

12 Financial Planning

12.1 Regional Economic Profile

12.1.1 *Overview of Jurisdictions in the Flood Regions*

The Mid & Upper Sacramento River Flood Regions (hereafter referred to as the “Regions”) are located along the northern California Central Valley, in various non-contiguous areas stretching approximately from just north of Knights Landing (in Yolo County) at the south to the community of Gerber (in Tehama County) at the north. A small, unincorporated portion of Lake County is also included in the Regions, although it is not physically located in the valley but is instead approximately 45 miles away along the shore of Clear Lake. The boundaries of the Regions include small portions of several counties, including Butte, Colusa, Glenn, Lake, Sutter, Tehama, and Yolo, as shown in Figure 1-1.

While the southern boundary of the Regions are in reasonably close proximity to the Sacramento metropolitan area (the City of Woodland is approximately 7 miles away), the remainder of the Regions situated to the north are remote and not easily accessible to urban metropolitan areas. These northern communities are relatively insulated and separate from the economic activity concentrated in more urban metropolitan areas of Northern California.

Table 12-1 shows the number of residents and households in various geographies of the Regions. As shown, the Regions themselves are quite small in terms of population with just over 100,000 residents. Of the developed areas within the Regions, the city of Chico is the largest urban center, which includes a population of over 80,000 residents. Aside from Chico, the Regions are made up mostly of a host of very small, unincorporated communities.

In addition to the variety of communities located within the Regions, there are several more in close proximity but technically outside the Regions’ official boundaries. These communities range in size from just 400 residents (in the unincorporated community of Tehama) to 65,000 in the largest community (the city of Yuba City).

Table 12-1. Regions Population/Household Overview

Area	Population		Housing Units	
	Number	% of CA	Number	% of CA
State of California	37,966,000	100%	13,786,000	100%
Flood Regions [1]	99,671	0.26%	42,364	0.31%
Cities Partially or Entirely Within the Flood Regions [2]				
Chico	88,389	0.23%	38,146	0.28%
Colusa	6,171	0.02%	2,366	0.02%
Total	94,560	0.25%	40,512	0.29%
Other Rural Communities Within the Flood Regions [4]				
Durham CDP	5,518	0.01%	2,242	0.02%
Gerber	1,060	0.00%	373	0.00%
Grimes CDP	391	0.00%	145	0.00%
Hamilton City CDP	1,759	0.00%	583	0.00%
Meridian CDP	358	0.00%	161	0.00%
Nord	320	0.00%	57	0.00%
Richvale	244	0.00%	121	0.00%
Robbins	323	0.00%	127	0.00%
Upper Lake	1,052	0.00%	400	0.00%
Cities Located Outside the Flood Regions But Part of Economic Region [5]				
Oroville	15,980	0.04%	6,408	0.05%
Yuba City	65,677	0.17%	23,280	0.17%
Marysville	12,266	0.03%	5,211	0.04%
Woodland	57,223	0.15%	20,064	0.15%

[1] From Claritas, as provided by DWR.

[2] Figures are from California Department of Finance, E-1 file, and represent 2014 data.

[4] From 2010 US Census.

[5] Only cities with over 10,000 residents are shown. Figures are from California Department of Finance (2014).

Sources: California DOF table E-1: City/County Population Estimates. January 2014. US Census Bureau, Claritas, New Economics & Advisory

12.1.2 *Regions Land Use Breakdown*

Table 12-2 provides a breakdown of the Region’s land uses as shown in Chapter 2 of the report. This land use breakdown is indicative of the land available to potentially provide funding for future infrastructure. This land use breakdown is separate from the land use makeup of the Regions that would typically appear on appear on County Assessor rolls as available to generate property assessments or taxes to fund infrastructure improvements and services. As shown, much of the Regions’ land is dedicated to farmland and grazing, while only a very small portion (3 percent) is made up of urbanized and developed areas.

Table 12-2. Regions Land Uses

Land Use Type	Mid Sac Region	Upper Sac Region	Total Regions	% of Regions
Urban Built-up Land	3,293	15,956	19,249	3%
Native Vegetation & Grazing Land	58,589	34,453	93,042	15%
Local & Unique Farmland	72,476	13,514	85,990	14%
Prime & Statewide Important Farmland	277,778	152,981	430,759	68%
Non-Urbanized Land	408,843	200,948	609,791	97%
Total	412,136	216,904	629,040	

Source: Regional Atlas

The Regions are primarily rural with an emphasis in farming and grazing industries, as further described in more detail.

12.1.3 Industry Employment Trends

Employment patterns and industry specializations in the Regions can be understood by evaluating the concentration of jobs by sector for the County compared to California as a whole. For purposes of economic development, a concentration level of 120% or greater generally indicates that a region is “specialized” in that particular sector, a level of 80% to 120% suggests that the region’s level is commensurate with the statewide average for that sector, and a level of 80% or less suggests that a region may have insufficient levels in the sector. Table 12-3 shows employment concentrations by industry for the seven Regions’ counties as of 2010. As shown, the Regions Counties enjoy very high employment concentrations in Agriculture, Forestry/Fishing, industries, while Utilities, Transportation & Warehousing, and State/Local Government are specialized as well.

Table 12-3. Employment by Industry, Regions Counties (2010)

Industry	California		Regions Counties		Rg's Counties as a % of CA
	Number	% Total	Number	% Total	
Specialized Industries					
Farm Employment	210,650	1.07%	14,950	4.65%	436%
Forestry, Fishing & Other	200,820	1.02%	8,550	2.66%	261%
Utilities	59,210	0.30%	1,760	0.55%	182%
Transportation & Warehousing	563,860	2.86%	12,660	3.94%	138%
State & Local Govt	2,125,960	10.79%	57,810	18.00%	167%
Under-Specialized Industries [1]					
Professional & Tech Services	1,726,160	8.76%	17,430	5.43%	62%
Management & Enterprises	207,090	1.05%	2,140	0.67%	63%
Information	545,850	2.77%	3,530	1.10%	40%
Educational Services	431,970	2.19%	3,000	0.93%	43%
Administrative & Waste Services	1,211,140	6.14%	12,280	3.82%	62%
Manufacturing	1,329,310	6.74%	14,380	4.48%	66%
Arts, Entertainment & Rec	536,130	2.72%	5,590	1.74%	64%
Finance & Insurance	1,117,670	5.67%	12,850	4.00%	71%
Federal Military Govt	214,330	1.09%	1,070	0.33%	31%
Other Industries	9,231,110	46.83%	153,170	47.69%	
Total	19,711,260	100.00%	321,170	100.00%	

[1] Represent industries that possess an employment concentration that is less than 80% of the statewide average.
Sources: Woods & Poole Economics 2012 State Profile

It is worth noting that the industries that represent the largest concentration in the Regions counties generally display relatively low anticipated growth rates, or are even projected to shrink in some cases. Table 12-4 shows employment growth rates by industry from 2010 to 2040. As shown, of the “specialized” industries, only the Forestry/ Fishing industry is projected to grow at a substantive rate by 2040, while the Utilities industry are projected to lose employees and Agriculture is projected to grow only a very small amount (less than 2% over a 30 year period).

There are other industries in the Regions, however, which present better opportunities for future growth. For example Wholesale Trade and Professional/ Technical Services display anticipated growth rates of 50% or more by 2040, and the Mining and Real Estate/ Rental/ Leasing industries are expected to grow quickly as well. Overall, employment growth in the Regions counties is expected to occur at a rate of approximately 25 percent by 2040, which is significantly slower than the predicted statewide rate of approximately 47 percent.

Table 12-4. Employment Growth by Industry, Regions Counties

Industry	2010 Jobs		2040 Jobs		Percentage Growth
	Number	% Total	Number	% Total	
Specialized Industries [1]					
Farm Employment	14,950	4.7%	15,230	3.8%	1.9%
Forestry Fishing and Other	8,550	2.7%	11,220	2.8%	31.2%
Utilities	1,760	0.5%	1,660	0.4%	-5.7%
Transportation & Warehousing	12,660	3.9%	14,380	3.6%	13.6%
State and Local Government	57,810	18.0%	64,790	16.2%	12.1%
Other Fast-Growing Industries					
Professional and Technical Services	17,430	5.4%	27,360	6.8%	57.0%
Wholesale Trade	10,220	3.2%	15,540	3.9%	52.1%
Mining	1,110	0.3%	1,640	0.4%	47.7%
Real Estate, Rental & Lease	13,230	4.1%	18,540	4.6%	40.1%
Other Industries	183,450	57.1%	229,470	57.4%	25.1%
Total	321,170	100.0%	399,830	100.0%	24.5%

[1] Specialized Industries are those with an employment concentration level of 1.2 or greater (see Table 12-3).
Sources: Woods & Poole Economics 2012 State Profile

12.1.4 *Performance of Flood Regions Economic Drivers*

As indicated by employment data shown in Table 12-3 and Table 12-4, the Regions' primary economic driver is agriculture, with the seven Regions counties producing over \$4.2 billion in agricultural output in 2012, as summarized in Table 12-5. The table displays the top three crops for each county. The primary crops in the various counties vary, but the most prevalent crops among Regions counties include rice, walnuts, and almonds.

Table 12-5. Major Crops, 2012 (Regions Counties)

Crop	Total Production Value	% of Total	Harvested Acres
BUTTE COUNTY			
Walnuts	\$234,540,000	33%	37,970
Almonds	\$160,931,000	22%	39,756
Rice	\$154,574,000	21%	94,451
Other Misc.	\$171,389,000	24%	N/A
Total Gross Production	\$721,434,000	100%	
COLUSA COUNTY			
Rice	\$245,111,000	34%	149,860
Almonds	\$176,024,000	25%	45,335
Tomatoes	\$41,481,000	6%	13,468
Other Misc.	\$248,976,000	35%	N/A
Total Gross Production	\$711,592,000	100%	
GLENN COUNTY			
Rice	\$145,551,000	21%	84,760
Almonds	\$131,229,000	19%	36,259
Walnuts	\$121,987,000	18%	19,545
Other Misc.	\$298,263,000	43%	N/A
Total Gross Production	\$697,030,000	100%	
LAKE COUNTY			
Grapes	\$47,879,568	56%	8,156
Pears	\$24,128,000	28%	2,130
Walnuts	\$6,534,400	8%	3,291
Other Misc.	\$6,300,443	7%	N/A
Total Gross Production	\$84,842,411	100%	
SUTTER COUNTY			
Rice	\$169,920,000	32%	116,648
Walnuts	\$114,794,000	22%	26,060
Dried Plums	\$52,561,000	10%	15,648
Other Misc.	\$189,729,000	36%	N/A
Total Gross Production	\$527,004,000	100%	
TEHAMA COUNTY			
Walnuts	\$103,415,100	13%	21,753
Olives	\$37,895,200	5%	6,365
Almonds	\$27,666,500	3%	9,396
Other Misc.	\$624,022,300	79%	N/A
Total Gross Production	\$792,999,100	100%	
YOLO COUNTY			
Tomatoes, Processing	\$111,566,739	17%	36,843
Grapes, Wine (all)	\$66,293,028	10%	6,440
Rice	\$60,012,106	9%	40,461
Other Misc.	\$407,894,631	63%	N/A
Total Gross Production	\$645,766,504	100%	
Total Regions Counties	\$4,180,668,015		

Sources: 2012 County Agricultural Reports, Butte, Colusa, Glenn, Lake, Sutter, Tehama and Yolo Counties

Table 12-6 identifies major employers in the Regions counties, and further demonstrates the influence of agriculture on the regional economy. As shown, of the 30 largest employers in the Regions counties, approximately one-quarter are in some way related to agriculture.

Major institutional entities such as California State University, Chico, and the Rideout and Enloe Medical Centers and various local governments and school districts are also major employers and strong influences in the Regions' economy. Although it is not physically located within the Regions, Beale Air Force Base in Yuba County is another major institution that affects the economy of the Regions by employing nearly 6,000 residents of its surrounding areas. The logistics/ transportation industries are also significant contributors to the Regions' economy, as Interstate 5 and California State Routes 99 and 70 travel directly through or in close proximity to the area. Of the thirty largest employers in the Regions counties, several are related to the logistics/ transportation industries, as shown in Table 12-6.

Table 12-6. Top Employers in Regions Counties [1]

Employer	Location	Estimated Employees	Employer	Location	Estimated Employees
Calif. State Univ., Chico	[1] Butte Co.	2,500	Shannon Ranches	[1] Lake Co.	500
Rideout Regional Medical Center	[1] Butte Co.	2,500	Sierra Pacific Industries	[1] Tehama Co.	500
Walmart Distribution Center	[1] Tehama Co.	2,500	Sunsweet Growers, Inc.	[1] Sutter Co.	500
Enloe Medical Center	[1] Butte Co.	2,500	Sutter Lakeside Hospital	[1] Lake Co.	500
Pacific Coast Producers	[1] Butte Co.	2,500	Colusa Casino Resort	[1] Colusa Co.	500
Freemont Rideout Health Group	[2] Sutter Co.	1,800	Sierra Nevada Brewing Co.	[4] Chico, Butte Co.	363
Yuba City Unified School District	[2] Sutter Co.	1,320	Sysco Food Service of Sacramento	[2] Sutter Co.	352
County of Sutter	[2] Sutter Co.	950	Build.com	[4] Chico, Butte Co.	270
County of Yuba	[3] Yuba Co.	878	Tehama County Education Dept.	[1] Tehama Co.	250
Sunsweet Growers, Inc.	[2] Sutter Co.	700	Adobe Creek Packing Co.	[1] Lake Co.	250
Walmart Yuba City	[2] Sutter Co.	525	Bell-Carter Olive	[1] Tehama Co.	250
Feather River Hospital	[1] Butte Co.	500	Calpine	[1] Lake Co.	250
Lifetouch	[1] Butte Co.	500	Mariani Dryers	[1] Lake Co.	250
Lodge at Feather Falls	[1] Butte Co.	500			

Bold signifies agriculture-related companies

[1] Does not include Yolo County, since it includes only a small portion of the Flood Area which has very few employers. Furthermore, the top employers in Yolo County are more associated with serving urban populations in the Sacramento metropolitan region and are not closely aligned with the local economy of the Mid- and Upper Sacramento River Flood Regions.

[2] State of California EDD Labor Market Info. 2014. Midpoint of range used.

[3] Sutter County Top Employers. Sacramento Business Journal Book of Lists. January 13, 2012.

[4] Chico Economic Development Corporation. 2014.

While agriculture is by far the dominant industry driver, and logistics plays a supporting role, tourism and entertainment also assists in attracting economic activity to the Region. Casinos in Colusa and Oroville are a significant draw to the Regions counties, offering a visitor experience that includes gaming options and high-quality ancillary attractions. In addition to these entertainment options, other nearby outdoor amenities such as lakes, hunting, etc. support the tourism industry in the Regions. Aside from the industries described above, the remainder of major employers include federal and state government agencies and other, mostly population-serving entities (such as retail and health care).

Being the largest city in the surrounding area, Chico is the primary hub of economic activity in the Regions. Chico's economy is much more diversified than many of the other smaller

communities in the Regions; with a university, airport, and a host of activity in the logistics, retail, manufacturing, and professional services sectors, Chico provides a fully array of amenities, employment opportunities, and retail goods and services within the Regions.

12.1.5 Commercial Real Estate Assessment

Being a primarily rural area, established commercial real estate nodes in the Regions are limited primarily to the larger communities. The City of Chico in particular includes the most substantial concentration of commercial and industrial space, as it houses the majority of the commercial, industrial, civic, educational, and cultural activity within the Regions.

Table 12-7 summarizes the commercial office, retail, and industrial markets in Chico, as compared to other urban areas such as Sacramento and the San Francisco Bay Area. As shown, the asking rents for retail, office, and industrial real estate in the Regions are generally significantly less costly than the Sacramento region, and, in most cases, just a fraction of the prices found in the San Francisco Bay Area.

Table 12-7. Regions Commercial Lease Rates

Area	Asking Lease Rates (\$/Sq. Ft./Mo.)		
	Retail	Office	Industrial
Bay Area	N/A	\$4.25 [1]	\$0.60 [2]
Sacramento Region	\$1.46	\$1.66	\$0.43
Regions Submarkets			
Chico	\$1.26 [3]	\$1.31 [3]	\$0.25 - \$0.75 [4]

Prepared by New Economics & Advisory

[1] Reflects San Francisco Peninsula Market, as of 2013 Q3.

[2] Reflects 2012 Q3 for Tri-Valley market.

[3] From Reis, Inc. March 2013.

[4] Based on review of listing data from Loopnet, April 2014

12.1.6 Socio-Economic Characteristics of the Economic Region

Table 12-8 provides a summary of recent socio-economic data available for the State, cities within the Regions, and Regions counties. As shown, the median household income in the Regions is significantly lower than the statewide average. However, it should also be noted that home prices (which generally constitute a household's single largest expenditure) are significantly lower in the Regions, improving overall affordability and quality of life for local residents. Other indicators presented in Table 12-8 demonstrate that although median income levels in the Regions are relatively low, other indicators such as poverty rates, unemployment rates, and educational attainment rates are actually quite favorable.

Table 12-8. Regions Economic Indicators [1]

Area	Unemployment Rate [2]	Median HH Income	Percentage of Individuals Below the Poverty Line	Percentage of Residents HS Grad or Higher
Regions [3]	8.7%	\$43,755	11.8%	88.1%
California	7.4%	\$61,400	15.3%	81.0%
Regions Counties				
Butte	8.3%	\$43,339	20.6%	86.7%
Colusa	14.9%	\$21,419	15.2%	69.5%
Glenn	10.2%	\$42,641	19.5%	73.5%
Lake	9.1%	\$38,147	23.7%	86.9%
Sutter	13.3%	\$50,510	17.0%	77.9%
Tehama	9.4%	\$40,307	20.3%	80.3%
Yolo [4]	11.9%	\$57,260	18.7%	84.2%
Cities in Regions				
Chico	11.3%	\$42,896	22.9%	90.5%
Colusa	10.4%	\$5,971	13.5%	75.2%

[1] All data is from US Census Bureau American FactFinder, unless otherwise noted.

[2] Unemployment data from California Employment Development Department, June 2014.

[3] Flood Regions data from Claritas for 2013.

[4] Data for Yolo County (provided by the California Employment Development Department) is from July 2014.

12.1.7 Disadvantaged Communities

Identified on a census tract basis as a unit of analysis, the State of California defines a disadvantaged community to be those geographical census tracts or contiguous arrangement thereof to have a median household income at 80% or less than that of the state at-large. Median household income has been determined from the Census Bureau’s American Community Survey (ACS) from 2010. While the Median Household Income for California was determined to be \$61,400, any designated area with a Median Household Income of \$49,120 or below would be considered a disadvantaged community.

For the Regions, Table 12-8 shows the Median Household Income to be \$43,755, 71% of the statewide Median Household Income of \$61,400. This figure falls below the 80% threshold to be considered disadvantaged. Table 12-9 shows a number of communities within the Regions to be disadvantaged, their population, individual median household incomes, and the threshold percentage of that median household income below the percentage below the statewide median income. There are seven communities in the Regions with median household incomes below the state 80% median income threshold to be considered disadvantaged.

Table 12-9. Regions Disadvantaged Communities

DAC Urban Area	Population	No. Housing Units	Median Household Income	Percent of Statewide Median
California	37,966,000	13,786,000	\$61,400	-
Gerber	929	326	\$27,000	44%
Hamilton City	1,875	497	\$27,433	45%
Grimes	391	88	\$31,579	51%
Chico	85,130	33,849	\$41,835	68%
Robbins	559	172	\$47,214	77%
Colusa	6,171	2,106	\$47,596	78%
Meridian	400	176	\$47,750	78%

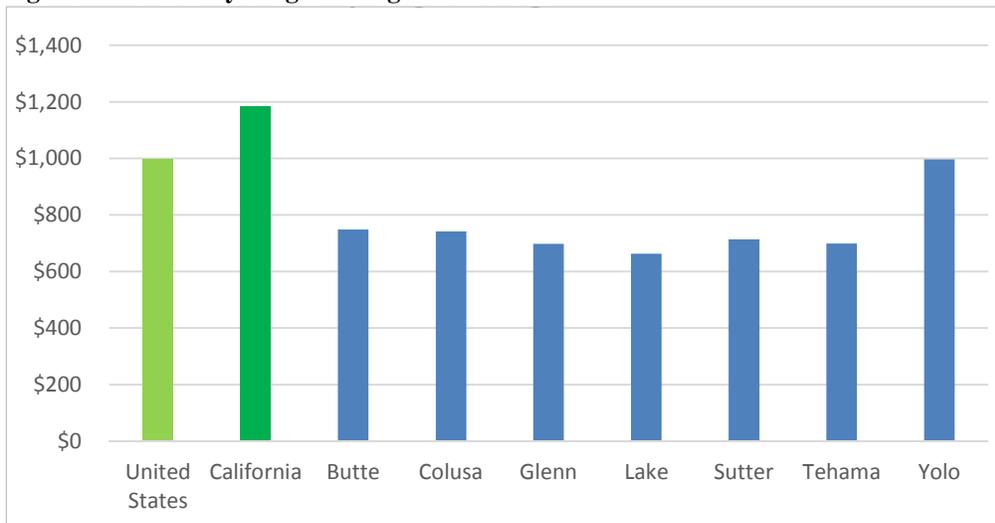
Sources: Data from California Department of Water Resources, www.water.ca.gov/irwm/grants/resourceslinks.cfm.

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12.1.8 Wages in the Economic Region

In addition to the low cost of commercial real estate in the Regions, wages are also significantly lower than other areas in the state, making it an attractive place to do business from a cost standpoint. According to the Bureau of Labor Statistics, the average weekly wage paid to California workers in the U.S. is \$1,000, while the California average is 1,186. Similar data collected for the Regions demonstrate that wages in the Regions counties are significantly below the statewide average, ranging from \$660 to \$997 per week. These wages are significantly below those paid in many Sacramento and Bay Area counties, which can range from \$1,000 to \$3,200 per week or more in some cases.

Figure 12-1. Weekly Wages in Regions Counties

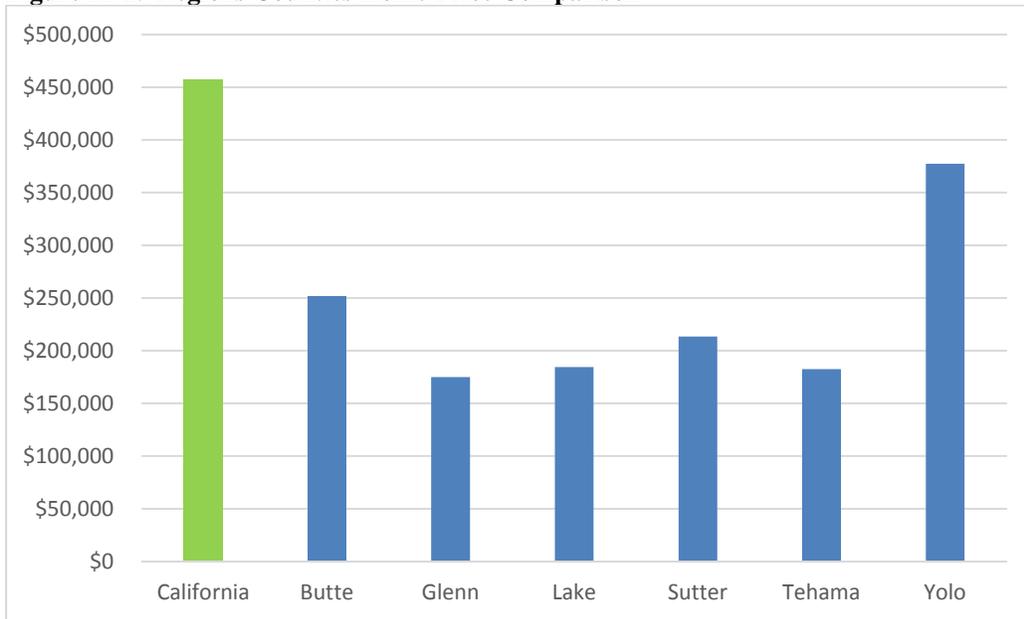


Source: Bureau of Labor Statistics, Q4 2012

12.1.9 Residential Real Estate Assessment

The Regions provide a range of home price options, which are generally much less costly than the prices found in other more urban areas of California. However, as opposed to other more “affordable” housing locations in California such as the Central Valley, commuting opportunities to urban markets are much less prevalent. Figure 12-2 shows home prices in the Regions counties as compared to the statewide median. As shown, the median home prices in Regions are significantly generally lower than the California overall, ranging from \$175,000 in Glenn County to \$251,000 in Butte County (which are just 38 percent and 55 percent of the statewide median, respectively). Being located closer to urban centers, Yolo County has a slightly higher median home price (at \$377,000), but this is still significantly lower than statewide median.

Figure 12-2. Regions Counties Home Price Comparison

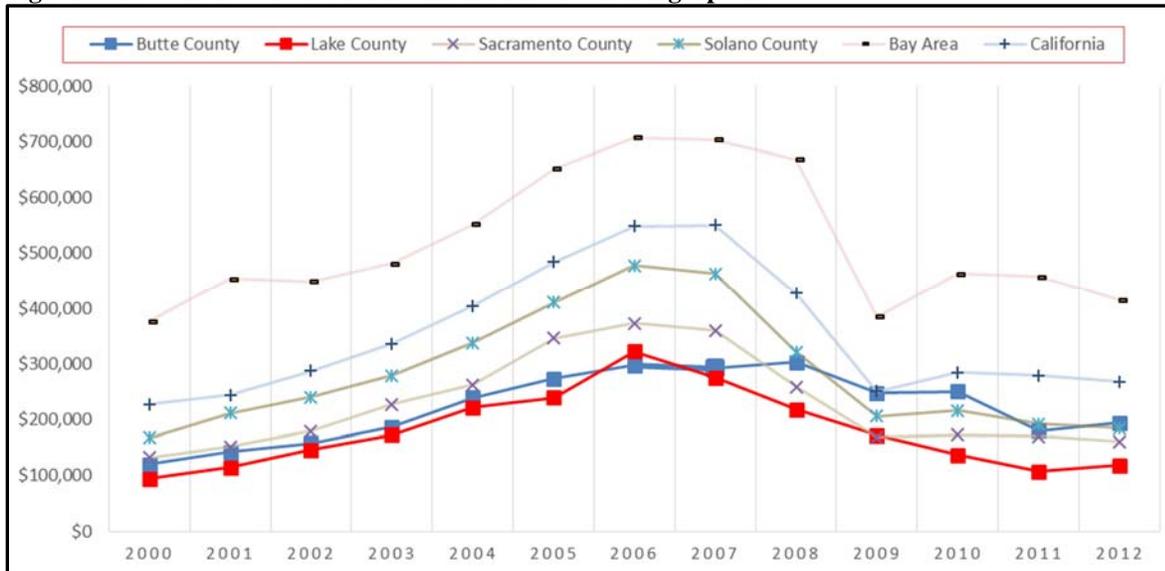


Source: California Association of Realtors County Sales and Price Report, June 2014

Like other areas of California and the rest of the nation, the Regions saw home values decline during the “Great Recession” which began in 2008. However, home prices in the Regions counties actually fared better than many other urban markets indicating its insularity from other areas of the state. Figure 12-3 shows the median home prices of the Regions counties of Butte and Lake, as compared to other nearby geographies in each year from 2001 to 2012.¹ As shown, each area experienced rapid home price declines from approximately 2007 to 2009, and then a period of stagnant growth from 2009 to 2012. However, the Regions counties did not experience the massive surge and “crash” that was seen in other areas, but instead experienced a “flatter” trajectory. Furthermore, Regions home prices rebounded much more quickly than the comparison areas (beginning in 2011), while most other areas were still stagnant or undergoing declines.

¹ Note that other Regions counties were not available from the California Board of Realtors.

Figure 12-3. Median Home Values – Select California Geographies



Source: California Association of Realtors

12.1.10 Future Growth Prospects

The California State Department of Finance projects that the state’s population will grow, on average, by less than 1 percent annually through 2035. Since the same level of demographic and employment data is generally unavailable at a sub-county level, projected growth within the Regions was analyzed county-wide, and supplemented by data from the cities or other sources, as available. While this does not project housing units or employees for the Regions boundaries specifically, these data points provide insight into the potential level of growth that could be anticipated in jurisdictions in or around the Regions.

Table 12-10 summarizes that the Regions counties are anticipated to grow by nearly 99,000 new housing units (0.69% percent annually), and by approximately 79,000 jobs (0.73% annually) by 2040. These rates are significantly lower than the anticipated statewide growth rates.

Taking a more focused look at the predicted growth within the two cities in the Regions sheds light on growth rates in the more urbanized areas. The cities of Chico and Colusa alone are projected to add approximately 24,000 housing units through 2040, constituting an annual growth rate of 1.57 percent, which is significantly higher than statewide average. This growth is based on projections from the Butte County Council of Governments and the City of Colusa through 2035 and extended by five years to reach 2040.

Employment growth in the Regions boundaries specifically, is more difficult to predict, since employment projections are not available on a sub-county level for any of the jurisdictions within the Regions. As such, this analysis has assumed that the jobs-housing relationship in Regions jurisdictions will remain largely the same in the future, and has thus projected future job growth in Chico and Colusa by taking future projections for housing, and applying the existing jobs/ housing ratios for each city. Based on this methodology, the cities of Chico and Colusa are

projected to add approximately 26,000 employees through 2040, constituting an annual growth rate of 1.94 percent.

While this analysis of growth around the Regions is somewhat imprecise resulting from a lack of available data, these indicators provide insight into the expected demand for new housing and commercial development. While new development creates new impacts associated with the demand for flood risk mitigation (by virtue of increases of the consequences of a flood), new residential and commercial development could also provide additional resources to fund future improvements and services.

Table 12-11 contains supporting data for and methodologies for the projection calculations.

Table 12-10. Potential Growth (Through 2040) Regions Jurisdictions

Item	Residential Units	Jobs
<u>Regions Counties</u>		
Year: 2013	694,040	321,190
Year: 2035	823,370	385,610
Resulting Avg. Annual Growth Rate	0.69%	0.73%
Projected: 2040	851,995	399,968
Growth: 2013 - 2040	157,955	78,778
<u>Regions Cities</u>		
Year: 2013	40,058	41,572
Year: 2035	59,164	61,361
Resulting Avg. Annual Growth Rate	1.57%	1.94%
Projected: 2040	63,963	67,545
Growth: 2013 - 2040	23,905	25,973

Sources: California DOF, BCAG, City of Chico, City of Colusa, and New Economics & Advisory

Table 12-11. Growth Forecasts in Regions Jurisdictions

Jurisdiction	Current Estimate		Future Projection 1				Future Projection 2					
	Year [1]	Amount	Year	Total Amount	Avg Ann Growth Rate	Total Growth	% of Total	Year	Total Amount	Avg Ann Growth Rate	Total Growth	% of Total
CALIFORNIA												
Population (in 1,000s)	2013	37,966	2020	40,818	1.04%	NA	NA	2035	46,330	0.85%	NA	NA
Employees (in 1,000s)	2010	19,711	2020	22,272	1.23%	NA	NA	2035	27,212	1.34%	NA	NA
HOUSING UNITS IN REGIONS COUNTIES [1]												
Butte	2010	220,070	2020	228,790	0.39%	8,720	18%	2035	241,920	0.37%	21,850	17%
Colusa	2010	21,470	2020	22,550	0.49%	1,080	2%	2035	24,170	0.46%	2,700	2%
Glenn	2010	28,130	2020	28,790	0.23%	660	1%	2035	29,760	0.22%	1,630	1%
Lake	2010	64,770	2020	67,200	0.37%	2,430	5%	2035	71,020	0.37%	6,250	5%
Sutter	2010	94,810	2020	107,980	1.31%	13,170	28%	2035	128,240	1.15%	33,430	26%
Tehama	2010	63,600	2020	67,900	0.66%	4,300	9%	2035	74,670	0.64%	11,070	9%
Yolo	2010	201,190	2020	218,470	0.83%	17,280	36%	2035	253,590	1.00%	52,400	41%
SUBTOTAL	2010	694,040	2020	741,680	0.67%	47,640	100%	2035	823,370	0.69%	129,330	100%
HOUSING UNITS IN PRIMARY REGIONS JURISDICTIONS												
Chico [2]	2013	37,772	2020	42,019	1.53%	4,247	99%	2035	56,514	2.00%	18,742	98%
Colusa [3]	2013	2,286	2020	2,322	0.22%	36	1%	2035	2,650	0.88%	364	2%
SUBTOTAL	2010	40,058	2020	44,341	1.02%	4,283	100%	2035	59,164	1.57%	19,106	100%
EMPLOYEES IN REGIONS COUNTIES [1]												
Butte	2010	101,320	2020	105,190	0.38%	3,870	17%	2035	111,530	0.39%	10,210	16%
Colusa	2010	10,530	2020	10,850	0.30%	320	1%	2035	11,910	0.62%	1,380	2%
Glenn	2010	11,410	2020	11,360	-0.04%	(50)	0%	2035	11,770	0.24%	360	1%
Lake	2010	21,490	2020	22,000	0.23%	510	2%	2035	23,840	0.54%	2,350	4%
Sutter	2010	41,070	2020	49,030	1.79%	7,960	34%	2035	55,740	0.86%	14,670	23%
Tehama	2010	22,260	2020	23,670	0.62%	1,410	6%	2035	27,160	0.92%	4,900	8%
Yolo	2010	113,110	2020	122,340	0.79%	9,230	40%	2035	143,660	1.08%	30,550	47%
SUBTOTAL	2010	321,190	2020	344,440	0.70%	23,250	100%	2035	385,610	0.73%	64,420	100%
EMPLOYEES IN PRIMARY REGIONS JURISDICTIONS												
Chico [4] [5]	2013	39,085	2020	43,480	1.53%	4,395	99%	2035	58,478	2.00%	19,393	98%
Colusa [4] [5]	2013	2,487	2020	2,526	0.22%	39	1%	2035	2,883	0.88%	396	2%
SUBTOTAL	2013	41,572	2020	46,006	0.85%	4,434	100%	2035	61,361	1.94%	19,789	100%

[1] County level data from Woods & Poole.
 [2] Chico housing unit current estimates from California DOF for 2013, and projections from the Butte County Council of Governments Long-Term Regional Growth Forecast. Represents the "medium" growth scenario.
 [3] Colusa housing unit current estimates from California DOF for 2013, and projections use the 10-year projections from the City's housing element, and interpolate long-term future growth at the same rate.
 [4] Current employees in Chico and Colusa provided by the California Employment Development Department.
 [5] Employment growth in Chico and Colusa was estimated by assuming that these cities maintain their existing jobs/ housing ratios through 2035.

Sources: Butte County Long-Term Regional Forecasts 2010-202, Prepared by Butte County Association of Governments, January 26, 2011; Woods and Poole, 2012 (for California employment projections); DOF County-level population projections; California Employment Development Department for current employees in Chico and Colusa.

12.1.10.1 Planned Development

Table 12-12 contains a list of known proposed and planned projects in the Regions jurisdictions, with their corresponding land use plans among major categories. The cities of Chico and Colusa are the only jurisdictions with formal development plans in the Regions that have either been proposed for approval or received jurisdictional approval but have not yet been constructed. The projects shown in Table 12-12 serve to illustrate the scale of new development that could potentially occur within the next real estate cycle; however, many additional projects would need to be developed to achieve the growth projections envisioned for these communities. As shown, there are currently over 10,000 residential units planned for development in the cities of Chico and Colusa.

Table 12-12. Select Approved, Proposed and Planned Projects in the Regions

Jurisdiction	Residential Units	Commercial Acres	
		BP/Ind	Commercial
City of Chico			
Gateway at Butte Creek	600	64	105
Meriam Park [1]	2,104	25	25
Oak Valley	1,324	0	0
Other Approved Projects	2,025	0	0
Total City of Chico	6,053	89	130
City of Colusa			
Tennant Estates	101	0	0
Colusa Riverbend Estates (Colusa Riverbend Ph. 1)	271	0	0
Colusa Riverbend Future Phases	2,259	0	0
Colusa Crossing Area Plan	1,380	0	25
Brookins Ranch Estates	600	0	0
Colusa Industrial Park [2]	0	138	0
Total City of Colusa	4,611	138	25
TOTAL MAJOR IDENTIFIED PROJECTS	10,664	227	155
Sources: City of Colusa, City of Chico, New Economics & Advisory			
[1] Meriam Park commercial acres estimated. Figures may change based on flexible zoning allowance.			
[2] An additional 500 acres of commercial industrial has been proposed to be processed in the			

[1] Meriam Park commercial acres estimated. Figures may change based on flexible zoning allowance.

Sources: City of Colusa, City of Chico, New Economics & Advisory

12.1.10.1.1 Regional Economic Profile Findings

- Aside from the cities of Chico and Colusa, which include varying levels of urbanized development, the Regions are largely rural and sparsely unpopulated. The Regions boundaries meander through unincorporated portions of 7 counties that are primarily rural, and only 3 percent of the land area within the Regions is comprised of urban built up land.
- The economy of the Regions and surrounding area is primarily driven by agriculture and related activities such as food processing and storage. Logistics and distribution is another strong industry in its own right, owing to the Regions' central location between key urban markets and along key transportation routes. While these industries display the largest concentration in the Regions currently, they are generally projected to grow at very slow rates in the future, and some are even predicted to decline over time. Other industries such as Wholesale Trade, Professional/ Technical Services, Real Estate/ Rental/ Leasing, and Management and Enterprises, while smaller are projected to grow at much higher rates.
- Chico is the largest urbanized area within the Regions, and serves as a central hub for the surrounding rural areas, providing key services and activities such as retail, health care, banking, higher education, etc. In particular, entities such as California State University, Chico, the Enloe Medical Center, and major regional retail establishments like the Chico Mall are significant attractions that serve a wide geographic area. As the Regions and surrounding area grows and matures over time, these entities will likely become increasingly prominent.
- Real estate in the Regions is significantly less costly than other urban areas in Northern California, but the area's wages and median household income levels are commensurately low. Being located closer to urban markets and including the cities of Davis (which has high median home values), Yolo County demonstrates the strongest home values of Regions Counties, which are approximately 80% of the statewide median. The median home price in the remainder of the Regions counties range from 40% to 55% percent of the statewide median. While home prices are comparatively low and present a good value to homeowners, median wages are also lower than state averages at a generally commensurate level.
- Future residential and employment growth in rural areas of the Regions is anticipated to be significantly slower than other metropolitan areas of California and the statewide average. However, urbanized growth could occur much more quickly. The amount of future growth of population and employment in the Regions counties over the long-term is predicted to occur at rates that are roughly half of predicted statewide growth rates. On the other hand, the most significant concentration of economic activity in the Regions (the City of Chico) is actually planned to add housing and employment at rates that are considerably higher than the statewide average. The materialization of this planned development will be impacted by other driving economic factors.

12.2 Funding

In general, funding for Flood Risk Management efforts comes from three sources; federal, state and local governments. California's Flood Future report (and associated Attachment I: Finance Strategies) provides an excellent overview and description of the general funding regime currently being utilized to enhance California's flood system. The Attachment also identifies and describes many of the funding and financing mechanisms available to local agencies to fund flood control infrastructure and services.

Within the Regions, investments from federal, state and local sources have been made and are ongoing. The following provides a general overview of the current flood control funding sources within the flood region.

12.2.1 Federal Funding

As discussed within Chapter 3, funding major flood risk reduction projects that are part of the Federal Project are difficult in a rural settings due to the process for how federal interest is determined. Federal interest has generally been identified and evaluated within feasibility studies prepared by the USACE that evaluate various criteria and generally emphasize the flood damage-reduction benefits associated with a specific project. This approach to defining economic benefits is narrow in focus and favors highly urbanized areas with existing infrastructure. This approach may not signal a significant federal interest in many of the projects identified in the region due to the large amount of agricultural land, the relatively small size of incorporated cities as compared to other areas competing for the same resources, and the number of very small rural community landscapes that predominantly define the region.

Given the constraints of the current approach for evaluating and garnering federal investment for projects coupled with waning federal budgets and forecasted expenditures, there is not likely to be significant additional federal investment in the Regions in the near term. Furthermore, the formulation, evaluation, authorization and appropriation process for projects is protracted, expensive and ultimately leads to higher project costs that may, in some cases, not be in the best economic interest of local project proponents. Further, the timing of securing new federal funding could is not likely to lead to near term funding for immediately identified efforts. Congress recently passed WRRDA 2014 and typically does not consider new bills for at least five years. The last bill that authorized new projects was in 2007. As a result, funding and financing plans for near term projects should not rely on near term federal investment.

The USACE Hamilton City "J-Levee" project was authorized by congress in 2007, however, this effort has been underway for quite some time and due to difficulties in garnering federal appropriations, federal funding is not expected to lead to the completion of the project in the near term.

Finally, funding from the USACE could flow into the region as a result of repairs completed through the PL84-99 rehabilitation assistance program. To the extent there are damages as a result of a flood, this program would help rehabilitate damaged levees so long as the levees met PL 84-99 standards. The development of SWIF's achieving the PL 84-99 standard to ensure that

Federal assistance after a flood is available has been targeted as one strategy within the Regions to ensure future financial viability for flood risk reduction efforts.

12.2.2 State Funding

12.2.2.1 Current & Future State Funding

In the near term, the State plans to utilize the remaining Proposition 1E bond funds authorized through June 2016 for projects identified within the Central Valley. Within the CVFPP, the State has identified that these remaining bond funds are well short of the identified need for investment in the flood risk reduction within the Central Valley,² and that additional bond authorizations will be needed.³ As part of ongoing CVFPP planning process, over the next few years, the State will be identifying how it will address the future role it will play in securing funding for identified improvements and developing sustainable funding sources to meet the long term demands for flood control infrastructure. The State Legislature and Governor will need to play a significant role with respect to how State and local funding can be generated within the region as it proposes and considers legislation associated with planned updates to the CVFPP and future financing/funding plan recommendations.

Current State efforts to generate additional funding include a water General Obligation bond package on the November 2014 ballot. However this current effort provides only a relatively small amount of funding for flood control efforts throughout the Central Valley.

Other policy efforts that could generate future State funding include the recommendations presented within the Governor's Water Action Plan. These recommendations include providing support and expanding funding for Integrated Water Management Planning and Projects, creating incentives for multi-benefit projects, providing assistance to disadvantaged communities, prioritizing funding to reduce flood risk and improve flood response. In addition to recommendations that could direct State funding to the region, the Governor's Water Action Plan also identified recommendations that could make it easier to generate local funding including removing barriers to local and regional funding for water projects. One of the key concepts in the Water Action Plan is that the administration will develop a water financing strategy that leverages various sources of water-related project funding and proposes options for eliminating funding barriers, including barriers to co-funding multi-benefit projects.

Table 12-13 through Table 12-16 provide a breakdown of the programs that are currently and expected to be available to local agencies to assist within funding the projects and programs identified within this RFMP. The typical cost share percentages for these programs is listed, however, these cost sharing percentages can vary widely based upon project specific attributes.

² The CVFPP identified costs to implement the State Systemwide Investment Approach between \$14 to \$17 Billion. The California's Flood Futures Report identified costs to upwards of \$50 billion statewide.

³ 2012 Central Valley Flood Protection Plan, Page 4-38 to 4-40.

Table 12-13. FEMA Funding Programs

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
FEMA	Flood Mitigation Assistance (FMA)	The FMA program is a grant program that provides funding to States, Territories, Tribal entities and communities to assist in their efforts to reduce or eliminate the risk of repetitive flood damage to buildings and structures insurable under the National Flood Insurance Program (NFIP).	FEMA	Native American tribal governments (Federally recognized), State governments, City or township governments, County governments	Varies 75%-100%
FEMA	Pre-Disaster Mitigation (PDM)	The PDM Grant Program is designed to assist States, Territories, Indian Tribal governments, and local communities to implement a sustained pre-disaster natural hazard mitigation program to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on Federal funding from future disasters.	FEMA	Native American tribal governments (Federally recognized), State governments, City or township governments, County governments	75% 90% for small impoverished communities

Table 12-14. California Natural Resource Agency Funding Programs

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
State-California Natural Resource Agency	California River Parkways Program (CRPP)	The Proposition 50 California River Parkways Grant Program in the Resources Agency is a competitive grant program for river parkways projects. Eligible projects must provide public access or be a component of a larger parkway plan that provides public access. In addition, projects must meet two of the following conditions: 1.) Provide compatible recreational opportunities including trails for strolling, hiking, bicycling, and equestrian uses along rivers and streams. 2.) Protect, improve, or restore riverine or riparian habitat, including benefits to	California Natural Resource Agency	Public Agencies and California Nonprofit Organizations	TBD

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
		wildlife habitat and water quality. 3.) Maintain or restore the open-space character of lands along rivers and streams so that they are compatible with periodic flooding as part of a flood management plan or project. 4.) Convert existing developed riverfront land into uses consistent with river parkways. 5.) Provide facilities to support or interpret river or stream restoration or other conservation activities.			

Table 12-15. California DWR Funding Programs

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
State DWR	<u>Yuba Feather Flood Protection Program (YFFPP)</u>	The Yuba Feather Flood Protection Program provides financial assistance to local flood agencies to perform feasibility studies, design and implement feasible flood protection projects within the YFFPP jurisdiction.	Phasing Out	Local public agencies (county, city, district or joint powers authority) that have legal authority and jurisdiction to implement a flood control program along the Yuba and Feather Rivers and their tributaries or along the Colusa Basin Drain and their tributaries (per section 79068.6-Proposition 13).	Limited to the total fund made available per Proposal Solicitation Package. No specific limitation stated per project.
State DWR	Central Valley Flood System Conservation-Framework and Strategy	The program funds planning and implementation of projects in support of the Central Valley Flood System Conservation Framework and the Conservation Strategy. The projects will incorporate environmental stewardship and sustainability principles into State Plan of Flood Control flood management activities.	Starting Up	Federal, State and Local public agencies; private mitigation banks, Non-profits (501(c)(3))	Up to 100%

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
State DWR	Flood Corridor Program	<p>This statewide program funds multi-objective, flood risk reduction projects that protect and restore floodplains and preserve or enhance wildlife habitat and agriculture. The program funds primarily non-structural projects, including acquiring and conserving floodplains, removing structures and precluding development in flood prone areas, and constructing earthen detention basins, along with restoring habitat and protecting agricultural land. Setback levees are also included when they enable a more naturally functioning floodplain.</p> <p>Flood Corridor Program includes three flood protection grant programs:</p> <ul style="list-style-type: none"> • Flood Protection Corridor Program (Propositions 13 and 84) • Floodway Corridor Program (Proposition 1E) • Central Valley Nonstructural Grants Program (Proposition 1E) 	Ongoing	Local public agencies (county, city, district or joint powers authority), nonprofit organizations, California Native American Tribes registered as a nonprofit organization or partner of a nonprofit or local public agency. Also, direct expenditure funding to other government agencies (local, State, or federal), nonprofit organizations, or contractors for projects proposed by DWR that are in the State's interest to fulfill program goals.	Up to 100%
State DWR	Small, Rural, and Agricultural Community Flood Risk Reduction (SRACFRR)	Projects to reduce flood risk in small, rural, and agricultural communities in the Central Valley. Funds support non-routine O&M, O&M plan updates, evaluations, feasibility studies, design, and construction of proactive repairs to flood control facilities of the SPFC and appurtenant non-project levees.	Future	Local agencies: evaluate SPFC facilities must protect small and rural communities in the Central Valley designated by the CVFPP to have a High or Moderate-High Flood Threat Level.	50 to 90%
State DWR	System Wide Flood Risk Reduction (SWFRR)	Implement recommendations of Basin-wide Feasibility Studies	Future	Eligible applications are local public agencies or Joint Powers Authority	Up to 100%

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
State DWR	Urban Flood Risk Reduction (UFRR)	Levee repair or improvement projects within the Central Valley that are located within the urban area and are State Plan of Flood Control facilities.	Future	Eligible applications are local public agencies or Joint Powers Authority	50 to 90%
State DWR	Flood System Repair Projects (FSRP)	Evaluate (feasibility), design, and construct repairs of non-urban SPFC Facility (levees, channels, structures, etc.) deficiencies	Starting Up	Eligible applications are local public agencies or Joint Powers Authority	50% to 90%
State DWR	<u>Flood ER - Forecast Coordinated Operations</u>	To further participation of reservoir operators (affecting CV) in the F-CO program, especially in obtaining necessary decision support system tools & equipment and field measuring equipment.	Ongoing	Federal agencies, State agencies or California Local Public agencies with responsibility for operating a reservoir that has a flood control reservation pool and is willing to participate in the Forecast-Coordinated Operations program and willing to coordinate its reservoir releases with other reservoir operators in the river system during flood events.	50% to 90%
State DWR	<u>Flood ER - Statewide ER Grants</u>	Provide support for local EAP's or related Flood preparedness and response activities. Funding is available for material acquisition such as emergency communications equipment to improve emergency response preparedness, and program enhancement activities that improve emergency response.	Awarded	California public agencies with primary responsibility for flood emergency response and coordination. "Primary responsibility for flood emergency response and coordination" applies only to counties, cities,	Up to 100% / Limited to \$5,000,000 under current program.

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
				flood control districts, reclamation districts and local maintaining agencies in California. The geographic scope of this grant is statewide with the exception of the legal Delta.	
State DWR	Urban Streams Restoration Program	Program provides grants for stream restoration projects that reduce flooding or erosion and associated property damages; restore, enhance, or protect the natural environment; and promote community involvement, education, and stewardship in urban streams.	Ongoing	Combined sponsorship between Local government agencies and citizens groups/nonprofits	\$1 million per eligible project

Table 12-16. California IRWM Funding Programs

Agency	Program Name (Acronym)	Program Summary	Status	Who is Eligible to Apply	Cost Share Range
State IRWM	Integrated Regional Water Management (IRWM)	Grant funds for development and revisions of IRWM Plans, and implementation of projects in IRWM Plans. Goals of Projects: to assist local public agencies to meet long-term water management needs of the State, including the delivery of safe drinking water, flood risk reduction, and protection of water quality and the environment.	Ongoing	Applicant must be a local public agency or nonprofit representing an accepted IRWM Region. Other IRWM partners may access funds through their own agreements with the applicant/grantee.	Up to 75%

12.2.3 Local Funding

The Cities, Counties, Local Maintaining Agencies and the regional flood control agencies within the Regions all play a significant part in funding the local share of flood control improvements and operations and maintenance. Funding by local agencies within the Regions is limited due to constitutional and statutory constraints to the way local governments can fund and finance

capital improvements and services. As noted previously, Attachment I to California's Flood Future Report provides a detailed description of funding mechanisms available to local agencies to fund flood control improvements.

In general, revenues for flood management within the Regions are generated from property based taxes, fees and assessments. In California, a local agency's ability to provide ongoing services and invest in its infrastructure is limited by voter-approved initiatives, such as Proposition 13 (1978) (limiting property tax increases), Proposition 218 (1996) (requiring voter approval for new assessments), and Proposition 26 (2010) (redefining many fees as taxes). The impacts of institutional and legal constraints associated with raising local funding for flood infrastructure and services is described in great detail in the Public Policy Institute of California's report, *"Paying for Water in California"* March 2014. The following Table 12-17 provides a summary of the local funding methods available to agencies in California and the Regions to fund flood management improvements and services. The table describes the general uses of the funding source and the attributes and applicability of the mechanism for flood management. In addition to these sources, many local agencies supplement funding for flood work specifically through enterprise revenues related to storm water management and general fund revenues.

Table 12-17. Summary of Potential Local Funding Mechanisms

Item	Funding Attribute						Pro/Con		Note
	Use	Voter Approval	Benefit Test	Bonds Allowed	Funding Period	Entity	Pro	Con	
Enterprise Revenues									
Utility User Fees/Taxes	O&M/ Capital Improvements	50% by Property Assessed	Yes	Yes	Long-Term	Varies	Would be broad based applying to all parcels. Depending upon service provided, could be exempt from Prop 218 balloting process. (Solely flood control would not apply.)	Might require enabling legislation for the specific district. Prop 218 would apply.	
Sales Tax Measure	O&M/ Capital Improvements as Approved	2/3	No	Yes	As Authorized	Cities or Counties	Flexible if approved.	Difficult to approve and limited to amount over Statewide sales tax rate.	
Benefit Assessment Districts [1]									
Various Water Code Sections (i.e. LD Law / RD Law)	O&M/ Capital Improvements	50% by Property Assessed	Yes	No	Long-Term	Reclamation & Levee Districts	Simple Majority Approval, Ongoing Funding Source	Applicability of Prop 218 - Must Show Benefit, issues regarding certain public properties.	Used to fund maintenance or capital works. Through other authority, can be used to finance improvements.
Benefit Assessment District Act of 1982	O&M/ Capital Improvements	50% of Property Assessed	Yes	No	Long-Term	Flexible	Simple Majority Approval, Ongoing Funding Source	Must Show Benefit Improvements/Services must be within the Boundary, , issues regarding certain public properties.	Could provide some reimbursement of Advance Funding
Municipal Improvement District Act of 1913/1915	Capital Improvements	50% of Property Assessed	Yes	Yes	Long-Term	Flexible	Simple Majority Approval, Ongoing Funding Source	Must Show Benefit Improvements/Services must be within the Boundary	Could provide some reimbursement of Advance Funding
Geological Hazard Abatement Districts (GHAD)	O&M/ Capital Improvements	50% of Property Assessed	Yes	Yes	Long-Term	Independent District	Broad scope of works, locally autonomous, Simple Majority Approval, Ongoing Funding Source. Certain exemptions from review under CEQA apply.	Must prepare Plan of Control. Creates new independent entity with organizational responsibility (similar to JPA), Prop 218 applies with respect to assessments levied.	As independent entity could be alternative to JPA. Can fund reserves.

Item	Funding Attribute						Pro/Con		Note
	Use	Voter Approval	Benefit Test	Bonds Allowed	Funding Period	Entity	Pro	Con	
Community Facilities Districts [1]	O&M/ Capital Improvements	2/3's (See Note)	No	Yes	Long-Term	Flexible	Benefit not Needed, Flexible in Forming District, Improvements located anywhere	2/3 Approval Difficult to Obtain	Voting requirements change depending on presence of registered voters within boundary.
Development Impact Fees	Capital Improvements	NA	Yes	NA	Long-Term	County & City (Land Use Agencies)	Implemented by Agency Action in Short Time Period	-Must Show Benefit -Development Feasibility Issues -Only works if area of flood control Benefit is slated for Development	Could provide some reimbursement of Advance Funding
Advance Funding [2]	Planning & Capital Improvements	NA	NA	NA	Short-Term	N/A	Can cover upfront planning/operations costs	Limited/Uncertain Availability	Could be subject to reimbursement from various sources over time.

Source: California Flood Future's Report - Attachment I, Finance Strategies, California Government Code, LWA and EPS.

[1] Can be implemented by cities, counties, special independent districts, and JPA's with these types of members.

[2] Advance Funding is defined as General Fund, developer, and/or other local public or private funding which could be subject to reimbursement from long term funding sources. More a way of financing improvements and shifting financing risk.

12.3 Constraints on Funding Capacity and Related Issues

The State and USACE prepared the Flood Futures report as part of the Statewide Flood Management Planning Program effort. The report provides a historical estimate of the funding provided by local, State, and Federal governments for flood management projects. The report discusses constraints that local agencies have in securing funding. Specifically the report mentions constraints associated with Propositions 13 and 218 that have made it more challenging for local maintaining agencies to raise funding for flood risk reduction improvement projects. Constraints from Proposition 218 and 13 have been well documented by the State and were highlighted as an issue in DWR's January 2005 White Paper, *Responding to California's Flood Crisis*.

The Public Policy Institute of California's (PPIC) report, *Paying for Water in California*, essentially argues that services for flood, storm water, and ecosystem are frustrated by legal and institutional barriers to secure adequate funding. The report reiterates the State's position regarding local funding constraints associated with Propositions 13 and 218. The PPIC report cites the 2012 Biggert Waters Act, Federal legislation focused on implementing actuarial insurance rates, as a policy level decision that would potentially increase a community's willingness to pay for flood risk reduction projects. Communities with a large enough tax bases and economical project costs can choose to tax their property to construct flood risk reduction projects. While transitioning to actuarial flood insurance rates could increase the amount of assessment that a property owner would be willing to pay there are limits. These issues are discussed in more detail below.

12.3.1 Tax Rate and Infrastructure Burden Considerations

In order to consider an area's ability to generate additional taxes and assessment, the uses of taxing capacity for all infrastructure and services should be considered. The California Debt and Investment Advisory Commission (CDIAC) promulgates guidelines with respect to land secured financing including the use of assessments and Mello-Roos. CDIAC's Mello-Roos Guidelines (1991) suggest that jurisdictions should integrate Mello-Roos financing into the land use regulatory framework. Local governments should do this so that there is a process for coordinating the use of land secured financing. The concern is that in the absence of coordinated planning, taxpayers could vulnerable to onerous overlapping tax burdens imposed by a multitude of local governments that may provide services to the same group of tax payers. This issue is analogous to the current ongoing efforts associated with planning for the future of flood management infrastructure. To the extent that there are a multitude of planning efforts all developing concurrent funding and financing strategies, these efforts should be coordinated to ensure that there is sufficient funding capacity available from the identified beneficiaries.

A reasonable land secured financing would be supported by property tax burdens that would not exceed 2% of the market value of the improved property. Some jurisdictions limit this amount to only 1.8%. Assuming a median home price in the Regions of approximately \$200,000, at a 1.8% limit, after leaving a conservative 1.1% for current ad valorem overlapping debt, the median home could only support an additional \$1,400 of annual taxes to fund all other annual

infrastructure and service costs within a reasonable financing limit. It would be unreasonable to assume that all of the remaining tax limit could be captured to finance and fund additional flood management infrastructure and services. Furthermore, the approval processes for additional taxes and assessments governed by Proposition 218 presents significant challenges to local jurisdictions. This further erodes at the ability to capture available funding capacity.

As more detailed plans for funding services and infrastructure are developed, a coordinated approach must be made to ensure that the funding capacity for infrastructure and services is not pre-empted by other entities and that the financing goals and policies of the Regions' jurisdictions are reflective of their priorities.

Coordination with State led efforts to fund system-wide improvements will also need to take place to ensure that any proposals for funding State programs, such as central valley-wide or regional assessments, do not pre-empt locally led efforts and priorities and recognize the contributions of regions that have already passed flood based assessments.

12.3.2 FEMA Flood Insurance – Pricing Mechanism

Flood risk reduction projects have a unique pricing mechanism in the Federal Emergency Management Agencies (FEMA) National Flood Insurance Program (NFIP). The potential for being mapped into or out of a 100-year floodplain provides communities with a metric to make informed decisions to determine if it would be less expensive to pay for flood insurance or assess/tax themselves to pursue construction of flood improvements.

The NFIP established the 100-year flood as the threshold for determining if structures with federally guaranteed mortgages are required to purchase flood insurance. Currently, the NFIP makes flood insurance available to structures located within participating communities at subsidized rates. However, Federal legislation passed in 2012 (The Biggert-Waters Flood Insurance Reform Act of 2012 or “BW-12”) was intended to make flood premiums more representative of the actual risk posed from flooding (the actuarial rate). While recent legislation signed into law in March 2014 (the Homeowner Flood Insurance Affordability Act of 2013 or “HFIAA”) makes modifications to BW-12 with respect to current subsidized insurance rates, initial guidance provided by FEMA indicates that flood insurance premiums will still be increasing.

The Federal Government's decision to move toward actuarial rates provides a direct linkage between the cost of insurance and structural flood risk reduction improvements. Because the vast majority of homes within the US are financed with federally guaranteed mortgages that require flood insurance, in the face of 100-year flood risk, the cost of mitigation cannot be escaped by the homeowner. Simply put, a homeowner with a home located in a floodplain will face a cost, either a flood insurance premium cost, or a cost to demonstrate that their property should not have been mapped within the 100-year floodplain, or a cost to construct structural flood risk reduction improvements that provide a minimum 100-year level of protection. It is reasonable to assume that a practical homeowner would prefer the lesser of these costs. In the case of many communities within the Central Valley of California located within deep floodplains, expensive structural levee improvement projects are required to meet the FEMA 100-year standard.

There are, however, limits to the direct correlation of flood insurance rates and the ability of a local community to tax itself. The direct linkage is easily complicated by many identifiable factors including:

- For large coordinated structural levee improvement projects, typically a property tax increase is needed in order to finance the local cost share of the project cost. Because such projects take many years to complete, homeowners could be forced to pay both the high cost of flood insurance while the flood risk remains, as well as the annual tax needed to construct the improvements. As a result, homeowners will typically not be in favor of taxing themselves for the full amount of any long term savings.
- Land based financing funds many critical services within local communities and these services are competing for limited funding. For areas where existing taxes and assessments on properties are already perceived as high, additional taxing capacity for flood improvements would be limited and compete against other services required by the community.
- As discussed above in Section 12.3.1 - Tax Rate and Infrastructure Burden Considerations, some communities within California have adopted land securing financing policies consistent with recommendations from the California Debt and Investment Advisory Commission (CDIAC). Not only will increased flood assessments compete with other services but the magnitude of a local flood assessment must also fit within the adopted policies of local communities that are attempting to efficiently manage debt within the context of State policies and guidelines.
- If future flood insurance rates exceed a homeowner's ability pay the cost of their taxes, mortgage and flood insurance, no additional assessment capacity would exist to fund flood management projects. Given the Regions' disadvantaged community status as a whole and associated incomes, the capacity for additional property taxes is significantly strained.

Flood insurance rates do provide a starting point for a community to make an informed decision about how much they would be willing to pay to fund flood improvements. However, a project specific rate study coupled with a well-planned and executed strategic public outreach campaign are also required to assess and determine a communities willingness and ability to pay additional taxes or assessments for flood management. Ultimately, flood insurance is just one of many factors to be taken into consideration.

12.3.3 *Proposition 218 & Publicly Owned Parcels/Property*

Many LMAs and JPAs within the Central Valley have relied on benefit assessments imposed pursuant to the statutory authorities provided in Water Code §55000 et. seq. ("Reclamation District Law") and/or Government Code §54703 et. seq., the Benefit Assessment District Act of 1982, to generate funding for flood control services. These laws were implemented before the effective imposition of the assessment rules put in place pursuant to Proposition 218 on July 1, 1997. The provisions of the statutes upon which many LMAs rely do not implicitly grant the authority to levy assessments on certain public property. Reclamation District Law exempts

assessments on streets, roads and schools.⁴ The Benefit Assessment District Act of 1982 precludes assessments on any property owned by a Federal or State governmental or any other local agency.⁵ However, local agencies imposing these assessments are conflicted due to the provisions of Proposition 218. Many local agencies believe that the provisions of Proposition 218, which governs the apportionment of benefit and imposition of assessments as prescribed by Article 13 Section 4 of the California Constitution, are in conflict with these statutes.⁶ Many new flood control and drainage assessments provide significant benefit to roads and publically owned parcels and the apportionment of benefit consistent with the provisions of Proposition 218 requires that assessments be allocated to those lands. Due to the conflicts between the underlying statutes providing the authority to impose assessments and the provisions of Proposition 218, local agencies providing these services are left in a position of being unable to collect the full amount of funding needed to provide services and new improvements or facing difficult constitutional legal challenges. This dilemma poses an additional burden on local agencies trying to fund flood control and drainage services.

12.3.4 Local Funding Case Study Analysis

Chapters 7 through 11 present, where known, identified flood management projects and strategies for the Rural and Small Communities and Urban Areas that can be implemented by the Local Maintaining Agencies and jurisdictions throughout the region. However, as discussed, in these chapters, many of these deficiencies are unknown and in many cases, even without detailed engineering analysis and financial analysis, structural solutions are unattainable. Rather than restate this on a broad level, the MUSR RFMP chose to focus the financial analysis by evaluating, on a case study basis, funding for small community improvements within two identified small communities within the Regions, the City of Colusa and the town of Grimes. These case studies are intended provide ‘bookends’ for small communities within the Regions and are intended to layout the approach of determining the roles, financial responsibility, and ultimately the financial capacity of the identified areas to implement local funding mechanisms.

12.3.4.1 City of Colusa Flood Control Improvements

The evaluation of flood protection for the City of Colusa is currently underway. As noted previously in Section 7.4, repairs along the Sacramento River are needed along with the construction of a training levee along the north and west of the City. Currently Colusa County, with funding from the State through the Yuba Feather Flood Protection Program, is kicking off a Feasibility Study to identify improvements to the west and south of City as result of flooding from Colusa Basin Drain. Generally, in combination, these improvements would provide

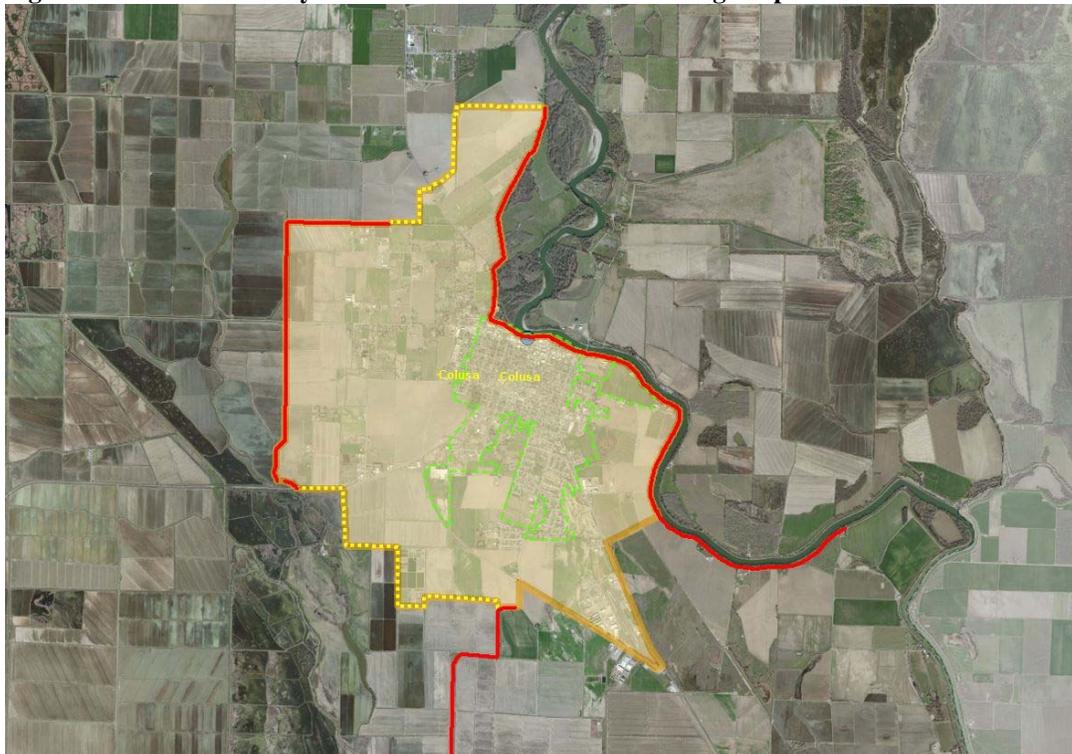
⁴ Reference Water Code §51200. The assessments levied by a district shall include all lands and rights of way within the district, owned by the State or by any city, county, public corporation, or utility district formed under the laws of the State *other than public roads, highways, and school districts. (emphasis added)*

⁵ Reference Government Code §54715. (a) “The legislative body of a local agency may by ordinance or resolution, adopted after notice and public hearing, determine and propose for adoption an annual assessment on each parcel of real property within the jurisdiction of the local agency, *except that the governing body shall not impose an assessment upon a federal or state governmental agency or another local agency. (emphasis added)*

⁶ California Constitution Article 13D (Assessment & Property-Related Fee Reform) §4. Parcels within a district that are owned or used by any agency, the State of California or the United States shall not be exempt from assessment unless the agency can demonstrate by clear and convincing evidence that those publicly owned parcels in fact receive no special benefit.

protection through a series of levees around the City. The assumed beneficiaries of this combined program would be the properties shown in Figure 12-4 below.

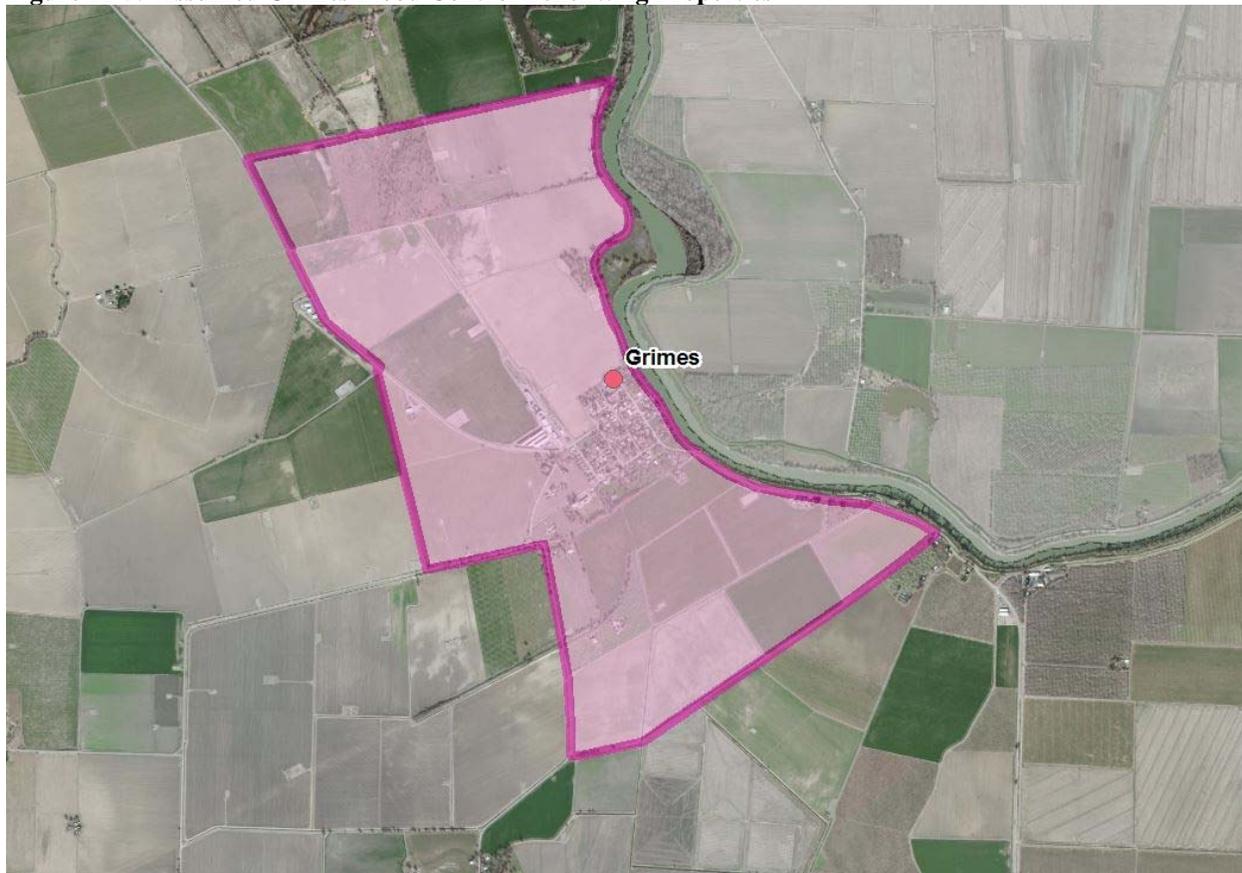
Figure 12-4. Assumed City of Colusa Flood Control Benefiting Properties



12.3.4.2 Grimes Flood Control Improvements

As noted previously in Section 7.4, it was determined that reconstruction-in-place repairs along the right bank levee of the Sacramento River could provide the community with 100-Year flood protection. Figure 12-5 below shows the assumed set of benefiting properties.

Figure 12-5. Assumed Grimes Flood Control Benefitting Properties



12.3.4.3 Roles & Financial Responsibility

In order to generate funding, from both non-local and local funding sources, a local public agency must be identified as the responsible agency for the project. This allows for coordination of the improvements and for funding to flow through to the project. In a rural setting, identifying the lead agency for the construction of new facilities or improvements becomes more challenging. For the rehabilitation of existing improvements, typically the agency responsible for local maintenance would be the lead local agency or have a roll with project implementation in partnership with other stakeholder agencies. In addition, where local funds and support are needed, a local agency with powers to create and implement a local funding mechanism is also needed. Because these powers and responsibilities generally overlap in the context of flood control, many Central Valley communities create a Joint Powers Authority (JPA) to provide governance and funding. A JPA is an institution whereby two or more public authorities can operate collectively to provide a specific function. JPAs are widely used in the California Central Valley to provide for financial assistance to facilitate improvements to flood control systems. JPAs are permitted to provide for the financing of improvements and related activities, including the following:

- Creating one or more community facilities districts, assessment districts or other financing districts;

- Entering into lease and/or installment sale obligations;
- Issuing revenue or other notes, bonds or evidences of indebtedness;
- Imposing appropriate impact or other fee obligations depending upon their statutory authority to do so; and
- Entering into funding agreements with the State for the acceptance of Grant funds.

In addition, JPAs may acquire, hold title to, and convey land and improvements related to such financing. JPAs are formed through a joint exercise of powers agreement between the public authorities that seek to form part of a given JPA. The Local Agency Formation Commission (LAFCO) is not involved in the formation process.

As a separate public entity, a JPA is typically administered by a Board representing the member authorities comprising the JPA. The composition of the Board is determined within the joint powers agreement and is typically comprised of elected officials or staff from the JPA member entities. The JPA should adopt bylaws that set forth how the Board will operate on a going forward basis. A JPA agreement typically identifies the composition of the JPA’s staff and its functions. In some cases the JPA has staff of its own that conduct the day to day operations of the JPA, in other cases, staff from member agencies are leveraged. Generally the JPA’s finances reflect these costs and reimburse the member agencies for allocated staff time.

Colusa:

There are several local jurisdictions that would be involved in a comprehensive program to improve the flood control system around the City of Colusa. Not all of these jurisdictions would need to be part of a JPA, but each of these jurisdictions would likely have a role with respect to some aspect of a levee rehabilitation or improvement Program.

- City of Colusa
- Colusa County
- Sacramento West Side Levee District
- Maintenance Area 1
- Colusa Basin Drainage District

Grimes:

While there are not as many local jurisdictions that would be involved in a comprehensive program to improve flood protection for the town of Grimes, all of these jurisdictions would likely have a role with respect to some aspect of a Program.

- Colusa County
- Sacramento West Side Levee District
- Colusa Basin Drainage District

12.3.4.4 Financial Capability

The next step in evaluating financial feasibility is an assessment of the financial capability of the area. As previously discussed, there are many factors that contribute to the funding capacity of an area. The goal of this case study approach was to determine what level of assessments might be needed to support a specific amount structural flood control improvements within the area and

analyze these proposed assessments. The following describes the approach associated with this analysis.

Because of constraints of Proposition 218 and other property / land based funding mechanisms that tie the proportionality of the funding generated from the land to the use of the land, the land uses in each of the case study areas was compiled and analyzed. The source of the land use information for purposes of this analysis was parcel data obtained from ParcelQuest which represents data compiled from the Colusa County Assessor. This is the same source of data that would be utilized to administer an Assessment or Special Taxing district.

An assessment of the benefits of providing flood control was made that consisted of assigning a values (in this case benefit \$'s) associated with the following attributes of the parcel; use type⁷, parcel acreage and structure size. Typically flood control assessments would also consider other factors such as parcel location within the region as this might relate to the flood depth of parcel. As this is an overall planning level analysis, this level of detail is beyond the scope of this effort. Once the benefit of a parcel has been assessed, all of the benefits from all of the parcels within the proposed assessment district are summed and each individual parcel's proportionate share of the total benefit is determined. This is the pivotal and critical component of a Proposition 218 compliant benefit assessment district, that is, each parcel may only be assessed for its proportionate share of the benefits received from a facility or service.

Colusa:

Because the total project costs associated with developing a flood control solution for Colusa are unknown at this time, the ability to determine the total assessment needed to fund and operate a project is unknown. However, to demonstrate a typical assessment for each land use type, assumptions regarding a range of total assessments has been made. The results of a preliminary planning level apportionment of benefit are presented in Table 12-18 below given a range of total assessments between \$500,000 and \$2,000,000 per year. The table shows the average rates for each parcel land use category by an assumed amount of total assessment. The table also shows, by the property type, the average assessed value (AV) of the parcels of each time in the boundary as well as the resulting average assessment rate burden as a percentage of the AV. At a total assessment of \$500,000, a resulting assessment burden range from 0.09% to 0.5% for various developed property types. This tax rate would be imposed in addition to the base 1% property tax rate plus any other previously approved property tax overrides such as school bonds and other direct assessments or special taxes. An exhaustive evaluation of other ad valorem taxes and direct charges collected on property tax bills has not been completed as part of this planning effort. As previously discussed, assessments in excess of 1.8% would pose a significant tax burden in the Regions taking into consideration incomes, home values and the costs associated with flood insurance. Ultimately, to determine a feasible level of assessments that can be used to finance new improvements, more research regarding other overlapping debt and taxes should be completed to determine if the proposed assessments would over burden the property. In addition, the planning process associated with a new set of proposed improvements and a new funding mechanism should include a well-coordinated and planned public outreach

⁷ Use Type categorizations consisted of Single Family Residential, Multi-family Residential, Commercial, Industrial, Agricultural, Government, No Designation and Vacant.

and information gathering component which would help evaluate the ultimate feasibility of imposing new assessments and taxes.

Table 12-18. Colusa Average Assessment

Land Use Category	Average AV	Average Annual Rate Per Parcel (\$) [Burden %] by Total Assessment		
		<u>\$500,000</u>	<u>\$1,000,000</u>	<u>\$2,000,000</u>
<i>Total Annual Assessment</i>				
Single Family Residential	\$ 131,873	\$114 [0.09%]	\$228 [0.17%]	\$456 [0.35%]
Multi-family Residential	\$ 155,505	\$77 [0.05%]	\$153 [0.10%]	\$306 [0.20%]
Commercial	\$ 236,192	\$503 [0.21%]	\$1,006 [0.43%]	\$2,013 [0.85%]
Industrial	\$ 734,017	\$3,331 [0.45%]	\$6,663 [0.91%]	\$13,326 [1.82%]
Agricultural	\$ 166,673	\$72 [0.04%]	\$144 [0.09%]	\$287 [0.17%]
Government	\$ 231,600	\$688 [0.30%]	\$1,376 [0.59%]	\$2,751 [1.19%]
Vacant	\$ 44,184	\$4 [0.01%]	\$9 [0.02%]	\$17 [0.04%]

Future development plans in Colusa could also generate additional funding for flood risk reduction projects. As noted in Section 12.1.10.1, more than 4,000 additional residential units are currently planned within Colusa. The policy issues surrounding development within the floodplain will need to be grappled with as the City determines how the Urban Level of Protection Criteria, SB 5 and AB 132 might impact these plans to the extent that the additional 4,000 units increase the population within Colusa to over 10,000. Nevertheless, as is the case with many jurisdictions throughout the Central Valley, as new development impacts the consequences of flood by placing more damageable property into the floodplain, an impact fee that mitigates this impact could be utilized by the City as funding mechanism to increase flood protection for the City as a whole.

Grimes:

Because the total project costs associated with developing a flood control solution for Grimes are unknown at this time, the ability to determine the total assessment needed to fund and operate a project is unknown. However, to demonstrate a typical assessment for each land use type, assumptions regarding a range of total assessments has been made. The results of a preliminary planning level apportionment of benefit are presented in Table 12-19 below given a range of total assessments between \$100,000 and \$1,000,000 per year. The table shows the average rates for each parcel land use category by an assumed amount of total assessment. The table also shows, by the property type, the average assessed value in the boundary as well as the resulting average assessment rate burden as a percentage of AV. At a total assessment of \$100,000, a resulting assessment burden range from 0.14% to 0.8% for various developed property types. This tax rate would be imposed in addition to the base 1% property tax rate plus any other previously approved property tax overrides such as school bonds and other direct assessments or special taxes. An exhaustive evaluation of other ad valorem taxes and direct charges collected on property tax bills has not been completed as part of this planning effort. As previously

discussed, assessments in excess of 1.8% would pose a significant tax burden in the Regions taking into consideration incomes, home values and the costs associated with flood insurance. While more research is warranted to determine a feasible level of assessments in Grimes that can be used to finance new improvements, it is unlikely to change the conclusion that assessments that increase the property tax burden by more than a few tenths of percent would be feasible. It likely that any assessment in excess of a few hundred dollars would over burden the property. Ultimately the result of this analysis suggest that even imposing an assessment in excess of \$100,000 per year would be too much property tax burden on the benefitting properties. As discussed above, any planning process associated with proposing a new set of improvements and a new funding mechanism should include a well-coordinated and planned public outreach and information gathering component which would help evaluate the ultimate feasibility of imposing new assessments and taxes.

Table 12-19. Grimes Average Assessment

Land Use Category	Average AV	Average Annual Rate Per Parcel (\$) [Burden %] by Total Assessment		
		<u>\$100,000</u>	<u>\$500,000</u>	<u>\$1,000,000</u>
<i>Total Annual Assessment</i>				
Single Family Residential	\$ 81,564	\$392 [0.48%]	\$1,960.75 [2.40%]	\$3,922 [4.81%]
Multi-family Residential	\$ 77,298	\$287 [0.37%]	\$1,435.68 [1.86%]	\$2,871 [3.71%]
Commercial	\$ 112,359	\$880 [0.78%]	\$4,399.89 [3.92%]	\$8,800 [7.83%]
Industrial	\$ 373,449	\$521 [0.14%]	\$2,604.78 [0.70%]	\$5,210 [1.39%]
Agricultural	\$ 108,652	\$598 [0.55%]	\$2,990.33 [2.75%]	\$5,981 [5.50%]
Government	\$ 18,359	\$364 [1.98%]	\$1,821.36 [9.92%]	\$3,643 [19.84%]
No Designation	\$ 2,964	\$0 [0.00%]	\$0.00 [0.00%]	\$0 [0.00%]
Vacant	\$ 14,330	\$4 [0.03%]	\$21.63 [0.15%]	\$43 [0.30%]

12.3.4.5 Case Study Conclusions and Recommendations

In general Small communities and rural towns, will have a difficult time generating sufficient funding to implement capital intensive structural flood risk reduction projects. Small communities will need to take the following actions to advance the goal of flood risk reduction:

- Identify and determine a lead entity that will assume the role of implementing flood risk reduction goals. This lead entity will assume the responsibility for advancing this objective. This includes the responsibility for public engagement, governance, planning and policy development, and funding coordination.
- The next step will be to identify the beneficiaries of identified solutions and goals. These beneficiaries will need to assume funding responsibility.
- Ultimately the financial capacity of the identified areas will limit the ability to implement objectives over time. Plans will need to be developed that work within these constraints. The lead entity will need to utilize the strategies for flood risk reduction identified within this plan to guide the implementation strategy.

As noted above, the first step for the town of Colusa will be to develop the governance structure to shepherd the development of a plan through the consensus building process. This effort should be incorporated into the development of a more detailed financial plan for the community. The plan will need to identify the costs, at a program level, of attaining the desired level of flood protection. With the identified assessment rate ranges shown within Section 12.3.4.4 above, the feasibility of funding the ultimately identified set of solutions can be tested as part of the development of a conceptual financial plan. The financial plan should leverage the strategies for attaining state funding and cost sharing through programs that are forthcoming from DWR. Further, the financial plan should lay out a path whereby, over time, incremental progress is made with strategic investments that do not necessarily target a specific level of flood protection, but incrementally reduce flood risk. This will allow for the attainment of achievable goals within the ultimate objective and provide greatest benefit to the community.

The town of Grimes will have an even more difficult time raising funding sufficient enough to fully implement a comprehensive structural flood risk reduction in the near term due to constrained funding capacity. In order to implement any project, as is the case with Colusa, Grimes will need to identify a lead entity to develop a plan and run it through the previously described consensus building process. This plan will need to identify options for mitigating flood risk and outline how, over time, this objective is advanced.

The State has a strong desire to fund multi-benefit projects. To the extent that local agencies can tie flood risk reduction projects together with projects that provide other benefits, the potential feasibility of achieving the main flood risk reduction goal is increased as a result of enhanced funding opportunities.

12.4 Conclusions & Recommendations

Recent studies and reports providing analysis, commentary, and policy recommendations related to funding flood management have had a common theme emphasizing the importance of creating sufficient and sustainable funding sources to manage flood risk over time. DWR's California Flood Futures Report identifies existing funding constraints and presents recommendations for actions that could lead to new funding sources. PPIC's Paying for Water in California identifies and describes those same constraints with respect to local funding and presents recommendations that would help local entities address the funding gaps identified within the report. Ultimately, creating a sustainable and politically actionable funding source for flood management will require some action by the State legislature to change the current constitutional and statutory constraints on raising new revenue. The State and DWR could provide tremendous assistance to the Regions by exploring the following recommendations, some of which could be implemented in the near term. In the long term, the State should continue efforts to implement recommendations made in recent studies focusing on long term stable funding for flood management.

Recommendation 1: The State should continue to explore regional, basin or valley-wide funding districts that ensure that all beneficiaries of the flood management infrastructure pay. Any district should recognize the nexus of the flood management system to other essential public services such as safety, water supply and quality, recreation, and environmental protection. The

current approach governed by Proposition 218 makes it too onerous to implement such a district at the local level. As a result, the current approach, which links the properties that receive special benefit to those within a district that will pay for the cost of the work performed, ignores the interconnectedness of the flood management system. A valley wide or regional assessment would need to be imposed not only on lands within a defined floodplain but also (i) on lands that drain into that floodplain, (ii) lands that would be in the 100-year floodplain absent flood management works, and (iii) potentially on lands that benefit from the lack of disruption that flood management seeks to offer.

Recommendation 2: In the context of NFIP reform and rising flood insurance rates, the State could explore alternative flood or hazard insurance programs that could satisfy both federal lending requirements as well as provide structural mitigation to reduce risk. Various proposals have been discussed and questions arise whether such a program at a State level, absent heavy subsidy, could result in lower overall costs and more manageable constraints. However, one key aspect to a supportable and more sustainable program would be to ensure those required to purchase insurance represent all those properties that could potentially bear a cost as a result of a flood loss. This would include all those beneficiaries as discussed above.

Recommendation 3: The State should consider providing funding to evaluate and implement new local funding mechanisms to generate the local cost share of projects consistent with the SSIA. The State has made it a clear priority to maximize the value of its investment by leveraging non-State funding sources. Directly funding efforts to establish new funding sources at the local level is consistent with this priority. The upfront costs associated with evaluating new projects, developing financing plans and implementing new funding mechanisms (within the current legal framework) presents a significant hurdle to many local entities. As the State is currently developing new programs which will provide funding for Feasibility studies, as a component of this effort, funding for financing plan implementation should also be included.

Recommendation 4: In the rural agricultural areas where a specific set of improvements primarily benefits an agricultural land use, local, State and Federal interests may conclude that the benefits of structural improvements do not outweigh the costs. To resolve this issue, and to ensure that an appropriate level of flood risk is achieved in concert with the financial capability of the area, the State should support the Regions' efforts for flood insurance reform ensuring that the agricultural use of the area is sustainable and allowing for the existing vibrant agricultural economy to thrive.⁸

⁸ The specific actions related to a FEMA Agricultural Zone designation are further described within section 7.3.1.