

# CALIFORNIA FARMLAND CONVERSION REPORT 2004-2006



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Documenting changes in agricultural land use since 1984.



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## Executive Summary, 2004-2006

### *IRRIGATED FARMLAND LOSSES ACCELERATED COMPARED WITH THE 2002-2004 PERIOD, AS STEADY URBANIZATION RATES COMBINED WITH CHANGING AGRICULTURAL MARKETS AND RESOURCE AVAILABILITY FACTORS.*

Farm and grazing lands in California decreased by 275 square miles (176,014 acres) between 2004 and 2006 as documented by the Farmland Mapping and Monitoring Program (FMMP). The highest-quality agricultural soils, known as Prime Farmland, comprised 46% of the loss (81,247 acres). Urban development was concentrated in a smaller number of counties, resulting in an increase of 0.2% in urbanization relative to the 2002-04 period (102,010 and 101,825 acres, respectively).

The FMMP biennial mapping survey covers approximately 96% of the privately owned land in the state (48.2 million acres) in 49 counties. Land use information is gathered using air photos and land management data, which is combined with soil quality data in a geographic information system (GIS) to produce maps and statistics. The earliest data for most counties is from 1984.

### **Urban Development Pattern Narrows**

Urbanization was concentrated in a smaller number of counties relative to the 2004 update: while the top ten counties comprised 65% of new urban lands between 2002 and 2004, the figure was 74% during the 2006 mapping cycle. Riverside County alone accounted for 23% of the newly developed land. Southern California led all regions with 47% of the developed acres, while the San Joaquin Valley ranked second at 23% of the total. The Sacramento metropolitan area was third most active with 16% of new urban acres; Sacramento County's expansion of nearly 10,000 acres was a record high. The San Francisco Bay region continued to decline in prominence; it last fell within the top three ranks during the 2000-02 update cycle.

Southern California's urbanization rate increased by 18%, led primarily by Riverside, San Bernardino, San Diego, Los Angeles, and Orange counties. Irrigated farmland was the source of just over 17% of the region's new urban land, with an additional 41% occurring on grazing land or historically farmed land.

In contrast, 61% of new urban land in the San Joaquin Valley impacted irrigated farmland. Kern, Fresno, and San Joaquin counties led the region in overall acreage developed. Stanislaus County was notable as having the highest proportion of urban development on Prime Farmland (81%), followed by Tulare and San Joaquin counties (47% and 46%, respectively). In all, nearly 73% of urbanization in the San Joaquin Valley took place on farm or grazing lands.

Housing was the largest component of new urban acreage, with developments ranging from small infill sites to planned community units of 300 acres or more. New infrastructure to support residential uses was also common; Riverside County provided the following examples: sixteen new schools, nearly 1,400 acres of golf courses, two landfill expansions, as well as retail and distribution facilities. Notable examples from other counties included expansion of industrial facilities, airport construction, and water evaporation ponds. In some areas, increased structural density prompted reclassification from Other Land to Urban and Built-up Land.

### **Agricultural Trends**

While urbanization is an important component of agricultural land conversion, economic and resource availability factors also lead to more intensive farming or removal from irrigated uses. Conversion from grasslands to orchards, specifically almonds, was common along the western Sierra Nevada foothills and

eastern flank of the coast range, but overall irrigated lands development decreased by 2% compared with the 2002-04 period. Two-thirds of the land brought into irrigated uses did not meet Prime Farmland criteria.

Land was removed from irrigated categories--to uses aside from urban--at a rate 10% higher than the prior update (188,109 acres in 2002-04 and 207,227 acres in 2004-06). Land idling and dry cropping were the largest factors in the increase, particularly along the western side of the San Joaquin Valley. New soil data in Modoc County was also responsible for a large technical reclassification as nearly 10,000 acres of pasture land no longer met criteria for the major farmland classes.

Conversion to Other Land declined by 16% between the two updates (from 61,246 acres to 51,611 acres). San Joaquin and Sacramento valley counties accounted for 43% and 19% of the total, respectively. Most of the rural residential growth was fragmented, with individual units typically in the 10-50 acre range. Larger single conversions, conversely, were associated with ecological restoration or wetland reserve projects, sand and gravel mining, and confined animal agriculture facilities.

### **Data on Rural Residential Uses and Other Improvements**

Conversion data from 22 years of Important Farmland mapping indicates that for every five acres leaving agricultural use, four convert to Urban Land and one converts to Other Land. Expanded information on Other Land conversions is the focus of the Rural Land Mapping project. Four San Joaquin Valley counties were previously enhanced as a pilot effort; additional counties are being added as funding allows.

Among the pilot counties, ranging from Stanislaus to Fresno, Prime Farmland losses to low density residential and ecological restoration uses totaled 5,394 acres during the 2004-06 update. An additional 1,065 acres of Prime Farmland were converted to Vacant or Disturbed uses, and 652 acres became Confined Animal Agriculture facilities. Since tracking of these counties began in 2002, Confined Animal Agriculture facilities and Rural Residential and Commercial areas have increased at the highest rates (18% and 12%, respectively). Urban acreage in the counties increased by 9% during the same four year timeframe.

The availability of new USDA soil surveys led to a number of additions this update, the largest being the addition of Mendocino County (2.0 million acres), and the upgrade of nearly 2.7 million acres in Kern County. As part of FMMP's continuous improvement goals, full size PDF maps of each county are now available online so that non-GIS users can access the information for their studies.

### **Net Change**

California's urban land grew by 102,010 acres, nearly 160 square miles, between 2004 and 2006. Conversions to Other Land totaled 73,789 acres over the same time period. Combined with Urban and Other Land increases during the 2002-04 period (101,825 acres and 67,643 acres, respectively), more than 539 square miles moved out of agricultural uses over the 2002-2006 timeframe. This is approximately the size of the land area of Marin County, or five times the size of the City of Sacramento.

The net irrigated farmland loss was 156,650 acres during the 2006 update, 13% larger than the 2002-04 period. Prime Farmland's decrease of 81,247 acres was a record, breaking the 78,575 acre record set during the 2002-04 reporting period.



## Chapter 1: The Farmland Mapping and Monitoring Program

### *DOCUMENTING CHANGES IN AGRICULTURAL LAND USE SINCE 1984.*

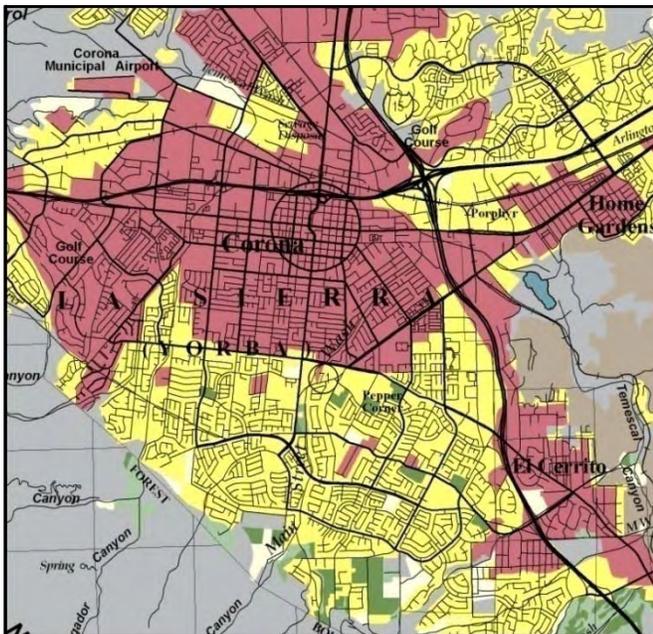
The goal of the Farmland Mapping and Monitoring Program (FMMP) is to provide consistent, timely, and accurate data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. The extent of urbanization since the Program's 1984 inception is illustrated in yellow for part of Riverside County (Figure 1).

Approximately 96% of the privately owned land in the state (48.2 million acres) was mapped this update cycle by FMMP. The survey area is shown on page 5 (Figure 2). Each map is updated every two years, providing an archive for tracking land use change over time.

Using a geographic information system (GIS), aerial imagery, local input, and other information, FMMP combines soil quality data and current land use information to produce Important Farmland Maps. The program is funded through the state's Soil Conservation Fund. This fund receives revenues from Williamson Act contract cancellation fees.

Advances in technology have supported significant data improvements in recent years, including the

**FIGURE 1: URBANIZATION IN THE CORONA AREA,  
RIVERSIDE COUNTY, 1984-2006**  
NEW URBAN LAND IN YELLOW



incorporation of digital soil survey data and the use of detailed digital imagery. Similarly, the number of products available has grown with the requirements of users - including printed maps, PDF maps, statistics, field reports, and GIS data. The maps and data are used in environmental studies to assess the impacts of proposed development on agricultural and open space land. In recent years, FMMP data has become widely used in urbanization and environmental modeling, and comparative land cover studies.

In addition, only land that is classified in one of the four main agricultural categories on Important Farmland Maps is eligible for enrollment in Farmland Security Zone (FSZ) contracts. Under FSZ contracts, landowners receive substantial property tax benefits for committing to keep their land in agricultural use for 20-year periods.

This is the eleventh Farmland Conversion Report produced by the FMMP, the current report covering the 2004 to 2006 period.

FOR MORE INFORMATION ABOUT DIVISION OF LAND RESOURCE PROTECTION PROGRAMS,  
INCLUDING THE LAND CONSERVATION ACT AND FARMLAND SECURITY ZONES:  
[HTTP://WWW.CONSERVATION.CA.GOV/DLRRP](http://www.conservation.ca.gov/dlrrp)

## Important Farmland Map Categories

FMMP's study area is coincident with the boundaries of U.S. Department of Agriculture (USDA) modern soil surveys. Technical ratings of the soils and current land use information are combined to determine the appropriate map category. The minimum land use mapping unit for all categories is 10 acres unless otherwise noted; soil units as small as one acre are maintained to most accurately represent the original USDA data.

**Prime Farmland** has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

**Farmland of Statewide Importance** is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

**Unique Farmland** consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

**Farmland of Local Importance** is land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. The definitions for this category are detailed in Appendix E of this report.

**Grazing Land** is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

**Urban and Built-up Land** is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

**Water** is defined as perennial water bodies with an extent of at least 40 acres.

**Other Land** is land not included in any other mapping category. Common examples include low density rural developments, vegetative and riparian areas not suitable for livestock grazing, confined animal agriculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. More detailed data on these uses is available in counties containing the Rural Land Use Mapping categories.

## Rural Land Use Mapping Categories

The Rural Land Mapping project provides more map and statistical detail than standard Important Farmland Map products by delineating Other Land into four subcategories, as described on page 5. Conversion data is only available in four pilot counties at this time; please see page 18 and the Appendix D tables.

**Rural Residential and Rural Commercial** includes residential areas of one to five structures per ten acres, farmsteads, small packing sheds, unpaved parking areas, composting facilities, firewood lots and campgrounds.

**Vacant or Disturbed Land** consists of open field areas that do not qualify for an agricultural category, mineral and oil extraction areas, and rural freeway interchanges.

**Confined Animal Agriculture** includes aquaculture, dairies, feedlots, and poultry facilities.

**Nonagricultural and Natural Vegetation** covers heavily wooded, rocky or barren areas, riparian and wetland areas, grassland areas which do not qualify for Grazing Land due to their size or land management restrictions, small water bodies, and recreational water ski lakes. Constructed wetlands are also included in this category. The Rural Land classes are not designed for interpretation as habitat. Geographic data on the extent of habitat for various species may be available from other state and federal entities.

### Optional Designation

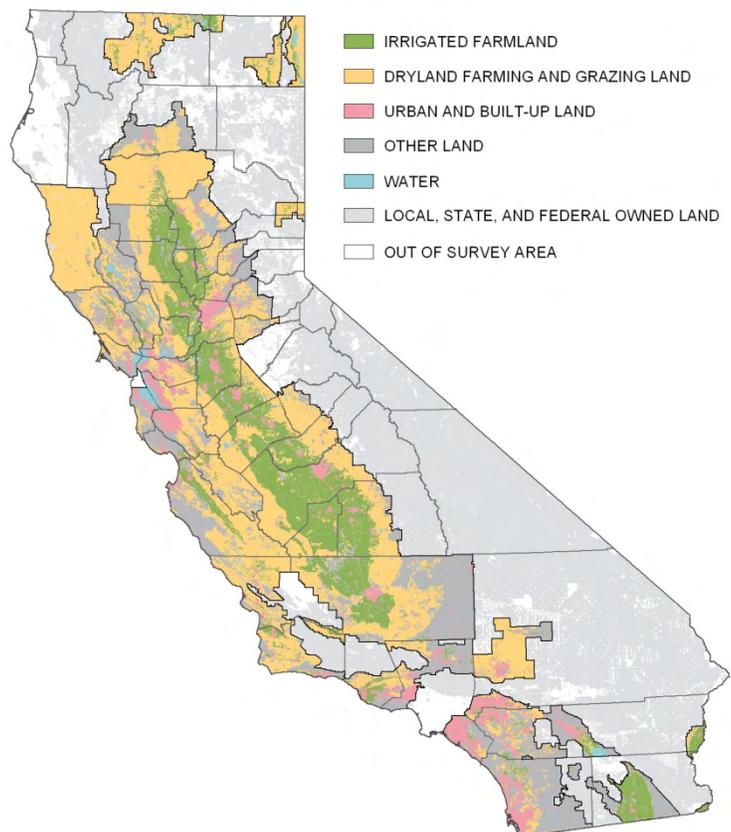
**Land Committed to Nonagricultural Use** is defined as existing farmland, grazing land, and vacant areas that have a permanent commitment for development. This optional designation allows local governments to provide detail on the nature of changes expected to occur in the future. It is available both statistically and as an overlay to the Important Farmland Map.

### Survey Area Coverage

In Figure 2, the 'Irrigated Farmland' area includes Prime Farmland, Farmland of Statewide Importance, and Unique Farmland categories. The 'Dryland Farming and Grazing Land' designation includes the Farmland of Local Importance and Grazing Land categories.

Locations shown as 'Out of Survey Area' may be added in the future, while those indicated as 'Local, State, and Federal Owned Land' are not planned for incorporation. Examples of government owned land include National Parks, Forests, and Bureau of Land Management lands. Please note that small areas of public land are included in the Important Farmland survey area - generally appearing as 'Other Land' on the map.

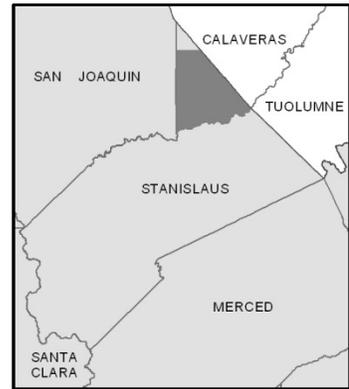
FIGURE 2: 2006 IMPORTANT FARMLAND SURVEY AREA



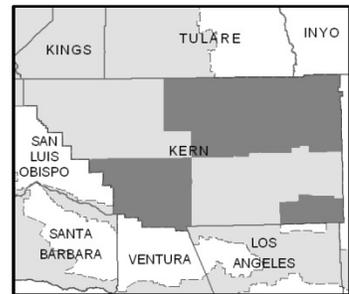
**FIGURE 3: 2006 MAPPING ADDITIONS  
AND ENHANCEMENTS  
SHOWN IN DARK GRAY**



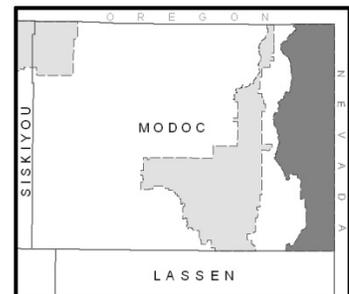
**MENDOCINO COUNTY ADDITION**



**STANISLAUS COUNTY ADDITION**



**KERN COUNTY UPGRADE**



**MODOC COUNTY UPGRADE**



## Chapter 2: 2004-2006 Improvements

### **SURVEY AREA ADDITIONS AND WEB-BASED MAPS HIGHLIGHT FMMP'S CONTINUOUS IMPROVEMENT.**

Each update cycle provides the opportunity to make improvements to the Important Farmland data, in order to achieve increased accuracy, process efficiency, or better reporting capabilities. During the 2004-06 update, Mendocino County and parts of Stanislaus County were added to the survey, and upgrades were made in Kern and Modoc counties due to digital soil availability (Figure 3). Other improvements included better quality base map data and full-size PDF maps on the web. Many of these improvements were funded with a temporary augmentation FMMP received from the 2000 Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act (Proposition 13).

#### **Mendocino County Addition**

The completion of two USDA-Natural Resources Conservation Service (NRCS) soil surveys in Mendocino County supported the addition of 2.0 million acres to the Important Farmland survey area. With a base mapping year of 2006, the map is in draft status pending approval of a Farmland of Local Importance category by local agencies. Draft 2006 statistics appear at right and in Table A-17.

#### **Stanislaus County Addition**

A gap of nearly 101,000 acres in the northeast section of Stanislaus County was filled due to the completion of an NRCS soil survey for the area. This addition, made to the 2004 data, brings Important Farmland coverage of the county to 100% (Table A-41).

#### **Kern County Upgrade**

The completion of NRCS soil surveys for the northeastern and southwestern parts of Kern County allowed FMMP to upgrade more than 2.6 million acres to Important Farmland status. Without soil data, prior maps documented only the extent of irrigated and nonirrigated land in these locations. This was carried out on the 2004 data, and complete Important Farmland conversion statistics (Table A-10) are now available for this important agricultural county, which ranks fourth in agricultural income statewide.

#### **Modoc County Upgrade**

The Surprise Valley area of Modoc County has been in the FMMP survey area since 1984, but digital soil data only became available this update cycle. As a result, 2004-06 conversion statistics for Modoc County contain some anomalies—primarily due to more detailed data for soil units associated with the county's Farmland of Local Importance definition. A 574 acre survey area addition also resulted from the alignment of the digital product to revised government land boundaries (Table A-19).

**TABLE 1: MENDOCINO COUNTY  
IMPORTANT FARMLAND 2006  
DRAFT ACREAGES (1)**

Prime Farmland	20,688
Farmland of Statewide Importance	1,166
Unique Farmland	6,969
Grazing Land	1,928,253
Urban and Built-up Land	19,055
Rural Residential and Rural Commercial Land	21,033
Confined Animal Agriculture	70
Vacant or Disturbed Land	965
Nonagricultural and Natural Vegetation	44,395
Water Area	2,135
<b>TOTAL AREA INVENTORIED</b>	<b>2,044,729</b>

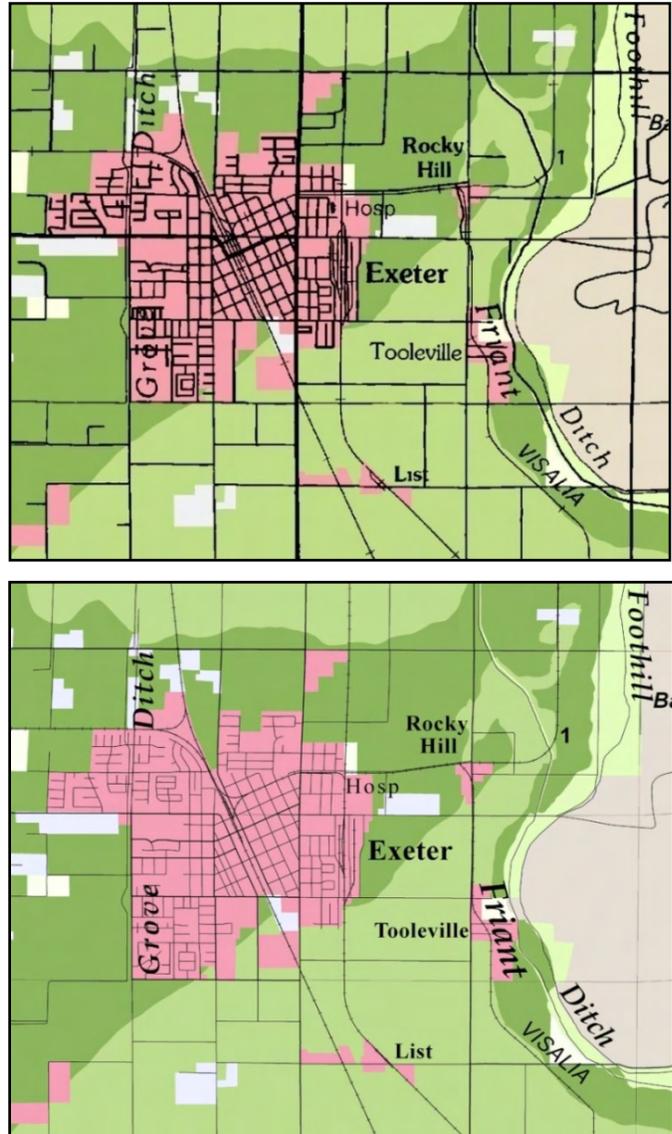
(1) During review process, the development and approval of a Farmland of Local Importance definition may impact the amount of land in some categories. Acreages include the enhanced Rural Land Mapping categories.

### Improved Base Map Data and Full Size PDF Maps

Historically the roads, streams, and administrative boundaries shown on the Important Farmland Maps were derived from scanned U.S. Geological Survey (USGS) 1:100,000 maps. The products were suitable for county-wide maps but did not have sufficient resolution for high quality enlargements or web posting. FMMP brought together data from various sources and digitized additional features to create base maps which reflect the original USGS design, yet have greater detail and ease of updating.

It is these base maps which made posting of full size PDF maps on the internet possible, starting with the 2006 information. This provides non-GIS users the option of zooming in to areas of interest, copying, and pasting them into their projects. Adobe Acrobat, the software that creates and reads PDF files, is expected to support area and linear measurements in the future.

**FIGURE 4: BASE MAP IMPROVEMENT EXAMPLE**  
SCANNED PRODUCT ABOVE, HIGHER RESOLUTION  
REPLACEMENT BELOW



DOWNLOAD COUNTY PDF MAPS AT:  
[FTP://FTP.CONSRV.CA.GOV/PUB/DLRP/FMMP/PDF](ftp://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf)



## Chapter 3: Understanding the Data

### LOCATING AND INTERPRETING THE CALIFORNIA FARMLAND CONVERSION REPORT'S TABULAR DATA AND GRAPHICS.

Important Farmland information is developed on an individual county basis, taking two years to map the 48.2 million acre survey area. This report begins with each county's information, compiling it in various ways to produce the summary and analysis in Chapter 4.

#### Source Data: County Conversion Tables - Appendix A

These tables include acreage tallies and conversion statistics for individual counties. Figure 5 depicts how conversion tables are constructed.

#### Statewide Conversion – Chapter 4, Table 4

This table summarizes material from all three sections of the Appendix A tables and has the same structure as the individual county tables.

#### 2004 and 2006 County Acreage Tallies – Appendix B

Values for the individual years (Tables B-1 and B-2) are extracted from Part I of the tables in Appendix A. These tables also indicate the proportion of each county that lies within the FMMP survey area — mapping typically ends at the boundaries of National Forests, for example. Table B-3 shows this same information for 2006, grouped by region.

**FIGURE 5: CONVERSION TABLE STRUCTURE FOR COUNTY AND STATEWIDE DATA**

TABLE 4  
LAND USE CONVERSION SUMMARY (1)  
2002-2004 Land Use Conversion

DEPARTMENT OF CONSERVATION  
Division of Land Resource Protection  
PART I  
Land Use Totals and Net Changes

Farmland Mapping and Monitoring Program  
PART II  
Land Committed to Nonagricultural Use

LAND USE CATEGORY	TOTAL ACREAGE INVENTORY		1998-00 ACREAGE CHANGES			
	2002	2004	ACRES LOST (-)	ACRES GAINED (+)	TOTAL ACREAGE CHANGED	NET ACREAGE CHANGED
Prime Farmland (2)	1,072,020	1,072,020	84,183	44,695	126,778	39,886
Farmland of Statewide Importance	12,213	12,213	0	0	0	0
Unique Farmland of Local Importance	24,676	24,676	0	0	0	0
IMPROVED PASTURE	8,030	8,030	0	0	0	0
Grazing Land	38,162	38,162	0	0	0	0
AGRICULTURE	1,144	1,144	0	0	0	0
Urban and Built-Up Land	8,225,916	8,225,916	13,755	96,277	100,032	100,032
Other Land	9,011,988	9,011,988	54,898	61,960	116,858	7,060
Water Area	632,032	632,032	491	6,255	6,746	1,744
<b>TOTAL ACREAGE INVENTORY</b>	<b>13,749,044</b>	<b>13,749,044</b>	<b>402,472</b>	<b>402,472</b>	<b>804,944</b>	<b>167,142</b>

**PART I:**  
Indicates county area mapped & overall change in each category.

**PART II:**  
Land expected to be developed (voluntary submission by local governments).

PART III: Land Use Conversion from 2002 to 2004

LAND USE CATEGORY	Prime Farmland	Farmland of Statewide Importance	Unique Farmland	Farmland of Local Importance	Subtotal Farmland	Grazing Land	Total Agricultural Land	Urban and Built-Up Land	Other Land	Water Area	Total Converted To Another Use
Prime Farmland (2)	to: 0	4,446	3,071	34,383	41,900	11,385	53,285	16,661	12,162	2,075	84,183
Farmland of Statewide Importance	0	0	0	0	0	0	0	0	0	0	0
Unique Farmland	0	0	0	0	0	0	0	0	0	0	0
Farmland of Local Importance	0	0	0	0	0	0	0	0	0	0	0
Subtotal Farmland	0	0	0	0	0	0	0	0	0	0	0
Grazing Land	0	0	0	0	0	0	0	0	0	0	0
Total Agricultural Land	0	0	0	0	0	0	0	0	0	0	0
Urban and Built-Up Land	0	0	0	0	0	0	0	0	0	0	0
Other Land	0	0	0	0	0	0	0	0	0	0	0
Water Area	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL ACREAGE CONVERTED</b>	<b>to: 44,595</b>	<b>33,336</b>	<b>54,320</b>	<b>74,984</b>	<b>207,134</b>	<b>40,846</b>	<b>247,980</b>	<b>66,777</b>	<b>61,960</b>	<b>6,255</b>	<b>402,472</b>

**PART III:**  
Raw data from GIS provides detail on every acre of change that occurred. Changes result from revising the two-year-old linework based on new air photos and field verification.

**FOOTNOTES:**  
Information on large or unusual conversions and other descriptive material.

## County and Regional Conversion Summaries – Appendix C

The counties are grouped into geographic regions as seen in Figure 6. Much of the analysis in Chapter 4 is based on the data in Appendix C.

Table C-1	Classifies sources of new urban land for the period, by county and region.
Table C-2	Identifies conversions in or out of agriculture aside from urbanization, capturing the ebb and flow of agricultural land use change over time.
Table C-3	Documents net agricultural change from all factors, grouped by region and ranked by acreage.

## Rural Land Use Mapping Tables – Appendix D

Contains data on changes associated with a more detailed subdivision of the Other Land category. Four pilot counties contain conversion data; while Kern and Mendocino counties have data starting in 2006.

### Simplifying Assumptions

In order to conduct comparative analysis, certain simplifying assumptions have been made. For example, Unique Farmland is considered to be an irrigated farmland category, even though a small percentage of land within the Unique Farmland category supports high value nonirrigated crops, such as some coastal vineyards. Conversely, Farmland of Local Importance is considered to be a nonirrigated category although it also supports some irrigated pasture on lower-quality soils.

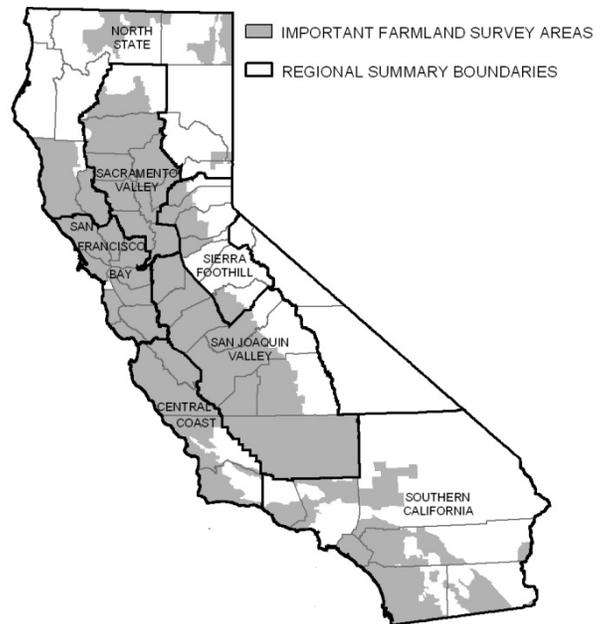
### Statistical Notes

Residual polygons, those less than the 10- or 40-acre minimum land use mapping unit, are a natural result of the mapping process as changes are made to adjacent areas. In order to maintain map unit consistency, these small units are absorbed into the most appropriate adjacent land use type. This process results in shifts among categories that may appear anomalous in the conversion statistics - such as urban to agriculture or Prime Farmland to Farmland of Statewide Importance.

Once land use and digital soil data are merged to create the Important Farmland data, units of less than 1.0 acre are reclassified into the next most appropriate category to optimize the data files. Tabular data is reported in whole numbers; small variations in category totals may result from rounding to whole numbers.

Particularly large or anomalous changes are footnoted at the bottom of each table. Additional detail is available in the field analyst report produced for each county.

**FIGURE 6: REGIONS USED FOR FMMP ANALYSIS**



DOWNLOAD COUNTY FIELD ANALYST REPORTS AT:  
[HTTP://WWW.CONSERVATION.CA.GOV/DLRP/FMMP](http://www.conservation.ca.gov/dlrp/fmmp)



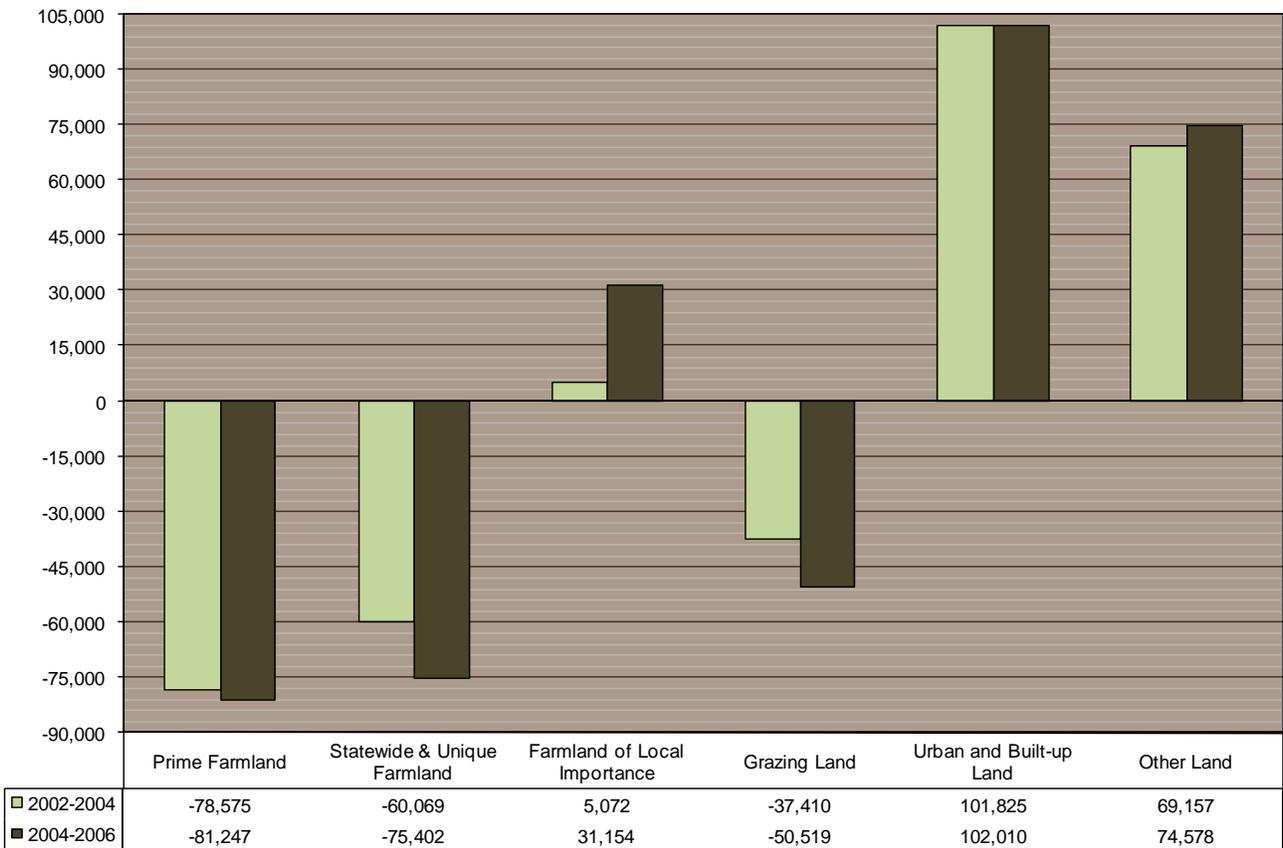
## Chapter 4: Land Use Conversion, 2004-2006

**URBANIZATION RATES REMAINED STEADY, WHILE IRRIGATED FARMLAND LOSSES ACCELERATED COMPARED WITH THE 2002-2004 PERIOD. CONVERSIONS DUE TO LAND IDLING, DRYLAND FARMING, AND LOW DENSITY DEVELOPMENT HAD INCREASED IMPACT.**

California’s agricultural landscape continues to evolve with economic and resource-related factors. Between 2004 and 2006, development pressure on inland counties led to 102,010 new urban acres, a less than 0.2% increase relative to the 101,825 acres occurring between 2002 and 2004. More than 25% of conversions were derived from irrigated farmland, and an additional 35% from dryland farming and grazing land.

Strong markets for grain crops, water availability issues, and conversions to low density rural uses affected irrigated acreage in many areas of the state. Combined with urbanization, this resulted in a 13% larger decrease in irrigated land totals than the 2002-04 period (156,650 and 138,644 acres, respectively). Changes in major categories for both periods are shown in Figure 7 below.

**FIGURE 7: STATEWIDE IMPORTANT FARMLAND CONVERSION SUMMARY (ACRES)**



*INFORMATION IN THIS CHAPTER IS BASED ON STATEWIDE TABLE 4 (PAGE 13), APPENDIX C SUMMARIES, AND COUNTY FIELD ANALYST REPORTS.*

**Urbanization**

**Southern California counties dominated the top ten urbanizing list** during the 2006 Important Farmland update, with Riverside County’s record-breaking development pace accounting for nearly 23% of new urban land in the state (Table 2). Four additional

**TABLE 2: URBANIZATION FROM ALL CATEGORIES**

Top Ten Counties - net acres			
2002-2004		2004-2006	
Riverside	14,406	Riverside	23,268
San Bernardino	9,314	Sacramento	9,893
Kern	8,610	San Bernardino	9,419
San Diego	6,130	Kern	7,512
Sacramento	5,726	San Diego	6,471
Placer	5,328	Los Angeles	4,551
Contra Costa	4,987	Fresno	4,465
Stanislaus	4,361	San Joaquin	4,426
Orange	4,191	Placer	3,589
Fresno	3,362	Orange	2,066

counties in the region contributed to it hosting 47% of the two-year urbanization total. The San Joaquin Valley held three slots on the top urbanizing list: Kern, Fresno, and San Joaquin counties. Sacramento and Placer counties rounded out the list; Sacramento County’s total was also a record in FMMP history. For the first time, the list did not include any San Francisco Bay area counties. Urbanization was concentrated in a smaller number of counties relative to the 2004 update: while the top ten counties comprised 65% of new urban lands between 2002 and 2004, the figure was 74% during the 2006 mapping cycle.

**Regional rankings** (Table 3) echo the individual county results as Southern California’s urbanized acreage exceeded the prior update’s conversions by more than 18% (7,310 acres). The San Joaquin and Sacramento Valley regions held on to ranks two and three in urban development. Conversions in the San Francisco Bay region continue to decline in prominence; it last fell within the top three ranks during the 2000-02 update cycle.

In northern California, regions that are viewed in terms of their geomorphic boundaries - the Sacramento Valley and Sierra Foothill regions – could also be seen in terms of metropolitan areas. Under that scenario, the six county Sacramento Area Council of Governments jurisdiction would account for 16,348 acres, or 16%, of the state’s urbanization between 2004 and 2006. This would result in all the remaining counties of the Sacramento Valley and Sierra Foothills totaling 3,195 urbanized acres during the update, less than that of the four Central Coast counties.

**TABLE 3: REGIONAL URBANIZATION RANKING**

		net acres	
2002-04		2004-06	
SOUTHERN CALIFORNIA	40,036	SOUTHERN CALIFORNIA	47,346
SAN JOAQUIN VALLEY	24,845	SAN JOAQUIN VALLEY	23,423
SACRAMENTO VALLEY	13,102	SACRAMENTO VALLEY	14,856
SAN FRANCISCO BAY	11,859	SAN FRANCISCO BAY	7,329
SIERRA FOOTHILL	9,797	SIERRA FOOTHILL	4,687
CENTRAL COAST	2,176	CENTRAL COAST	3,586
NORTH STATE	10	NORTH STATE	783

**Housing developments were the most frequent and largest category of newly urbanized land.** Most of the increase was associated with single family homes located at the periphery of existing cities, and to a lesser degree condominium and apartment complexes. Individual subdivisions ranged up to 300 acres in size. In some areas, increased structural density or other infill projects prompted reclassification from Other Land to Urban and Built-up Land.

**TABLE 4**  
**CALIFORNIA FARMLAND CONVERSION SUMMARY (1)**  
**2004-2006**

**DEPARTMENT OF CONSERVATION**  
Division of Land Resource Protection

Farmland Mapping and Monitoring Program

**PART I**

Land Use Totals and Net Changes

LAND USE CATEGORY	TOTAL ACREAGE INVENTORIED		2004-2006 ACREAGE CHANGES				NET ACREAGE CHANGED
	2004	2006	ACRES LOST (-)	ACRES GAINED (+)	TOTAL ACREAGE CHANGED	NET ACREAGE CHANGED	
	Prime Farmland	5,403,611	5,322,364	114,380	33,133	147,513	
Farmland of Statewide Importance	2,821,928	2,764,610	78,633	21,315	99,948	-57,318	
Unique Farmland	1,365,142	1,347,058	57,625	39,541	97,166	-18,084	
Farmland of Local Importance	2,863,322	2,894,476	107,150	138,304	245,454	31,154	
<b>IMPORTANT FARMLAND SUBTOTAL</b>	<b>12,454,003</b>	<b>12,328,508</b>	<b>357,788</b>	<b>232,293</b>	<b>590,081</b>	<b>-125,495</b>	
Grazing Land	16,572,447	16,521,928	134,937	84,318	219,155	-50,519	
<b>AGRICULTURAL LAND SUBTOTAL</b>	<b>29,026,450</b>	<b>28,850,436</b>	<b>492,625</b>	<b>316,611</b>	<b>809,236</b>	<b>-176,014</b>	
Urban and Built-up Land	3,380,167	3,482,177	10,752	112,762	123,514	102,010	
Other Land	12,991,116	13,064,905	72,949	146,738	219,687	73,789	
Water Area	708,804	709,593	1,137	1,926	3,063	789	
<b>TOTAL AREA INVENTORIED (2)</b>	<b>46,106,537</b>	<b>46,107,111</b>	<b>577,463</b>	<b>578,037</b>	<b>1,155,500</b>	<b>574</b>	

**PART II**

Land Committed to Nonagricultural Use

LAND USE CATEGORY	TOTAL ACREAGE 2006
Prime Farmland	15,640
Farmland of Statewide Importance	2,653
Unique Farmland	4,678
Farmland of Local Importance	27,561
<b>IMPORTANT FARMLAND SUBTOTAL</b>	<b>50,532</b>
Grazing Land	55,657
<b>AGRICULTURAL LAND SUBTOTAL</b>	<b>106,189</b>
Urban and Built-up Land	0
Other Land	44,439
Water Area	0
<b>TOTAL ACREAGE REPORTED</b>	<b>150,628</b>

**PART III Land Use Conversion from 2004 to 2006**

LAND USE CATEGORY	Prime Farmland	Farmland of Statewide Importance	Unique Farmland	Farmland of Local Importance		Subtotal Important Farmland	Grazing Land	Total Agricultural Land	Urban and Built-up Land	Other Land	Water Area	Total Converted To Another Use
				Farmland of Local Importance	Unique Farmland							
Prime Farmland	--	2,824	2,386	43,935	49,145	21,557	70,702	18,816	24,813	49	114,380	
Farmland of Statewide Importance	3,942	--	2,759	37,281	43,982	14,563	58,545	6,501	13,586	1	78,633	
Unique Farmland	1,619	1,595	--	17,944	21,158	20,336	41,494	2,969	13,137	25	57,625	
Farmland of Local Importance	13,318	8,222	12,855	--	34,395	22,240	56,635	19,136	31,171	208	107,150	
<b>IMPORTANT FARMLAND SUBTOTAL</b>	<b>18,879</b>	<b>12,641</b>	<b>18,000</b>	<b>99,160</b>	<b>148,680</b>	<b>78,696</b>	<b>227,376</b>	<b>47,422</b>	<b>82,707</b>	<b>283</b>	<b>357,788</b>	
Grazing Land	7,165	3,166	15,579	34,130	60,040	--	60,040	18,089	56,524	184	134,337	
<b>AGRICULTURAL LAND SUBTOTAL</b>	<b>26,044</b>	<b>15,807</b>	<b>33,579</b>	<b>133,290</b>	<b>208,720</b>	<b>78,696</b>	<b>287,416</b>	<b>65,511</b>	<b>139,231</b>	<b>487</b>	<b>492,625</b>	
Urban and Built-up Land	1,074	525	432	688	2,719	1,029	3,748	--	6,975	29	10,752	
Other Land	5,951	4,958	5,523	4,226	20,658	3,870	24,528	46,991	--	1,430	72,949	
Water Area	64	18	7	84	173	172	345	260	532	--	1,137	
<b>TOTAL ACREAGE CONVERTED</b>	<b>33,133</b>	<b>21,308</b>	<b>39,541</b>	<b>138,288</b>	<b>232,270</b>	<b>83,767</b>	<b>316,037</b>	<b>112,762</b>	<b>146,738</b>	<b>1,926</b>	<b>577,463</b>	

(1) This table includes acreage data for all or part of 48 counties, draft statistics for Mendocino County are not included.  
 (2) Incorporation of digital soil survey data (SSURGO) for the Surprise Valley area of Modoc County in 2006 resulted in a 574 acre net increase to the survey area, reflecting changes to federal lands boundaries.

**Retail and commercial developments and community infrastructure** were also common. Riverside County provides the following examples: at least sixteen new schools, most being about 15 acres in size; nearly 1,400 acres of golf courses; two landfill expansions totaling 125 acres; and 320 acres of warehouse distribution facilities. About 60% of city expansion in Riverside County occurred on irrigated and historically farmed property. Notable examples from other counties included expansion of Aerojet General industrial facilities (Sacramento County, 350 acres); 320 acres of terminal and runway construction at airports in San Bernardino and Kern counties (California Logistics Airport and Bakersfield Airport, respectively); and water evaporation ponds in Fresno County (270 acres).

**Urbanization’s impact on irrigated farmland** was again concentrated in San Joaquin Valley (‘Valley’) counties; six of the top ten slots of this conversion type were located in the region (Table 5 and Appendix Table C-1). In San Joaquin County, new developments near Tracy, Lathrop, and north Stockton absorbed much of the growth. Kern County’s irrigated land losses surrounded Bakersfield; while the cities of Fresno and Clovis predominated in Fresno County’s conversions. Stanislaus County was notable as having the highest proportion of urban development on Prime Farmland (81%), followed by Tulare and San Joaquin counties (47% and 46%, respectively).

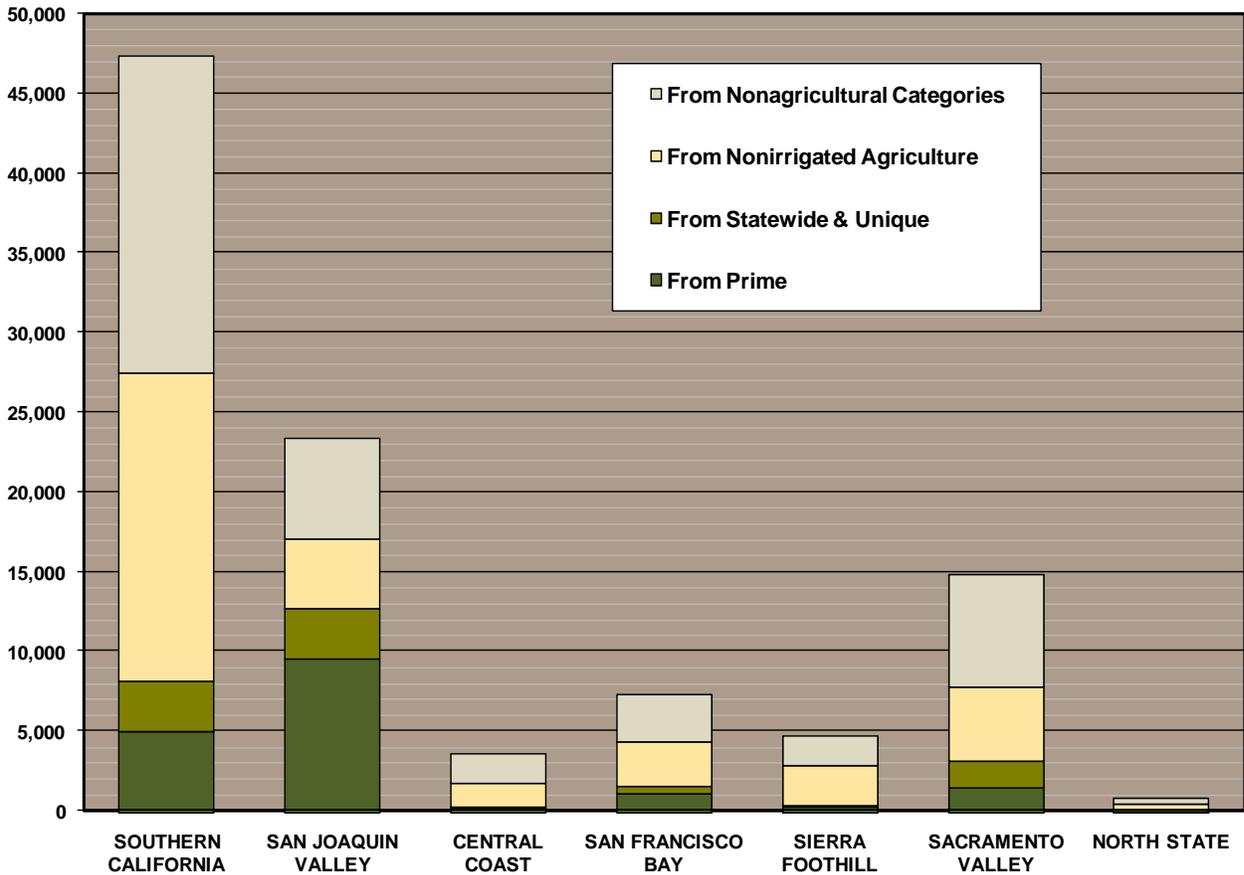
All told, 41% of new urban land in the Valley came from Prime Farmland and an additional 13% came from Farmland of Statewide Importance and Unique Farmland during the 2004-06 period. The statistics represent a decrease from 2002-04, when the figures were 48% and 13%, respectively. However, it is notable that the proportion of new urban lands in the Valley on idled farmland and grazing land increased from 14% to 19% between the two cycles.

Statewide statistics for urbanization of irrigated land mirror those of the Valley between the two updates: Prime Farmland to Urban dropped from 19% to 17% of the total, and from 9% to 8% for the remaining irrigated categories. Previous Farmland Conversion Reports have documented the retirement of irrigated lands surrounding existing cities in anticipation of urban conversion; current data supports continuation of this phenomenon. The relative location and type of land converted to urban uses is shown graphically in Figure 8 (page 15).

**TABLE 5: IRRIGATED FARMLAND TO URBAN RANKS**

Top Ten Counties - net acres			
2002-2004		2004-2006	
Kern	4,275	Riverside	4,454
Stanislaus	3,460	San Joaquin	3,136
Riverside	2,485	Kern	2,738
San Joaquin	2,239	Fresno	2,392
Fresno	2,081	Sacramento	1,417
Sacramento	1,431	Stanislaus	1,359
Tulare	1,377	San Bernardino	1,238
San Bernardino	1,243	Merced	1,138
Merced	1,058	Tulare	1,001
Imperial	1,047	San Diego	897

**FIGURE 8: SOURCES OF URBAN LAND 2004-2006  
(ACRES)**



**Other Changes Affecting Agricultural Land**

The goal of Important Farmland mapping is to track long-term trends in agricultural land resource use. While urbanization is an important component of these trends, economic and resource availability factors also lead to lands being more intensively farmed or being taken out of irrigated uses. Appendix Table C-2 documents the extent to which these factors affected the data during the 2004-06 cycle.

**Land is converted to irrigated agricultural use** when dry pastures or native vegetation are converted, or when idled land is brought back into production. Conversions to irrigated categories affected 78,857 acres between 2004 and 2006, a 2% decrease from the prior cycle. Keeping with historic precedent, 65% of the land brought into agricultural use did not meet the criteria for Prime Farmland.

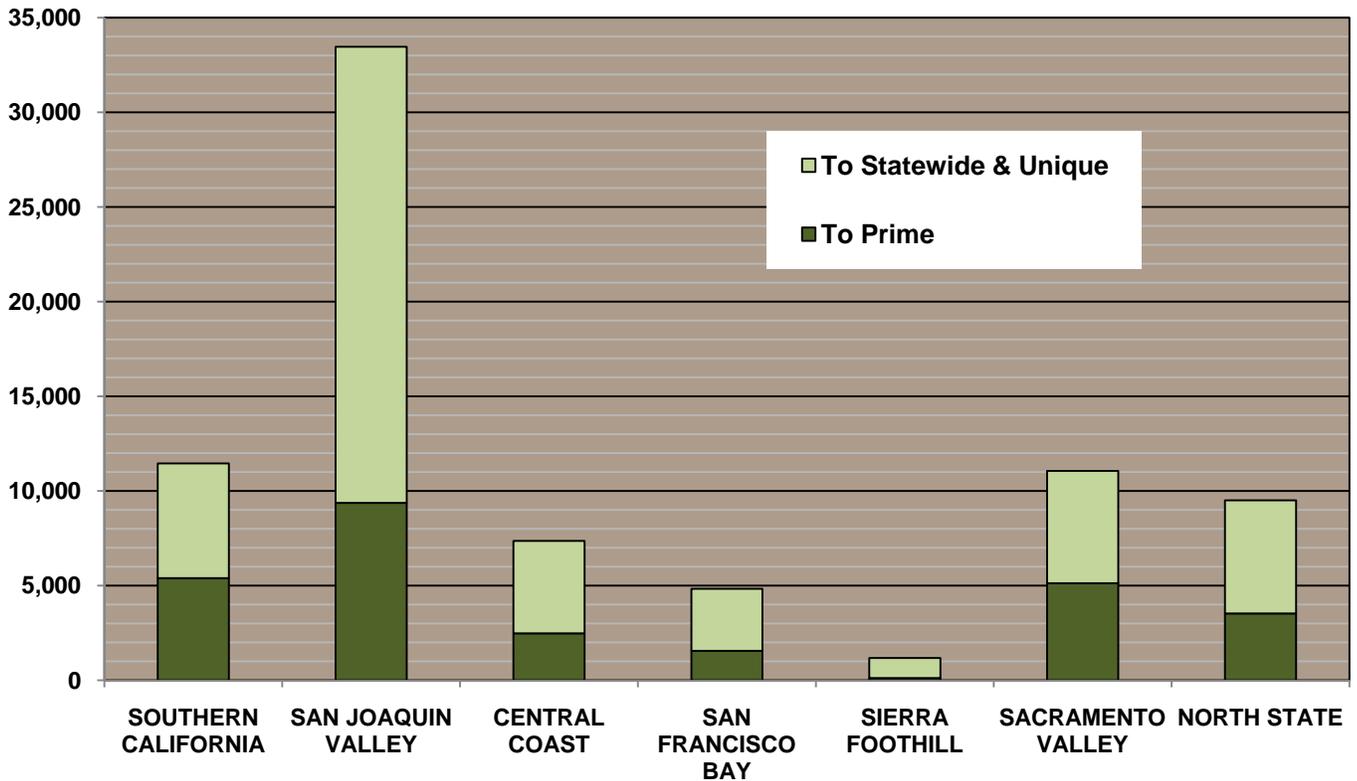
San Joaquin Valley counties accounted for 42% of the land brought into irrigated uses (Figure 9, page 16), while Southern California and the Sacramento Valley each comprised 14% of the total.

Three counties had irrigated land expansions in excess of 5,000 acres: Kern, Merced, and Stanislaus. Many of the additions were orchards, almonds in particular, located along the Sierra foothills. Almonds are the state’s top agricultural export commodity; the California Department of Food and Agriculture reports that

almond plantings increased by 90,000 acres statewide between 2004 and 2006<sup>1</sup>. Other crops planted included vegetables, sod farms, and alfalfa. The alfalfa plantings in the San Joaquin Valley support the trend of dairy movement into the region from Southern California.

Expansions in Southern California were primarily for row crops, nurseries, alfalfa, and orchards in areas such as Perris and the Temecula Valley (Riverside County), Fallbrook (San Diego County), and Antelope Valley (Los Angeles County). In the Sacramento Valley, orchards were popular along the interior Coast Range foothills in Colusa, Glenn, Tehama, and Yolo counties.

**FIGURE 9: CONVERSIONS TO IRRIGATED FARMLAND 2004-2006 (ACRES)**



Land is removed from irrigated categories in one of three ways: urbanization, conversion to Other Land, or reclassification to a dryland agriculture class. Dryland farming classes include Grazing Land and Farmland of Local Importance. In counties with Rural Land Mapping enhancements, more detailed information about conversions to Other Land is available.

*LAND THAT HAS NOT BEEN IN IRRIGATED USE FOR THREE UPDATE CYCLES IS PLACED IN A NONIRRIGATED CLASSIFICATION. THIS MINIMIZES THE IMPACT OF CROP ROTATION CYCLES ON THE IMPORTANT FARMLAND DATA.*

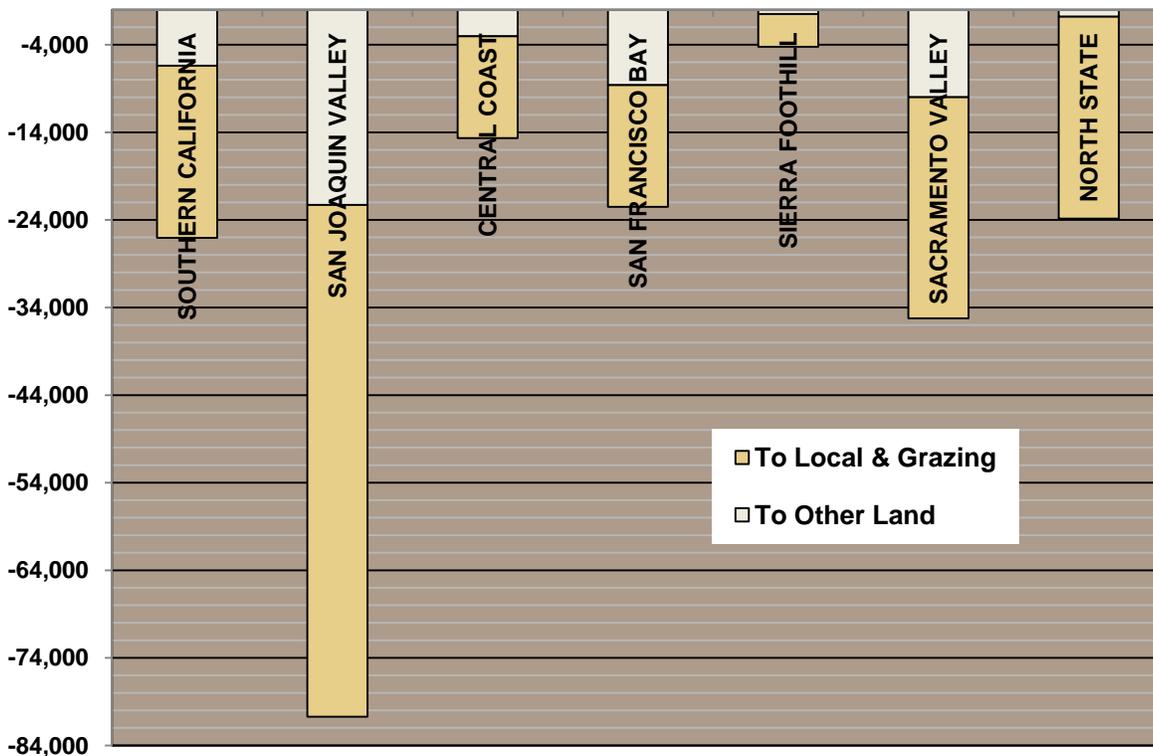
<sup>1</sup> <http://www.cdfa.ca.gov/Statistics.html>

**Reclassifications to Grazing Land or Farmland of Local Importance** due to land idling, long-term dryland farming, or conversion to confined animal agriculture facilities have accelerated in recent updates. Between 2004 and 2006, 155,616 acres were affected, a 23% increase over the prior cycle. Regions most impacted were the San Joaquin Valley, Sacramento Valley, and the North State counties (37%, 16%, and 15%, respectively; Figure 10). Fresno, Kings, and Merced each had more than 10,000 acres reclassified, primarily on the west side of the San Joaquin Valley. The bulk of these changes were due to land idling or dryland farming; conversion to confined animal agriculture facilities was less extensive than in recent update cycles.

Yolo and Sacramento counties dominated statistics for land removed from irrigated uses in the Sacramento Valley region, though the reasons differed. Yolo County experienced continued land idling near expanding wildlife areas in the Yolo Bypass; while in Sacramento, land was taken out of agricultural use in anticipation of urban development in the Natomas Basin and Elk Grove areas.

A large proportion of the North State’s conversion represented technical improvements resulting from incorporation of the new digital soil survey for Surprise Valley in Modoc County. Nearly 10,000 acres that had qualified for Farmland of Statewide Importance based on the paper soil survey were reassessed using modern soil classification standards, resulting in their conversion to Farmland of Local Importance. The Surprise Valley survey is the last of many to be converted to digital format.

**FIGURE 10: CONVERSIONS OUT OF IRRIGATED CATEGORIES 2004-2006 (ACRES)**



**Reclassification to Other Land** is less frequent but is typically more permanent in nature than land idling. This is because many of the new uses involve low density residential development, mining, ecological restoration, or similar changes.

Between 2004 and 2006, 51,611 acres statewide were reclassified from irrigated agriculture to Other Land. This was a 16% decrease from the prior update cycle. San Joaquin and Sacramento Valley counties accounted for 43% and 19% of the total, respectively. Common to many counties were expansions of rural residential areas, and delineation of farmsteads at the 10 acre minimum mapping unit. In a continuing trend toward better source data, imagery used in the update was one meter or better resolution, allowing more detailed mapping of small units. Most of the rural residential growth was fragmented, with individual units typically in the 10-50 acre range. Larger single conversions, conversely, were associated with ecological restoration or wetland reserve projects, sand and gravel mining, and confined animal agriculture facilities. Some of these changes were hundreds of acres in size.

In the San Joaquin Valley, Tulare and Stanislaus counties converted the largest acreages from irrigated uses to Other Land (4,829 acres and 4,401 acres, respectively). One third of the change in Tulare County was due to wetland reserve easements, while in Stanislaus County nearly half (48%) of the conversions were associated with wildlife refuge additions and wetland reserves. Kern, Madera and Merced counties contained notable conversions to dairies or poultry facilities; these uses are not included in their Farmland of Local Importance definitions. In the Sacramento Valley, ecological restoration sites in Colusa, Glenn, Sacramento, and Yolo counties were significant factors in Other Land conversion. Urban influenced counties, including Sacramento, San Joaquin, and Yolo, included larger mining operation expansions.

**Counties with Rural Land Mapping Enhancements**

More than 28% of the Important Farmland survey area is classified as Other Land. While urbanization has historically been the driving force in agricultural land loss, FMMP’s statistics over the years indicate that conversions to Other Land are one fifth the scope of conversions to urban. In other words, for every five acres of land exiting crop or grazing land, four convert to Urban Land and one converts to Other Land. Users began requesting more detail about the various land uses within the generic Other Land category. As a result, four San Joaquin Valley counties were enhanced with the Rural Land Mapping classes (page 5) as a pilot effort.

Based on initial findings, requests from map users to expand the enhancements followed. FMMP is attempting to accommodate these enhancements on a funds-available basis. Additions to the survey area or upgrades due to new soil data created opportunities to further this effort (Table 6).

**TABLE 6: RURAL LAND MAPPING STATUS**

Pilot Counties, Available Prior to 2004	Counties Added During 2006, Data Now Available	Counties In Process
Fresno	Kern	Kings
Madera	Mendocino	San Joaquin
Merced		Tulare
Stanislaus		

As of this report, conversion statistics are available only in the pilot counties. County data and summaries for the Rural Land categories are located in Appendix D. The entire San Joaquin Valley will be available for comparison in the 2006-08 report.

**Rural Land Mapping categories expanded in the pilot counties** by a total of 18,410 acres (6.6%) between 2004 and 2006 (Table D-1). Increases for individual counties totaled: 2.2% in Madera, 3.9% in Merced, 8.7% in Stanislaus, and 8.8% in Fresno. The largest increases were in the Rural Residential and Rural Commercial Land category (11,350 acres), however, 6,000 acres of this increase was due to a technical correction resulting from improved imagery in the Sierra foothill portion of Fresno County. Subtracting for this correction, Fresno’s net increase in Rural Land classes would be 3.4%; and the four county pilot total for Rural Land category increases would be 12,410 acres (4.5%).

Conversions to Nonagricultural and Natural Vegetation were the second most common change at 3,580 acres for the four counties. These conversions are the result of ecological restoration projects or wetland reserves, as described in the section above. Confined Animal Agriculture facilities additions totaled 2,579 acres.

Mirroring the impact of urbanization on San Joaquin Valley counties, conversion to the Rural Land classes primarily affected irrigated farmland. More than 7,000 acres of Prime Farmland converted to Rural Land uses in the four counties: 2,928 to low density residential and commercial, 2,466 to ecological restoration uses, 1,065 acres to Vacant or Disturbed uses, and 652 acres became Confined Animal Agriculture facilities.

Over the past two update cycles (2002-2006 timeframe), Confined Animal Agriculture facilities and Rural Residential and Rural Commercial areas have increased at the highest rates (Table 7). Included for comparison is the change in Urban and Built-up Land acreage. While urban uses take up a significantly larger footprint in the four counties than rural residential areas (241,337 acres and 94,488 acres in 2006, respectively), conversion statistics warrant close observation in the years ahead. Land development trends and agricultural markets will continue to play important roles in whether these growth rates will continue. Data from the remaining San Joaquin Valley counties will also be helpful in getting a more complete picture of land conversion trends in California’s most important agricultural valley.

**TABLE 7: PERCENT CHANGE IN RURAL LAND CATEGORIES**

	2002-2006 Increases Pilot Counties
Urban and Built-up Land	9.0%
Rural Residential and Commercial Land*	11.7%
Confined Animal Agriculture	18.6%
Nonagricultural and Natural Vegetation	8.0%
Vacant or Disturbed Land	1.8%

\* Includes adjustments for delineation of Rural Residential areas in foothill areas.

**Net Land Use Change**

California’s urban areas grew by 102,010 acres, nearly 160 square miles, between 2004 and 2006. Conversions to Other Land totaled 73,789 acres over the same time period. Combined with increases to the same categories during the 2002-04 period (101,825 acres and 67,643 acres, respectively), more than 539 square miles moved out of agricultural uses during the 2002-2006 timeframe. This is approximately the size of the land area of Marin County, or five times the size of the City of Sacramento.

The net irrigated farmland loss was 156,650 acres during the 2006 update (Appendix Table C-3), 13% larger than the 2002-04 period. Prime Farmland’s decrease of 81,247 acres was a record, breaking the prior reporting period’s record of 78, 575 acres. Counties with the largest net losses of irrigated land are shown in Table 8.

Because the urbanization rate was nearly unchanged over the two updates, the accelerated drop in irrigated lands is associated with land idling, dryland farming, ecological restoration, and expansion of rural

residential and commercial uses; paired with a decrease in the amount of new irrigated lands being brought into production. Although grazing and pasture areas have been converted to almonds in some locations, it is not as extensive as the vineyard and specialty crop expansions of the late 1990's and early 2000's.

The San Joaquin Valley was responsible for 39% of the net irrigated land decrease. Complex factors related to water availability, crop markets, and urbanization pressure affected many of these counties. In the second ranking Sacramento Valley region (18%), urbanization pressure in Sacramento County was coupled with ecological restoration projects in a number of the remaining counties. Southern California was third at 15% of the total; where urbanization played a primary role but water availability was also a factor. Of note, Modoc County's high ranking in Table 8 is related to incorporation of the digital soil survey for Surprise Valley (see page 17 for additional information).

**TABLE 8: DECREASES OF IRRIGATED LAND**

Top Ten Counties - net acres			
	2002-2004		2004-2006
Fresno	-17,748	Fresno	-16,778
Kern	-17,478	Kings	-13,262
Siskiyou	-16,979	Tulare	-12,355
Tulare	-9,637	Modoc	-9,874
Merced	-9,626	Sacramento	-8,454
Tehama	-9,251	Riverside	-8,249
Riverside	-7,078	San Joaquin	-6,194
Sacramento	-6,990	Yolo	-5,838
Imperial	-4,281	Merced	-5,800
San Diego	-4,101	Santa Clara	-5,065

**1984-2006 Net Land Use Change**

During the 11 biennial reporting cycles since FMMP was established, more than 1.2 million acres of agricultural land in California were converted to nonagricultural purposes (Table 9). Nearly 79% of this land was urbanized, while 20% became one of the miscellaneous land uses grouped into the Other Land category. Less than 1% of the conversion represents new water bodies—primarily Diamond Valley Lake, Lake Sonoma, and Los Vaqueros Reservoir (in Riverside, Sonoma, and Contra Costa counties, respectively).

The largest losses from agricultural land categories were from Prime Farmland and Grazing Land (461,272 and 425,361 acres, respectively). Urbanization at the periphery of California cities, many of which are located in agricultural valleys and coastal zones, is the primary reason these two categories are most affected. Unique Farmland showed a small net increase over the 22 year period due to expansion of high value crops—mostly orchards and vineyards—on hilly terrain. Totals and annual averages for changes in all the categories are listed in Table 9.

As 2008 mapping proceeds, economic and environmental challenges face California, and the nation as a whole. Agricultural lands will continue to reflect how these complex systems interact on the landscape. FMMP will support informed planning decisions with timely and accurate data capturing these trends as they evolve.

**TABLE 9**  
**NET IMPORTANT FARMLAND CONVERSION 1984-2006 (1)**

**DEPARTMENT OF CONSERVATION**  
**Division of Land Resource Protection**

**Farmland Mapping and Monitoring Program**

LAND USE CATEGORY	Acres													Total Change	Average Annual Change
	1984-1986	1986-1988	1988-1990	1990-1992	1992-1994	1994-1996	1996-1998	1998-2000	2000-2002	2002-2004	2004-2006 (3)				
Prime Farmland	-18,925	-6,773	-29,259	-31,002	-53,265	-37,516	-33,412	-44,126	-47,172	-78,575	-81,247	-461,272	-20,967		
Farmland of Statewide Importance	-21,449	925	7,282	-12,978	-3,049	-26,795	-20,771	-11,126	-18,281	-40,465	-57,318	-204,025	-9,274		
Unique Farmland	7,179	22,747	8,125	-12,611	-10,530	3,600	22,493	19,688	13,116	-13,984	-18,084	41,739	1,897		
Farmland of Local Importance	13,833	-79,060	-40,512	-22,643	16,982	7,544	8,304	-17,699	-59,039	6,687	31,154	-134,449	-6,111		
Irrigated Farmland (3)	0	2,066	2,346	-5,851	-3,517	-5,116	-8,783	-6,475	-1,626	-5,620	0	-32,576	-1,481		
Nonirrigated Farmland (3)	0	133	96	-1,211	160	-1,895	-2,033	-4,518	-1,680	-1,615	0	-12,563	-571		
<b>Total Important Farmland</b>	<b>-19,362</b>	<b>-59,962</b>	<b>-51,922</b>	<b>-86,296</b>	<b>-53,219</b>	<b>-60,178</b>	<b>-34,202</b>	<b>-64,256</b>	<b>-114,682</b>	<b>-133,572</b>	<b>-125,495</b>	<b>-803,146</b>	<b>-36,507</b>		
Grazing Land	-38,202	-30,481	-71,484	-43,378	-179	24,551	-70,108	-49,273	-58,878	-37,410	-50,519	-425,361	-19,335		
<b>Total Agricultural Land (Important Farmland + Grazing Land)</b>	<b>-57,564</b>	<b>-90,443</b>	<b>-123,406</b>	<b>-129,674</b>	<b>-53,398</b>	<b>-35,627</b>	<b>-104,310</b>	<b>-113,529</b>	<b>-173,560</b>	<b>-170,982</b>	<b>-176,014</b>	<b>-1,228,507</b>	<b>-55,841</b>		
Urban and Built-up Land	81,778	107,567	116,530	94,876	53,344	55,859	69,885	91,258	92,750	101,825	102,010	967,682	43,986		
Other Land	-30,190	-16,669	5,649	34,358	-1,484	-19,778	33,082	16,568	80,809	67,643	73,789	243,777	11,081		
Water	5,976	-455	1,227	440	1,538	-454	1,343	5,703	1	1,514	789	17,622	801		
<b>Total Area Inventoried For Change (2)</b>	<b>30.3</b>	<b>33.3</b>	<b>40.3</b>	<b>42.2</b>	<b>42.8</b>	<b>42.8</b>	<b>44.1</b>	<b>44.2</b>	<b>45.9</b>	<b>45.9</b>	<b>46.1</b>				

(1) Figures taken from the projectwide conversion summary in each of the California Farmland Conversion Reports, supplemented with data for the counties mapped on an 'interim' basis due to lack of modern soil surveys. Along with urbanization or changes in agricultural uses, the 'net land use change' data includes technical revisions made to the lists of Prime Farmland and Farmland of Statewide Importance by NRCS in various counties.

(2) Total Area Inventoried increased as NRCS completed modern soil surveys and FMMP initiated mapping. Areas added include: 1986--central Siskiyou, Butte, Colusa; 1988--Kern, Sacramento, eastern San Mateo, Sutter, Tulare, Yuba; 1990--San Joaquin; 1992--western Merced; 1996--Lake; Butte Valley/Tulelake (covers eastern Siskiyou & western Modoc); 2000--western Stanislaus, western Fresno; 2004--northeastern Stanislaus. This represents an increase of 52.1% in the project area between 1984 and 2006.

(3) Due to completion of NRCS soil surveys, Interim mapping classes are no longer needed as of the 2004 data.

**The Department of Conservation makes no warranties as to the suitability of this product for any particular purpose.**

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*Above: Symbols of California's rural heritage; see inside front cover for details.*