

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Magnolia Dam

NAME OF RESERVOIR

30-8

DATA SHEET NO.

DAM	1. OWNER Northern Pacific Railroad			2. RIVER Buffalo Creek			3. STATE North Dakota									
	4. SEC. 25 TWP. 140 N. RANGE 54 W			5. NEAREST TOWN Wheatland			6. COUNTY Cass									
	7. STREAM BED ELEV. 78.4*			8. TOP OF DAM ELEV. 97.5*			9. SPILLWAY CREST ELEV. 92.4*									
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										1908					
	b. POWER															
	c. WATER SUPPLY		92.4*		28.23		157.92		157.92		16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION															
	e. CONSERVATION															
	f. INACTIVE										1908					
17. LENGTH OF RESERVOIR 1.08 MILES						AV. WIDTH OF RESERVOIR 0.041 MILES										
WATERSHED	18. TOTAL DRAINAGE AREA 12.16 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 18.881/ INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 11.72 SQ. MI.				23. MEAN ANNUAL RUNOFF 0.602/ INCHES											
	20. LENGTH 5.0 MILES		AV. WIDTH 2.4 MILES		24. MEAN ANNUAL RUNOFF 388.9 AG.-FT.											
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION Semi-arid											
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.	
	1908		---		---		---		---		28.23		157.92		12.99	
	June 1956		48		48		Range (D)		15		28.23		127.40		10.48	
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET				36. WATER INFL. TO DATE AG.-FT.							
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. 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		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR			
	June 1956		30.52		0.636		0.052		30.52		0.636		0.052			
	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 1956		35.0*		39.64		39.64		0.403		19.32						

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

1/Amenia, N. Dak., rainfall record.

2/Mean annual runoff - U.S.G.S. Circulars 37 and 52.

\*Assumed

Northern Pacific Railroad Watering Station retired.

48. AGENCY SUPPLYING DATA SCS, Fargo, North Dakota

49. DATE June 29, 1956