

RESERVOIR SEDIMENTATION

Eagle Mountain Reservoir

51-16

DATA SUMMARY Control & Improv. Dist. #1

NAME OF RESERVOIR

DATA SHEET NO.

|   |   |   |   |                                 |                                    |                  |                             |                   |   |                   |   |           |                         |                 |                                   |  |
|---|---|---|---|---------------------------------|------------------------------------|------------------|-----------------------------|-------------------|---|-------------------|---|-----------|-------------------------|-----------------|-----------------------------------|--|
| DAM                                       | 1. OWNER Tarrant County Water/            |   |   | 2. RIVER W. Fork of the Trinity |                                    |                  | 3. STATE Texas              |                   |   |                   |   |           |                         |                 |                                   |  |
|   | 4. SEC. - TWP. - RANGE -                  |   |   | 5. NEAREST TOWN Ft. Worth       |                                    |                  | 6. COUNTY Tarrant           |                   |   |                   |   |           |                         |                 |                                   |  |
|   | 7. STREAM BED ELEV. 587                   |   |   | 8. TOP OF DAM ELEV. 682         |                                    |                  | 9. SPILLWAY CREST ELEV. 649 |                   |   |                   |   |           |                         |                 |                                   |  |
| 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                          |   | 676                                     |                                 | 11,905                             |                  | 420,000 1/                  |                   | 631,000                                     |                   | March 1934                                |           |                         |                 |                                   |  |
|   | b. POWER                                  |   |   |                                 |                                    |                  |                             |                   |   |                   |   |           |                         |                 |                                   |  |
|   | c. WATER SUPPLY                           |   | 649                                     |                                 | 9,847                              |                  | 211,000                     |                   | 211,000                                     |                   | 16. DATE NORMAL OPER. BEGAN<br>March 1934 |           |                         |                 |                                   |  |
|   | d. IRRIGATION                             |   |   |                                 |                                    |                  |                             |                   |   |                   |   |           |                         |                 |                                   |  |
|   | e. CONSERVATION                           |   |   |                                 |                                    |                  |                             |                   |   |                   |   |           |                         |                 |                                   |  |
|   | f. INACTIVE                               |   |   |                                 |                                    |                  |                             |                   |   |                   |   |           |                         |                 |                                   |  |
| 17. LENGTH OF RESERVOIR 13.4 at elev. 649 |   |   |   |                                 |                                    | MILES            |                             |                   | AV. WIDTH OF RESERVOIR                      |                   |   | MILES     |                         |                 |                                   |  |
| WATERSHED                                 | 18. TOTAL DRAINAGE AREA 1875              |   |   |                                 | SQ. MI.                            |                  |                             |                   | 22. MEAN ANNUAL PRECIPITATION 33.1 (53)     |                   |   |           | INCHES                  |                 |                                   |  |
|   | 19. NET SEDIMENT CONTRIBUTING AREA 809 2/ |   |   |                                 | SQ. MI.                            |                  |                             |                   | 23. MEAN ANNUAL RUNOFF                      |                   |   |           | INCHES                  |                 |                                   |  |
|   | 20. LENGTH                                |   |   |                                 | MILES                              |                  |                             |                   | AV. WIDTH                                   |                   |   |           | MILES                   |                 |                                   |  |
|   | 24. MEAN ANNUAL RUNOFF                    |   |   |                                 | AC.-FT.                            |                  |                             |                   | 25. CLIMATIC CLASSIFICATION Humid           |                   |   |           |                         |                 |                                   |  |
|   | 21. MAX. ELEV. 1,250                      |   |   |                                 | MIN. ELEV. 587                     |                  |                             |                   |   |                   |   |           |                         |                 |                                   |  |
| 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. |  |
|   | March 1934                                |   | -                                       |                                 | -                                  |                  | -                           |                   | -   |                   | 9,847                                     |           | 211,000                 |                 | 113                               |  |
|   | March 1939                                |   | 5                                       |                                 | 5                                  |                  | Range Recon.                |                   | 28  |                   | 9,847                                     |           | 205,175                 |                 | 109                               |  |
|   | 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     |                 |                                   |  |
|   | March 1939                                |   | 5,825                                   |                                 | 1,165                              |                  | 1.44                        |                   | 5,825                                       |                   | 1,165                                     |           | 1.44                    |                 |                                   |  |
|   | 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 |                                   |  |
| March 1939                                |   | - |   | -                               |                                    |                  |                             | 0.18<br>(0.55) 2/ |   | 0.92<br>(2.76) 2/ |   | -         |                         | -               |                                   |  |

1/ Flood storage by Stoney gates in three of the four spillway openings.  
 2/ Excludes drainage area of Bridgeport Reservoir which lies upstream from Eagle Mountain Reservoir  
 3/ Based on water supply pool

|   |   |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
|---|---|------------|----------------|------------|------------|------------|----------------|----------|-------|--------|------|------|------|------|------|
| 26.<br>DATE OF SURVEY   | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
|   |   |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
|   | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION            |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
|   |   |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
| 26.<br>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<br>The sediment in the major part of the reservoir is gray clay and silt.                  |   |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
| 48. AGENCY SUPPLYING DATA Region 4, Soil Conservation Service<br>U. S. Department of Agriculture<br>Fort Worth, Texas |   |            |                |            |            |            |                |          |       |        |      |      |      |      |      |
| 49. DATE January 1951   |   |            |                |            |            |            |                |          |       |        |      |      |      |      |      |