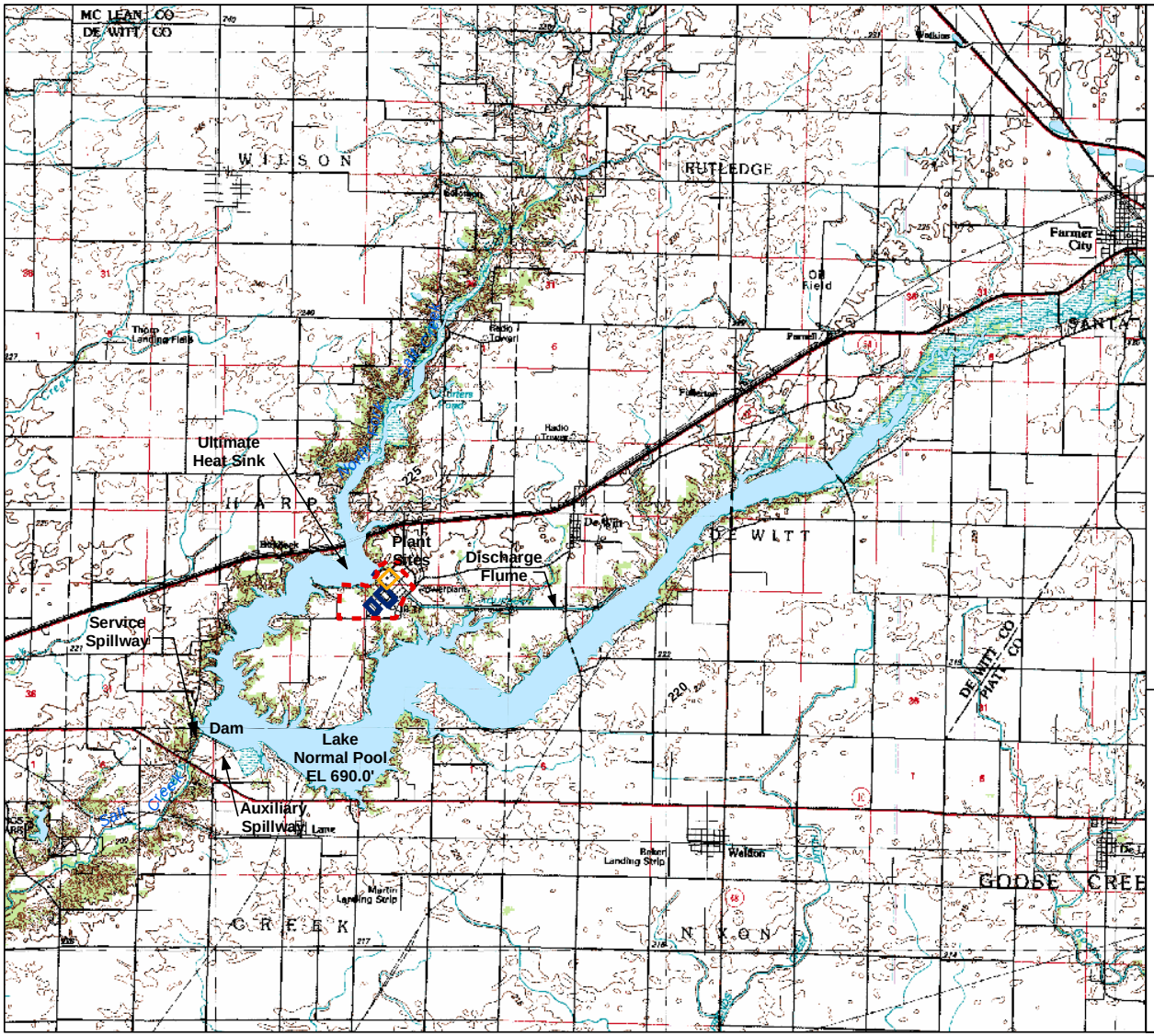


Environmental Report for the EGC Early Site Permit

Figure 2.3-1
Plant Location and Clinton Lake Impoundment

Legend

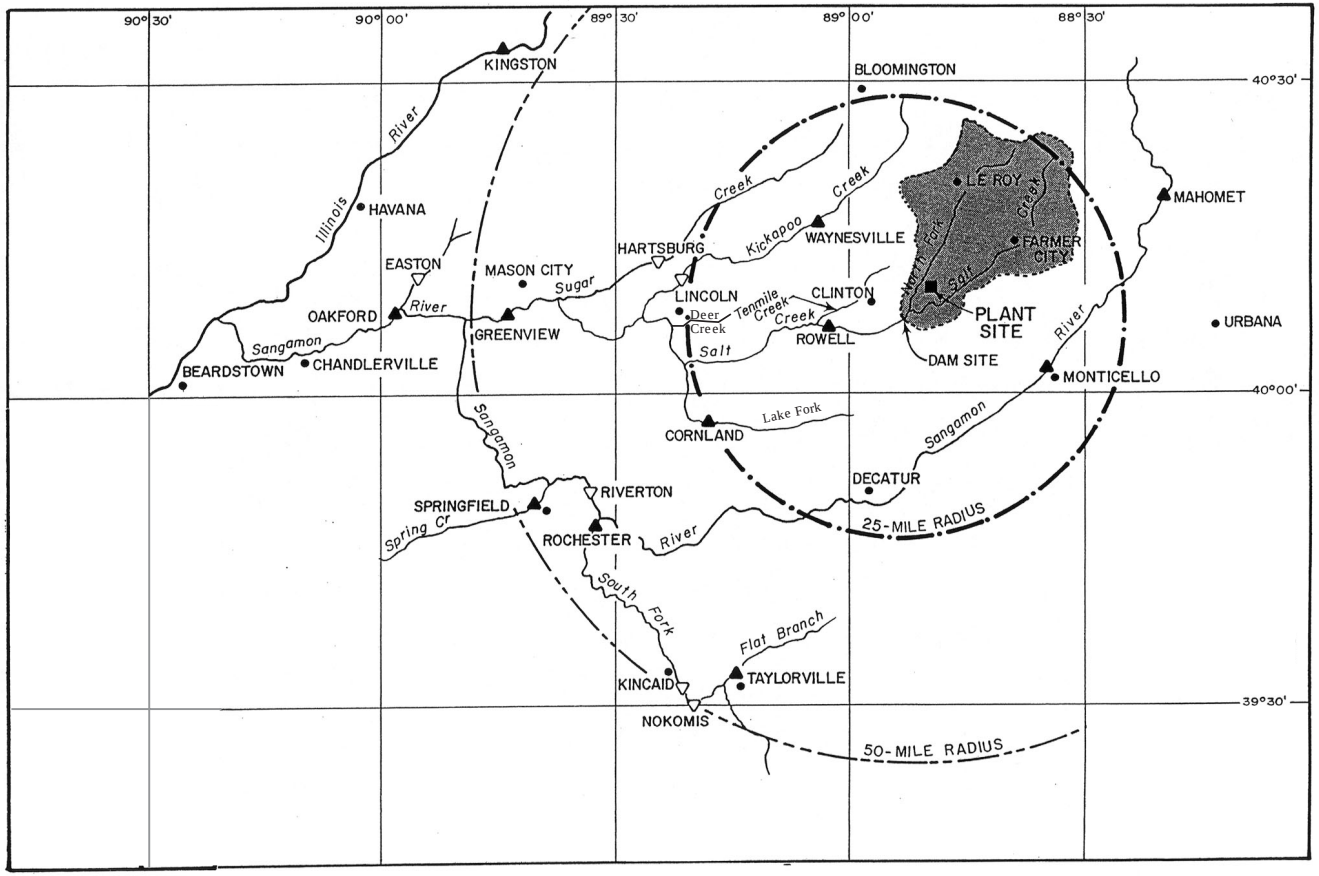
- CPS Facility
- Proposed Areas for EGC ESP Facility Structures
- Site Boundary: Fenceline
- Water: Lakes and Rivers

Data Sources:
U.S. Census Bureau, 2000
USGS, 1984 and 1989

N

0 0.5 1 2 Miles

Figure 2.3-2
Hydrologic Network
Sangamon River Basin



Legend

- ▲ Recording Station
- ▽ Discontinued Station
- ● Cities

Data Source:
CPS, 1982

N

Not to Scale

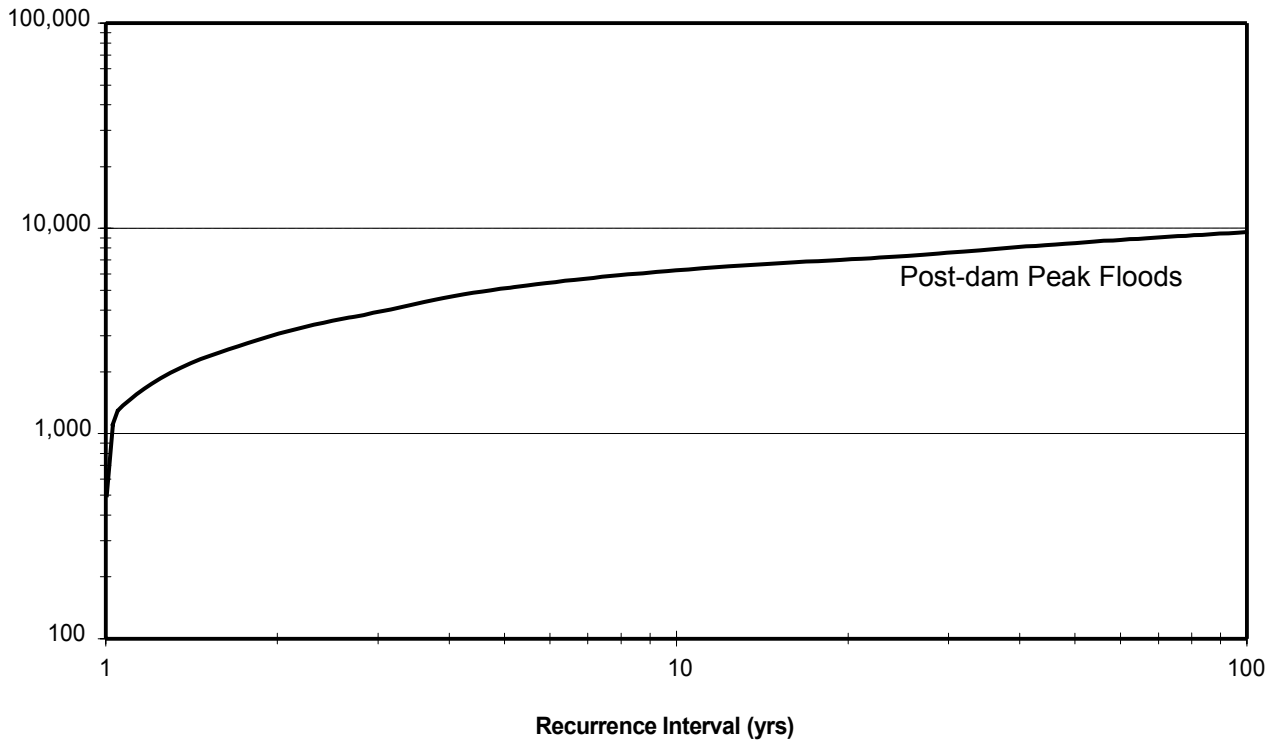


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Figure 2.3-3
Post-dam Peak Flood Magnitudes and Frequencies for Salt Creek at Rowell Gauge Station

NOTE:
Based on daily mean discharge values.

Data Source:
USGS, 2004

Not to Scale

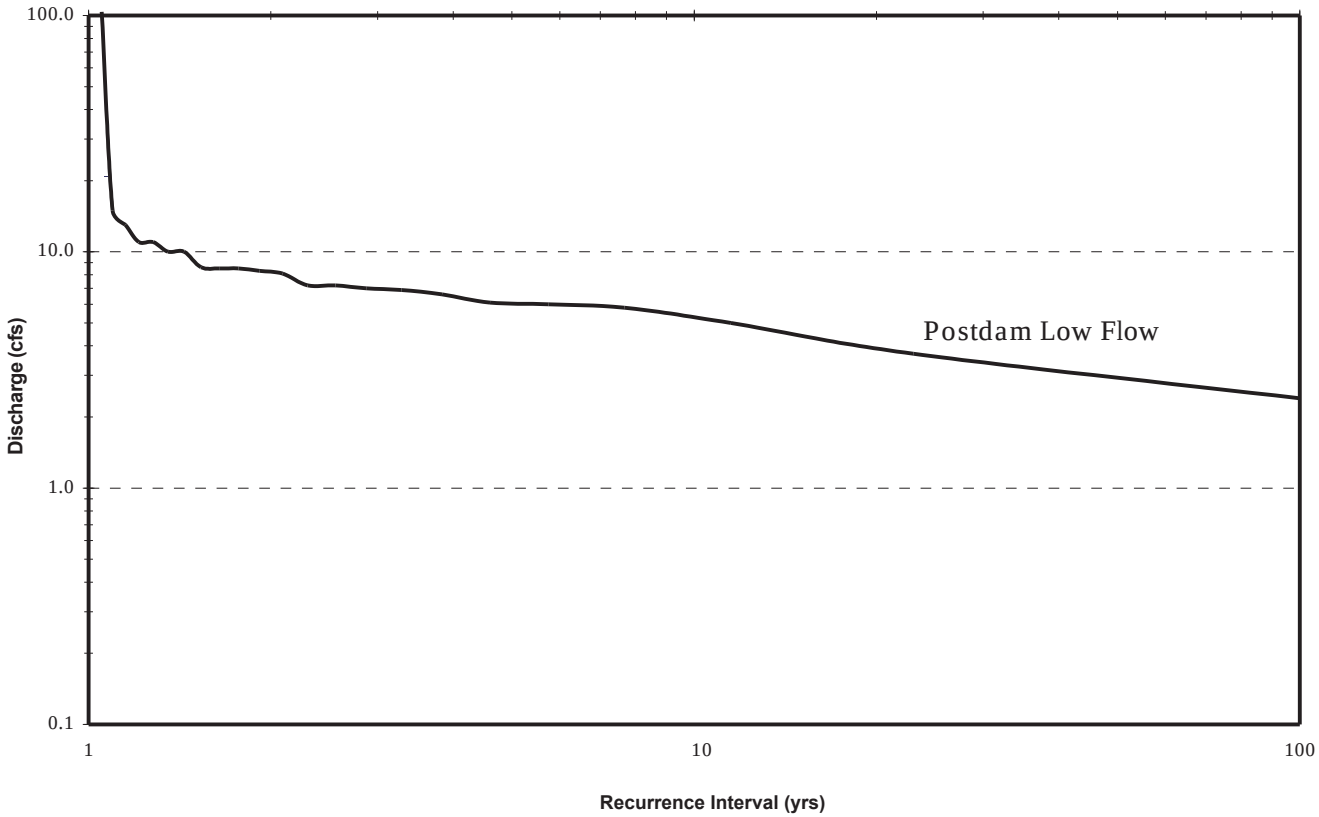

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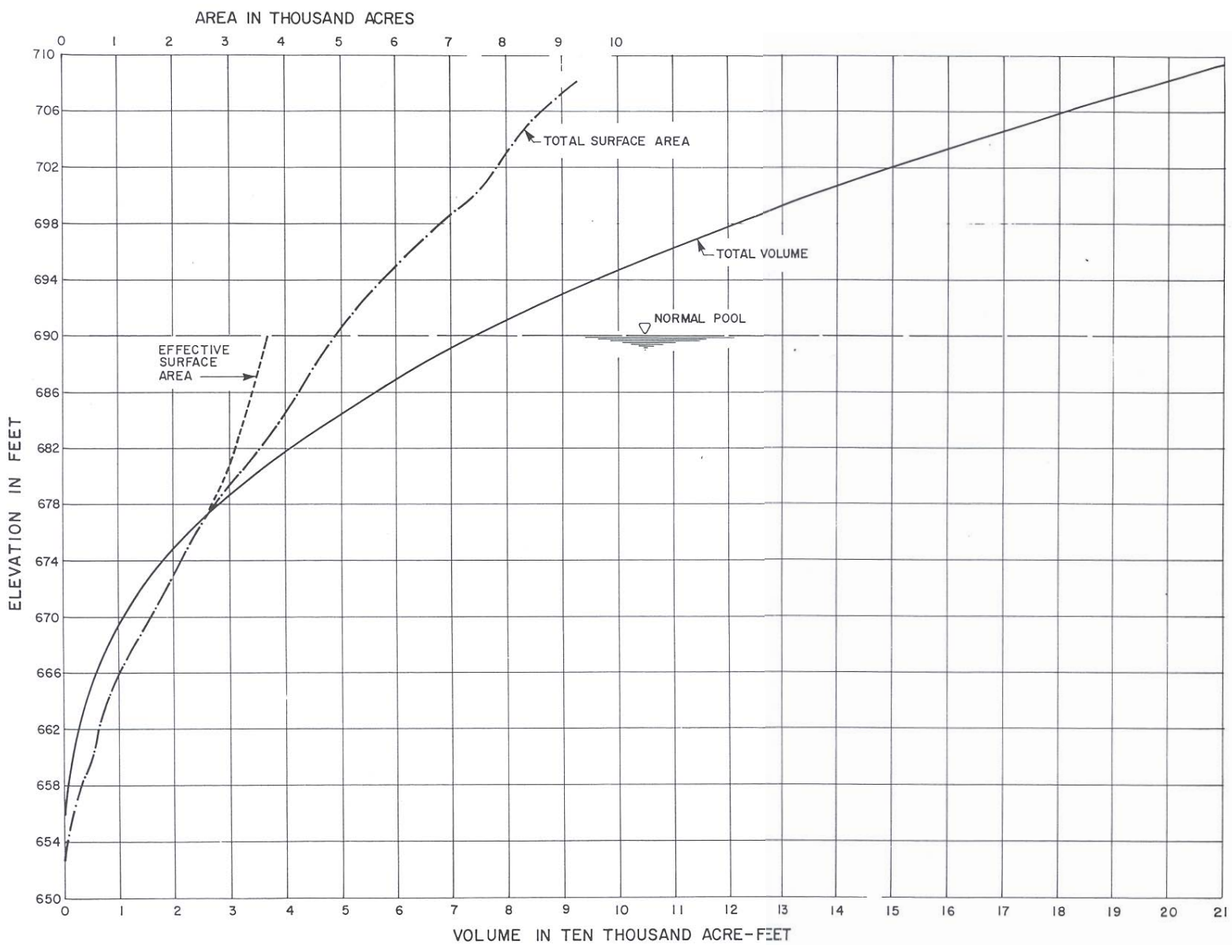
Figure 2.3-4

Postdam 1-Day Duration, Low-Flow Magnitudes and Frequencies for Salt Creek at Rowell Gauge Station

Data Source:
USGS, 2002

Not to Scale

Figure 2.3-5
Lake Elevation-Area Capacity Curves



ELEVATION IN FEET	AREA IN ACRES	CAPACITY IN ACRE-FEET
680	3,100	33,900
682	3,550	40,600
684	3,930	48,000
686	4,250	56,000
688	4,520	64,800
690	4,895	74,200
692	5,210	83,600
694	5,700	95,000
696	6,140	106,300
698	6,800	120,000
700	7,380	133,300
702	7,800	149,000
704	8,180	164,300
706	8,600	182,000
708	9,260	199,200

Legend

— — — Effective Surface Area

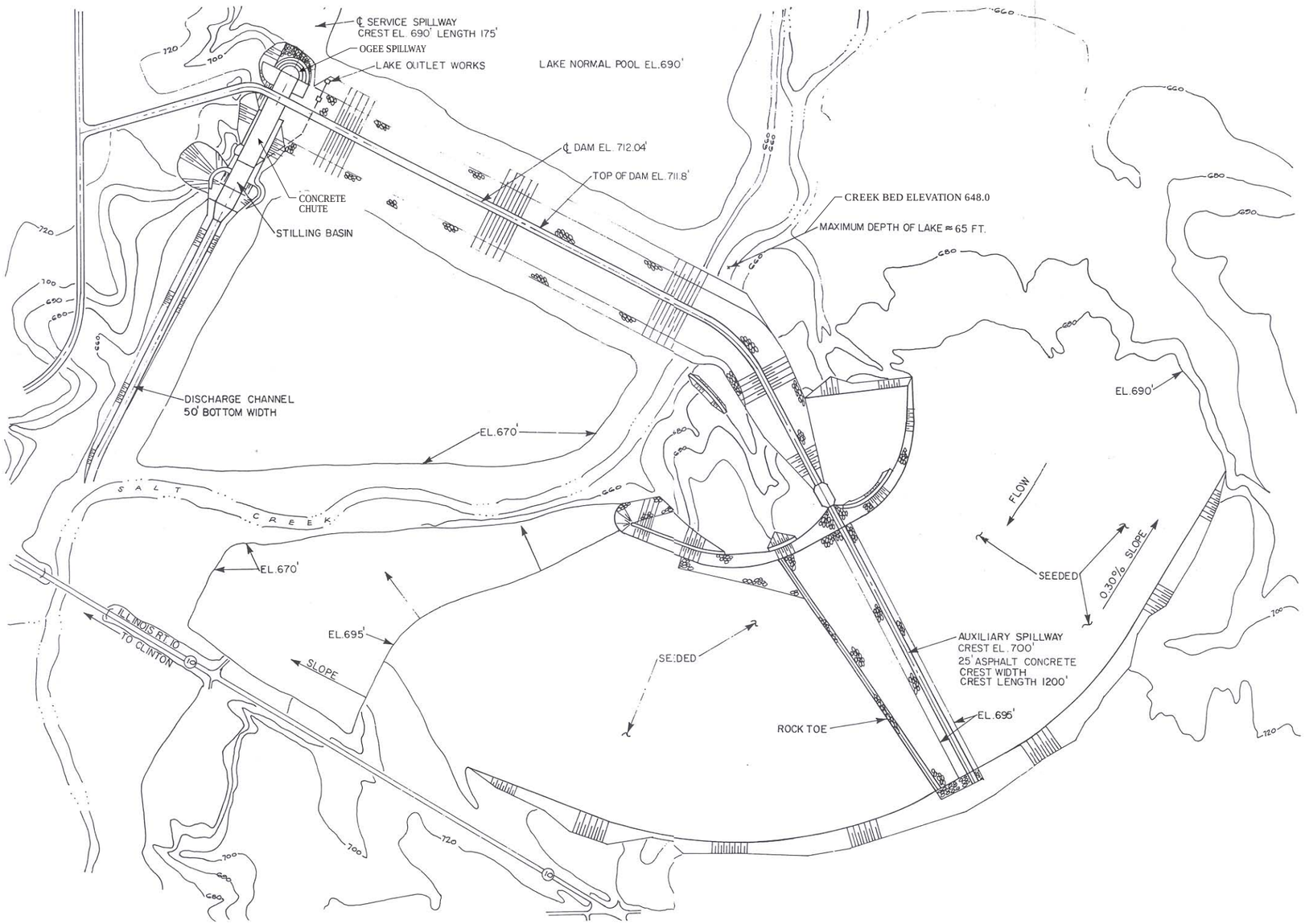
—·—· Total Surface Area

——— Total Volume

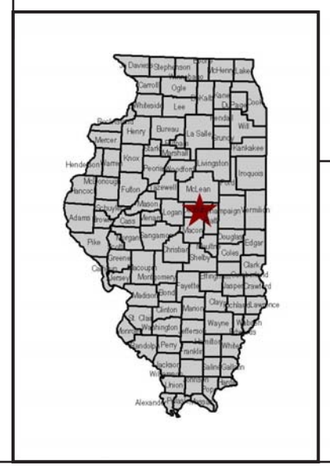
Data Source:
CPS, 1982

Not to Scale

Figure 2.3-6
Plan of Main Dam, Spillways, and Outlet Works



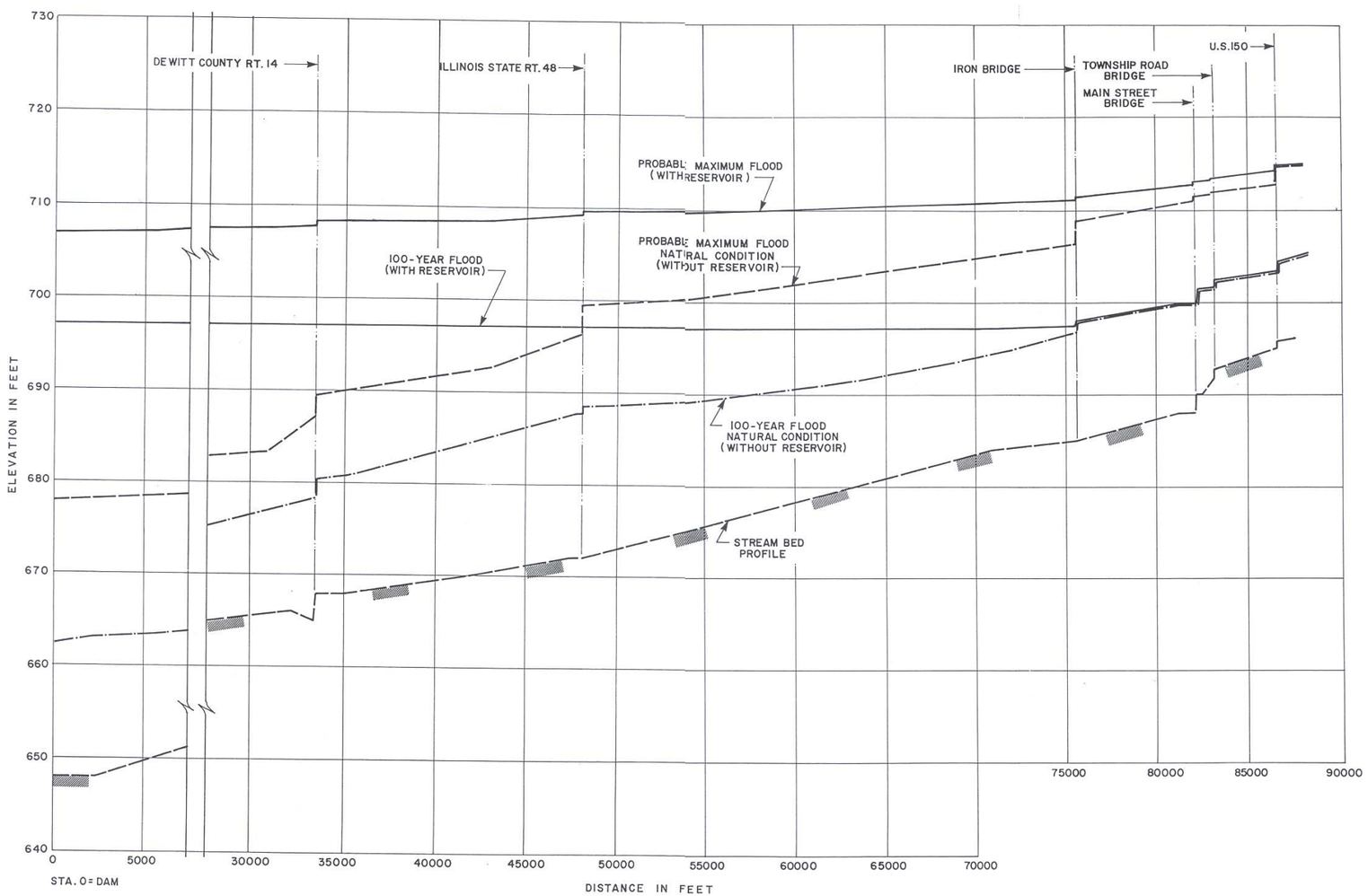
Data Source:
CPS, 1982



N

Not to Scale

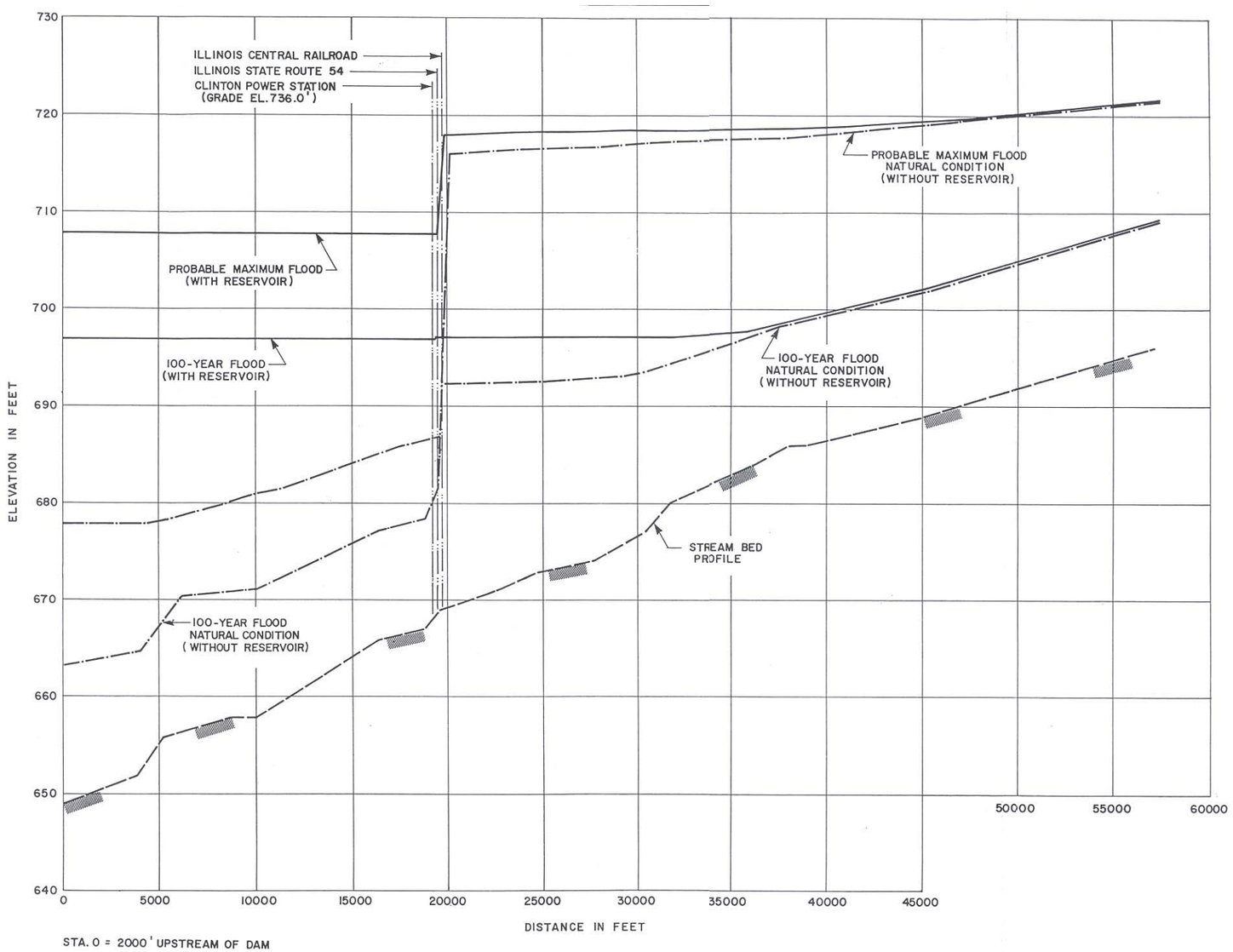
Figure 2.3-7
Water Surface Profiles
Salt Creek



Data Source:
CPS, 1982

Not to Scale

Figure 2.3-8
Water Surface Profiles of North Fork Salt Creek



Data Source:
CPS, 1982

Not to Scale

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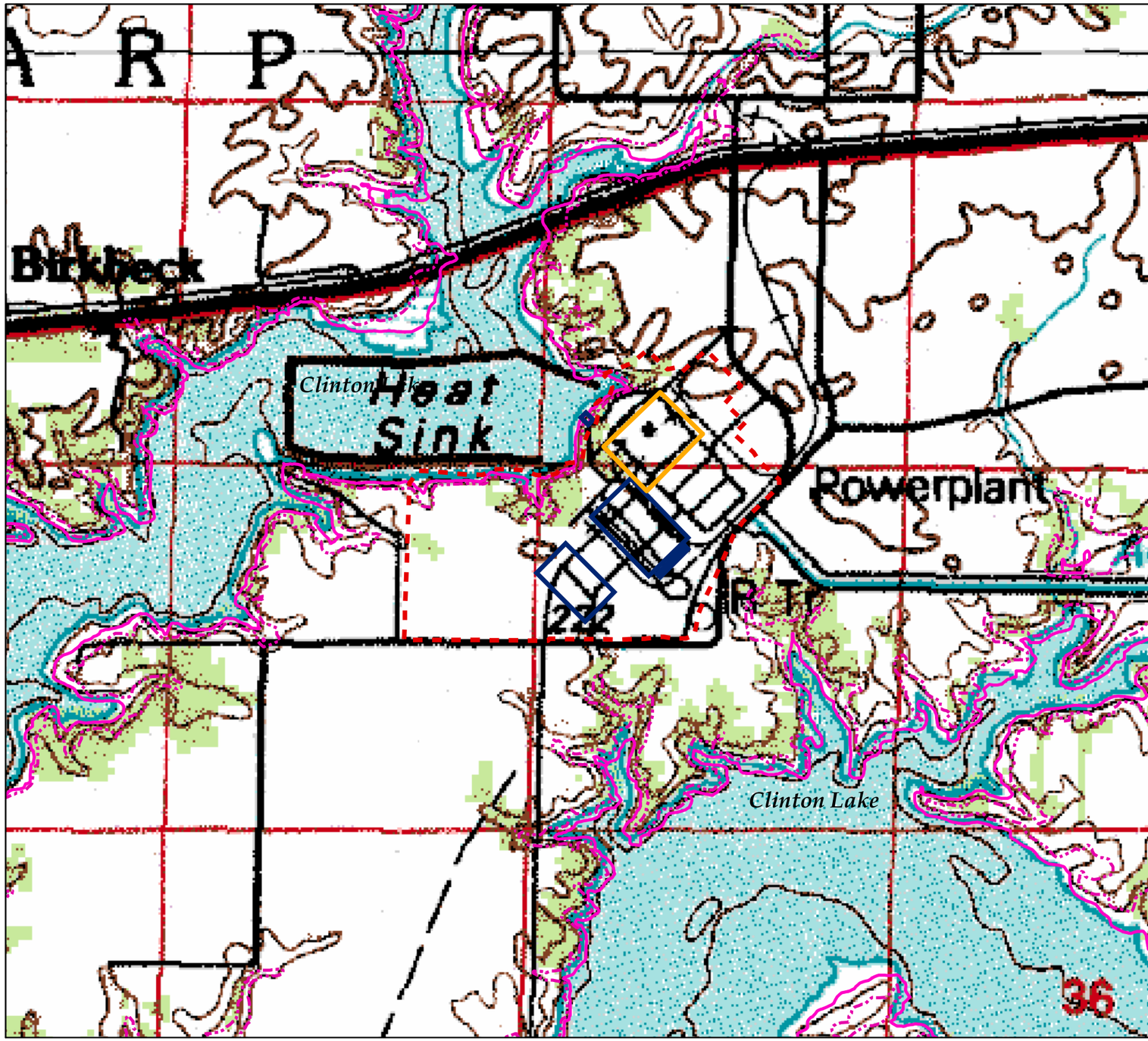
Figure 2.3-9
Flood Prone Area



Legend

- CPS Facility
- Proposed Areas for EGC ESP Facility Structures
- Site Boundary: Fenceline
- 100-year Flood Zone Boundary
- Probable Maximum Flood Zone Boundary (709.8 ft)

Note: The Probable Maximum Flood Zone Boundary and the 100-year Flood Zone Boundary were derived form USGS National Digital Elevation Model Data. The Probable Maximum Flood Elevation is 709.8 ft (216 m). The 100-year flood is 697 ft (212 m). Variations in mapping accuracy between the map base and the flood boundaries derived from the USGS Digital Elevation Model are apparent in locations on the map.

Data Sources:
USGS, 1984 and 1989
USGS, 1999
ISWS, 1996
CPS, 2002

N

Feet

0 1,000 2,000 4,000

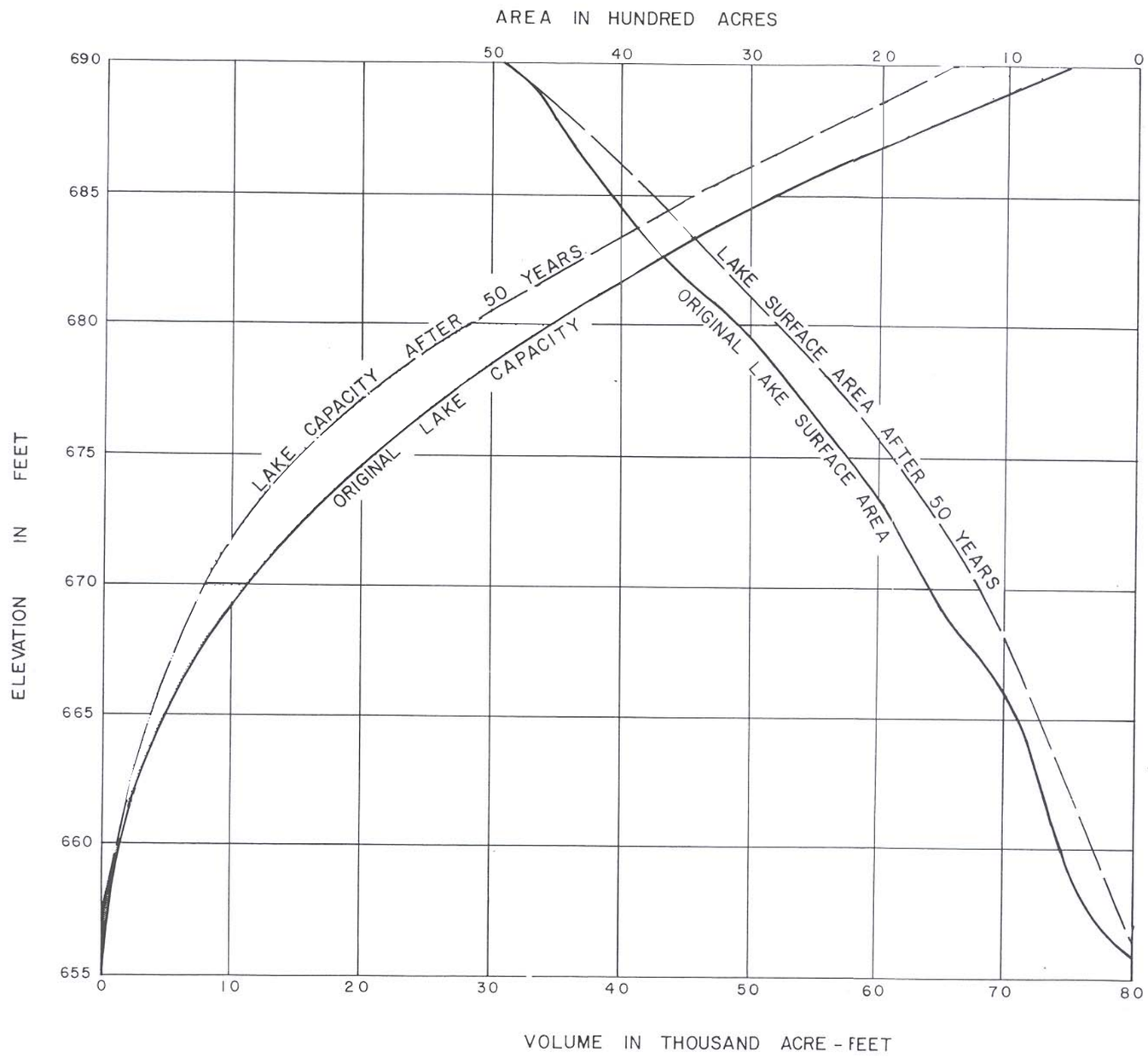


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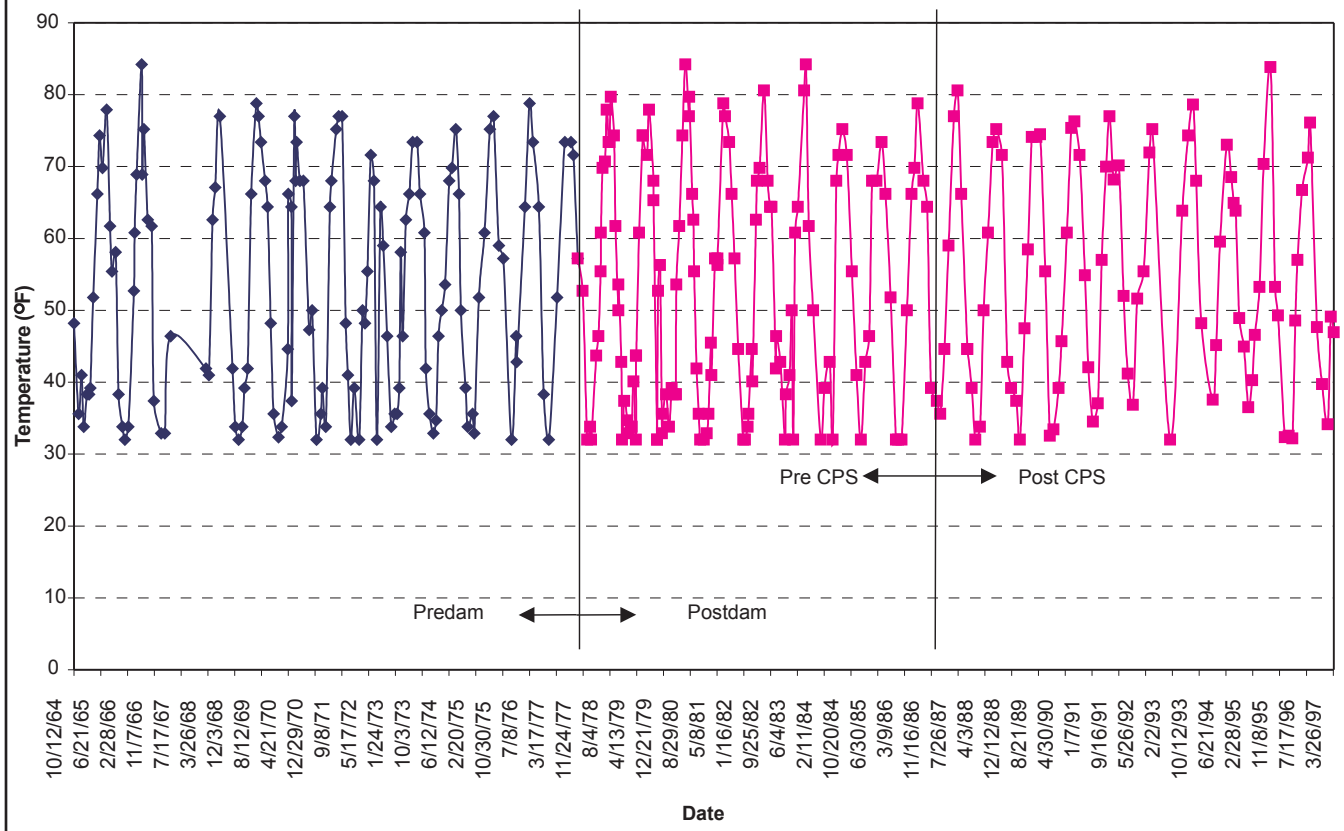
Figure 2.3-10
Lake Area Capacity Curves Before and After 50 Years of Sedimentation

Data Source:
CPS, 1982

Not to Scale

Environmental Report for the EGC Early Site Permit

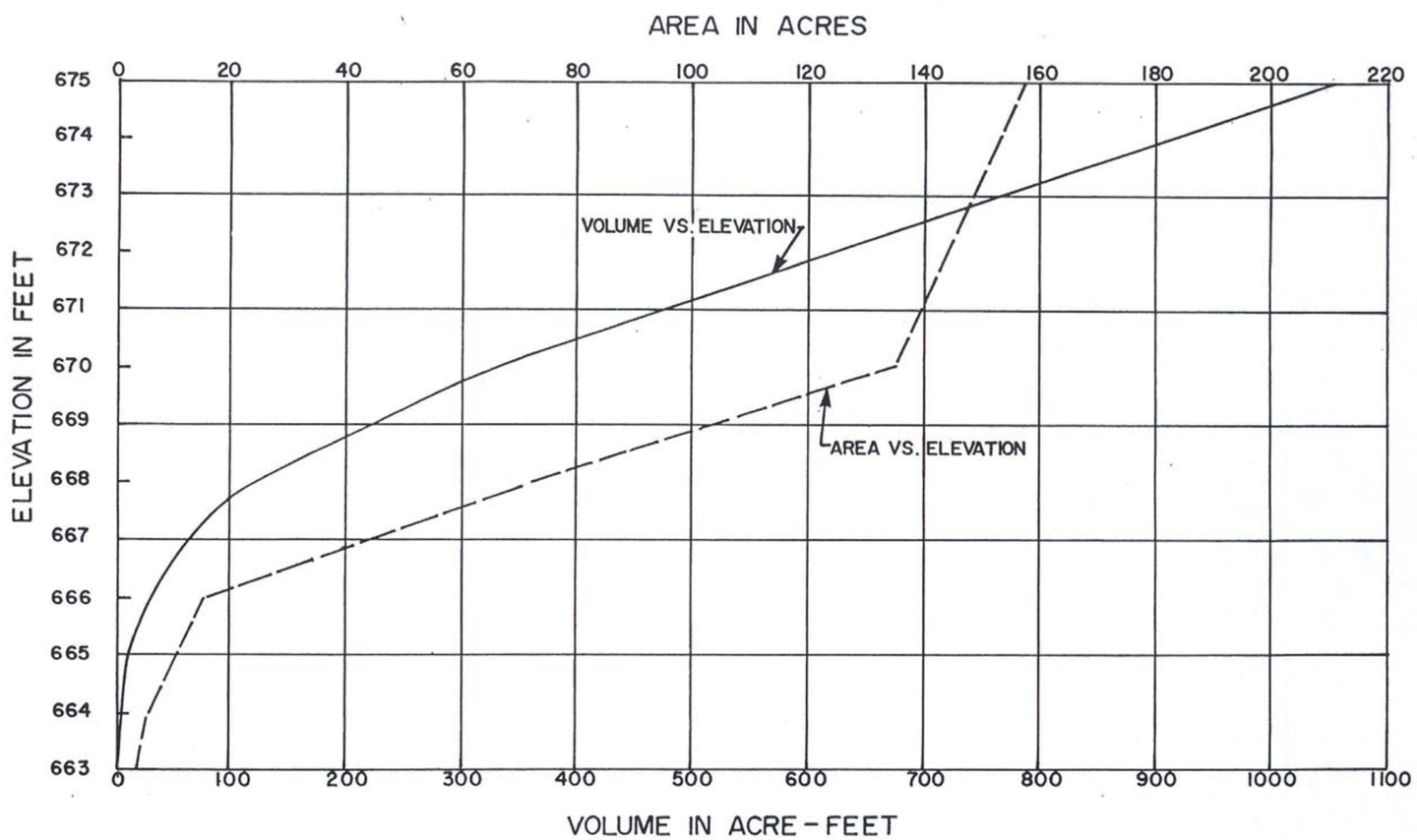
Figure 2.3-11
Salt Creek Temperature at Rowell Gauge Station (October 12, 1964 - April 1, 1997)



Data Source:
USGS, 2002

Not to Scale

Figure 2.3-12
Area-Capacity of Submerged Ultimate Heat Sink



Data Source:
CPS, 1982

Not to Scale