

**California Department of Conservation  
FARMLAND MAPPING AND MONITORING PROGRAM**

**2010 FIELD REPORT**

**COUNTY:** Kern

**FIELD MAPPER(S):** Michael Kisko

**IMAGE DATA USED:**

Source	National Agriculture Imagery Program (NAIP)
Acquisition date	Summer 2010
Data description	True color mosaic, 1 meter resolution
Coverage gaps	none
Additional imagery used	Google Maps

**WRITTEN, DIGITAL & ORAL INFORMATION SOURCES:**

*The following entities and individuals provided information used to conduct 2010 mapping.*

<b>Local Review Comments</b> (submitted by cities, counties, & others on 2008 maps)
None.
<b>Personal Contacts</b>
Mark Sabin at Kern County Department of Agriculture and Measurement Standards Rosedale-Rio Bravo Water Storage District Andy Atiyeh, A2 Consulting
<b>Websites Used for Reference</b>
Rosedale-Rio Bravo Water Storage District; December 2009 Newsletter: <a href="http://www.rrbwsd.com/wp-content/uploads/2011/05/2009_DECEMBER_NEWSLETTER.pdf">http://www.rrbwsd.com/wp-content/uploads/2011/05/2009_DECEMBER_NEWSLETTER.pdf</a>  Bakersfield National Cemetery: <a href="http://www.cem.va.gov/cems/nchp/bakersfield.asp">http://www.cem.va.gov/cems/nchp/bakersfield.asp</a>
<b>GIS Data Used for Reference</b>
California City Boundary Layer Kern County Base Map

**2008-2010 CHANGE SUMMARY:**

*Changes made during the map update are summarized by type and location. Particular attention is paid to large or unusual changes and their estimated acreages. Please note that land use type, size of land use unit, soil quality, and Farmland of Local Importance definition (if any) determines the final Important Farmland (IFL) category. See definitions at bottom of table.*

<b>Conversions to Urban Land</b>	
Irrigated Farmland to Urban Land	50 changes
These conversions were primarily due to the construction of new homes, buildings, a	

park, a school, and groundwater recharge or water control ponds in the San Joaquin Valley area of the county. The largest concentration of conversions occurred in the form of new homes in the Bakersfield area.

**City of Bakersfield:** Approximately 300 acres of irrigated farmland was converted to Urban Land in the form of new homes throughout the Bakersfield area this update. The Douglas J. Miller Elementary School (~15 acres) and Olive Branch Community Church (~10 acres) were further notable additions.

**City of Shafter:** New homes (~30 acres) and a park (~10 acres) were added on former irrigated farmland.

**City of McFarland:** Approximately 35 acres of new homes were in evidence.

**City of Delano:** A Railex Facility (~50 acres) was added along with approximately 10 acres of new homes.

**City of Arvin:** Approximately 15 acres of new homes were added.

**City of Tehachapi:** Approximately 15 acres of new homes were noted.

**Community of Rosedale:** Approximately 20 acres of new homes were added.

**Community of Lamont:** New homes in the form of the Lamont Family Apartments and the DiGiorgio Road Apartments accounted for conversion of approximately 10 acres of irrigated farmland.

**Wheeler Ridge area:** The Wheeler Ridge East Travel Center (~40 acres) was a notable conversion.

**Groundwater Recharge or Water Control Ponds:** There were five additions of groundwater recharge or water control ponds, totaling approximately 1,000 acres. The most notable conversions occurred nearby Calders Corner (~320 acres), Strand Oil Field (~340 acres), south of Pumpkin Center (~160 acres), and to the west of Rosamond (~170 acres).

#### Nonirrigated Land Uses and Other Land to Urban Land

95 changes

These changes were primarily due to new homes, commercial and industrial buildings, and groundwater recharge or water control ponds. The majority of these changes occurred in the San Joaquin Valley with a lesser number of conversions in the Mojave, Tehachapi, and Los Padres National Forest areas.

#### **San Joaquin Valley**

- **City of Bakersfield:** Approximately 220 acres of new homes in Bakersfield were a cause for the conversion of nonirrigated land, including approximately 50 acres of conversion nearby the Rio Bravo Country Club. Meanwhile, commercial buildings including new Walmart and Target stores accounted for the conversion of

approximately 70 acres of nonirrigated land. The new Bridge Bible Church (~20 acres) was a further addition.

- City of Shafter: Approximately 20 acres of new homes were added.
- City of Wasco: Commercial development in the form of a new Denny's, Carl's Jr, Best Western Hotel, and Fresh & Easy Market converted approximately 10 acres.
- Community of Oildale: New industrial development, including along James Road and nearby Meadows Field Airport, accounted for approximately 85 acres of conversion.
- Community of Lamont: Approximately 15 acres of new homes and apartments were added.
- Wheeler Ridge area: A new Famous Footwear distribution center along with some water control ponds were added (~50 acres).

### **Mojave Desert**

- City of Ridgecrest: New homes and a Hampton Inn accounted for the conversion of approximately 10 acres of nonirrigated land.
- California City: A new building and sports fields were added at California City High School (~20 acres).
- Community of Rosamond: Approximately 35 acres of new homes and apartments were in evidence.
- Community of Boron: Approximately 20 acres of existing homes were delineated due to the use of high resolution imagery.
- China Lake NWS: A small airstrip (~15 acres) was added this update.

### **Tehachapi Mountains**

The Bakersfield National Cemetery to the east of Arvin converted approximately 15 acres of nonirrigated land so far in its first phase of construction. A new Love's Travel Stop (~15 acres) in the City of Tehachapi was a further addition in the mountains. Finally, approximately 60 acres of homes were delineated in the Bear Valley area nearby Tehachapi due either to increased density or the use of high resolution imagery.

### **Los Padres National Forest**

Approximately 20 acres of homes were delineated in the Community of Pine Mountain Club due either to increased density or the use of high resolution imagery.

**Groundwater Recharge or Water Control Ponds**: There were five additions of groundwater recharge or water control ponds, totaling approximately 500 acres. The most notable conversions occurred nearby Calders Corner (~250 acres), Bakersfield (~130 acres), and Delano (~75 acres).

## **Conversions from Irrigated Farmland aside from urbanization**

<b>Irrigated Farmland to Nonirrigated Land Uses</b>	<b>241 changes</b>
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These conversions were primarily due to irrigated farmland having been fallow or used for dry grain production for three or more update cycles. The majority of these changes occurred in the San Joaquin and Antelope Valleys. Quads which showed 10 or more conversions from irrigated farmland included the Gosford (17), Lamont (14), Stevens (13),

Rosedale (12), Conner (12), Rio Bravo (11) and Arvin (10) quads.

Conversions varied in size but the majority of changes were for less than 100 acres (181 changes for less than 100 acres versus 59 changes for greater than 100 acres). Singular conversions from irrigated farmland for greater than 500 acres due to fallowing occurred on the West Camp (~1,900 acres), Emigrant Hill (~660 acres), and Grapevine (~650 acres) quads. On the other hand, singular conversions from irrigated farmland for greater than 500 acres due to a shift to dry grain production occurred on the Lost Hills NW (~1,360 acres), Blackwells Corner (~650 acres), and Millux (~970 acres) quads. In all the above conversions, irrigated farmland was converted to Grazing Land since Kern County has no Farmland of Local Importance definition.

#### Irrigated Farmland to Other Land

70 changes

The majority of these changes were due to irrigated farmland having been fallow for three or more update cycles that was disturbed either by grading or road building at the site in preparation for future development. These types of conversions were concentrated around the greater Bakersfield area. Further changes in this category were due to the delineation of low-density housing (ranchettes), farmsteads, and agricultural staging areas.

Other changes included an expansion of oil field infrastructure (~80 acres) in the Lost Hills area and the addition of the partially built Kern River Raceway (~100 acres) that is currently on hold. If the Kern River Raceway and its associated paved parking areas are completed in the future it will be shifted to the Urban Land classification.

### Conversions to Irrigated Farmland

#### Nonirrigated Land Uses and Other Land to Irrigated Farmland

36 changes

Irrigated farmland was primarily added in the San Joaquin, Antelope, Sunflower, Midway, and Cummings Valley areas. The majority of these additions were for less than 50 acres and consisted of orchards, row crops, and field crops. Notable additions included new citrus orchards in the Maricopa Flat area (~580 acres), carrots in the Antelope Valley nearby Rosamond (~460 acres) and Antelope Plain (~350 acres) areas, pistachios in the Sunflower Valley (~180 acres) and Wasco (~160 acres) areas, irrigated hay or alfalfa crops in the Delano (~160 acres), Kern NWR (~160 acres), and Midway Valley (~150 acres) areas, pomegranate and cherry orchards nearby Jasmin (~60 acres), and vineyards in the Cummings Valley area (~25 acres).

### Unusual Changes

(Types of change not already described or special circumstances during the 2010 update.)

Nonagricultural or Natural Vegetation to Vacant or Disturbed Land: There was an expansion of oil field infrastructure (~500 acres), concentrated in the Elk Hills and Lost Hills areas. Meanwhile, the new Windhub substation (~80 acres) was added.

Conversions from Urban Land: These conversions were primarily due to the use of high resolution imagery that allowed for the delineation of more distinct urban boundaries.

### Areas of Concern for Future Updates

(Locations or map categories noted as needing careful checking during 2012 update, and reasons.)

None

**Definitions:**

**Irrigated Farmland** includes most irrigated crops grown in California. When combined with soil data, these farmed areas become the Important Farmland (IFL) categories of Prime Farmland, Farmland of Statewide Importance & Unique Farmland. Because of the nature of the IFL definitions, some irrigated uses, such as irrigated pastures or nurseries, may not be eligible for all three IFL categories.

**Nonirrigated land uses** include grazing areas, land used for dryland crop farming, and formerly irrigated land that has been left idle for three or more update cycles. These uses are frequently incorporated into county Farmland of Local Importance definitions.

**Other Land** includes a variety of miscellaneous uses, such as low density rural residential development, mining areas, vacant areas and nonagricultural vegetation. Confined animal agriculture facilities are mapped as Other Land unless incorporated into a county Farmland of Local Importance definition.

**Urban Land** includes residential, industrial, recreational, infrastructure and institutional uses.

For more on map categories, including Farmland of Local Importance definitions, visit the [FMMP web site](#).

**LABOR ESTIMATE:**

*Time estimates for conducting the 2010 update.*

Image interpretation, start date	April 25, 2011
Image interpretation, number of days	18
Ground truth dates	June 20-24, 2011
Number of days for post-ground truth clean up	8

*Further information on the Farmland Mapping and Monitoring Program can be found at:*  
<http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>