

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Coralville Reservoir

NAME OF RESERVOIR

25-19a

DATA SHEET NO.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------------------------------------|-------------------------------------|---------------------------|-------------------------------------|----------------------------------|--|----------------------------------|----------------------------------|-----------------------------------|-----------------|-----------------------------|---------------------|-------------------------------|-----------------|------------------------------------|--|----------------------|--|--|--|--------|--|--|--|------------------------|--|--|--|--------------|--|--|--|---------|--|--|--|
| DAM | 1. OWNER Corps of Engrs. U.S. Army | | | 2. STREAM Iowa River | | | 3. STATE Iowa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4. SEC. 22 TWP. T80N RANGE R6W | | | 5. NEAREST P O Iowa City | | | 6. COUNTY Johnson | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7. LAT 41°43'26" LONG. 91°31'45" | | | 8. TOP OF DAM ELEVATION 743 | | | 9. SPILLWAY CREST ELEV. 712 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | 712 | | 24,800 | | 424,900 | | 492,000 | | 16. DATE NORMAL OPER. BEGAN | | | | | | | | | | | | | | | | | | | | | | | | | |
| | b. MULTIPLE USE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | c. POWER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | d. WATER SUPPLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | e. IRRIGATION | | | | | | | | | | 9/17/58 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | f. CONSERVATION | | 683 | | 6,000 | | 67,100 | | 67,100 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | g. INACTIVE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17. LENGTH OF RESERVOIR | | 41.5 | | MILES | | AV. WIDTH OF RESERVOIR | | 0.66 | | MILES | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WATERSHED | 18. TOTAL DRAINAGE AREA | | | | 3115 | | | | SQ. MI. | | | | 22. MEAN ANNUAL PRECIPITATION | | | | 33.5 | | | | INCHES | | | | | | | | | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA | | | | 3076 | | | | SQ. MI. | | | | 23. MEAN ANNUAL RUNOFF | | | | 6.35 | | | | INCHES | | | | | | | | | | | | | | | |
| | 20. LENGTH | | | | 280 | | | | MILES | | | | AV. WIDTH | | | | 11.1 | | | | MILES | | | | 24. MEAN ANNUAL RUNOFF | | | | 1,055,450 | | | | AC. FT. | | | |
| | 21. MAX. ELEV. | | | | 1390 | | | | MIN. ELEV. | | | | 646 | | | | 25. ANNUAL TEMP MEAN | | | | 49.2 | | | | RANGE | | | | -25°F, 110°F | | | | | | | |
| | 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. | | | | | | | | | | | | | | | | | | | | | |
| Sept. 1958 | | | | | | Range | | 69 | | 24,800 | | 492,000 | | 0.47 | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1964 | | 5.33 | | 5.33 | | Range | | 69 | | 24,800 | | 485,400 | | 0.46 | | | | | | | | | | | | | | | | | | | | | | |
| Apr. 1968 | | 4.33 | | 9.66 | | Range | | 69 | | 24,800 | | 480,110 | | 0.46 | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| Sept. 1958 | | 33.21 | | 1,381,971 | | 2,215,536 | | 7,365,905 | | 1,381,971 | | 7,365,905 | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1964 | | 31.66 | | 1,166,891 | | 1,993,558 | | 5,052,636 | | 1,285,563 | | 12,418,541 | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr. 1968 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | |
| Sept. 1958 | | 6,600 | | 1,238 | | 0.402 | | 6,600 | | 1,238 | | 0.402 | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1964 | | 5,290 | | 1,222 | | 0.397 | | 11,890 | | 1,231 | | 0.397 | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr. 1968 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | |
| Sept. 1958 | | 40 | | 350.2 | | 350.2 | | 0.25 | | 1.34 | | 568 | | 568 | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1964 | | 45 | | 443.2 | | 389.1 | | 0.25 | | 2.42 | | 755 | | 690 | | | | | | | | | | | | | | | | | | | | | | |
| Apr. 1968 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DEPTH IN FEET BELOW AND ABOVE CREST ELEVATION

26. DATE OF SURVEY

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

| | | | | | | | | | | | | | | |
|------------|----|----|----|----|----|----|----|----|----|----|--|--|--|--|
| Sept. 1958 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Jan. 1964 | 18 | 17 | 06 | 10 | 13 | 24 | 02 | 08 | 02 | 00 | | | | |
| Apr. 1968 | 11 | 11 | 07 | 15 | 09 | 26 | 15 | 05 | 01 | 00 | | | | |

45. RANGE IN RESERVOIR OPERATION

| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW, AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW, AC.-FT. |
|-------------------|------------|------------|-----------------|------------|------------|------------|-----------------|
| Sept. 17-30, 1958 | 667.30 | 661.62 | 18,219 | | | | |
| 1959 | 697.93 | 658.95 | 1,174,972 | | | | |
| 1960 | 706.67 | 669.07 | 1,907,844 | | | | |
| 1961 | 684.63 | 665.84 | 1,196,454 | | | | |
| 1962 | 701.81 | 666.24 | 2,215,536 | | | | |
| 1963 | 681.40 | 666.40 | 806,516 | | | | |
| 1964 | 685.25 | 666.58 | 435,137 | | | | |
| 1965 | 708.50 | 668.96 | 1,993,558 | | | | |
| 1966 | 704.98 | 667.82 | 1,859,825 | | | | |
| 1967 | 685.10 | 669.78 | 516,724 | | | | |
| 1968 | 684.05 | 669.99 | 502,533 | | | | |

46. ELEVATION-AREA-CAPACITY DATA

| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
|-----------|-------|----------|-----------|--------|----------|-----------|------|----------|
| 652 | 0 | 0 | 695 | 12,500 | 163,515 | | | |
| 660 | 190 | 760 | 700 | 16,000 | 234,765 | | | |
| 670 | 1,270 | 8,060 | 705 | 19,800 | 324,265 | | | |
| 673 | 2,160 | 13,205 | 710 | 23,330 | 432,090 | | | |
| 675 | 3,400 | 18,675 | 712 | 24,800 | 480,220 | | | |
| 680 | 4,900 | 39,015 | | | | | | |
| 685 | 6,850 | 68,390 | | | | | | |
| 690 | 9,350 | 108,890 | | | | | | |

47. REMARKS AND REFERENCES 7/ The outlet consists of a control tower with three gates for regulating flow through the dam, and a stilling basin. Outlet conduit floor elev., 646.0; 11f/From 1 Feb. to 15 Feb. the pool is lowered from elev. 680 to elev. 670. From 15 Feb. to 15 June, the pool is held at elev. 670. From 15 June to 25 Sept. the pool is held at elev. 680. From 25 Sept. to 15 Dec. the pool is held at elev. 683. From 15 Dec. to 1 Feb. the pool is held at 680. Actual pool elevations are subject to flood control operations as required. (Spillway crest elev. 712) 17/Length of Principal Arms = 17.2 mi.; 39/Preliminary Evaluation of data obtained with sediment density probe.

48. AGENCY MAKING SURVEY Corps of Engineers, Rock Island Dist.

49. AGENCY SUPPLYING DATA Corps of Engineers, Rock Island Dist. 50. DATE 11 Sept. 1968