

7.6 AGRICULTURAL RESOURCES (NEW)

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7.6.1 INTRODUCTION

7.6.1.1 Content

The proposed project analyzed in the Monterey Plus EIR was the Monterey Amendment and the Settlement Agreement. The Monterey Plus EIR considered five “elements” of the Monterey Amendment as follows:

- *Changes in the procedures for allocation of Table A water and surplus water among the SWP contractors;*
- *Approval to permanent transfers of 130,000 acre feet and retirement of 45,000 acre-feet of SWP long-term water supply contracts’ Table A amounts;*
- *Transfer of property known as the “Kern Fan Element property” in Kern County;*
- *Water supply management practices; and*
- *Restructured water rates.*

This REIR has changed the description of the Kern Fan Element property transfer to be:

- *Transfer of property known as the “Kern Fan Element property” in Kern County and its development and continued use and operation as a locally owned and operated groundwater banking and recovery project.*

There are no revisions to the other elements of the Monterey Amendment or of the Settlement Agreement, and no changes have been made relating to them in this REIR. (See discussion in Introduction/Executive Summary.)

This REIR does not supersede the analysis of the Monterey Plus EIR but supplements the Monterey Plus EIR. The Monterey Plus EIR focused on the transfer of the KFE property, which was fully analyzed in the Monterey Plus EIR. This REIR did not identify any new impacts or changes to impacts caused by the transfer of the KFE property. Therefore, this REIR focuses on the development and continued use and operation of the KWB as a locally owned and operated groundwater banking and recovery project (“KWB activities”).

The Monterey Plus DEIR Section 7.6 identified potential impacts to agricultural resources as a result of the transfer of the Kern Fan Element. Substantial new information is presented in this section, however, that replaces text from DEIR Section 7.6 that discusses KWB activities. All other text in DEIR Section 7.6 remains unchanged. In addition to the impacts discussed below, to the extent they apply, indirect impacts as a result of population growth are presented in Chapter 8, Growth-Inducing Impacts, and indirect impacts from potential cropping changes are presented in Section 10.1, Cumulative Environmental Impacts.

Table 7.6-1 identifies the potentially affected environmental resources from impacts of KWB activities on agricultural resources.

TABLE 7.6-1**IMPACTS OF KWB ACTIVITIES ON AGRICULTURAL RESOURCES**

Proposed Project Element	Potentially Affected Environmental Resources	Impact Number
Monterey Amendment		
Transfer of Kern Fan lands, and KWB activities	Acreages of irrigated farmland	7.6-1

During public review of the Notice of Preparation (NOP) for the Monterey Plus EIR, the State Department of Food and Agriculture commented on the NOP and noted that the proposed project has the potential for significant positive impacts on agricultural water users but at the same time could have long-term adverse impacts on agriculture from water transfers away from agricultural to urban users. Specific issues raised include permanent loss of agricultural production capacity associated with project growth-inducing impacts and cumulative loss of agricultural production and resources. As stated above, indirect impacts as a result of population growth from KWB activities are presented in Chapter 8, Growth-Inducing Impacts, and indirect impacts from potential cropping changes are presented in Section 10.1, Cumulative Environmental Impacts.

This section describes Kern County's agricultural land uses; identifies the acreages of agricultural land in Kern County, including Important Farmland and Grazing Land; evaluates any conversion of agricultural lands to nonagricultural lands; conversion of any Prime, Unique, or Important Farmland; and addresses changes in local and regional cropping patterns. This section also determines the significance and quality of agricultural land within the KWB Lands. Additional information on land uses on and adjacent to KWB Lands is provided in Section 7.10, Land Use and Planning.

7.6.1.2 Analytical Method

Evaluation of the potential impacts of the KWB activities on agriculture and forestry resources was based primarily on field and aerial photographic review, the KWB HCP/NCCP annual compliance and management reports, the 1995 and 2014 Kern County Agricultural Commissioner crop reports, and the *Kern County General Plan*. In addition, a focused air quality analysis in 2015 provided data related to the KWB participants' service area, which identified agricultural acreage served with KWB water by KWBA participants: Dudley Ridge Water District in Kings County; and Semitropic Water Storage District, Westside Mutual Water Company, and Wheeler Ridge-Maricopa Water Storage District collectively located in Kern County.¹

The Important Farmland Map for Kern County, produced by the California Department of Conservation (DOC) Division of Land Resource Protection, was used to evaluate the agricultural significance of the lands within and in the vicinity of the KWB. Geographic information system data were used to determine the potential acreage of designated farmland affected by KWB activities. Appendix G of the CEQA Guidelines focuses agricultural analysis on conversion of agricultural land, including Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, to nonagricultural uses.

7.6.1.3 Standards of Significance

The following standards of significance are based on Appendix G of the CEQA Guidelines. For purposes of this REIR, impacts on agricultural resources would be considered significant if the KWB activities would:

- Result in a permanent conversion of a substantial acreage of Prime, Unique, or Statewide Important Farmland;

- Result in a substantial inconsistency with objectives of local, regional and state plans, including zoning for agricultural use or Williamson Act Contracts;
- Result in a substantial conflict with existing zoning for, or cause rezoning of, forestland (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g));
- Result in a substantial loss of forestland or conversion of forestland to nonforest use; or
- Involve other changes in the existing environment that, because of their location or nature, could result in a permanent conversion of a substantial acreage of Farmland to nonagricultural use or conversion of forest land to nonforest use.

The following topics are not discussed further in this REIR because no or minimal impact would occur with regard to these potential impacts:

- KWB facilities, including recharge ponds, the KWB Canal, recovery wells, berms, and conveyance pipelines, have been constructed within the existing KWB Lands. Construction of future KWB facilities would occur within KWB Lands. None of the KWB Lands is held under a Williamson Act contract. Therefore, KWB activities would not conflict with an existing Williamson Act contract or result in the cancellation of a Williamson Act contract.
- KWB Lands are zoned by Kern County as A (Exclusive Agriculture). The purpose of the A zoning district is to designate areas suitable for agricultural uses and to prevent the encroachment of incompatible uses onto agricultural lands and the premature conversion of such lands to nonagricultural uses. Uses in the A zoning district are limited primarily to agricultural uses and other activities compatible with agricultural uses. KWB facilities were developed in areas designated by the DOC as Grazing Land, Urban and Built-Up Land, and Other Land. Construction, use, and maintenance of groundwater recharge facilities, such as the KWB Canal, recharge ponds, recovery wells, pumps, berms, and conveyance pipelines, are permitted uses within the A zoning district. Therefore, KWB activities would not result in conflicts with existing zoning for agricultural use. See Section 7.10, Land Use Planning, for more discussion on zoning compatibility.
- KWB Lands are not zoned as forestland, timberland, or a Timberland Production Zone. Thus, KWB activities would not conflict with existing zoning for, or cause rezoning of, forestry resources; or result in the loss of forestland or conversion of forestland to nonforest use.

Section 12220(g) of the California Public Resources Code (PRC) defines forestland as land that can support 10 percent native tree cover and woodland vegetation of any species (including hardwoods) under natural conditions, and that allows for management of one or more forest resources (timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation) and other public benefits. The KWB Lands do not contain forestland as defined by PRC Section 12220(g). For these reasons, KWB activities would not result in the loss of forestland or conversion of forestland to nonforest uses.

7.6.2 ENVIRONMENTAL SETTING

7.6.2.1 Physical Setting in 1995

In 1995, Kern County included approximately 1,309 square miles (837,800 acres) of harvested agricultural land. According to the Kern County Agricultural Commissioner, the total gross valuation for all agricultural commodities produced in Kern County in 1995 was approximately \$1.9 billion. Grapes had the highest crop value (\$416 million); cotton, including processing cotton seed, was the number

two commodity (\$293 million); followed by citrus (\$230 million); almonds (\$168 million); and milk (\$101 million).²

In 1995, most agricultural acreage in Kern County was used to grow field crops (409,005 acres), with cotton comprising over two-thirds of this acreage (309,850 acres). Fruit crops had the second highest acreage (92,809 acres), followed by nut crops (90,323 acres) (Table 7.6-2).

Crop Type	Acres
Nuts ¹	90,323
Citrus ²	40,082
Fruit ³	92,809
Seed ⁴	2,333
Field ⁵	527,559
Vegetable ⁶	84,677
Total	837,783

Notes:

1. Nut crops consist of almonds, pistachios, and walnuts.
2. Citrus crops consist of grapefruit, oranges, lemons, and tangerines.
3. Fruit crops include apples, apricots, avocados, blueberries, cherries, grapes, raspberries, nectarines, olives, peaches, persimmons, plums, strawberries, and tomatoes.
4. Seed crops include cotton seed; alfalfa and wheat seed; and vegetable seed, including cabbage, carrots, lettuce, onion, and potatoes.
5. Field crops include barely, beans, corn, cotton, hay, safflower, sugarcane, and wheat.
6. Vegetable crops include cantaloupe, carrots, corn, lettuce, peppers, onions, potatoes, and watermelons.

Sources: Kern County 1995³, 2014⁴

Kern Water Bank Participants' Service Area Agricultural Land Uses

Similar to the countywide acreage shown in Table 7.6-2, most active agricultural acreage in the KWB participants' service area⁵ was used to grow field crops (98,961 acres), with cotton comprising over two-thirds of this total (68,975 acres). Fruit crops had the second highest acreage (92,809 acres), followed by nut crops (90,323 acres) (Table 7.6-3).

Kern County Farmland Conversion

The DOC Important Farmland classifications—Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance—recognize the land's suitability for agricultural production by considering physical and chemical characteristics of the soil, such as soil temperature range, depth of the groundwater table, flooding potential, rock fragment content, and rooting depth. The classifications also consider location, growing season, and moisture available to sustain high-yield crops.

DOC estimated that Kern County had approximately 1,603,794 acres of agricultural land in 1996, of which approximately 708,739 acres were identified as Important Farmland and 895,055 acres were identified as Grazing Land.⁶ Table 7.6-4 summarizes the DOC farmland conversion data and identifies the 1994 and 1996 acreages of agricultural land in Kern County. Only 49 percent of Kern County was surveyed in 1994 and 1996 because United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) soil surveys that identified soil quality for agricultural uses were not available for the remainder of the county.⁷ Therefore, the amount of agricultural land conversion is likely greater than shown in Table 7.6-4.

TABLE 7.6-3**AGRICULTURAL ACREAGE IN KERN WATER BANK PARTICIPANTS' SERVICE AREA*, 1995**

Crop Type	Acres
Nuts ¹	34,867
Citrus ²	7,321
Fruit ³	15,631
Field ⁴	98,961
Vegetable ⁵	15,717
Total	172,497

Notes:

* The Kern Water Bank participants' service area consists of lands served with KWB water: Dudley Ridge Water District in Kings County, and Semitropic Water Storage District, Westside Mutual Water Company, and Wheeler Ridge-Maricopa Water Storage District collectively in Kern County.

1. Nut crops consist of almonds and pistachios.
2. Citrus crops consist of grapefruit, oranges, lemons, and tangerines.
3. Fruit crops include apples, apricots, grapes, and tomatoes.
4. Field crops include alfalfa, beans, corn, cotton, and safflower.
5. Vegetable crops include asparagus, broccoli, cabbage, carrots, garlic, lettuce, melons, and onions.

Sources: Insight Environmental Consultants 2015⁸; data compiled by AECOM 2016.

TABLE 7.6-4**SUMMARY OF AGRICULTURAL LAND CONVERSION IN KERN COUNTY, 1994–1996¹**

Important Farmland Category	Acres		Net Change (1994–1996)	
	1994	1996	Acres	Percent
Prime Farmland	550,461	539,556	-10,905	-2.0
Farmland of Statewide Importance	119,029	113,493	-5,536	-4.9
Unique Farmland	56,603	55,690	-913	-1.7
Farmland of Local Importance ²	–	–	–	–
Important Farmland Subtotal	726,093	708,739	-17,354	-2.4
Grazing Land	877,218	895,055	17,837	2.0
Agricultural Land Total	1,603,311	1,603,794	483	0.03

Notes:

1. Only 49 percent of Kern County was surveyed in 1994 and 1996 because United States Department of Agriculture, Natural Resources Conservation Service soil surveys that identified soil quality for agricultural uses were not available for the remainder of the county. The amount of agricultural land conversion is likely greater than shown in the table.
2. The Kern County Board of Supervisors determined that no Farmland of Local Importance would be designated in Kern County.

Source: DOC 1998⁹

Overall, the total acreage of Important Farmland decreased by approximately 2.4 percent between 1994 and 1996, and the total acreage of Grazing Land increased by 2.0 percent over the 2-year period. In total, the acreage of agricultural land increased by approximately 0.03 percent between 1994 and 1996 (Table 7.6-4). The majority of losses in acreage of irrigated Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) were caused by reclassification of Important Farmland categories to Grazing Land resulting from following of KWB Lands.¹⁰

Existing Agricultural Uses

Prior to the Department's purchase of the KFE property in 1988, approximately 17,068 acres of the property was under extensive cultivation (see Revised Appendix E). The remaining property contained 1,515 acres of isolated sensitive native plant communities and 1,317 acres of non-native grassland, which had been leased for oil recovery facilities. Most of the land was used for agriculture, and irrigation water was provided by surface water deliveries by the former James-Pioneer Improvement District of North Kern Water District and by groundwater pumping. A memorandum of understanding signed between the Department and KCWA on March 25, 1987, provided for the phase-out of all agricultural production on the KFE property by the end of 1993. One of the tenants' leases was terminated in 1989. Then in 1991, at the peak of the drought, all the remaining tenant leases were terminated, and thereafter all agricultural lands owned by the Department were fallowed and introduced annual grasses and forbs colonized the KFE Property.

7.6.2.2 Changes in Physical Setting between 1996 and 2014

Kern County

Kern County is the third largest producer of agricultural products in California and produces more than 120 different crops, including more than 20 types of fruit and nuts; more than 50 types of vegetables; more than 20 types of field crops; and lumber, nursery stock, livestock, poultry, dairy, and apiary products. Kern County includes approximately 1,370 square miles (approximately 877,151 acres) of harvested agricultural land.

According to the Kern County Agricultural Commissioner's most recent report, the total gross valuation for all agricultural commodities produced in Kern County in 2014 was approximately \$7.6 billion. Grapes had the highest crop value (\$1.7 billion), almonds were the number two commodity (\$1.5 billion), followed by milk (\$915 million), citrus (\$892 million), and cattle (\$428 million).¹¹ This cropping pattern is similar to 1995 conditions where grapes, almonds, and milk accounted for the highest crop values.

Although there was a relatively small increase in agricultural acreage in Kern County (approximately 1.2 percent) between 1996 and 2014, the cropping patterns within the county changed substantially. As shown on Table 7.6-5, the acreage of nut crops increased by approximately 206 percent and almonds accounted for more than 65 percent of the total nut crops. Specifically, almond production increased by approximately 610 percent between 1996 and 2014 within Kern County alone.¹² Other counties, including Fresno, Kern, Madera, and Stanislaus, experienced a similar shift to orchard crops.¹³ The acreages of annual seed, field, and vegetable crops all decreased between 1996 and 2014 within Kern County.

Kern Water Bank Participants' Service Area Agricultural Land Use

Similarly, most active agricultural acreage in the KWB participants' service area¹⁴ shows a relatively small increase in agricultural acreage (approximately 3.7 percent) between 1995 and 2015, but the cropping patterns changed substantially. As shown on Table 7.6-6, the acreage of nut crops increased by approximately 189 percent and almonds accounted for more than 60 percent of the total nut crops. The acreages of annual seed, field, and vegetable crops all decreased between 1995 and 2015.

TABLE 7.6-5**AGRICULTURAL ACREAGE IN KERN COUNTY, 1996–2014**

Crop Type	Acres		Net Change (1996–2014)	
	1996	2014	Acres	Percent
Nuts ¹	98,756	302,694	203,938	206.5
Citrus ²	41,745	64,234	22,489	53.8
Fruit ³	93,111	143,380	50,269	53.9
Seed ⁴	2,257	1,550	-707	-45.6
Field ⁵	538,648	298,843	-239,805	-80.2
Vegetable ⁶	92,486	66,450	-26,036	-39.2
Total	867,003	877,151	10,148	1.2

Notes:

- Nut crops consist of almonds, pistachios, and walnuts.
- Citrus crops consist of grapefruit, oranges, lemons, and tangerines.
- Fruit crops include apples, apricots, avocados, blueberries, cherries, grapes, raspberries, nectarines, olives, peaches, persimmons, plums, strawberries, and tomatoes.
- Seed crops include cotton seed; alfalfa and wheat seed; and vegetable seed, including cabbage, carrots, lettuce, onion, and potatoes.
- Field crops include of barely, beans, corn, hay, safflower, sugarcane, and wheat.
- Vegetable crops include cantaloupe, carrots, corn, lettuce, peppers, onions, potatoes, and watermelons.

Sources: Kern County 1996¹⁵, 2014¹⁶**TABLE 7.6-6****AGRICULTURAL ACREAGE AND ACREAGE CHANGES IN KERN WATER BANK PARTICIPANTS' SERVICE AREA*, 1995–2015**

Crop Type	Acres		Net Change (1995–2015)	
	1995	2015	Acres	Percent
Nuts ¹	34,867	100,767	65,900	189.0
Citrus ²	7,321	24,763	17,442	238.2
Fruit ³	15,631	37,727	22,096	141.4
Field ⁴	98,961	11,070	-87,891	-88.8
Vegetable ⁵	15,717	4,500	-11,217	-71.4
Total	172,497	178,827	6,330	3.7

Notes:

* The Kern Water Bank participants' service area consists of lands served with KWB water: Dudley Ridge Water District in Kings County, and Semitropic Water Storage District, Westside Mutual Water Company, and Wheeler Ridge-Maricopa Water Storage District in Kern and Kings Counties.

- Nut crops consist of almonds and pistachios.
- Citrus crops consist of grapefruit, oranges, lemons, and tangerines.
- Fruit crops include apples, apricots, grapes, bush berries, and tomatoes.
- Field crops include alfalfa, beans, corn, cotton, and safflower.
- Vegetable crops include asparagus, broccoli, cabbage, carrots, garlic, lettuce, melons, peppers, and onions.

Sources: Insight Environmental Consultants 2015¹⁷; data compiled by AECOM 2016.

As indicated by statewide data, there was also a material increase in orchard crops in areas of the KWB participants' service area that do not have access to KWB water..

Kern County Farmland Conversion

DOC estimated that Kern County had approximately 2,743,937 acres of agricultural land in 2012 (the most recent DOC farmland conversion data), of which approximately 900,332 acres were identified as Important Farmland and 1,843,605 acres were identified as Grazing Land.¹⁸

The USDA-NRCS soil surveys for all of Kern County were completed in 2004 and provide the most accurate baseline to assess conversion (using partial Kern County data prior to 2004 would exaggerate and misrepresent conversion acreages when compared to future years with 100% coverage of Kern County). Table 7.6-7 summarizes the DOC farmland conversion data, identifies the 2004 and 2012 acreages of agricultural land in Kern County, and shows the net change in acreage over the 8-year period.^{19,20} Overall, the total acreage of Important Farmland decreased by approximately 7.4 percent between 2004 and 2012, and the total acreage of Grazing Land increased by 2.9 percent over the 8-year period. In total, the acreage of agricultural land decreased by approximately 0.5 percent between 2004 and 2012 (Table 7.6-7).

Important Farmland Category	Acres		Net Change (2004–2012)	
	2004	2012	Acres	Percent
Prime Farmland	643,128	597,771	-45,357	-7.6
Farmland of Statewide Importance	214,705	212,867	-1,838	-0.9
Unique Farmland	109,318	89,694	-19,624	-21.9
Farmland of Local Importance ¹	–	–	–	–
Important Farmland Subtotal	967,151	900,332	-66,819	-7.4
Grazing Land	1,791,467	1,843,605	52,138	2.9
Agricultural Land Total	2,758,618	2,743,937	-14,681	-0.5

Note:
1. The Kern County Board of Supervisors determined that no Farmland of Local Importance would be designated in Kern County.
Sources: DOC 2006,²¹ 2012²²

DOC's 2012 Field Report for Kern County, which is the most recent DOC field report, identifies the factors contributing to changes in agricultural land uses during the DOC 2010–2012 farmland conversion update cycle. According to the 2012 Field Report, irrigated Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) was converted to Urban and Built-Up Land from urban development in and adjacent to the city of Bakersfield and in the city of Shafter. Conversion of Important Farmland to Grazing Land occurred from irrigated land being converted to dryland production and confined livestock uses. Conversion of Important Farmland to Other Land resulted from delineation of low-density housing, farmsteads, and commercial uses. Other conversions of Important Farmland to Grazing Land and Other Land were a result of leaving formerly irrigated land idle for three or more update cycles.²³

Existing Agricultural Use on KWB Lands

The KWB HCP/NCCP permits certain uses for KWB Lands and designate general areas (referred to as "sectors") and acreages for those uses. The western portion of KWB Lands was designated by the KWB HCP/NCCP as the Farming Sector. This sector consists of 3,170 acres and was identified as an area where future farming of crops, such as grapes and cotton, could occur. With the exception of 45 acres

that was farmed intermittently prior to 2005 for the CDFG annual Heritage Game Bird hunt, no farming has occurred in the Farming Sector. Instead, this acreage, some of which has been used for recharge ponds, has developed into exceptional upland and wetland habitat.

Portions of KWB Lands that do not support KWBA facilities remain fallow. In 1996, KWBA implemented a sheep and cattle grazing program. The primary goal of the grazing program is to minimize tumbleweeds and manage excessive growth. As of 2014, only cattle are being grazed on KWB Lands.

Figure 7.6-1 shows the designated farmland on KWB Lands and in surrounding areas based on the most recent Kern County Important Farmland Map, published by DOC's Division of Land Resource Protection. Approximately 38 acres of the KWB Lands are designated as Prime Farmland, 13 acres are designated as Farmland of Statewide Importance, 15,390 acres are designated as Grazing Land, 11 acres are designated as Urban and Built-Up Land, and 5,035 acres are designated as Other Land. Non-KWB parcels north of Stockdale Highway, south of Taft Highway and Panama Lane, and east of Morris Road are designated as Important Farmland and these areas consist of active agricultural land uses.

7.6.2.3 Regulatory Setting between 1996 and 2014

Federal

No federal plans, policies, regulations, or laws related to agriculture and forestry resources apply to the KWB activities.

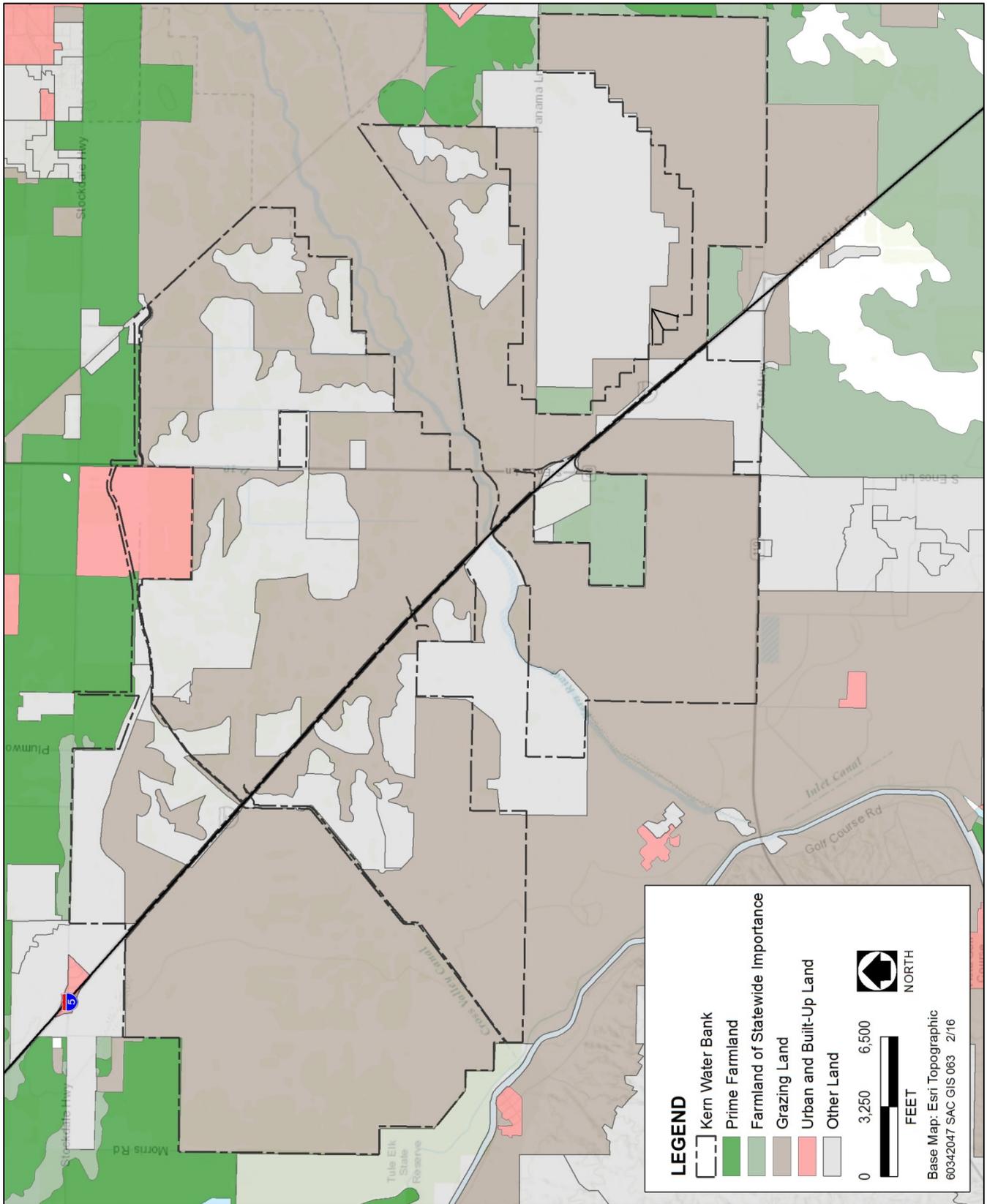
State

California Important Farmland Inventory System and Farmland Mitigation and Monitoring Program

The FMMP was established by the State of California in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the United States Soil Conservation Service (now called the NRCS, under USDA). The intent of the United States Soil Conservation Service was to produce agricultural resource maps, based on soil quality and land use across the nation. DOC sponsors the FMMP and also is responsible for establishing agricultural easements, in accordance with PRC Sections 10250–10255.

The DOC FMMP maps are updated every 2 years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. The following list provides a comprehensive description of all the categories mapped by DOC:²⁴

- **Prime Farmland**—Land that 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.
- **Farmland of Statewide Importance**—Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.
- **Unique Farmland**—Land of lesser quality soils used for the production of the state's leading agricultural cash crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California.
- **Farmland of Local Importance**—Land that is of importance to the local agricultural economy, as defined by each county's local advisory committee and adopted by its board of supervisors.
- **Grazing Land**—Land with existing vegetation that is suitable for grazing.
- **Urban and Built-Up Lands**—Land that is used for residential, industrial, commercial, institutional, and public utility structures and for other developed purposes.



Sources: DOC FMMP 2010

FIGURE 7.6-1. Important Farmland

- **Land Committed to Nonagricultural Use**—Land that has a permanent commitment to development but has an existing land use of agricultural or grazing lands.
- **Other Lands**—Land that does not meet the criteria of any of the previously described categories and generally includes low-density rural developments, vegetative and riparian areas not suitable for livestock grazing, confined-animal agriculture facilities, strip mines, borrow pits, and vacant and nonagricultural land surrounded on all sides by urban development.

State

California Important Farmland Inventory System and Farmland Mitigation and Monitoring Program

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- **Unique Farmland**—Land of lesser quality soils used for the production of the state’s leading agricultural cash crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California.
- **Farmland of Local Importance**—Land that is of importance to the local agricultural economy, as defined by each county’s local advisory committee and adopted by its board of supervisors.
- **Grazing Land**—Land with existing vegetation that is suitable for grazing.
- **Urban and Built-Up Lands**—Land that is used for residential, industrial, commercial, institutional, and public utility structures and for other developed purposes.
- **Land Committed to Nonagricultural Use**—Land that has a permanent commitment to development but has an existing land use of agricultural or grazing lands.
- **Other Lands**—Land that does not meet the criteria of any of the previously described categories and generally includes low-density rural developments, vegetative and riparian areas not suitable for livestock grazing, confined-animal agriculture facilities, strip mines, borrow pits, and vacant and nonagricultural land surrounded on all sides by urban development.

Important Farmland is classified by DOC as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are located adjacent to the KWB Lands.

Under CEQA, the designations for Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are defined as “agricultural land” or “farmland” (PRC Sections 21060.1 and 21095, and CEQA Guidelines Appendix G).

Regional and Local

Kern County General Plan

The *Kern County General Plan* states that agriculture is vital to the future of Kern County and sets the goals of protecting important agricultural lands for future use and preventing the conversion of prime agricultural lands to other uses (e.g., industrial or residential).²⁶

The following goal and policies related to agriculture and forestry resources from the Land Use, Conservation, and Open Space Element of the *Kern County General Plan* would be applicable to KWB activities.

Goal 5. Conserve prime agriculture lands from premature conversion.

- **Policy 7.** Areas designated for agricultural use, which include Class I and II and other enhanced agricultural soils with surface delivery water systems, should be protected from incompatible residential, commercial, and industrial subdivision and development activities.
- **Policy 10.** To encourage effective groundwater resource management for the long-term economic benefit of the County the following shall be considered:
 - (a) Promote groundwater recharge activities in various zone districts;
 - (d) Support the development of future sources of additional surface water and groundwater, including conjunctive use, recycled water, conservation, additional storage of surface water and groundwater and desalination.
- **Policy 12.** Areas identified by the Natural Resource Conservation Service (formerly Soil Conservation Service) as having high range-site value should be conserved for Extensive Agriculture uses or as Resource Reserve, if located within a County water district.

7.6.3 IMPACTS AND MITIGATION MEASURES

7.6-1 KWB activities could potentially convert agricultural uses, including Important Farmland, to nonagricultural uses or potentially convert irrigated farmland to orchards, which could cause other indirect effects.

1996 – 2014

Crops within Kern County generally occur on soils meeting the definition of Important Farmland. As shown in Table 7.6-7, the total acreage of Important Farmland decreased by approximately 7.4 percent between 2004 and 2012 in Kern County. According to the DOC’s Field Report, the majority of irrigated Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) was converted to Urban and Built-Up Land from urban development in and adjacent to the city of Bakersfield and in the city of Shafter and conversion of Important Farmland to Other Land resulting from delineation of low-density housing, farmsteads, and commercial uses. Other conversions of Important Farmland to Grazing Land and Other Land were a result of leaving formerly irrigated land idle for three or more update cycles. As discussed above, as of 1995, no agricultural activities were carried out on KWB Lands.

KWB-recovered water is typically used locally by KWB participants. Four of the six KWB participants are agricultural districts/entities, while two are municipal and industrial (M&I) districts. See Section IV of Appendix E (Revised) for an accounting of KWB water. KWB participants did not construct new water conveyance facilities specifically or partially to convey KWB-recovered water; KWB participants already had facilities in place to convey and use recovered water. Most of the recovered water is used by KWB participants for agricultural purposes, except for a relatively small amount of water that goes to urban water contractors in the participants' service area (see Chapter 8, Growth-Inducing Impacts). Overall, KWB provides recovered water for agricultural uses at times when less water would be available without the KWB. Consequently, the KWB has helped maintain agricultural lands in agricultural production. No known conversion of agricultural land uses, including Important Farmland to nonagricultural uses, occurred.

As shown in Table 7.6-5, there was a relatively small increase in agricultural acreage in Kern County (approximately 1.2 percent) between 1996 and 2014, but the cropping patterns within the county changed substantially. The acreage of nut crops increased by approximately 206 percent and almonds accounted for more than 65 percent of the total nut crops in 2014. Combined acreages of seed crops, field crops, and vegetable crops all decreased during the same time period.

KWB activities increased water supply reliability, which has potentially resulted in changes from irrigated crops or annual field crops on land that could be fallowed in dry/critically dry years to permanent crops like orchards and vines that require a dedicated water supply. As evidenced by the KWB participants' service area analysis, changes in farming practices in the KWB participants' service area are consistent with the county-wide trend discussed above (Table 7.6-6) and with a state-wide trend even in areas that do not depend upon water banks for water storage.

KWB activities did not convert agricultural uses to nonagricultural uses on KWB Lands as agriculture ceased prior to the property transfer. Overall, KWB activities did not result in significant changes in the physical environment that could directly result in the conversion of agricultural land, including Important Farmland, to nonagricultural uses.

Therefore the impact of KWB activities between 1996 and 2014 on conversion of agricultural lands, including Important Farmland, to nonagricultural uses was ***less than significant***.

In addition, KWB recovered water would provide water supplies that resulted in a benefit by helping to maintain agricultural lands in agricultural production.

Mitigation Measures

None required.

2015 – 2030

Near-term future KWB activities include construction of approximately 190 acres of recharge ponds and three wells under the ongoing Integrated Regional Water Management (IRWM) program. Longer-term future construction of approximately 862 acres of additional recharge ponds and associated facilities is anticipated as part of full build-out. All planned KWB activities on KWB Lands are consistent with permitted uses of agricultural land.

KWB activities would increase the recharge capability of the KWB and the amount of water that could be provided during recovery. No new water conveyance facilities to convey KWB-recovered water are anticipated to be constructed by KWB participants; KWB participants already have facilities in place to convey and exchange recovered water. Conveyance of KWB-recovered water used beyond KWB

Lands is not anticipated to result in the conversion of agricultural land, including Important Farmland, to nonagricultural uses.

Like any groundwater bank, the KWB increases the reliability of water supplies to its participants. KWB participants use the recovered water primarily for agricultural uses. Based on the historical trend of converting irrigated crops with annual crops in Kern County and the KWB participant's service area, it is possible that KWB activities could result in additional land being converted to permanent crops. The trend of replacing irrigated annual crops with permanent crops is expected to continue in the future with or without the KWB.

KWB activities would not convert agricultural uses to nonagricultural uses on KWB Lands. Overall, KWB activities would not result in significant changes in the physical environment that could directly result in the conversion of agricultural land, including Important Farmland, to nonagricultural uses.

Therefore, the impact of KWB activities between 2015 and 2030 on conversion of agricultural lands, including Important Farmland, to nonagricultural uses would be ***less than significant***.

In addition, KWB recovered water would provide water supplies that is likely to result in a benefit by helping to maintain agricultural lands in agricultural production.

Mitigation Measures

None required.

ENDNOTES

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3. Kern County Department of Agriculture and Measurement Standards. 1995. *Kern County Crop Report—1995*. Available: <http://www.kernag.com/caap/crop-reports/crop-reports.asp>. Accessed May 28, 2015.
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13. Insight Environmental Consultants. 2015 (October). *Focused Air Quality Analysis Agricultural-Related Emissions within the Kern Water Bank Service Area*. Bakersfield, CA.
14. Insight Environmental Consultants. 2015 (October). *Focused Air Quality Analysis Agricultural-Related Emissions within the Kern Water Bank Service Area*. Bakersfield, CA. For the purpose of this analysis, the KWB service area consists of lands served with KWB water: Dudley Ridge Water District in Kings County, and Semitropic Water Storage District, Westside Mutual Water

Company, and Wheeler Ridge–Maricopa Water Storage District in Kern and Kings Counties. Because Improvement District No. 4 and Tejon-Castac Water District store water in the KWB exclusively or predominantly for nonagricultural purposes, they were not considered in this analysis.

15. Kern County Department of Agriculture and Measurement Standards. 1996. *1996 Kern County Agricultural Crop Report*. Available: <http://www.kernag.com/caap/crop-reports/crop-reports.asp>. Accessed May 28, 2015.
16. Kern County Department of Agriculture and Measurement Standards. 2014. *2014 Kern County Agricultural Crop Report*. Available: <http://www.kernag.com/caap/crop-reports/crop-reports.asp>. Accessed May 28, 2015.
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