# Kern Water Bank Authority Habitat Conservation Plan/ Natural Community Conservation Plan 2014 Compliance Report and 2015 Management Plan



May, 2015







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# **Executive Summary**

The Kern Water Bank (KWB) occupies approximately 20,000 acres in the southern San Joaquin Valley. It is operated under a Habitat Conservation Plan/Natural Community Conservation Plan (HCP) which prescribes reporting and planning requirements, adaptive management methodologies, and avoidance and mitigation measures.

The KWB is well located to provide significant benefits to wildlife in the southern San Joaquin Valley. The water banking activities of the Kern Water Bank have re-established a thriving intermittent wetland habitat along the Pacific Flyway that is ideal for water birds, and the areas outside of the ponds provide excellent upland habitat for raptors, other migratory birds, terrestrial wildlife, and rare and endangered plants. An ornithological study completed during the fall and winter of 2011 indicated 66 different species of water birds were present with populations reaching 35,000 individuals. The study concluded that: "Overall, in terms of bird abundance, species diversity, acreage, location and habitat diversity, [the KWB] is one of the most important freshwater wetlands in California, especially when compared to other privately managed wetlands."

Upland habitat has also been re-established on lands once farmed using the adaptive management methods prescribed in the HCP. These lands support many special-status species, including Tipton kangaroo rats, burrowing owls, tricolored blackbirds, and San Joaquin woolly threads. The careful implementation of adaptive management techniques has significantly improved upland habitat value – follow-up ornithological studies indicate that even when ponds are dry, the KWB is an important area of upland habitat in terms of bird abundance, species diversity, and habitat diversity. Overall, the KWB has become a very important wildlife resource of regional significance.

This report documents water banking activities in 2014, provides a management plan for 2015, summarizes Conservation Bank transactions, and describes other HCP compliance measures.

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## **1.0 Introduction**

The Kern Water Bank (KWB) occupies approximately 20,000 acres in the southern San Joaquin Valley of California (Figure 1). The Water Bank is operated by the Kern Water Bank Authority (KWBA) under a Habitat Conservation Plan/Natural Community Conservation Plan (HCP) executed on October 2, 1997. The HCP provides for the overall management of Water Bank lands with the stated purpose of "accomplish[ing] both water conservation and environmental objectives. The primary water conservation objective is the storage of water in the aquifer during times of surplus for recovery during times of shortage. The primary environmental objective is to set aside large areas of the KWB for threatened, endangered, and sensitive species and to implement a program to protect and enhance the habitat." The keystone of the HCP is balanced achievement of both goals, and issuance of "incidental take permits" by USFWS and "management authorizations" by CDFW applied to specific activities and use of the KWB.

Since the implementation of the HCP, KWBA has complied with its' preservation, construction and operational, monitoring, adaptive management, and reporting requirements. The Implementation Agreement (IA) requires the submittal of an Annual Report of the previous year's activities and a Management Plan describing the coming year's activities. Specifically, the Annual Report is to provide the following information:<sup>1</sup>

- Summary of all activities that have taken place on the Kern Water Bank in the previous year, including construction, operation and maintenance of water recharge and water extraction facilities;
- Summary of all Take that has occurred within the previous year, including Take of Covered Species and Covered Habitat;
- 3) Summary of all mitigation measures implemented in the previous year;
- 4) Results of completed studies;
- 5) Status of ongoing activities;
- 6) Results from the implementation of monitoring programs;
- 7) Results from the implementation of avoidance and minimization measures;

<sup>&</sup>lt;sup>1</sup> Implementation Agreement, Section 3.3.4.

- 8) Report regarding the status of the Viability Fund;
- 9) Copy of KWBA's annual financial report; and
- 10) Certification by KWBA officer that the information in the report is "true, accurate and complete."

The Management Plan is to describe in detail the operational activities contemplated for the KWB during the next year, including construction, maintenance and repair of the infrastructure, and a description of the adaptive management activities to be carried out.<sup>2</sup>

In addition to the reporting requirement in the IA, the Conservation Bank Agreement (CBA) requires the submittal of an annual report detailing Conservation Bank transactions.



Figure 1. Kern Water Bank Location.

<sup>&</sup>lt;sup>2</sup> Implementation Agreement, Section 3.3.5.

This report is intended to meet the reporting requirements of the IA and CBA. It consists of eight sections:

- Section 1 is this introduction, which reviews the objectives of the HCP and describes the basis for the report;
- Section 2 includes a summary of all activities completed in 2014 and the status of ongoing activities;
- Section 3 provides a summary of all take, a summary of mitigation measures implemented during the year, and the results of avoidance and minimization measures;
- Section 4 discusses adaptive management and the results of monitoring programs and completed studies;
- Section 5 is the Conservation Bank Report;
- Section 6 is the Management Plan;
- Section 7 discusses the Viability Fund and the annual financial report; and
- Section 8 is the certification regarding the accuracy of the report.





# 2.0 Summary of 2014 Activities

Activities in 2014 were primarily focused on recovery operations, maintenance and ongoing repairs of existing wells. Security measures included daily patrols. These activities are discussed below.

### 2.1 Water Banking Operations and Maintenance Activities

Recovery operations were conducted throughout 2014. During that time, approximately 180,000 acre-feet of groundwater was recovered. Maintenance activities focused on supporting recovery operations. Repairing and maintaining wells and clearing obstructions from conveyance facilities occurred throughout the year. These activities were conducted on existing facilities and none resulted in new habitat disturbance.

## 2.2 Construction Activities

Construction activities completed by KWBA in 2014 included:

- Installation of a traveling screen at the cross-river pipeline;
- Installation of a weir box;
- Graveling roads; and
- Repairing well pumps.

These activities were all conducted on existing facilities on previously disturbed lands. A summary of all project disturbance is shown on Table 1. It should be noted that the temporary disturbance which resulted from the installation of well pipelines in 2013, as well as the disturbance described for the West Kern pipeline in the 2012 Annual Report, is rapidly being replaced with habitat, and soon the pipeline alignments will be indistinguishable from adjoining lands.

## 2.3 Security

Security patrols are conducted daily on KWB lands. The purpose of the patrols is to protect the property from trespassers, poachers, and thieves. None of the copper thefts that plagued the previous two years occurred. Minor security issues included illegal dumping and trespassing.

Table 1. Habitat Disturbance Summary in Acres.

| Destaura Destau  |       |               |                     |  |
|--|-------|---------------|---------------------|--|
| Recharge Basins  |       |               |                     |  |
|  |       | HCP Estimated | Actual Disturbance  |  |
|  |       | Disturbance   | as of 12/31/14      |  |
| Recharge Basins <sup>1</sup>                                       |       | 5,900         | 4,998               |  |
| Permanently Disturbed A  | reas  |               |                     |  |
|  |       | HCP Estimated | Actual Disturbance  |  |
|  |       | Disturbance   | as of 12/31/14      |  |
| <b>Recovery Facilities</b>   |       | 66            | 38                  |  |
| Conveyance Facilities  |       | 397           | 195                 |  |
| Kern River Reverse Flow  |       | 18            | 0                   |  |
| Roads  |       | 0             | 23                  |  |
|  | Total | 481           | 256                 |  |
| Temporary Disturbed Areas  |       |               |                     |  |
|  |       | HCP Estimated | Current Disturbance |  |
|  |       | Disturbance   | as of 12/31/14      |  |
| Canal Construction   |       | 73            | 0                   |  |
| Pipelines  |       | 218           | 37                  |  |
|  | Total | 291           | 37                  |  |
| <sup>1</sup> Does not include emergency basins in the farming area |       |               |                     |  |

<sup>1</sup> Does not include emergency basins in the farming area.

#### 2.4 Third Party Activities

Third party activities that occurred on the property in 2014 included:

- Miscellaneous oil-well maintenance activities by Central Resources;
- The removal of several buildings in Section 13-T30S/25E by Grayson Services, Inc.;
- Final clean-up of oil lease facilities (e.g. debris piles, lease lines) by Vintage Oil in Section 7-T30S/R26E and Section 12-T30S/R26E; and
- The removal of concrete debris located near the Cross Valley Canal by the Kern County Water Agency.

# 3.0 Take, Mitigation Measures, and Avoidance and Minimization

No take of covered species or habitat occurred in 2014. The amount of total project disturbance is listed in Table 1. Much of this disturbance is temporary, and the land surface is expected to revert back to habitat in the near future.

Mitigation measures for the minimization of impacts are prescribed in the IA<sup>3</sup>. They include: the use of a biological monitor, specific construction practices, practices for ongoing activities, notification requirements regarding listed animals, and special requirements for actions which might threaten fully protected species. All of the requirements are provided in Appendix A for reference.

The specific measures implemented in 2014 (and more fully described in Appendix A) for the activities described in Section 2.0 included:

- Use of a biological monitor prior to construction and maintenance activities that would disturb habitat;
- Oversight of construction and maintenance activities by KWBA personnel;
- Delineation of disturbance areas prior and during construction;
- Construction site review to ensure that no animals including kit foxes are trapped in pipes, culverts, or other like structures;
- Employee orientation in which endangered species concerns were explained;
- Equipment storage in non-habitat areas;
- Limiting traffic to existing roads and speeds of no more than 25 mph;
- Proper disposal of food-related trash and scraps;
- Prohibiting dogs (except for hunting) from the property; and
- Use of herbicides only in accordance with the Vegetation Management Plan.

<sup>&</sup>lt;sup>3</sup> Implementation Agreement, Exhibit H, Minimization of Impacts Requirements.





# 4.0 Adaptive Management, Monitoring Programs and Studies

The HCP's Vegetation Management Plan (VMP) describes vegetation management and restoration practices for the long-term adaptive habitat management and enhancement of Kern Water Bank lands. The priorities of the adaptive management program are protection of sensitive habitat areas and control of exotic pest plants; the primary tools of the program are livestock grazing, mowing, and burning.

Section IV.B.1. of the HCP requires rare plant surveys and monitoring of San Joaquin kit fox and Tipton kangaroo rat populations. The plant surveys are to be conducted at least every other year; the population monitoring is to be conducted annually. KWBA has also undertaken additional monitoring and surveys, including an ongoing ornithological study and the development of an observation monitoring grid. These topics are discussed in more detail below.

#### 4.1 Adaptive Management and Vegetation Monitoring

The primary tools available under the VMP, livestock grazing, mowing, and prescribed burning, are used to varying degrees in response to ever-changing conditions on KWB lands. Herbicide use for exotic pest plant control is also provided for in the VMP. South Valley Biology (SVB) oversees much of the adaptive management measures undertaken throughout the year on the KWB and also documents conditions at the Observation Monitoring Sites (see report in Appendix B).

#### 4.1.1 Livestock Grazing

The primary goal of the grazing program is to minimize tumbleweeds and manage excessive growth. Tumbleweeds are an exotic pest which crowd out native species and create significant maintenance problems after wind storms. Cattle will graze on young palatable plants and in some cases trample older plants helping to minimize this problem.

Excessive growth of other plants can exacerbate mosquito problems and diminish habitat value for some species. Mosquitos prefer to breed in vegetation choked portions of ponds rather than in open water. Heavy vegetation can also make it difficult to reach areas for abatement purposes. Grazing helps to minimize vegetation in ponds both before recharge events and along pond margins during recharge events, thereby diminishing areas favorable to mosquito breeding and providing access for abatement.

Heavy vegetation can also diminish habitat value for many species. Long-term studies of carefully managed grazing programs have indicated reducing herbaceous cover to about 500 lbs per acre Residual Dry Matter (RDM) is beneficial to many native vertebrate species. This RDM value has been an informal goal of the grazing program on the KWB.

Precipitation in the winter of 2013-2014 was well below normal, although some late rains provided favorable conditions for tumbleweed growth. Over 12,400 acres were grazed at some time (Figure 2). However, cattle numbers were low and the herds that were present were rotated through the property. The 2014 grazing program is discussed in detail in Appendix B.



Figure 2. Areas grazed by cattle in 2014.

#### 4.1.2 Mowing

Mowing was conducted primarily along existing roads and canals to manage plant encroachment and in areas covered by tumbleweed drifts or in pond bottoms choked with stands of dead cattails (Figure 3). The drifts of dead tumbleweeds prevent the germination of desirable native plants and can create significant maintenance issues when they blow into canals. The dead cattails can provide breeding sites for mosquitoes when ponds are filled. Canal mowing was only used sparingly so that plant cover remained in place during nesting seasons and so that cover was available for animals using the canals as a water source. Approximately 1,150 acres were mowed in 2014.



Figure 3. Areas mowed in 2014.

#### 4.1.3 Burning

Burning (under a permit from the San Joaquin Valley Unified Air Pollution Control District) was conducted to eliminate drifts of dead tumbleweeds in the areas shown in Figure 4. As described above, the dead tumbleweeds crowd out desirable native plants and create significant

maintenance issues. They can also create fire hazards when they pile up along fences near public highways. Approximately 230 acres were burned in 2014.



Figure 4. Areas burned in 2014.

#### 4.1.4 Herbicide Use

Herbicides (Diuron and Round-Up) were used to control weeds at well sites, along roads, and at water control structures (Figure 5).

## 4.1.5 Other Control Methods

Yellow starthistle was discovered in 2012 on a few acres in the northwest corner of Section 12, T30S/R24E. This plant is a rapid colonizer which rapidly depletes soil moisture for desirable native species.<sup>4</sup> Shortly after the plants were discovered, they were removed by hand and burned. No infestations have been found since 2012.

<sup>&</sup>lt;sup>4</sup> UC ANR Publication 7402.



Figure 5. Areas sprayed in 2014.

#### 4.1.6 Observation Monitoring Site Program

In 1999, KWBA implemented an observation monitoring program. Eight sites, referred to as Observation Monitoring Sites (OMS) and representing different aspects of KWB habitat (e.g., canal, ditch, pond, uplands, conservation bank), were selected for surveys and the development of photographic records. Quarterly, staff and/or consultants have observed each site and collected data on weather conditions, general vegetation conditions, and any other pertinent information. Also, photographs were taken, looking north, east, south, and west, to be compared with prior and future images to identify changes. KWBA will continue the quarterly OMS program, building a photographic record and informational database, which will help provide insight for adaptive management of different sectors of the KWB. The 2014 OMS report is provided in Appendix B.

#### 4.2 Ornithological Studies

The Kern Water Bank Authority has commissioned ornithological surveys since 2011 to help document the benefits KWB lands provide to the region. Surveys conducted during the wet winter and spring of 2011/2012 documented substantial benefits to water birds provided by KWB recharge programs, whereas surveys conducted since that time have documented significant benefits to upland birds and raptors. All told, these surveys have identified 208 species of birds on KWB lands.

#### 4.2.1 Water Bird Surveys

Prior to the development of Kern County's water infrastructure, much of the area was intermittently flooded by the Kern River and other minor streams. This flooding supported extensive wetlands, marshes, and Kern and Buena Vista Lakes, all along the Pacific Flyway. Numerous canals and Isabella Dam were constructed during the 20<sup>th</sup> century to capture and regulate waters for beneficial uses. However, this redirection also resulted in a reduction in wetland and marsh habitats by as much as 90%.<sup>5</sup> The development of the Kern Water Bank (and other banking projects in Kern County) has re-established thousands of acres of intermittent wetlands in the region and provide much-needed habitat for migrating water birds.

Sterling Wildlife Biology was contracted to complete bird surveys from October 2011 through mid-April 2012, a particularly wet winter (see report in Appendix C). The water bird surveys were conducted by observing recharge ponds, upland bird surveys were conducted by walking transects at specific locations, and raptor surveys were conducted by recording sightings along roads. The results can be summarized as follows:

- For the October through February period, overall water bird numbers ranged from approximately 20,000 to 35,000 individuals. Numbers declined after this as recharge operations ceased in early February 2012;
- 66 native water bird species were identified;

<sup>&</sup>lt;sup>5</sup> Hundley, Norris, Jr., The Great Thirst, Californians and Water, A History, University of California Press, Berkley, CA.

- Average species richness (number of species per pond) was 11 for the October 2011 through mid-February 2012 period;
- At their maximums, the grebe population reached nearly 900 birds, the gull population exceeded 2,100 birds, dabbling ducks reached nearly 15,000 birds, diving ducks exceeded 5,500 birds, herons and egrets exceeded 1,400 birds, and shorebirds reached nearly 10,000 birds;
- For individual species, at their maximums, the American coot population exceeded 12,000 birds, the white-faced ibis population exceeded 3,300 birds, the double-crested cormorant population exceeded 1,000 birds, and the American white pelican population reached nearly 3,000 birds.
- Raptors identified during the surveys include American kestrels, Cooper's hawks, ferruginous hawks, a golden eagle, northern harriers, osprey, peregrine falcons, prairie falcons, red-tailed hawks, red-shouldered hawks, sharp-shinned hawks, and white-tailed kites. Several Swainson's hawks were also identified on a late April 2012 survey.
- Rare birds included Barrow's goldeneye (the third documented siting in Kern County), Greater Scaup (the only sightings in Kern County for 2012), Cassin's kingbird, and purple martin.

Sterling concludes that: "Overall, in terms of bird abundance, species diversity, acreage, location and habitat diversity, [the KWB] is one of the most important freshwater wetlands in California, especially when compared to other privately managed wetlands." The full report is located in Appendix C.

#### 4.2.2 Upland and Raptor Surveys

Further ornithological studies were initiated in August 2012 to document bird use of the project area absent recharge activities during the winter, spring migration and the start of the breeding seasons. Upland bird surveys were conducted on 9 fixed transects, whereas raptor surveys were conducted by driving most water bank roads. A detailed report through May 2015 is provided in Appendix D. The results of the surveys can be summarized as follows:

• A comprehensive survey for raptors and loggerhead shrikes (Lanius ludovicianus) on the entire project area indicated the presence of high numbers of raptors including red-tailed

hawks (Buteo jamaicensis) and loggerhead shrikes through the winter of 2013. Thereafter, numbers declined likely due to severe drought conditions affecting prey populations. Loggerhead shrike populations have rebounded during the spring of 2015;

- The surveys documented many species of raptors using upland habitat, including: American kestrels, a bald eagle, Cooper's hawks, a ferruginous hawk, golden eagles, merlins, northern harriers, osprey, a peregrine falcon, prairie falcons, red-shouldered hawks, red-tailed hawks, sharp-shinned hawks, Swainson's hawks, turkey vultures, and white-tailed kites;
- Overall numbers of raptors varied throughout the survey period, with the highest number identified in early November 2012 at 103. By September, 2014, the total number had declined to 7.
- Loggerhead shrike populations were high through 2013, declined through 2014, then rebounded in the spring of 2015, with individuals ranging from 10 to 64 individuals; and
- Rare birds identified during the surveys included a black-throated sparrow (a desert species very rare in the Central Valley), a fall migrant clay-colored sparrow (a midwestern species that is rare anywhere in California and especially in the Central Valley from which there are fewer than ten documented records), and eight Brewer's sparrows which were wintering on the water bank. There are very few documented records of this Great Basin and desert species during winter months in the Central Valley.

Sterling states that: "The Kern Water Bank has exceptional habitats for birds and many rare birds will likely be found and documented in the future dependent upon survey efforts... The bird use of property managed by the Kern Water Bank Authority is clearly very high in accordance to the large acreages of upland habitats. Overall, in terms of bird abundance, species diversity, acreage, location and habitat diversity, it is an important area of upland habitat, especially when compared to surrounding agricultural lands."

#### 4.3 Sensitive Species Monitoring

As discussed above, the HCP requires rare plant surveys and the monitoring of San Joaquin kit fox and Tipton kangaroo rat populations. South Valley Biology Consulting LLC (SVB) was

contracted to conduct these activities in 2014 (see report in Appendix E). Some key points from their report are presented below.

SVB utilized three methods to complete sensitive species monitoring:

- Nighttime spotlighting surveys to determine San Joaquin kit fox populations;
- Small mammal trapping to determine Tipton kangaroo rat populations; and
- Site surveys for special-status plant species.

One San Joaquin kit fox was identified during the surveys in the southeastern most portion of the water bank. Other mammals identified during the surveys included: 12 coyotes, 2 bobcats, 1 badger, 9 desert cottontail, 75 black-tailed jackrabbits, and 5 kangaroo rats. Raptors included 2 barn owls, 4 great-horned owls, 3 burrowing owls, 2 northern harriers and 1 lesser nighthawk. As discussed in more detail in the report in Appendix E, drought conditions in 2014 appear to have suppressed the populations of both prey and predator species.

Small mammal trapping was conducted on two grids. One grid is located north of the Kern River in River in Sensitive Habitat (the "Strand" grid) and the other is located south of the Kern River in the Conservation Bank Area (the "Southeast" grid). Two Tipton kangaroo rats were captured at the northern grid and four were captured at the southern grid. Other animals captured during the trapping included Heermann's kangaroo rats, San Joaquin grasshopper mice, San Joaquin pocket mice and deer mice. Although the number of individual Tipton kangaroo rats are typically low at the northern grid, captures over many years suggest a small but stable population is present. The southern grid was first used in 2012, when 10 individuals were captured. Although fewer individuals were captured in 2014, the colony seems to be persistent. With respect to Tipton kangaroo rats, SVB has previously concluded that: "the Kern Water Bank Conservation Lands provide several areas of occupied Tipton kangaroo rat habitat. These areas are key in helping to protect and maintain this species both locally and cumulatively on a much larger scale. As identified in USFWS (1998), one key element of the recovery strategy for the Tipton kangaroo rat is to protect large blocks of habitat for the species. The KWB should be considered an important component of this recovery strategy."

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Special-status plants identified on the KWB have included San Joaquin woolly threads (federally endangered), Hoover's woolly star, recurved larkspur, slough thistle, and Horn's milk vetch. None of these species were identified in 2014. SVB attributes the lack of germinating special-status plants to continuing drought conditions.

The SVB report provides a detailed discussion of factors that may have contributed to the changes seen in the populations of both wildlife and plants (Appendix E).

# 4.4 Miscellaneous Studies

The California Department of Fish and Wildlife conducted a Dove Banding Study during the summer of 2014, and the Endangered Species Recovery Team initiated studies in spring 2015 on the Chang Parcel in Sections 4 and 5, T30S/Range25E to determine if Tipton kangaroo rats are present. Two individuals were identified.



# 5.0 Conservation Bank Report

The Kern Water Bank Authority Conservation Bank was established concurrently with the HCP by the Conservation Bank Agreement (CBA). The CBA provides for 3,267 Conservation Credits (Credits) representing one-acre each. These Credits are provided by the KWBA as mitigation for impacts to Covered Species in the Permit Area as authorized by USFWS and CDFW. The Agreement requires that KWBA file an Annual Report to the CDFW Agencies each year documenting:

- The number of Credits available, sold, used, eliminated, and suspended, both cumulatively and in the preceding year;
- The name and address of each party purchasing Credits and the number of Credits that were sold, optioned, or transferred in the preceding year;
- A map showing the portion of the KWB Conservation Bank for which KWBA has delivered a Conservation Easement to the Department, and the portion of the KWB Conservation Bank unencumbered by a Conservation Easement; and
- Copies of the annual reports submitted by the Included Parties.

Annual conservation credit transactions as required by the agreement are summarized in Table 2. In 2014, the KWBA provided 23 conservation credits for three different projects; to date 1,289 of the 3,267 credits have been sold. These transactions provided \$8,625 (\$375 per credit) to the Endowment Fund held by CDFW.<sup>6</sup>

Figure 6 shows the portions of the Conservation Bank encumbered by Conservation Easements and the proposed Conservation Easement for 2014 transactions. Preliminary title reports for the proposed parcels are included in Appendix F. Pertinent correspondence related to Conservation Bank transactions, including the names and addresses of parties purchasing credits, is provided in Appendix G. A draft conservation easement is provided in Appendix H.

<sup>&</sup>lt;sup>6</sup> Conservation Bank Agreement, Section 6.

| Certificate Number | Recipient   | Project                       | # of    |
|--------------------|-------------|-------------------------------|---------|
|                    |             |                               | Credits |
| 2014-01            | PG&E        | Carrizo to Midway             | 5       |
|                    |             | Reconductoring Project        |         |
| 2014-02            | Seneca      | Western Minerals Well Project | 10      |
| 2014-03            | Phillips 66 | Middlewater Gas Line Project  | 8       |
|                    |             | Total                         | 23      |

Table 2. Conservation Bank Transaction Summary.



Figure 6. Conservation Bank Easements. The proposed easement for 2014 is in Section 33, T30S/R26E.

# 6.0 Management Plan

The Management Plan is to describe the operational activities contemplated for the Kern Water Bank during the next year, including construction, maintenance and repair of the infrastructure, and a description of the adaptive management activities to be carried out.<sup>7</sup>

## 6.1 Water Bank Operations and Construction

Unfortunately, statewide the 2014/2015 water year has been very dry. As a result, recovery operations are expected to continue throughout the year. Recovery operations entail routine well maintenance, canal maintenance, and well repairs as needed. All of these activities are conducted on existing facilities, and no new habitat disturbance is contemplated.

In addition to the activities associated with recovery operations, the KWBA is contemplating several projects in the near future. They may include:

- Installation of fencing along Kern River By-Pass channel;
- Construction of three recovery wells;
- Pipeline installation for recovery wells;
- Pipeline replacement;
- Recharge basin construction; and
- Weir box installation.

In all cases, the appropriate Minimization of Impacts Requirements described in detail in Appendix A will be carried out.

## 6.2 Vegetation Management

Although the winter of 2014/2015 was very dry in most of the state, precipitation on KWB lands was much better than the previous winter, approaching average conditions (Figure 7). In response, KWBA expects to graze portions of the KWB lands again in 2015. Mowing, burning (when permissible), and herbicide applications will also be used where appropriate.

<sup>&</sup>lt;sup>7</sup> Implementation Agreement, Section 3.3.5.



Figure 7. Rainfall in the 2014-2015 season.

# 7.0 Viability Fund Status and Financial Report

The IA<sup>8</sup> establishes the Kern Water Bank Species Viability fund in the amount of \$50,000. The County of Kern Auditor-Controller's Office reported that, as of December 31, 2014, the balance in the Viability Fund was \$52,959.88. This sum represents the principal balance of \$50,000 plus \$2,959.88 in accrued interest.

A copy of the "Kern Water Bank Authority Financial Statements - December 31, 2014 and 2013" is included in Appendix I of this report. The independent accounting firms of Barbich Hooper, King, Dill & Hoffman and Brown Armstrong Accountancy Corporation prepared the financial statements and auditor's report, respectively. Total assets on December 31, 2014 were \$71,422,510, current liabilities were \$14,132,127, and long-term liabilities (debt) were \$17,512,512.

<sup>&</sup>lt;sup>8</sup> Implementation Agreement, Section 3.3.2



# 8.0 Certification

Under penalty of law, I certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this report, the information submitted is true, accurate and complete.

Kern Water Bank Authority

By:

William D. Phillimore, Chairman, Board of Directors

Date: June 18, 2015





# 9.0 Contact Information and Distribution List

The contact person for the KWBA is:

Jonathan Parker Kern Water Bank Authority 1620 Mill Rock Way, Suite 500 Bakersfield, CA 93311 661-398-4900

 Table 3. Report Distribution List

| Binder | Download | Name                     | Address   |
|--------|----------|--------------------------|---|
|        |          | Thomas Leeman            | USFWS   |
| 1      | 1        | San Joaquin Branch Chief | 2800 Cottage Way #W2605                               |
|        |          | _                        | Sacramento CA 95825                                   |
|        |          | Jeff Single              | CDFW  |
| 0      | 1        | Regional Manager         | 1234 East Shaw Avenue                                 |
|        |          |                          | Fresno, CA 93710                                      |
|        |          | Reagen O'Leary           | CDFW  |
| 1      | 1        |                          | 1234 East Shaw Avenue                                 |
|        |          |                          | Fresno, CA 93710                                      |
|        |          | Craig Bailey             | CDFW  |
| 0      | 1        |                          | 1234 East Shaw Avenue                                 |
|        |          |                          | Fresno, CA 93710                                      |
|        |          | Ernest Conant            | Young Wooldridge                                      |
| 0      | 1        |                          | 1800 - 30 <sup>th</sup> Street, 4 <sup>th</sup> Floor |
|        |          |                          | Bakersfield, CA 93301                                 |
|        |          | Robert Thornton          | Nossaman, Guthner, Knox, Elliott                      |
| 0      | 1        |                          | Lakeshore Towers #1800                                |
|        |          |                          | 18101 Van Karman Avenue                               |
|        |          |                          | Irvine, CA 92623-9772                                 |
| 0      | 1        | Steve Jackson            | Dudley Ridge Water District                           |
| 0      | 1        | David Beard              | KCWA Improvement District 4                           |
| 0      | 1        | Wilmar Boschman          | Semitropic Water Storage District                     |
| 0      | 1        | Dennis Atkinson          | Tejon-Castac Water District                           |
| 0      | 1        | William Phillimore       | Westside Mutual Water Co.                             |
| 0      | 1        | Scott Hamilton           | Westside Mutual Water Co.                             |
| 0      | 1        | Robert Kunde             | Wheeler-Ridge Maricopa Water Storage District         |
| 0      | 1        | William Taube            | Wheeler-Ridge Maricopa Water Storage District         |
|        |          | Jim Jones                | South Valley Biology                                  |
| 1      | 1        |                          | 6510 Montagna Drive                                   |
|        |          |                          | Bakersfield, CA 93306                                 |