

**FINAL HABITAT MITIGATION AND
MONITORING PLAN**

DESERT CAHUILLA MITIGATION SITE

SUNRISE POWERLINK

**CORPS FILE NO. 2007-00704-SAS
SWRCB 401 CERTIFICATION FILE NO. SB090151N
CDFG LAKE AND STREAMBED ALTERATION AGREEMENT NOTIFICATION NO. 1600-
2009-0365-R5**

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NOVEMBER 2010

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Appendix A. All CRAM Scores Collected for the Sunrise Powerlink Project

List of Acronyms

AA(s)	Assessment Area(s)
ABDSP	Anza Borrego Desert State Park
Corps	U.S. Army Corps of Engineers
CDFG	California Department of Fish and Game
CRAM	California Rapid Assessment Method
CWA	Clean Water Act
HAP/ HMP	Habitat Acquisition Plan and Habitat Management Plan
HMMP	Habitat Mitigation and Monitoring Plan
OHV	Off-highway Vehicle
PAR	Property Analysis Record
PBS	Peninsular Bighorn Sheep
PJD	Preliminary Jurisdictional Determination
ROW	Right-of-Way
SDG&E	San Diego Gas and Electric
SDRWQCB	San Diego Regional Water Quality Control Board
SRPL	Sunrise Powerlink
SVRA	State Vehicular Recreation Area
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
WOS	Waters of the State
WOUS	Waters of the U.S.

1.0 INTRODUCTION AND PURPOSE

San Diego Gas and Electric (SDG&E) is constructing a new 500/230 kilovolt electric transmission line that would traverse approximately 120 miles between the El Centro area of Imperial County and southwestern San Diego County, in southern California (Figure 1). Construction of this transmission line, along with associated roads, facilities, and maintenance areas, will result in impacts to areas under the jurisdiction of the U.S. Army Corps of Engineers (Corps), the State Water Resources Control Board (SWRCB), and the California Department of Fish and Game (CDFG). State and federal regulations require mitigation for impacts to “waters of the U.S.” (WOUS) and “waters of the State” (WOS).

Mitigation for permanent impacts to WOUS and WOS is being accomplished through preservation, restoration, and enhancement of wetlands and waters within five mitigation sites, as described in the approved Conceptual Habitat Mitigation and Monitoring Plan (Conceptual HMMP; WRA 2010b). A Final HMMP for each site is a requirement of the authorizations issued by the Corps, SWRCB, and CDFG. The Final HMMP describes the specific and detailed mitigation activities and management actions, performance criteria to measure success, initial monitoring and management actions, long-term management activities, and estimated costs for the Desert Cahuilla Mitigation Site in Imperial County, California. The Desert Cahuilla Mitigation Site is one component of the overall mitigation program for unavoidable impacts to wetlands and waters from the Sunrise Powerlink (SRPL) Project.

This Final HMMP is prepared and formatted to meet the permit conditions of the Corps (Clean Water Act [CWA] Section 404), the SWRCB (CWA Section 401), and the CDFG (Fish and Game Code 1602).

1.1 Responsible Parties and Easement Holders

SDG&E is responsible for implementing mitigation for the SRPL Project. WRA, Inc. is the applicant's authorized agent and preparer of this Final HMMP for mitigation for impacts to WOUS and WOS.

Primary contact information for these parties is below:

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San Diego, California 92123-1548
Contact: Alan Colton
Contact Phone: (858) 654-8727

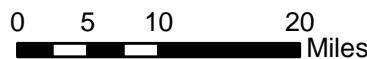
Authorized Agent: WRA, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901
Contact: Michael Josselyn, PhD, PWS
Contact Phone: (415) 454-8868

Entity Responsible for Long-Term Management: California Department of Parks and Recreation (State Parks)



Figure 1. Project Area Location Map

Sunrise Powerlink
San Diego/Imperial County, California



Map Date: June 2010
Map By: Derek Chan
Base Source: ESRI
Filepath: L:\Acad 2000 Files\17000\17128-3\GIS\ArcMap\Mitigation\
Fig1_LocMap_20100630.mxd

SDG&E will be responsible for implementing the project mitigation through completion of the initial monitoring period. Long-term management of the Desert Cahuilla Mitigation Site will likely be the responsibility of the State Parks or otherwise approved entity (to be determined and approved by the U.S. Fish and Wildlife Service [USFWS], the CDFG, the Bureau of Land Management, and the California Public Utilities Commission). This process is detailed in G-CM-17 of the SRPL Biological Opinion FWS-08B04233-11F0047 (USFWS 2010) and is included in Section 4.0.

The Agency-approved management entity will be responsible for long-term management of the Desert Cahuilla Mitigation Site. The description of the long-term management for this mitigation site, the restrictions to be placed on the site, and the financial commitments are summarized in Sections 10.0 and 12.0 and within the HAP/HMP prepared for this mitigation site (SDG&E 2010).

1.2 Document Overview and Purpose

The purpose of the Final HMMP is to describe the mitigation, monitoring, and management of waters provided as mitigation within the Desert Cahuilla Mitigation Site. Restoration of temporary impacts to streams, wetlands, and desert dry washes within the construction footprint is described as part of the Restoration Plan for Temporary Impacts to Waters contained in Appendix A of the Conceptual HMMP (WRA 2010b) and is therefore not addressed here.

The intention of this document is to follow the regulation set forth in the 2008 CWA Section 404 Final Compensatory Mitigation Rule. As such, language and requirements may differ from that of the 2004 Los Angeles District Final Mitigation Guidelines and Monitoring Requirements.

Mitigation for impacts associated with “single and complete projects” will be implemented at five mitigation sites. Four of these sites are located along the SRPL project alignment, and one (Desert Cahuilla) is located in the desert area north of the alignment (Figure 2). These properties are part of an overall mitigation program addressing a variety of habitat and special status species requirements for the SRPL. The mitigation sites that are proposed to address impacts to WOUS and WOS are:

- Desert Cahuilla Mitigation Site
- Suckle Mitigation Site
- Long Potrero Mitigation Site
- Lightner Mitigation Site
- Chocolate Canyon

This Final HMMP addresses one of these mitigation sites: the Desert Cahuilla Mitigation Site. The mitigation, monitoring, and management activities described in this HMMP are intended to meet the permit requirements of the Corps, CDFG, and SWRCB, as well as Corps regulatory requirements for preparation of mitigation plans set forth in 33 CFR 332.4(c). The regulatory requirements contained in 33 CFR 332.4(c), as issued by the Corps in 2008, generally encompass the requirements of mitigation and monitoring plans for all of the resource agencies (Corps 2008b).



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Sunrise Powerlink

San Diego/Imperial County,
California

Figure 2.

Overview of Mitigation
Area Locations

Legend

 Mitigation Area



0 5 10
Miles

Map Date: June 2010
Map By: Derek Chan
Base Source: ESRI
Filepath: L:\Acad 2000 Files\17000\17128-3\GIS\ArcMap\Mitigation\Fig2_MitigationSites_20100629.mxd



We have included additional information described in the 2004 Los Angeles District Final Mitigation Guidelines and Monitoring Requirements and information required in the forthcoming mitigation guidelines, as feasible. The 2008 regulations require an HMMP to include:

- *Mitigation Objectives, including resource type, amounts, and methods of compensation (see Section 2.0)*
- *Site Selection, including key factors for providing mitigation at a site (see Section 3.0)*
- *Site Protection Instrument (see Section 4.0)*
- *Baseline Information, including ecological characteristics of impacted and mitigation sites (see Section 5.0)*
- *Determination of Credits, including a description of how the mitigation will provide compensatory mitigation for impacts (see Section 6.0)*
- *Mitigation Work Plan, including detailed descriptions of the work to be performed in implementing mitigation (see Section 7.0)*
- *Maintenance Plan, including maintenance activities to ensure continued viability of the mitigation site (see Section 8.0)*
- *Ecologically based Performance Standards (see Section 9.0)*
- *Monitoring Requirements and Methods (see Section 9.0)*
- *Long-term Management Plan (see Section 10.0)*
- *Adaptive Management Plan (see Section 11.0)*
- *Financial Assurances to ensure project mitigation will be effectively implemented and maintained (see Section 12.0)*

Project impacts were described in the Pre-Construction Notification prepared for the Corps, as part of the Lake and Streambed Alteration Agreement Notification Package prepared for the CDFG, as part of the Water Quality Certification Application prepared for the SWRCB, and as modified by subsequent submittals. All permit application documents contain a complete project description. Project modifications have been made throughout the permit process to further reduce environmental impacts, including those to streams, wetlands, and desert dry washes.

2.0 MITIGATION GOALS AND OBJECTIVES FOR THE DESERT CAHUILLA MITIGATION SITE

For desert ecosystems, preservation is considered to be mitigation for impacts to desert dry wash systems as desert ecosystems take centuries to recover or to have establishment of native species, effectively prohibiting the creation or restoration of these systems. However, non-native, invasive plant species removal can enhance habitat in these systems. The goals of mitigation at the Desert Cahuilla Mitigation Site are to:

- Preserve and manage both uplands and aquatic resources in perpetuity
- Preserve stream and wetland functions, including buffer and wildlife habitat functions
- Provide the legal structure and funding for long-term management of weeds, trash, vandalism, trespassing and any other anthropogenic disturbances in perpetuity through a non-wasting endowment

Mitigation activities at the Desert Cahuilla Mitigation Site include preservation of 84.13 acres of desert dry wash habitat. The mitigation action being implemented at this site is defined in the Corps 2008 Mitigation Rule (Corps 2008b) and described below:

- **Preservation:** The permanent protection of ecologically important wetlands or other aquatic resources through the implementation of appropriate legal and physical mechanisms (i.e. conservation easements, title transfers). Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection or enhancement of the aquatic ecosystem. Preservation does not result in a net gain of wetland acres and may only be used in certain circumstances, including when the resources to be preserved contribute significantly to the ecological sustainability of the watershed.

2.1 Resource Functions of the Mitigation Project

The Desert Cahuilla Mitigation Site supports an extensive array of undisturbed desert dry washes that are a major portion of the upper watershed which flows to the Salton Sea (Figure 3). In addition, this mitigation site is a key area for Peninsular Bighorn Sheep (PBS; *Ovis canadensis nelsoni*). Currently, the mitigation site is not managed for natural resource values and is threatened by off-highway vehicle (OHV) use. The acquisition of this property ensures that the relatively pristine on-site habitat is preserved for continued natural resource function and value. Section 3.0 describes the rationale for selecting this site to be included in the SRPL mitigation project, and it includes a description of the mitigation site's watershed context. An overview of habitat values is also provided in the HAP/HMP (SDG&E 2010).

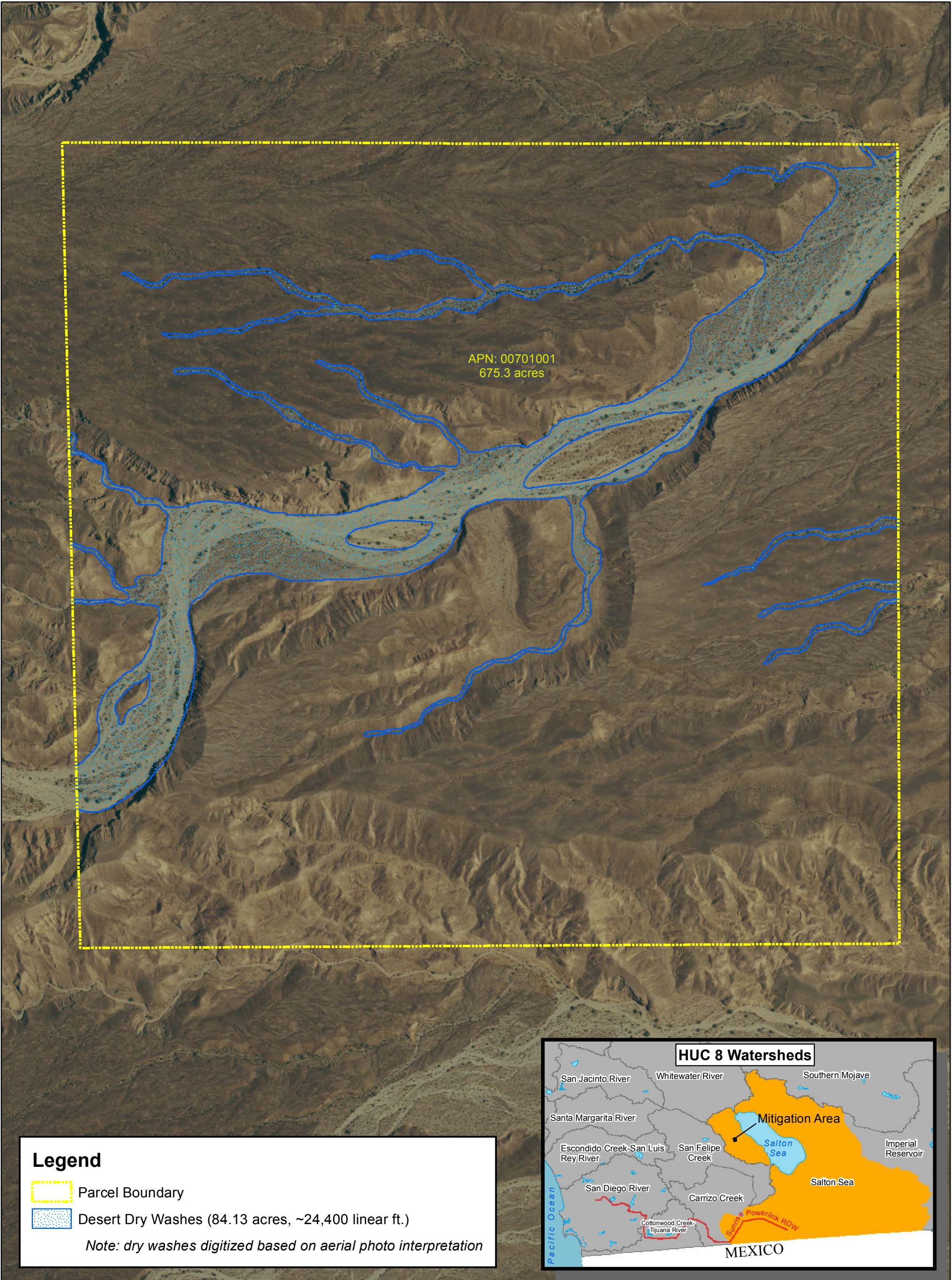
2.2 Basis for Request to Include Preservation as Part of Compensatory Mitigation

The basis for preservation to be included for each mitigation site is based upon requirements from the Corps 2008 Mitigation Rule 332.3(h): (h) Preservation (Corps 2008b):



(1) Preservation may be used to provide compensatory mitigation for activities authorized by [Corps] permits when all the following criteria are met:

- (i) The resources to be preserved provide important physical, chemical, or biological functions for the watershed;*
- (ii) The resources to be preserved contribute significantly to the ecological sustainability of the watershed. In determining the contribution of those resources to the ecological sustainability of the watershed, the district engineer must use appropriate quantitative assessment tools, where available;*
- (iii) Preservation is determined by the district engineer to be appropriate and practicable;*
- (iv) The resources are under threat of destruction or adverse modifications; and*
- (v) The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).*

(2) Where preservation is used to provide compensatory mitigation, to the extent appropriate and practicable the preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities.



Legend

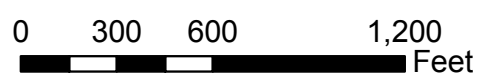
-  Parcel Boundary
-  Desert Dry Washes (84.13 acres, ~24,400 linear ft.)

Note: dry washes digitized based on aerial photo interpretation

HUC 8 Watersheds

Figure 3. Existing Conditions at the Desert Cahuilla Mitigation Site

Sunrise Powerlink
Imperial County, California



Map Date: November 2010
 Map By: Derek Chan
 Base Source: NAIP, 2005; Imperial County, NHD, NWI
 Filepath: L:\Acad 2000 Files\17000\17128-3\GIS\ArcMap\Mitigation\DesertCahuilla_Existing_20101104.mxd

Corps criteria *i* through *v* (above) are satisfied by the habitat provided and mitigation activities planned for the Desert Cahuilla Mitigation Site. Specifically, the Desert Cahuilla Mitigation Site:

- (i) Ensures the major portion of the upper watershed of major wash that flows to the Salton Sea is preserved. Also, part of a larger acquisition plan for the region. Preserves PBS habitat;
- (ii) This parcel is part of a larger acquisition program to place major parcels of land Anza Borrego Desert State Park (ABDSP) and to establish wilderness status in these areas;
- (iii) Upon review of all materials, the district engineer will make a final determination regarding the use of this site as potential preservation mitigation credits;
- (iv) Owned by State Lands, but not managed for natural resource values, and subject to OHV use. Lands are not patrolled or maintained. Under ABDSP management as wilderness area and, with Sunrise funding, will be managed for natural resource values including desert dry wash and PBS habitat;
- (v) Mitigation site will be designated wilderness area by California State Parks (ABDSP).

3.0 SITE SELECTION

This site was selected for mitigation based on the presence of extensive desert dry wash habitat (approximately 84 acres) and the relative lack of disturbance of the site due to its remote location. The preservation of desert dry wash habitat provides mitigation for desert dry wash habitat impacted by the SRPL Project and will ensure that the upper reaches of the watershed are preserved and managed for natural resource values. The site is important to watershed health because of its size, remote location, and overall proximity to the Salton Sea.

The mitigation site is part of a larger acquisition plan to contribute major parcels of land to the ABDSP system and to establish wilderness status in these areas. The property is currently owned by the State Lands Commission, but is not managed for natural resource values, is not patrolled or maintained, and is currently subject to OHV use. As part of the preservation activity, the mitigation site will be designated as a wilderness area by California State Parks and will be managed by ABDSP. The site will be under State Park (ABDSP) management as a wilderness area and, with Sunrise funding, the area will be managed for desert dry wash and PBS habitat.

The 675-acre parcel where the dry wash mitigation will occur is part of a larger 5,500-acre transaction within a 14,700-acre wilderness area. The transaction will result in 5,500 acres (including the 675-acre desert dry wash mitigation site) being included in ABDSP and managed by the park mainly for its biological values (PBS habitat in particular). A mitigation overlay will be placed on the desert dry wash mitigation parcel; it will be managed consistent with the adjacent Wilderness Zones of ABDSP. The endowment provided by SDG&E will provide for on-going management of the parcel for non-native, invasive plant species control (among other things) and for access controls (patrols, signage) to deter illegal OHV use for the overall 5,500 acres. The USFWS and the CDFG support the transaction and management of the lands by ABDSP. OHV use will be controlled mainly through patrols by park rangers. The boundary of the ABDSP lands follows existing trails and ridgelines that can be marked and patrolled. The OHV support groups and the Ocotillo Wells State Vehicular Recreation Area (SVRA) are involved in the transaction and support it because it will also expand the SVRA south of ABDSP.

3.1 Watershed Setting and Context

The Desert Cahuilla Mitigation Site occurs within the West Salton hydrologic unit and forms a contiguous rural landscape with its surroundings. The site is surrounded to the north and west by ABDSP, and the southern and eastern regions are bordered by lands owned and operated by the Department of Parks and Recreation, which are subject to OHV use. A small, separated parcel belonging to ABDSP is located further east of the mitigation site. Through the Desert Cahuilla transaction, this separated parcel would be connected with the ABDSP lands to the west, resulting in an overall increase in contiguous protected lands (SDG&E 2010). Furthermore, preservation of this mitigation site will ensure the hydrological and ecological connectivity of the site with its surrounding rural landscape.

Specific information on the Desert Cahuilla Mitigation Site location is listed below in Table 1.

Table 1. Desert Cahuilla Mitigation Site Location Details

Mitigation Site Location	Located within the upper portion of the Salton Sea watershed, 7 miles west of the Salton Sea.
Mitigation Site Latitude/Longitude	116° 04' 31" W, 33° 19' 51" N
Name of Watershed and Hydrologic Unit	West Salton Hydrologic Unit (721.00)
Mitigation Site City and County	Salton City, Imperial County

3.2 Beneficial Uses Provided

Beneficial uses and water quality objectives are required to be established for all WOS, including both surface and ground waters. Beneficial uses of surface and ground waters of the San Diego Region are discussed in the Water Quality Control Plan for the Colorado River Basin (CRWQCB 1994). Beneficial uses for surface waters are designated under section 303 of the CWA (40 CFR 131) and under the Porter-Cologne Act (California Water Code section 13050[f]). The State is required to specify appropriate water uses to be achieved and protected. Definitions and abbreviations for beneficial uses provided by WOS are summarized in Table 2. Waters in the Desert Cahuilla Mitigation Site are part of the West Salton hydrologic unit watershed and are considered surface waters under the category “washes (ephemeral streams)” located in the west Colorado River Basin.

For washes in the watershed in which the Desert Cahuilla Mitigation Site occurs, the Colorado River Regional Water Quality Control Board has designated the following beneficial uses (see Table 3): Freshwater Replenishment (FRSH), Ground Water Recharge (GWR), Noncontact Water Recreation (REC2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD). Table 2 contains definitions of additional beneficial uses which have not been designated for this mitigation site, but they are included in the table as references for Table 3.

Table 2. Definitions for Beneficial Uses of WOS.

State Recognized Beneficial Uses	Description
Municipal and Domestic Supply (MUN)	Uses of water for community, military, or individual water supply systems, including, but not limited to, drinking water supply.
Agricultural Supply (AGR)	Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
Industrial Service Supply (IND)	Includes uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.
Industrial Process Supply (PROC)	Uses of water for industrial activities that depend primarily on water quality.
Hydropower Generation (POW)	Uses of water for hydropower generation.
Freshwater Replenishment (FRSH)	Uses of water for natural or artificial maintenance of surface water quantity or quality.
Ground Water Recharge (GWR)	Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting salt water intrusion into fresh water aquifers.
Water Contact Recreation (REC1)	Uses of water for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing, and uses of natural hot springs.
Noncontact Water Recreation (REC2)	Uses of water for recreational activities involving proximity to water, but not normally involving contact with water where water ingestion is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
Preservation of Biological Habitats of Special Significance (BIOL)	Includes uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.
Wildlife Habitat (WILD)	Uses of waters that support wildlife habitats, including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.
Cold Freshwater Habitat (COLD)	Uses of water that support cold water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Warm Freshwater Habitat (WARM)	Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Aquaculture (AQUA)	Includes the uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.
Inland Saline Water Habitat (SAL)	Includes uses of water that support inland saline water ecosystems including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish, or wildlife, including invertebrates.
Estuarine Habitat (EST)	Includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).

Table 2. Definitions for Beneficial Uses of WOS.

State Recognized Beneficial Uses	Description
Marine Habitat (MAR)	Includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
Rare, Threatened, or Endangered Species (RARE)	Includes uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.
Migration of Aquatic Organisms (MIGR)	Includes uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
Spawning, Reproduction, and/or Early Development (SPWN)	Includes uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish. This use is applicable only for the protection of anadromous fish.
Shellfish Harvesting (SHELL)	Includes uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters and mussels) for human consumption, commercial, or sport purposes.

One goal of the overall SRPL mitigation program is to compensate for SRPL-related impacts to WOS and their beneficial uses. Beneficial uses of WOS within the Desert Cahuilla Mitigation Site will be preserved to mitigate a portion of the beneficial uses affected by SRPL project activities; mitigation activities on the other four mitigation sites are intended to compensate for any remaining beneficial uses not provided by the Desert Cahuilla site (i.e., there will be no net loss of beneficial use from any project activity. All designated beneficial uses of WOS potentially impacted by SRPL activities are summarized in Table 3; however, not all uses listed in Table 3 are necessarily affected by the SRPL Project. Only those that are marked as such have the potential to be affected.

Table 3. Beneficial Uses of WOS That May Be Affected by the SRPL Project.

SAN DIEGO REGION INLAND SURFACE WATERS	Hydrologic Unit Basin Number	M U N	A G R	I N D	P R O C	G W R	F R S H	P O W	R E C 1	R E C 2	B I O L	W A R M	C O L D	W I L D	R A R E	S P W N
San Diego River Watershed	907.31	X	X	X	X				X	X		X	X	X		
Conejos Creek 7.31	907.31	X	X	X	X				X	X		X	X	X		
Alpine Creek	907.31	X	X	X	X				X	X		X	X	X		
Chocolate Canyon	907.33	X	X	X	X				X	X		X	X	X		
Chocolate Canyon	907.31	X	X	X	X				X	X		X	X	X		
Sweetwater River	909.31	X	X	X	X				X	X		X	X	X		X
Viejas Creek	909.31	X	X	X	X				X	X		X	X	X		
Viejas Creek	909.33	X	X	X	X				X	X		X	X	X		
Taylor Creek	909.31	X	X	X	X				X	X		X	X	X		
Tijuana Hydrologic Unit	911															
Cottonwood Creek	911.23	+							X	X		X		X		
Dry Valley	911.23	+							X	X		X		X		
Bob Owens Canyon	911.23	+							X	X		X		X		
McAlmond Canyon	911.24	+							X	X		X		X		
McAlmond Canyon	911.23	+							X	X		X		X		
Rattlesnake Canyon	911.23	+							X	X		X		X		
Potrero Creek	911.25	+							X	X		X		X		
Potrero Creek	911.23	+							X	X		X		X		
Bee Creek	911.23	+							X	X		X		X		
Cottonwood Creek	911.30	X	X	X	X		X		X	X		X	X	X	X	X
Hauser Creek	911.30	X	X	X	X		X		X	X		X	X	X		X
Pine Valley Creek	911.30	X	X	X	X		X		X	X		X	X	X		X
Wilson Creek	911.30															
Pats Canyon	911.30															
La Posta Creek	911.70	X	X	X	X		X		O	X		X	X	X		
Simmons Canyon	911.70	X	X	X	X		X		O	X		X	X	X		
Diablo Canyon	911.84	+														
Reservoirs & Lakes																
El Capitan Reservoir	907.31	X	X	X	X			X ¹	X	X	X	X				
Loveland Reservoir	909.31	X	X	X	X		X	X	X	X	X					
Barrett Lake	911.30	X	X	X	X		X	X	X	X	X	X	X			
San Vicente Reservoir	907.20	X	X	X	X		X	X	X	X	X	X				

COLORADO RIVER BASIN REGION		Water Board Hydrologic Unit Code	MUN	AGUA	FAH	IRDS	GRWC	RECI	REII	WARA	COLL	WILL	PLOW	RARE
	Tule Creek	22.71, 22.72	P	X			X	X	X	X		X		
	Unlisted Perennial and Intermittent Streams		P ¹¹		I ¹²	X ¹²	I	X	I	I	I	I	X	I ¹³
	Washes (Ephemeral Streams)				I ¹²		I		I	see note 7		I		

Key:
 X = Existing Beneficial Use
 0 = Potential Beneficial Use
 I = Intermittent Uses
 + = Excepted from MUN. The water body has been exempted by the Regional Board from the municipal use designation under the terms and conditions of State Board Resolution No. 88-63, *Sources of Drinking Water Policy*.)

Note 1: Waterbodies are listed multiple times if they cross hydrologic area or sub area boundaries.)
 Note 2: Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

FOOTNOTES: Footnotes are numbered as found in the Basin Plan.
 7. Use, if any, to be determined on a case-by-case basis.
 11. Potential use designations will be determined on a case-by-case basis as necessary in accordance with the "Sources of Drinking Water Policy".
 12. Applies only to tributaries to Salton Sea.
 13. Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the CDFG on its own initiative and/or at the request of the Regional Board; and such substantiation must be provided within a reasonable time frame as approved by the Regional Board.

4.0 LONG-TERM SITE PROTECTION

Consistent with the Mitigation and Monitoring, Reporting, and Compliance Program (MMRCP) and the Biological Opinion (USFWS 2010), SDG&E will likely convey the entire Desert Cahuilla Mitigation Site to the State Parks (ABDSP). The timing and approval process is detailed in G-CM-17 of the project Biological Opinion FWS-08B04233-11F0047 (USFWS 2010). This measure is as follows:

G-CM-17: *This conservation measure has been changed to reflect updated information and progress made in acquiring off-site conservation.*

(a) Prior to initiating ground- or vegetation-disturbing project activities, SDG&E will provide and implement the following assurance:

- Unless already acquired, SDG&E will provide assurances (e.g., performance bond, letter of credit, or escrow account) to fund the acquisitions listed below in (c).*

(b) SDG&E will fully fund an endowment for in-perpetuity management of all parcels acquired in (c) within 3 months of the Wildlife Agencies' approval of the final endowment amounts.

(c) Unless otherwise authorized by the Wildlife Agencies, no later than 18 months from the date of the revised 2010 Biological and Conference Opinion, SDG&E will acquire and permanently preserve the nine (9) parcels identified in the September 2010 Habitat Acquisition Plan and Habitat Management Plan (HAP/HMP; referenced by name as Nabi, Lakeside Ranch, Hamlet, El Capitan, Chocolate Canyon, Lightner, Long Potrero, Suckle, and Desert Cahuilla) in a manner consistent with the HAP/HMP (SDG&E 2010) and the following provisions:

- The land-owner, land management entity, conservation easement grantee, and endowment fund manager for each property will be approved by the Wildlife Agencies. SDG&E will coordinate efforts with the Wildlife Agencies to identify potential candidates and review their qualifications to hold and manage lands and/or endowment funds. This task will be completed within 6 months of issuance of the 2010 revised Biological and Conference Opinion.*
- SDG&E will conduct a revised Property Analysis Record (PAR) or PAR-like analysis for each property once the land management entity for individual properties has been identified and approved by the Wildlife Agencies. This revised PAR will be used to determine the final endowment amount SDG&E will provide for in-perpetuity habitat management of each property.*
- Conservation easement language, or its equivalent where an easement is not allowed by the land manager (State Parks), for all properties will be approved by the Wildlife Agencies prior to easement recordation; and*

SDG&E will complete the required acquisition, protection, and transfer of all properties and record the required conservation easements in favor of DFG, or other entity approved by the Wildlife Agencies, no later than 18 months after the start of the ground- or vegetation-disturbing activities.

The HAP/HMP (SDG&E 2010) provides a description of the long-term management activities at the Desert Cahuilla Mitigation Site that will proceed after performance standards have been achieved. A summary of long-term management activities is provided in Section 10.0, below. Long-term financing mechanisms are also provided in the HAP/HMP (SDG&E 2010) and in Section 12.0, below.

5.0 BASELINE INFORMATION

5.1 Preliminary Jurisdictional Determination and Functional Assessment of Impact Sites

A preliminary jurisdictional determination (PJD) of the extent of wetlands and waters along the SRPL Right-of-Way (ROW) (WRA 2010a) has been approved by the Corps and is included in permit application packages for the Project. The PJD was used during Project planning to avoid unnecessary impacts to WOUS and WOS and to quantify unavoidable impacts to wetlands and waters. Impacts to unvegetated waters included perennial, intermittent, and ephemeral streams. Ephemeral streams were described using two subcategories, including desert dry washes and mountain ephemeral streams. Vegetated wetlands delineated using the Corps 3-parameter approach (Environmental Laboratory 1987) also occur at two impact sites along the margins of intermittent streams.

A functional assessment of 30 impact sites along the SRPL ROW was performed using California Rapid Assessment Method (CRAM) methodology, covering both existing conditions and projected post-project conditions. The Conceptual HMMP (WRA 2010b) describes the results of the CRAM functional assessment of impact sites in full detail. Combined average CRAM scores for impacted jurisdictional areas are summarized in Table 4. CRAM scores for existing conditions will be used as baseline data, while CRAM scores for post-project conditions were estimated as a means to predict the effects of impacts to wetland functions and services. An estimate of the reduction in functions and services provided by impacted WOUS and WOS was generated by comparing existing and projected post-project CRAM scores at impacted sites. All assessments of impact sites used the CRAM methodology for riverine wetlands, although ephemeral streams and Corps wetlands were also included in the assessments. Further detail on the assessments and CRAM methodology can be found in the Conceptual HMMP (WRA 2010b). Raw CRAM scores for all impact and mitigation assessment areas (AAs) are presented in Appendix A.

As outlined in the Conceptual HMMP (WRA 2010b), the combined average CRAM score of representative impact sites for SRPL is expected to decrease by an average of 3 percentage points from project implementation. This represents the average decrease in functions and services resulting from impacts to WOUS and WOS from the Project. The CRAM score for the one perennial stream within the ROW is not expected to measurably decrease. The majority of individual projected impacts would result from aggradation/degradation of stream channels and degradation of wetland buffer areas.

Table 4. Combined Average CRAM Scores for Existing and Post-Project Conditions at Impact Sites along the SRPL ROW.

CRAM Index and Attributes	Existing (Baseline) Mean Scores	Projected Post-Project Mean Scores	Decrease Between Existing and Projected Post-Project Conditions (percentage points)
Overall Index Score	72.3%	69.3%	3.0
Landscape Context	93.4%	89.0%	4.4
Hydrology	88.6%	82.8%	5.8
Physical Structure	47.5%	46.3%	1.2
Biotic Structure	59.7%	59.3%	0.4

While impacts to Buffer Condition and Channel Stability were common among desert dry wash and mountain ephemeral impact locations, these combined stream categories saw a decline of less than 2 percentage points in overall CRAM scores. The largest decline in CRAM score came from one intermittent stream on the Lightner Mitigation Site where the Suncrest Substation is proposed, causing a loss of both stream channel and adjacent riparian habitat. The drop in overall CRAM score of 38.7 percentage points for this AA (accounting for the majority of an 11.6-point drop for all intermittent streams combined) is the most substantial single impact of the SRPL project as reflected in CRAM scores. Management of the Desert Cahuilla site for mitigation, in combination with mitigation activities at other sites included in the overall mitigation package, are intended to offset these impacts to functions and services.

5.2 Baseline Condition of the Mitigation Site

The Desert Cahuilla Mitigation Site is a 675-acre desert mitigation site located within the upper portion of the Salton Sea Watershed of Imperial County, California (Figure 5). It is situated approximately 7 miles west of the Salton Sea and is bounded on all sides by desert dry wash habitat with no urban development nearby. The site ranges from approximately 350 to 680 feet National Geodetic Vertical Datum (NGVD) in elevation. The mitigation site includes a large portion of the upper watershed of a major wash that flows to the Salton Sea and supports PBS habitat.

Table 5 shows the acreage of potential jurisdictional desert dry wash habitat on the Desert Cahuilla Mitigation Site based on an analysis of recent aerial photography and a site reconnaissance.

Table 5. Jurisdictional Areas at the Desert Cahuilla Mitigation Site

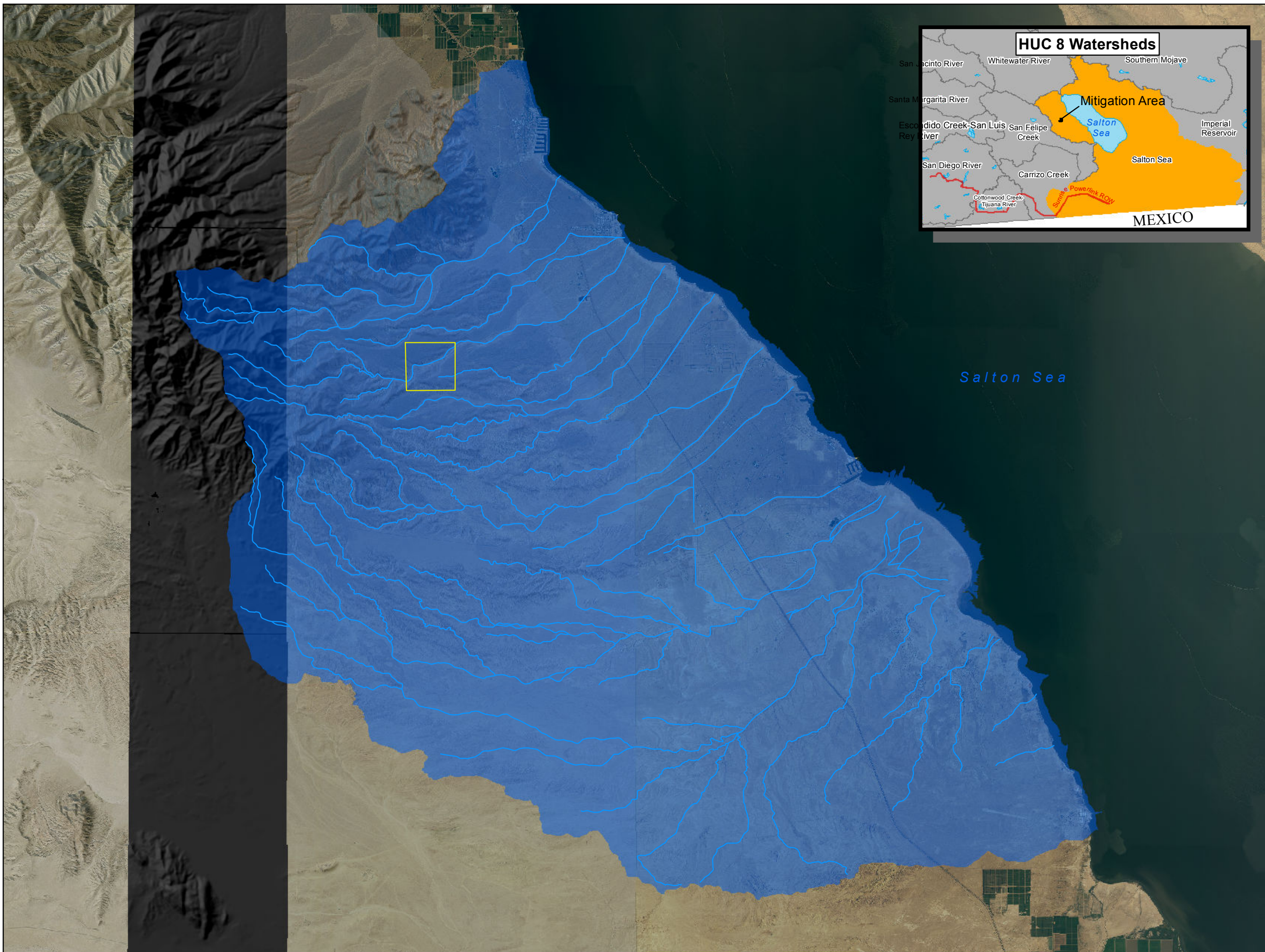
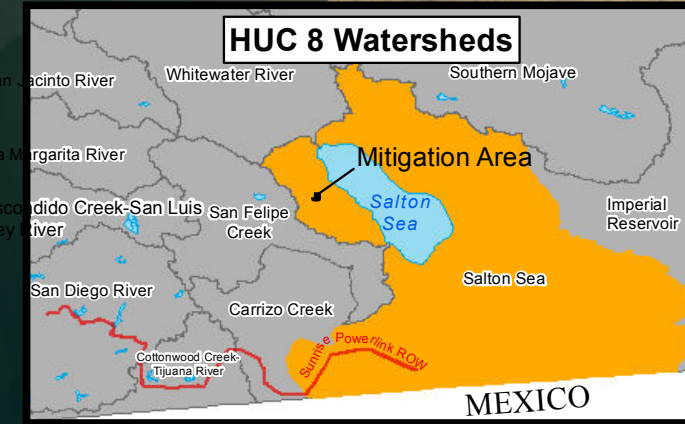
	Area (acres)	Length (linear feet)
Desert Dry Wash	84.13	24,400

Soils: Soils in this region are mapped as Badland-Beeline-Rillito. Badland soils are characterized as very rapid runoff. Beeline soils are well drained with medium to rapid runoff and moderately rapid permeability. The Rillito soil series is somewhat excessively drained with slow or medium runoff and moderate permeability (USDA 2010a). Badland, Beeline and Rillito soils are classified as non-hydric on the hydric soils list (USDA 2010b).




Sunrise Powerlink
 San Diego County,
 California

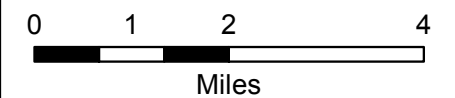
Figure 4.

Desert Cahuilla
 Mitigation Site:
 Watersheds



Legend

-  Parcel Boundary
-  West Salton Watershed (HUC 12)
-  USGS Blueline Stream



Vegetation: This mitigation site is made up of Sonoran creosote bush scrub and Sonoran creosote bush scrub-disturbed vegetation communities with a large desert dry wash. Dominant plant species observed within these communities include creosote bush (*Larrea tridentata*), with white bursage, brittlebush (*Encelia farinosa*), and ocotillo (*Fouquieria splendens*). Areas that were void of any vegetation were classified as unvegetated habitat-desert pavement. Non-native, invasive annual grasses are known to occur on the site, but no other significant non-native, invasive species populations are currently known from the site. Future surveys will be conducted to determine the presence of non-native, invasive plant species and management of any populations that are discovered will occur.

Hydrology: Precipitation is the main source of hydrology for this site. This site typically receives approximately 3.21 inches of rainfall per year (USDA 2010c). Site hydrology is essentially undisturbed.

5.3 Functional Assessments at Mitigation Sites

Mitigation activities for SRPL should provide improvements in the same areas of functional capacity that are likely to be impacted by the Project, as reflected in CRAM scores. Comparing existing CRAM scores to projected scores for the stream mitigation AAs, it is possible to consider the nature and magnitude of likely improvements to functional capacity. Although CRAM was not conducted at the Desert Cahuilla mitigation site, CRAM scores for all assessed streams at the SRPL mitigation sites are summarized in Table 6. Average improvements at these sites are shown in comparison to average decreases in CRAM score at stream impact sites in Figure 5. Raw CRAM scores are presented in Appendix A, and further information on the CRAM assessments can be found in Appendix B of the Conceptual HMMP (WRA 2010b).

All CRAM attributes at impact sites had some level of decrease as a result of the Project, but the largest impacts were in the areas of Hydrology and Buffer & Landscape Context (Table 6). Mitigation actions at the mitigation sites should provide improvements in the areas of Buffer & Landscape Context, Hydrology, and Biotic Structure that are apparent within 5 years of mitigation implementation. In addition, there is a high potential for further increases in stream and wetland condition leading to increases in CRAM scores, particularly in the areas of Physical and Biotic Structure. However, indicators that would allow a higher CRAM score for these attributes may take longer to develop than the 5-year period discussed in this report.

5.3.1 Functional Improvements at the Desert Cahuilla Mitigation Site

Although no active mitigation actions are proposed at Desert Cahuilla, preservation and management are likely to increase the functional capacity of streams within this mitigation site. Streams within the Desert Cahuilla Mitigation Site were not included in the CRAM functional assessment of mitigation sites, but some assumptions can be made about stream condition based on existing site descriptions and field observations in similar habitats along the SRPL ROW.

OHV use which currently occurs on the Desert Cahuilla Mitigation Site has resulted in habitat disturbance. It is likely that streams within the Desert Cahuilla Mitigation Site would receive scores of B or C for the Buffer Condition submetric (Buffer & Landscape Connectivity attribute) due to OHV traffic, which likely promotes the spread of invasive plants such as Saharan mustard (*Brassica tournefortii*) and Mediterranean grass (*Schismus barbatus*) in addition to causing soil disturbance. The soil disturbance caused by OHV traffic would likely contribute to aggradation and degradation within stream channels on the site, causing most streams to score a "B" for the Channel Stability metric (Hydrology attribute).

Table 6. Average CRAM Attribute and Overall Scores for all Assessed SRPL Stream Mitigation Sites.

CRAM Index and Attributes	Existing (Baseline) Mean Scores	Projected Post-Project Mean Scores	Projected Increase Following Mitigation Implementation (percentage points)
Overall Index Score	75.9%	77.9%	2.0
Buffer & Landscape Context	85.8%	89.8%	4.0
Hydrology	90.0%	91.7%	1.7
Physical Structure	55.0%	55.0%	0
Biotic Structure	72.8%	75.0%	2.2

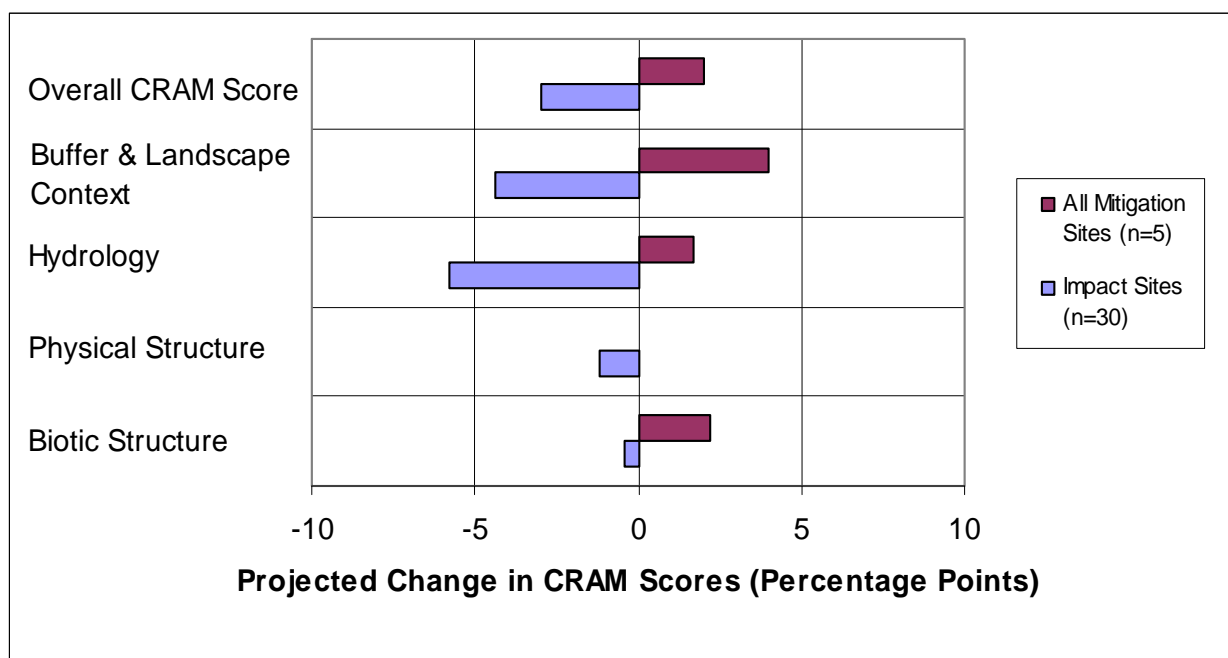


Figure 5. Projected Average Changes in CRAM Score at Stream Impact Sites and Stream Mitigation Sites 5 Years after Mitigation Implementation

Under SRPL Project plans, the Desert Cahuilla Mitigation Site would be preserved and managed as a part of ABDSP (Section 3.0). Under the new management, OHV use would be prohibited. Park rangers, with the support of an SDG&E endowment, will enforce the OHV ban through signage and patrols. These actions should be highly beneficial to the Desert Cahuilla site. Over time, the cessation of soil disturbance caused by OHV use should allow the site to return to more natural conditions. This has the potential to increase the scores for Buffer Condition and Channel Stability for most streams on the site by approximately one letter grade. The OHV ban would also be likely to benefit the site in ways that are not necessarily reflected in CRAM scores, including reduction of noise, human visitation, trash, oil and air pollution, and artificial lights at nighttime, all of which should increase the habitat value for plants and animals. These improvements should begin to be evident within 5 years, although sufficient improvement to allow an increase in CRAM score may take additional time.

As described above, proposed preservation and management actions have the potential to increase the functional capacity of all stream habitats at this site. These potential improvements within the 5,500-acre Desert Cahuilla Mitigation Site comprise additional Project benefits that were not considered in the functional analysis for mitigation (Section 5.3).

6.0 DETERMINATION OF CREDITS

The Desert Cahuilla Mitigation Site contains one habitat type (desert dry wash habitat) which will contribute to the overall mitigation acreage contained in the five mitigation properties. Within this mitigation site, compensation for permanent impacts to desert dry washes will be provided. Mitigation acreages and credits are discussed in more detail in the following sections.

6.1 Mitigation Credits within the Desert Cahuilla Mitigation Site

The Desert Cahuilla Mitigation Site provides 84.7 percent of the total SRPL mitigation acreage for desert dry washes. Additional credits for this habitat type is provided by the Suckle Mitigation Site. A summary of mitigation acres provided by the Desert Cahuilla Mitigation Site is presented in Table 7 below. A summary of collective mitigation acres provided by the entire mitigation program at all five sites is presented in Section 6.2.

Table 7. Summary of SRPL Aquatic Resource Mitigation at the Desert Cahuilla Mitigation Site

Site	Resource Type	Mitigation Area [acres; linear feet for streams]	
		Preservation	Total
Desert Cahuilla Mitigation Site	Desert Dry Wash	84.13 (24,400)	84.13 (24,400)

6.2 Summary of Mitigation Credits for Entire Mitigation Program at all Sites

A summary of total mitigation for permanent and temporary impacts for each resource type is detailed in Table 8 for WOUS and in Table 9 for WOS. In addition, a summary of mitigation activities at each mitigation site for the SRPL project is contained in Table 10. On an acreage basis, the SRPL project provides more than adequate mitigation to compensate for unavoidable permanent impacts to jurisdictional areas. In addition, enhancement and restoration activities at four of the five mitigation sites will increase the functions and services provided by jurisdictional areas at the mitigation sites. Cumulatively, this provides ample mitigation to compensate for reduced functions and services in temporarily and permanently impacted jurisdictional areas.

Proposed mitigation activities for SRPL will provide improvements in the same areas of functional capacity that are likely to be impacted by the Project. Overall, the average projected decrease of 3 CRAM percentage points at stream impact sites will be offset by an average increase of 2 percentage points at stream mitigation sites at the end of the 5-year monitoring period, together with restoration, enhancement, and preservation of these areas at a cumulative 35:1 ratio by acreage for permanent impacts and 2:1 ratio for temporary impacts. CRAM scores

for the Physical Structure and Biotic Structure attributes are likely to increase as the habitat areas develop over the long-term, thus raising average overall CRAM scores further than are indicated herein for the term of the 5-year monitoring program.

Projected CRAM data at mitigation sites is intended to serve as a guide for comparison of mitigation and impacts, and should not be directly applied to mitigation ratios. The results of multiplying CRAM score by any dimension of size, such as wetland area, length, or perimeter, might distort the scaling of some metrics, weight the values of other metrics in unintended ways, and thus lead to erroneous results (CWMW 2009). Furthermore, areas of habitat preservation were not included in the CRAM analyses, but are valuable in maintaining the overall condition of their watersheds and protecting the mitigation jurisdictional features from negative external stressors such as edge effects.

Table 8. Summary of Total Mitigation for Permanent and Temporary Impacts per Resource Type (based on Ordinary High Water Mark)

Resource Type	Temporary Impacts		On-Site Mitigation (acres)	Permanent Impacts Impact (acres)	Offsite Mitigation (acres)			TOTAL MITIGATION (acres)
	Impact (acres)	Mitigation Ratio			Preservation	Enhancement	Restoration	
Desert Dry Washes	6.53	1:1	6.53	2.45	84.13 (DC)	(DC)	(DC)	98.13
					3.43 (S)	4.04 (S)	(S)	
					(LP)	(LP)	(LP)	
					(L)	(L)	(L)	
					(CC)	(CC)	(CC)	
Subtotal					87.56	4.04	-	
Other Streams	0.55	1:1	0.55	0.35	(DC)	(DC)	(DC)	4.94
					(S)	(S)	(S)	
					1.39 (LP)	0.96 (LP)	(LP)	
					0.55 (L)	0.09 (L)	0.04 (L)	
					0.28 (CC)	1.08 (CC)	(CC)	
Subtotal					2.21	2.14	0.04	
Wetlands	0	2:1	0	0.08	(DC)	(DC)	(DC)	18.63
					(S)	0.88 (S)	(S)	
					9.92 (LP)	5.99 (LP)	(LP)	
					0.20 (L)	0.63 (L)	(L)	
					0.99 (CC)	0.02 (CC)	(CC)	
Subtotal					11.11	7.52	-	

Abbreviations for Mitigation Sites:
 DC= Desert Cahuilla Mitigation Site
 S= Suckle Mitigation Site
 LP= Long Potrero Mitigation Site
 L= Lightner Mitigation Site
 CC= Chocolate Canyon Mitigation Site

Table 9. Summary of Total Mitigation for Permanent and Temporary Impacts per Resource Type (based on Top of Bank)

Resource Type	Temporary Impacts		On-Site Mitigation (acres)	Permanent Impacts Impact (acres)	Offsite Mitigation (acres)			TOTAL MITIGATION (Onsite and Offsite acres)
	Impact (acres)	Ratio			Preservation	Enhancement	Restoration	
Desert Dry Washes	7.30	1:1	7.22	2.72	84.13 (DC)	(DC)	(DC)	98.90
					3.43 (S)	4.04 (S)	(S)	
					(LP)	(LP)	(LP)	
					(L)	(L)	(L)	
					(CC)	(CC)	(CC)	
Subtotal				87.56	4.04	-		
Streams with No Riparian Vegetation	0.91	1:1	0.97	0.37	(DC)	(DC)	(DC)	5.30
					(S)	(S)	(S)	
					1.39 (LP)	0.96 (LP)	(LP)	
					0.55 (L)	0.09 (L)	0.04 (L)	
					0.28 (CC)	1.08 (CC)	(CC)	
Subtotal				2.21	2.14	0.04		
Streams with Riparian Vegetation ¹	0	2:1 or 3:1	0.02 or 0.03	2.34	(DC)	(DC)	(DC)	47.01
					(S)	(S)	(S)	
					12.62 (LP)	3.95 (LP)	(LP)	
					15.83 (L)	0.63 (L)	3.43 (L)	
					10.25 (CC)	0.30 (CC)	(CC)	
Subtotal				38.70	4.88	3.43		
Wetlands	0	2:1	0	0.08	(DC)	(DC)	(DC)	18.63
					(S)	0.88 (S)	(S)	
					9.92 (LP)	5.99 (LP)	(LP)	
					0.20 (L)	0.63 (L)	(L)	
					0.99 (CC)	0.02 (CC)	(CC)	
Subtotal				11.11	7.52	-		

Abbreviations for Mitigation Sites:
 DC= Desert Cahuilla Mitigation Site
 S= Suckle Mitigation Site
 LP= Long Potrero Mitigation Site
 L= Lightner Mitigation Site
 CC= Chocolate Canyon Mitigation Site

¹ Mitigation acreages for SRV's are referred to on figures and in text as "Riparian Habitat" preservation, enhancement, and restoration.

Table 10. Summary of SRPL Aquatic Resource Mitigation

Site	Resource Type	Mitigation Area [acres; linear feet for streams]			
		Preservation	Enhancement	Restoration	Total
Desert Cahuilla	Desert Dry Washes	84.13 (24,400)			84.13 (24,400)
	Streams				
	Wetlands				
	Riparian				
Suckle Mitigation Site	Desert Dry Washes	3.43 (7,000)	4.04 (4,200)		7.47 (11,200)
	Streams				
	Wetlands	0.48	0.40		0.88
	Riparian				
Lightner Mitigation Site	Desert Dry Washes				
	Intermittent and Ephemeral Streams	0.55 (17,117)	0.09 (2,751)	0.04 (1,117)	0.68 (20,985)
	Wetlands	0.20	0.63		0.83
	Riparian	15.83	0.63	3.43	19.89
Long Potrero	Desert Dry Washes				
	Intermittent and Ephemeral Streams	1.39 (16,857)	0.96 (6,054)		2.35 (22,911)
	Wetlands	9.92	5.99		15.91
	Riparian	12.62	3.95		16.57
Chocolate Canyon	Desert Dry Washes				
	Perennial and Intermittent Streams	0.28 (9,051)	1.08 (3,162)		1.36 (12,213)
	Wetlands	0.99	0.02		1.01
	Riparian	10.25	0.30		10.55
Totals	Desert Dry Washes	87.56	4.04		91.60
	Streams	2.22 (43,025)	2.13 (11,967)	0.04 (1,117)	4.39 (56,109)
	Wetland	11.11	7.52		18.63
	Riparian	38.70	4.88	3.43	47.01

7.0 MITIGATION WORK PLAN

7.1 Activities Planned at the Mitigation Site

Preservation activities planned for this mitigation site are described in the following sections. Mitigation for the loss of dry wash functions and services within project impact areas will occur on this site.

7.1.1 Preservation

As described above in Section 3.0, the Desert Cahuilla Mitigation Site was selected based on the presence of extensive areas of desert dry washes and is included as mitigation for project impacts to desert dry washes. Preservation of desert dry wash and surrounding upland habitat is the only activity to be implemented at the Desert Cahuilla Mitigation Site. Mitigation acreage within the Desert Cahuilla Mitigation Site is listed in Table 11 below and illustrated in Figure 6.

Table 11. Summary of Mitigation at the Desert Cahuilla Mitigation Site

Mitigation Action	Area (acres)	Length (linear feet)
Desert Dry Wash Preservation	84.13	24,400

The transfer of title to the California State Parks (ABDSP) and land designation of “mitigation” will offer substantial protection to this area. It is part of a much larger land transaction that will benefit PBS and other sensitive plant and wildlife species. It will be regularly patrolled and will be managed for natural resource values as opposed to unmanaged lands subject to OHV use. Additional benefits will include placement under State Park guidelines for invasive weed management.

Sequence and Timing

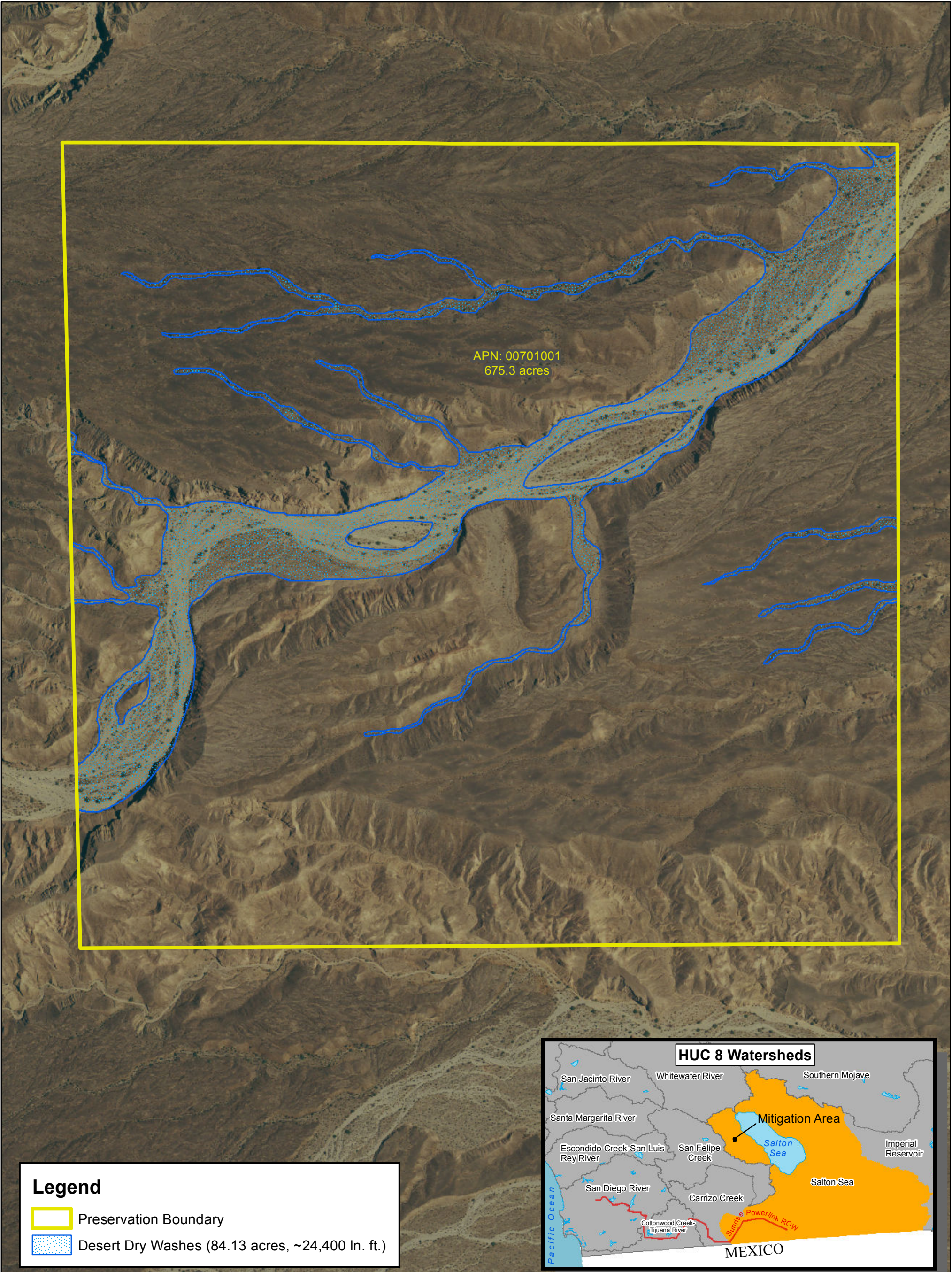
Mitigation will be implemented concurrent with project impacts to desert dry washes.

8.0 MAINTENANCE PLAN

Maintenance activities are summarized in the following sections. The maintenance plan for the first 5 years (start-up period) in the HAP/HMP area is described fully in the HAP/HMP (SDG&E 2010) and summarized below.



8.1 Maintenance Activities within Mitigation Areas

Maintenance activities within HMMP areas will consist of monitoring watershed health and mapping of threats to the watershed. Such activities will be conducted during site visits for future management due to the remoteness of the mitigation site.



APN: 00701001
675.3 acres

Legend

-  Preservation Boundary
-  Desert Dry Washes (84.13 acres, ~24,400 ln. ft.)

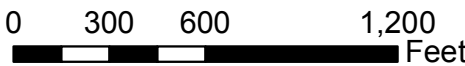
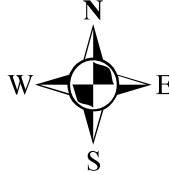
HUC 8 Watersheds

San Jacinto River, Whitewater River, Southern Mojave, Santa Margarita River, Escondido Creek-San Luis Rey River, San Felipe Creek, Carrizo Creek, San Diego River, Cottonwood Creek-Tijuana River, Salton Sea, Imperial Reservoir, Salton Sea, Sunrise Powerlink ROW, MEXICO, Pacific Ocean

Mitigation Area

Figure 6. Mitigation Activities at the Desert Cahuilla Mitigation Site

Sunrise Powerlink
Imperial County, California



ENVIRONMENTAL CONSULTANTS

Map Date: October 2010
Map By: Derek Chan
Base Source: NAIP, 2005; Imperial County, NHD, NWI
Filepath: L:\Acad 2000 Files\17000\17128-3\GIS\ArcMap\Mitigation\DesertCahuilla_Existing_20101019.mxd

8.2 Maintenance Activities within HAP/HMP Area

As stated in the HAP/HMP (SDG&E 2010), the following maintenance activities for waters will take place within HAP/HMP Area's on the Desert Cahuilla Mitigation Site:

- Installation of signage (Year 1) and maintenance (as needed);
- Installation of fencing (6,000 linear feet in selective areas in Years 1 and 2) and maintenance of the fencing (as needed);
- Assessment of dry wash and desert scrub conditions, including mapping of exotic invasive plants and any problem areas (completed in Year 2);
- Decommissioning and rehab of existing road on parcel (12,000 linear feet) (completed by Year 5);
- Monitoring of dry wash and desert scrub vegetation for presence and spread of exotic invasive species (annual) and identification of appropriate control measures to be implemented as part of ongoing management;
- Preparation of annual work plans and annual reports on management activities.

9.0 MONITORING REQUIREMENTS AND PERFORMANCE CRITERIA

9.1 As-built Conditions Reporting

A baseline conditions report will be prepared and submitted to all agencies along with a letter of notification regarding the final transfer of property.

9.2 Initial Mitigation Monitoring Activities and Performance Criteria

The purpose of the project's mitigation monitoring program is to assess the effects of preservation activities, as well as to provide guidance for habitat management in the event of negative environmental stressors that may affect ecosystem function.

Mitigation activities at Desert Cahuilla consist of preservation of existing habitat. Due to the remote location of the site, any threats to watershed health will be mapped during site visits conducted for future management. Initial management tasks (Years 1 to 5) to be conducted by the land manager include installation of signage and maintenance, installation of fencing, assessment of desert dry wash and scrub conditions (including mapping of non-native, invasive plant species and problem areas for control), decommissioning an existing road on the parcel, and preparation of annual work plans and reports on management activities.

Monitoring at the mitigation site would be for a minimum 5-year period, with Year 1 beginning following the completion of preservation agreements between SDG&E and the long-term land manager. Monitoring (as part of management activities) would continue until the site has met all performance criteria *and* all regulatory agencies have agreed in writing that the site has met performance criteria and is ready for transfer to the long-term manager. Monitoring methods are described below.

9.2.1 Monitoring of Desert Dry Washes

Purpose: Monitoring of the overall biotic health of dry desert washes on the mitigation site to provide information for management purposes.

Timing: Spring following Years 1 and 5 of monitoring.

Methods: Any threats to the watershed health will be documented during management site visits. The final maps of the threat and proposed adaptive management to eliminate the threat will be reported in the annual monitoring report in Years 1 and 5.

Performance Criteria: Total acreage of desert dry washes at the site may change under natural conditions during the course of the monitoring period. Such fluctuation may occur at the site as a natural process, and may result in an increase or a decrease in the total size and configuration of desert dry washes. If anthropogenic activities are determined to have resulted in a decrease in total acres of desert dry washes during monitoring, appropriate management actions will be undertaken to address these issues and restore natural site hydrology.

9.3 Monitoring Schedule and Reporting Requirements

Monitoring at this mitigation site will be completed during the late spring or early summer of each monitoring year. A mitigation monitoring report will be prepared for the mitigation site to enable clear communication to the land manager at this location. The final maps of the threat and proposed adaptive management to eliminate the threat will be reported in the annual monitoring report in Years 1 and 5. The report will be submitted to the Corps, CDFG, and SWRCB by December 31 of each monitoring year.

10.0 LONG-TERM MANAGEMENT PLAN

Long-term management for the Desert Cahuilla Mitigation Site is described in the HAP/HMP (SDG&E 2010) for the SRPL Project and is to be funded by a long-term endowment based on a PAR. The timing for development of the long-term management plan is detailed in Conservation Measure G-CM-17 of the Biological Opinion (USFWS 2010):

(b) SDG&E will fully fund an endowment for in-perpetuity management of all parcels acquired in (c) within 3 months of the Wildlife Agencies' approval of the final endowment amounts.

(c) Unless otherwise authorized by the Wildlife Agencies, no later than 18 months from the date of the revised 2010 Biological and Conference Opinion, SDG&E will acquire and permanently preserve the nine (9) parcels identified in the September 2010 HAP/HMP (referenced by name as Nabi, Lakeside Ranch, Hamlet, El Capitan, Chocolate Canyon, Lightner, Long Potrero, Suckle, and Desert Cahuilla) in a manner consistent with the HAP/HMP (SDG&E 2010) and the following provisions:

- The land-owner, land management entity, conservation easement grantee, and endowment fund manager for each property will be approved by the Wildlife Agencies. SDG&E will coordinate efforts with the Wildlife Agencies to identify potential candidates and review their qualifications to hold and manage lands and/or endowment funds. This task will be completed within 6 months of issuance of the 2010 revised Biological and Conference Opinion.*
- SDG&E will conduct a revised PAR or PAR-like analysis for each property once the land management entity for individual properties has been identified and approved by the Wildlife Agencies. This revised PAR will be used to determine the final endowment amount SDG&E will provide for in-perpetuity habitat management of each property.*

- *Conservation easement language, or its equivalent where an easement is not allowed by the land manager (State Parks; ABDSP), for all properties will be approved by the Wildlife Agencies prior to easement recordation; and*
- *SDG&E will complete the required acquisition, protection, and transfer of all properties and record the required conservation easements in favor of DFG, or other entity approved by the Wildlife Agencies, no later than 18 months after the start of the ground- or vegetation-disturbing activities.*

The PAR results for all land management activities including those necessary to maintain the wetlands and streams within the mitigation site are included in the HAP/HMP (SDG&E 2010). The PAR provides the basis for long-term funding determinations. A preliminary summary of the conveyance, land use restrictions, and funding is provided in Table 12. A summary of the preliminary long-term endowment costs for the Desert Cahuilla Mitigation Site is provided in Table 13.

10.1 Parties Responsible for Long-Term Management

The Desert Cahuilla Mitigation Site will likely be conveyed to the State Parks; however, a final decision will not be made until the resource agencies consider and approve a long-term management entity. The entity responsible for long-term management will be identified according to the schedule provided above.

10.2 Incorporation with Habitat Mitigation Plan for the Desert Cahuilla Mitigation Site

Long-term management of waters in the Desert Cahuilla Mitigation Site is fully incorporated with the long-term maintenance and monitoring described in the HAP/HMP (SDG&E 2010).

Table 12. Summary of elements of Long-Term Management for the Suckle Mitigation Site. Details provided in the HAP/HMP and BO.

Land Use Restrictions	Par Analysis	Funding for Long-term Maintenance
Entire mitigation site would be managed for conservation purposes, with emphasis on dry washes and other sensitive biological resources (including PBS). Restricted access.	PAR Analysis provided in Sept. 2010 HAP/HMP (SDG&E). Funding for Endowment provided 3 months after revised PAR and land management entity selected by Resource Agencies, SWRCB, and Corps. Final easements and property ownership conveyed to management entity no later than 18 months after ground disturbance activities.	SDG&E will provide funding for perpetual management of the mitigation site; long-term costs estimated based on a PAR analysis of property maintenance and management of biological resources approved by Resource Agencies. Long-term management would include control of non-native species, habitat and species monitoring, access control, and related measures. SDG&E will provide copies of the management plans that identify how access will be controlled.

Table 13. Long-term Endowment Costs for the Desert Cahuilla Mitigation Site.

Endowment Total	Yearly Average Cost: First 5 Years
\$1,000,000	N/A

10.3 Activities Included in Long-Term Management

Long-term management activities are similar to maintenance activities described in the HAP/HMP (SDG&E 2010) and are summarized above in Section 8.2. These activities include:

- Maintenance and replacement of signage and fencing (as needed).
- Periodic habitat assessments and mapping updates (every 5 years).
- Invasive plant species monitoring (every 2 years).
- Implementation of invasive plant species control measures (where needed, as determined by monitoring task and within limits of available funding).
- Preparation of annual work plans and annual reports on management activities.

Complete descriptions of these activities are included in the HAP/HMP (SDG&E 2010).

11.0 ADAPTIVE MANAGEMENT PLAN

SDG&E will be the responsible party for implementation of management activities during the initial monitoring period. Specific maintenance and management activities will be identified based on the results of each annual monitoring visit. Maintenance and monitoring recommendations will be developed by September 15 of each year to allow time for planning and mobilization of work crews prior to the rainy season. Maintenance activities that involve work in waters will be conducted prior to the onset of winter rains. Other maintenance activities will be conducted prior to annual monitoring visits in the year following the recommendation.

As part of each monitoring report, maintenance and management activities implemented during the previous year will be described and the results will be evaluated under the framework of adaptive management. If management and maintenance methods are not successful in addressing negative environmental stressors identified as part of monitoring reports, the methods will be examined and altered to increase the potential for success based on best professional judgment and management methods that are shown to be successful based on scientific research. In some cases, success of management and maintenance activities may not be evident over the course of only 1 year. This will be accounted for within monitoring reports that evaluate the success of management actions towards the ultimate mitigation goal. In these cases, it may be necessary to wait 2 years or more before altering methods as part of an adaptive management strategy. Each monitoring report will contain a section dedicated to evaluation of management and maintenance actions as part of the adaptive management strategy.

11.1 Incorporation within Habitat Mitigation Plan for the Desert Cahuilla Mitigation Site

The principles of adaptive management are fully incorporated into the implementation, monitoring, maintenance, and long-term management of the Desert Cahuilla Mitigation Site described in the Final HMMP.

11.2 Natural Occurrences

Remedial actions will be carried out during the initial monitoring period if habitat quality is reduced due to the occurrence of a natural disaster. Remedial actions will also be carried out during long-term management if habitat quality is reduced due to management activities. These actions are described in the HAP/HMP (SDG&E 2010) and summarized in the following section.

11.3 Potential Remedial Actions

Habitat remediation consists of minor restoration of habitat resulting from negative anthropogenic effects (e.g. unauthorized access); it is not considered ecological habitat restoration or creation. This task may include weed removal. Habitat remediation is included during the initial monitoring (start-up) period for this mitigation site and is also an integral part of the habitat management in perpetuity.

12.0 FINANCIAL ASSURANCES

12.1 Estimated Costs for Mitigation Measures

12.1.1 Land acquisition

SDG&E will provide a total of \$2 million towards the acquisition of all nine parcels associated with the Desert Cahuilla transaction. No cost estimate is available for the individual mitigation parcel associated with this HMMP.

12.1.2 Plan Implementation

Implementation costs for the HMMP are estimated to be \$125,000, as shown in Table 14 below. Implementation tasks include finalizing all activities associated with the transfer of Desert Cahuilla mitigation site to the long-term land manager.

12.1.3 Monitoring and Maintenance for Performance Period

Monitoring costs for the HMMP are estimated to be \$20,446, as shown in Table 14 below. These costs represent the first 5 years of monitoring. In addition, maintenance costs from the HAP/HMP are estimated to be \$10,223 for the first 5 years.

12.1.4 Long-Term Maintenance

A long-term endowment of \$1 million, as shown in Table 14 below, will be set in place for the management of the Desert Cahuilla Mitigation Site in perpetuity. This endowment estimate is based on the amount of money needed to generate, on an annual basis, the annual maintenance costs (assuming a 5 percent return on the money and 3 percent inflation).

12.1.5 Remediation

Remediation costs are combined with maintenance costs in Table 14 below. Remediation efforts may include weed removal.

Table 14. Desert Cahuilla Mitigation Costs

	Cost
First 5 Years	
Land Acquisition Costs	\$2,000,000
Implementation Costs for HMMP	\$125,000
5-year Monitoring Costs for HMMP	\$20,446
Maintenance/Remediation	\$10,223
In Perpetuity	
Long-term Endowment Costs	\$1,000,000

12.2 Form of the Letter of Credit

Financial assurance during the initial monitoring period will be guaranteed by SDG&E through issuance of a Letter of Credit. The dollar amount of the Letter of Credit will be based on the estimated cost of mitigation implementation to be determined upon acceptance of the mitigation plan by resource agencies and is subject to final approval by the Corps. The final dollar amount will be provided by SDG&E under separate cover upon issuance of project permits.

13.0 REFERENCES

- Aspen Environmental Group. October 2008. Final Environmental Impact Report/Environmental Impact Statement and Proposed Land Use Amendment. San Diego Gas & Electric Company Application for the Sunrise Powerlink Project. SCH #2006091071. DOI Control No. FES-08-54. Prepared for the California Public Utilities Commission and U.S. Department of Interior Bureau of Land Management.
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- WRA, Inc. 2010b. Conceptual Habitat Mitigation and Monitoring Plan. Prepared for SDG&E.

Appendix A. All CRAM Scores Collected for the Sunrise Powerlink Project

Appendix A. All CRAM Scores Collected for the Sunrise Powerlink Project.*

CRAM ID	Category	OVERALL CRAM SCORE		Buffer and Landscape Context										Hydrology							
				Landscape Connectivity		% of AA with Buffer		Average Buffer Width		Buffer Condition		Attribute Score (Final %)		Water Source		Hydro-period/Channel Stability		Hydrologic Connectivity		Attribute Score (Final %)	
Existing/Projected		E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P		
5-DW-7	DDW	62.2%	58.4%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	12	9	3	3	75.0%	66.7%
5-DW-8	DDW	71.5%	67.8%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	12	9	9	9	91.7%	83.3%
7-DW-10	DDW	64.0%	62.0%	12	12	12	12	12	12	9	6	93.3%	85.4%	12	12	9	9	12	12	91.7%	91.7%
8-DW-2	DDW	65.3%	65.3%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	9	9	12	12	91.7%	91.7%
9-DW-9	DDW	71.2%	69.2%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	12	9	12	12	100.0%	91.7%
10-DW-1	DDW	72.7%	72.7%	12	12	12	12	12	12	6	6	85.4%	85.4%	12	12	9	9	12	12	91.7%	91.7%
11-DW-1	DDW	62.0%	62.0%	12	12	12	12	12	12	6	6	85.4%	85.4%	12	12	9	9	12	12	91.7%	91.7%
13-DW-15	DDW	65.3%	63.3%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	12	9	6	6	83.3%	75.0%
14-DW-12	DDW	69.1%	65.3%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	12	9	12	12	100.0%	91.7%
15-DW-1	DDW	68.8%	68.8%	12	12	12	12	12	12	12	12	100.0%	100.0%	12	12	9	9	9	9	83.3%	83.3%
15-DW-8	DDW	71.2%	67.4%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	12	9	12	12	100.0%	91.7%
16-DW-11	DDW	68.6%	68.6%	12	12	12	12	12	12	6	6	85.4%	85.4%	12	12	9	9	12	12	91.7%	91.7%
17-DW-2	DDW	71.2%	71.2%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	9	9	12	12	91.7%	91.7%
17-DW-7	DDW	63.3%	61.2%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	12	9	6	6	83.3%	75.0%
35-S-2	ME	67.4%	67.4%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	9	9	6	6	75.0%	75.0%
35-S-4	ME	70.5%	70.5%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	9	9	12	12	91.7%	91.7%
53-S-8	ME	78.5%	74.7%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	12	9	12	12	100.0%	91.7%
54-S-10	ME	63.6%	63.6%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	6	6	3	3	58.3%	58.3%
62-S-12	ME	80.2%	80.2%	12	12	12	12	12	12	12	12	100.0%	100.0%	12	12	9	9	9	9	83.3%	83.3%
79-S-1	ME	83.4%	81.3%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	12	9	12	12	100.0%	91.7%
82-S-1	I	83.3%	79.6%	12	12	12	12	12	12	9	9	100.0%	93.3%	12	12	12	9	12	12	100.0%	91.7%
92-S-4	ME	72.6%	70.9%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	9	9	9	9	83.3%	83.3%
92-S-6	ME	82.6%	78.9%	12	12	12	12	12	12	12	9	100.0%	93.3%	12	12	12	9	12	12	100.0%	91.7%
107-S-2	ME	72.3%	68.2%	12	12	12	12	12	12	9	6	93.3%	85.4%	12	12	12	9	12	12	100.0%	91.7%
107-S-3	ME	67.8%	65.8%	12	12	12	12	12	12	9	6	93.3%	85.4%	12	12	9	9	3	3	66.7%	66.7%
109-S-1	I	87.8%	49.1%	12	3	12	6	12	9	12	9	100.0%	46.4%	12	6	9	3	12	6	91.7%	41.7%
111-S-9	I, W	82.0%	79.9%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	12	9	3	3	75.0%	66.7%
112-S-2	I, W	80.4%	78.4%	12	12	12	12	9	6	6	6	82.9%	82.9%	12	12	12	9	12	12	100.0%	91.7%
117-S-1	P	81.0%	81.0%	3	3	12	12	12	12	9	9	55.8%	55.8%	9	9	9	9	12	12	83.3%	83.3%
130-S-1	ME	69.2%	67.1%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	12	9	6	6	83.3%	75.0%
L-S-10	I	88.3%	95.8%	12	12	12	12	12	12	9	12	93.3%	100.0%	6	9	12	12	12	12	83.3%	91.7%
L-S-1	I	78.5%	80.2%	12	12	12	12	12	12	9	12	93.3%	100.0%	12	12	12	12	12	12	100.0%	100.0%
L-W-2	W	65.0%	69.2%	3	3	12	12	12	12	9	9	55.8%	55.8%	12	12	12	12	12	12	100.0%	100.0%
LP-S-12	I	70.5%	71.2%	12	12	12	12	12	12	9	9	93.3%	93.3%	12	12	9	9	12	12	91.7%	91.7%
LP-W-4**	W	59.4%	61.8%	3	3	12	12	12	12	9	12	55.8%	62.5%	12	12	10.5	10.5	12	12	95.8%	95.8%
S-DW-1	DDW	68.1%	71.2%	12	12	12	12	12	12	9	12	93.3%	100.0%	12	12	9	9	12	12	91.7%	91.7%
117-S-1	P	81.0%	81.7%	3	3	12	12	12	12	9	9	55.8%	55.8%	9	9	9	9	12	12	83.3%	83.3%

Impact AA
Mitigation AA

Key to Categories

DDW = Desert Dry Wash; ME = Mountain Ephemeral Stream; I = Intermittent Stream; P = Perennial Stream; W = Corps Wetland.

* Note: The data table in Appendix A was originally included in Appendix B of the Conceptual HMMP (WRA 2010b), titled "Table B-1."

** The CRAM score reported for depressional wetland (proposed mitigation site) LP-W-4 is the average of two CRAM assessments done on the same feature. This approach was requested by staff from the US Army Corps of Engineers.

Appendix A. All CRAM Scores Collected for the Sunrise Powerlink Project.*

CRAM ID	Category	OVERALL CRAM SCORE		Physical Structure						Biotic Structure											
				Structural Patch Richness		Topo-graphic Complexity		Attribute Score (Final %)		Number of Plant Layers		Number of Co-dominant Species		Percent Invasion		Horizontal Inter-spersion/ Zonation		Vertical Biotic Structure		Attribute Score (Final %)	
				E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
Existing/Projected		E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
5-DW-7	DDW	62.2%	58.4%	3	3	6	6	37.5%	37.5%	6	6	3	3	12	12	3	3	3	3	36.1%	36.1%
5-DW-8	DDW	71.5%	67.8%	6	6	6	6	50.0%	50.0%	6	6	3	3	12	12	6	6	3	3	44.4%	44.4%
7-DW-10	DDW	64.0%	62.0%	3	3	6	6	37.5%	37.5%	6	6	3	3	9	9	3	3	3	3	33.3%	33.3%
8-DW-2	DDW	65.3%	65.3%	3	3	6	6	37.5%	37.5%	6	6	3	3	6	6	6	6	3	3	38.9%	38.9%
9-DW-9	DDW	71.2%	69.2%	6	6	6	6	50.0%	50.0%	6	6	6	6	6	6	6	6	3	3	41.7%	41.7%
10-DW-1	DDW	72.7%	72.7%	6	6	6	6	50.0%	50.0%	6	6	9	9	9	9	9	9	6	6	63.9%	63.9%
11-DW-1	DDW	62.0%	62.0%	3	3	6	6	37.5%	37.5%	6	6	3	3	9	9	3	3	3	3	33.3%	33.3%
13-DW-15	DDW	65.3%	63.3%	3	3	6	6	37.5%	37.5%	6	6	6	6	12	12	6	6	3	3	47.2%	47.2%
14-DW-12	DDW	69.1%	65.3%	3	3	6	6	37.5%	37.5%	6	6	6	6	12	12	3	3	3	3	38.9%	38.9%
15-DW-1	DDW	68.8%	68.8%	6	6	6	6	50.0%	50.0%	6	6	9	9	12	12	3	3	3	3	41.7%	41.7%
15-DW-8	DDW	71.2%	67.4%	3	3	6	6	37.5%	37.5%	6	6	6	6	12	12	6	6	3	3	47.2%	47.2%
16-DW-11	DDW	68.6%	68.6%	6	6	6	6	50.0%	50.0%	6	6	6	6	12	12	6	6	3	3	47.2%	47.2%
17-DW-2	DDW	71.2%	71.2%	6	6	6	6	50.0%	50.0%	9	9	6	6	12	12	6	6	3	3	50.0%	50.0%
17-DW-7	DDW	63.3%	61.2%	3	3	6	6	37.5%	37.5%	6	6	6	6	12	12	3	3	3	3	38.9%	38.9%
35-S-2	ME	67.4%	67.4%	3	3	6	6	37.5%	37.5%	9	9	6	6	9	9	9	9	6	6	63.9%	63.9%
35-S-4	ME	70.5%	70.5%	6	6	6	6	50.0%	50.0%	6	6	3	3	6	6	6	6	6	6	47.2%	47.2%
53-S-8	ME	78.5%	74.7%	6	6	6	6	50.0%	50.0%	9	9	6	6	9	9	9	9	6	6	63.9%	63.9%
54-S-10	ME	63.6%	63.6%	3	3	3	3	25.0%	25.0%	9	9	9	9	12	12	9	9	9	9	77.8%	77.8%
62-S-12	ME	80.2%	80.2%	9	9	6	6	62.5%	62.5%	9	9	6	6	12	12	9	9	9	9	75.0%	75.0%
79-S-1	ME	83.4%	81.3%	6	6	9	9	62.5%	62.5%	12	12	9	9	9	9	9	9	9	9	77.8%	77.8%
82-S-1	I	83.3%	79.6%	6	6	6	6	50.0%	50.0%	12	12	12	12	12	12	9	9	9	9	83.3%	83.3%
92-S-4	ME	72.6%	70.9%	3	3	6	6	37.5%	37.5%	9	9	9	9	12	12	9	9	6	6	69.4%	69.4%
92-S-6	ME	82.6%	78.9%	6	6	6	6	50.0%	50.0%	9	9	12	12	12	12	9	9	9	9	80.6%	80.6%
107-S-2	ME	72.3%	68.2%	3	3	6	6	37.5%	37.5%	12	12	9	9	6	6	6	6	6	6	58.3%	58.3%
107-S-3	ME	67.8%	65.8%	6	6	6	6	50.0%	50.0%	12	12	9	9	9	9	6	6	6	6	61.1%	61.1%
109-S-1	I	87.8%	49.1%	9	3	6	3	62.5%	25.0%	12	9	12	9	9	9	12	9	12	12	97.2%	83.3%
111-S-9	I, W	82.0%	79.9%	9	9	6	6	62.5%	62.5%	12	12	12	12	9	9	12	12	12	12	97.2%	97.2%
112-S-2	I, W	80.4%	78.4%	6	6	6	6	50.0%	50.0%	12	12	6	6	6	6	12	12	12	12	88.9%	88.9%
117-S-1	P	81.0%	81.0%	12	12	9	9	87.5%	87.5%	12	12	12	12	9	9	12	12	12	12	97.2%	97.2%
130-S-1	ME	69.2%	67.1%	3	3	9	9	50.0%	50.0%	6	6	6	6	6	6	6	6	6	6	50.0%	50.0%
L-S-10	I	81.3%	85.1%	9	9	6	6	62.5%	62.5%	12	12	9	9	9	9	9	9	12	12	86.1%	86.1%
L-S-1	I	78.5%	80.2%	3	3	6	6	37.5%	37.5%	12	12	6	6	9	9	9	9	12	12	83.3%	83.3%
L-W-2	W	65.0%	69.2%	6	6	3	3	37.5%	37.5%	6	9	3	6	9	12	6	9	12	12	66.7%	83.3%
LP-S-12	I	70.5%	71.2%	6	6	6	6	50.0%	50.0%	9	9	6	6	9	12	6	6	3	3	47.2%	50.0%
LP-W-4**	W	59.4%	61.8%	3	3	6	6	37.5%	37.5%	7.5	7.5	3	3	6	9	6	6	6	6	48.6%	51.4%
S-DW-1	DDW	68.1%	71.2%	3	3	6	6	37.5%	37.5%	9	9	6	6	3	9	6	6	6	6	50.0%	55.6%
117-S-1	P	81.0%	81.7%	12	12	9	9	87.5%	87.5%	12	12	12	12	9	12	12	12	12	12	97.2%	100.0%

Impact AA
Mitigation AA

Key to Categories

DDW = Desert Dry Wash; ME = Mountain Ephemeral Stream; I = Intermittent Stream; P = Perennial Stream; W = Corps Wetland.

* Note: The data table in Appendix A was originally included in Appendix B of the Conceptual HMMP (WRA 2010b), titled "Table B-1."

** The CRAM score reported for depressional wetland (proposed mitigation site) LP-W-4 is the average of two CRAM assessments done on the same feature. This approach was requested by staff from the US Army Corps of Engineers.