

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Site No. 21, Clear Creek Watershed

SCS 34 Rev. 5-66

NAME OF RESERVOIR

51-34

DATA SHEET NO.

DAM	1. OWNER Marvin Knight		2. STREAM Trinity River		3. STATE Texas	
	4. SEC. TWP. RANGE		5. NEAREST P. O. Muenster		6. COUNTY Cooke	
	7. LAT 35°42' " LONG 97°23' "		8. TOP OF DAM ELEVATION 843.3		9. SPILLWAY CREST ELEV. 839.0	
RESERVOIR	10. STORAGE ALLOCATION		11. FLEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES	
	a. FLOOD CONTROL		839.0 1/		40.5	
	b. MULTIPLE USE				406.4	
	c. POWER				479.4	
	d. WATER SUPPLY					
	e. IRRIGATION					
	f. CONSERVATION					
	g. INACTIVE		820.2 2/		9.8	
				73.0		
				73.0		
WATERSHED	17. LENGTH OF RESERVOIR 0.70 3/		MILES		AV. WIDTH OF RESERVOIR 0.11	
					MILES	
	18. TOTAL DRAINAGE AREA 1.54		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 34.54 (75)	
					INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA 1.46		SQ. MI.		23. MEAN ANNUAL RUNOFF 4.25	
				INCHES		
20. LENGTH 1.10		MILES		AV. WIDTH 1.40		
				MILES		
21. MAX. ELEV.		MIN. ELEV.		24. MEAN ANNUAL RUNOFF 349		
				AC.-FT.		
				25. ANNUAL TEMP. MEAN 64°F		
				RANGE 44°F-83°F		
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS	
	1/ 5-25-62		-		-	
	1/ 8-3-67		5.19		5.19	
	2/ 5-25-62		-		-	
	2/ 8-3-67		5.19		5.19	
					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.	
26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET		
				a. MEAN ANNUAL b. MAX. ANNUAL c. PERIOD TOTAL		
				36. WATER INFL. TO DATE, AC.-FT.		
				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/ 8-3-67		10.6		2.04		
2/ 8-3-67		6.2		1.19		
				1.40		
				10.6		
				2.04		
				1.40		
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		
				a. PERIOD b. TOTAL TO DATE		
				41. STORAGE LOSS, PCT.		
				a. AV. ANN. b. TOT. TO DATE		
				42. SED. INFLOW, PPM		
				a. PERIOD b. TOT. TO DATE		
1/ 8-3-67		-		-		
2/ 8-3-67		55.0*		982		
				982		
				0.42		
				2.21		
				1.63		
				8.49		

*Assumed

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. 1967 ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
806.0	0.09	0.06	818.0	8.11	47.40	830.0	20.73	205.68
808.0	0.52	0.61	820.2	9.51	66.76	832.0	23.81	250.10
810.0	2.06	3.02	822.0	11.00	85.21	834.0	26.00	301.94
812.0	4.34	9.28	824.0	12.45	103.64	836.0	32.34	362.23
814.0	5.86	19.44	826.0	14.41	135.48	839.0	38.80	468.79
816.0	7.01	32.30	828.0	17.58	167.42			

47. REMARKS AND REFERENCES

1/ Total reservoir below crest elevation 839.0
 2/ Sediment pool only
 3/ East arm is 0.59 miles long

48 AGENCY MAKING SURVEY Soil Conservation Service
 49 AGENCY SUPPLYING DATA Temple, Texas 50. DATE 12/68

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Site 21, Clear Creek

SCS-34 Rev. 6-66

NAME OF RESERVOIR

51 - 34a

DATA SHEET NO.

DAM	1. OWNER Marvin Knight		2. STREAM Trinity River		3. STATE Texas			
	4. SEC. TWP. RANGE		5. NEAREST P.O. Muenster		6. COUNTY Cooke			
7. LAT N33° 42' 0" LONG W97° 23' 0"			8. TOP OF DAM ELEVATION 843.3		9. SPILLWAY CREST ELEV. 839.0			
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	839.0 <u>1/</u>	40.5	406.4	479.4	2-19-62		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE	820.2 <u>2/</u>	9.8	73.0	73.0	73.0	2-19-62		
WATERSHED	17. LENGTH OF RESERVOIR 0.70 <u>4/</u> MILES			AV. WIDTH OF RESERVOIR 0.09 MILES				
	18. TOTAL DRAINAGE AREA 1.54 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 34.54 (75) INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA 1.48 SQ. MI.			23. MEAN ANNUAL RUNOFF 4.25 INCHES				
	20. LENGTH 1.10 MILES		AV. WIDTH 1.40 MILES		24. MEAN ANNUAL RUNOFF 349 AC.-F.T.			
	21. MAX. ELEV. 965		MIN. ELEV. 804		25. ANNUAL TEMP: MEAN 64°F RANGE 44°F - 83°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/ 5-25-62	-	-			40.5	479.4	1.37
	1/ 8-3-67	5.19	5.19	Range -	30 Ranges	38.8	468.8	1.34
	1/ 7-30-73	5.99	11.18	Contour	2' Contour	38.8	466.6	1.34
	2/ 5-25-62	-	-	(D)	Interval	9.8	73.0	-
	2/ 8-3-67	5.19	5.19			9.5	66.8	-
	2/ 7-30-73	5.99	11.18			9.35	64.84	-
	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/ 7-30-73	2.2	0.37	0.25	12.8	1.14	0.78		
2/ 7-30-73	1.96	0.33	0.21	8.16	0.73	0.48		
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/ 7-30-73	-	422.95	1259.60	0.24	2.67	--	--	
2/ 7-30-73	60.4 (4)	362.09	631.45	1.0	11.18	--	--	
3/ 7-30-73	103.0 (2)	60.86	628.14	-	-	--	--	

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							
806.0	0.06	0.04	820.2	9.35	64.84	834.0	28.04	299.13							
808.0	0.46	0.50	822.0	10.91	83.06	836.0	32.56	359.70							
810.0	2.18	2.93	824.0	12.43	106.40	839.0	38.80	466.60							
812.0	4.09	9.10	826.0	14.13	132.96										
814.0	5.74	18.89	828.0	17.63	164.67										
816.0	6.78	31.40	830.0	20.60	202.88										
818.0	7.82	45.97	832.0	23.83	247.29										
47. REMARKS AND REFERENCES															
<u>1/</u> Total Reservoir below crest elevation 839.0 <u>2/</u> Sediment Pool only <u>3/</u> Detention Pool only <u>4/</u> East arm is 0.59 mile long Land Resource Area - Grand Prairie Geology - Goodland limestone & walnut clay formation (undivided), of Lower Cretaceous Age															
48. AGENCY MAKING SURVEY			Soil Conservation Service												
49. AGENCY SUPPLYING DATA			Temple, Texas			50. DATE <u>1-74</u>									

RESERVOIR SEDIMENT
DATA SUMMARY

CS-34 Rev. 6-66

Site No. 21, Clear Creek Watershed
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

51 - 34b

DATA SHEET NO.

DAM	1. OWNER Marvin Knight		2. STREAM Trinity River		3. STATE Texas				
	4. SEC. TWP. RANGE		5. NEAREST P.O. Muenster		6. COUNTY Cooke				
	7. LAT. 33° 42' 0" LONG. 97° 23' 0"		8. TOP OF DAM ELEVATION 843.3		9. SPILLWAY CREST ELEV. 839.0				
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	1/ 839.0	40.5	406.4	479.4	2-19-62			
	b. MULTIPLE USE								
	c. POWER								
	d. WATER SUPPLY								
	e. IRRIGATION					16. DATE NORMAL OPER. BEGAN			
	f. CONSERVATION								
g. INACTIVE	2/ 820.2	9.8	73.0	73.0	2-19-62				
WATERSHED	17. LENGTH OF RESERVOIR 4/		0.70 MILES		AV. WIDTH OF RESERVOIR 0.09 MILES				
	18. TOTAL DRAINAGE AREA 1.54 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 34.54 (75) INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 1.48 SQ. MI.			23. MEAN ANNUAL RUNOFF 4.25 INCHES					
	20. LENGTH 1.10 MILES		AV. WIDTH 1.40 MILES		24. MEAN ANNUAL RUNOFF 349 AC.-FT.				
	21. MAX. ELEV. 965		MIN. ELEV. 804		25. ANNUAL TEMP: MEAN 64° F RANGE 44° - 83° F				
SURVEY DATA	25. 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.	
	5-25-62	-	-	Range- Contour (D)	30 R 2' CI	40.5	479.4	1.37	
	8-03-67	5.19	5.19			38.8	468.8	1.34	
	7-30-73	5.99	11.18			38.8	466.6	1.34	
	7-11-79	5.95	17.13			38.8	456.01	1.31	
	26. DATE OF SURVEY	PERIOD		PERIOD		PERIOD		PERIOD	
	5-25-62	-	-			9.8	73.0		
	8-03-67	5.19	5.19			9.5	66.8		
	7-30-73	5.99	11.18			9.4	64.8		
	7-11-79	5.95	17.13			9.3	59.2		
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/ 7-11-79	10.59	1.78	1.20	23.39	1.37	0.92			
2/ 7-11-79	5.62	0.94	0.64	13.70	0.80	0.54			
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			
1/ 7-11-79	-	1652.62	1403.42	0.29	4.88				
2/ 7-11-79	59.3 (7)	790.33	697.44	1.10	18.77				
3/ 7-11-79	85.3 (6)	862.29	705.98						

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. 1979 ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
806	0.03	0.02	818	7.57	40.75	830	20.10	193.96							
808	0.37	0.36	820.2	9.25	59.22	832	23.55	237.56							
810	1.34	1.97	822	10.56	77.04	834	27.79	288.84							
812	3.24	6.41	824	12.02	99.60	836	32.55	349.12							
814	5.28	14.85	826	14.05	125.64	839	38.80	456.01							
816	6.54	26.65	828	17.13	156.77										
47. REMARKS AND REFERENCES															
<p>1/ Total reservoir below crest elevation (839.0).</p> <p>2/ Sediment pool only.</p> <p>3/ Detention pool only.</p> <p>4/ East arm is 0.59 miles long.</p> <p>Land Resource Area: Grand Prairie.</p> <p>Geology: Goodland Limestone and Walnut Clay formation (undivided), of Lower Cretaceous Age.</p>															
48. AGENCY MAKING SURVEY SCS, Temple, Texas															
49. AGENCY SUPPLYING DATA SCS, Temple, Texas															
50. DATE Jan. 1980															