EXHIBIT B-2: NARRATIVE DESCRIPTION OF THE BANK'S SERVICE AREAS

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1.0 INTRODUCTION

The Bank Properties are contained within two different Ten-Digit Hydrologic Unit Code watersheds (HUC-10) and Eight-Digit Hydrologic Unit Code sub-basins (HUC-8). The western half of the Petersen Ranch Bank Property, and all of the Elizabeth Lake Bank Property, are located within the Castaic Creek Watershed (HUC-10), which is included within the Santa Clara River Sub-basin (HUC-8). This sub-basin drains to navigable waters and is within U.S. Army Corps of Engineers (Corps) and Los Angeles Regional Water Quality Control Board (Los Angeles RWQCB) jurisdiction, as determined by Sections 401 and 404 of the Clean Water Act (CWA).

The Castaic Creek HUC-10 encompasses the western portion of the Petersen Ranch Bank Property and the entire Elizabeth Lake Bank Property. This portion of the Castaic Creek HUC-10 represents the extreme headwaters of the Santa Clara River HUC-8 which originates from the wetland and riparian complex in the central portion of the Petersen Ranch Bank Property. Water from these Properties flows through discontinuous surface and sub-surface flow through a series of sag ponds, including Elizabeth Lake, Munz Lake, and Lake Hughes. From there, water flows along Elizabeth Lake Canyon into the Castaic Lake, Castaic Lagoon, and Castaic Creek and then into the Santa Clara River, eventually ending in Pierpont Bay, 3-miles from the mouth of the Ventura River.

The eastern half of the Petersen Ranch Bank Property is located within the Amargosa Creek HUC-10, which is included within the Antelope-Fremont Valley HUC-8. This HUC-8 drains to the non-navigable waters of Rosamond Lake and is under jurisdiction of the Lahontan RWQCB (Regional Water Quality Control Board (Lahontan RWQCB; Porter-Cologne Act).

The Bank Properties and the entire Castaic Creek Watershed are in the Southern California Mountains Ecoregion (U.S. Department of Agriculture Major Land Resource Area; USDA, MLRA). This MLRA is characterized by steep mountains and valleys and streams with actively eroding channels. The sediment contributed by streams and washes in this MLRA create colluvial slopes and alluvial fans in the larger valleys and on the coastal plains to which they drain (USDA 2006).

The Bank will offer credits to provide compensatory mitigation for applicable habitat within the Southern California Mountains, portions of the Sierra Nevada Foothills, portions of the Southern California Coastal Plain, the western portion of the Mojave Desert, and the Southern Nevada Basin and Range MLRA ecoregions. Service areas will include a Los Angeles RWQCB Corps service area for aquatic resource impacts authorized through section 401 and 404 of the CWA; Lahontan RWQCB service area for aquatic resource impacts authorized through the Porter-Cologne Act; a service area for impacts to aquatic resources through section 1600 of the California Fish and Game Code (CFG code); a service area covering the western Antelope Valley for impacts to Swainson's hawk habitat authorized through the California Endangered Species Act (CESA); and a service area covering the range of similar terrestrial habitats for impacts to sensitive habitats and species authorized through the California Environmental Quality Act (CEQA). Analyses used in determining the service areas for aquatic features in the Bank Property included analysis of local and federal regulatory guidance, including the Corps Public Notice of Service Area Final Guidance For Mitigation Banks and In-Lieu Fee Programs Operating in the Corps, Sacramento District published in 2010, watershed boundaries, ecoregions, and hydrologic connectivity. CESA and CEQA service areas were determined based on analysis of the breeding and foraging range of special-status species and

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distributional ranges for similar habitats for sensitive communities and special-status species. These steps are described in detail below.

2.0 SERVICE AREAS

2.1 Corps ~~and Los Angeles RWQCB (section 401,~~ Service Area (section 404)

The Sacramento District of the U.S. Army Corps of Engineers released their final guidance for the establishment of service areas in the *Public Notice of Service Area Final Guidance for Mitigation Banks and In-Lieu Fee Programs Operating in the U.S. Army Corps of Engineers, Sacramento District* (Corps 2010). Since the Los Angeles District has subsequently adopted this guidance, this guidance was used in determining the extent of the service area for the Bank.

These guidelines call for the establishment of service areas based on a watershed approach as outlined in the Mitigation Rule (33 CFR Parts 325 and 332). The guidelines define watershed as the area delineated by the HUC-10 and state that the HUC-10 in which the Bank Property is located is the starting point for developing a service area. At a minimum, the service area will include the HUC-10 in which the Bank Property is located. Additional HUC-10's should be added using justifications based on the Sub-basin (HUC-8) and ecoregion needs. Based on this guidance, three HUC-10 watershed "types" were determined. These include "Type A" watersheds, which are those that require "minimal justification for inclusion in the service area" according to the guidance (these watersheds are abutting the 10-digit watershed in which the Bank Property is located and are also within the same HUC-8 and ecoregion); "Type B" watersheds within the same 8-digit sub-basin as the Bank Property and on which the Bank Property has direct hydrologic influence and connectivity (i.e. directly downstream); and "Type C" watersheds which are areas within the same ecoregion and 8-digit sub-basin that have a similar influence on the functions of the watershed, but may not be located directly downstream of the Bank Property and may provide dissimilar habitats to the Bank Property. This service area is illustrated in Exhibit B-1 of the BEI.

Following these guidelines and in cooperation with the Corps, Primary, Secondary and Tertiary service areas have been identified for the Bank. The Primary Service Area consists of the HUC-10 in which the Bank is located as well as the HUC-10s that require "minimal justification" following the Corps guidelines. The Secondary Service Area consists of the HUC-10s within the Santa Clara River HUC-8 that are located downstream of the Bank Properties. A tertiary service area is also proposed for mitigation for impacts related to minor maintenance modifications, which trigger impacts to otherwise low quality aquatic resources (i.e. overgrown drainage ditches), for minimally impacting projects.

Primary Service Area

The watersheds identified in the guidelines are those that would comprise the "minimum service area" and those requiring minimal justification for inclusion in the service area have been included in the Primary Service Area for the Bank. The HUC-10s within the Primary Service Area are discussed below and include the following:

- Castaic Creek,
- Upper Santa Clara River,
- ~~Upper Piru Creek,~~
- The eastern portion of Upper Piru Creek (comprised the following HUC-12 watersheds: Buck Creek-Piru Creek; Gorman Creek; Liebre Gulch-Piru Creek; and Los Alamos Creek),

- Lower Piru Creek,
- Headwaters Santa Clara River, and
- Bouquet Canyon

Minimum Service Area HUC-10

Section 8.5 of the Draft Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division states:

> "At a minimum, the service area will be the 10-digit watershed containing the Site(s).... Documentation and justification must be provided for expansion of the service area from the 10-digit watershed containing the Site."

The Bank Properties are contained within two different HUC-10 watersheds, the Castaic Creek and Amargosa Creek HUC-10 watersheds. Despite this, only one of these watersheds, the Castaic Creek HUC-10 Watershed, is Corps jurisdictional, as the Amargosa Creek HUC-10 Watershed drains into non-navigable waters. Therefore, the Amargosa Creek HUC-10 Watershed is not included in the Corps 404 ~~and Los Angeles RWQCB~~ service area. The Amargosa Creek HUC-10 watershed, and its Porter-Cologne Act/Lahontan RWQCB service area, is described in section 2.2.

Following the Corps' guidelines the minimum service area for the Corps jurisdictional waters in the Bank, and the starting point for this justification, would consist of the Castaic Creek HUC-10 Watershed, which is within the Southern California Mountains MLRA.

HUC-10s Requiring Minimal Justification.

Section 8.5 of the Draft Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division states:

> "Additions where all of the following are true require minimal justification: a) areas abutting the 10-digit watershed in which the Site is located, b) within the same 8-digit sub-basin as the Site and c) within the same ecoregion as the Site."

The HUC-10s that abut the Castaic Creek and Amargosa Creek HUC-10s and require minimal justification for their inclusion in the service area include the Upper Piru Creek HUC-10, Lower Piru Creek HUC-10, Upper Santa Clara River HUC-10, Bouquet Canyon HUC-10, and the Headwaters Santa Clara River HUC-10. These HUC-10s are all within the Santa Clara River HUC-8 and the Southern California Mountains MLRA. The aquatic resources within these watersheds support similar functions such as sediment transport, flood attenuation, water quality, and habitat for the Santa Clara River as those found within the Bank Properties. Impacts to jurisdictional features in these watersheds will ultimately result in the loss of the same, or similar, functions that will be gained through implementation of the Development Plan on the Bank Properties.

<u>Upper Santa Clara River Watershed (1807010204)</u>
The Upper Santa Clara River HUC-10 Watershed abuts the Castaic Creek Watershed and is located in the Santa Clara River HUC-8 Sub-basin within the Southern California Mountains and the Southern California Coastal Plain MLRA ecoregions. The Castaic Creek HUC-10 drains into the Upper Santa Clara River HUC-10. Aquatic and terrestrial habitats within this watershed are

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similar to those habitats within the Bank Properties. Additionally, as this HUC-10 receives flow directly from the Castaic Creek HUC-10, sediment and water quality in the Upper Santa Clara River HUC-10 are directly influenced by the functions provided by the aquatic resources in the Bank Properties. Mitigating for impacts to aquatic resources within the Upper Santa Clara River HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost functions and values in most situations.

Upper Piru Creek Watershed (1807010205)
The Upper Piru Creek HUC-10 Watershed abuts the Castaic Creek Watershed and is located in the Santa Clara River HUC-8 Sub-basin within the Southern California Mountains MLRA ecoregion. Aquatic and terrestrial habitats within the eastern portion of this watershed are similar to those habitats within the Bank Properties and are expected to provide benefits to some of the same species and long ranging individuals that migrate through the San Andreas Fault Rift Zone and surrounding corridors. The western portion of this watershed contains areas of higher elevation that support different habitats than those represented by the Bank This HUC-10 flows into the Lower Piru Creek HUC-10 at Pyramid Lake. To ensure that the Bank is used to mitigate for comparable resources, only the eastern portion of the Upper Piru Creek HUC-10 watershed – comprised of the following HUC-12's: Buck Creek-Piru Creek; Gorman Creek; Liebre Gulch-Piru Creek; and Los Alamos Creek - will be included in the 404-service primary area.

Lower Piru Creek Watershed (1807010206)
The Lower Piru Creek HUC-10 Watershed abuts the Castaic Creek Watershed and is located in the Santa Clara River HUC-8 Sub-basin within the Southern California Mountains and Southern California Coastal Plain MLRA ecoregions. This HUC-10 flows into the Santa Clara River near the town of Piru in the Middle Santa Clara River HUC-10.

Headwaters Santa Clara River (1807010201)
The Headwaters Santa Clara River HUC-10 directly abuts the Amargosa Creek HUC-10 and is located within the Southern Mountains MLRA. This HUC-10 supports similar ecological and hydrologic functions as the Bank Properties due to the presence of aquatic resources at similar elevations, aspects and slopes as the Bank Properties. The Headwaters Santa Clara River HUC-10 is located at the extreme headwaters of the Santa Clara River, and conveys water down small, canyon-stream tributaries (similar to the Castaic Creek HUC-10), which ultimately flow into the Santa Clara River and Pierpont Bay. Therefore, the sediment and hydrologic input of this watershed has very similar hydrologic influences to the Santa Clara River as the Castaic Creek Watershed. Additionally, the Headwaters Santa Clara River HUC-10 contains similar streams, canyons, and alluvial fan habitats as those provided in the Bank Properties. Due to these ecological and hydrologic similarities, mitigating for impacts to aquatic resources within the Headwaters Clara River HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and aquatic habitat values in most situations.

Bouquet Canyon (1807010202)
The Bouquet Canyon HUC-10 directly abuts the Amargosa Creek HUC-10 and is located in the Southern California Mountains MLRA. Additionally, the Bouquet Canyon HUC-10 is within a landscape containing similar elevations and slopes to the watershed containing the Bank Properties. The Bouquet Canyon HUC-10 is located at the extreme headwaters of the Santa Clara River and conveys water down small, canyon-stream tributaries (similar to the Castaic Creek HUC-10), which ultimately flow into the Santa Clara River and Pierpont Bay. Therefore, the sediment and hydrologic input of this watershed has very similar hydrologic influences to the

Santa Clara River as the Castaic Creek Watershed. Additionally, the Bouquet Canyon HUC-10 contains similar streams, open waters, canyons, and alluvial fan habitats as those provided in the Bank Properties. Due to these ecological and hydrologic similarities, mitigating for impacts to aquatic resources within the Bouquet Canyon HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and aquatic habitat values in most situations.

Secondary Service Area

Additional watersheds are considered for inclusion in the Secondary Service Area for the Bank based on the ecological and/or hydrologic justifications provided below. The Secondary Service Area is described below and includes the following HUC-10s:

- Middle Santa Clara River and
- Lower Santa Clara River

Hydrologically Justified HUC-10s

HUC-10 watersheds that are directly influenced by the Bank Property will also be included in the service area. The wetlands in the Bank Property filter upstream contaminants and roadside runoff before it enters downstream waterbodies. This is particularly important because downstream features, like Elizabeth Lake, Munz Lake and Lake Hughes are considered to be impaired waters by CEPA (2010). The waterbodies within Santa Clara River Sub-basin downstream of the Bank Property are dependent on the hydrologic function and condition of jurisdictional features within the Bank Property. Due to the Bank Property's direct hydrologic influence on these watersheds, the enhancement, rehabilitation, and restoration of aquatic resources within the Bank Property will compensate for the loss of function in aquatic habitat of watersheds located downstream of the Bank Property. These watersheds include the Upper Santa Clara River Watershed, which is directly adjacent to the Castaic Creek Watershed and is described in the above subsection, Middle Santa Clara River Watershed, and Lower Santa Clara River watersheds.

Middle Santa Clara River (1807010208)
The Middle Santa Clara River HUC-10 is directly downstream of the Upper Santa Clara River HUC 10, and the Castaic Creek HUC-10. The Middle Santa Clara River HUC-10 is located within the Southern California Mountains and Southern California Coastal Plain MLRAs. The Middle Santa Clara River HUC-10 encompasses a portion of the Santa Clara River, the main river within this HUC-10. The Bank Properties are located in the extreme headwaters of the Santa Clara River, which means that water quality and hydrologic contributions from the Bank Properties directly influence aquatic resources within this HUC-10. Mitigating for impacts to aquatic resources within the Middle Santa Clara River HUC-10 with habitats at the Bank Property should allow for similar replacement of lost hydrologic functions and values in most situations.

Lower Santa Clara River (1807010209)
The Lower Santa Clara River HUC-10 is downstream of the Castaic Creek HUC-10. The Lower Santa Clara River HUC-10 is located within the Southern California Mountains and Southern California Coastal Plain MLRAs. The Lower Santa Clara River HUC-10 encompasses a portion of the Santa Clara River, the main river within this HUC-10. The Bank Properties are located in the extreme headwaters of the Santa Clara River, which means that water quality and hydrologic contributions from the Bank Properties directly influence aquatic resources within this HUC-10. Mitigating for impacts to non-tidal aquatic resources within the Lower Santa Clara

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River HUC-10 with habitats at the Bank Property should allow for similar replacement of lost hydrologic functions and values in most situations.

Tertiary Service Area

Additional watersheds are considered for inclusion in the Tertiary Service Area for the Bank based on the regional need for mitigation for impacts to flood control and conveyance drainages, detention basins, ditches and ephemeral urban drainages and other minor maintenance modifications triggering impacts to otherwise low quality aquatic resources for minimally impacting projects. The Corps will decide on a case-by-case basis if a project in the Tertiary Service Area is authorized to use 404 credits as compensatory mitigation. The Tertiary Service Area includes the following HUC-10s:

- Sespe Creek,
- ~~Ventura River,~~
- ~~Los Saucos Creek-Frontal Pacific Ocean,~~
- ~~MacGrath Lake-Frontal Pacific Ocean,~~
- ~~Calleguas Creek,~~
- The eastern portion of Calleguas Creek (comprised of the following HUC-12 watersheds: Upper Simi Arroyo; Lower Simi Arroyo; and Upper Conejo Arroyo),
- Upper Los Angeles, ~~and~~
- ~~River and Upper~~ aA portion of the Lower Los Angeles River located north of Interstate 210, and
- Big Tujunga Creek.

2.2 Lahontan RWQCB Service Area (Porter-Cologne)

Although aquatic features within the Lahontan RWQCB are not Corps jurisdictional, the service area for these features was determined using the protocol set in place by the Sacramento District of the Corps as described in section 2.1 above. This service area is illustrated in Exhibit B-1 and Figure 14b of the Final Prospectus.

In cooperation with the IRT, and following the Corps guidelines, Primary, Secondary and Tertiary service areas have been identified for the Bank. The Primary Service Area contains the HUC-10 in which the Bank is located as well as the HUC-10s that require "minimal justification" following the Corps guidelines. The secondary service area consists of HUC-10s within the Antelope-Fremont Valley HUC-8 that are located with hydrologic connectivity to the Bank Properties. A tertiary service area is also proposed for mitigation for impacts related to minor maintenance modifications, which trigger impacts to otherwise low quality aquatic resources (i.e. overgrown drainage ditches), for minimally impacting projects.

Primary Service Area

The watersheds identified in the guidelines as those that would comprise the "minimum service area" and those requiring minimal justification for inclusion in the service area have been included in the Primary Service Area for the Bank. The HUC-10s within the Primary Service Area are discussed below and include the following:

- Amargosa Creek,
- Sacatara Creek – Kings Canyon, and
- Lake Palmdale – Piute Ponds

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Minimum Service Area HUC-10

Section 8.5 of the Draft Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division states:

> "At a minimum, the service area will be the 10-digit watershed containing the Site(s).... Documentation and justification must be provided for expansion of the service area from the 10-digit watershed containing the Site."

The eastern portion of the Petersen Ranch Bank Property is located in the Amargosa Creek HUC-10 which is in the upper reaches of the Antelope-Fremont Valley Sub-basin (HUC-8), while the western portion is located in the Castaic Creek HUC-10 watershed. The Amargosa Creek HUC-10 originates in the Southern California Mountains MLRA, spans across the Southern Nevada Basin and Range MLRA, and terminates in the Mojave Desert MLRA. The portion of the Southern California Mountains MRLA that contains the Bank Property drains inland towards the adjoining Mojave Desert MLRA region (USDA 2006). The Amargosa Creek HUC-10 watershed terminates in the non-navigable waters of Rosamond Lake, which means it is only jurisdictional by the State. The Antelope-Fremont Valley Sub-basin is situated between the Tehachapi and San Gabriel Mountains, and constitutes the western tip of the Mojave Desert, extending into south-eastern Kern County, and the western edge of San Bernardino County. This area includes the cities of Palmdale and Lancaster in Los Angeles County, and the other communities such as Rosamond in Kern County.

Following the Corps' guidelines the minimum service area for the Lahontan RWQCB jurisdictional waters in the Bank, and the starting point for this justification, would consist of the Amargosa Creek HUC-10.

HUC-10s Requiring Minimal Justification (Type A Watersheds)

Section 8.5 of the Draft Regional Compensatory Mitigation and Monitoring Guidelines for the South Pacific Division states:

> "Additions where all of the following are true require minimal justification: a) areas abutting the 10-digit watershed in which the Site is located, b) within the same 8-digit sub-basin as the Site and c) within the same ecoregion as the Site."

The HUC-10s that abut Amargosa Creek and Castaic Lake HUC-10s, require minimal justification for their inclusion in the service area and include the Sacatara Creek – Kings Canyon Watershed and Lake Palmdale – Piute Ponds Watershed. Therefore, the proposed primary service area for Porter-Cologne includes all the abutting HUC-10 watersheds that are located in the Mojave Desert MLRA, Southern California Mountains MLRA, and Southern Nevada Basin and Range MLRA which drain into Rosamond Lake. Aquatic resources within these watersheds support similar functions such as sediment transport, flood attenuation, water quality, and habitat as those found within the Bank Properties. Additionally, aquatic and terrestrial habitats within the mountainous regions of this watershed are expected to be similar to those habitats within the Bank Properties and are expected to provide benefits to some of the same species and long ranging individuals that migrate through the San Andreas Fault Rift Zone and surrounding corridors. Impacts to jurisdictional features in these watersheds will ultimately result in the same, or similar, functional losses as the functional gains gained through the restoration actions planned on the Bank Properties.

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Sacatara Creek – Kings Canyon Watershed (1809020613)
The Sacatara Creek – Kings Canyon HUC-10 Watershed abuts the Amargosa Creek Watershed and is located in Antelope-Fremont Valley HUC-8 Sub-basin within the Southern California Mountains; Southern Nevada Basin and Range; and Mojave Desert MLRA subregion. This HUC-10 does not contain blue line stream features, but topographic maps indicates that small topographic furrows, which likely convey water in the form of ephemeral streams, do occur in the watershed and lead towards the Amargosa Creek HUC-10. Flows follow these topographic boundaries and ultimately convey the water into Amargosa Creek and the Lake Palmdale – Piute Ponds Watershed near the sewage disposal ponds north of Lancaster.

This HUC-10 contains mountainous regions with similar slopes and elevations to those within and surrounding the Petersen Ranch Bank Property, sediment and water quality contributions to Rosamond Lake from waterbodies within the Sacatara Creek – Kings Canyon HUC-10 are expected to be equivalent to those provided by the aquatic resources in the Petersen Ranch Bank Property. Mitigating for impacts to aquatic resources within the Sacatara Creek – Kings Canyon HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost functions and values in most situations.

Lake Palmdale – Piute Ponds Watershed (1809020615)
The Lake Palmdale – Piute Ponds HUC-10 Watershed abuts the Amargosa Creek Watershed and is located in the Antelope-Fremont Valley HUC-8 Sub-basin within the Southern California Mountains; Southern Nevada Basin and Range; and Mojave Desert MLRA subregion. Flows within this HUC-10 drain into Amargosa Creek, northeast of Lancaster where it drains into Piute Ponds, which are contained within this HUC-10 watershed, and ultimately drain into Rosamond Lake.

Additionally, as this HUC-10 contains mountainous regions with similar slopes and elevations to those within and surrounding the Petersen Ranch Bank Property, sediment and water quality contributions to Rosamond Lake, as well as habitat values from waterbodies within the Lake Palmdale – Piute Ponds HUC-10 are expected to be equivalent to those provided by the aquatic resources in the Petersen Ranch Bank Property. Mitigating for impacts to aquatic resources within the Lake Palmdale – Piute Ponds HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost functions and values in most situations.

Secondary Service Area

Additional watersheds are considered for inclusion in the Secondary Service Area for the Bank based on the ecological and/or hydrological justifications provided below. The secondary service area watersheds include the following HUC-10 watersheds:

- Cottonwood Creek – Tylerhorse Canyon,
- Tropico Hill – Oak Creek,
- Rosamond Lake,
- Rock Creek – Buckhorn Lake,
- Big Rock Creek – Big Rock Wash,
- Unnamed 1809020616,
- Little Rock Wash,
- Dove Spring Canyon – Red Rock Canyon,
- Jawbone Canyon,
- Cottonwood Creek,
- Pine Tree Canyon,

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- Upper Cache Creek,
- Unnamed 1809020620
- Mescal Creek – Rocky Buttes, and
- Le Montaine Creek – Eller Slough

Hydrologically Justified HUC-10s (Type B Watersheds)

The secondary service area will include HUC-10 watersheds that terminate in Rosamond Lake and therefore have similar hydrologic influence on this terminal water body. These watersheds are not located directly downstream of the Bank Property, but have a similar hydrologic influence on Rosamond Lake. Restoration actions within the Bank Property will improve the functions and values of Rosamond Lake. For example, wetlands are known to filter pollutants from surface water. Due to the fact that the Antelope-Fremont Valley Sub-basin is a closed basin from which pollutants cannot drain, the accumulation of pollutants and minerals is of particular importance to water management plans (RWMG 2007). Additionally, vegetated wetlands help to dampen the impact of floodwaters that could negatively impact Antelope Valley and other downstream communities (EPA 2006, Hey and Philippi 1995). The following watersheds are considered to be hydrologically justified for inclusion in the secondary service area: Cottonwood Creek – Tylerhorse Canyon HUC-10, Tropico Hill – Oak Creek HUC-10, Rosamond Lake HUC-10, Rock Creek – Buckhorn Lake HUC-10, Big Rock Creek – Big Rock Wash HUC-10, Unnamed 1809020616 HUC-10, and Little Rock Wash HUC-10 watersheds.

Cottonwood Creek-Tylerhorse Canyon Watershed (1809020618)
The Cottonwood Creek – Tylerhorse Canyon HUC-10 Watershed is within the Southern Nevada Basin and Range; Sierra Nevada Foothills, and Mojave Desert MLRA subregions. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it sits in a similar landscape position and overlaps with the same MLRA subregions. The Cottonwood Creek – Tylerhorse Canyon HUC-10 originates in the Tehachapi Mountains and terminates in Rosamond Lake. Since hydrologic functionality of this watershed, and the MLRA subregions it encompasses, are consistent between the Cottonwood Creek – Tylerhorse Canyon HUC-10 and the Amargosa HUC-10, mitigating for impacts to aquatic resources within the Cottonwood Creek – Tylerhorse Canyon HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Tropico Hill-Oak Creek Watershed (1809020617)
The Tropico Hill – Oak Creek HUC-10 Watershed is within the Southern Nevada Basin and Range; Sierra Nevada Foothills, and Mojave Desert MLRA subregions. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it sits in a similar landscape position and overlaps with many of the same MLRA subregions. The Little Rock Wash HUC-10 originates in the Tehachapi mountains and terminates in Rosamond Lake Since hydrologic functionality of this watershed, and the MLRA subregions it encompasses, are consistent between this HUC-10 watershed and the Bank, mitigating for impacts to aquatic resources within the Tropico Hill – Oak Creek HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Rosamond Lake Watershed (1809020624)
The Rosamond Lake Watershed is entirely within the Mojave Desert MLRA subregion. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it contains the terminal waterbody for the Amargosa Creek HUC-10 watershed, which contains part of the Bank. Since hydrologic functionality of this watershed, and the MLRA subregion it encompasses, are consistent between the Rosamond Lake HUC-10 and Bank, mitigating for

impacts to aquatic resources within the Rosamond Lake HUC-10 with habitats at the Bank should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Rock Creek-Buckhorn Lake Watershed (1809020623)
The Rock Creek-Buckhorn Lake HUC-10 Watershed is entirely within the Mojave Desert MLRA subregion. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it sits in a similar landscape position and overlaps with the MLRA subregions contained by the Amargosa Creek HUC-10. Additionally, the Rock Creek – Buckhorn Lake HUC-10 originates at the base of the mountains surrounding the Petersen Ranch Bank Property and terminates in Rosamond Lake, consistent with the pattern of flow seen in the Amargosa Creek HUC-10. Since hydrologic functionality of this watershed, and the MLRA subregions it encompasses, are consistent between the two watersheds, mitigating for impacts to aquatic resources within the Little Rock Wash HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Big Rock Creek – Big Rock Wash Watershed (1809020610)
The Big Rock Creek – Big Rock Wash HUC-10 Watershed is within the Southern California Mountains; Southern Nevada Basin and Range; and Mojave Desert MLRA subregions, consistent with the watershed that contains the Petersen Ranch Bank Property. Additionally, this HUC-10 originated in similar mountainous lands with similar slope and aspects near the Bank Properties. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it sits in a similar landscape position and overlaps with the same MLRA subregions. Additionally, The Big Rock Creek – Big Rock Wash HUC-10 originates in the mountains surrounding the Petersen Ranch Bank Property and terminates in Rosamond Lake, consistent with the pattern of flow seen in the Amargosa Creek HUC-10. Additionally, national wetland inventory maps and aerial images of this watershed showed low-flow streams, alluvial floodplains, and freshwater, wetland depressions and meadows across the landscape, consistent with those seen in the Petersen Ranch Bank Property. Since hydrologic functionality of this watershed, and the MLRA subregions it encompasses, are consistent between the two watersheds, mitigating for impacts to aquatic resources within The Big Rock Creek – Big Rock Wash HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Unnamed Watershed (1809020616)
This Unnamed HUC-10 Watershed is within the Southern California Mountains; Southern Nevada Basin and Range; and Mojave Desert MLRA subregions, consistent with the watershed that contains the Petersen Ranch Bank Property. Additionally, this HUC-10 originated in similar mountainous lands with similar slope and aspects near the Bank Properties. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it sits in a similar landscape position and overlaps with the same MLRA subregions. Additionally, this unnamed HUC-10 originates in the mountains surrounding the Petersen Ranch Bank Property and terminates in Rosamond Lake, consistent with the pattern of flow seen in the Amargosa Creek HUC-10. Additionally, national wetland inventory maps and aerial images of this watershed showed low-flow streams, alluvial floodplains, and freshwater, wetland depressions and meadows across the landscape, consistent with those seen in the Petersen Ranch Bank Property. Since hydrologic functionality of this watershed, and the MLRA subregions it encompasses, are consistent between the two watersheds, mitigating for impacts to aquatic resources within this unnamed HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Little Rock Wash Watershed (1809020611)
The Little Rock Wash HUC-10 Watershed is within the Southern California Mountains; Southern Nevada Basin and Range; and Mojave Desert MLRA subregions, consistent with the watershed that contains the Petersen Ranch Bank Property. Additionally, this HUC-10 originated in similar mountainous lands with similar slope and aspects near the Bank Properties. Although this HUC-10 does not directly abut the Amargosa Creek HUC-10, it sits in a similar landscape position and overlaps with the same MLRA subregions. Additionally, the Little Rock Wash HUC-10 originates in the mountains surrounding the Petersen Ranch Bank Property and terminates in Rosamond Lake, consistent with the pattern of flow seen in the Amargosa Creek HUC-10. Additionally, national wetland inventory maps and aerial images of this watershed showed streams, alluvial floodplains, and freshwater, wetland depressions and meadows across the landscape, consistent with those seen in the Petersen Ranch Bank Property. Since hydrologic functionality of this watershed, and the MLRA subregions it encompasses, are consistent between the two watersheds, mitigating for impacts to aquatic resources within the Little Rock Wash HUC-10 with habitats at the Bank Property should allow for identical or surpassed replacement of lost hydrologic functions and values in most situations.

Ecologically Justified HUC-10s

Ecologically justified HUC-10s include HUC-10s that may not terminate in Rosamond Lake, but do fill the same, or similar, ecological niches as the habitats seen in the Bank. All of the ecologically justified HUC-10s occur in the Antelope-Fremont Valley HUC-8 Sub-basin, contain similar mountainous habitats and are encompassed within the Mojave Desert, Sierra Nevada Foothills, Southern California Mountains, and/or the Southern Nevada Basin and Range MLRA subregions. These HUC-10 watersheds contain similar aquatic and terrestrial communities and mitigation for impacts within these HUC-10s with resources in the Bank should allow for identical or surpassed replacement of lost functions and values in most situations.

- Dove Spring Canyon – Red Rock Canyon,
- Jawbone Canyon,
- Cottonwood Creek,
- Pine Tree Canyon,
- Upper Cache Creek,
- Unnamed 1809020620,
- Mescal Creek – Rocky Buttes, and
- Le Montaine Creek – Eller Slough

Dove Springs Canyon – Red Rock Canyon
This HUC-10 is located on the eastern foothill slopes of the Tehachapi Mountain Range, within the Mojave Desert and Southern Nevada Basin and Range MLRA subregions. The Bank contains vegetation communities unique to these MLRAs, particularly ephemeral streams lined with Parish's sagebrush (*Artemisia tridentata*), a locally rare plant and xeric riparian community. The sagebrush communities in the Bank and the adjacent mountain ranges - including the Tehachapi range, and adjoining portions of the Mojave Desert contain refugia populations with local genotypes unique to the area. Therefore, mitigating for impacts to the aquatic features and associated vegetation habitats within this HUC-10 with resources in the Bank will allow for identical or surpassed replacement of lost functions and values in most situations.

Jawbone Canyon (1809020603)
This HUC-10 is located within the Southern Nevada Basin and Range and Sierra Nevada Foothills MLRA subregions. This HUC-10 is located within the Tehachapi Mountain Range.

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The Bank contains vegetation communities unique to these MLRAs, particularly ephemeral streams lined with Parish's sagebrush (*Artemisia tridentata*), a locally rare plant and xeric stream non-wetland riparian community. The sagebrush communities in the Bank, adjacent mountain ranges - including the Tehachapi range, and adjoining portions of the Mojave Desert contain refugia population with local genotypes unique to the area. Therefore, mitigating for impacts to the aquatic features and associated vegetation habitats within this HUC-10 with resources in the Bank will allow for identical or surpassed replacement of lost functions and values in most situations.

Cottonwood Creek (1809020602)
This HUC-10 is located within the Southern Nevada Basin and Range and Sierra Nevada Foothills MLRA Subregions. This HUC-10 is located within the Tehachapi Mountain Range. The Bank contains vegetation communities unique to these MLRAs, particularly ephemeral streams lined with Parish's sagebrush (*Artemisia tridentata*), a locally rare plant and xeric stream non-wetland riparian community. The sagebrush communities in the Bank, adjacent mountain ranges - including the Tehachapi range, and adjoining portions of the Mojave Desert contain refugia population with local genotypes unique to the area. Therefore, mitigating for impacts to the aquatic features and associated vegetation habitats within this HUC-10 with resources in the Bank will allow for identical or surpassed replacement of lost functions and values in most situations.

Pine Tree Canyon (1809020605)
This HUC-10 is located within the Southern Nevada Basin and Range, Sierra Nevada Foothills, and Mojave Desert MLRA Subregions. This HUC-10 is located within the foothills of the Tehachapi Mountain Range. The Bank contains vegetation communities unique to these MLRAs, particularly ephemeral streams lined with Parish's sagebrush (*Artemisia tridentata*), a locally rare plant and xeric stream non-wetland riparian community. The sagebrush communities in the Bank, adjacent mountain ranges - including the Tehachapi range, and adjoining portions of the Mojave Desert contain refugia population with local genotypes unique to the area. Therefore, mitigating for impacts to the aquatic features and associated vegetation habitats within this HUC-10 with resources in the Bank will allow for identical or surpassed replacement of lost functions and values in most situations.

Upper Cache Creek (1809020601)
This HUC-10 is located within the Sierra Nevada Foothills, Sierra Nevada Foothills, and Mojave Desert MLRA Subregions. This HUC-10 is located within the Tehachapi Mountain Range. The Bank contains vegetation communities unique to these MLRAs, particularly ephemeral streams lined with Parish's sagebrush (*Artemisia tridentata*), a locally rare plant and xeric stream non-wetland riparian community. The sagebrush communities in the Bank, adjacent mountain ranges - including the Tehachapi range, and adjoining portions of the Mojave Desert contain refugia population with local genotypes unique to the area. Therefore, mitigating for impacts to the aquatic features and associated vegetation habitats within this HUC-10 with resources in the Bank will allow for identical or surpassed replacement of lost functions and values in most situations.

Unnamed HUC-10 (1809020620)
This HUC-10 is located within the Mojave Desert, Southern Nevada Basin and Range, and Southern California Mountains MLRA Subregions. This watershed begins in the foothills of the Castaic Range, the same mountain range that contains the Bank. It then flows downstream into the Mojave Desert. Aerial imagery and Nation Wetland Indicator (NWI) maps have shown that this watershed contains ephemeral drainages and seasonal depressional wetlands similar to

those found in the Bank. Therefore, ecological features of both of the Mescal Creek – Rocky Buttes HUC-10 will contain the same, or similar resources to the Bank.

Mescal Creek – Rocky Buttes (1809020619)
This HUC-10 is located within the Mojave Desert, Southern Nevada Basin and Range, and Southern California Mountains MLRA Subregions. This watershed begins in the foothills of the Castaic Range, the same mountain range that contains the Bank. It then flows downstream into the Mojave Desert. Aerial imagery and Nation Wetland Indicator (NWI) maps have shown that this watershed contains ephemeral drainages and seasonal depressional wetlands similar to those found in the Bank. Therefore, ecological features of both of the Mescal Creek – Rocky Buttes HUC-10 will contain the same, or similar resources to the Bank.

Le Montaine Creek – Eller Slough (1809020609)
This HUC-10 is located within the Mojave Desert, Southern Nevada Basin and Range, and Southern California Mountains MLRA Subregions. This watershed begins in the foothills of the Castaic Range, the same mountain range that contains the Bank. It then flows downstream into the Mojave Desert. Aerial imagery and Nation Wetland Indicator (NWI) maps have shown that this watershed contains ephemeral drainages and seasonal depressional wetlands similar to those found in the Bank. Therefore, ecological features of both of the Mescal Creek – Rocky Buttes HUC-10 will contain the same, or similar resources to the Bank.

Tertiary Service Area

Additional watersheds are considered for inclusion in the Tertiary Service Area for the Bank based on the regional need for mitigation for impacts to flood control and conveyance drainages, detention basins, ditches and ephemeral urban drainages and other minor maintenance modifications triggering impacts to otherwise low quality aquatic resources for minimally impacting projects. The Lahontan RWQCB will decide on a case-by-case basis if a project in the Tertiary Service Area is authorized to use ~~1600~~Porter-Cologne credits as compensatory mitigation. The Tertiary Service Area includes the following HUC-10s:

- ~~Sheep Creek—El Mirage Lake (1809020804),~~
- ~~Upper Fremont Wash (1809020805),~~
- ~~Bell Mountain Wash—Mojave River (1809020807),~~
- ~~Apple Valley Dry Lake (1809020803),~~
- ~~Wild Wash (1809020808),~~
- ~~Buckthorn Wash—Mojave River (1809020809), and~~
- ~~Lower Fremont Wash (1809020806)~~

Commented [JMZ1]: These HUC 10's are outside the greater Antelope Valley watershed and do not correspond with the HUC 10's shown on the map. Revise this list to match the HUC 10's shown on Exhibit B-1.2.

Lower Cache Creek
Rogers Lake
Peerless Valley
Koehn Lake
Unnamed (1809020612)
Fiddler Gulch-Goler Gulch

2.3 CDFW Service Area (Section 1600)

~~The proposed service area for 1600 impacts includes the Santa Clara River and Antelope Valley HUC-8.~~ The proposed service area for 1600 impacts includes the following HUC-10 watersheds located within the Santa Clara River HUC-8: Castaic Creek, Lower Piru Creek, Upper Santa Clara Creek, Boquet Canyon, Headwaters Santa Clara River, and the portion of Upper Piru Creek that is located below the coniferous forest boundary. Additionally, the 1600 service area includes the following HUC-10 watersheds located within the Antelope Valley HUC-8: Amargosa Creek, Sacatara Creek-Kings Canyon, Lake Palmdale-Piute Ponds, Cottonwood Creek-Tylerhorse Canyon, Tropico Hill-Oak Creek, Rosamond Lake, Big Rock Creek-Big Rock Wash, and Little Rock Wash. Projects with 1600 impacts, yet located outside of this service area, will be considered by the CDFW on a case-by-case basis. The Bank properties are located in the

headwaters of both of these HUC-8s and support sensitive stream, lake and riparian habitats that are rare for the region including alluvial fans, cottonwood forest, willow forest, and numerous xeric riparian communities found within the described HUC-10 watersheds.

2.4 Swainson's Hawk Service Area (CESA)

The proposed service area for Swainson's hawk includes the entire breeding range of the Antelope Valley population, which is consistent with the recommendations released by the California Energy Commission and Department of Fish and Game in 2010[1]. Swainson's hawk populations in Antelope Valley are geographically isolated from populations in other areas of California (i.e. San Joaquin Valley; CDFG 2010). Therefore, the limits of the service area for Swainson's hawk encompass the entire Antelope Valley area. This area is defined in the northwest by the ridge line of the Tehachapi Mountains into the El Paso Mountains, which separate the Central Valley breeding populations of Swainson's hawk from the Antelope Valley populations. The area is defined in the south by the I-5 Highway, until it intersects with the CA-14 Highway. At this point, the south boundary veers north towards Palmdale. The south boundary then connects from Highway CA-14 to Placerita Canyon Road. From there, the south boundary follows the northern boundary of the ANF, east of Palmdale. The eastern Boundary is defined by Vista Road. This line follows Vista Road north to 240th St. E to Mercury Blvd. From this point, the boundary connects with the northern line at Mojave Barstow Highway. The northern boundary follows Mojave Barstow Highway west until it intersects with the ridgeline of the Tehachapi Range (Exhibit B-1 and Figure 16 of the Final Prospectus).

2.~~5~~ 7 Other Special Status Species and Sensitive Habitats (CEQA)

The proposed service area for special-status species and sensitive habitats covered under CEQA is based on the distribution of those habitats in the vicinity of the Bank Properties. This service area will be for the sale of credits pertaining to ~~sensitive species habitats (tricolor blackbird, western pond turtle, coast horned lizard, etc.) as well as for~~ sensitive natural communities and other habitats, which may require mitigation under CEQA (Fremont cottonwood forest, basket brush thickets, oak gooseberry thickets, etc.). Habitat types in the Bank Property were mapped during field visits in 2012 and 2013. California Natural Diversity Database (CDFW 2013; USFWS 2013), California Consortium of Herbaria (CCH 2013), Natureserve (2013), *A Manual of California Vegetation Volume 2nd Edition* (Sawyer et al. 2008), and Western Mojave Desert Land Cover and species distribution data prepared from the Draft DRECP were used to determine the distribution of these resources when determining the limits of the service area.

The proposed service area covers portions of Los Angeles County, Ventura County (within the Santa Clara River watershed), and Kern County (areas that drains into western Antelope Valley). The service area includes similar habitats within the Transverse ranges and Mojave Desert, as well as the Santa Clara River watershed.

The southern boundary of this final CEQA service area boundary follows the Santa Clara River watershed (HUC-8) boundary, continuing onto the I-210 highway until it intersects with CA-2. The southern boundary veers north along CA-2 until it meets the southern boundary of the Antelope Valley Sub-basin (HUC-8). The service area boundary then encompasses the

[1] Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California - State of California - California Energy Commission and Department of Fish and Game - June 2, 2010

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southwestern portions of the Antelope Valley including the following HUC-10s (Amargosa Creek, Sacatara Creek – Kings Canyon, Lake Palmdale – Piute Ponds Cottonwood Creek – Tylerhorse Canyon, Tropico Hill – Oak Creek, Rosamond Lake, Rock Creek – Buckhorn Lake, Big Rock Creek – Big Rock Wash, Unnamed 1809020616, Little Rock Wash, Dove Spring Canyon – Red Rock Canyon, Jawbone Canyon, Cottonwood Creek, Pine Tree Canyon, Upper Cache Creek, Unnamed 1809020620 Mescal Creek – Rocky Buttes, and Le Montaine Creek – Eller Slough

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