



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

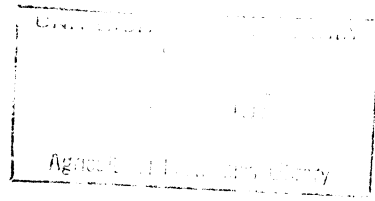
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

1978

E+1039
1000



DEMOGRAPHIC, ECONOMIC AND FISCAL IMPACTS OF ALTERNATIVE
WESTLANDS RECLAMATION ACT ENFORCEMENT SCENARIOS

Prepared by:

Peter L. Bass
Community Development Economist
Principal, Peter L. Bass and Associates
5337 Manila Avenue
Oakland, California 94618

Edward M. Kirshner
Economic and Environmental Planner
Director, Community Economics, Inc.
6529 Telegraph Avenue
Oakland, California 94609

Presented to:

American Agricultural Economics Association
Blacksburg, Virginia

August 6-9, 1978

DEMOGRAPHIC, ECONOMIC AND FISCAL IMPACTS OF ALTERNATIVE WESTLANDS RECLAMATION
ACT ENFORCEMENT SCENARIOS

Introduction

California's Westlands Water District is now the center of national debate on the effect of federal reclamation law on the development of agriculture in the Western states. Proposed changes in the law or its enforcement could have significant effects on the economic, social and political structures of many Western communities.

While there has been much discussion of the potential impact of reclamation law changes on agricultural efficiency and farm viability, the relative costs and benefits of local community impacts that might occur have been largely absent from the debate. These considerations should be explored and weighed in any evaluation of different Reclamation Act enforcement scenarios.

The questions of community impact and basic equity are central to reclamation law. Its legislative history indicates that Congress intended to:

- " -- provide opportunity for a maximum number of settlers on the land and to promote home-building;
- spread the benefits of the subsidized irrigation program to the maximum number of people; and
- promote the family-size farm as a desirable form of rural life."

(USDI, p. 193)

Furthermore, the magnitude of public subsidy for reclamation projects is now truly enormous. In the Westlands, the present value of just the forgiven interest payments is projected to be greater than the present market value of

all the irrigated land in the District (USDI, p. 39). Small farm viability in the District has been resolved in large part because of these subsidies and the likely sale of land at a price excluding project benefits. A recent study by USDA (p. 18) estimates that in the Westlands an annual return to management and operator labor would be \$25,000 on a 160-acre farm, \$54,000 on a 320-acre farm, and \$81,000 on a 640-acre farm.

The original supporters of Westlands subsidy legislation agreed with the Congressional intent to share these benefits, predicting an area influx of 87,500 people with family farms averaging about 100 acres (Sisk). Public policy requires and equity demands that the benefits of Western irrigation projects be widely and directly distributed.

In this paper we summarize some preliminary findings on projected demographic, economic and fiscal changes that might occur to the year 1990 under different enforcement schemes in the Westlands Water District. Studying these potential community impacts in the Westlands is of particular value because of the scale of the District, and the dominant role that agriculture plays in the local economy. Our intention is to analyze comparative community viability beyond the dubious issue of efficiency (SFVP, Technology Task Force, Appendix A) and the limited question of farm viability.

Enforcement Scenarios

We have postulated four levels of enforcement of the 1902 Reclamation Act provisions regarding farm size, residency, and land price. These scenarios range from a combination of current trends (essentially non-enforcement, leaving large corporate farms as the prevalent production mode) to active encouragement of a fully mature, small family farm economy. All farm cases

represent real options advocated by one or more groups. Salient features of the Enforcement Scenarios are summarized in Table 1.

Population and Employment Impacts

Reorganization of the Westlands economy towards one that centers around smaller family owned and operated farms is projected to increase the permanent population and employment base within the District, and near its boundaries (referred to below as the "Study Area", see UCLA, p. 2). Each successive movement towards smaller farm size results in increases in the Study Area's resident owner-farmer population and non-agricultural support population, with some offset caused by declining demand for year-round permanent for-hire labor. These population/employment effects are summarized in Table 2. In moving from the present trends to the strict enforcement scenario, Study Area population and employment would more than double.

The progressive increases in population and employment outlined in Table 2 result from several factors:

- Stricter maximum farm size and residency requirements would result in more farmer households living in the District. The increase from Present Trends to the Strict Enforcement Farm Scenarios is estimated at more than 15-fold.
- While the need for year-round, permanent field hands virtually disappears in the Strict Enforcement -- Small Farm Scenario, the gain in owners living in the District caused by the residency requirements would more than offset this loss. (Depending on the method of land distribution, many of these farm laborers would become owner-operators or service sector workers.)
- A more equitable distribution of income (resulting from the great number of smaller units, as outlined in the next section) results in higher

Table 1

Four Reclamation Act Enforcement Scenarios in the Westlands Water District

<u>Aspect</u>	<u>#1</u> <u>Present Trends</u> <u>(non-enforcement)</u>	<u>#2</u> <u>Limited</u> <u>Enforcement</u>	<u>#3</u> <u>Strict Enforcement --</u> <u>Medium Size Farm</u>	<u>#4</u> <u>Strict Enforcement --</u> <u>Small Size Farm</u>
Acreage Assumed Subject to Redistribution*	375,000	419,000	544,000	544,000
Maximum Permissible Farm Operation	Essentially unlimited	1,280 acres (owned & leased)	640 acres	640 acres
Effective Average Farm Size	About 1,300 acres	640 acres	200 acres (allotted sizes range from 20 to 640 acres)	100 acres (allotted sizes range from 20 to 640 acres)
Eligibility	Anyone	Anyone	Lottery	Lottery
Residency Restrictions	None	50 miles from farm	15 miles from farm	15 miles from farm
Land Price (Including Improvements)	\$1,500/acre	\$1,000/acre	\$750/acre	\$300/acre (minimal improvements)
Description	Corresponds to recent practices. Encourages contin- uation of large scale corporate farms. Similar to Westlands Owners' position.	Approximates recent Dept. of Interior proposals for changes in law and/or enforcement. Does not encourage smaller family farms.	Represents a serious attempt to follow original objective of 1902 Act, estab- lishing small family farms. Approximates recommendations of National Land for People (NLP).	Maximizes small farm opportuni- ties. Similar to position of original Westlands proponents and preferred by NLP.

* Varies depending upon interpretation of "project benefits" and whether past excess land sales will be upheld. (see UCLA, p. 26).

Table 2

Summary of Employment, Population and Households Supported
in the Study Area Under Each Scenario

	<u>1</u> Present Trend	<u>2</u> Limited Enforcement	<u>3</u> Strict -- Medium Farm	<u>4</u> Strict -- Small Farm
A. <u>Resident Employment (Permanent)</u>				
Farmers	300	800	4,100	5,400
Farmworkers	3,200	2,900	700	n.s.
Non-agricultural	<u>2,900</u>	<u>3,700</u>	<u>7,700</u>	<u>9,400</u>
Total	6,400	7,400	12,500	14,800
B. <u>Population in Study Area</u>				
	15,900	18,700	32,000	40,000
C. <u>Households</u>				
	4,000	4,800	8,200	9,800
D. <u>Increase Over Scenario 1</u>				
Employment #	--	1,000	6,100	8,400
%	--	16%	95%	131%
Population #	--	2,800	16,100	24,100
%	--	18%	101%	152%
Households #	--	800	4,200	5,800
%	--	20%	105%	145%

expenditures for consumer goods and services. Combined with the much larger resident farm owner population and the greater demand for locally produced agricultural inputs, this in turn increases secondary, non-agricultural population and employment in the Study Area.

Household Income

A move toward smaller farms in the Westlands would increase the amount of household income generated and spent in the local economy, and result in a more equitable distribution of income among households (Table 3). Local income generated by resident farm owner households is projected to increase more than tenfold in moving from the Present Trends to the Strict Enforcement -- Small Farm Scenario. In part, this depends upon a sale price for land not reflecting project benefits.

The substantially greater recycling of income in the local community produces multiplier effects that would continue to generate increases in non-agricultural jobs and household income beyond the year 1990. Furthermore, as farm size decreases there is a progressive increase in the number and proportion of middle income households earning \$15,000 to \$35,000 a year.

The rise of a broad middle income population suggests both a stronger and more dynamic local economy and more stable communities offering a broad range of services. These trends are supported by recent comparative socio-economic studies of community structure in areas surrounded by small farms and large farms respectively (see Fujimoto, and SFVP, Community Services Task Force).

Impact on Local Retail Sales

Development of family operated small farms in the Westlands would result in a major increase in the volume of retail sales transacted within the

Table 3

Household Income of Westlands Residents*
(in millions of 1978 dollars)

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
	<u>Present</u>	<u>Limited</u>	<u>Strict --</u>	<u>Strict --</u>
	<u>Trends</u>	<u>Enforcement</u>	<u>Medium Farm</u>	<u>Small Farm</u>
<u>Income up to</u> <u>\$50,000/year/HH</u>				
Farmers	\$ 11	\$ 29	\$ 84	\$133
Year-Round Farmworkers	22	20	5	n.s.
Non-Agricultural Households	<u>29</u>	<u>37</u>	<u>77</u>	<u>66</u>
Total	\$ 62	\$ 86	\$166	\$199
<u>Excess Income</u> <u>Over \$50,000/year/HH</u>	\$ 32	\$ 7	n.s.	n.s.

* (a) Basic farm household incomes were derived from USDA.

(b) Year-round farmworker jobs were assumed at \$7,000/year with an average household income of about \$12,000/year (1.75 jobs/household).

(c) Non-agricultural jobs were assumed at \$10,000/year with an average household income of about \$15,000/year (1.5 jobs/household).

Study Area as well as the number, size and diversity of retail establishments. This in turn would increase retail employment in the area as well as in the rest of Fresno County. The trend can also be attributed to the greater amount of household income that will be generated in the local economy, and its more equitable distribution (Table 4).

The small number of households now in the area are geographically scattered and have low aggregate buying power, which limits the number of stores that can serve the area and the variety of merchandise they carry. Under the Strict Enforcement -- Small Farm Scenario, household income and the aggregate potential market increase substantially. Income is also distributed among a much greater number of households, each with a higher average propensity to consume than fewer, wealthier families (USDL). As local retailers improve inventories and new shops open to meet this demand, a far smaller proportion of sales will be "leaked" from the local district to more distant areas such as Fresno.

Select Fiscal Impacts on the Town of Huron and its Related School District

Our studies have indicated that strict enforcement of the 1902 Reclamation Act in the Westlands would result in substantial population growth, along with a more equitable distribution of income. A key question is whether local communities can afford the costs of improvements and services such growth implies.

A complete analysis of the fiscal impacts associated with enforcement of reclamation law is beyond the current scope of our research. However, we have evaluated the projected fiscal impacts (pre-Proposition 13) of two enforcement scenarios on the town of Huron and its school district (Coalinga

Table 4

Consumer Retail Sales in Study Area Generated by Local Residents
Under the Alternative Enforcement Scenarios
(in millions of 1978 dollars)

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
	<u>Present</u>	<u>Limited</u>	<u>Strict --</u>	<u>Strict --</u>
	<u>Trends</u>	<u>Enforcement</u>	<u>Medium Farm</u>	<u>Small Farm</u>
A. Basic Local Gross Income of Study Area Residents (from Table 3)	\$62	\$86	\$166	\$199
B. Total Retail Expenditures* (50% of Line A)	\$31	\$43	\$ 83	\$100
1. Food Sales* (12% of Line A)	\$ 7	\$10	\$ 20	\$ 24
2. Other Retail Sales* (38% of Line A)	\$24	\$33	\$ 63	\$ 76
C. Percentage of Sales Spent in Study Area Stores				
1. Food Sales	80%	85%	95%	95%
2. Other Retail Sales	15%	20%	55%	60%
D. Total Study Area Retail Sales	\$10	\$16	\$54	\$69
1. Food (B.1 x C.1)	\$ 6	\$ 9	\$19	\$23
2. Other (B.2 x C.2)	\$ 4	\$ 7	\$35	\$46
E. Square Footage of Stores	95,000	155,000	590,000	770,000
1. Food (\$150/sq ft)**	40,000	60,000	125,000	155,000
2. Other (\$75/sq ft)**	55,000	95,000	465,000	615,000
F. Sales in Remainder of Region	\$21	\$27	\$29	\$31
1. Food (B.1 x C.1)	\$ 1	\$ 1	\$ 1	\$ 1
2. Other (B.2 x C.2)	\$20	\$26	\$28	\$30

* USDL.

** Urban Land Institute.

Unified) as an example of the methodology for conducting such studies, and to explore the relative impact of Present Trends versus Strict Enforcement of the law.

Huron is the only incorporated town lying completely within the Westlands Water District. Because of its location and current function as a market and service center, Huron could be expected to show the largest population growth as a result of development of smaller farms in the Westlands (UCLA).

Summarized in brief, the population added in the Strict Enforcement -- Small Farm Scenario is projected to be significantly greater than in the Present Trends Scenario and would live in lower density, more expensive housing because of the greater proportion of higher income farmers residing in the town. The commercial sector would also expand significantly due to the much larger retail sales potential generated by the household population in and around the town (Table 5).

As indicated in Table 5, added capital and operating public costs would be involved in developing and running the additional infrastructure and services needed in the expanding town. We have deliverately assumed no change in the basic per capita level of services provided as the town expands. This is done to prevent confusion between public costs due to expanding services for added population, and those costs resulting from service upgrading.

Projected increases in municipal revenues from all sources other than property taxes and special purpose federal and state grants are expected to almost match estimated cost increases. This occurs because of the disproportionate increase in sales tax receipts from the town's expanded commercial role, and because of surpluses from municipally-owned sewer and water enterprises. As a result, the amount of additional revenue needed to be

Table 5

Summary of Fiscal Impacts on Municipality of Huron
and Coalinga Unified School District Under Two Enforcement Scenarios

	#1	#2
	<u>Present Trends</u>	<u>Strict Enforcement -- Small Farm</u>
1. <u>Development Summary</u>		
Added Population -- #	1,770	5,000
% over 1976-77	74%	209%
Added Housing Units	490	1,440
Average Density New Housing	4.5/acre	3.5/acre
Added Developed Acreage (residential, commercial, other)	133 acres	540 acres
2. <u>Municipal Costs</u>		
Added Capital Development Cost	\$2,010,000	\$7,740,000
Added Bonded Indebtedness	1,150,000	5,220,000
Added Operating Costs*	390,000/yr	1,110,000/yr
Increased Revenues (non-property tax based)	<u>380,000/yr</u>	<u>1,220,000/yr</u>
Net Operating Cost Increase	\$ 10,000/yr	<\$ 110,000/yr>
3. <u>Projected Property Tax Impact</u> (pre-Proposition 13)		
Current Rate*	\$3.60/\$100 A.V.	\$3.60/\$100 A.V.
Projected Rate (1989-90)	\$2.70/\$100 A.V.	\$2.00/\$100 A.V.
Projected Bonded Indebtedness as % of Assessed Value	24%	29%
4. <u>School District Impact</u> (pre-Proposition 13)		
Assessed Value/Student**	\$53,280	\$53,280
Added Assessed Value/Student (1978-90)	\$ 7,200	\$11,500
Property Tax Rate**	\$2.60/\$100 A.V.	\$2.60/\$100 A.V.
Imputed Tax Rate Increases (1990)	\$.52/\$100 A.V.	\$1.03/\$100 A.V.
5. <u>Combined City/ School District Tax Rates</u>		
Before Expansion	\$6.20/\$100 A.V.	\$6.20/\$100 A.V.
After Expansion	\$5.82/\$100 A.V.	\$5.63/\$100 A.V.

* State Controller, Cities of California.

** State Controller, School Districts of California.

raised via the property tax (mainly for paying off added bonded indebtedness) increases at a rate slower than added assessed value, allowing for a significant drop in property tax rates. However, it should be noted that during the development phase the town's total bonded indebtedness exceeds the legal limit allowed in relationship to assessed value (15%), which would require the municipality to develop special, more costly financing approaches (e.g., revenue bonds, improvement or special assessment districts).

The school district containing the town of Huron would face less favorable fiscal impacts than the city government under the added growth implied in either of the two scenarios evaluated. As shown in Table 5, future increases in student population occur faster than assessed value gains. Since approximately the same amount per student would still have to be raised via property taxes, this implies higher future tax rates. While the Strict Enforcement -- Small Farm Scenario, on a per added student basis, has less marginal impact, the far greater number of added students results in a greater aggregate impact on the projected tax rate. It should be noted, however, that even with higher school district rates, the combined City/School District rates would decrease with town expansion as contemplated under the two scenarios. The savings are more pronounced for the smaller farm economy.

The effect of Proposition 13 (the Jarvis-Gann Initiative) on the property tax rate will be dramatic. The present and projected aggregate tax rates for Huron will have to be reduced by about 60% to \$4 per \$100 assessed value (plus about \$.20 per \$100 assessed value for existing debt service). Major adjustments in Proposition 13 or major new sources of revenue will be required to at least partially make up for these reductions if local governments are to operate at all effectively. However, of the enforcement scenarios, we

would expect the Small Farm option to fare the best in terms of fiscal feasibility due to its relatively greater tax base (sales, income, employment, etc.).

Conclusion

Our analysis of four proposed levels of enforcement of the 1902 Reclamation Act provisions indicates that the Strict Enforcement -- Small Farm Scenario is both the most feasible and the most equitable. We project significant comparative increases in population, employment, income, retail sales, tax base, and fiscal feasibility under this scenario. We believe strict enforcement of the Reclamation Act would produce a more viable local community, and a more equitable income distribution than any of the other proposed alternatives. In addition, strict enforcement of the law comes closest to fulfilling the original intent of the Congress.

References

Comprehensive Project Team (UCLA).

The Westlands: Planning for Change Under Enforcement of Reclamation Law,
School of Architecture and Urban Planning, University of California, Los
Angeles, June 1977.

Fujimoto, Isao.

"Communities of the San Joaquin Valley: The Relation between Scale of
Farming, Water Use and the Quality of Life", University of California,
Davis, 1977.

Sisk, B.F., U.S. Representative for 12th Congressional District (Fresno).

"Testimony on S.44, San Luis Unit, Central Valley Project, California,"
Sub-Committee on Irrigation and Reclamation; Committee on Interior
and Insular Affairs, U.S. Senate, 86th Congress, 1st Session, March 16,
1959 (see p. 39).

Small Farm Viability Project (SFVP).

The Family Farm in California, Final Report Submitted to the State of
California, November 1977.

State Controller.

Annual Report of Financial Transactions Concerning Cities of California,
Fiscal Year 1976-77, Office of the Controller, State of California, 1977.

State Controller.

Annual Report of Financial Transactions Concerning School Districts of
California, Fiscal Year 1975-76, Office of the Controller, State of
California, 1976.

References (cont.)

U.S. Department of Agriculture (USDA).

The U.S. Department of the Interior's Proposed Rules for Enforcement of the Reclamation Act of 1902: An Economic Impact Analysis, A Staff Report by the Economics, Statistics, and Cooperative Services, January 1978.

U.S. Department of the Interior (USDI).

Special Task Force Report on San Luis Unit, Central Valley Project, California, Bureau of Reclamation, U.S. Government Printing Office, #0-255-265, Washington, D.C., 1978.

U.S. Department of Labor (USDL).

Consumer Expenditure Interview Survey, 1972-73. Annual Expenditures and Sources of Income Cross-Classified by Family Characteristics, 1972-73 Combined, Bulletin 1985, PB-275-418, Bureau of Labor Statistics, Washington, D.C., January 1978.

Urban Land Institute.

The Dollars and Cents of Shopping Centers, Washington, D.C., 1977.