

RESERVOIR SEDIMENTATION
DATA SUMMARY

Salem

NAME OF RESERVOIR

7-13

DATA SHEET NO.

B-2

| | | | | | | | | |
|-------------|---|---|---|--|---|----------------------------------|-------------------------|------------------------------------|
| DAM | 1. OWNER City of Winston-Salem | | | 2. RIVER Salem Creek | | 3. STATE North Carolina | | |
| | 4. SEC. TWP. RANGE | | 5. NEAREST TOWN 3 mi. NE Winston-Salem | | 6. COUNTY Forsyth | | | |
| | 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 | | | | | Nov. 1919 | | |
| | b. POWER | | | | | | | |
| | c. WATER SUPPLY | | 271.6 | 3,099 | 3,099 | 16. DATE NORMAL OPER. BEGAN | | |
| | d. IRRIGATION | | | | | | | |
| | e. CONSERVATION | | | | | | | |
| | f. INACTIVE | | | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 2.16 MILES | | | AV. WIDTH OF RESERVOIR MILES | | | | |
| | 18. TOTAL DRAINAGE AREA 27.68 SQ. MI. | | | 22. MEAN ANNUAL PRECIPITATION 44.73 (40) INCHES | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 27.26 SQ. MI. | | | 23. MEAN ANNUAL RUNOFF INCHES | | | | |
| | 20. LENGTH MILES | | AV. WIDTH MILES | | 24. MEAN ANNUAL RUNOFF AC.- FT. | | | |
| | 21. MAX. ELEV. | | MIN. ELEV. | | 25. CLIMATIC CLASSIFICATION Humid | | | |
| 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. |
| | Nov. 1919 | - | - | - | - | 271.6 | 3,099 | 112 |
| | Sept. 1939 | 19.8 | 19.8 | Range Detailed | 46 | 261.4 | 2,860 | 103 |
| | 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 | |
| | Sept. 1939 | 239 | 12.1 | 0.444 | 239 | 12.1 | 0.444 | |
| | 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 | |
| Sept. 1939 | 38.0 (17) | 367 | 367 | 0.39 | 7.71 | | | |

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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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| 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

Tardy, F. E. Report on the sedimentation survey of Salem Lake, Winston-Salem, North Carolina, U. S. Soil Conserv. Serv., unpublished report, 1939

Region 2, Soil Conservation Service
U. S. Department of Agriculture

48. AGENCY SUPPLYING DATA Spartanburg, South Carolina 49. DATE October 1950