

Areas and Volumes were calculated using flat flood pools behind the dam and the 4ft DEM with bathymetry where available (Red River)

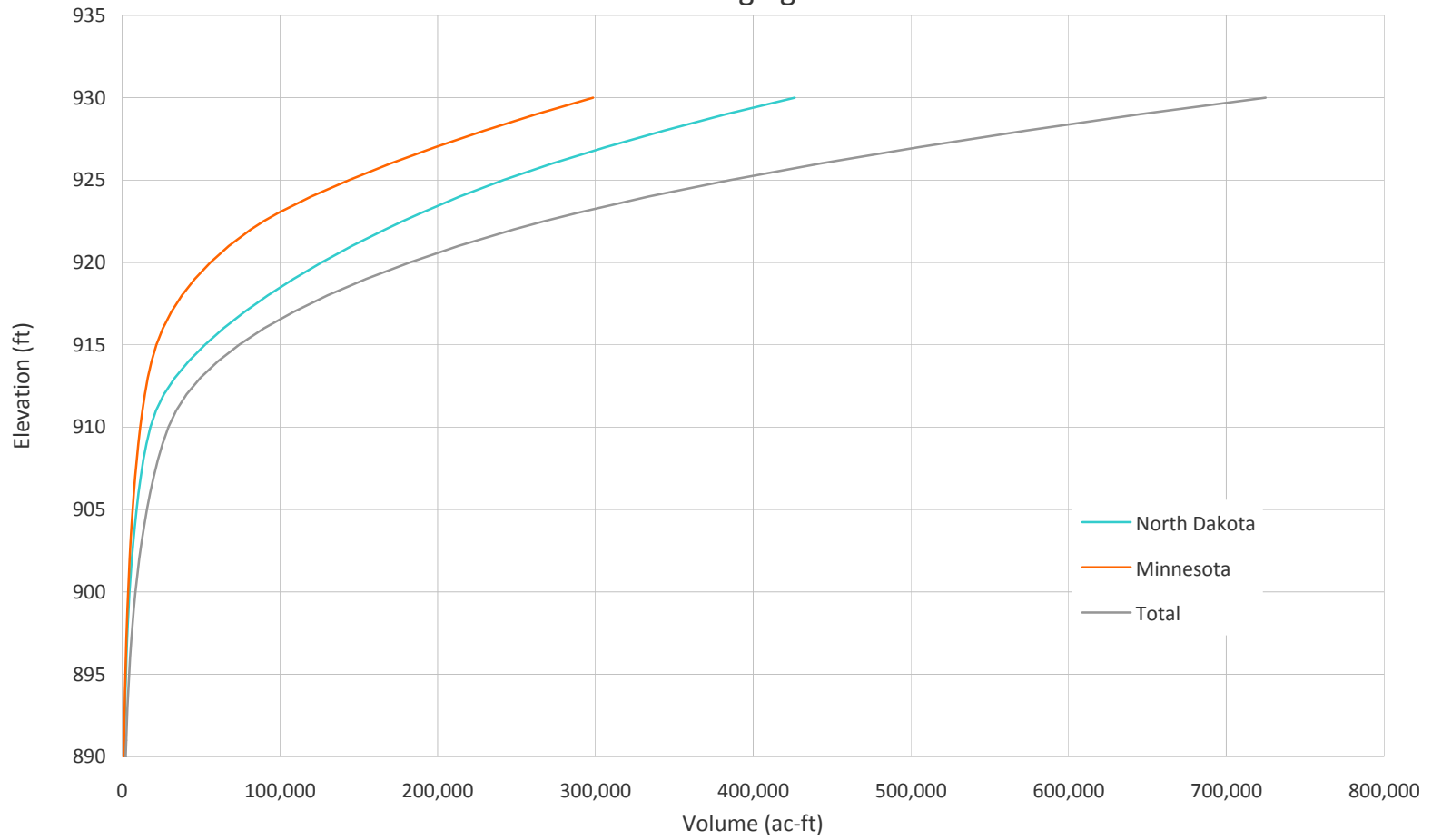
Areas and Volumes were verified using a 16' x 16' DEM and approximated 5' depth intervals (Sheet - "Checks")

Areas and Volumes were also verified using hand calculations adding approximated sections of land and average depths (5' increments, Sheet - "Checks")

Elev	North Dakota		Elev	Minnesota		Total			
	Acres	Ac-ft		Acres	Ac-ft	Acres	Ac-ft		
931	48,930.4	473,657.1	931	39,319.8	336,783.6	88,250.2	810,440.7		
930.1						83,062.4	733,481.9	83700	734000
930	45,389.7	426,373.8	930	37,096.3	298,557.1	82,485.9	724,930.9	100.77%	100.07%
929	41,275.4	383,017.5	929	34,533.1	262,688.6	75,808.5	645,706.1		
928	38,112.1	343,370.8	928	31,999.4	229,412.0	70,111.5	572,782.7		
927	35,399.9	306,670.5	927	29,662.9	198,634.9	65,062.8	505,305.5		
926	32,727.9	272,592.4	926	27,457.0	170,018.3	60,184.9	442,610.7		
925	29,260.0	241,534.3	925	25,110.0	143,758.6	54,370.0	385,292.9	54950	383000
924	25,871.3	214,003.9	924	22,704.1	119,854.7	48,575.4	333,858.6	101.07%	99.40%
923	23,572.1	189,372.7	923	19,312.4	98,786.2	42,884.5	288,158.9		
922.5	22,654.8	177,821.7	922.5	17,239.5	89,657.8	39,894.3	267,479.5		
922	21,860.8	166,694.3	922	15,489.7	81,487.0	37,350.5	248,181.4		
921	20,164.3	145,651.4	921	12,544.7	67,573.4	32,709.0	213,224.8		
920	18,438.2	126,369.0	920	10,761.0	55,933.9	29,199.3	182,302.9		
919	16,974.2	108,687.7	919	9,022.4	46,065.5	25,996.6	154,753.3		
918	15,602.5	92,426.8	918	7,398.7	37,829.1	23,001.2	130,255.9		
917	14,100.1	77,583.3	917	6,034.5	31,120.1	20,134.6	108,703.4		
916	12,595.0	64,187.7	916	4,699.9	25,755.0	17,295.0	89,942.7		
915	11,030.8	52,382.8	915	3,539.7	21,651.0	14,570.4	74,033.8		
914	9,479.3	42,133.2	914	2,658.1	18,583.2	12,137.4	60,716.5		
913	7,846.6	33,453.7	913	2,065.9	16,237.9	9,912.4	49,691.7		
912	6,071.0	26,458.2	912	1,703.0	14,367.1	7,773.9	40,825.3		
911	4,230.7	21,341.7	911	1,459.1	12,792.1	5,689.9	34,133.8		
910	2,869.5	17,861.1	910	1,272.4	11,430.1	4,141.8	29,291.2		
909	2,195.9	15,365.9	909	1,126.8	10,233.5	3,322.8	25,599.4		
908	1,783.9	13,388.3	908	1,011.1	9,165.7	2,795.1	22,554.0		
907	1,510.2	11,752.9	907	899.9	8,212.3	2,410.1	19,965.2		
906	1,324.6	10,341.9	906	807.1	7,360.4	2,131.7	17,702.2		
905	1,182.7	9,090.0	905	727.2	6,594.0	1,909.9	15,684.0		
904	1,055.5	7,972.2	904	654.4	5,904.0	1,709.9	13,876.2		
903	937.6	6,977.0	903	588.1	5,283.4	1,525.7	12,260.4		
902	830.3	6,094.9	902	529.1	4,725.9	1,359.4	10,820.8		
901	729.7	5,315.0	901	480.3	4,221.8	1,210.0	9,536.9		

900	627.6	4,637.6	900	437.2	3,763.7	1,064.8	8,401.2
899	548.0	4,050.6	899	398.1	3,346.3	946.1	7,396.8
898	483.0	3,536.0	898	362.9	2,966.0	845.9	6,502.0
897	424.7	3,083.0	897	329.5	2,620.2	754.2	5,703.2
896	364.7	2,687.6	896	298.9	2,306.2	663.6	4,993.9
895	312.2	2,352.5	895	263.7	2,024.0	575.8	4,376.5
894	274.3	2,060.6	894	231.5	1,774.7	505.8	3,835.3
893	246.1	1,800.8	893	203.8	1,556.9	449.9	3,357.7
892	212.4	1,570.3	892	185.5	1,362.5	398.0	2,932.8
891	184.8	1,375.5	891	169.5	1,185.1	354.2	2,560.6
890	168.1	1,200.1	890	154.9	1,023.2	323.1	2,223.3
889	156.3	1,038.0	889	141.1	875.3	297.4	1,913.2
888	141.6	888.4	888	127.1	741.2	268.7	1,629.7
887	126.4	756.6	887	112.2	621.8	238.6	1,378.4
886	116.0	635.5	886	99.5	516.1	215.6	1,151.6
885	105.0	524.9	885	87.7	422.5	192.8	947.4
884	92.3	426.3	884	74.7	341.5	167.0	767.7
883	79.1	340.6	883	63.6	272.6	142.7	613.2
882	65.9	268.3	882	53.4	214.4	119.4	482.7
881	55.0	208.2	881	44.6	165.6	99.6	373.8
880	46.1	158.0	880	37.5	124.8	83.6	282.8
879	38.6	115.8	879	31.1	90.6	69.7	206.4
878	31.4	81.0	878	24.9	62.6	56.3	143.6
877	24.6	53.0	877	19.0	40.7	43.7	93.7
876	17.2	32.2	876	13.2	24.7	30.4	56.8
875	11.2	18.1	875	8.2	14.1	19.5	32.3
874	6.2	9.6	874	4.6	7.9	10.9	17.5
873	3.2	5.1	873	2.6	4.4	5.8	9.5
872	1.7	2.7	872	1.4	2.5	3.1	5.2
871	1.0	1.5	871	0.8	1.4	1.8	2.9
870	0.5	0.7	870	0.4	0.8	1.0	1.5
869	0.3	0.4	869	0.2	0.5	0.5	0.8
868	0.1	0.2	868	0.1	0.3	0.3	0.4
867	0.1	0.1	867	0.1	0.2	0.2	0.2
866	0.0	0.0	866	0.1	0.1	0.1	0.1
865	0.0	0.0	865	0.0	0.0	0.0	0.0
864	0.0	0.0	864	0.0	0.0	0.0	0.0
863	0.0	0.0	863	0.0	0.0	0.0	0.0

### FM Diversion Staging Area Volume



### FM Diversion Staging Area

