

RESERVOIR SEDIMENTATION
DATA SUMMARY

Marimuka (Davis Lake)

27-3

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Galesville Milling Co.			2. RIVER Beaver Creek			3. STATE Wisconsin																					
	4. SEC. 32 TWP. 19 N RANGE 8 W			5. NEAREST TOWN Galesville			6. COUNTY Trempealeau																					
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.			9. SPILLWAY CREST ELEV.																					
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. SURFACE AREA ACRES		13. STORAGE ACRE- FEET		14. ACCUMULATED ACRE- FEET		15. DATE STORAGE BEGAN																	
	a. FLOOD CONTROL										1867																	
	b. POWER				278		1,677		1,677																			
	c. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN																	
	d. IRRIGATION																											
	e. CONSERVATION										1867																	
	f. INACTIVE																											
WATERSHED	17. LENGTH OF RESERVOIR				MILES				AV. WIDTH OF RESERVOIR				MILES															
	18. TOTAL DRAINAGE AREA				138.6				SQ. MI.				22. MEAN ANNUAL PRECIPITATION				31 (42)				INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA				138.2				SQ. MI.				23. MEAN ANNUAL RUNOFF				INCHES											
	20. LENGTH				MILES				AV. WIDTH				MILES				24. MEAN ANNUAL RUNOFF				550 per sq.mi.*				AC.-FT.			
	21. MAX. ELEV.				MIN. ELEV.								25. CLIMATIC CLASSIFICATION				Humid											
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE AREA ACRES		32. CAPACITY ACRE- FEET		33. C _w RATIO AC.-FT. PER SQ. MI.													
	1867		-		-		-		-		278		1,677		12.1													
	June 22, 1939		72		72		Range Detailed		22		151		683		4.93													
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET				36. WATER INFL. TO DATE AC.-FT.																			
			a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE																	
	June 22, 1939		31		550 per sq.mi. *				550 per sq.mi. *																			
	26. DATE OF SURVEY		37. PERIOD SEDIMENT DEPOSITS ACRE- FEET				38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET.																					
			a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR															
	June 22, 1939		995 (1,474) 1/		13.82 (20.47)		0.100 (0.148)		995 (1,474)		13.82 (20.47)		0.100 (0.148)															
	26. DATE OF SURVEY		39. AV. DRY WGT. LBS. PER CU. FT.		40. SED. DEP. TONS PER SQ. MI.-YR.		41. STORAGE LOSS PCT.		42. SED. INFLOW PPM																			
		a. PERIOD		b. TOTAL TO DATE		a. AV. ANNUAL		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE																
June 22, 1939		72.5 (14)		158 (234)		158 (234)		0.82 59.3		360 *		360 *																

1/ Including 129 acre-feet dredged from lake in 1937, which had a volume of 155 acre-feet in the lake.

* Estimated

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION												
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES Brune, G.M. Rates of sediment production in midwestern United States. Soil Conserv. Serv., SCS-TP-65, Milwaukee, Wis., Dec. 1948.
 Old dam failed in 1866, rebuilt in 1867, again in 1913 and 1920.
 Ettrick Mill Pond constructed upstream in 1871, with C/W ratio of 2.5.
 Suspended load sampling from April 12 to Nov. 3, 1940, at head of lake and at dam. Sampling interval varied from one hour to three days, depending upon discharge. These studies indicated trap efficiency of 86% during this period, in which no large floods occurred. Annual sediment load passing spillway was computed to be 38 tons per square mile. Total annual load during period was 272 tons per square mile.

48. AGENCY SUPPLYING DATA Region 3, Soil Conservation Service
 U. S. Department of Agriculture
 Milwaukee, Wisconsin

49. DATE May 10, 1950