

C. Results. Table 1 summarizes the estimated flood elevations and stage reductions in Fargo-Moorhead for the 100-year flood event under each scenario. The expected flow and stage reductions in the Fargo-Moorhead reach of the Red River of the North are shown in Figures 6, 7 and 8. Figure 6 shows the observed 1997 discharge hydrograph, the simulated 1997 discharge hydrograph and discharge hydrographs for simulations of the scenarios analyzed. Figure 7 shows the discharge frequency relationship for existing conditions and the different scenarios analyzed. Figure 8 shows the elevation frequency relationship for existing conditions and the different scenarios analyzed.

Table 1: Hydrologic and Hydraulic Scenarios and estimated stage reductions in Fargo-Moorhead				
Scenario	Stored Volume (acre-feet)	Description	1% Flood Elevation (feet)*	Stage Reduction (feet)
Existing Conditions			902.4	
H5	400,000	Total volume divided by 5, peak-shaving method	902.1	0.3
L1	200,000	Total volume distributed over 30 days.	901.3	1.1
L2	260,000	L1 + 60,000 AC-FT Stored after April 15	901.3	1.1
L3	231,000	L1 + 30,000 AC-FT Stored before April 15	901.0	1.4
H1	400,000	Total volume distributed over 30 days.	900.8	1.6

* Note: the hydrologic assumptions used throughout this report are different than those used for the FEMA flood insurance mapping.