

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Lake of Three Fires

NAME OF RESERVOIR

31 - 17

DATA SHEET NO.

C. 20

DAM	1. OWNER <b>State of Iowa</b>			2. RIVER <b>East Fork 102 River</b>			3. STATE <b>Iowa</b>									
	4. SEC. <b>12</b> TWP. <b>68N</b> RANGE <b>34W</b>			5. NEAREST TOWN <b>Bedford</b>			6. COUNTY <b>Taylor</b>									
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.			9. SPILLWAY CREST ELEV. <b>1,018.0</b>									
RESERVOIR	10. STORAGE <sup>a</sup> 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										July 1936					
	b. POWER															
	c. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION										July 1936					
	e. CONSERVATION		<b>1,018.0</b>		<b>118.0</b>		<b>1,231</b>		<b>1,231</b>							
	f. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR						MILES			AV. WIDTH OF RESERVOIR			MILES			
	18. TOTAL DRAINAGE AREA				<b>6.15</b>		SQ. MI.		22. MEAN ANNUAL PRECIPITATION				<b>33.60</b>		INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA				<b>5.97</b>		SQ. MI.		23. MEAN ANNUAL RUNOFF						INCHES	
	20. LENGTH				MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF				AC.-FT.	
	21. MAX. ELEV.				MIN. ELEV.				25. CLIMATIC CLASSIFICATION				<b>Humid</b>			
	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.
July 1936		-		-		-		-		118.0		1,231		200		
Feb. 1950		13.6		13.6		Contour detailed		2 ft.		107.0		860		140		
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		d. MEAN ANNUAL		b. TOTAL TO DATE				
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		d. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR				
Feb. 1950		371		27.3		4.58		371		27.3		4.58				
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		
Feb. 1950								2.22		30.2						

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

Original spillway elevation was 1,016.0, but has been raised to 1,018.0.

All figures are for 1,018.0 elevation.

Region 3, Soil Conservation Service  
U. S. Dept. of Agriculture

48. AGENCY SUPPLYING DATA Milwaukee, Wisconsin      49. DATE June 1950