



FARGO-MOORHEAD AREA DIVERSION PROJECT

BIOTIC AND GEOMORPHIC MONITORING PROGRAM

The U.S. Army Corps of Engineers, St. Paul District, is completing biotic/biological and geomorphic surveys in the Fargo, N.D./Moorhead, Minn., region as part of the Fargo/Moorhead Metropolitan Area Flood Damage Reduction Project. These surveys of the physical environment will provide the Corps with baseline information of the biological and geological environment before construction of the project. The Corps is committed to minimizing environmental impacts to the land and intends to have full and open communication with landowners in regards to these survey activities. All people on-site will be instructed to minimize any disturbance to property. See page 2 for a map showing all of the biotic and geomorphology survey sites.

BIOTIC SURVEYS

The purpose of the biotic surveys is to characterize the general ecological conditions of the rivers and streams affected by the project. Work will include monitoring the physical habitat and collecting and identifying fish and invertebrates [i.e., bugs, clams]. Electrofishing techniques will be used to stun fish, collect them, observe them and return them to the river. Invertebrates will be collected from the bottom of the river and sent to a lab for analysis. Work is planned to begin in 2017 and will include approximately three half-day events per site. Initial site visits are planned for early-summer but could be scheduled to a later date based on flow conditions. Actual sampling will likely occur later in July or August. Additional surveys may occur in later years prior to construction and will occur again following project construction and operation. The results of these surveys will help biologists confirm impacts as a result of the project and the effectiveness of mitigation. Work will be done by a crew of two to three people in the water with approximately one to five people watching from the shore.



Biotic survey, 2011 Rush River

GEOMORPHOLOGY SURVEYS

The purpose of the geomorphology surveys is to collect data at regularly spaced intervals before and after completing the project, as well as after flooding. The results of these surveys will be used to evaluate potential interactions between near and in-channel land-surface processes and the flood risk management project. Surveys will include measurement of width, depth, velocity and discharge of stream flow. Surveyors will collect stream bank and instream sediments and water samples and document vegetation types and sediment cores to establish deposit properties and depths. The anticipated timing for the regular sampling is every other year for up to three sampling cycles in a 5-year period both before and after project construction completion. Additional surveys will more than likely be performed in subsequent years and after flooding to identify any geomorphic changes. As outlined in the 2011 Final Feasibility Study and Environmental Impact Statement, no significant adverse impacts from the project are anticipated.

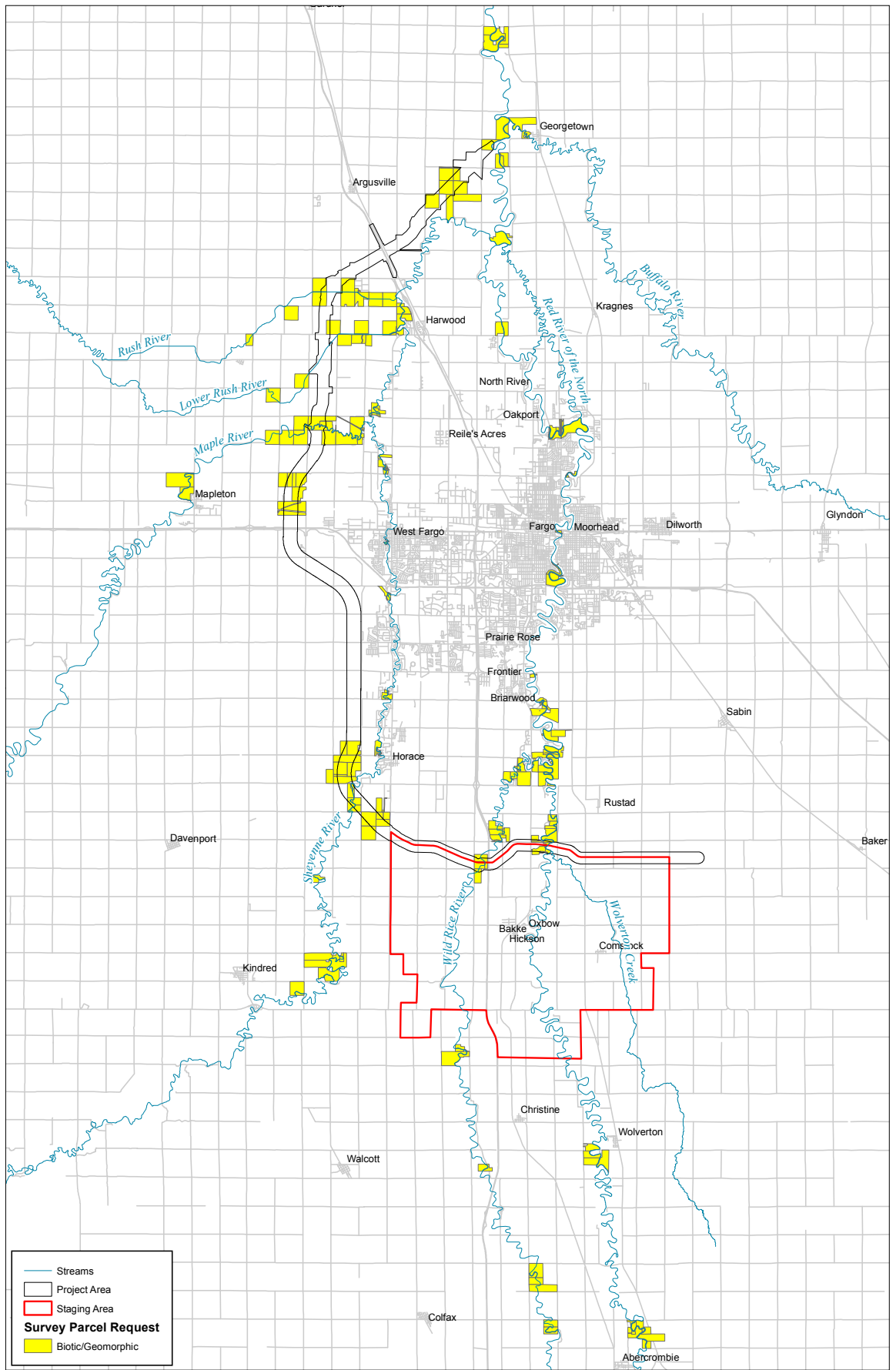


Geomorphology survey, 2011 Rush River

CONTACT INFORMATION

For questions or comments regarding the biotic and geomorphic monitoring surveys, please contact **Kimberly Warshaw, Corps of Engineers, at 651-290-5327.**

For questions or comments regarding land acquisition, please contact **Joe Herbst, Diversion Authority, at 701-364-9111.**



	Streams
	Project Area
	Staging Area
Survey Parcel Request	
	Biotic/Geomorphic

Parcels for Geomorphology and Biotic Surveys Fargo - Moorhead Metro Flood Risk Management Project

