

and depth of wells required in other areas having a comparable head, 100 feet was assumed for Dinuba.

Current field reports indicate that it cost from \$3 to \$5 per foot to drill a well and put in the casing in these areas. An average of \$4 per foot was assumed for wells in both communities regardless of required size of casing or depth of well. On the basis of this information the average investment in wells on farms of the size indicated was \$1,200 for Dinuba, \$3,700 for the small farm in Arvin, and \$13,500 for the three wells on the large farm in Arvin. These costs would be higher under wartime prices.

(9) Because a large proportion of the water in the Dinuba area is surface water, brought by diversion from the Kings River, certain special adjustments must be made. It has been assumed that the facilities for a full water supply were maintained, but power, repair, and service costs were adjusted to actual requirements. During the past 12 years the amount of water delivered by the district varied from about 2 inches to nearly 2 feet per acre, so that an assumed supply requires a well that will furnish virtually full water requirements.

Over 12 years, from 1930 to 1941, inclusive, the Alta irrigation district delivered an average of 1.18 acre-feet of gravity water to all land within the district. It was, therefore, assumed that 1.32 acre-feet per acre of water would be pumped per year. This reduces the kilowatt-hours required from 18,876 to 9,931. Repair and service charges were arbitrarily reduced from \$12 per year to \$8 in light of this adjustment. These savings were partially offset by cost of surface water, as follows: The 1941 annual report of the Alta irrigation district indicates that the average assessment was 59 cents per acre. This resulted in a total bill for gravity water of \$33.63 for the 57-acre farm.

(10) The tax rate used was based upon the Kern County report. Actually for tax purposes the pumping plants are valued considerably less than the figures used here while the tax rate is higher. The final result is very nearly accurate.

On the basis of these assumptions, the following table of water costs on the three hypothetical units is presented:

TABLE 50.—Itemized comparative costs of irrigation in Arvin and Dinuba by size of farm

Item	Arvin		Dinuba— 57-acre unit
	497-acre unit	57-acre unit	
Total investment in pumping plants.....	\$13,500.00	\$3,700.00	\$1,200.00
Fixed costs:			
Interest at 5 percent.....	675.00	185.00	60.00
Depreciation at 5 percent.....	675.00	185.00	60.00
Taxes at 4 mills.....	54.00	15.00	5.00
Gravity water.....			34.00
Total.....	1,404.00	385.00	159.00
Variable costs:			
Repair and service.....	120.00	40.00	8.00
Energy.....	1,915.00	384.00	61.00
Total.....	2,035.00	424.00	69.00
Total costs.....	3,439.00	809.00	228.00
Cost:			
Per acre.....	6.92	14.19	4.00
Per acre-foot of water pumped.....	2.37	4.87	1.59