Table 4
Hydraulic Shadow Floodway Data

HEC-RAS River Station	Distance in River Downstream of Dam (mi)	Maximum Stage Elevation (ft)	Peak Discharge (cfs)	Maximum Velocity (ft/sec)	Floodplain Top Width (ft)
265	0.01	728.09	19490.32	7.34	281.33
263	0.05	727.80	19363.05	7.23	282.72
228	0.64	723.96	18779.05	10.91	955.76
226	0.64	722.67	18579.63	11.61	912.48
158	1.75	711.01	15225.92	6.24	1296.92
156	1.75	707.34	17714.51	13.18	1194.41
140	2.09	701.17	17321.77	6.15	1541.44
120	2.75	695.86	17031.89	6.12	1741.53
95	3.57	693.20	14932.37	1.19	2074.07
40	4.52	692.15	14889.01	5.14	335
38	4.56	691.75	14888.85	6.27	342.76
36	4.57	691.44	14879.23	6.56	325.82
35	4.59	691.79	14882.99	3.18	558.78
20	4.77	691.76	14882.37	1.66	827.99
15	4.83	691.77	13489.37	1.25	918.4
13	4.84	691.58	13489.32	4.11	410.84

Three river crossings were modeled in the routing reach. Table 5 summarizes the characteristics of the crossing.

TABLE 4 – SUMMARY OF DISCHARGES
(continued)

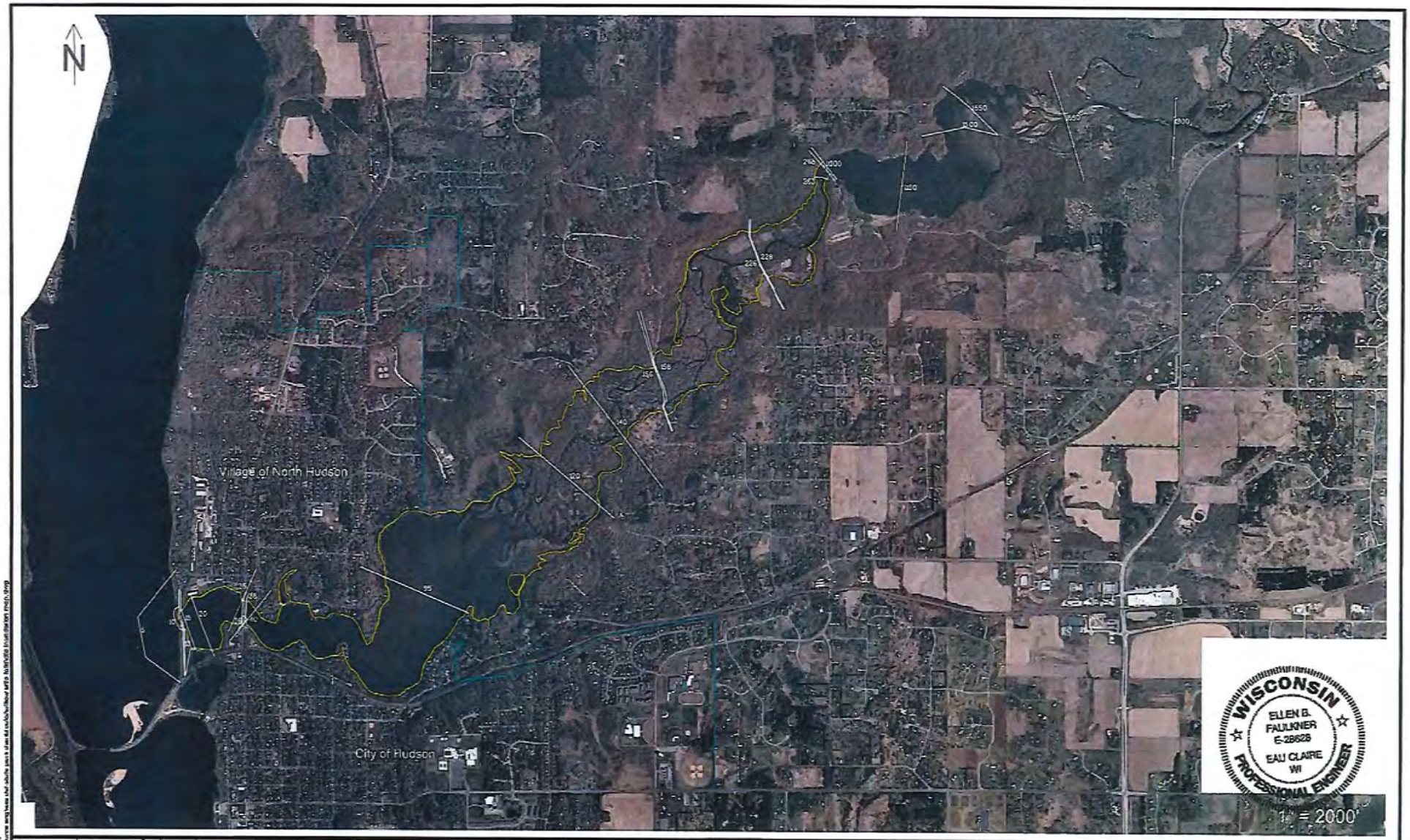
FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT ANNUAL CHANCE	2-PERCENT ANNUAL CHANCE	1-PERCENT ANNUAL CHANCE	0.2-PERCENT ANNUAL CHANCE
KINNICKINNIC RIVER					
At St. Croix – Pierce County Boundary	*	3,350	7,050	8,700	13,000
At Route MM	*	3,350	7,050	8,700	13,000
Downstream of Route 35	*	3,350	7,050	8,700	13,000
Upstream of Route 35	*	3,050	6,450	8,000	11,900
PAPERJACK CREEK					
At confluence with Willow River	8.6	2,502	4,776	5,261	6,676
At Route 65	7.5	2,311	4,767	5,253	6,663
ST. CROIX RIVER					
At St. Croix Falls	5,930	39,300	47,800	61,000	77,000
TIFFANY CREEK					
Just upstream of Oak Street	4.1	1,270	2,050	2,520	3,360
		680[1]	1,090[1]	1,340[1]	1,790[1]
Just upstream of County Route 6	1.6	65	1,065	1,310	1,750
		168[1]	270[1]	332[1]	443[1]
WILLOW RIVER					
At dam	194.0	6,643	7,465	7,670	8,162
Route through dam	194.0	6,415	6,921	6,995	8,014
Just upstream of confluence with Paperjack Creek	209.0	7,004	8,004	8,240	9,288
Just downstream of confluence of Paperjack Creek	218.0	8,319	12,366	13,099	15,876

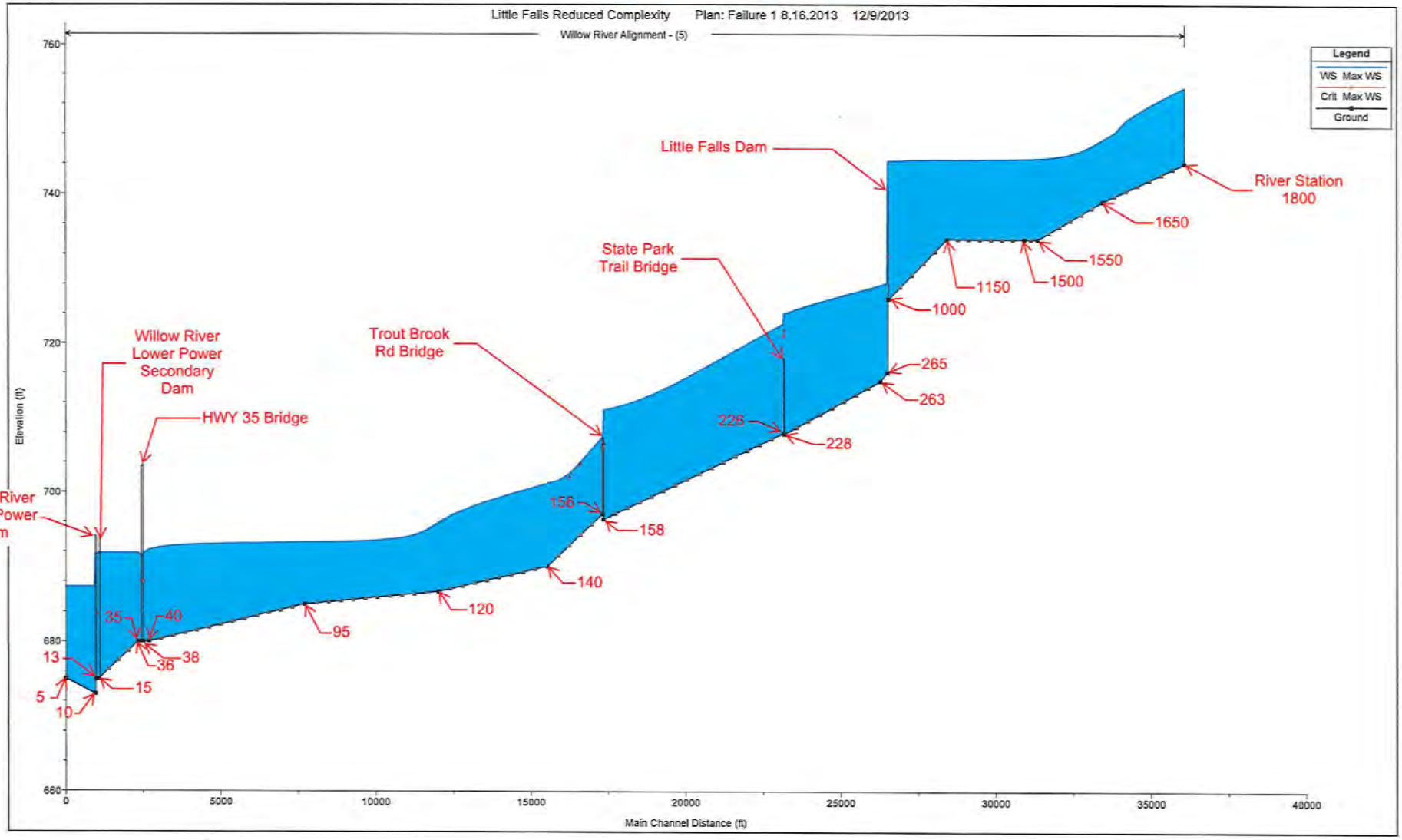
* Data not available

[1] Discharges determined with flood retarding structures in place

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. For construction and/or floodplain management purposes, users are encouraged to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.



DESIGN BY	DRAWING	NOT - FOR - CONSTRUCTION			Little Falls Dam DFA Wisconsin DSF Willow River State Park, St Croix County, WI	AYRES ASSOCIATES Eau Claire, Wisconsin	Little Falls Dam Inundation Map: Dam in Place with Failure	DRAWING NO 2
DR. BY	JOB NO							
CHK. BY	DATE	NO	DATE	REVISION				SHEET NO 2 of 2

Profile - Dam with Failure