

3. Socio-Economic Context



Artichokes one of the many commodities grown in the Reclamation Ditch Watershed. Photo: Fred Watson 30 Oct 2000.

Introduction

This watershed assessment, funded by the Federal EPA under the Clean Water Act, is primarily an environmentally focused endeavor, yet it must be viewed within a socio-economic context, which is centered on a large agricultural industry and within an urban setting. This chapter describes some aspects of these key socio-economic elements. It explains the importance of agriculture as recognized by the Regional Water Quality Control Board, the national dependence on the crops grown in the watershed, the dependence of the workforce on the agricultural industry, and on the City at the center of the watershed.

Regional Context

The need to view environmental objectives within a balanced socio-economic context is recognized by the primary agency responsible for water quality, the CCRWQCB, in Resolution R3-2004-0118 (CCRWQCB, 2004a). This resolution refers to the following text provided in the background section to the Revised Initial Study and Negative Declaration For Conditional Waiver of Waste Discharge Requirements for Discharges

from Irrigated Lands under the California Environmental Quality Act (CEQA) (CCRWQCB, 2004b). Quotation (emphasis added):

Agriculture in the Central Coast Region

Irrigated agriculture in the Central Coast Region comprises approximately 600,000 acres and more than 100 different crops. There are about 2500 agricultural operations in the region that would be enrolled under [the Conditional Waiver] program. Operations range in size from less than ten acres to more than 2000; however, approximately two-thirds of all operations are less than fifty acres. About one-third are less than ten acres. Fewer than 200 operations (less than 8%) exceed 2000 acres. Major crops include vegetable crops (such as lettuce, broccoli, cauliflower, celery, cabbage and spinach), fruits (such as strawberries and wine grapes), cut flowers, and potted plants. Other crops include mushrooms, artichokes, raspberries, asparagus, carrots, onions, snap peas, and many more.

*Agriculture is concentrated in several major drainages, including the **Salinas Valley** and upper Salinas watershed, the Pajaro Valley, the lower Santa Maria River, the Santa Ynez Valley and the Santa Barbara coastal area, as well as in numerous small drainages throughout the region.*

*A number of factors make agriculture in the Central Coast region unique. In general, farming is on a smaller scale than in the Central or Imperial Valleys. **The Central Coast climate is unique in California and comprises a “niche” in the agricultural industry that distinguishes Central Coast farm products from other areas.** The majority of operations are less than 50 acres. There are no large irrigation districts since most operations use groundwater as their water source. Many properties have been held in families for generations and are leased out rather than sold. The area is considered highly desirable, and growth pressures drive up the price of agricultural rents. There is a mixture of owned and leased lands and many operators own some ranches and lease others. Leases can be either short or long term (one year or more than five years), resulting in varying incentive by lease-holders to implement water quality protection.*

*Crop prices are primarily controlled by the existing market structure. Consolidation in the food industry has resulted in a smaller group of buyers, giving corporate retailers more bargaining power. In addition, local farmers often compete with products from other countries, where the costs of production may be substantially less. **The result is that growers often have little control over the price they are paid even though the costs of producing and delivering products continues to rise.** Additionally, issues of food safety are increasingly dictating practices growers must use in order to sell crops, and **some recommended food***

safety practices may run counter to water quality protection practices. Because of these and other factors, the agricultural industry is extremely sensitive to cost increases and management practice requirements.

The associated monitoring and reporting program specified by the CCRWQCB also acknowledges that cost to dischargers is a factor that must be understood in dealing with water quality concerns (CCRWQCB, 2004c):

“Regional Board staff will work with the cooperative monitoring program to develop a reasonable cost to individuals...”

Importance of Reclamation Ditch Watershed Agriculture

On a per-area basis, the Reclamation Ditch Watershed is one of the most productive food growing areas in the world. The United States may depend more on the Reclamation Ditch Watershed for specific foods than any other single watershed of comparable area.

In order to make these observations, statistics were compiled from the USDA National Agricultural Statistics Service at the County, State, and National Level, and from the United Nations Food and Agriculture Organization at the global level (Table 3.1). Data were compiled for the year 2002, since more recent data were not fully compiled at the global level at the time of publication. Watershed-level figures were estimated by taking the corresponding County-level figures, and scaling them by the ratio of row-crop area within the watershed to the corresponding area within the County as a whole. This was possible because DWR land use mapping data include fields denoting parcels used primarily for vegetables, strawberries, and other crop groups. The estimates for pounds of produce and dollar value rely on an assumption that the production per acre is the same within the Watershed as it is within the County as a whole.

Referring to Table 3.1, some notable statistics are as follows:

- The watershed produces about half a billion dollars of vegetables and strawberries annually.
 - The watershed produces about 9% of the nation’s lettuce and 9% broccoli and 22% of the nation’s strawberries.
 - The watershed produces approximately 6% of the world’s strawberries.
- Monterey County grows 10% of the nations vegetables, 44% of the nation’s lettuce, 43% of its broccoli, and 23% of its strawberries.

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Table 3.1. Estimated agricultural statistics for the Reclamation Ditch Watershed, and its geographic context.

Commercial crop statistics, USA, 2002		Rec Ditch Watershed	% of US	% of World	Monterey County	% of County crop	% of US	California	% of CA crop	% of US	United States	% of US crop	World
Land used (acres) (1000s)	Land	101 d	0.004%		2,127 m		0.09%	99,814 c		4.4%	2,263,961 i		
	Total cropland	41 a	0.009%		368 sc	100%	0.08%	10,994 sc	100%	2.5%	434,165 nc	100.0%	
	Irrigated land	39 a	0.071%		253 sc	69%	0.46%	8,709 sc	79%	15.7%	55,311 nc	12.7%	
	Harvested				260 sc	71%	0.09%	8,466 sc	77%	2.8%	302,697 nc	69.7%	
	Vegetables	39 a	1.142%		181 sc	49%	5.26%	1,025 sc	9%	29.9%	3,433 nc	0.8%	
Crops harvested (acres) (1000s)	Vegetables	57 dwr*	1.5%	0.05%	273 sc		7.37%	1,197 sc		32.4%	3,699 nc		118,999 fao
	Lettuce	24 dwr*	7.7%	1.1%	113 sc		36.83%	220 sc		71.6%	307 nc		2,244 fao
	Broccoli	13 dwr*	8.8%		60 sc		42.2%	121 sc		85.2%	142 nc		
	Strawberries	12 dwrs*	21.3%	2.3%	12 sc		22.3%	32 sc		57.6%	56 nc		509 fao
Pounds (millions)	Vegetables	1,660 dwr*	2.1%	0.1%	7,926 cac*		9.8%	44,932 as		55.8%	80,577 as		1,798,075 fao
	Lettuce	931 dwr*	9.1%	2.1%	4,448 cac		43.6%	7,587 cac		74.4%	10,193 fao		44,089 fao
	Broccoli	161 dwr*	8.9%		769 cac		42.6%	1,622 cac		89.7%	1,808 as		
	Strawberries	407 dwrs*	21.6%	5.8%	425 cac		22.5%	1,535 cac		81.4%	1,886 as		7,055 fao
Market value \$ (millions)	Total ag. (crops, livestock)				\$2,190 sc		1.1%	\$25,737 sc		12.8%	\$200,646 nc		
	Total certified organic ag.				\$10 sc		0.5%	\$149 sc		0.8%	\$393 nc		0.4%
	Total crops				\$2,162 sc		100.0%	\$19,153 sc		100.0%	\$95,152 nc		100.0%
	Vegetables	\$280 dwr*	2.2%		\$1,339 sc		61.9%	\$4,785 sc		25.0%	\$12,786 nc		13.4%
	Lettuce	\$154 dwr*	6.8%		\$736 cac		34.0%	\$1,382 cac		7.2%	\$2,261 qs		2.4%
	Broccoli	\$56 dwr*	10.0%		\$266 cac		12.3%	\$516 cac		2.7%	\$554 as		0.6%
	Strawberries	\$218 dwrs*	18.7%		\$227 cac		10.5%	\$862 cac		4.5%	\$1,163 as		1.2%

a Estimated from combination of DWR land cover data (1997), and CCoWS land cover data (Newman et al., 2003)

c <http://countingcalifornia.cdlib.org/matrix/s7.html>

cac 2002 data, California Agricultural Statistics Service, archiving County Agricultural Commissioners' Reports, <http://www.nass.usda.gov/ca/bul/agcom/indexcac.htm>

cac* 2002 data, Calculated from California Agricultural Statistics Service, archiving County Agricultural Commissioners' Reports, <http://www.nass.usda.gov/ca/bul/agcom/indexcac.htm>

d Digital elevation model analysis (CCoWS)

dwr* Estimate: 2002 data, County data (2002) scaled by DWR land use data (1997) (proportion of watershed vegetable area to county vegetable area)

dwrs* Estimate: 2002 data, County data (2002) scaled by DWR land use data (1997) (proportion of watershed strawberry area to county strawberry area)

fao 2002 data, FAOSTAT, <http://faostat.fao.org/faostat>

i <http://www.infoplease.com/ipa/A0108355.html>

m 2002 data, Monterey County Crop Report

nc 2002 data, USDA NASS Census of Agriculture, National

sc 2002 data, USDA NASS Census of Agriculture, California

as 2002 data, USDA NASS Agricultural Statistics, <http://www.usda.gov/nass/pubs/agstats.htm>

qs 2002 data, USDA NASS QuickStats, calculated from <http://www.nass.usda.gov/QuickStats/>

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Local Importance of Reclamation Ditch Watershed Agriculture

The agricultural industry supports a significant portion of the jobs in the greater Salinas Valley (ADE, 2001). A study conducted by Applied Development Economics (ADE) provided the following summary points:

“The agricultural industry cluster accounts for nearly one-third of all the wage and salary jobs in the county. Considering the indirect jobs supported by agriculture activity, the full economic impact of this cluster is likely much higher than job figures would indicate.”

“About 75% of the jobs in the county are concentrated in the Greater Salinas and Greater Monterey Peninsula Planning Areas.”

“The Salinas area has the greatest concentration of agricultural jobs, followed by the Central Salinas Valley Planning area to the south.”

Several of the County’s top employers are agriculture-related operations based in Salinas or the Reclamation Ditch Watershed. Table 3.2 shows the top 15 employers of Monterey County in 2002. Seven are located in the City of Salinas and four of those are agricultural.

Table 3.2 The fifteen largest employers in Monterey County in 2002. Boldface represents employers directly related to the agriculture industry that are within the Reclamation Ditch Watershed.

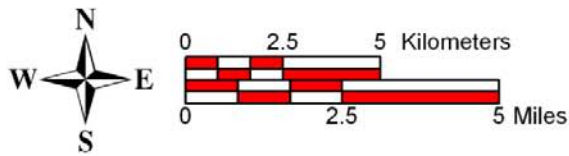
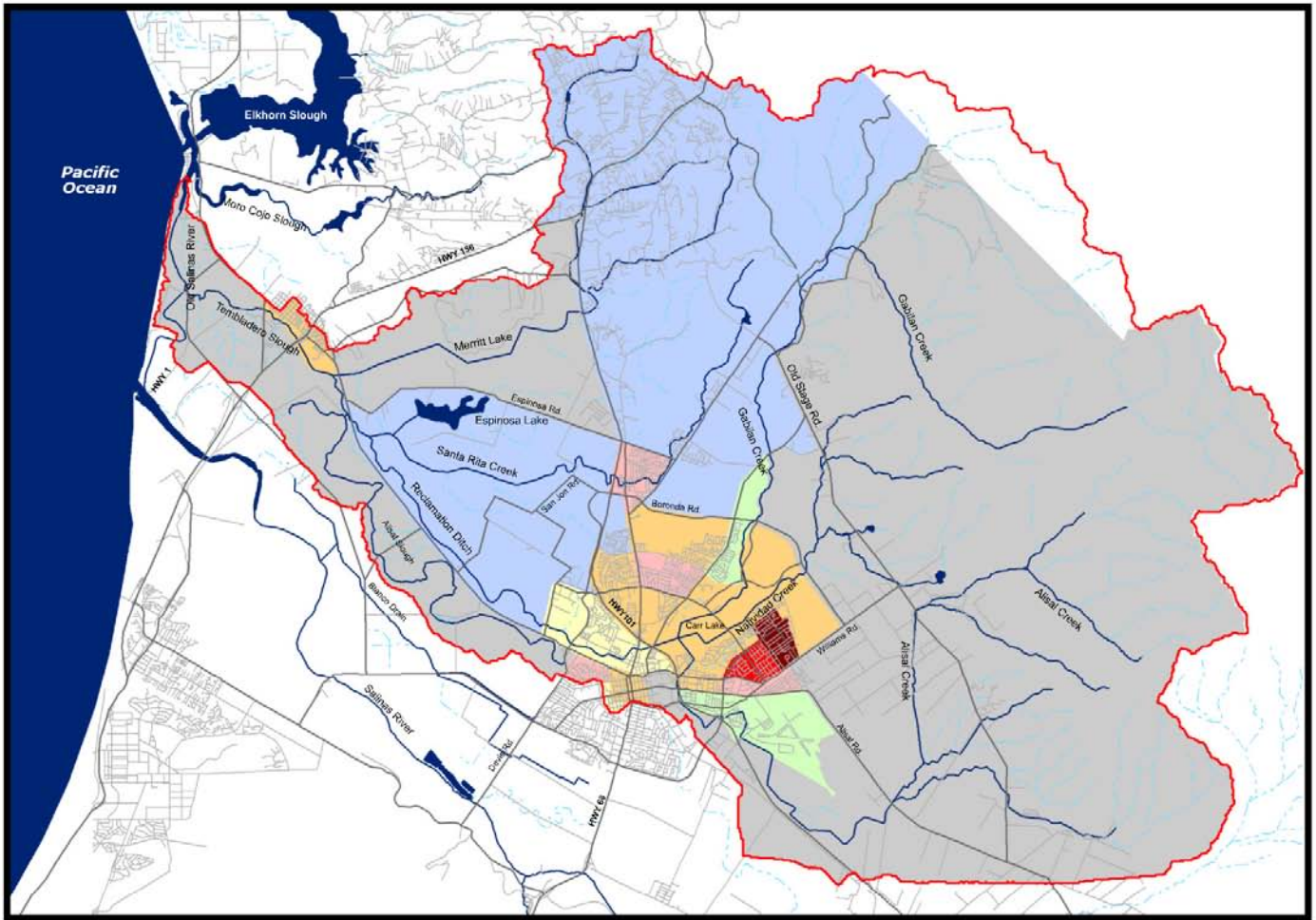
Employer	Location	Location/Industry
Arroyo Labor Contracting Svc	Gonzales	Personnel Supply Services
Bud of California	Soledad	Agricultural
Community Hospital of the Monterey Peninsula	Monterey	Health
D'Arrigo Brothers Co	Salinas	Agricultural
Foothill Packing Inc	Salinas	Services, All Others
Household Credit Svc	Salinas	Business Credit Institutions
Integrated Device Technology	Salinas	Electronic Components & Accessories
McGraw-Hill-CTB	Monterey	Misc. Publishing
Monterey Peninsula College	Monterey	Colleges & Universities
Naval Postgraduate School	Monterey	Government
Norcal Harvesting	Salinas	Agricultural
Pebble Beach Co.	Pebble Beach	Misc. Amusement, Recreation Services
Premium Harvesting & Packing	Salinas	Agricultural
Quality Farm Labor	Gonzales	Personnel Supply Services
Salinas Valley Memorial	Salinas	Health

Data source: <http://www.calmis.ca.gov/file/majorer/monteer.htm>

Population Density In the Reclamation Ditch Watershed

The Reclamation Ditch Watershed is home to a diverse community of approximately 170,000 people. Figure 3.1 shows the distribution and density of the population within the Watershed – mapped according to Census Tracts. Monterey County’s population is one of the fastest growing counties in the state of California (LWMC, 1999). In 1997 and 1998, the population of Monterey County grew 4.7% and 2.7% respectively (LWMC, 1999). In the Reclamation Ditch Watershed, the population has experienced significant growth in the past decade, with most of this growth being centered in the City of Salinas. Between 1997 and 2000 the population of Salinas increased by 38.9% from 108,777 (1990) to 151,060 (2000) (USCB, online).

In the Census 2000 data, the population density of the two densest tracts in Salinas was in the top 2% among all 7058 tracts in the State. Other tracts in Salinas and Castroville are moderately dense, while the remainder of the watershed is relatively sparsely populated. Future city development is planned for areas northeast and east of the current boundary of Salinas (City of Salinas, 2002). Recent drafts of the Monterey County DRAFT General Plan show additional future growth in the watershed in the areas of Castroville, Boronda, Prunedale, and Rancho San Juan.



Map produced: Janna Hameister, Joel Casagrande & Fred Watson
 Streams: USGS NHD dataset
 Roads: Monterey County
 Population: U.S. Census Bureau
 (c) CCoWS, 2004



Population Density: 2000 Census
 (# of people per km sqr)



Figure 3.1 Population density (2000) by census tract for the Reclamation Ditch Watershed and surrounding areas.

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