

RESERVOIR SEDIMENTATION
DATA SUMMARY

Variety Club Lake

51-24

NAME OF RESERVOIR

DATA SHEET NO.

| | | | | | | | | | | | |
|-------------|---|---|-------------------------------------|--|---|---------------------------------|---|-----------------------------------|--|--|--|
| DAM | 1. OWNER Variety Club of Dallas | | | 2. RIVER Trinity (Trib.) | | | 3. STATE Texas | | | | |
| | 4. SEC. TWP. RANGE | | | 5. NEAREST TOWN Bedford | | | 6. COUNTY Tarrant | | | | |
| | 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 | | | | | |
| | a. FLOOD CONTROL | | | | | July 1942 | | | | | |
| | b. POWER | | | | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | c. WATER SUPPLY | | | | | | | | | | |
| | d. IRRIGATION | | | | | | | | | | |
| | e. CONSERVATION | | | | | | | | | | |
| | f. WATER Rec. | | | 7.8 | 38 | 38 | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 0.2 MILES | | | AV. WIDTH OF RESERVOIR 0.07 MILES | | | | | | | |
| | 18. TOTAL DRAINAGE AREA 0.29 SQ. MI. | | | 22. MEAN ANNUAL PRECIPITATION 36.00 INCHES | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 0.29 SQ. MI. | | | 23. MEAN ANNUAL RUNOFF Approx. 5 INCHES | | | | | | | |
| | 20. LENGTH 0.9 MILES | | | AV. WIDTH 0.32 MILES | | | 24. MEAN ANNUAL RUNOFF 267 ac. ft./sq. mi. ACRES | | | | |
| | 21. MAX. ELEV. | | | MIN. ELEV. | | | 25. CLIMATIC CLASSIFICATION Moist Subhumid | | | | |
| 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 1942 | - | - | - | - | 7.8 | 38 | 135.71 | | | |
| | May 1950 | 7.8 | 7.8 | Recon. Range | 4 | 7.8 | 33 | 117.86 | | | |
| | 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 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 | | | | |
| | May 1950 | 5.0 | 0.64 | 2.21 | 5.0 | 0.64 | 2.21 | | | | |
| | 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 | | | | |
| May 1950 | - | - | - | 1.68 | 13.16 | - | - | | | | |

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|-----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | | |
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|-----------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 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 | | | | | | | | | | | | | | |
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| 48. 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

C/I ratio = 1942-0.51, 1950-0.44
 Estimated trap efficiency = 96%
 Total sediment load, adjusted for trap efficiency = 2.30 ac.ft./sq.mi.

48. AGENCY SUPPLYING DATA SCS, Fort Worth, Texas 49. DATE January 1954