

1.0 Introduction

The San Diego County Water Authority (Water Authority) is responsible for providing a safe, reliable water supply to the San Diego region. In order to effectively and efficiently execute its mission and to streamline environmental compliance, it is imperative that the Water Authority achieve a high degree of certainty with respect to environmental regulations and policies when conducting its activities.

At present, no single environmental issue has greater potential to impact Water Authority actions, or holds more uncertainty with respect to the implementation of those actions, than obtaining permits for project impacts to federally and/or state-listed endangered and threatened species. The San Diego region has more rare, threatened, and endangered species than any comparable land area in the continental United States, and has been identified as a major “hot spot” for biodiversity and species endangerment (Dobson et al. 1997; Myers et al. 2000). San Diego County is also a rapidly growing region. This combination of high biodiversity, large numbers of rare and unique species, and rapid growth and urbanization has led to conflicts between development and conservation.

The traditional project-by-project process for addressing listed species issues is time-consuming, costly, and potentially ineffective for the species. The project-by-project approach results in piecemeal mitigation efforts and uncoordinated conservation of scattered habitat areas. In recent years, the Water Authority has addressed as many as 16 federally and/or state-listed species during the planning, constructing, and/or maintenance of facilities. The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG), collectively referred to as the Wildlife Agencies, are working with local agencies and jurisdictions to develop and implement regional planning and conservation programs that preserve and link habitats to ensure region-wide protection of species and ecosystems. The Water Authority has determined that development of this Subregional Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP, or Plan) will result in a greater degree of project planning and implementation certainty for the Water Authority and more effective conservation for the Plan’s Covered Species. Additionally, the Plan will provide continuing support to other regional conservation plans by providing a more comprehensive approach to conservation efforts.

Under this Plan, conservation and management of Covered Species will occur under a comprehensive approach that contributes to the ongoing conservation and management efforts in San Diego County and southwestern Riverside County. This Plan addresses only Water Authority projects, which are not covered by any other plan. Mitigation for Water Authority project impacts will provide species conservation that is in addition to that provided/required by other plans. This approach ensures that conservation efforts are directed to those areas most critical to maintain ecosystem function and species

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viability. The Plan provides avoidance, minimization, and mitigation measures for the conservation of Covered Species and commits key Water Authority habitat lands for the benefit of Covered Species. Water Authority lands include the Preserve Area, Managed Mitigation Areas (MMAs), undeveloped rights-of-way, and habitat in and around facilities. These lands provide connectivity to other open space lands and supplement habitat conservation (NCCP/HCP reserve systems) in the region.

1.1 San Diego County Water Authority

This section provides background information on the Water Authority, including its history, mission, key planning documents, approach to environmental policies, and existing agreements with the Wildlife Agencies.

1.1.1 Mission and Background

The Water Authority was established following passage of the County Water Authority Act of 1943 by the California legislature. The County Water Authority Act provides for the organization, incorporation, and government of county water authorities, authorizing and empowering such authorities to acquire water and water rights, and to construct, operate and manage works and property, to incur bonded indebtedness therefore, to provide for the taxation of property therein, and the performance of certain functions relating thereto any officers of county within which any such authority may be located, to provide for addition of areas thereto, and the exclusion of areas therefrom (Stats. 1943, c., 545, p. 2090.) The County Water Authority Act describes the powers of a county water authority, including acquire by grant, purchase, bequest, devise or lease, and hold, enjoy, lease, or sell or otherwise dispose of, any real and personal property of any kind within or without the authority and within and without the state necessary or convenient to the full exercise of its powers; acquire, construct or operate, control, and use any works, facilities, and means necessary or convenient to the exercise of its powers, both within and without the authority, and within and without the state, and perform all things necessary or convenient to the full exercise of the powers granted in this act. The authority to exercise the power of eminent domain to take any property necessary to carrying out the powers granted is in the County Water Authority Act.

The County Water Authority Act allows county water authorities to utilize any of their waters, and works, facilities, improvements, and property used for the development, storage, or transportation of water, to provide, generate, and deliver hydroelectric power, and may acquire, construct, operate, and maintain any and all works, facilities, improvements, and property necessary or convenient for that utilization.

Furthermore, the County Water Authority Act allows for the following: “an authority located within San Diego County may acquire, construct, own, operate, control, or use,

within or without, or partially within or partially without, its territory, works or parts of works for supplying its member public agencies, or some of them, with gas or electricity, or both gas and electricity, and may do all things necessary or convenient to the full exercise of these powers.”

The Water Authority provides the imported water supply to San Diego County. Historically, residences and businesses relied on local water supplies to meet their needs. Increased water demands for World War II military and civilian activities in the county led to passage of the County Water Authority Act and the formation of the Water Authority as a regional entity to seek ways to supplement local water supplies. The Water Authority became a member agency of the Metropolitan Water District of Southern California (MWD) in 1946 to gain access to Colorado River water. The Water Authority continues to purchase imported water from MWD today, with water deliveries from the Colorado River and the Sacramento-San Joaquin River Delta area in Northern California.

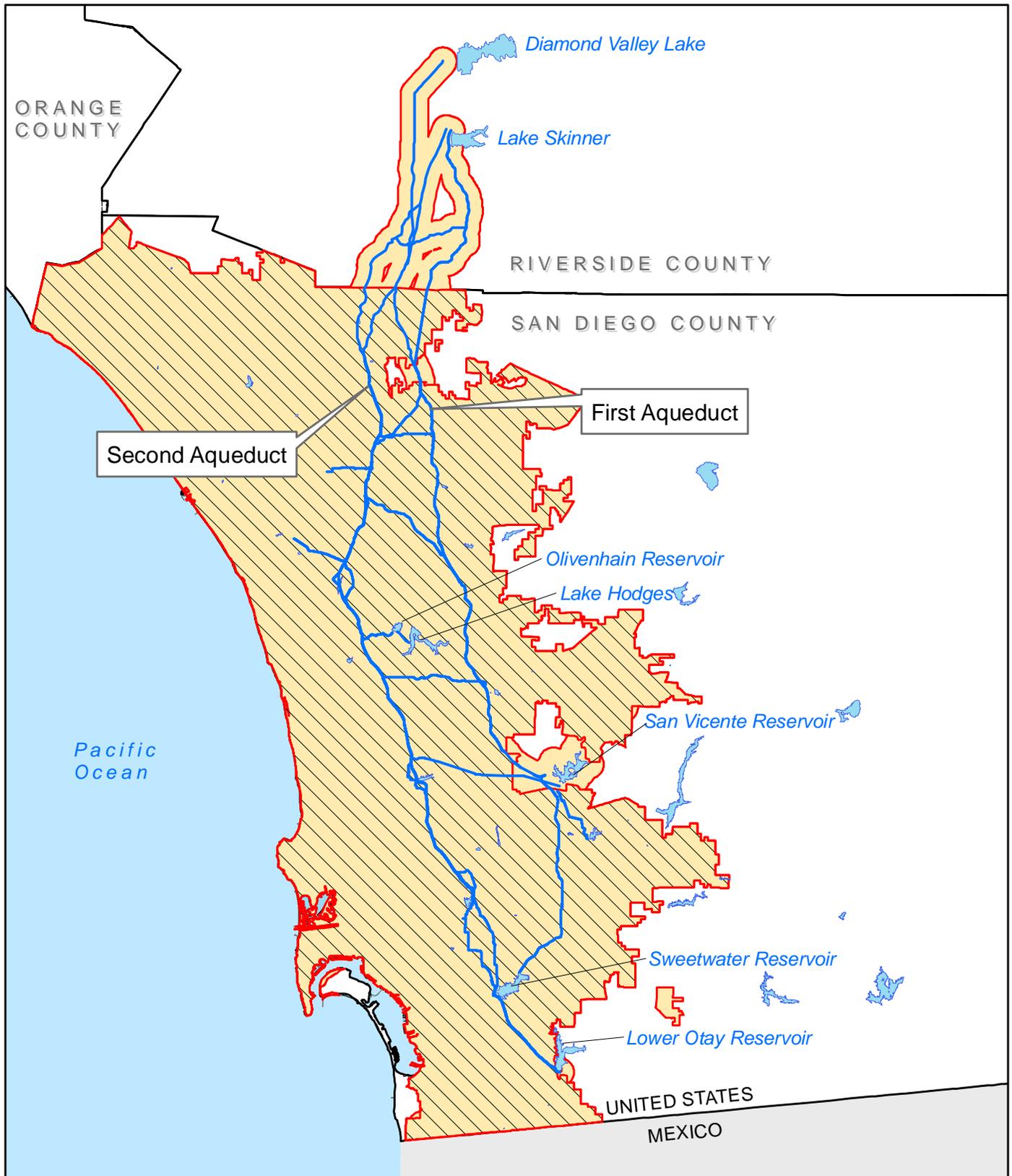
The mission of the Water Authority is to provide a safe and reliable supply of water to approximately three million people who live and work in the San Diego region. To accomplish this mission, the Water Authority must maintain and operate existing facilities, plan and construct new facilities, and respond to projected future regional water demands. During the past 10 years, the Water Authority has diversified its water supply to continue the supply of safe, reliable water to meet the region’s demands. This diversification includes the following:

- A water transfer agreement with Imperial Irrigation District (IID) to improve water supply reliability;
- Conservation, water recycling, and groundwater development programs to maximize local water supplies;
- A Regional Water Facilities Master Plan (Master Plan) that identifies future water demands and the facilities required to meet those demands. The Master Plan highlights seawater desalination as the preferred alternative; and,
- A Capital Improvement Program (CIP) to enhance the water delivery system, including the Emergency Storage Project (ESP).

In the future, the Water Authority will continue to explore new water supply options to enhance reliability. The Water Authority will continue to adapt and transform in order to provide the water and infrastructure needed to sustain the region’s quality of life.

1.1.2 Water Authority Planning Documents

The Water Authority supplies water to 24 Member Water Agencies through the First Aqueduct (two pipelines) and Second Aqueduct (three pipelines) (Figure 1-1). The



- NCCP/HCP Plan Area
- Water Authority Service Area Boundary
- Existing/Planned Aqueducts and Pipelines

FIGURE 1-1
Water Authority Plan Area and Service Area

Member Water Agencies are not signatories to this NCCP/HCP or the associated Implementing Agreement (IA) and will be required to obtain their own California Endangered Species Act/Endangered Species Act (CESA/ESA) authorization for their activities. The Water Authority's Service Area is the geographical area where it provides water to its Member Water Agencies (see Figure 1-1). The Service Area corresponds to the combined areas served by the 24 Member Water Agencies. The total length of pipelines in the Water Authority's Service Area is approximately 286 miles. These pipelines carry both treated and untreated water to San Diego from MWD's storage, treatment, and conveyance facilities in southwestern Riverside County.

To ensure that the Water Authority is able to fulfill its mission, the Water Authority prepares, reviews, and updates the following documents and plans:

- **Regional Water Facilities Master Plan (Master Plan)**, to serve as a roadmap for implementing major capital improvements necessary to ensure a safe and reliable water supply through 2030 and beyond;
- **Capital Improvement Program (CIP)**, to determine how best to provide the facilities necessary for meeting water demands;
- **Long-range Financing Plan**, to determine how to best provide the funds necessary to implement the various programs; and,
- **NCCP/HCP**, to protect biological resources while conducting the activities necessary to provide a safe and reliable water supply to the region.

1.1.2.1 Regional Water Facilities Master Plan (Master Plan)

The Master Plan develops, evaluates, and analyzes facility options and recommendations to meet future water demands. As a system-wide program, the Master Plan focuses on long-term planning rather than construction of individual projects. The Water Authority prepared and approved a Master Plan that evaluated the ability to meet its mission through 2030 (Water Authority 2002). The evaluation was based on current plans for water supply and facility improvements, with consideration of additional facility improvements and new facilities needed to cost-effectively meet the Water Authority's mission. The Master Plan is intended to serve as the road map for implementing major capital improvements needed by the Water Authority to meet demands through 2030. Based on recommendations in the Master Plan, the CIP is developed and updated on an annual basis. The implementation of a specific CIP project is determined initially during the Water Authority's biennial budget cycle. A project's implementation prioritization may be changed from year to year based on evaluation of data collected and analyzed by the Water Authority. Adding a major capital improvement project to the CIP that is not identified in the Master Plan requires specific action by the Water Authority's Board of Directors (Board), and such a request would be supported with appropriate

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documentation. The Board certified the Final Program Environmental Impact Report (FPEIR) for the Master Plan on November 20, 2003 (Water Authority 2003), and approved the identified projects for planning purposes. The Water Authority's CIP list of planned projects is typically updated annually, but projects may be added by the Board of Directors at any time.

1.1.2.2 Capital Improvement Program (CIP)

The CIP is designed to meet the Water Authority's mission of providing a safe and reliable supply of imported water (Water Authority 2004a). The CIP is reviewed on an annual basis and has the flexibility to be adjusted for changes in demand projections, economic factors, and the needs of Member Water Agencies. These changes may result in the addition or deletion of projects to the CIP and/or the acceleration, modification, or delay of project schedules. The current CIP includes the construction of new projects and the expansion of existing facilities.

The individual projects in the CIP are subject to environmental review under the appropriate California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) requirements. Where new or expanded service is proposed, the projects have been examined in conjunction with existing demand, as well as planned land uses of the land use authority in the specific portions of the Water Authority's Service Area. In each of these reviews, the cumulative effects of Water Authority actions are evaluated with other projects that have occurred or are planned for the local project area.

Certain projects within the CIP have existing approvals and/or permits under separate actions. These permits allow for impacts to one or more Covered Species. For example, project construction and operation and maintenance (O&M) activities affecting a specific Covered Species, such as the coastal California gnatcatcher (*Polioptila californica californica*), may be addressed under previous Biological Opinions (BOs). Where the Wildlife Agencies have already issued incidental take authorizations for Covered Species addressed by projects that have already been permitted, no additional approvals are required under this Plan. Existing BOs are described in detail in Section 1.1.4.

Those Covered Species not previously authorized may be covered for projects under this Plan. In addition, if there are changes to the project that would result in take to a Covered Species not covered by the existing approvals and permits, the Water Authority would seek coverage under this Plan. Therefore, it is important to distinguish between those projects that are already permitted and those projects which require coverage under this Plan.

Water Authority projects are classified as Existing, Planned, and Future Projects. Each of these project categories is described below. Table 1-1 summarizes projects based on their type and identifies existing permit status.

1.1.2.2.1 Existing Projects

Existing Projects refer to those facilities and water system components which are constructed or in the process of being constructed under existing permits and approvals. Existing facilities include, but are not limited to: flow control facilities (FCF), aqueduct structures and pipelines, dams and reservoirs, flow regulatory structures (FRS), and pump stations. Construction may or may not be complete for Existing Project facilities. For phased projects, Existing Projects refer to those phases which have been completed or for which construction is expected to commence prior to the approval of this Plan. Required permits for construction, including permits for incidental take of federally and/or state-listed Covered Species, have already been authorized. Unless otherwise noted, this Plan would cover O&M Activities for Existing Projects.

Existing Projects were permitted based on an agreed-upon site, design, project footprint, or alignment. If the Water Authority proposes project changes that could result in new or previously unidentified impacts, any additional impacts would be offset consistent with this Plan. In this case, the existing approvals would be subject to review. In addition, if Covered Species not observed during the original permit process are observed at an Existing Project site, the impacts to Covered Species will be addressed consistent with this Plan.

Several of the Water Authority's larger projects may involve regional entities, facilities operated by Member Water Agencies, and multiple jurisdictions with land use control. Due to updated projections for water demand or storage, as well as land use considerations, certain proposed alignments or projects may undergo changes that were not considered or covered under the existing approvals and permits. Where Existing Projects propose alternative alignments or add project components that are not covered under existing permits, these changes and any measures to offset additional impacts will conform to the conservation strategy and avoidance, minimization, and mitigation measures of this Plan.

Certain Existing Projects contain terms or conditions in their permits that relate to the type or timing of construction and O&M Activities (such as work outside the breeding

**TABLE 1-1
SUMMARY OF PROPOSED COVERED PROJECTS AND PERMIT STATUS**

Projects	Project Status	Permit Status
Flow control facilities (FCF)		
San Diego 12 Expansion	Planned	--
San Diego 24/25/26 FCF	Planned	--
System Regulatory Storage		
Hubbard Hill FRS	Planned	--
North County Distribution Pipeline FRS	Planned	--
Slaughterhouse Terminal Reservoir Tank	Planned	--
First and Second Aqueduct and other Pipelines		
Second Crossover Pipeline	Planned	
Pipeline 6 ⁴	Existing	Permitted under BO 1-6-93-F-28 ¹
Restore Untreated Water Delivery in La Mesa-Sweetwater Extension	Planned	--
Ramona Reservoir Bypass	Planned	--
Conversion of Pipeline 3 to Untreated Water; Crossover to Miramar	Planned	--
Long-Term Replacement/Relining of Pre-stressed Concrete Cylinder Pipeline	Existing	Permitted under BO 1-6-93-F-28 ¹
Pipeline 4 Relining	Existing	Permitted under BO 1-6-93-F-28 ¹
Pipeline 3 Relining	Existing	Permitted under BO 1-6-93-F-28 ¹
Escondido-Vista WTP Connection		
a. Escondido-Vista Pipeline Connection	Planned	--
b. Escondido-Vista Pump Station	Planned	--
c. Escondido-Dixon Pipeline	Planned	--
Poway Pump Station and Treated Water Connection	Planned	--
Pump Stations		
San Diego 17 Pump Station	Planned ¹	--
Lower Otay Pump Station	Planned	--
Pump Stations for Pipeline 3 and Pipeline 4	Existing	Permitted under 1-6-97-F-13 ¹
Padre Dam Pump Station Expansion	Planned	--
Water Treatment Plants		
Twin Oaks Valley Water Treatment Plant	Existing	No permits required
Dam/ Reservoir		
San Vicente Dam Raise	Existing	A portion of this project associated with the ESP is permitted under BO 1-6-97-F-13, and under BO 2008B0061-2008F0732; implementing this project as one action requires coverage under the Plan. ²
Olivenhain-Hodges Pumped Storage O&M	Existing	Permitted under BO 1-6-97-F-13 ³
Lake Hodges and San Vicente	Existing	Permitted under BO 1-6-97-F-13 ³
Wetland Mitigation		
Tijuana River Valley (MHA) Wetlands Mitigation Project	Planned	--
San Luis Rey River (MHA) Wetland Mitigation Project	Planned	--

¹ Species covered: coastal California gnatcatcher.

² Species covered: coastal California gnatcatcher, least Bell's vireo, and arroyo toad.

³ Species covered: coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, arroyo toad, and quino checkerspot butterfly. Olivenhain Reservoir is not covered under BO 1-6-97-F-13.

⁴ An alternative alignment is being considered for this project.

season). These existing permits continue to apply. In addition, certain types of O&M Activities for Existing Projects (such as mowing for the ESP under BO 1-6-97-F-13) have permit coverage; however, the Water Authority is seeking comprehensive coverage for its entire water conveyance, storage, and treatment system (including any associated energy generating components) under this Plan. As mentioned above, Existing Projects with proposed footprints or design considerations and timing that sufficiently deviate from existing alignments or capacity will comply with this Plan.

1.1.2.2 Planned Projects

Planned Projects, which include the current CIP (Figure 1-2), do not currently have permits and involve activities which could result in incidental take; therefore, Planned Projects are proposed for coverage under this Plan.

Planned Projects apply to facilities and water system components that are in the planning or design phase for which a purpose and need, as well as approximate or definite project locations, have been identified. Planned Projects could apply to new construction or modification of existing facilities. As an example, a Planned Project could include upgrades or expansion of the footprint or capacity of an existing facility. Planned Projects are considered in the conservation analysis and proposed for coverage under this Plan. Planned Projects may or may not require environmental review through CEQA and/or permits through the Wildlife Agencies, depending on their location and the impacts identified.

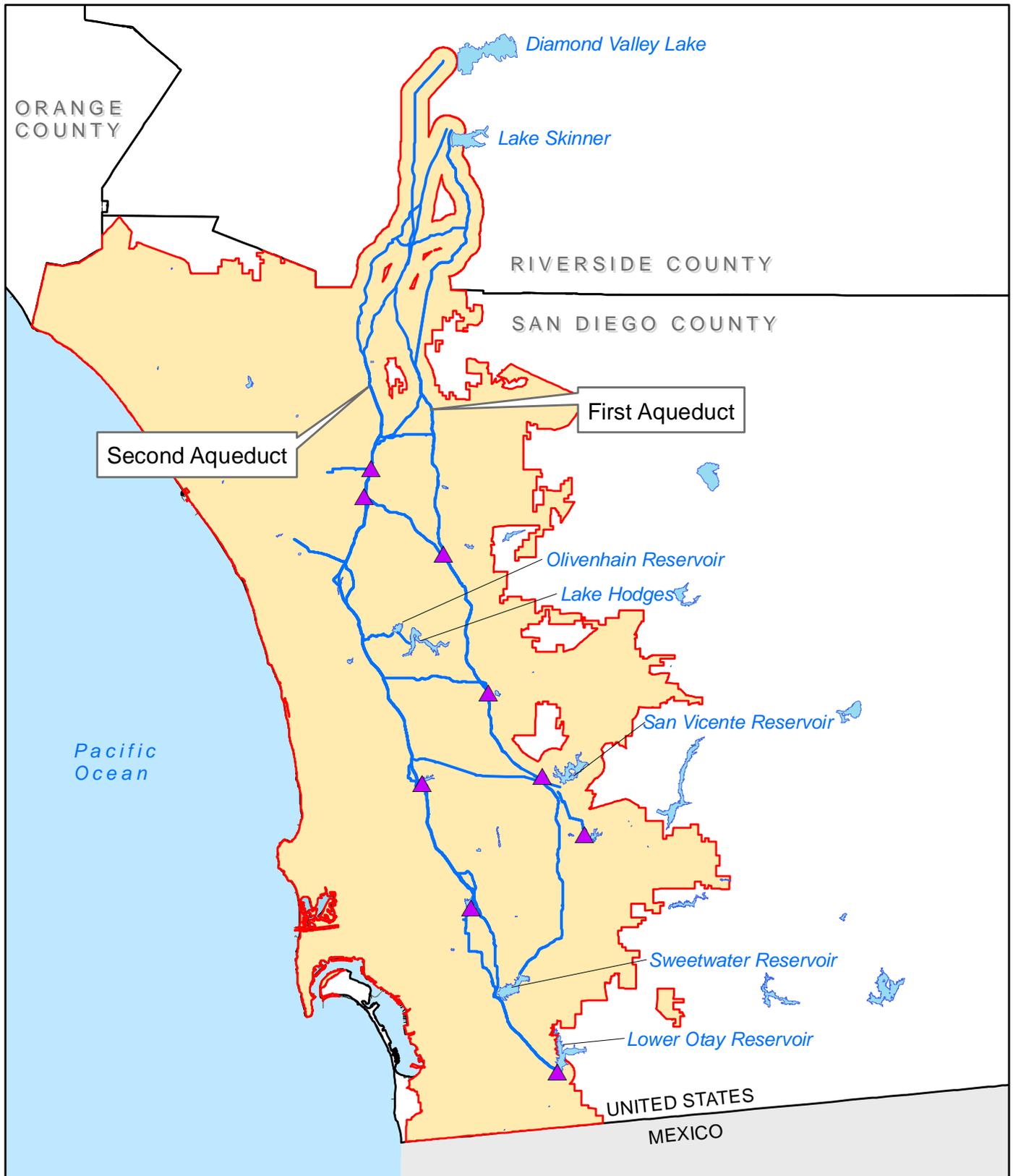
1.1.2.3 Future Projects

Future Projects and/or Activities are those that were not designated as CIP budgeted projects at the time of Plan approval. Site-specific impacts and take information were not available to analyze, and the impacts/take analysis is based on projecting the existing trend of facility build-out and O&M associated with Existing and Planned Projects to the maximum Plan term (55 years)

Future Projects and/or Activities could involve Covered Activities for existing or new facilities or O&M and would be subject to the amendment process for take coverage.

1.1.2.3 Long-range Financing Plan

The Long-range Financing Plan is a policy document that guides how the Water Authority funds its CIP and operations over an extended period of time (Water Authority 2004b). The Long-range Financing Plan is comprehensive, with sections devoted to revenues, expenditures, funds, capital financing, financial planning, and investments. It is supported by a Financial Rate Modeling program, which helps develop



- NCCP/HCP Plan Area
- Existing/Planned Aqueducts and Pipelines
- CIP Projects



FIGURE 1-2
Planned CIP Projects

the most cost-effective financial strategy to fund capital projects and operating costs. The Long-range Financing Plan uses a blend of fixed and variable revenues and, through careful adherence to financial policies, ensures revenue stability. Reliance on the Long-range Financing Plan assures adequate funding of the Water Authority's commitments identified in this Plan

One of the primary uses for the Long-range Financing Plan is to serve as the capital financing roadmap for the issuance and repayment of debt. It is also an effective marketing tool to attract new investors. As the Water Authority moves forward with the execution of its CIP, the debt policy will be reviewed to ensure that it has the necessary tools to provide the best mix of financing.

1.1.3 Environmental Policies and Procedures

The Water Authority's actions are governed by a number of environmental programs, state and federal regulations, and legislative mandates designed to ensure protection of environmental quality while allowing the Water Authority to meet its water supply obligations. The Water Resources Department is responsible for ensuring that Water Authority activities conform to applicable environmental policies and regulations. As described in Section 6.0 (and Appendix B), the Water Authority has developed a set of environmental policies (narrow endemic species, vernal pools, etc.) and project requirements (avoidance, minimization, etc.) that improve conservation for species proposed to be covered by this Plan.

In partnership with Member Water Agencies, the Water Authority meets the region's water supply needs by diversifying the region's water supply sources, and building, maintaining, and operating critical water facilities in a cost effective and environmentally sensitive manner (Water Authority 2008). The Water Authority maintains an important role in the development of programs to benefit the environment while carrying out its mission. The Water Authority has directed financial assistance and representation to the development of regional NCCP/HCP planning goals.

1.1.4 Existing Biological Opinions and Mitigation Areas

Federal ESA compliance for Water Authority projects has resulted in the issuance of five BOs from USFWS and the establishment and/or acquisition of compensation areas, a Preserve Area, and MMAs, which are discussed in detail in Section 6.0. These habitat acquisition areas also serve as mitigation in compliance with state environmental regulations.

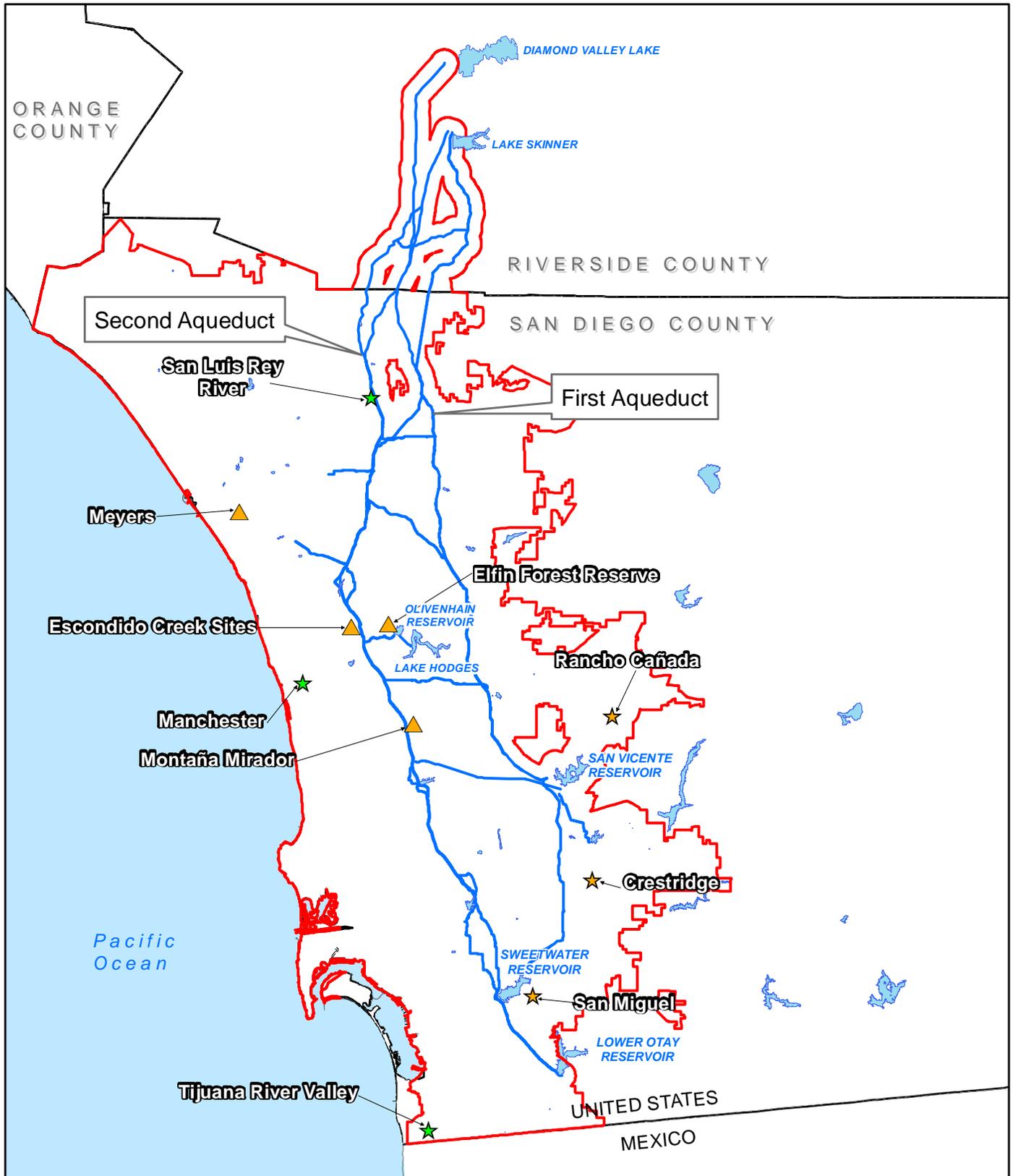
The Preserve Area includes both existing and proposed upland and wetland Habitat Management Areas (HMAs); other habitat areas may be added to the Preserve Area in

the future to meet conservation objectives (Figure 1-3). MMAs are conserved habitat lands acquired by the Water Authority for previously approved projects and are important biological areas. Both the Preserve Area and MMAs are significant contributions to regional conservation efforts. These conserved lands were purchased by the Water Authority to fulfill current and planned mitigation needs for CIP projects. Although initially purchased by the Water Authority, the perpetual management of these lands was subsequently transferred to the Wildlife Agencies or other local government agencies. Therefore, the Wildlife Agencies or local governments function as the landowners and land managers of the Water Authority's Preserve Area and MMAs. The Water Authority also contributed to the regional conservation efforts by providing funding for regional vegetation mapping used for the preparation of conservations plans by local land use agencies.

The BOs were prepared to address impacts to listed species as the result of Water Authority projects. The first BO (1-6-93-F-28), issued in 1993, addressed impacts to coastal California gnatcatcher (gnatcatcher) from 12 CIP projects. The second BO (1-6-97-F-13), issued in 1997, addressed impacts to 14 species from the ESP. The third BO (FWS-SD 1373.2), issued in 2001, related to the Moreno-Lakeside Pipeline project and addressed impacts to the gnatcatcher and arroyo toad (*Bufo californicus*). The fourth BO (2007-B-14/2007-F-22), issued in 2007, addressed impacts to the least Bell's vireo (*Vireo bellii pusillus*) and San Diego fairy shrimp (*Branchinecta sandiegonensis*) from related CIP projects at Mission Trails Regional Park. The fifth, and most recent, BO (2008B0061-2008F0732), issued in 2008, addressed impacts to the gnatcatcher, least Bell's vireo, and arroyo toad related to the Carryover Storage and San Vicente Dam Raise project (CSP). The terms and conditions of existing BOs (1-6-93-F-28, 1-6-97-F-13, FWS-SD 1373.2, 2007-B-14/2007-F-22, and 2008B0061-2008F0732) are not altered by the terms and conditions of this Plan. The terms and conditions in the previous BOs have been or will be implemented by the Water Authority and are made part of this Plan's commitments to assure their implementation and will be incorporated (by reference) into the BO for this Plan. If for any reason this Plan is not approved, or subsequently revoked, suspended or terminated, the existing BOs remain in effect.

1.1.4.1 Biological Opinion for the Capital Improvement Program; Covering the Coastal California Gnatcatcher

In 1993, a BO (1-6-93-F-28) was issued by USFWS to address impacts to the gnatcatcher resulting from CIP projects as part of a section 7 consultation between the Navy and USFWS (USFWS 1993). Of the 12 CIP projects covered by this BO, one is located within the Water Authority right-of-way on Marine Corps Air Station (MCAS) Miramar. The consultation included the CIP, except for three projects (ESP, Beeler Canyon Pipeline, and North County Treatment Plant) that did not have sufficient information at the time to adequately evaluate impacts. The BO addressed 12 projects



- NCCP/HCP Plan Area
- ~ Existing/Planned Aqueducts and Pipelines
- ★ Wetland HMA Sites
- ★ Upland HMA Sites
- ▲ Upland MMA Sites



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considered to have an impact to habitat occupied or potentially occupied by the gnatcatcher. The projects include: Ramona Pipeline; Sweetwater Bypass and Flow/Pressure Control Facility; San Marcos Pipeline; La Mesa/Lemon Grove Pipeline; Scripps Ranch Pipeline; Lower Otay Pipeline; Mission Trails Pipeline and Flow Regulatory Structure; Pipeline 2A and Pump Station; San Diego Pipeline No. 6; Rancho Peñasquitos Pipeline and Diversion Structure; Helix Treatment Plant Expansion; and the North County Distribution Pipeline. Two of these projects (Sweetwater Bypass and Ramona Pipeline) had already been completed at the time of BO issuance, yet were mitigated as though they had not been constructed. This BO outlined measures to avoid and minimize construction and operation impacts to the gnatcatcher and coastal sage scrub. In addition, the BO included a habitat-based compensation program for impacts to Diegan coastal sage scrub. The BO concluded that the listed CIP projects would not likely jeopardize the continued existence of the gnatcatcher. Compensation measures were identified to avoid and minimize adverse effects resulting from project construction and operation.

1.1.4.2 Biological Opinion for the Emergency Water Storage Project; Covering 13 Species

In 1997, a BO (1-6-97-F-13) was issued by USFWS to address impacts resulting from the Water Authority's ESP for issuance of a Section 404 permit from the U.S. Army Corps of Engineers (USACE) (USFWS 2001). Of the 14 species addressed, the BO concluded that the ESP project is not likely to jeopardize the continued existence of the 13 evaluated species, and one species was determined not to be within the project's boundaries. Mitigation measures were identified to avoid and minimize adverse effects resulting from project construction and operation. This BO included an extensive habitat-based compensation program for impacts to species and habitats.

1.1.4.3 Biological Opinion for the Moreno-Lakeside Pipeline Project

In 2001, a BO (FWS-SD-1373.2) was issued by USFWS to address impacts resulting from the Water Authority's Moreno-Lakeside Pipeline Project for issuance of a Section 404 permit from USACE (USFWS 2001). The BO concluded that the project was not likely to jeopardize the continued existence of the gnatcatcher or arroyo toad. Mitigation measures were identified to avoid and minimize adverse effects resulting from project construction.

1.1.4.4 Biological Opinion for the Flow Regulatory Structure, Pipeline Tunnel, and Stabilized Crossing Project, Mission Trails Regional Park

In 2007, a BO (2007-B-14/2007-F-22) was issued by USFWS to address impacts resulting from the Water Authority's Flow Regulatory Structure, Pipeline Tunnel, and Stabilized Crossing Project for issuance of a Section 404 permit from USACE (USFWS 2007a). The BO concluded that the project is not likely to adversely affect the gnatcatcher or Quino checkerspot butterfly (*Euphydryas editha quino*); is not likely to jeopardize the continued existence of the least Bell's vireo or San Diego fairy shrimp; is not likely to result in adverse modification of least Bell's vireo habitat; and does not affect designated or proposed critical habitat for the San Diego fairy shrimp. Conservation measures were identified to avoid and minimize adverse effects resulting from project construction and operation.

1.1.4.5 Biological Opinion for Carryover Storage and San Vicente Dam Raise Project

In 2008, a BO (2008B0061-2008F0732) was issued by USFWS to address impacts resulting from the Water Authority's Carryover Storage and San Vicente Dam Raise Project for issuance of a Section 404 permit from USACE (USFWS 2008). The BO concluded that the project as designed may affect, but is not likely to adversely affect, the Quino checkerspot butterfly and San Diego thornmint (*Acanthomintha ilicifolia*); and is not likely to jeopardize the continued existence of the gnatcatcher, least Bell's vireo, or arroyo toad. In 2009, Quino checkerspot butterfly was recorded during a pre-construction survey; therefore, USFWS amended the BO to cover this species.

1.1.4.6 Habitat Management Areas (HMA)

The Water Authority has acquired mitigation credits or mitigation rights in three existing upland properties and one wetland property. Upland properties include: the 261.05-acre Crestridge HMA, the 1,186-acre San Miguel HMA, and the 390-acre Rancho Cañada HMA. The Manchester (Wetland Mitigation Site) HMA was completed in 2005, and resulted in the creation of 7.78 acres of wetland habitats. The number of available mitigation credits is less than indicated, because portions of these properties have been designated to mitigate specific approved projects. The Rancho Cañada HMA is not intended to provide debitable mitigation credits under this Plan. The location of each HMA is depicted on figures in Appendix K.

Tijuana River Valley HMA and San Luis Rey River HMA are wetland creation projects currently in the design and planning phases with tentative construction start dates of September 2011 and September 2015, respectively. The Tijuana River Valley HMA project will create approximately 40 acres of wetlands and riparian habitats, and the San

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Luis Rey River HMA project conceptually may provide 30 acres of wetlands and riparian habitats. The number of available mitigation credits at the Tijuana River Valley HMA project will be less than indicated, because a portion of these acres have been allocated to mitigate specific approved projects.

These sites will provide additional conservation to mitigate Covered Activities' impacts to Covered Species and sensitive habitat areas. This Plan and the IA will serve as formal recognition by the Wildlife Agencies that these sites have suitable mitigation credits to mitigate for Covered Species and sensitive habitats, subject to confirmation by the Water Authority and Wildlife Agencies that the sites meet specified standards of habitat structure, as well as land protection, management, funding, and reporting identified in Section 6.0.

All existing conservation credit areas and HMAs are or will be managed by entities other than the Water Authority (San Luis Rey River HMA has not progressed to a state to determine who will be the ultimate long-term site manager). The wetland creation projects are Covered Activities under this Plan. Section 6.8 provides detailed information on these properties.

1.1.4.7 Managed Mitigation Areas (MMA)

To satisfy the requirements of BO 1-6-97-F-13 and to offset impacts to upland habitats that would result from implementation of the ESP project, the Water Authority acquired all or a portion of the following properties: Myers (35 acres), Montaña Mirador (325 acres), and Meyerhoff and Rohan (Escondido Creek Uplands) (37 acres). By agreements with the city of Oceanside, city of San Diego, and county of San Diego, fee ownership of the properties and management responsibilities were conveyed to the respective local governments. In addition, the Water Authority acquired the Elfin Forest Recreational Reserve (Elfin Forest Reserve; 750 acres) as part of the Olivenhain dam and reservoir portion of the ESP, and retains ownership of the property. The Olivenhain Water District manages the property, with 85.85 percent of the management funds provided by the Water Authority and Olivenhain MWD funding the balance.

Although these MMAs are distinct from the HMAs in that they will not provide mitigation credits for future impacts, these properties represent important habitat linkages and strategic contributions to regional conservation efforts. Section 6.9 provides additional information on these properties, and figures in Appendix K show the location of each MMA.

1.2 NCCP/HCP Plan

The Water Authority is a regional public facility provider mandated to serve the water needs of the San Diego region. The Water Authority responds to demographic forecasts prepared by the San Diego Association of Governments (SANDAG) and the service demands of its Member Water Agencies, which in turn respond to the planning activities of local municipalities, county governments, and military reservations that have land use regulatory authority. With a state mandate to provide service and limited land use authority, the Water Authority's actions are not directly growth inducing. However, certain Water Authority's actions serve planned growth, and the Water Authority acknowledges the regional benefits of participating with other public facility providers, municipalities, and county, state, and federal agencies in the development and implementation of regional conservation planning programs. The Water Authority has acquired crucial habitat areas and contributed significant fiscal resources to the various subregional planning efforts from the earliest inception of these programs. The Water Authority is committed to support those programs, whose conservation value will be augmented by this Plan, which includes the contribution, preservation and management of target habitat lands.

1.2.1 Purpose and Need

The purpose and need of the Plan are to increase the level of certainty regarding mitigation and endangered species permitting so that the Water Authority can efficiently fulfill its mission, including the need to conduct construction, O&M, and rights-of-way activities for various Covered Activities. This will be accomplished by implementing a streamlined approach to project permitting and environmental compliance for Water Authority activities. The current project-by-project, species-by-species approach for obtaining federal and state incidental take permits and authorizations will be replaced by this long-term, multi-species NCCP/HCP that will result in a more comprehensive approach to conservation of Covered Species and habitat, and will improve the efficiency and effectiveness of Water Authority conservation efforts.

1.2.2 Plan Goals

In developing this Plan, the Water Authority is establishing and implementing a long-term agreement between the Water Authority, USFWS, and CDFG for the conservation and management of Covered Species and their habitats. This agreement will allow the Water Authority to implement its CIP projects, O&M Activities, rights-of-way activities, and other authorized activities (Covered Activities) described in Section 5.0 and Appendix C, and continue to execute its mission of providing a safe and reliable water supply to the region. The Plan identifies the Preserve Area and MMAs acquired by the Water Authority

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which contribute to regional conservation efforts, and measures which ensure the persistence of Covered Species within the Plan Area.

Key goals of this Plan have been identified as:

1. Provide for habitat and species diversity through the identification and protection of preserve lands in and around Water Authority facilities for the benefit of Covered Species;
2. Identify and implement environmentally sensitive methods for planning, constructing, operating, and maintaining projects (Covered Activities) that minimize impacts;
3. Provide conservation measures that meet the environmental needs of the Covered Species, based on the best available scientific information;
4. Provide a monitoring and reporting plan;
5. Provide an adaptive management program with measurable objectives for specific species; and,
6. Provide adequate funding to implement the requirements of this conservation plan.

The IA for the Plan, which is included as Appendix A, outlines the terms and conditions to ensure that activities conducted under the Plan will adequately protect and mitigate the incidental take of Covered Species and habitat. The IA was prepared by the Water Authority for review and approval by the Wildlife Agencies concurrent with the Plan.

This Plan functions independently of, but complements, other conservation plans prepared by local governments, public agencies, or private parties, even in areas where plan boundaries overlap. This Plan covers activities outlined in Section 5.0, including O&M Activities, right-of-way activities, and covered CIP project construction. In addition, this Plan contains an amendment process that provides mechanisms for the following: updates and additions of activities and projects; expansion of the region of Plan coverage and boundaries to cover activities of future facilities, if necessary; and for adding species to be covered as information becomes available or as the need arises.

Covered Activities will be implemented pursuant to the requirements of this Plan and will, to the maximum extent feasible, conform with and not adversely affect the conservation provisions of habitat conservation plans implemented by other entities. Although not anticipated, if there is a conflict between provisions of other conservation plans concerning implementation of a Covered Activity or effects on Covered Species, the Wildlife Agencies will coordinate with the affected permittees of each plan to determine the appropriate regulatory course of action to maintain compliance with each plan.

This Plan is designed to satisfy the legal requirements of both CDFG and USFWS under the Natural Community Conservation Planning Act (NCCPA) and the ESA for incidental take of Covered Species and Critical Habitat during otherwise lawful activities conducted by the Water Authority. This Plan identifies measures to conserve habitat and to minimize and compensate for impacts such that Water Authority actions would not appreciably reduce the survival and recovery of federally and/or state-listed, candidate, or otherwise Covered Species. In addition, this Plan provides measures which will contribute to the recovery of listed species. Further, the Plan provides substantive conservation measures for Covered Species. To achieve the Plan goals, measurable objectives for each Covered Species were developed (Appendix B).

1.3 NCCP/HCP Plan Framework and Coverage

1.3.1 Plan Development and Approach

This NCCP/HCP is intended to complement other regional habitat conservation efforts and to serve as a framework document to assist other Water Authority Member Water Agencies to participate in the NCCP/HCP process.

This Plan was developed through the process of:

1. Identification of the Plan Area, including the Preserve Area and areas within which plan impacts are most likely to occur (Probable Impact Zone [PIZ] and Survey Area);
2. Identification of Covered Species for which incidental take will be sought;
3. Identification of Covered Species that will require a Major Amendment;
4. Identification of habitats in the Plan Area and the relationship of Covered Species to the representative habitats, including any special requirements for species occurring in the Plan Area;
5. Identification of Water Authority activities proposed for coverage, including an assessment of impacts that are expected to occur;
6. Development of measures to conserve habitat and to avoid and minimize impacts to Covered Species;
7. Evaluation of the adequacy of these measures to ensure that Water Authority activities will not appreciably reduce the likelihood of survival and will contribute to the recovery of Covered Species;

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8. Identification of Covered Species adequately conserved under the Plan's provisions;
9. Identification of a means to monitor, adaptively manage, and fund implementation of the Plan's measures; and,
10. Identification of a process for addressing future needs for Plan amendments, and for Changed and Unforeseen Circumstances.

1.3.2 Plan Coverage and Term

This Plan will cover Water Authority activities conducted within the Plan Area (see Figures 1-1 and 1-2) and will function independently of the NCCPs and/or HCPs of local governments or other water districts (e.g., Joint Water Agencies [JWA] NCCP/HCP) that overlap the Plan Area. Where Covered Activities are conducted within easements, permits issued pursuant to this Plan shall apply only to Water Authority Covered Activities, and are not conveyed to the underlying property owner.

Riverside County has been designated as "Major Amendment Area." Therefore, Covered Activities in Riverside County, excluding Pipeline 6, will be processed as Major Amendments if they have impacts to Covered Species. Only the Pipeline 6 alignments and associated PIZ within Riverside County are excluded from the Major Amendment Area since Pipeline 6 is an Existing Project with a certified EIR that has fulfilled its mitigation requirements and obtained its endangered species permits.

After extensive evaluation, it was determined that this Plan would cover 63 Covered Species (26 plant species and 37 wildlife species). Three species, Orcutt grass (*Orcuttia californica*), vernal pool fairy shrimp (*Branchinecta lynchi*), and Munz's Onion (*Allium munzii*), are Major Amendment Species. Analysis conducted for the Plan determined that the appropriate process for potential take of these species would be through the Major Amendment process for the Riverside County portion of the Plan Area. The list of Covered Species is presented in Section 6.2, conservation measures are outlined in Sections 6.4 through 6.10, and species accounts/details of the conservation measures are provided in Appendix B. Incidental take would only be authorized within the Plan Area when conducted and mitigated in a manner consistent with the terms outlined in this Plan and associated documents.

This Plan and associated IA are required to obtain an incidental take permit (ITP) issued by USFWS and a NCCP Permit issued by CDFG for the take of Covered Species and federally designated and proposed critical habitat, which is incidental to otherwise lawful activities undertaken by the Water Authority. This Plan does not authorize any projects. Projects must be authorized by the Water Authority Board and are subject to environmental reviews, including CEQA and NEPA as appropriate. As applicable,

projects must also comply with Section 404 of the Clean Water Act and Section 1600 of the Fish and Game Code.

This Plan's permit term is 55 years. Each extension term would require a request by the Water Authority and subsequent written approval by USFWS and CDFG. This Plan has been developed with flexibility to accommodate future Water Authority projects and related O&M Activities. Terms for extension beyond 55 years would require a re-analysis and re-adoption of the Plan.

1.4 Public Review Opportunities, Procedures, and Requirements

The adoption and implementation of this Plan provides for various public notices, review, and comment opportunities. Public review and comment can occur during Plan adoption, project environmental review processes, and Plan amendments.

The Plan, IA, and state and federal permits issued in support of this NCCP/HCP require public review pursuant to CEQA and NEPA. An EIR/Environmental Impact Statement (EIS) for this Plan has been prepared and made available to the public.

Subsequent to approval of this Plan, public review will occur through required individual project environmental review documents; also, documents addressing plan modifications, such as major and some minor amendments to the Plan, will be circulated as appropriate. Documents undergoing public review during the CEQA/NEPA process would be placed on file at the Water Authority, and would be available for review by the public.

Also, an annual status report summarizing actions implemented pursuant to the Plan will be provided to the Wildlife Agencies and made available to the public.

1.5 Alternatives to this Subregional NCCP/HCP Plan

Two alternatives to this Plan were considered and are summarized with a brief discussion of benefits and drawbacks.

1.5.1 No Action/No Permit Alternative

The No Action/No Permit Alternative would consist of not taking any specific measures to address endangered and threatened species issues arising as a result of Water Authority activities. The Water Authority would continue to comply with applicable

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environmental programs and prior agreements to address impacts to biological species and habitats that might result from Water Authority activities. Under the No Action/No Permit Alternative, the Water Authority would remain subject to "take" prohibitions of the ESA and CESA, and would continue to obtain individual permits and management authorizations for listed species on a project-by-project basis. The Water Authority would comply with federal and state ESAs, and existing or future BOs.

The No Action/No Permit Alternative would continue the current project-by-project, species-by-species approach used by the Water Authority to obtain federal and state incidental take permits and authorizations. There are several ways in which the Water Authority would seek compliance with state and federal ESA. Where feasible, the Water Authority would attempt to redesign or modify its actions to avoid impacts to either state- or federally listed species. Where impacts from proposed activities are unavoidable, the Water Authority may obtain coverage for impacts to federally listed species through a section 7 consultation for projects that also are federal actions. If the Water Authority proposes activities which could result in the incidental take of a federally listed species, but where there is no federal action associated with the project, the Water Authority may be required to prepare an HCP that addresses federally listed species only in support of an application for a permit from USFWS pursuant to section 10(a)(1)(B) of the ESA (e.g., a Low-Effect HCP or Medium Effect HCP). Similarly, unavoidable impacts to state listed species would require the Water Authority to obtain a permit under Section 2081 of CESA.

The No Action/No Permit Alternative would not implement comprehensive conservation measures to address endangered and threatened species issues arising as a result of Water Authority activities. It would not be required to apply the same levels of mitigation and conservation to unlisted species (or possibly not have to explicitly mitigate for impacts to certain unlisted species), would not necessarily mitigate for impacts to certain vegetation communities (certain chaparral and non-native grassland communities), and potentially could elect to mitigate in areas that are not specifically part of the regional conservation effort.

Under this alternative, the Water Authority would meet the demands of regional water supply by continuing to construct, expand, operate, and maintain facilities and rights-of-way while obtaining individual take permits for each activity. Current and future activities of the Water Authority under the No Action/No Permit Alternative would be the same as those covered under the Proposed Plan Alternative. Individual project construction and expansion would be implemented through the Water Authority's CIP as guided by the Master Plan. Construction and expansion of CIP Projects and O&M Activities would be conducted in accordance with the Water Authority's existing protocols for industry-accepted planning, engineering, construction, and environmental impact minimization practices.

The Water Authority has already acquired mitigation/conservation properties (i.e., the Preserve Area). These properties were strategic purchases that provide mitigation for previously approved projects and future projects, and support regional conservation efforts. Under the No Action/No Permit Alternative, management of the Preserve Area would be conducted in accordance with the requirements of existing BOs. Because the Water Authority has already secured the Preserve Area, those which have available mitigation credits or are planned to create habitat could be used to offset impacts from Planned and Future Projects. The Water Authority would not commit the 275 acres of “additional conservation habitat” as a contribution to regional conservation, but could elect to use those habitat acres as credits for future Water Authority projects or establish a conservation bank and sell credits.

1.5.2 Full Species List Alternative

The Full Species List Alternative would commit the Water Authority to the conservation and management of a larger list of Covered Species. The Water Authority would request a section 10(a)(1)(B) permit from USFWS and Section 2835 take authorization by CDFG for incidental take for the full list of species analyzed, which is a total of 89 species (42 plant species and 47 wildlife species). Similar to the approach of the Proposed Plan Alternative, the Water Authority would continue to comply with applicable environmental programs and prior agreements, such as the existing BOs. The Full Species List Alternative, unlike the No Project Alternative, provides a benefit to the proposed Covered Species. Current and future activities of the Water Authority would be the same as those covered under the Proposed Plan Alternative. Individual project construction and expansion would be implemented through the Water Authority’s CIP as guided by the Master Plan. Construction and expansion of CIP Projects and O&M Activities would be conducted in accordance with the Water Authority’s existing protocols for industry-accepted planning, engineering, construction, and environmental impact minimization practices.

All elements and commitments of the Plan would apply to the Full Species List Alternative, with additional measures required for the full list of species. The Plan identifies the types of Water Authority activities that would be covered under the Plan and Permits, including conservation measures to avoid, minimize, and mitigate potential biological impacts and permanent commitments to manage and monitor established and proposed properties in the Preserve Area.

The NCCPA encourages protection of multiple species and their habitats. This alternative is similar to the Proposed Plan Alternative because the Water Authority would propose a mechanism to address not only federally and/or state-listed species, but other species that have been identified as having a likelihood to become listed during the proposed term of the Permits. The Proposed Plan includes a Conservation Analysis which addressed 89 species (see Appendix B), but concluded that only 63 of those

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species could be “covered.” Three additional species, Orcutt grass (*Orcuttia californica*), vernal pool fairy shrimp (*Branchinecta lynchi*), and Munz’s Onion (*Allium munzii*), are Major Amendment Species. The benefit to covering more species is that even if some species have a low likelihood of becoming listed as threatened/endangered, inclusion on the Covered Species list directs added conservation toward these species. The Plan’s minimization, avoidance, and mitigation during projects and protection in the Preserve Area would apply to a larger list of species. However, providing adequate conservation and protection for the full list of species would require more information to determine what additional conservation is necessary to cover the species. To justify the Full Species List Alternative, the Water Authority would be required to conduct/fund additional research and survey work to supplement existing species information, acquire additional habitat to add to the Preserve Area, and modify/augment management and monitoring activities. Substantial uncertainty exists regarding the time and funds that would be needed to develop the species’ basic biological information and management needs, additional preserve lands that may be needed to justify covering those species, as well as the risks that the Water Authority faces regarding not covering those additional species during the permit term. If the Water Authority pursued the Full Species List Alternative, potentially several years may be required for data collection and analysis and additional preserve land acquisitions to justify coverage. During that time, conservation and management would not be provided by implementing the Plan.

1.5.3 Reduced Plan Area Alternative

The Reduced Plan Area Alternative would call for a reduced Plan Area that only encompasses the PIZ and a reduced species list that covers only those species that are known to occur in the PIZ. The Plan Area that would be permitted would be limited to the PIZ, encompassing approximately 64,600 acres, and the Covered Activities under this alternative would be the same as those covered under the Proposed Plan Alternative. The Reduced Plan Area Alternative would allow the Water Authority to adopt the Plan as currently proposed, only with coverage proposed for those 39 species that are known to occur within the PIZ.

The Preserve Area conserved by this alternative would encompass the same HMAs as the Proposed Plan and the Full Species List Alternatives. The USFWS would consider issuing a section 10(a)(1)(B) permit and CDFG would consider authorizing a section 2835 take authorization for incidental take only for species that are known to occur in the PIZ as they are analyzed in Appendix B of the Plan, which is a total of 39 species (18 plant species and 21 wildlife species). This alternative would provide conservation for fewer species than covered in the Proposed Plan and the Full Species List Alternatives.

Under this alternative, the Water Authority would continue to comply with applicable environmental programs and prior agreements, such as the existing BOs. As described

above, the Plan identifies the types of Water Authority activities which would be covered under the Plan and Permits, and includes conservation measures to avoid, minimize, and mitigate potential biological impacts, including deducting credits from the Preserve Area. All elements contained within the Plan, as described under the Proposed Plan, would apply under this alternative with the measures in the Plan implemented for the 39 species.

The Water Authority would have a mechanism to address not only federally and/or state-listed species, but those species which have been identified as having any likelihood to become listed during the proposed term of the permit. The benefit to providing coverage only for Planned Projects/Activities within the Water Authority's rights-of-way and fee-owned lands is that it would provide certainty for both the Water Authority and USFWS regarding take authorization and minimization, avoidance, and mitigation measures for those projects already planned for in the CIP. However, by restricting the Plan Area to the PIZ, the Water Authority would have take authorization only within the PIZ; therefore, separate permits would need to be obtained for projects conducted outside of the PIZ.

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