DRAFT

Proposed Strategies for Habitat Conservation Plan Development

June 1, 2017

Monterey County Water Resources Agency

Contents

List of Acronyms

ACRONYM	DEFINITION
BO	Biological Opinion
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DPS	Distinct Population Segment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act of 1973
ESU	Evolutionary Significant Unit
FR	Federal Register
HCP	Habitat Conservation Plan
ILT	Interlake Tunnel Project
MCWRA	Monterey County Water Resources Agency
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OSR	Old Salinas River
SCCCS	South-Central California Coast Steelhead
SMP	Salinas River Stream Maintenance Program
SRDF	Salinas River Diversion Facility
SVWP	Salinas Valley Water Project
USACE	United States Army Corps of Engineers
USC	United State Code
USFW	United State Fish and Wildlife Service

1. Introduction

The Monterey County Water Resources Agency (Agency) operates and maintains the Nacimiento Reservoir and associated hydroelectric power plant on the Nacimiento River, the San Antonio Reservoir on the San Antonio River, the Salinas River Diversion Facility (SRDF) on the Salinas River, a slide gate between the Salinas River Lagoon and the Old Salinas River (OSR) channel and tide gates on the OSR and Moro Cojo Slough. Also, sandbar management activities are periodically performed on the beach between the Salinas River Lagoon and the Pacific Ocean (Figure 1). The facilities are located in areas where threatened and/or endangered species listed under the federal Endangered Species Act of 1973 (ESA) may be present.

Section 9 of the ESA prohibits "take" of any fish or wildlife species listed under the ESA unless otherwise specifically authorized by regulation. The definition of "take" means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" The word "harm" within the definition of "take" is defined to include any act which actually kills or injures fish or wildlife including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish and wildlife (Federal Register, 1999). The ESA also requires "consultation" with the appropriate ESA implementing agency, U.S. Fish and Wildlife Service (USFW) and/or National Marine Fisheries Service (NMFS), for activities that could result in "take" of a listed or candidate species.

This paper examines the Agency's facilities and operations as well as current and future known projects and identifies strategies for maintaining compliance with the ESA into the future.

2. Background

The Agency was formed under Chapter 699 of the Statutes of 1947 as the Monterey County Flood Control and Water Conservation District. In 1990, the District was renamed the Monterey County Water Resources Agency and its mandate includes control of flood and storm waters, conservation of such waters through percolation and storage, monitoring of groundwater extraction, reclamation of water and the construction and operation of hydroelectric facilities. The Agency has several facilities in the Salinas River that the operations and maintenance of may affect species listed under the ESA and therefore necessitate the need for "take" coverage for under the ESA.

A. Current Facilities in the Salinas River Watershed

The Agency owns and operates Nacimiento and San Antonio dams. The reservoirs are managed for the combined goals of flood protection, water conservation, Salinas Valley Water Project (SVWP) operation, and recreation. These reservoirs are located in the Salinas River Basin, northwest of Paso Robles, California. The Nacimiento and San Antonio watersheds are situated along the boundaries of Monterey and San Luis Obispo Counties.

Figure 1. Selected Agency Facilities and Operations Locations

1. The Nacimiento Dam was completed in 1957, has a maximum storage capacity of 377,900 acre-feet, is 18 miles long and has about 165 miles of shoreline. A 4-mega-watt hydroelectric power plant is constructed at the right abutment of the dam.

2. San Antonio Dam was completed in 1967, has a maximum storage capacity of 335,000 acre-feet, is 16 miles long and has approximately 100 miles of shoreline.

3. The SRDF is a component of the SVWP and was constructed in 2010 to provide treated (filtered and chlorinated) Salinas River water for agricultural irrigation with the purpose of reducing the need to pump groundwater except in periods of extremely high demand. The SRDF is located approximately 4.8 river miles upstream from the mouth of the Salinas River.

4. The slide gate where the Salinas River Lagoon discharges into the OSR is located in the northern portion of the lagoon and is operated to regulate lagoon water levels when the sandbar at the mouth of the river is "closed". This slide gate controls flow from the Salinas River to the Pacific Ocean through the OSR.

5. The Potrero Tide Gates are located on the OSR downstream of the confluence with the Tembladero Slough on the access road to the Salinas River State Beach. The gates prevent tidal waters from moving further upstream and inundating farm land. The current structure was installed in the early 1980s (Schaff & Wheeler, 2000).

6. The current Moro Cojo Tide Gates were installed in 1988 under Moss Landing Road to prevent tidal flooding of residential and agricultural lands. (The Habitat Restoration Group, 1996)

B. Other Agency Projects in the Salinas Watershed

1. Sandbar Management at Salinas River Lagoon

   The Agency conducts mechanical breaching of the sandbar at the mouth of the Salinas River Lagoon during emergency situations to alleviate flooding by excavating a pilot channel between the beach berm and the lagoon area. The features of the pilot channel are designed to mimic a naturally occurring event and to encourage channel sinuosity. A natural sand channel is left in place between the lagoon and the ocean so that as the water elevation in the lagoon rises, the water naturally flows into the pilot channel. The USACE has determined that the current practice of breaching the sandbar is outside its jurisdiction and therefore has no federal nexus.

2. Salinas River Stream Maintenance Program

   The Salinas River Stream Maintenance Program (SMP) is a fully permitted program that allows maintenance activities within designated areas of the Salinas River. The maintenance activities include native vegetation management, removal and retreatment of non-native vegetation (e.g., arundo), sand/sediment grading and removal. The SMP has a clear federal nexus and is permitted for five years with the potential for renewal for an additional five years which provides ESA compliance through the year 2025. After 2025 this program will most likely continue to have a federal nexus and will be permittable under Section 7 of the ESA.

C. Proposed Facilities in the Salinas Watershed

1. The Interlake Tunnel and Spillway Modification Project (ILT) is a proposed tunnel approximately 2.0 miles long that will extend from Nacimiento Reservoir into San

Antonio Reservoir. The tunnel will allow water from Nacimiento to gravity flow into San Antonio and is anticipated being completed in 2019 (MCWRA, 2014).

2. The Pure Water Monterey Groundwater Replenishment Project is a water supply project that will serve northern Monterey County, by collecting a variety of new source waters and conveying that water to the Regional Wastewater Treatment Plant for treatment and recycling. The new source waters include the following: 1) water from the City of Salinas agricultural wash water system, 2) stormwater flows from the southern part of Salinas, 3) surface water and agricultural tile drain water that is captured in the Reclamation Ditch, and 4) surface water and agricultural tile drain water that flows in the Blanco Drain. The Agency obtained the water rights for items 3 and 4 (Denise Duffy and Assoc. 2016).

Steelhead in the Salinas Watershed

The following is excerpted from the 2013 *South-Central California Coast Steelhead Recovery Plan* (NMFS, 2013):

> Steelhead are the anadromous, or ocean-going form of the fish species *Oncorhynchus mykiss* and historically were the only abundant salmonid species that occurred naturally within the coast ranges of South-Central California. Following World War II associated land and water development (particularly dams and water diversions) steelhead abundance rapidly declined, leaving only sporadic and remnant populations in highly modified watersheds such as the Salinas River.
>
> NMFS proposed listing the South-Central California Coast Steelhead (SCCCS) populations in the ESA as a threatened Evolutionary Significant Unit (ESU) on August 9, 1996. The SCCCS ESU was formally listed as threatened on August 19, 1997. Since then the ESU designation has been replaced by the Distinct Population Segment (DPS) designation and a final listing determination for the threatened SCCCS DPS was issued on January 5, 2006.
>
> The ESA requires NMFS to designate critical habitat for all listed species. Critical habitat is defined as specific areas where physical or biological features essential to the conservation (recovery) of the species exist and may require special management considerations or protection. The final critical habitat designation for SCCCS DPS was issued on September 2, 2005 and included 1,240 miles of stream habitat and three square miles of estuarine habitat. The Salinas River and lagoon, most of the OSR, the San Antonio River and the Nacimiento River are all included in this designation.

SVWP and ESA Compliance

In 2002, the Agency certified the Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for the SVWP and applied to the United States Army Corps of Engineers (USACE) for a permit under Section 404 of the Clean Water Act (CWA). The USACE permit (No. 24976S) was for authorization to discharge "approximately 1.2 acres of fill to construct a

seasonal diversion dam in the Salinas River", i.e. the SRDF (USACE, 2007). When a project requires a permit under the CWA, the USACE is the federal agency required by section 7(a)(2) of the ESA to consult with the appropriate Service. As a result of the SVWP permit application, the USACE, San Francisco District initiated formal consultation with both NMFS and USFWS[1].

Consultation with NMFS resulted in the Agency preparing the Salinas Valley Water Project Flow Prescription for Steelhead Trout (Flow Prescription) in 2005 (MCWRA, 2005). The Flow Prescription defines flow requirements and operational targets for managing SCCC steelhead trout in the Salinas River.

The Flow Prescription was incorporated into the NMFS Biological Opinion (BO) for the SVWP (NMFS, 2007) as a stand-alone document, which may be modified upon mutual agreement between the Agency and NMFS.

USFWS (2007) also issued a "Biological Opinion on Issuance of Department of the Army Permits to the Monterey County Water Resources Agency for Construction of a Surface Water Diversion Structure in the Salinas River, Near the City of Salinas (Corps File Number 24976S) and for Breaching of the Salinas River Lagoon[2] (Corps File Number 16798S) in Monterey County, California (1806F.54)." The USFWS BO addressed the effects of the SVWP on the federally threatened California red-legged frog (*Rana aurora draytonii*) and western snowy plover (*Charadrius alexandrinus nivosus*), and the federally endangered brown pelican (*Pelecanus occidentalis*), which was removed from the ESA in 2009 (USFW, 2009). No effects or "take" of these species were anticipated from the Nacimiento spillway modifications; however, the USFWS found that construction of the SRDF and changes in flow regimes could result in effects to California red-legged frog. USFWS also found that changes in flow regimes and concomitant changes in breaching at the Salinas River Lagoon could affect western snowy plover and brown pelicans.

[1] According to NMFS (2007) "MCWRA applied to the Corps for permits for two projects in the Salinas River; the Salinas River Mouth Breaching Program and the SVWP, in 2000 and 2002, respectively. NMFS recommended to the Corps and MCWRA to batch the two projects together as one consultation to simplify the analysis of impacts to listed species. The Corps agreed to combine the two consultations, although the Corps would still issue separate permits; one for the Breaching Program and one for the SVWP. At a meeting on April 1, 2005, MCWRA agreed to that plan. In the course of completing the biological opinion for the SVWP, the issue of batching this project with the river mouth breaching program was revisited. On March 28, 2006, NMFS decided to expedite completion of the consultation for the SVWP by separating the consultations for the SVWP and the lagoon breaching activities. This is reasonable because lagoon management and breaching activities have always been identified as a separate action from the SVWP, and the two actions were originally batched solely as a matter of convenience."

[2] The proposed project activities identified in the USFWS BO included modification of the spillway at Nacimiento Reservoir, alteration of the pattern of water releases from Nacimiento and San Antonio Reservoirs, construction of an inflatable dam and surface water diversion structure in the lower Salinas River (approximately 4.8 miles upstream from the Salinas River Lagoon), and breaching of the Salinas River Lagoon to prevent flooding.

Among the general conditions included in the USACE permit was an expiration date of January 1, 2017. Therefore, "take" of the species addressed in the associated BOs could assume to expire with the terms of the USACE permit, on January 1, 2017.

Re-initiation of Consultation

In a letter to NMFS, dated August 5, 2016, the USACE, San Francisco District, Regulatory Division reinitiated ESA consultation for the SVWP, stating:

> "This letter serves to reinitiate section 7 consultation pursuant to the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. §§ 1531-1544) (33 C.F.R § 325.2(b)(5)), regarding construction activities associated with the Department of the Army Clean Water Act section 404 Permit No. 24976S for the Monterey County Water Resources Agency's Salinas Valley Water Project…
>
> With this letter the Corps is reinitiating formal consultation in accordance with 50 C.F.R. § 402.14(e) and 50 C.F.R. § 600.905(b)." (It should be noted that there has been no re-initiation of consultation with USFWS.)

Agency staff has been meeting regularly with NMFS since September 2016 to determine the content updates to be included in the new BO that is anticipated to be issued in the fall of 2017. The new BO will likely expire in 2020, leaving both the operations of the San Antonio and Naciminento reservoirs and the SVWP without "take" coverage for steelhead under the ESA.

3. Proposed Solution

The ESA outlines two major pathways for obtaining "take" coverage. These pathways are commonly known as Section 7 and Section 10.

Section 7 requires Federal agencies to consult with USFWS and/or NMFS, under section 7(a) (2) of the ESA (Section 7), on discretionary actions funded, authorized (i.e., permitted) or carried out by such agency that may affect a listed species or its designated critical habitat. This is referred to as a federal nexus. If an action has a federal nexus and may result in "take" of a listed species, NMFS and/or USFW are consulted and a BO is written by NMFS and/or USFW that contains an incidental take statement. The incidental take statement is the component of the BO that provides "take" coverage as long as the terms and conditions of the BO are being implemented.

Section 10(a) of the ESA also provides exceptions to the section 9 prohibitions on "take" of listed species for projects without a federal nexus. When a project proponent or landowner's proposed activities could result in "take" during a proposed non-federal activity (e.g., does not qualify for section 7 consultation) the ESA is still applicable and the Section 10(a)(1)(B) permit process is initiated by the non-federal project proponent. Section 10(a)(2)(A) of the ESA requires an applicant for an incidental take permit (ITP) to submit a habitat conservation plan (HCP) that specifies, among other things, the impacts that are likely to result from the taking and the measures the permit applicant will undertake to minimize and mitigate such impacts.

Activities that have a federal nexus are able to follow the path of the Section 7 process during the planning/permitting stage and in a relatively short time-frame have incidental take coverage under the ESA. Projects that do not have a federal nexus must proceed through the Section 10 path utilizing the HCP as the mechanism to obtain "take" coverage. Table 1 outlines the differences between Section 7 and Section 10.

Much of the operations and maintenance the San Antonio and Nacimiento reservoirs as well as the SRDF have no clear federal nexus. Therefore, there will be no "take" coverage for the operations and maintenance of any of these facilities after the expiration of the reissued BO for the SVWP, which is expected to be late 2020.

The ILT project will likely have a federal nexus under the CWA Section 404 for permits for the placement of dredge and/or fill materials during construction of the proposed tunnel portals and associated facilities situated in any waters of the U.S. and/or wetlands under USACE jurisdiction. It is also assumed at this time that the proposed spillway modification at San Antonio Dam could also a require CWA 404 permit. These permit requirements could result in a Section 7 consultation with NMFS and/or USFW with BO's being written, however long-term operations (> 5 years) of the ILT would likely not be covered.

Table 1. Section 7 and Section 10 Processes within the ESA

	Section 7 (Consultation)	Section 10 (HCP)
Federal vs. Non-federal	Has a federal nexus – is a federal project, is federally funded, and/or requires a federal permit	Has no federal nexus – is carried out by state, local, private entity; still requires internal USFWS/NMFS Section 7
Trigger	May affect listed species	Likely to result in "take"
Document Ownership	Biological Assessment (BA) is federal agency's document (not public)	HCP is applicant's document
NEPA EA or EIS	Prepared by the federal lead agency and subject to public review	Prepared by applicant on behalf of USFWS and/or NMFS and subject to public review
Conclusion	BO or Jeopardy Opinion	Permit issuance or denial
Result	Incidental take statement	Incidental take permit
Threshold	Project does not jeopardize continued existence of listed species; does not result in destruction or adverse modification of designated critical habitat	Minimize and mitigate to maximum extent practicable, assured funding, not appreciably reduce likelihood of survival and recovery of species in the wild, other criteria
Durability	Consultation may be reopened if project or species status changes	Permit life is set at time of issuance "No Surprises" (long term)*
Public Involvement	None during consultation (limited to National Environmental Policy Act or NEPA)	Public review of HCP as well as the NEPA document
Development Time	10-18 months depending on complexity	Undetermined: Approximately 3-5 years

	Section 7 (Consultation)	Section 10 (HCP)
"Take" Coverage	Covers only species affected by discrete project	Can cover multiple activities and species, including currently non-listed species that could become listed
"Take" Coverage Duration	Project specific and usually covers just construction (if operations do not have a federal nexus)	Long-term coverage for construction and operation, typically 20-25 years

* private landowners are assured that if "unforeseen circumstances" arise, the USFWS/NMFS will not require the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed to in the HCP
Source: Prepared with input from Dudek[3] (John Spranza, personal communication, January 13, 2017)

Table 2 identifies the Agency's current and near future facilities and activities within the Salinas Watershed and its relationship to ESA "take" coverage.

Table 2. Agency Facilities, Operations and Activities Categorized by ESA Section 7 or 10.

Activity	Federal Nexus	ESA Section 7 applicable	ESA Section 10 applicable	Federally listed Species that may be affected
Operations of San Antonio/ Nacimiento Reservoirs to 2020	Yes (covered under SVWP BO)	Yes	No	Steelhead
Operations of San Antonio/ Nacimiento Reservoirs beyond 2020	No	No	Yes	Steelhead
Maintenance of San Antonio/ Nacimiento Reservoirs	No	No	Yes	Steelhead
SRDF operations to 2020	Yes	Yes	No	Steelhead, Red-legged frog
SRDF operations beyond 2020	No	No	Yes	Steelhead, Red-legged Frog
OSR Slide Gate operation	No	No	Yes	Steelhead, Tidewater Goby
Protero Tide Gates operation	No	No	Yes	Steelhead, (may be others)

[3] John Spranza, a regulatory specialist with Dudek, is currently serving as a consultant to MCWRA on the ILT environmental team and has provided input on the anticipated ESA compliance process.

Activity	Federal Nexus	ESA Section 7 applicable	ESA Section 10 applicable	Federally listed Species that may be affected
Moro Cojo Tide Gates operation	No	No	Yes	Steelhead, tidewater goby, California brackish water snail, etc.
ILT/Spillway modification construction	Yes	Yes	No	To be determined
ILT/Spillway modification operations	No	No	Yes	To be determined
Sandbar Management	No	No	Yes	Steelhead, snowy plover, tidewater goby
SMP	Yes	Yes	No	Steelhead, tidewater goby, kit fox, least bell's vireo, Monterey spineflower, red-legged frog, CA tiger salamander, etc.
Pure Water Monterey	Yes	Yes	No	Steelhead , tidewater goby, red-legged frog

Based on the complexities and time-frame involved in developing and implementing an HCP, projects and activities that have a federal nexus should utilize the Section 7 path. Projects and activities that do not have a federal nexus should be included in an HCP for the Agency's operations and maintenance of its facilities in the Salinas River Watershed. Table 3 identifies the projects and species that should be included in an HCP for the Salinas River Watershed.

Table 3. Potential Activities for inclusion in HCP

Activity	Federal Nexus	Inclusion in HCP
Operations of San Antonio/ Nacimiento Reservoirs to 2020 (re-initiation SVWP BO)	Yes	Unlikely
Operations of San Antonio/ Nacimiento Reservoirs beyond 2020	No	Likely
Maintenance of San Antonio/ Nacimiento Dams	Infrequent	Likely
SRDF operations to 2020 (re-initiation SVWP BO)	Yes	Unlikely
SRDF operations beyond 2020	No	Likely
OSR Slide Gate operation	No	Likely
Protero Tide Gates operation	No	Uncertain

Activity	Federal Nexus	Inclusion in HCP
ILT/Spillway modification construction	Yes	Unlikely
ILT/Spillway modification operations	No	Likely
Sandbar Management	No[4]	Likely
SMP	Yes	Unlikely
Moro Cojo Tide Gates operation	No	Uncertain
Pure Water Monterey	Uncertain	Uncertain

The process for planning and developing an HCP is thoroughly described in the recently updated (2016) *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* written by USFW and NMFS. The handbook identifies four phases of HCP planning and estimates that with an idealized timeline the process will take approximately four years. The four phases are:

- Phase 1: Pre-Application
- Phase 2: Developing the HCP and Environmental Compliance Documents
- Phase 3: Processing, Making a Permitting Decision, and Issuing the Incidental Take Permit
- Phase 4: Implementing the HCP and Compliance Monitoring.

Also identified are factors that will influence how long the process takes and by extension how much it will cost. Some of the factors that will affect time and cost are:

- The size and scale of the proposed HCP, including the scope of the proposed covered activities;
- The complexity of the HCP (e.g. the number of species included, stakeholders, tribes and applicants; duration of permit, mitigation structure, funding assurances, etc.);
- The thoroughness of the phase 1 pre-planning (applicant, consultants, USFW, NMFS, etc.);
- The allocation and commitment of resources (staff and funding) by the applicant, USFW and NMFS;
- The availability of necessary data or information to make an informed decision;
- The level of uncertainty and controversy related to the HCP;
- The number and composition of stakeholders;

[4] Greg Brown, USACE, Personal Communications, January 9, 2010

- Completion of the NEPA/California Environmental Quality Act (CEQA) compliance processes;
- Other factors.

Table 4 outlines the roles and responsibilities of the various stakeholders in the HCP process along with the necessary tasks. In Task 1 the applicant (Agency) must decide whether or not to develop an HCP. If the decision is made to develop an HCP, then completion of Tasks 2 & 3 are needed to identify the plan area and species and identify covered activities, respectively. This paper is intended to provide information to assist with Tasks 2 & 3, if a decision is made to move forward with development of an HCP.

Table 4. Roles and responsibilities of various stakeholders in the HCP process.

Task	Role			
	Services	Applicant/ permittee	Consultant	Outside expert
Planning/Development of the HCP				
1) Decision to develop HCP	Support	Decide	Support	
2) Identify plan area and species	Contribute. Support. Prelim. Approval. Review	Decide	Support	
3) Identify covered activities	Contribute. Support. Prelim. Approval. Review	Decide	Support	
4) Assess "take" caused by covered activities	Contribute. Support. Prelim. Approval. Review	Decide	Support	
5) Develop biological goals and objectives	Contribute. Support. Prelim. Approval. Review	Decide	Write	Contribute Support Review
6) Identify conservation actions to meet goals and objectives	Contribute. Support. Prelim. Approval. Review	Decide	Write	Contribute Support Review
7) Develop reserve design/conservation strategy	Contribute. Support. Prelim. Approval. Review	Decide	Write	Contribute Support Review
8) Develop monitoring and adaptive management program	Contribute. Support. Prelim. Approval. Review	Decide	Write	Contribute Support Review
9) Develop funding strategy (estimate costs, assurances, etc.)	Support. Prelim. Approval. Review	Decide	Write	Write Contribute Support Review
10) Determines if the permit application is statutorily complete.	Decide	Contribute		
Implementation of the HCP				

Task	Role			
	Services	Applicant/ permittee	Consultant	Outside expert
11) Implement conservation actions	Support. Prelim. Approval. Review	Implement	Contribute. Support	Support
12) Implement the effectiveness and compliance monitoring program activities	Support. Prelim. Approval. Review	Implement	Contribute. Support	Support
13) Update understanding and models to inform future management decisions	Support. Review	Implement	Contribute. Support	Support

Source: USFWS and NMFS. 2016. Habitat Conservation Planning and Incidental Take Permit Processing Handbook. December 21, 2016.

Financing an HCP

The same factors that influence how long it takes to develop an HCP also influence the cost of planning and implementation. Decisions such as the size, scale, and the complexity (number of species, stakeholders, permit duration, etc.) all factor into the overall cost. Also, the HCP must demonstrate up front how secure funding for implementation will be obtained. A funding plan that adequately covers all of the financial needs (planning, mitigation, monitoring, etc.) for the lifetime of the HCP should be developed early in the planning process. Potential methods of funding include:

- In-lieu fees
- Fees collected per/acre/property tax assessments
- General fund (State, county, etc.)
- Voter approved bond measures
- Special assessments
- Landfill tipping fees
- Water management fees
- Infrastructure funding
- Private foundations
- Grants

4. Conclusion

The Agency has several programs, projects and facilities within the Salinas Watershed, which is occupied by several listed species and associated critical habitat.

The Agency obtained ESA coverage for the SVWP through the permitting of the construction of the SRDF and that coverage included short-term operations of the reservoirs. That permit, which is currently in re-initiation, is expected to have a 3 year permit extension and is likely to expire in 2020. This leaves the operations of the San Antonio and Nacimiento reservoirs, including the operation of the SRDF, without incidental take coverage after 2020.

The ILT project may be able to obtain incidental take coverage for construction, but that coverage will also expire in a relatively short timeframe, currently estimated to be 2020.

Therefore in order to obtain/maintain long-term ESA incidental take coverage for many of the Agency's operations, maintenance and facilities an HCP should be completed. If the HCP is limited to Agency facilities, programs and projects that lack a federal nexus and to the biological species that may be affected, developing the most cost-effect HCP in a timely manner should be the result.

Appendices

Appendix A – Authors

Elizabeth Krafft, Senior Water Resources Hydrologist, Monterey County Water Resources Agency

Laurie Warner Herson, Principal/Owner, Phenix Environmental Planning

Appendix B – References

Denise Duffy and Associates, Inc. (2016). Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project. Available at: http://purewatermonterey.org/wp/wp-content/uploads/Volume-I-Consolidated-Final-EIR-Jan-2016.pdf.

Drake, R. (2014). Interlake Tunnel Meeting with Property Owners [PowerPoint slides]. Available at: http://www.mcwra.co.monterey.ca.us/interlake_tunnel/documents/Interlake%20Tunnel%20Property%20Onwers%20Presentation%20-%20July%2014%202016.pdf

Monterey County Water Resources Agency Act, Chapter 52, California Water Code Appendix, 1990, as amended. Available at: http://www.mcwra.co.monterey.ca.us/about/documents/MCWRA%20Agency%20Act.pdf

MCWRA. 2005. Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River, October 11, 2005. Available at: http://www.mcwra.co.monterey.ca.us/salinas_valley_water_project_I/documents/2005%20FlowPrescriptionWithAppendicesAndErrata.pdf.

MCWRA. 2016. Interlake Tunnel and Spillway Modification Project Notice of Preparation/Initial Study, April 2016. Available at: http://www.mcwra.co.monterey.ca.us/interlake_tunnel/documents/Final%20MCWRA%20NOP.pdf

MCWRA and USACE. 2001. Draft Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project, SCH# 2000034007, June 2001. Available at: http://www.mcwra.co.monterey.ca.us/salinas_valley_water_project_I/documents/DEIR_EIS_2001/2001%20SVWP_DEIR_2001.pdf.

MCWRA and USACE. 2002. Final Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project, SCH# 2000034007, April 2002. Available at: http://www.mcwra.co.monterey.ca.us/salinas_valley_water_project_I/documents/Final%20EIR-EIS%20SVWP_RTC-Vol%201.pdf.

NMFS. 2013. South-Central California Coast Steelhead Recovery Plan. December, 2013. National Marine Fisheries Service, West Coast Region, Long Beach, CA. Available at: http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/south_central_southern_california/2013_scccs_recoveryplan_final.pdf

NMFS. 2007. Biological opinion for the Salinas River Diversion Facility. June 21, 2007. National Fisheries Marine Service, Southwest Region, Long Beach, CA. Available at: http://www.mcwra.co.monterey.ca.us/salinas_valley_water_project_I/documents/SVWP_Final_BO_6-21-07.pdf

Regional Water Management Group (RWMG). 2013. Integrated Regional Water Management Plan for the Greater Monterey County Region. April 2013. Available at: http://www.greatermontereyirwmp.org/documents/plan/.

Schaaf & Wheeler. 2000. Potrero Road Tide Gate Configuration and Performance Study. September 2000.

Spranza, John. 2017. Personal communication via telephone and email regarding the ILT ESA permitting process. January 13, 2017.

The Habitat Restoration Group. 1996. Moro Cojo Slough Management and Enhancement Plan Final Report. Available at: https://ccwg.mlml.calstate.edu/sites/default/files/documents/morocojosloughmanagementandenhancement20plan20finalreport1996double-sided.pdf

USACE. 2007. Permit No. 24976S. Issued November 29, 2007.

USFWS and NMFS. 1998. Consultation Handbook Procedures for Conducting Consultation and Conference Activities under Section 7 of the Endangered Species Act. March 1998. Available at: http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf.

USFW. 2009. Species Fact Sheet. Brown Pelican. Available at https://www.fws.gov/oregonfwo/Species/Data/BrownPelican/default.asp

USFWS and NMFS. 2016. Habitat Conservation Planning and Incidental Take Permit Processing Handbook. December 21, 2016. Available at: https://www.fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf.

United States Government. Endangered Species Act of 1973, as amended through the 108th Congress. 16 UCS Sections 1531-1544. Available at: http://www.nmfs.noaa.gov/pr/pdfs/laws/esa.pdf

64 FR 60727. National Marie Fisheries Service. Final Rule: Endangered and Threatened Wildlife and Plants; Definition of “Harm”. Federal Register 64: 60727-60731. November 8, 1999. Available at: https://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR&browsePath=1999%2F11%2F11-08%5C%2F2%2FNational+Oceanic+and+Atmospheric+Administration&isCollapsed=false&leafLevelBrowse=false&isDocumentResults=true&ycord=952

70 FR 52488. National Marine Fisheries Service. Final rule: Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California. Federal Register 70: 52488-52586. September 2, 2005. Available at: http://www.nmfs.noaa.gov/pr/pdfs/fr/fr70-52630.pdf.