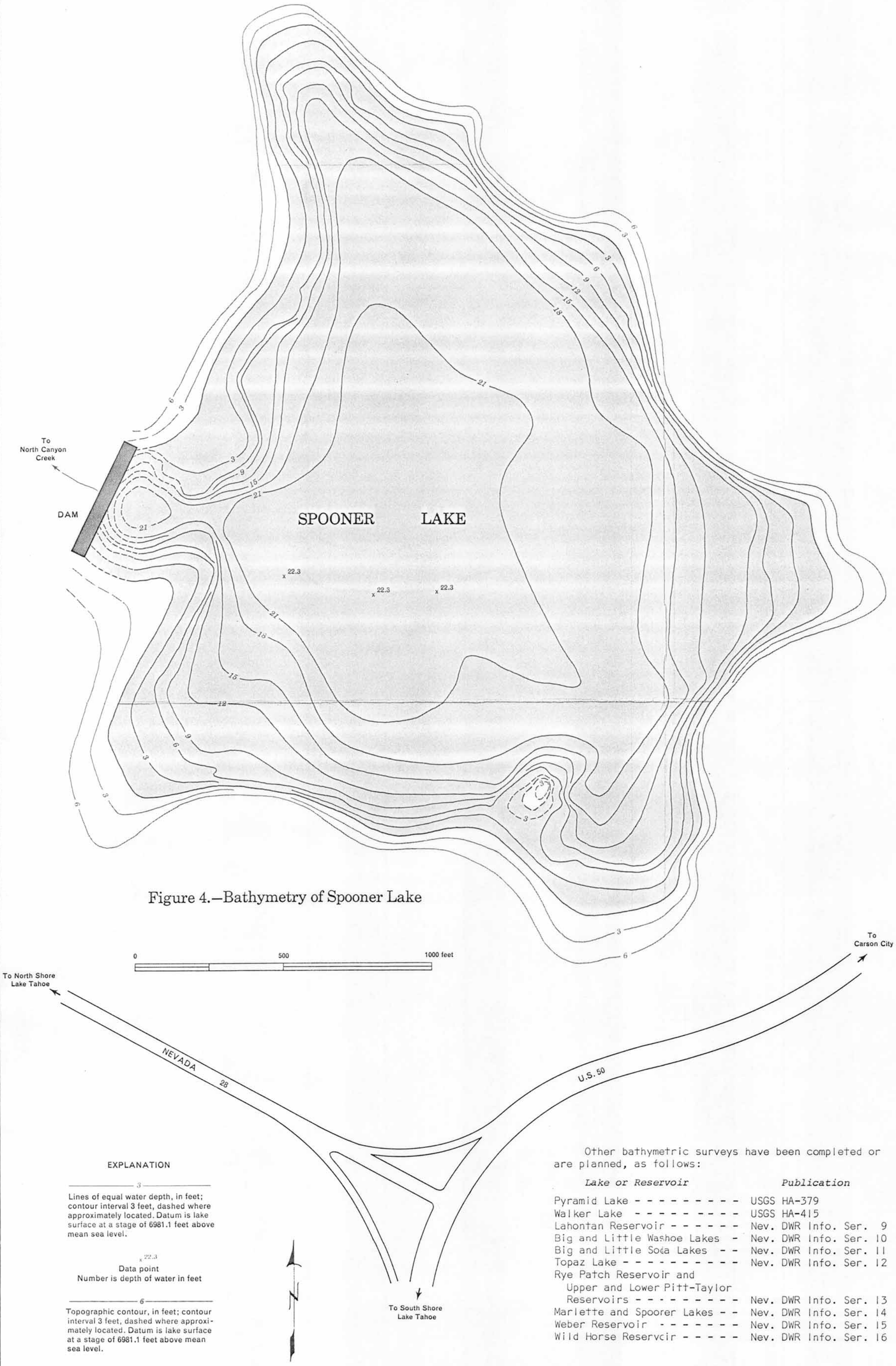

Figure 4.—Bathymetry of Spooner Lake

Dimensions of Spooner Lake at various stages are given in the following tabulation:

Time or condition	Stage (feet above mean sea level)	Area (acres)	Volume (acre-feet)
During bathymetric survey, July 1, 1971	6,976.8	84	1,030
December 2, 1971	6,975.4	80	910
At stage shown in figure 4	6,981.1	95	1,410
Overflow stage of dam	6,982.9	100	1,580

With reference to the above tabulation, it can be seen that the bathymetric map of Spooner Lake (fig. 4) was drawn at a stage about 4 feet higher than actual conditions during the time of the survey. This was done for two reasons: (1) to make the bathymetric map more meaningful by "filling" the lake, and (2) to provide the Nevada Department of Fish and Game with information on the character of the lake if more water were to be stored or if the dam were to be raised or replaced with a higher structure. The data needed to determine this increase in stage above existing field conditions in the summer of 1971 were obtained by instrument surveying peripheral to the lake.

At the time of the survey, water was leaking through or beneath the dam of Spooner Lake at an estimated rate of between 100 and 200 gallons per minute. This leakage is probably about of the same general magnitude as the evaporation from the lake, if both are evaluated on the basis of average annual quantities. Therefore, a somewhat higher stage probably could be maintained, if this leak were eliminated, as the leakage and evaporation probably are the two principal means of discharge from the lake.

Other bathymetric surveys have been completed or are planned, as follows:

Lake or Reservoir	*Publication*
Pyramid Lake	USGS HA-379
Walker Lake	USGS HA-415
Lahontan Reservoir	Nev. DWR Info. Ser. 9
Big and Little Washoe Lakes	Nev. DWR Info. Ser. 10
Big and Little Soda Lakes	Nev. DWR Info. Ser. 11
Topaz Lake	Nev. DWR Info. Ser. 12
Rye Patch Reservoir and Upper and Lower Pitt-Taylor Reservoirs	Nev. DWR Info. Ser. 13
Marlette and Spoorer Lakes	Nev. DWR Info. Ser. 14
Weber Reservoir	Nev. DWR Info. Ser. 15
Wild Horse Reservoir	Nev. DWR Info. Ser. 16

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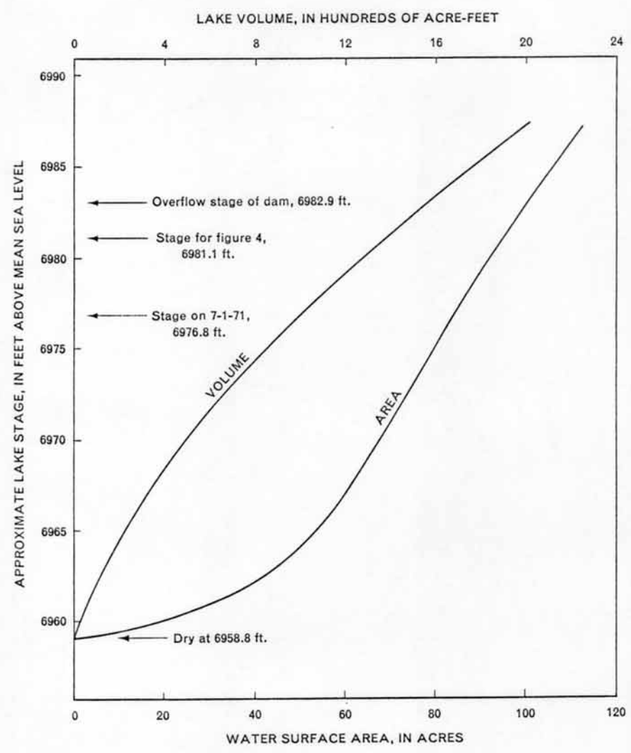

Figure 5.—Stage-area-volume relation for Spooner Lake