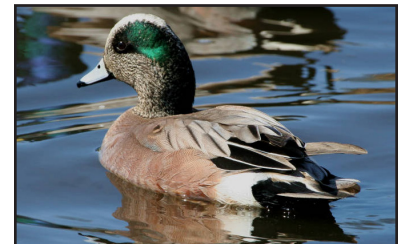
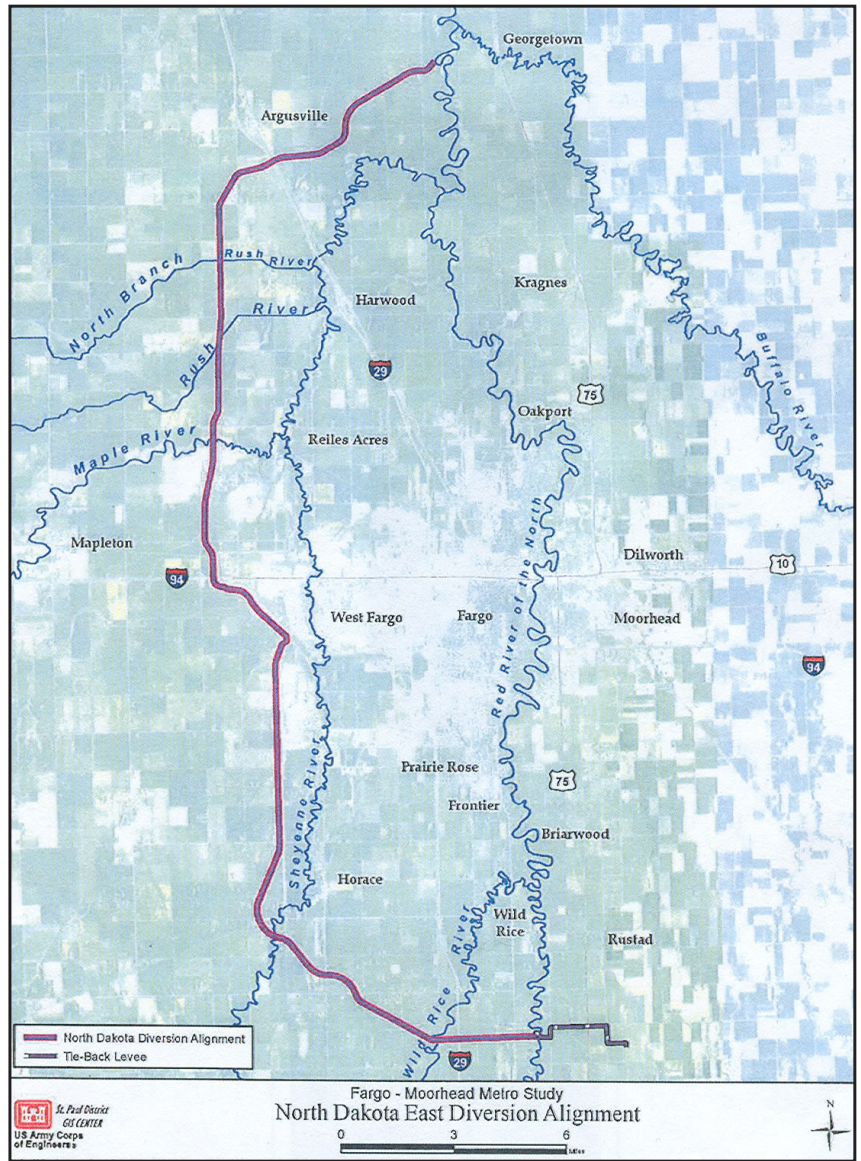
Take Action

The official public comment period for the draft EIS is 70 days starting June 1, 2010 and ending August 9, 2010. Please act now and tell the Corps that it must:

- develop an integrated, basin wide evaluation of flood damage reduction and better water management strategies before committing more than one billion dollars to the construction of "The Big Ditch";
- develop an alternative that evaluates using wetland restoration as a primary tool for flood management - this evaluation should consider various levels of wetland restoration, including restoring 100,000 acres and 250,000 acres; and
- develop an alternative that combines wetland restoration with other water retention strategies, including the "Waffle"® proposal and the Red River Basin Commission Flow Reduction Strategy.

Comments can be sent electronically (www.internationalwaterinstitute.org/feasibility/) or mailed to:

Fargo/Moorhead Flood Risk EIS
 Corps of Engineers
 190 E. 5th St., Ste. 401
 St. Paul, MN 55101-1638



Pallid sturgeon and American widgeon (Photos © USFWS). Fish and wildlife species will be negatively affected by the Corps' diversion project.



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