7.0 INTRODUCTION TO THE ANALYSIS (NEW)

7.0 INTRODUCTION TO THE ANALYSIS (NEW)

7.0.1 SCOPE OF THE EIR ANALYSIS

The Environmental Analysis chapter of this REIR presents the environmental and regulatory setting, impacts, and mitigation measures for each of the following technical issue areas (Sections 7.1 through 7.16):

7.1 Surface Water and Groundwater Hydrology (New)

7.2 Surface Water and Groundwater Quality (New)

7.3 Fisheries Resources (New)

7.4 Terrestrial Biological Resources (Revised)

7.5 Visual Resources (New)

7.6 Agricultural Resources (New)

7.7 Air Quality (New)

7.8 Geology, Soils, and Mineral Resources (New)

7.9 Recreation (Revised)

7.10 Land Use and Planning (New)

7.11 Hazards and Hazardous Materials (New)

7.12 Noise (Revised)

7.13 Cultural and Paleontological Resources (New)

7.14 Public Services and Utilities (New)

7.15 Traffic and Transportation (Revised)

7.16 Energy (New)

Supporting Chapter 7 appendices in Document A1, Volume II (Appendices) are as follows:

Appendix 7-1. KWB Study Area Physical Data Collection Technical Report

Appendix 7-2. Kern Water Bank Groundwater Model Results Technical Report

Appendix 7-2a Known Areas of Controversy

Appendix 7-3. Surface and Groundwater Quality Technical Report

Appendix 7-4. Air Quality Model Results

Appendix 7-5a. Memorandum of Understanding Regarding Operation and Monitoring of the Kern Water Bank Groundwater Banking Program (1995 KWB MOU)

Appendix 7-5b. Interim Project Recovery Operations Plan Regarding Kern Water Bank Authority (KWBA) and Rosedale-Rio Bravo Water Storage District (Rosedale) Projects (2014)(Interim Operations Plan or Interim Plan)

Appendix 7-5c.	Long-Term Project Recovery Operations Plan regarding Kern Water Bank Authority Project (2016 KWB Long-Term Operations Plan)
Appendix 7-5d.	Agreement between West Kern Water District and Kern Water Bank Authority for the Exchange and Recharge of Water (2013)
Appendix 7-5e.	Cross Valley Canal / Kern Water Bank Operating Guidelines during Shallow Groundwater Conditions (2000)
Appendix 7-6a.	Initial Study and Addendum to Monterey Agreement EIR of the Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan (1997 Monterey IS and Addendum)
Appendix 7-6b.	2016 Kern Water Bank Authority Resolution (2016 KWBA Resolution)
Appendix 7-7a.	Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan (KWB HCP/NCCP), Implementation Agreement, and Exhibit H to Implementation Agreement (1997)
Appendix 7-7b.	Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, Appendix A, Kern Water Bank Operations Manual (1997)
Appendix 7-7c.	Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, Appendix C, Kern Water Bank Vegetation Management Plan (1997)
Appendix 7-7d.	Kern Water Bank Habitat Conservation Plan/ Natural Community Conservation Plan, Appendix D, Kern Water Bank Waterbird Management Plan (1997)
Appendix 7-7e.	California Department of Fish and Game Approval of Natural Community Conservation Plan and Take Authorization (1997)(CDFG Take Authorization)

7.0.2 SECTION FORMAT

Each section contains: (1) a description of the KWB activities that have the potential to affect the technical issue area under discussion; (2) methods of analysis; (3) standards of significance used to evaluate the significance of impacts from KWB activities; (4) physical setting; (5) regulatory setting; and (6) impacts and mitigation measures. The physical and regulatory setting provides a point of reference for assessing the environmental impacts of the KWB activities. Setting information is presented for 1995 (the year prior to implementation of any part of the Monterey Amendment) and 2014 (the year the analysis for this REIR was started). Only changes in the 1995 physical and regulatory setting are described in the 2014 setting.

The setting discussion is followed by an impacts and mitigation discussion. The impact and mitigation portion of each section includes statements of potential impact, which are prefaced by a number in **bold-faced** type. An explanation of each potential impact and a discussion of the analysis and conclusion reached regarding the **level of significance** without mitigation follow each impact statement. For potentially significant or significant impacts, mitigation measures pertinent to each individual impact are presented following the impact. Each mitigation measure is numbered and preceded by a short discussion of how the proposed measure mitigates the identified impact and a statement declaring the ***level of significance*** after implementing the mitigation measure.

Chapter 7 contains both revised and new resource sections. Revised sections are KWB-related text copied in its entirety from the Monterey Plus DEIR (as modified by the FEIR) into the REIR, with changes to that text shown in <u>underline</u> or ~~strikeout~~ mode. New sections have been sufficiently updated that no text is shown in <u>underline</u> or ~~strikeout~~ mode.

7.0.3 TERMINOLOGY

This Draft REIR uses the following terminology to describe environmental effects of the KWB activities in Chapter 7:

- **Standards of Significance:** A set of criteria used by the lead agency to determine at what level or "threshold" an impact would be considered significant. Standards of Significance used in this REIR include those discussed in the California Environmental Quality Act (CEQA) Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of federal, State, and local agencies; and criteria adopted by the California Department of Water Resources. In determining the level of significance, the analysis assumes that KWB activities would be conducted in compliance with relevant federal, State, and local regulations and ordinances.
- **Less-than-Significant Impact:** A project impact is considered to be less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment (no mitigation required).
- **Potentially Significant Impact:** A potentially significant impact is an environmental effect that may result in a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact. Mitigation measures are identified to reduce these effects to the environment to less-than-significant levels where feasible mitigation measures are available.
- **Significant Impact:** A project impact is considered significant if it would result in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. Mitigation measures are identified to reduce these effects to the environment to less-than-significant levels where feasible mitigation measures are available.
- **Significant and Unavoidable Impact:** A project impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level if the project is implemented. Findings of Overriding Considerations must be adopted to proceed with the project if significant impacts cannot be mitigated.
- **Cumulative Impacts:** According to CEQA, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355). CEQA requires that cumulative impacts be discussed when the "project's incremental effect is cumulatively considerable" (CEQA Guidelines, Section 15130 [a]).
- **Mitigation Measures:** The CEQA Guidelines (Section 15370) define mitigation as:

  (a) Avoiding the impact altogether by not taking a certain action or parts of an action;

  (b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation;

  (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

  (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or

  (e) Compensating for the impact by replacing or providing substitute resources or environments.

To be consistent with the terminology of the Monterey Plus EIR, this REIR will use the following terms:

- "Kern Fan Element (KFE) property" when referring to the property before its transfer to the Kern County Water Agency/Kern Water Bank Authority (KCWA/KWBA) in 1995;
- "KWB Lands" when referring to the property after its transfer to KCWA/KWBA;
- "Kern Water Bank" or KWB when referring to the groundwater bank; and
- "KWB activities" when referring to the development and continued use and operation of the KFE property after it was acquired by KWBA.

7.0.4 TYPES OF MITIGATION MEASURES

This section describes the types of mitigation measures that are applied throughout Chapter 7.

7.0.4.1 Permits Required by Law/Regulation with Performance Standards

The following permits could apply to specific KWB activities. These permits are specific to each permitted activity and have clear, enforceable performance standards. The permit applicant (Kern Water Bank Authority [KWBA] in this case) is required to meet all permit requirements. The performance standards are clear and could reduce a potentially significant impact to a less-than-significant level.

7.0.4.1.1 National Pollutant Discharge Elimination System (NPDES) Permit

The federal Clean Water Act (CWA) requires that all municipal, industrial, and commercial facilities that discharge wastewater or stormwater directly from a point source (a discrete conveyance such as a pipe, ditch or channel) into a water of the United States (such as a lake, river, or ocean) must obtain a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES Program is a federal program which has been delegated to the State of California for implementation through the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The Central Valley RWQCB is responsible for issuing NPDES permits for the KWB. All permits are written to ensure the receiving waters will achieve their water quality standards. Based on this requirement, this REIR has used compliance with these requirements, in addition to other information, to conclude that some potentially significant impacts are less than significant. NPDES discharges can be permitted with an individual permit or covered under a general permit. Individual permits are written to address the specific design and applicable water quality standards to an individual facility while general permits authorize a category of discharges within a geographical area. Both individual and general permits contain requirements for controlling pollutant dischargers, monitoring discharges, and reporting compliance and either could apply to KWB activities. The majority of construction sites and industrial facilities which discharge stormwater are permitted under general NPDES permits.

NPDES permits have specific requirements that the permit holder must comply with. The NPDES Compliance and Enforcement Program of the CWA regulates point source discharges to the nation's waters. The U.S. Environmental Protection Agency (EPA) is responsible for assuring compliance with and enforcing environmental regulations and may delegate some of this responsibility to state and tribal governments.

In California, the SWRCB administers regulations promulgated by EPA (40 Code of Federal Regulations [CFR] Part 122) requiring the permitting of stormwater-generated pollution under the

NPDES. In turn, the SWRCB's jurisdiction is administered through the nine RWQCBs. Under these regulations, an operator must obtain a general permit through the NPDES Stormwater Program for all construction activities with ground disturbance of 1 acre or more. The general permit requires the implementation of Best Management Practices (BMPs) to reduce sedimentation into surface waters and to control erosion. One element of compliance with the NPDES permit is preparation of a Stormwater Pollution Prevention Plan (SWPPP) that addresses control of water pollution, including sediment, and the sources of runoff during construction.

Although the primary purpose of these regulations and standards is to protect surface water resources from the effects of land development (such as turbidity caused by sedimentation), measures included in such regulations and standards also reduce the potential for erosion and soil loss resulting from construction activities. Such regulations include, but are not limited to, the NPDES program for management of construction and municipal stormwater runoff, which is part of the federal CWA and is implemented at the State and local level through issuance of permits and preparation of site-specific pollution protection plans. Sections 1600 through 1607 of the California Fish and Game Code regulates activities that would alter stream characteristics, including sedimentation caused by erosion.

7.0.4.1.2 Hazardous Materials Management Laws and Regulations

Hazardous materials management laws and regulations are adopted at the State level in Titles 19 and 22 of the California Code of Regulations (CCR), which address proper storage and disposal of substances such as fuels. Title 8 of the CCR also addresses the use of hazardous products in the work environment, which would apply to construction contractors.

The California Environmental Protection Agency (Cal-EPA) and the State's Office of Emergency Services establish rules governing the use of hazardous materials. Within Cal-EPA, The Department of Toxic Substances Control (DTSC) has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

7.0.4.1.3 Air Quality Standards

Federal

EPA is the federal agency responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives.

As part of its enforcement responsibilities, EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs.

State

The California Air Resources Board (CARB), a part of Cal EPA, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB also has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts.

Local Air Quality Districts

Numerous local agencies throughout California have jurisdiction over local air quality control. These local agencies, called “air quality management districts” or “air pollution control districts,” are responsible for permitting many sources of air emissions and developing rules to regulate activities and operations that contribute to the degradation of air quality. Many districts also have produced guidance to help project applicants comply with CEQA.

KWB Lands are located within the western portion of Kern County, which is in the San Joaquin Valley Air Basin (SJVAB) and under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). SJVAPCD sets thresholds of significance for emissions from construction and operational activities for projects, such as KWB activities. In 2015, SJVAPCD updated the Guide for Assessing and Mitigating Air Quality Impacts (2015 GAMAQI) with thresholds of significance for construction and operational emissions occurring within its jurisdiction. These thresholds are clear, specific, quantitative, and enforceable thresholds that are the standard for significance determinations in CEQA documents for projects under SJVAPCSD authority, such as KWB activities. Complaints that are filed regarding an offensive odor, observed smoke, dust, or other air pollution problem are dispatched to an inspector who can begin an investigation. SJVAPSCD can issue a notice of violation (NOV) to inform an entity that a District rule, state law, or permit condition has been violated. The purpose of a NOV is to initiate corrective action that will stop the violation and to reduce air pollution. To provide an incentive for compliance, NOVs may result in monetary penalties up to $1 million per day per violation; serious or repeated violations that show blatant disregard for the law and the public health may lead to criminal prosecution.

7.0.4.1.4 Burn Permits

The Kern County Fire Department is under contract to the State, and therefore is responsible for the local enforcement of state fire codes. In addition to State fire codes, Kern County also has ordinance codes that are also enforced throughout the county. The Kern County Fire Department allows open burning during certain seasons. Burning is not allowed in either the SJVAPCSD or the Kern County Air Pollution Control District whenever a no-burn day has been declared. The Kern County Fire Department may suspend the open burning at any time it determines weather conditions become unsafe. Depending on rainfall, the open burning period typically lasts January through April. Open burning reduces fire hazards like flammable vegetation, but a burn permit is also required from the Kern County Fire Department. Cal Fire also regulates burns and may restrict burning in areas under its jurisdiction during certain times of the year. A burn restriction may limit the time of day when burning is allowed, or more commonly, will temporarily suspend all permitted burning until conditions become favorable. This REIR has used compliance with these requirements for conclusions that some potentially significant environmental impacts are less than significant. Burn permits are specific to each application and its terms and conditions must be followed.

7.0.4.1.5 Pesticide Regulations

Pesticide use is regulated by EPA and the California Department of Pesticide Regulation (CDPR). EPA sets broad restrictions on pesticide use; in general, California laws are more stringent than federal standards. Both federal and state laws require that pesticides be used according to their labels. Agricultural operations also require the applicator to file a detailed report on monthly pesticide use with the local county agricultural commissioner’s office. CDPR maintains pesticide usage data reported to the county agricultural commissioner in its Pesticides Use Reporting Database. Pesticides used on KWB Lands are required to be used consistent in accordance with the KWB HCP/NCCP Vegetation Management Plan (Appendix 7-7c).

7.0.4.1.6 Kern County Environmental Health Services (KCEHS) Water Program for Wells

Water wells are regulated in Kern County by the KCEHS water program. The construction of new wells and well deepening, reconstruction, and destruction are subject to permits requiring compliance. General conditions are stipulated in KCEHS water well permit applications. Only legally licensed well drillers are permitted to drill new water wells to ensure that groundwater resources are not compromised by any new well or well modification.

7.0.4.1.7 Central Valley RWQCB and other Requirements Relating to Hazardous Materials Cleanup

The CVRWQCB issues cleanup and abatement orders (CAOs), as stipulated in §13304 of the Porter-Cologne Water Quality Control Act (as amended, 2016). KWBA would be subject to legal requirements regarding NPDES permits and hazardous materials cleanup, or pollution discharged into the waters of the State which creates, or threatens to create, a condition of pollution or nuisance in violation of any permitted discharge of waste.

7.0.4.1.8 DOGGR Requirements

All oil and gas activity on KWB Lands would be subject to the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) regulations. DOGGR oversees the drilling, operation, maintenance, and plugging and abandonment of onshore and offshore oil, gas, and geothermal wells to protect life, health, property, and natural resources, including underground and surface waters suitable for irrigation or domestic use. Well abandonment procedures are done in accordance with DOGGR requirements. Pursuant to CCR, Title 14, Division 2, Chapter 4, Section 1722 (k), DOGGR establishes Field Rules which supplement more broadly applicable statutory and regulatory requirements regarding well operations to protect California's water resources and health and safety. These rules would apply to the operators of oil and gas rigs located on KWB Lands. Field Rules have been adopted for most zones and fields in Kern County.

7.0.4.2 Permits/Agreements with Unique Performance Standards

The following permits apply to KWB activities. These permits are specific to the permitted activity and have clear, enforceable performance standards. The permit applicant (KWBA in this case) is required to meet all permit requirements. The performance standards are clear and compliance with their terms could reduce any potentially significant impact to a less-than-significant level.

7.0.4.2.1 Kern Water Bank HCP/NCCP Incidental Take Permit

The U.S. Fish and Wildlife Service (USFWS) requires an incidental take permit when non-Federal activities will result in "take" of threatened or endangered species. A habitat conservation plan (HCP) must accompany an application for an incidental take permit. The purpose of the HCP process associated with the permit is to ensure there is adequate minimizing and mitigating of the effects of the authorized incidental take. The purpose of the incidental take permit is to authorize the incidental take of a listed species. The permit allows a landowner to legally proceed with an activity that would otherwise result in the illegal take of a listed species. The elements of an HCP are made binding through the incidental take permit. Violation of the terms of an incidental take permit would result in illegal take under Section 9 of the federal Endangered Species Act (ESA). USFWS must monitor the applicant's implementation of the HCP and the permit terms and conditions. In addition to compliance monitoring, the biological conditions associated with the HCP are monitored to determine if the species needs are being met. This includes determining if the biological goals that are expected as part of the HCP mitigation and minimization strategy are being met. The effectiveness monitoring helps USFWS

determine if the conservation strategy is functioning as intended and the anticipated benefits to the species are being realized.

The California Department of Fish and Wildlife (CDFW) NCCP program was authorized by the California Natural Community Conservation Planning Act of 1991 (Fish and Game Code Section 2800) and created a Statewide initiative to identify and provide for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. The purpose of the NCCP program is to have a broad-based approach to ecosystem conservation to protect and perpetuate biological diversity. This strategy differs from the objectives of the California and Federal ESAs, which focus on the preservation of individual species. The NCCP authorizes CDFW to achieve the goals of its programs by taking three steps: 1) negotiate agreements with any person for the purpose of preparing and implementing an NCCP to provide comprehensive management and conservation of multiple wildlife species (Fish and Game Code Section 2810); 2) issue non-regulatory guidelines to develop and implement NCCPs; and 3) authorize the "taking" of any candidate species whose "conservation, protection, restoration, and enhancement is provided for" in an approved NNCP Plan (see Fish and Game Code Section 2830).

The Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan (KWB HCP/NCCP) documents a plan to accomplish both water conservation and environmental objectives (Appendix 7-7a). The primary water conservation objective is the storage of water in aquifers during times of surplus for later recovery during times of shortage. The primary environmental objective is to set aside large areas of KWB Lands for threatened and endangered species and other sensitive species and to implement a program to protect and enhance the habitat. The project applicant and landowner is KWBA. Section 3.2.2 of the KWB HCP/NCCP Implementation Agreement (Appendix 7-7a) states that "Upon issuance of the Section 10(a) Permit, the Service shall monitor the implementation of the Section 10(a) Permit, this Agreement, the KWB HCP and KWBA's actions thereunder in order to insure compliance with this agreement."

7.0.4.2.2 Agreement between KCWA and KWBA regarding Cross Valley Canal

KWBA and KCWA reached agreement on October 16, 2000 on the *Cross Valley Canal/Kern Water Bank Operating Guidelines During Shallow Groundwater Conditions* (Appendix 7-5e). The agreement protects the Cross Valley Canal (CVC) and KWBA facilities and provides respective project flexibility. The agreement consists of a groundwater monitoring program, groundwater recharge management, and CVC operations management. The groundwater monitoring program included the installation of additional piezometers along the CVC in areas where the CVC lining is below grade and the formation of a monitoring and evaluation plan. Under the groundwater recharge management strategy, KWBA manages recharge operations to ensure that the groundwater gradient is away from the CVC during shallow groundwater conditions to prevent flow into the CVC. In accordance to CVC operations management, the CVC is operated in such a manner as to maintain higher than normal pool levels.

7.0.4.3 CEQA Mitigation Measures With/Without Performance Standards

7.0.4.3.1 1997 Monterey Initial Study and Addendum

The 1997 Initial Study and Addendum to Monterey Agreement EIR of the Kern Water Bank Authority, Kern Water Bank HCP/NCCP (1997 Monterey IS and Addendum) presents mitigation measures that apply to KWB activities (see Appendix 7-6a). KWBA is required to implement the mitigation measures as written. The mitigation measures from the 1997 Monterey IS and Addendum that are included in this REIR have clear, enforceable performance standards that can be relied upon to reduce potentially significant impacts to less-than-significant impacts.

7.0.4.3.2 2016 Kern Water Bank Authority Resolution

KWBA passed a resolution in April 2016 (see Appendix 7-6b) which commits KWBA to implementing the mitigation measures included in the REIR that are not in other documents discussed above. KWBA is required to implement the mitigation measures as written. These mitigation measures have clear, enforceable performance standards that can be relied upon to reduce potentially significant impacts to less-than-significant impacts.

7.0.4.4 Other Legally Binding Documents With/Without Performance Standards

The KWB is operated in conformance with several legally binding documents. The 1995 Memorandum of Understanding Regarding Operation and Monitoring of the KWB Groundwater Banking Program (1995 KWB MOU) is one such document that is a legally binding document between KWBA participants, and Buena Vista Water Storage District, Rosedale-Rio Bravo Water Storage District, Kern Delta Water District, Henry Miller Water District, and West Kern Water District (see Appendix 7-5a). The 1995 KWB MOU, as with other similar types of documents, may or may not have clear performance standards that meet CEQA requirements; generally these types of documents are not prepared with the intent of meeting CEQA mitigation measure and performance standards and, therefore, typically do not meet CEQA requirements for mitigation.

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