

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Site No. 101-A, Chambers Creek Watershed

SCS-34 Rev. 6-66

NAME OF RESERVOIR

51-38

DATA SHEET NO.

DAM	1. OWNER ---			2. STREAM Trinity River			3. STATE Texas									
	4. SEC. TWP RANGE			5. NEAREST P.O. Frost			6. COUNTY Navarro									
	7. LAT. LONG. 30° 16' 00"			8. TOP OF DAM ELEVATION 504.8			9. SPILLWAY CREST ELEV. 500.8									
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES		13. ORIGINAL CAPACITY, ACRE-FEET		14. GROSS STORAGE, ACRE-FEET		15. DATE STORAGE BEGAN					
	a. FLOOD CONTROL		500.8 1/		152.98		825.43		1152.11		4-13-60					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
	g. INACTIVE		493.1 2/		67.77		326.68		326.68		4-13-60					
WATERSHED	17. LENGTH OF RESERVOIR 1.16 3/ MILES				AV. WIDTH OF RESERVOIR 0.12 MILES											
	18. TOTAL DRAINAGE AREA 2.58 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 37.06 (86) INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 2.34 SQ. MI.				23. MEAN ANNUAL RUNOFF 7.00 INCHES											
	20. LENGTH 2.00 MILES		AV. WIDTH 1.29 MILES		24. MEAN ANNUAL RUNOFF 963.14 AC.-F.T.											
	21. MAX. ELEV. 566.0		MIN. ELEV. 477.0		25. ANNUAL TEMP: MEAN 66° RANGE 47°F-84°F											
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/I. RATIO, AC.-FT. PER AC.-FT.	
	1/ 4-13-60		-		-		Range-				152.98		1152.11		1.20	
	1/ 10-13-64		4.5		4.5		Contour				152.98		1137.61		1.18	
	1/ 9-13-68		3.9		8.4		(D)		48R		152.98		1114.89		1.16	
	2/ 4-13-60		-		-				2' CI		67.77		326.68		-	
	2/ 10-13-64		4.5		4.5						67.77		312.18		-	
	2/ 9-13-68		3.9		8.4						67.22		290.73		-	
	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			
26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS, 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				
1/ 9-13-68		22.72		5.82		2.49		37.22		4.43		1.89				
2/ 9-13-68		21.45		5.50		2.35		35.95		4.28		1.83				
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. ANN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE				
1/ 9-13-68		54.9 (5)		2806		2260		0.38		3.23		-				
2/ 9-13-68		--		--		--		1.31		11.00		-				

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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. 1968 ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
484.0	1.73	1.15	496.0	94.97	524.75			
486.0	11.86	13.23	498.0	117.70	737.02			
488.0	27.11	51.17	500.8	152.98	1114.89			
490.7	48.75	152.16						
493.1	67.22	290.73						

47. REMARKS AND REFERENCES
1/ Total reservoir below emergency spillway crest elevation.
2/ Reservoir below principal spillway crest elevation.
3/ Length of west arm: 0.81 miles.

48. AGENCY MAKING SURVEY Soil Conservation Service
49. AGENCY SUPPLYING DATA Temple, Texas

50. DATE 2-69

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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							
484.0	1.75	1.17													
486.0	10.23	11.98													
488.0	25.01	46.15													
490.7	47.57	142.52													
493.1	67.20	279.57													
496.0	95.00	513.68													
498.0	117.64	726.02													
500.8	152.98	1103.67													
47. REMARKS AND REFERENCES															
<p>1/ Total reservoir below emergency spillway crest elevation 500.8. 2/ Sediment pool only (below elevation 493.1). 3/ Detention pool only. 4/ Length of west arm: 0.81 miles.</p> <p>Geology - Wolfe City Formation, Upper Cretaceous Age. Land Use: Cultivated 54%, Pastureland 30%, Hay Meadow 16%. Land Resource Area - Texas Blackland Prairie. Estimated trap efficiency: 98%</p>															
48. AGENCY MAKING SURVEY				Soil Conservation Service											
49. AGENCY SUPPLYING DATA				Temple, Texas											
						50. DATE		December 1974							

RESERVOIR SEDIMENT

DATA SUMMARY

Site 101-A, Chambers Creek

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

IS-34 Rev. 6-66

NAME OF RESERVOIR

51 - 38 b

DATA SHEET NO.

DAM	1. OWNER W.B. Ross		2. STREAM Trib. of Chambers		3. STATE Texas					
	4. SEC. TWP. RANGE		5. NEAREST P.O. Frost		6. COUNTY Navarro					
	7. LAT. 32° 05' 20" LONG. 96° 48' 30"		8. TOP OF DAM ELEVATION 504.8		9. SPILLWAY CREST ELEV. 500.8					
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES					
	a. FLOOD CONTROL		1/ 500.8		152.98					
	b. MULTIPLE USE				825.43					
	c. POWER				1152.11					
	d. WATER SUPPLY									
	e. IRRIGATION									
	f. CONSERVATION									
RESERVOIR	g. INACTIVE		2/ 493.1		67.77					
					326.68					
14. GROSS STORAGE, ACRE-FEET				326.68		15. DATE STORAGE BEGAN				
						4-13-60				
						16. DATE NORMAL OPER. BEGAN				
						4-13-60				
17. LENGTH OF RESERVOIR		4/ 1.16 MILES		AV. WIDTH OF RESERVOIR		0.21 MILES				
WATERSHED	18. TOTAL DRAINAGE AREA		2.58 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		37.06 (94) INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA		2.34 SQ. MI.		23. MEAN ANNUAL RUNOFF		7.00 INCHES			
	20. LENGTH		2.00 MILES		AV. WIDTH		1.29 MILES			
	21. MAX. ELEV.		566.0		MIN. ELEV.		477.0			
					25. ANNUAL TEMP.: MEAN 66° F RANGE		47° - 84° F			
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/I. RATIO, AC.-FT. PER AC.-FT.		
	4-13-60	-	-	Range- Contour (D)	48 R 2' CI	152.98	1152.11	1.20		
	10-13-64	4.5	4.5			152.98	1137.61	1.18		
	9-13-68	3.9	8.4			152.98	1114.89	1.16		
	6-26-74	5.8	14.2			152.98	1103.67	1.15		
	8-18-80	6.1	20.3			152.98	1073.26	1.11		
	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		31. SURFACE AREA, ACRES		32. CAPACITY, ACRE-FEET	
	4-13-60	-	-			67.77	326.68			
	10-13-64	4.5	4.5			67.77	312.18			
9-13-68	3.9	8.4			67.22	290.73				
6-26-74	5.8	14.2			67.20	279.57				
8-18-80	6.1	20.3			66.69	254.88				
26. DATE OF SURVEY	37. PERIOD CAPACITY LOSS, 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				
1/ 8-18-80	30.41	4.99	2.13	78.85	3.88	1.66				
2/ 8-18-80	24.69	4.05	1.73	71.80	3.54	1.51				
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. ANN.		b. TOT. TO DATE			
1/ 8-18-80	-		3714.13		0.34		6.84			
2/ 8-18-80	5/ 63.0		2929.49		1.08		21.98			
3/ 8-18-80	89.9		784.64		293.7					

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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. 1980 ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
486.0	5.70	3.80	498.0	116.11	697.72										
488.0	23.31	30.82	500.8	152.98	1073.26										
490.7	45.10	121.57													
493.1	66.69	254.88													
496.0	94.52	487.46													
47. REMARKS AND REFERENCES															
<u>1/</u> Total reservoir below emergency spillway crest elevation (500.8'). <u>2/</u> Sediment pool only (below elevation 493.1'). <u>3/</u> Detention pool only. <u>4/</u> Length of west arm: 0.81 miles. <u>5/</u> Dry pool.															
Geology: Wolf City Formation, Upper Cretaceous Age. Land Resource Area: Texas Blackland Prairie. Estimated trap efficiency: 98%.															
48. AGENCY MAKING SURVEY				SCS, Temple, Texas				January, 1981							
49. AGENCY SUPPLYING DATA				SCS, Temple, Texas				50. DATE _____							