

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Peterson Farm Pond

35-14

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER <b>Clarence Peterson</b>			2. RIVER <b>Unnamed tributary of Little Nemaha River</b>		3. STATE <b>Nebraska</b>										
	4. SEC. <b>33</b> TWP. <b>8N</b> RANGE <b>12E</b>		5. NEAREST TOWN <b>Syracuse</b>		6. COUNTY <b>Otoe</b>											
	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					
	d. FLOOD CONTROL										October 1936					
	b. POWER															
	c. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION															
	e. CONSERVATION				0.534		2.06		2.06		October 1936					
	f. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR				MILES		AV. WIDTH OF RESERVOIR				MILES					
	18. TOTAL DRAINAGE AREA (47 ac.)				0.075		SQ. MI.		22. MEAN ANNUAL PRECIPITATION				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				0.074		SQ. MI.		23. MEAN ANNUAL RUNOFF				3.3* INCHES			
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF				AC.-FT.			
	21. MAX. ELEV.			MIN. ELEV.			25. CLIMATIC CLASSIFICATION									
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 <sub>w</sub> RATIO AC.-FT. PER SQ. MI.	
	October 1936		-		-		-		-		0.534		2.06		27.5	
	July 1948		11.75		11.75		Range Detailed		7		0.351		0.16		2.13	
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW				36. WATER INFL. TO DATE AC.-FT.							
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		d. MEAN ANNUAL		b. TOTAL TO DATE			
	July 1948				(inches)		3.8*									
	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			
	July 1948		1.90 (2.18) 1/		0.162 (0.186)		2.19 (2.51)		1.90 (2.18)		0.162 (0.186)		2.19 (2.51)			
	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		
July 1948		59.7 (3)		2,850 (3,260)		2,850 (3,260)		7.86		92.2		2/ 10,200 (11,710)		2/ 10,200 (11,710)		

1/ Above-crest deposits within original flow-line  
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  
 Gottschalk, L.C. and Brune, G.M. Sediment design criteria for the Missouri Basin Loess Hills. U. S. Soil Conserv. Serv. SCS-TP-97, 21 pp., illus., processed, Milwaukee, Wis., Oct. 1950.

$$\frac{2}{42} = \frac{37b \times 39 \times 1,000,000}{35a \times 18 \times \frac{640 \times 62.4}{12}}$$

48. AGENCY SUPPLYING DATA Region 5, Soil Conservation Service  
U. S. Department of Agriculture  
Lincoln, Nebraska

49. DATE January 8, 1951