

SUMMARY
The Granite Springs Valley Area covers about 1,340 square miles. It consists of four sparsely populated valleys in west-central Nevada. The valleys are surrounded by mountains of low to moderate relief which generally do not accumulate any significant winter snowpack. Consequently, the area is comparatively dry; runoff from the mountains and recharge to the valley-fill, ground-water reservoir is low.

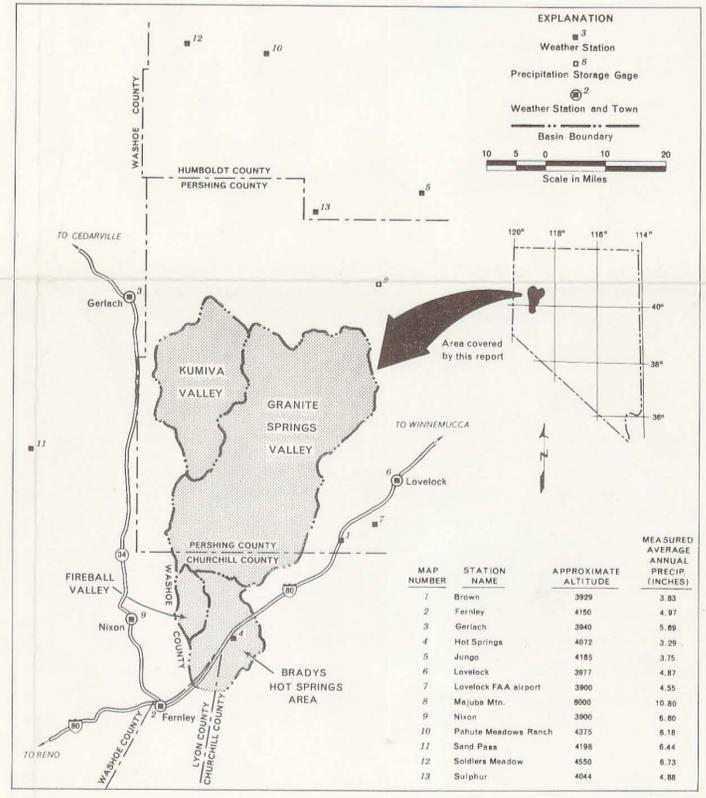
Cattle grazing and mining are the principal industries. There have been no attempts at farming. Samples of well and spring waters from Kumiva Valley and Granite Springs Valley were generally chemically suitable for irrigation and domestic use, but samples from Brady's Hot Springs Area were more highly mineralized.

The tabulation below summarizes most of the estimated hydrologic quantities for the area.

PRELIMINARY ESTIMATES OF HYDROLOGIC ELEMENTS
(All water quantities are average annual volumes, in acre-feet, except where noted)

ITEM	AREA			
	KUMIVA VALLEY	GRANITE SPRINGS VALLEY	FIREBALL VALLEY	BRADY'S HOT SPRINGS AREA
Area (square miles)	333	967	58	178
Minimum altitude of valley floor (feet)	4,400	3,850	4,400	4,010
Surface drainage	None	None	To Brady's Hot Springs Area	To lake at south boundary of area
Subsurface drainage	To Granite Springs Valley	None	do.	None
Inflow from outside the area	None	None	None	From Fernley Area
HYDROLOGIC ESTIMATES				
Precipitation	121,000	346,000	21,000	59,000
Runoff	610	1,800	160	110
Surface inflow from Fernley Area	—	—	—	a 4,000
Recharge from precipitation	1,000	3,500	200	160
Inter-valley leakage				
Kumiva Valley to Granite Springs Valley	—	1,000	—	—
Fireball Valley to Brady's Hot Springs Area	—	—	—	220
Fernley Area to Brady's Hot Springs Area	—	—	—	1,000
Evapotranspiration of ground water	Trace	4,400	Trace	3,000
Reconnaissance value of ground-water inflow and outflow	1,000	4,500	200	2,500
Perennial yield	500	4,500	100	2,500
Transitional storage reserves ^b	450,000	890,000	50,000	150,000

a. Average annual net evaporation from lake at southern end of area.
b. Estimated total quantity available for use on a one-time basis.



Base from Army Map Service-1:250,000 series;
Reno (1957), Lovelock (1955).
Cartography by C. Bosch

Pershing County geology adapted from Tatlock (1969),
remaining geology by J. R. Harrill (1969)

PLATE 1.—HYDROGEOLOGY OF THE GRANITE SPRINGS VALLEY AREA, PERSHING, CHURCHILL, AND LYON COUNTIES, NEVADA