

Research Department
Federal Reserve
Bank of
San Francisco

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Water Power

Water is power, especially in the arid regions of the West, and controversies regarding its use frequently arise to muddy the waters in that center of power, Washington, D.C. Today, the leading controversy concerns the interpretation of the National Reclamation Act of 1902, which governs the greening of 12 million acres in 17 Western states. At stake are such questions as whether Federally owned water supplies should be limited to the use of small-scale family farms or delivered also to large corporate farms which can boast economies of scale.

The National Reclamation Act includes two major — and frequently ignored — provisions designed to encourage the development of family farms. One provision limits to 160 acres the size of individual holdings that may receive Federal water supplies. (The package could be expanded, however, by like-sized holdings of farm wives or other family members.) The other provision specifies that such water may go only to owners who are bona fide residents of farms or nearby communities. Moreover, according to a 1926 amendment, landowners with holdings larger than 160 acres must agree to sell their excess holdings at a government-approved price that would exclude the value added by availability of Federal water.

Back to 1902?

The issue of strict enforcement was raised in a 1976 lawsuit by the Fresno-

based organization, National Land for the People, which won a Federal court order requiring the Department of the Interior to issue new regulations applying the 1902 law. The specific area involved in the suit was the Westlands Water District, a strip of nearly 600,000 acres on the west side of California's San Joaquin Valley. Interior Secretary Cecil Andrus' proposed regulations interpreted the law rather literally, reversing a decades-long pattern of loose interpretation which had made massive water supplies available to large corporate landowners.

The new regulations would limit the number of acres for Federal water to 160 per family member plus another 160 for leasing. (At the most, Federal water could be delivered to 1,280 acres per family holding.) Farmers would be required to live on or near their land. Excess irrigated land would be disposed of by lottery. Implementation of the new proposals ran into delay, however, when Interior decided last week not to appeal a court order (obtained by large growers) which would require the preparation of an environmental impact report on its new rules.

Water in Westlands

The controversy today centers around California's Westlands Water District. In the 1960's, faced with a declining water table, many landowners in the district signed up to receive water from the Federally-built San Luis unit

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F R B S F Weekly Letter

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of the Central Valley Project, in exchange for promises to sell off their "excess" land under the terms of the 1926 amendment to the basic legislation. By early 1976, about 100,000 excess acres had been sold off, but only two new owner-operated farms had been formed — partly because (in the view of the water-district manager) the 1926 amendment did not restate the 1902 stipulation requiring all landholders to be local residents.

Much of the discussion of the costs and benefits of acreage limitation centers around the efficiency of small-scale vs. large-scale farming. In California, about 76 percent of all farms are 160 acres or less, but they account for only about 13 percent of the state's total farm sales. Farms of 160 acres in size average roughly \$100,000 in annual sales.

Estimates of optimum farm size vary by type of crop and level of technology, but the optimum may be in the range of 640 to 2,000 acres. Most stud-

ies indicate that costs fall fairly rapidly as output increases from initial low levels, but that increases in output eventually permit no further increases in unit profit, despite continued increases in total sales and total profits. Disagreements develop over how broad a span is covered by the flat part of the average cost curve. In this respect, advocates of small-scale farming claim that there is no decline in efficiency if the acreage restriction simply moves the grower further back along the flat part of his average cost curve.

Even with irrigation, farm output in the Westlands area is confined mostly to highly mechanized field crops, with cotton and barley making up 71 percent of the total. If Westlands acreage were limited to (say) 320 acres per farm, the cropping pattern might shift to such products as alfalfa, lettuce and processing tomatoes. By some estimates, however, a 320-acre limit could involve an increase of perhaps 10 percent in production costs.

Land in Westlands

Reflecting the pressure to sell off "excess" lands, the average farm operating in Westlands dropped from 4,640 acres in 1968 to 2,407 acres in 1976.

The size distribution remains highly skewed, however, reflecting such large corporate holdings as Southern Pacific Land Company (109,000 acres) and Standard Oil of California (11,500 acres). If organizations such as National Land for the People accomplished their redistribution goal, some 225,000 acres of excess land might provide homes for about 1,500 new resident owners. If the earlier pattern of distribution were used instead of lottery, however, land might simply be sold to current landholders, as Southern Pacific Land Company has already contracted to do with 89,000 acres of its land in the area.

In any event, water rights should represent a significant subsidy to any potential purchaser. Under the Interior Department's proposed regulations, the price of excess land would be limited to \$750 per acre, while recent market sales of non-excess land have brought about \$1,500 per acre. The difference between the two prices indicates the value which subsidized water adds to the land.

End of 160 limitation?

The entire issue is now enmeshed in contention and litigation. Meanwhile,

the Administration reportedly is considering a major overhaul of the basic legislation, because of fears that a rigid 160-acre limitation could restrict the efficiencies possible under large-scale irrigation.

According to one plan, all limits on the acreage eligible for water supplies would be discarded, but water users would be charged for the actual costs of delivery. (This would sharply increase the costs of water delivered to Westlands District users, from \$11.75 per acre-foot in 1977 to a figure perhaps 3 to 10 times larger.) Another possibility would be to eliminate the size limitation but require users to live on or near their farms. Meanwhile, California's state administration has proposed removing the 160-acre limit, but substituting a limit of 640 acres per farm family, regardless of family size. Consequently, the specific 160-acre figure may eventually disappear, but some limit may yet remain on the size of farm eligible for life-giving water supplies.

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT
(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 12/28/77	Change from 12/21/77	Change from year ago	
			Dollar	Percent
Loans (gross, adjusted) and investments*	106,594	- 98	+ 11,519	+ 12.12
Loans (gross, adjusted)—total	82,304	+ 129	+ 11,439	+ 16.14
Security loans	1,852	- 234	- 21	- 1.12
Commercial and industrial	25,233	+ 70	+ 2,192	+ 9.51
Real estate	27,330	+ 135	+ 5,858	+ 27.28
Consumer instalment	14,650	+ 172	+ 2,441	+ 19.99
U.S. Treasury securities	9,420	- 201	- 1,782	- 15.91
Other securities	14,870	- 26	+ 1,862	+ 14.31
Deposits (less cash items)—total*	105,329	+ 1,207	+ 9,958	+ 10.44
Demand deposits (adjusted)	29,388	+ 191	+ 2,260	+ 8.33
U.S. Government deposits	722	+ 48	+ 387	+ 115.52
Time deposits—total*	73,029	+ 683	+ 6,762	+ 10.20
States and political subdivisions	6,661	+ 84	+ 739	+ 12.48
Savings deposits	31,355	+ 248	+ 444	+ 1.44
Other time deposits‡	31,983	+ 344	+ 5,106	+ 19.00
Large negotiable CD's	14,896	+ 371	+ 3,695	+ 32.99
Weekly Averages of Daily Figures	Week ended 12/28/77	Week ended 12/21/77	Comparable year-ago period	
Member Bank Reserve Position				
Excess Reserves(+)/Deficiency (-)	+ 54	+ 64	+ 57	
Borrowings	25	53	1	
Net free(+)/Net borrowed (-)	+ 29	+ 11	+ 56	
Federal Funds—Seven Large Banks				
Interbank Federal fund transactions				
Net purchases (+)/Net sales (-)	- 414	+ 1,549	- 46	
Transactions with U.S. security dealers				
Net loans (+)/Net borrowings (-)	+ 176	+ 593	- 124	

*Includes items not shown separately. ‡Individuals, partnerships and corporations.

Editorial comments may be addressed to the editor (William Burke) or to the author. . . .
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