

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

2008 FIELD REPORT

COUNTY: Kern

FIELD MAPPER(S): Kerri Kisko

IMAGE DATA USED:

Source	Digital Globe Inc.
Acquisition date	June 2008
Data description	True color mosaic, 1 foot resolution
Coverage gaps	none
Additional imagery used	none

WRITTEN, DIGITAL & ORAL INFORMATION SOURCES:

The following entities and individuals provided information used to conduct 2008 mapping.

Local Review Comments

(submitted by cities, counties, & others on 2006 maps)

City of Delano

Personal Contacts

Fernando Rizo, North Kern Water Storage District, 661-393-2696

Craig Wallace, Semitropic Water Storage District, 661-758-5113

Websites Used for Reference

Department of Water Resources, Southern District, Tehachapi East Afterbay:

http://www.dpla.water.ca.gov/sd/environment/tehachapi/tehachapi_east_afterbay.html

Friant Water Authority, 2009 Member Directory:

<http://www.friantwater.org/membership/2009Directory.pdf>

Google Earth, Street View: <http://maps.google.com>

Kern County: www.co.kern.ca.us

Kern County Superintendent of Schools: <http://kcsos.kern.org/schoolsaz>

Kern County Water Agency: www.kcwa.com

McAllister Ranch Country Club: www.gngcd.com

Mojave Air and Space Port: www.mojaveairport.com

Semitropic Water Storage District: <http://www.semitropic.com>

GIS Data Used for Reference

California City Boundary Layer

Kern County Base Map

Kern County 2008 Crop Data (downloaded from www.co.kern.ca.us/gis/downloads.asp)

Solid Waste Information System Layer

2006-2008 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.

Conversions to Urban Land

Irrigated Farmland to Urban Land

70 changes

These changes were primarily due to the construction of homes, schools, municipal facilities, and groundwater recharge ponds. The majority of the changes occurred within the San Joaquin Valley area of the county, primarily in the Cities of Bakersfield and Shafter.

City of Bakersfield: There was approximately 850 acres of new housing added throughout the City of Bakersfield. Some of the new developments included Casa Bella, Celebrations, Cobblestone, Encanto, Fox Run, Mayfair, and Tesoro.

New schools were also added, such as the new campus of General Shafter School (~20 acres), Independence High School (~60 acres), Mira Monte High School (~60 acres) and Veterans Elementary School with nearby Norris School District transportation facility (~25 acres).

The golf course at McAllister Ranch Country Club (~195 acres) was added along with several parks within new home developments.

Two shopping centers (~10 acres each) were also added and the water treatment facility was expanded by approximately 20 acres.

City of Shafter: Approximately 95 acres of new homes were added, including Almond Grove Estates, Brookside Estates, and Willow Grove Estates. Sequoia Elementary School (~15 acres) was also added.

Other Cities:

- **City of Wasco:** Teresa Burke Elementary School (~15 acres) was added along with approximately 20 acres of new homes.
- **City of Arvin:** Approximately 70 acres of new homes were added as well as El Camino Real Elementary School (~10 acres).
- **City of Delano:** Robert F. Kennedy High School (~55 acres) was added along with approximately 40 acres of new homes.
- **City of McFarland:** Approximately 35 acres of new homes were added, including the Almond Grove Estates and Colores Del Sol developments.
- **City of Tehachapi:** The Mountain Aire Estates (~50 acres) housing development was added.
- **Community of Lamont:** New ponds (~75 acres) were added at the Lamont Public Utility District water treatment plant.

Groundwater Recharge Ponds: There were five additions of groundwater recharge ponds in the San Joaquin Valley. Some of these ponds are new and some of these ponds were noted during the field verification process on irrigated farmland that had been fallow for three update cycles.

- Arvin-Edison Water Storage District: an approximately 40 acre expansion of ponds

occurred on the Lamont quad near the Community of Edison.

- Cawelo Water District: groundwater recharge ponds (~530 acres) were noted on the Famoso quad near the Community of Famoso.
- Rosedale-Rio Bravo Water Storage District: approximately 165 acres of ponds were noted on the Tupman quad.
- Semitropic Water Storage District: approximately 775 acres of new ponds were added on the Wasco Northwest quad, near of the City of Wasco.
- Finally, approximately 50 acres of ponds were noted on the Lamont quad near the Community of Lamont.

Nonirrigated Land Uses and Other Land to Urban Land

195 changes

These changes were primarily due to new homes, an increase in the density of homes, new commercial buildings, municipal facilities, and groundwater recharge ponds. The majority of these changes occurred in the San Joaquin Valley with lesser development in the Mojave Desert, Tehachapi Mountains, Lake Isabella area, and Los Padres National Forest.

San Joaquin Valley

- City of Bakersfield: There was approximately 820 acres of new housing added throughout the city. Some of the housing developments include the Bear Mountain RV Park, City in the Hills, Mountain Meadows, River Run RV Park, and new homes at the Rio Bravo Country Club. Granite Pointe Elementary School (~20 acres) was added as well as a new Toyota dealership (~25 acres). Approximately 120 acres of new retail centers were also added, including the Brimhall Square shopping center.
- City of Arvin: New water treatment ponds (~ 75 acres) were added at the Arvin Sanitary Landfill.
- City of Wasco: Approximately 30 acres of new housing was added, including the Central Avenue Senior Apartments. Also, approximately 25 acres of new buildings were added.
- Community of Famoso: New paving at the Famoso Auto Club (~90 acres) allowed the facility to be changed to Urban Land.
- Town of Lost Hills: There was a new home development (~15 acres) and Paramount Farms also added a new solar facility (~10 acres).
- Community of Rio Bravo: Approximately 200 acres of housing was changed to Urban Land due to the increased density of homes.
- Tejon Ranch: A new warehouse (~30 acres) was added along with an In n Out restaurant and Chevron service station (~10 acres total) at the Laval Road West exit along I-5.
- Groundwater Recharge Ponds: There were four changes of nonirrigated land to Urban Land due to groundwater recharge ponds. One of these changes was due to new ponds, the other three were due to verification of land use. On the Antelope Plain quad, approximately 530 acres of new ponds were added near Lost Hills. Approximately 615 acres of ponds were verified as groundwater recharge ponds on the Rosedale quad, operated by the North Kern Water Storage District. On the Tupman quad, two areas of ponds (~95 and 335 acres) were verified as groundwater recharge ponds within the Rosedale-Rio Bravo Water Storage District.

Mojave Desert

- California City: Approximately 150 acres of housing was changed to Urban Land due to the increased density of homes. Hacienda Elementary School (~10 acres) was also added.
- City of Ridgecrest: New retail establishments were added (~15 acres) as well as approximately 25 acres of new homes.
- Town of Mojave: The runway at the Mojave Air and Space Port was expanded by approximately 35 acres and new apartments (~10 acres) were added.
- Town of Rosamond: Approximately 85 acres of new homes were added, including the El Dorado Ranch, Magnolia, and Travertine developments.
- Edwards Air Force Base: A new runway (~75 acres) was added near the NASA Dryden Flight Research Center.
- Groundwater Recharge Pond: Approximately 160 acres of new ponds were added on the La Liebre Ranch quad along 300th Street.

Tehachapi Mountains

- City of Tehachapi: Approximately 30 acres of new homes were added as well as approximately 75 acres of homes that were changed to Urban Land due to the increased density of homes. Also, a new Home Depot (~10 acres) was added.
- Community of Alpine Forest Park: Approximately 135 acres of housing was changed to Urban Land due to the increased density of homes.
- Community of Bear Valley Springs: Approximately 100 acres of housing was changed to Urban Land due to the increased density of homes.
- Community of Stallion Springs: Approximately 160 acres of housing was changed to Urban Land due to the increased density of homes.

Lake Isabella Area

- Community of Squirrel Mountain Valley: Approximately 75 acres of housing was changed to Urban Land due to the increased density of homes.
- Community of South Lake: Approximately 25 acres of new homes were added.
- Community of Wofford Heights: Approximately 110 acres of housing was changed to Urban Land due to the increased density of homes.

Los Padres National Forest

- Community of Pine Mountain Club: Approximately 220 acres of housing was changed to Urban Land due to the increased density of homes.

Conversions from Irrigated Farmland aside from urbanization

Irrigated Farmland to Nonirrigated Land Uses	183 changes
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The majority of these changes were due to irrigated farmland being fallow for three or more update cycles. These changes were primarily located in the San Joaquin Valley. Other changes occurred in the Tehachapi, Antelope, South Fork and Fremont Valleys. These changes ranged in size from 10 acres to 1,880 acres. Approximately 65 of the changes were 30 acres or less, 50 changes ranged from 30-100 acres in size, and 55 changes were 100 acres or larger. The largest changes (500 acres or larger) occurred on

the Antelope Plain (~675 and 1,330 acres), Lone Tree Well (~1,040 and 1,625 acres), Lost Hills (~925 and 1,245 acres), Lost Hills Northwest (~930 and 1,875 acres), Semitropic (~1,880 acres), Stevens (~1,335 acres) and West Camp (~1,510) quads.

Other conversions were due to the identification of nonirrigated grain. These changes primarily occurred in the northwest corner of the county and other foothill locations. Most of these changes were greater than 50 acres. The largest conversions occurred on the Antelope Plain (~135 and 160 acres), Deepwell Ranch (~270 acres), Emigrant Hill (~130 and 305 acres), Lost Hills Northwest (~135 acres) and North of Oildale (~115 acres) quads.

Irrigated Farmland to Other Land	70 changes
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Farmsteads, rural commercial, oil extraction facilities and low-density housing (ranchettes) accounted for the majority of the changes. These changes were scattered throughout the San Joaquin Valley portion of the county and were primarily between 10-40 acres in size. Other changes were due to a new dairy (~70 acres) on the Rio Bravo quad and a compost facility (~70 acres) on the Lamont quad.

Conversions to Irrigated Farmland

Nonirrigated Land Uses and Other Land to Irrigated Farmland	142 changes
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The majority of the irrigated farmland was added in the San Joaquin and Antelope Valleys. Most of the changes were 10-50 acres in size and consisted of orchards, row crops, field crops, and irrigated pasture. Some changes of note included the addition of field crops (~305 acres) on the Buttonwillow quad, row crops (~800 acres) on the Hacienda Ranch quad, carrots (~320 acres) on the Little Buttes quad, field crops (~635 acres) on the Lost Hills Northeast quad, wine grapes (~320 acres) on the Pastoria Creek quad, pistachios (~310 acres) on the Pyramid Hills quad, and pistachios (~305 and 410 acres) on the Semitropic quad.

Unusual Changes
(Types of change not already described or special circumstances during the 2008 update.)

Updated County Line File: Due to adoption of an updated county boundary file, there was an increase of 2,879 acres in the Kern County total. Adjacent counties lost acreage of a similar amount.

Nonirrigated Land Uses to Other Land: There were 293 conversions to Other Land. The majority of these changes were due to low-density housing (ranchettes) or the expansion of oil extraction facilities. These changes were scattered throughout the county and were primarily less than 50 acres each. Large changes of 100 acres or greater occurred on the Belridge (1), Bena (1), Cuddy Valley (1), Cummings Mountain (2), Gosford (1), Keene (3), Maricopa (1), Oil Center (2), Oildale (1), Rio Bravo Ranch (1), Taft (2), and West Elk Hills (2) quads.

Nonagricultural or Natural Vegetation to Vacant or Disturbed Land: There were 32 conversions between these rural land categories. The majority of these changes were due to the expansion of oil extraction facilities or mining areas. These changes occurred primarily in the oil producing areas of the county and most were less than 65 acres each.

On the Boron quad, the Borax mine was expanded by approximately 420 acres. Other large conversions of 100 acres or greater occurred on the Antelope Plain (2), East Elk Hills (1), and Oil Center (1) quads.

Conversions from Urban Land: There were 37 conversions from Urban Land. The majority of the conversions from urban were due to improved digital imagery that allowed for the delineation of more distinct urban boundaries.

Water conversions: There were two conversions involving Water. On the McFarland quad, a park (~10 acres) along the shore of Lake Woollomes was delineated. The new Tehachapi East Afterbay (~80 acres) was added on the La Liebre Ranch quad.

Groundwater Recharge Ponds: There were 10 conversions to Urban Land due to either new or verified groundwater recharge ponds. These changes accounted for approximately 3,300 total acres of conversion to Urban Land. Please see the above categories of **Irrigated Farmland to Urban Land** and **Nonirrigated Land Uses and Other Land to Urban Land** for more detail on specific changes.

Areas of Concern for Future Updates

(Locations or map categories noted as needing careful checking during 2010 update, and reasons.)

Watch for the expansion of groundwater recharge ponds in the San Joaquin Valley.

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 2008 update.

Image interpretation, start date	March 2, 2009
Image interpretation, number of days	15
Ground truth dates	April 20-24, 2009
Number of days for post-ground truth clean up	16

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