



# IMPERIAL IRWMP REGIONAL ACCEPTANCE PROCESS



IMPERIAL IRRIGATION DISTRICT  
APRIL 2009



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**Attachment A**

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**Attachment B**

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# 1 Introduction

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## 1.1 Purpose

This document identifies how the Imperial Region meets the California Department of Water Resources guidelines for an Integrated Regional Water Management Plan (IRWMP) because the proposed region includes:

- A large, well defined, contiguous geographic area encompassing the service areas of multiple local agencies including the majority of Imperial County and the Imperial Irrigation District, and as such, will maximize opportunities to integrate water management activities related to natural and man-made water systems;
- Utilizes a multi-stakeholder Water Forum process to collaborate, including participation of the disadvantaged communities (DACs) of Brawley, El Centro, Westmorland, Holtville, Calipatria, and Calexico to address water management issues and develop integrated, multi-benefit, regional solutions that incorporate environmental stewardship, imported water, wastewater, conjunctive use, etc.;
- The IID water system, land overlying the Imperial Valley groundwater basins, and both natural and man-made components with diverse water management issues;
- A planning process and framework to develop a collaborative water management portfolio, priorities, and a shared vision of regional goals and objectives;
- A reasonable and effective governance structure for developing and implementing its Imperial Region IRWMP.

The Imperial Region Water Management Group (RWMG) will undertake a collaborative, multi-stakeholder process to prepare and adopt an Imperial Region IRWMP. The purpose of the Imperial Region IRWMP will be to define guiding principles as well as regional goals, objectives, and strategies that will be used to develop solutions that will lead to integrated management activities and the selection of projects that will resolve potential conflicts and maximize the beneficial use of water in the Imperial Region. The RWMG will also develop water management strategies to resolve common issues related to the water supply, water quality, environmental stewardship, and flood management.

California Department of Water Resources (DWR) developed the Region Acceptance Process (RAP) to provide pertinent information on the IRWMP region boundaries, make-up, and culture so that DWR can confirm that the region can operate as defined by the Water Code. IRWMP regions must be approved and accepted into the IRWMP grant program before submitting an application for and receiving IRWMP grant funds. The RAP is a step to achieve the Imperial Region goal of becoming a recognized IRWMP region.

## 1.2 RAP Background

DWR developed the RAP as a mechanism to evaluate and accept both existing and developing IRWM regions for the purposes of the Proposition 84 IRWM program California Water Code

(CWC) § 10541 (f) (effective March 1, 2009). Governor Schwarzenegger signed SB 1 (Perata, Stats. 2008, Ch. 1; eff. March 1, 2009) in September 2008, which contains the “Integrated Regional Water Management Planning Act”, CWC §10530 *et seq.* DWR RAP Guidelines define a region as:

At a minimum, a region is defined as a contiguous geographic area encompassing the service areas of multiple local agencies; is defined to maximize the opportunities to integrate water management activities; and effectively integrates water management programs and projects within a hydrologic region defined in the California Water Plan, the Regional Water Quality Control Board (RWQCB) region, or subdivision or other region specifically identified by DWR (Public Resource Code §75026. (b)(1)).

As defined by CWC §10539, a RWMG is a group of three or more local agencies, at least two of which have statutory authority over water supply or management, as well as those other persons necessary for the development and implementation of a plan. DWR favorably encourages collaborative involvement among multiple stakeholders and a strong governance structure and processes.

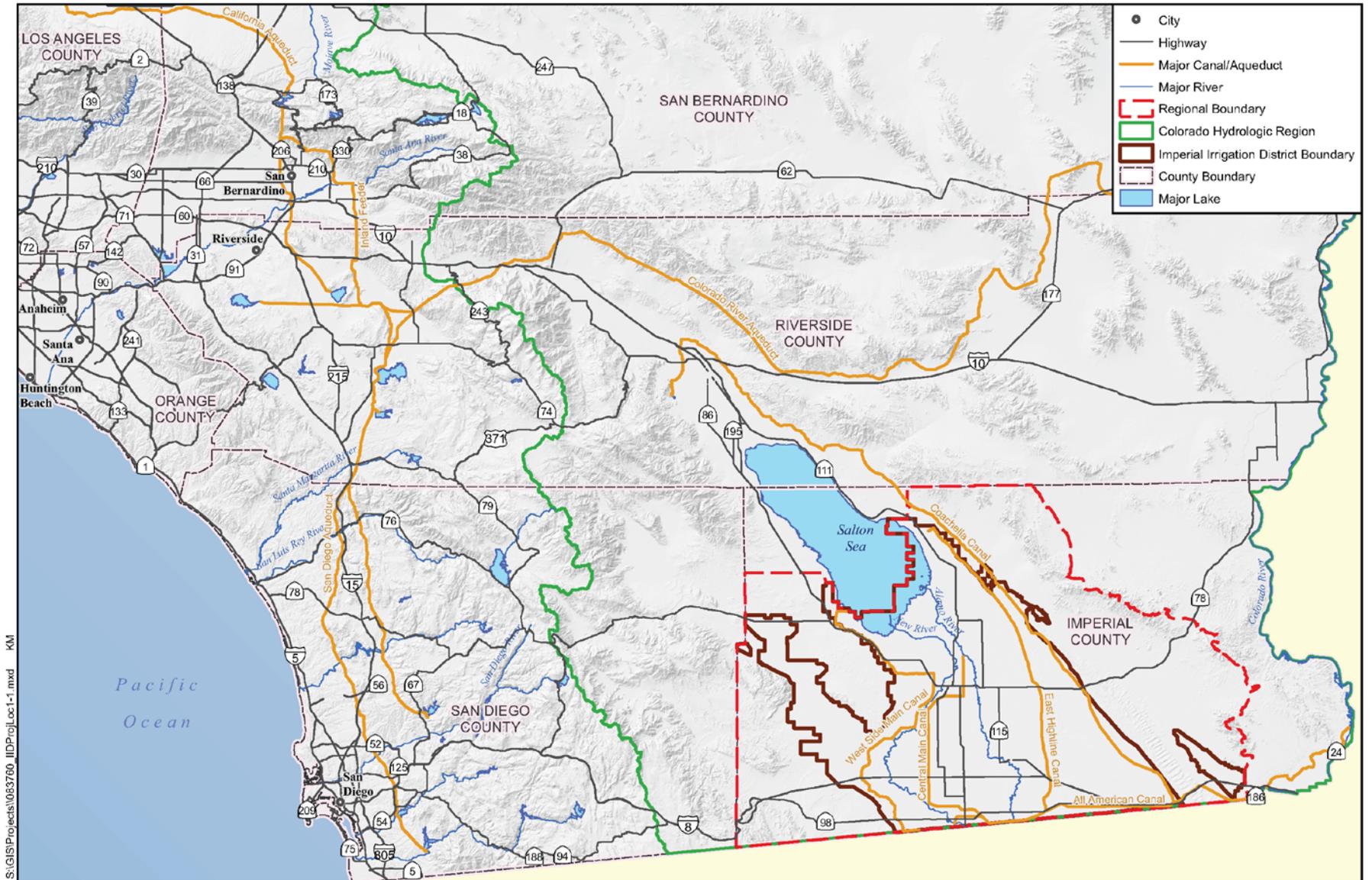
In early 2009, as a result of conflicts related to expanding industrial, commercial, and municipal demands and the impact to agricultural water uses, the Imperial Irrigation District (IID) Board began preparing an Integrated Water Resources Management Plan (IID Plan). In the process of preparing the IID Plan and as a result of discussion with other stakeholders in the community, the IID Board realized that a wider effort such as is provided by the DWR IRWMP process would benefit not only IID, but also the other agencies in the Imperial Region that are charged with water supply and oversight. In consultation with other stakeholders, it was also generally concluded that the IRWMP process would engage the stakeholders in the community and help to build consensus and support for solutions to pressing water supply and demand management problems.

### **1.3 Setting and General Overview**

The Imperial Valley is located in Imperial County, between the Colorado River and the Salton Sea, which is California's largest saltwater lake.<sup>1</sup> Figure 1-1 shows the general location of the Imperial Region, proposed regional boundary, IID’s major delivery facilities, and other major regional water delivery infrastructure. The basis for selection of the region is described more fully in Section 4. The area is reliant on imported water supplies from the Colorado River. Small portions of the Imperial Region are impacted by neighboring San Diego and Riverside Counties. The major population centers are generally located on the expanse of flatlands created by the valley infilling between the surrounding mountain ranges. The Coachella Valley is to the north and the Mexicali Valley (Baja California, Mexico) to the south, both of which lie within the Salton Sea watershed.

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<sup>1</sup> California DWR. 2009. *California Water Plan Update 2009 Public Review Draft.*



- City
- Highway
- Major Canal/Aqueduct
- Major River
- ▭ Regional Boundary
- ▭ Colorado Hydrologic Region
- ▭ Imperial Irrigation District Boundary
- ▭ County Boundary
- ▭ Major Lake

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IID IRWMP  
 Imperial County, California  
 Imperial Irrigation District



PROJECT LOCATION AND IRWMP BOUNDARY  
 APRIL 2009 DRAFT FIGURE 1-1

The region is a desert, with high temperatures and low average rainfall of three inches per year; however, irrigation water is available supplied wholly from the Colorado River via the All-American Canal. As a result, the area has become suitable for agriculture, which has supported the economic growth and establishment of population centers in and around the Imperial Valley. The need for balancing the municipal, commercial, and industrial demands with the agricultural demands creates a unique situation for the area's water needs and requires consideration to effectively manage water resources.

In addition to the water delivered from the Colorado River water via the All-American Canal, some groundwater is available in the East and West Mesa areas. As of October 2003, the Colorado River resource was quantified to help California live within its 4.4 million acre-feet (MAF) per year base allocation, and the groundwater resource has only ever been developed for use by the community of Ocotillo.

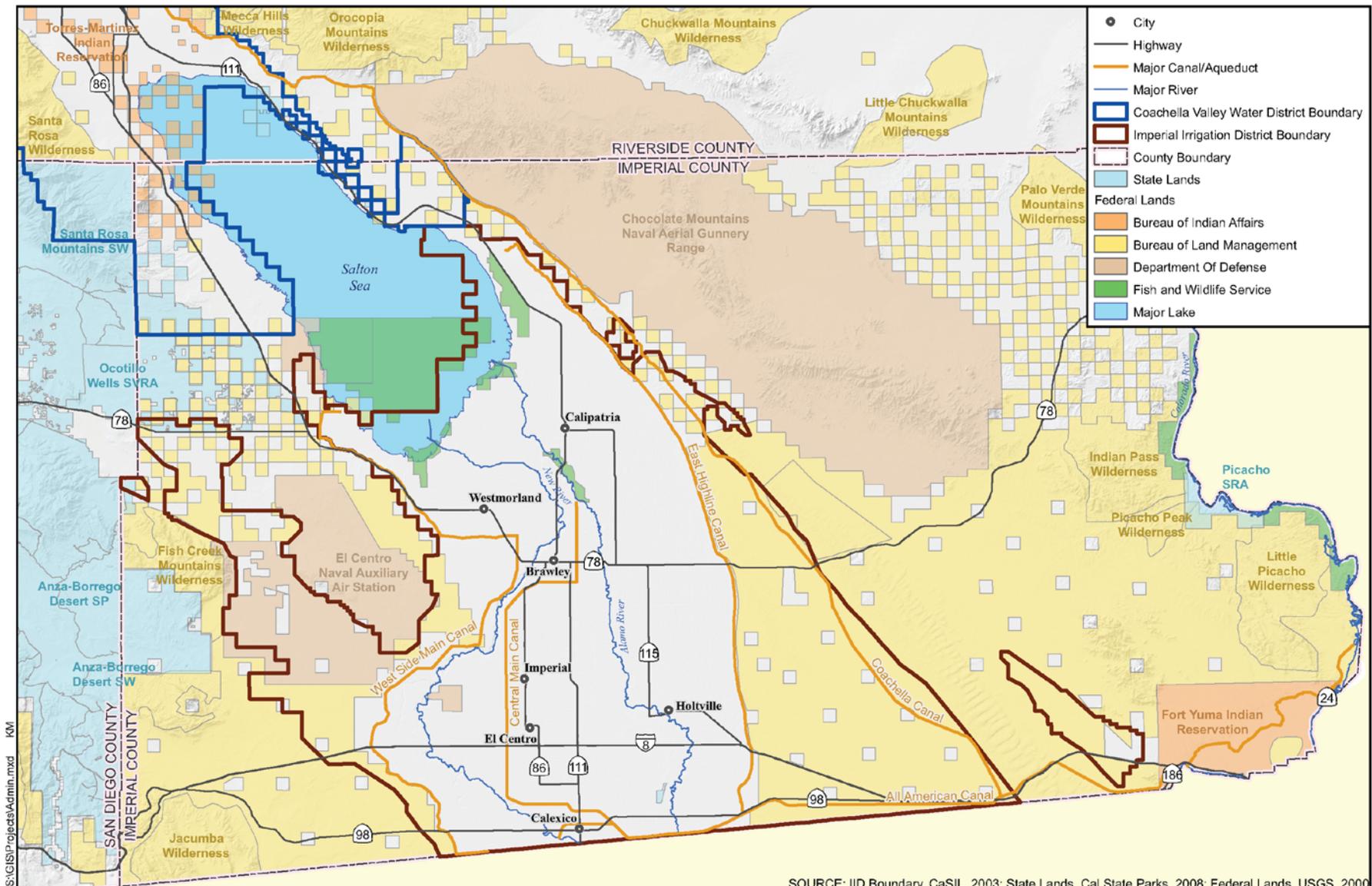
Figure 1-2, Jurisdictional and Administrative Boundaries, presents the county boundaries, location of developed areas, water district boundaries, IID delivery system, and important land ownership features. IID is responsible for delivery of untreated, non-potable Colorado River water for all uses to the central area of the Imperial Region, including Plaster City. Ocotillo's water supply is from a well field generated by groundwater from the Laguna Mountains, which lie to the west of the Imperial Region. IID has an entitlement to 3.1 MAF of Colorado River water. With more than 3,000 miles of canals and drains, IID is the largest irrigation district in the nation, delivering up to 2.8 MAF annually to nearly one-half million irrigated acres.<sup>2</sup> Approximately 97 percent of the delivered water is used for agricultural purposes, making possible Imperial County's ranking as one of the top ten agricultural regions nationwide. The remaining three percent of its water deliveries supply seven municipalities, one private water company and two community water systems as well as a variety of industrial uses and rural homes or businesses.<sup>3</sup>

The Urban Area designation on the Imperial County's Land Use Plan includes areas surrounding the seven incorporated cities; Imperial, Brawley, El Centro, Westmorland, Holtville, and Calexico. The respective cities and Imperial County have authority over land use; adopt General Plans and zoning to guide land use; prepare Urban Water Management Plans to guide use of their available water supplies where required to do so; and act as lead agency pursuant to the California Environmental Quality Act (CEQA). Imperial Region includes a number of unincorporated communities, Calipatria, and Niland to the north; Heber, Seeley, and the Naval Air Station in the center; and Ocotillo/Nomirage in the West Mesa area.

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<sup>2</sup> For a complete Water Balance see *IID 2007 Water Conservation Plan*, pp 28 – 32.

<sup>3</sup> IID website.



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SOURCE: IID Boundary, CaSIL, 2003; State Lands, Cal State Parks, 2008; Federal Lands, USGS, 2000



IID IRWMP  
Imperial County, California  
Imperial Irrigation District



JURISDICTIONAL AND ADMINISTRATIVE FEATURES  
APRIL 2009 **DRAFT** FIGURE 1-2

## 1.4 Information on Submitting Entity

The RWMG is to consist of IID, Imperial County, and representatives of the incorporated areas. As discussed further in Section 4, Imperial RWMG Structures and Roles, the Imperial Region Water Forum will be formed to include other stakeholders. IID, on behalf of the RWMG and Imperial Region Water Forum, is acting as the submitting entity and will be providing overall coordination and contracting capabilities.

IID is the submitting agency because it is the holder of the Colorado River water rights used in the area; currently operates a Water Planning Committee in cooperation with Imperial County; is the wholesaler to Imperial Region cities; and previously initiated an integrated planning effort that is now seeking to become a regional planning effort pursuant to the Water Code and DWR guidelines. It is anticipated that the submitting entity representative, a member of the IID Board, and possibly a member of the IID Board of Supervisors or County Executive level staff will participate in the interview.

Key contact information for coordinating with DWR is:

Mike King, Water Department Manager  
Imperial Irrigation District (IID)  
333 Barioni Blvd.  
P.O. Box 937  
Imperial, CA 92251  
Phone: 760.339.9287  
mlking@IID.com

IID provides a majority of the water distribution and drainage services that are available in the Imperial Region.<sup>4</sup> However, IID delivers only untreated, non-potable surface water to agricultural, domestic, municipal, commercial, and industrial users in its 500,000 acre water service area. IID also provides them with access to an extensive drainage network. To comply with US Environmental Protection Agency (EPA) requirements and avoid termination of canal water service, residents in the IID service area who do not receive treated water service must obtain alternative water service for drinking and cooking from a state-approved provider. To avoid penalties that could exceed \$25,000 a day, IID strictly enforces this rule. IID tracks nearly 4,000 raw water service accounts that are required by the California Department of Public Health (CDPH) to have alternate drinking water service, maintains a small-acreage pipe and drinking water database, and provides an annual compliance update to CDPH.

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<sup>4</sup> IID Energy provides electric power to more than 145,000 customers in the Imperial Valley and parts of Riverside and San Diego counties. As the sixth largest utility in California, IID Energy controls more than 1,100 megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long- and short-term power purchases. As a consumer-owned utility, IID Energy works to efficiently and effectively meet its customers' demands at the best possible rates, tying the area's low-cost of living directly with low-cost utilities. This is accomplished by producing 30 percent of our power supply locally, using efficient, low-cost hydroelectric facilities, steam generation facilities, as well as several natural gas turbines. Environmentally friendly operations are emphasized, by employing as many "green" resources as available. IID Energy's diverse resource portfolio provides its customers with some of the lowest cost rates in the state.

Surface water, purveyed under IID's senior water rights to the consumptive use of Colorado River water, is delivered through an extensive canal system. Drainage water is collected in an equally extensive surface drain system and conveyed, via the New River or Alamo River or directly, to the Salton Sea. IID has historically focused on agricultural water users since agriculture represents 97 percent of its water demand. In addition, as indicated above, IID purveys wholesale water to municipal, commercial and industrial users (MCI) but does not provide treated water at the retail level. Cities and other developed communities that receive water from IID, treat and purvey it to their retail customers. It is anticipated that MCI sector use will increase in the future, placing increased pressure on water supply that has become stressed as a result of IID actions and plans to meet QSA obligations. The majority of the near-term (five-year) increase will likely be for power generation. In the longer term, electric power generation and MCI development are anticipated, with agricultural use being stabilized at levels prescribed by the QSA.

## **1.5 Imperial Region IRWMP Purpose and Need, Goals and Objectives**

The purpose and need, preliminary goals and objectives are documented below. The IID Board reviewed the information at the April 14, 2009 Board Meeting. These are to be further refined with input from the RWMG and Imperial Water Forum.

### **1.5.1 Purpose and Need for IRWMP**

- IID holds senior water rights to Colorado River water, with an annual consumptive use cap of 3.1 MAF. IID delivers untreated surface water to agricultural, domestic, municipal, commercial, and industrial users in its 500,000 acre service area. IID is the sole water supplier for users within its service area in Imperial Valley.
- IID also provides electric power to more than 140,000 customers in the Imperial Valley and parts of Riverside and San Diego counties, derived from a diverse portfolio that includes its own generation, and long- and short-term power purchases.
- IID delivers water 365 days a year through an extensive conveyance system comprised of over 1,600 miles of canals and laterals that are primarily gravity flow, open channels. Drainage water is collected and conveyed through an equally extensive drainage system, which discharges via the New River, the Alamo River, and for a portion of the area served, directly to the Salton Sea.
- IID's main customer base is the agricultural water users who represent 97 percent of IID's water demands.
- IID purveys wholesale water to MCI users, but does not provide treated water and as such is not a public water system. Cities and other developed areas receive the untreated water, which they treat and purvey to their retail customers.
- It is anticipated that MCI sector uses will increase in the future, placing additional demands on IID's now limited water supply. These increased MCI demands could negatively affect IID's agricultural water users given the higher priority IID grants and reliability required by non-agricultural customers. The majority of the near-term MCI

growth (five years) is likely to be from urbanization and the development of renewable energy generation projects.

- With the approval of the Quantification Settlement Agreement (QSA) in 2003, IID's annual consumptive use of Colorado River water was capped at 3.1 MAF as measured at Imperial Dam. The QSA requires the implementation of additional water conservation measures sufficient to conserve, in total, up to 408,000 acre-feet per year of Colorado River water for transfer out of IID's service area, reducing IID's Net Consumptive Use Amount, measured at Imperial Dam, to 2.6128 MAF per year.
  - a. IID has completed a planning effort, known as the Efficiency Conservation Definite Plan (Definite Plan), which recommends the efficiency conservation measures necessary to meet the terms of the QSA.
  - b. A draft Habitat Conservation Plan (HCP), which was adopted as part of IID's QSA and water transfer agreement environmental permits and requirements, is being finalized in conjunction with a Natural Community Conservation Plan (NCCP) to provide additional environmental protections for IID. The environmental issues and mitigations associated with the QSA and water transfer agreements are identified in the program's EIR/EIS, and many of these same concerns may affect and/or constrain the development of additional water supply project alternatives.
  - c. Within IID, the IID Board has recognized the increasing water use demands and supply limitations and has approved an Equitable Distribution Plan (EDP) to assist IID in the management of its fixed water supply during times of supply-demand imbalance. The EDP is meant to ensure equity while providing certainty and flexibility among IID water users and assist in agricultural planning efforts.
  - d. The QSA and Related Agreements, along with an Interim Agreement on Colorado River Operations, which was signed by the Secretary of the Interior and representatives of the seven Colorado River basin states, define approaches to dealing with surpluses or shortages on the Colorado River in a range of hydrologic conditions; further documenting and constraining how water will be provided to Colorado River water users under such conditions.
- The cities and developed areas within the IID service area include Brawley, El Centro, Imperial, Westmorland, Calipatria, Niland, Seeley, Heber, Calexico, and Holtville. The respective cities and Imperial County have authority over land use. They adopt General Plans and zoning to guide land use; prepare Urban Water Management Plans (UWMP) to guide use of their available water supplies where required to do so; and act in such matters as lead agency pursuant to the California Environmental Quality Act (CEQA).
- Imperial County adopted a Groundwater Management Ordinance, revised May 11, 2004, and amended August 3, 2004. Portions referring to IID are contained in Section 92202.01.
- Physical solutions consisting of local and regional projects, policies and funding are needed to ensure a safe, reliable water supply is available to meet planned and anticipated

MCI demands in the incorporated cities and/or unincorporated areas of Imperial County experiencing growth and economic development.

- IID is working to provide a reliable supply to meet MCI demands, including geothermal and other possible energy projects; while ensuring that these new supplies avoid, minimize, or mitigate impacts to agricultural water users and are in compliance with IID's existing contractual and regulatory obligations.
- IID is an agricultural water district with the powers and authorities, infrastructure, water rights, and experience necessary to develop solutions for increasing water demands and supply limitations while providing opportunities to increase the reliability of its water supply for both current and future users.
- IID is preparing a water resources plan that will outline projects, programs, and policies that define local and regional solutions to ensure that a long-term, sustainable water supply is available to meet both current and future MCI demands without impacting existing agricultural water users.

### **1.5.2 Goal**

The IID Board initiated work in January 2009 to prepare and plans to adopt an Integrated Water Resources Management Plan (IID Plan). This effort will provide the basis for the IRWMP, which will be developed in cooperation with the Water Forum and with additional stakeholder input.

The proposed goal for IID and the IRWMP is “To provide a strategic road map that defines a portfolio of water projects intended to deliver a reliable water supply for municipal, commercial, and industrial water users over a 30-year planning horizon (2009 to 2040); and garners local consensus for a course of action which anticipates and thus avoids conflicts over water within the IID service area.”

In the process of preparing the IID Plan, the IID Board realized that a wider effort such as is provided by the DWR IRWMP would benefit not only IID but also agencies in the Imperial Region that are charged with water supply and oversight.

### **1.5.3 Objectives**

The objectives for the IRWMP should be tangible and specific, and should help the IID Board to define and select alternative management strategies that will support the Board in meeting the stated goal. The management strategies will include both capital projects and non-structural policies and programs. IRWMP objectives are to:

- Prevent impacts to existing agricultural users of water and protect IID water rights.
- Define cost-effective projects and equitable cost sharing agreements with those entities and water users that would receive benefits from proposed water management actions.
- Identify projects that are consistent with existing agreements on use and management of the Colorado River, including the QSA and Related Agreements.

- Recognize and resolve potential conflicts over use of available water resources.
- Promote economic development consistent with IID policies, standards, and guidelines for new consumptive uses of water.

The IRWMP will:

- Describe future short-, mid-, and long-term non-agricultural water use demand scenarios.
- Identify, quantify, and cost out new local, regional, and imported water supply opportunities.
- Recommend demand management plans, non-agriculture water use best management practices (BMPs), drought management strategies, emergency contingency plans, and policies for non-agricultural water uses.
- Assess new opportunities for IID to provide water-related services within its service area.
- Evaluate water quality, reliability, and costs for demand and supply scenarios.
- Identify regulatory compliance requirements associated with future water demand and supply scenarios.
- Assess IID's current level of service based on records and recommend changes, as appropriate.
- Evaluate water supply costs, water rates, pricing structures, and funding sources.
- Prioritize recommendations for decision-making purposes.
- Streamline the approval process that Imperial County and Imperial Region cities use when they are considering land use plans and development proposals that require new or expanded water supplies, and help Imperial Region cities and Imperial County comply with state laws.

Meetings and conference calls were held in February and March with Imperial County and the Cities to explain the IID Board's intent for developing a plan and to begin the outreach process. Considerations expressed by participants to embark on an integrated planning process include:

- To be involved in achieving better planning efforts that address regional water needs unique to the Imperial Region and ensuring those needs are adequately identified and prioritized.
- Developing solutions that help the cities with preparation of water supply assessments and Urban Water Management Plans.
- To coordinate water management between regional agencies and work together to find economically and environmentally responsible solutions to regional needs.
- To ensure equitable resource protection.
- To ensure appropriate consideration for federal and state funding.
- The ability to integrate specific funding through a sub-regional approach.

## **1.6 Conformance with Final Region Acceptance Process Guidelines**

Table 1-1 provides a summary of the RAP guideline requirements indicating what sections in the submittal address the specific requirement.

**Table 1-1. Summary of Conformance with RAP Guidelines**

<b>Question No.</b>	<b>Materials to submit per <i>Final Region Acceptance Process, A component of the Integrated Regional Water Management Program Guidelines</i></b>	<b>Location Within RAP</b>
1	<ul style="list-style-type: none"> <li>✓ Information on the submitting entity including why the RWMG has selected the entity to submit the RAP materials.</li> <li>✓ Include contact information (name, address, phone, fax, and email) of the person whom DWR should coordinate.</li> </ul>	Section 1.4
2	<ul style="list-style-type: none"> <li>✓ A description of the composition of the RWMG. Identify RWMG members, including their role in the RWMG process, regional water management responsibilities, and the level of IRWM participation. For each entity, state if they have adopted, plan to adopt, or will not adopt the IRWM plan.</li> <li>✓ A listing of the local agencies within this region with statutory authority over water supply or water management, and provide the basis and nature of that statutory authority even if they are not part of the RWMG.</li> </ul>	Section 5.1.1
	<ul style="list-style-type: none"> <li>✓ A listing of the other participants such as agencies, stakeholders, and others included in the RWMG and describe their role in developing and implementing the IRWM Plan.</li> </ul>	Section 6 and Attachment. Also see figure 1-2.
	<ul style="list-style-type: none"> <li>✓ List and describe the working relationship of identified agencies and stakeholders per CWC §10541.(g), which may include:                             <ul style="list-style-type: none"> <li>• Wholesale and retail water purveyors; including a local agency, mutual water company, or a water corporation as defined by Section 241 of the Public Utilities Code;</li> <li>• Wastewater agencies;</li> <li>• Flood management agencies;</li> </ul> </li> </ul> <p>Municipal and county governments and special districts;</p> <ul style="list-style-type: none"> <li>• Electrical corporation, as defined in Section 218 of the Public Utilities Code;</li> <li>• Native American Tribes that have lands within the region;</li> <li>• Land use authorities;</li> <li>• Watermaster for adjudicated surface water or groundwater basins;</li> <li>• Self-supplied water users, including agricultural, industrial, residential and park districts, school districts, colleges and universities, and others;</li> </ul>	<p>Section 5.5</p> <ul style="list-style-type: none"> <li>• Sect. 3.1.4.2- Surface Water Supplies; Sect. 3.1.4.3.1- Drinking Water Systems</li> <li>• Sect. 3.1.4.3.2- Wastewater Systems</li> <li>• Sect.3.1.4.3.1- Drainage; 3.1.4.3.3 –Flood Protection</li> <li>• Figure 1-2; Sect. 6</li> <li>• IID is the electrical service provider</li> <li>• Figure 1-2; Sect. 6</li> <li>• Figure 1-2; Sect. 6</li> <li>• None</li> <li>• Very limited, IID is source of imported water.</li> </ul>

	<ul style="list-style-type: none"> <li>• Environmental stewardship organizations including watershed groups, fishing groups, land conservancies, and environmental groups;</li> <li>• Community organizations, including land owner organizations, taxpayer groups, and recreational interests;</li> <li>• Industry organizations representing agriculture, developers, and other industries appropriate to the region;</li> <li>• State, federal, and regional agencies or universities that have specific responsibilities or knowledge within the region;</li> <li>• Members and representatives of disadvantaged communities, including environmental justice organizations, neighborhood councils, and social justice organizations; and</li> <li>• Any other interested groups appropriate to the region.</li> </ul>	<ul style="list-style-type: none"> <li>• Sect. 6, , Attachment</li> <li>• Sect. 6, , Attachment</li> <li>• Sect. 6, Attachment</li> <li>• Sect. 6, Attachment</li> <li>• Sect 1-1; 5.1.1; 6.1.1</li> </ul> <p>Sect. 6, Attachment</p>
	<p>✓ Descriptions of working relationship may include but is not limited to information regarding the sharing of information, shared infrastructure, or competing interests.</p>	<p>Sect. 5.5. Also see Sect. 2 Background, Section 2.2</p>
3	<p>✓ A description of how stakeholders, including DACs, are identified and invited to participate.</p> <p>✓ List the procedures, processes, or structures that promote access to and collaboration with people or agencies with diverse views within the region.</p> <p>✓ Discuss how the outreach efforts address the diversity of water management issues, geographical representation, and stakeholder interests in the region.</p> <p>✓ Explain how the IRWM region is inclusive and utilizes a collaborative, multi-stakeholder process that provides mechanisms to assist DAC; address water management issues; and develop integrated, multi-benefit, regional solutions that incorporate environmental stewardship to implement future IRWM plans.</p>	<p>Sect. 6. Also see Sect. 2 Background, Section 2.2</p> <p>Sect. 6</p> <p>Sect. 5.</p> <p>Sect. 5- Governance, Roles</p> <p>Sect. 4- Boundary, Figure 4-1.</p>
4	<p>✓ A description of the process being used that makes the public both part of and aware of the regional management and IRWM efforts. Discuss ways for the public to gain access to the RWMG and IRWM process for information and how they could provide input.</p>	<p>Sect. 5- Governance;</p> <p>Section 6- Stakeholder/Public Outreach</p>

5	<p>✓ A description of the RWMG governance structure and how it will facilitate the sustained development of regional water management and the IRWM process, both now and beyond the state grant IRWM funding programs.</p> <p>✓ Discuss how decisions are made. Identify the steps in which RWMG arrives at decisions and how RWMG members participate in the decision-making process. Examples of RWMG decisions to consider in the discussion include:</p> <ul style="list-style-type: none"> <li>• Establishing IRWM plan goals and objectives</li> <li>• Prioritizing projects</li> <li>• Financing RWMG and IRWMP activities</li> <li>• Implementing plan activities</li> <li>• Making future revisions to the IRWM plan</li> <li>• Hiring &amp; managing consultants</li> </ul> <p>✓ Describe how the RWMG will incorporate new members into the governance structure. Explain the manner in which a balance of interested persons or entities representing different sectors and interests have been or will be engaged in the process, regardless of their ability to contribute financially to the plan.</p> <p>✓ Describe how the governance structure facilitates development of a single collaborative water management portfolio, prioritized on the regional goals and objectives of the IRWM region.</p>	<p>Sect. 5.1 Governance Structure and Purpose</p> <p>Sect. 5.2 Decision process</p> <p>Sect. 5.2.1.2 Refine Goals Sect. 5.2.1.3; Sect 5.2.1.4; Sect 5.2.1.5</p> <p>Sect. 5.3 Financing</p> <p>Sect. 5.2.2 Implementation</p> <p>Sect. 5.2.3 Revision</p> <p>Sect. 5.1.3 Contract and Program Administration</p> <p>Section 5.4- New Members</p> <p>Section 5.2 Decision Process Section 5.1 Decision Structure</p>
6	<p>✓ Present the IRWM regional boundary. Indicate in the submittal which boundaries are included and if/how they affect the determination of the region boundary:</p> <ul style="list-style-type: none"> <li>• Political/jurisdictional boundaries;</li> <li>• Water, conservation, irrigation, and flood district boundaries;</li> <li>• Watershed management areas;</li> <li>• Groundwater basins as defined in DWR Bulletin 118, Update 2003 – California’s Groundwater;</li> <li>• RWQCB boundaries</li> <li>• Floodplain maps (i.e. FEMA/Corps of Engineers);</li> <li>• Physical, topographical, geographical and biological features;</li> </ul>	<p>Sect. 4.1 – Basis for Regional Boundary</p> <p>Figure 1-2, Jurisdictional and Administrative Boundaries</p> <p>Figure 3-1, Hydrology Features</p>

	<ul style="list-style-type: none"> <li>● Surface water bodies;</li> <li>● Major water related infrastructure;</li> <li>● Impaired water bodies;</li> <li>● Population;</li> <li>● Biological significant units or other biological features (critical habitat areas); and</li> <li>● Disadvantaged communities with median household income demographics</li> </ul> <p>✓ Explain how the IRWM region encompasses the service areas of multiple local agencies and will maximize opportunities to integrate water management activities related to natural and man-made water systems, including water supply reliability, water quality, environmental stewardship, and flood management.</p> <p>✓ On CD(s), provide map(s) that present the regional boundaries in UTM Zone 10, NAD 27 format, including the above information, as applicable.</p>	<p>Section 2- Background/History Section 2.2- Issues/Conflicts</p> <p>Enclosed</p>
7	<p>✓ A description of the history of IRWM efforts in the region. Describe how the region boundary relates to the current water resources and historic water management issues in the region.</p> <p>✓ A description of the regional water management issues, and conflicts in the region. Issues and conflicts may relate to water supply, water quality, flood management, environmental stewardship, imported water, waste water, conjunctive use, etc. Also describe efforts to develop multi-benefit integrated programs and projects that meet regional priorities.</p> <p>✓ A description of the water related components of the region. The submittal must consider two different types of components, the physical components and the groups that manage or have input to those components. Physical components of a water system include natural and manmade infrastructure. Some of the components to be included are watersheds, surface water impoundments, ground water basins, water collection systems, distribution systems, wastewater systems, flood water systems, and recharge facilities. The submittal should explain how water arrives in the region, how it is used, and how it is handled after it is used.</p>	<p>Sect. 2.1- Water History</p> <p>Sect. 2.2- Issues and Conflicts</p> <p>Sect. 3; Figure 3-1 and 3-2.</p>

8	<ul style="list-style-type: none"> <li>✓ A description of the IRWM region's relationship and coordination with adjacent existing or developing IRWM regions.</li> <li>✓ Identify any overlapping areas and explain the basis for the overlap. Discuss whether there is a clear relationship and acknowledgement by both regions that the overlap is acceptable.</li> <li>✓ Explain whether the regional boundary will leave any uncovered or void areas immediately outside or within the boundary. Describe any areas within the region that are excluded or create a void area and explain why this is reasonable and appropriate.</li> <li>✓ Describe any distinct water management differences between adjacent or overlapping IRWM regions and the proposed IRWM region to support being separate IRWM regions.</li> </ul>	<p>Sect. 4.2- Relationship to Other Regions</p> <p>Sect. 4.2- Relationship to Other Regions</p> <p>Sect. 4.1- Basis for the Regions</p> <p>Sect. 4.1- Basis for the Regions; Sect. 4.2- Relationship to Other Regions</p>
9	<p>List the entities and the number of representatives from each entity that the RWMG anticipates will be participating in the RAP interview, and the primary spokespersons within those who will be attending.</p>	<p>Sect. 1.4- Submitting Entity</p>

## 2 Background/History, Issues, and Conflicts

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This section provides a description of the history of Imperial Region IRWM efforts, and a broad depiction of the regional water management issues and actual or potential conflicts in the region. The IRWMP will further evaluate issues and conflicts that are related to water supply, water demand, water quality, flood management, environmental stewardship, imported water, wastewater, conjunctive use, etc. All of the subsequent evaluations and stakeholder coordination efforts will be to develop multi-benefit integrated programs and projects that meet regional priorities, help to achieve a consensus within the region, and prevent conflicts from reaching critical levels, resulting in litigation.

### 2.1 Water History

Prior to the mid-1800s, the Imperial Valley was a desert, but the area's potential began to be recognized when it was determined that the desert lay below sea level and could be irrigated by a gravity-flow canal diverting water from the Colorado River. Soon after, recommendations were made for a canal, and legislation was introduced into Congress authorizing development of the Imperial Valley. In 1901, the California Development Company began diversions into a canal, which had its heading in the United States and ran most of its length in Mexico before re-crossing the International Border into the Imperial Valley. IID was formed in 1911 to acquire properties of the bankrupt California Development Company and its Mexican subsidiary.<sup>5</sup>

In 1904 silt blocked the canal to the Imperial Valley and a temporary diversion of the Colorado River constructed to replace water from the blocked canal. In 1905 the diversion was breached by floodwater, and from 1905 to 1907, intense flooding prevented repairs and redirection of the Colorado River. During this time, the entire flow of the Colorado River entered the Imperial Valley and the Imperial Valley bottom was filled with approximately 80 feet of sediment (to elevation 198 feet below sea level). The Salton Sea was created by this flood, which also greatly enlarged the New and Alamo Rivers.

Land use to the north and south of the sea is predominantly agricultural; the rest of the surrounding area is desert. Much of the land underlying the sea is federally owned. In 1924, President Calvin Coolidge signed Orders of Withdrawal creating a public water reserve around the Salton Sea. Public water reserve lands located around the Salton Sea were created for the express purpose of storing drainage waters from irrigated lands in Imperial and Coachella valleys and for natural runoff. IID's extensive gravity flow drainage system discharges into this public water reserve.

The Salton Sea has no outlet; therefore, unless actions are taken to address increasing salinity (currently 50 percent saltier than ocean water), the sea will become too saline to support its present fishery and associated avian population. Alternatives for maintaining the entire sea at near-present salinity levels were evaluated pursuant to the federal Salton Sea Reclamation Act of 1998 (PL 105-372). None of these alternatives were implemented because of their high costs and

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<sup>5</sup> IID website: <http://www.iid.com/Water/IIDWaterHistory>

institutional and environmental difficulties. Subsequently, concepts were proposed that would maintain only a portion of the sea at present salinity levels, potentially reducing the scope and cost of restoration to a more manageable level. The restoration study prepared in compliance with the QSA implementation legislation will examine the smaller sea approach, as well as other alternatives designed to sustain maximal fish and wildlife resources at the sea.<sup>6</sup>

On behalf of the California Resources Agency, the Department of Water Resources (DWR) and the Department of Fish and Game (DFG) prepared a restoration plan for the Salton Sea ecosystem and an accompanying Environmental Impact Report (EIR). As part of this effort, which is based on State legislation enacted in 2003 and 2004 (SB 277, SB 317, SB 654, and SB 1214), DWR and DFG developed a preferred alternative for the restoration of the Salton Sea ecosystem and the protection of wildlife dependent on that ecosystem. The Preferred Alternative Report and Funding Plan was completed and submitted to the Legislature in May 2007. The final Programmatic Environmental Impact Report was subsequently completed in June 2007.

In February 2007, a Draft Report was produced that provided a summary of the USBR's study efforts to determine a preferred alternative action for restoring the Salton Sea. One year later, in February 2008, Reclamation published a Final Report and Summary Report about the agency's study efforts to determine a preferred alternative action for restoring the Salton Sea.

On January 24, 2008, the Legislative Analyst's Office released the report [Restoring the Salton Sea](#). The report discusses the history and current state of the Sea and legal and policy reasons for restoring the Sea. The report also makes recommendations on how the Legislature should proceed with the restoration. The State of California has legal and contractual obligations to restore the Sea, and the Secretary for Resources has recommended an \$8.9 billion restoration plan to the Legislature.

### **2.1.1 Water Entitlement<sup>7</sup>**

IID's extensive rights to the use of Colorado River water are based on historic state law appropriations. In 1932 IID entered into a contract with the Secretary of the Interior to receive entitlement to 3.85 MAF of water minus priorities one (Palo Verde Irrigation District, PVID) and two (Yuma Project) – as in the 1931 California Seven-Party Agreement.

Determinations related to IID's Present Perfected Right (PPR) to the use of Colorado River water include Section 6 of the Boulder Canyon Project Act (1928), Article VI of the 1964 Supreme Court decree in *Arizona v. California*, and the 1979 supplemental decree. IID's PPR consists of 2.6 MAF of diversions of the quantity of mainstream water necessary to supply the consumptive use (CU) required for irrigation of 424,145 acres and the satisfaction of related uses, whichever is less, with a priority date of 1901.

In summary, IID's federal entitlement has two components: 1) the PPR, and 2) the remaining contract portion, between the PPR and the maximum amount under the 1932 Contract and the

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<sup>6</sup> <http://www.salttonsea.water.ca.gov/documents/history.cfm>

<sup>7</sup> IID website: Excerpt from IID 2007 Water Conservation Plan.

Seven Party Agreement – both grounded in state law prior appropriations (Swan, 2007), as limited by the QSA and Related Agreements.<sup>8</sup>

<b>Instrument &amp; Date</b>	<b>Extent of Right</b>	
Present Perfected Right (PPR)	2.6 MAF of diversions from mainstream of the Colorado River or quantity of mainstream water necessary to supply consumptive use required for irrigation of 424,145 AC and satisfaction of related uses, whichever is less.	1901
Contract with Interior Secretary	3.85 MAF of water minus priorities one (PVID) and two (Yuma Project)	1932
California Seven-Party Agreement	Same as Contract with Interior Secretary	1931
<i>Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for purposes of Section 5(B) of Interim Surplus Guidelines (CRWDA/ FEDERAL QSA)</i> <sup>9</sup>	Except as otherwise determined under the Inadvertent Overrun and Payback Policy identified in Section 9 of this Agreement, the Secretary shall deliver Priority 3(a) Colorado River water to IID in an amount up to but not more than a consumptive use amount of 3.1 MAF less the amount of water equal to that to be delivered by the Secretary for the benefit of CVWD, MWD, SDCWA, SLR, and Indian and miscellaneous PPRs as set forth in Exhibits A and B herein. Colorado River water acquired by IID after the date of this Agreement, and where necessary approved by the Secretary shall not count against this cap.	2003

Source: Swan, 2007, Law of the River; and CRWDA/Federal QSA, 2003, p 3 <http://www.iid.com/Media/Colorado-River-Water-Delivery-Agreement.pdf>

### **2.1.2 Other Agency Relationships**

- 1988 – IID/MWD Water Conservation Agreement for the transfer of up to 110,000 acre-feet per year for a 35-year period, and 1989 Approval Agreement among IID, MWD, PVID, and CVWD signed
- 1990 – January, construction begins on projects agreed upon in MWD agreement; December 1998 last construction project completed
- 1998 – IID and San Diego County Water Authority (SDCWA) entered into a long-term conservation and water transfer agreement
- 1999 – IID, CVWD, and MWD approve the Key Terms for Quantification Settlement among the State of California, IID, CVWD, and MWD, as the basis for obtaining public input regarding Colorado River use in California
- 2001 – 2003-IID, CVWD, and MWD engaged in Quantification Settlement negotiations with the State of California and the US Bureau of Reclamation (USBR)

<sup>8</sup> For an overview of the QSA and related documents, visit <http://www.iid.com/Water/QSAWaterTransfer> or <http://www.usbr.gov/lc/reportsarchive.html>

<sup>9</sup> CRWDA: Federal QSA among the US, IID, CVWD, MWD, and SDCWA. <http://www.usbr.gov/lc/region/g4000/QSA/crwda.pdf>

- 2002 – June, IID published the final environmental impact reports and a habitat conservation plan required for implementation of the IID/SDCWA Water Conservation and Transfer Agreement
- 2002 – December, State Water Resources Control Board approved the IID/SDCWA transfer
- 2003 – October, *Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for Purposes of Section 5(B) of Interim Surplus Guidelines*<sup>9</sup> was signed by US Secretary of the Interior, CVWD, IID, MWD, and SDCWA; the QSA and Related Agreements were signed by US Secretary of the Interior, various Indian tribes, USBR, CVWD, IID, MWD, and SDCWA—referred to herein as the QSA/Transfer Agreements
- 2003 – December, IID implementation of 13-month Emergency Fallowing Program; IID paid water users to fallow 69 fields to generate water to meet transfer and mitigation obligations defined in the QSA; followed by annual Fallowing Programs anticipated to end by 2018.
- 2004 – April, IID acquired 41,761.4 acres of agricultural lands located within its service area from a California limited partnership to ensure that IID would be able to meet its water transfer and mitigation obligations for the duration of the required fallowing period (through 2017)
- 2004 – September, IID engaged Parsons Water and Infrastructure, Inc. for project management and construction management of the All-American Canal Lining Project (AACLP)
- 2007 – Davids Engineering, Inc., Keller-Bliesner Engineering, LLC, Concur, Inc, and others were contracted by IID to develop the *Efficiency Conservation Definite Plan* (Definite Plan), which is to serve as “a roadmap for implementing programs that achieve voluntary grower participation in on-farm conservation and for designing and constructing district system projects that conserve water and provide flexible, reliable service to growers.” Thus, the Definite Plan documents how IID will manage and conserve water to meet the intent of the QSA/Transfer Agreements, verify water savings, and utilize the available Colorado River Supplies to meet the IID obligations.
- 2008 – IID Board approved an Equitable Distribution Plan to assist IID in the management of its fixed water supply during times of supply demand imbalance. This plan is meant to ensure equity while providing certainty and flexibility among IID water users and assist in agricultural planning efforts.
- Date Pending – IID has been working with the state and federal resources agencies to complete the IID HCP and Natural Communities Conservation Plan (NCCP) (pending), as required by California Endangered Species Act (CESA), and the Habitat Conservation Plan (HCP) to address the impacts of the QSA/Transfer Project and IID’s ongoing O&M activities in the Imperial Valley and Salton Sea area. The mitigation measures adopted by IID and those required under other Transfer Project permits and approvals are being implemented by IID under the In-Valley Biologic Opinion issued by the U.S. Fish and Wildlife Service (USFWS), and the In-Valley CESA Permit issued by the California Department of Fish and Game (CDFG). A 959-acre managed marsh complex is to be created along with other mitigation measures.

**Table 2-1. Summary of QSA and Implementing Agreements**

- Quantification Settlement Agreement and Related Agreements
- IID/SDCWA Conserved Water Transfer Agreement, including Revised Fourth Amendment to Agreement between IID and SDCWA for Transfer of Conserved Water
- IID/CVWD Intra-Priority 3A Transfer Agreement
- IID/MWD Water Conservation Agreement, and Approval Agreement
- QSA JPA Creation and Funding Agreement among the CDFG, CVWD, IID, and SDCWA
- Environmental Cost Sharing, Funding a Habitat Conservation Plan Development Agreement among CVWD, IID, and SDCWA
- Conservation Agreement among the USBR, IID, CVWD, and SDCWA
- Funding Agreement among USBR, MWD, and SDCWA
- Agreement between MWD and SDCWA for the allocation of the Benefit of the Biological Opinion
- Amended and Restated Agreement between MWD and SDCWA for the Exchange of Water
- Colorado River Water Delivery Agreement among the US Secretary of the Interior, CVWD, IID, MWD, and SDCWA
- Agreement for the Conveyance of Water among SDCWA, San Luis Rey Settlement Parties, and United States
- Allocation Agreement among United States, MWD, CVWD, IID, SDCWA, the La Jolla, Pala, Pauma, Rincon, and San Pasqual Bands of Mission Indians, the San Luis Rey River Authority, the City of Escondido, and Vista Irrigation District

## **2.2 Issues and Conflicts**

One of the goals of the Imperial Region IRWMP is to resolve and/or reduce current and potential future conflicts among water users in the Imperial Region. No real or perceived conflicts can be resolved without a recognition and clear understanding of the problems that drive the conflict. Conflicts within the Imperial Region have historical, geographic, technical, and institutional components.

With the growth of Las Vegas, the completion of the Central Arizona Project and creation of the Arizona Water Banking Authority, IID and the other Colorado River contractors became enmeshed in interstate and interregional conflicts surrounding Colorado River water use. The QSA and Related Agreements (QSA/Transfer Agreements) settled many interstate and interregional conflicts among the federal interests (USBR), Lower Basin States (California, Arizona, Nevada); and tribal and other California water rights holders (PVID & Yuma Project, IID, CVWD, MWD) over the use of and rights to Colorado River water. This prevented litigation that could have resulted in even greater impacts to IID's water supply.

A host of technical problems and institutional issues covering the entire Southern California and Lower Colorado River geography were resolved by the QSA/Transfer Agreements, and after extensive public hearings the State Water Resources Control Board issued approvals authorizing the transfer agreements. The QSA/Transfer Agreements have been approved by all appropriate parties, creating a complex legal, political, regulatory, and operational landscape.

The Secretary of the Interior, acting as Water Master for the Colorado River, through the USBR manages the large federal facilities on the Colorado River, establishes operating policies and

provides final accounting for all Colorado River water uses including components of the QSA/Transfer Agreements. Since adoption of the QSA/Transfer Agreements, two major changes that both benefit and constrain IID are the Inadvertent Overrun and Payback Policy (IOPP) and the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lakes Powell and Mead.

The QSA/Transfer Agreements define a new reality and create changed circumstances under which IID must manage the major water source of the Imperial Region. Specifically, resolution of the interregional and interstate conflicts has resulted in supply constraints for IID customers that now must be resolved at the local level. These represent the baseline conditions for the IRWMP, which involve IID and the other Imperial Region stakeholders.

California's share of the Colorado River is fixed and finite at 4.4 MAF per year under most conditions. The seniority of the IID water right is confirmed but, for the term of the QSA, is effectively capped at 3.1 MAF per year (consumptive use, measured at Imperial Dam). In addition, the QSA/Transfer Agreements in total require IID by 2027 to reduce its net annual consumptive use of Colorado River water by 408,000 AF, with the conserved water transferred out of the Imperial Region. The result of these water transfers is to effectively reduce IID's annual supply to between 2.6 and 2.7 MAF of consumptive use measured at Imperial Dam. With the implementation of on-farm and system efficiency measures, this amount is anticipated to meet existing demands in most years. This supply is stable and reliable due to IID's senior water rights.

IID/MWD transfer projects produce a verified 105,000 AF per year of conserved water. The additional reduction of 303,000 AF per year is to be achieved through the implementation of system and on-farm efficiency measures, without taking agricultural land out of production. The IID/SDCWA and IID/CVWD transfer agreements bring monies into the Imperial Region to fund the capital improvements and efficiency programs needed to achieve the required conservation and to address the environmental impacts of these programs. As with the IID/MWD program, measures implemented as part of the IID/SDCWA and IID/CVWD transfer programs are expected to reduce consumptive use by a like amount within the Imperial Region.

The IID Definite Plan provides a road map of the projects, costs, and investments that can be implemented as system and voluntary on-farm and system conservation measures using the revenues generated from the transferred water. In short, the Definite Plan outlines how IID will decrease its annual water use to meet its conservation and transfer obligations as defined by the schedules in the QSA/Transfer Agreements while ensuring the long-term viability of the Imperial Region's agricultural economic base.

Even with full implementation of the Definite Plan, agricultural demand is expected to vary significantly from year to year due to fluctuations in markets and weather, further complicating and limiting IID's operational flexibility. In addition, new municipal, commercial, and industrial developments are anticipated for the Imperial Region, which may reduce the water supplies available for agricultural use. In some years IID's total annual consumptive use may exceed its Colorado River entitlement, resulting in inadvertent overruns (annual use that exceeds the capped amount), which IID must pay back in subsequent years according to the terms of the IOPP.

To reduce the likelihood of an overrun in any given year, IID has approved an Equitable Distribution Plan that defines how the District will apportion water to its customers when the demand for water is anticipated to be greater than the available supply. When this is projected to occur, a Supply Demand Imbalance (SDI) may be declared by the Board of Directors. For agricultural water users, implementation of the Equitable Distribution Plan will cap their annual water apportionments and call into effect other measures that require additional planning and water management actions, with resulting higher costs. On the other hand, municipal, commercial, industrial, and environmental uses are not required to cut back as much (if any) during an SDI year. The higher degree of reliability granted to non-agricultural users in the IID water service area further limits and/or reduces the annual supply available to existing agricultural water users in any year that SDI is in effect – especially if new developments, with their associated water demands, are approved.

Two areas of conflict arise out of the potential for an annual overrun, both resulting from the hardened demands on the part of the MCI and environmental uses, which are not as affected in times of an SDI determination. One conflict is that MCI water users pay a higher price to IID for water than do agricultural users – whether or not an SDI is declared. That this is associated with benefits of increased reliability is not widely recognized. The other conflict is that MCI and, to a degree, environmental uses reduce the supply for existing agricultural users in years when demand exceeds supply, and development of new non-agricultural uses will only exacerbate this situation.

There are also years when IID may have an ‘under-run,’ when demand is less than the full entitlement available to divert. During under-run years, other California interests with junior water right priorities can divert and beneficially use the water that IID is not able to use. IID is seeking to develop opportunities to divert and store this water to increase water supply reliability in the Imperial Region. Potential storage may be available in the East Mesa, which is under the jurisdiction of Imperial County. The needed agreements regarding such a project could benefit from cooperation and development through the IRWMP process.

As noted above, the annual cap on IID’s supply has created competition and conflicts at the local level among agricultural, municipal, industrial, commercial, and environmental uses within Imperial Region. The cities and Imperial County have realized that their economic development is constrained by the recent cap on IID’s Colorado River water supply and the lack of any new reliable water supplies that will not impact existing agricultural water availability. Agricultural users are concerned that new development projects may negatively impact their supply. To address this challenge, either “new” water is needed to support growth or water would have to be allocated from existing agricultural uses.

The new reality and changed circumstances affect the planning environment in which Imperial Region stakeholders are making land use and water management decisions, and there are existing and potential conflicts within the Imperial Region between current users and future uses and/or among the types of water users (agricultural, municipal, industrial, commercial, and environmental). The conflicts are manifested in a number of lawsuits among local interests and in unresolved requests for water supply for new uses.

Water management and land use planning are interdependent. IID, as the water rights holder and wholesaler of the Colorado River supply, is working to develop a consensus with the other

stakeholders in the Imperial Region regarding water availability realities, possibilities for “new” supply, and how best to set water supply policies that will affect land use decisions. Imperial County and the Imperial Region cities need to be able to make defensible findings related to reliable water supply availability for new development water demands. In addition, a host of other issues related to water treatment, source water protection, drainage, recycling, and groundwater management may best be addressed at a regional scale.

The water supply and demand management problems, conflicts, and opportunities described herein must now be resolved within the Imperial Region at the local level by community stakeholders. The Imperial Region IRWMP will establish a range of water management strategies that can be used to develop project alternatives resulting in priorities for funding and implementation. The Imperial Region seeks to use the IRWMP planning framework to address and resolve conflicts through a facilitated process to reduce competition and polarization in the community, to build consensus, to provide an alternative to litigation, and to find a way forward in which the water demands for agriculture, economic development, and environmental uses can be met in a more harmonious manner.

## 3 Physical Setting, Regional Water-Related Components

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This section provides a description of water-related components of the region. It generally describes the physical components including the natural and man-made infrastructure, watersheds and surface features, groundwater basins, water collection systems, distribution systems, wastewater systems, flood water systems, and recharge facilities. The submittal explains how water arrives in the region, how it is used, and how it is handled after it is used.

The Imperial Region is located in the Sonoran Desert, which covers 120,000 square miles in southwestern Arizona and southeastern California, as well as most of Baja California and the western half of the state of Sonora, Mexico. Subdivisions of this hot, dry region include the Colorado and Yuma deserts. Winter temperatures are mild, but summer temperatures are very hot with more than 100 days over 100 degrees Fahrenheit (deg. F) each year in the Imperial Valley. Average annual air temperature is 72 degrees Fahrenheit and frost is rare. Rainfall averages less than three (3) inches per year, with most rainfall occurring in brief but intense events. The majority of rainfall occurs from November through March. Summer thunderstorms occur periodically, but cloud cover is rare.<sup>10</sup>

Irrigation water is available solely from the Colorado River and is transported to the Imperial Valley via the All-American Canal. As a result, the area is suitable for agriculture, which has supported the economic growth and establishment of population centers in and around the Imperial Valley. The need for balancing a fixed supply with growing the municipal, commercial and industrial demands and existing agricultural demands creates a unique situation for the area's water suppliers that requires integrated consideration in order to effectively manage water resources and the region's further development. This is what the RWMG will address.

With more than 3,000 miles of canals and drains, IID is the largest irrigation district in the nation. IID has the right to the net consumptive use of up to 3.1 MAF year of its Colorado River entitlement. Up to 2.8 MAF of Colorado River water are delivered to nearly one-half million irrigated acres and a variety of other users in the Imperial Valley. Approximately 97 percent of the transported water is used for agricultural purposes, making possible Imperial County's ranking as one of the top ten agricultural areas nationwide. The remaining three percent of IID's water deliveries supply seven municipalities, one private water company and two community water systems as well as a variety of industrial uses and rural homes or businesses.<sup>11</sup>

### 3.1.1 Geologic and Groundwater Setting

The Imperial Valley and Coachella Valley are located in the Colorado Desert geomorphic province. The Colorado Desert is a low-lying barren desert basin, with portions of the area below mean sea level and runoff flowing to the Salton Sea. The province is a depressed block between

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<sup>10</sup> IID. 2007 *Final Water Conservation Plan*, <http://www.iid.com/Water/2007WaterConservationPlan>

<sup>11</sup> Imperial Irrigation District website.

active branches of alluvium-covered San Andreas Fault with the southern extension of the Mojave Desert to the east. It is characterized by the ancient beach lines and silt deposits of extinct Lake Cahuilla.<sup>12</sup> The Imperial Valley is characterized by a northwest to southeast trending valley bounded on the west by the Jacumba Mountains and on the east by the Chocolate Mountains.<sup>13</sup> Beyond the mountains to the west lies San Diego, California, and to the east beyond the Colorado River is southwestern Arizona. Much of the central portion of the Imperial Valley is below sea level, reaching nearly 230 feet below mean sea level (msl) at the Salton Sea.

Groundwater basins within the Imperial Region include portions of the Coyote Wells Valley Basin, Borrego Valley Basin, Ocotillo-Clark Valley Basin, West Salton Sea Basin, and Ogilby Valley Basin, and all of the Imperial Valley Basin, East Salton Basin, and East Amos Valley Basin, which in all total about 2,800 square miles<sup>14</sup> (Figure 3-1). The major surface water body within the Imperial Valley is the Salton Sea, and the Imperial Valley basins drain internally to the Salton Sea via the New River and Alamo River. Groundwater bearing materials are generally younger and older alluvial sediments derived from the erosion of the surrounding mountain ranges.

The area is situated on and near extensive fault systems, generally trending northwest to southeast. Large nearby faults include the San Andreas, Superstition Hills, and San Jacinto Faults<sup>15</sup> (Figure 3-1). The faulting influenced groundwater movement. More small to moderate earthquakes have occurred in the Imperial Region than along any other section of the San Andreas Fault system. Typically, some part of Imperial County is affected by a minor earthquake (less than magnitude 3.5) every few months. Every five years, the county might experience a moderately damaging event (magnitude of 5.5 or greater). At least once every 50 years, there is likely to be a major earthquake (magnitude of 6.8 or greater). Microseismicity (magnitude of less than 2.0) occurs almost continuously in the county, often with dozens and sometimes hundreds of events per day (County of Imperial 2006).

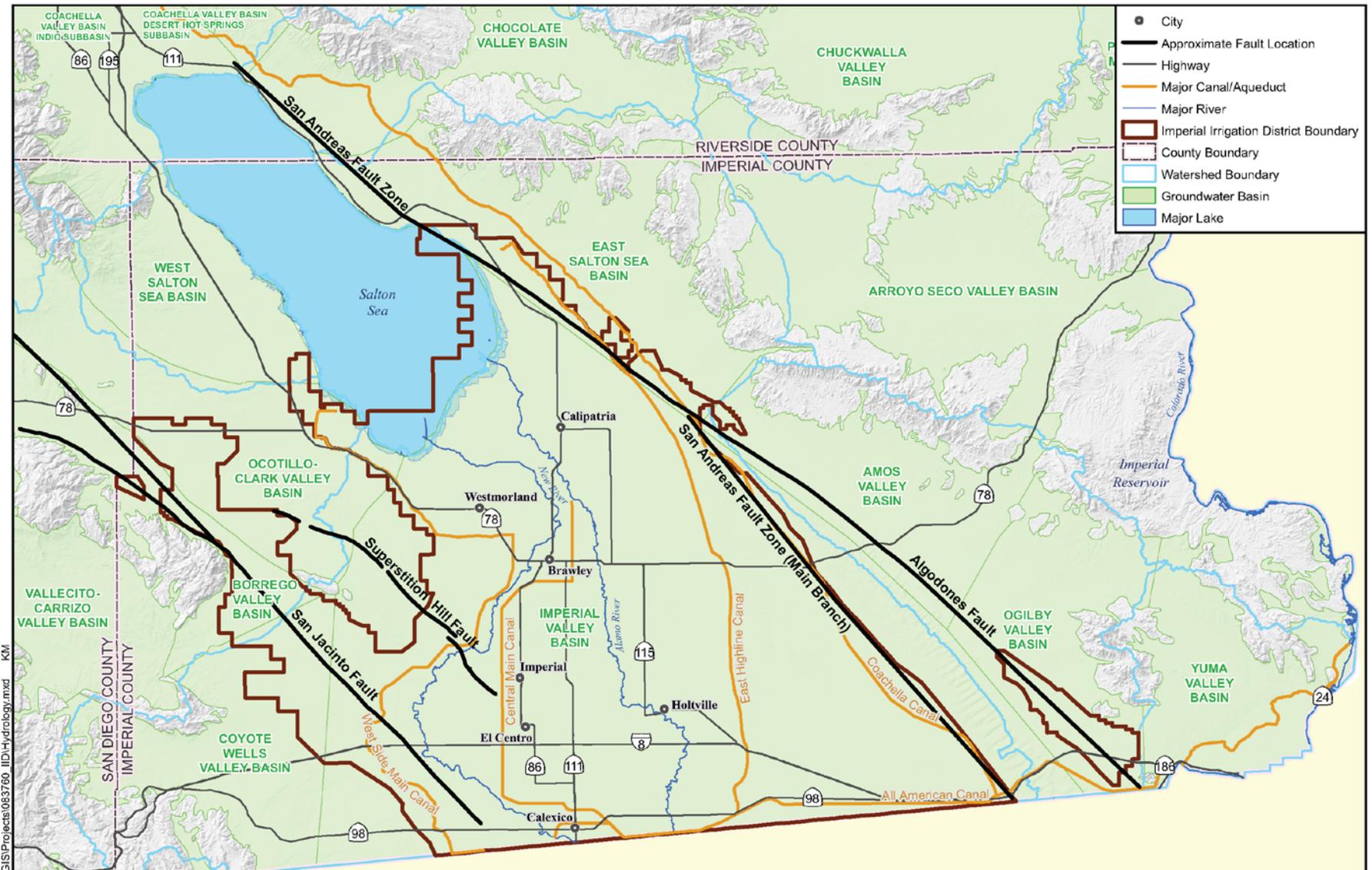
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<sup>12</sup> California Geological Survey, 2002. Note 36. <http://www.consrv.ca.gov>

<sup>13</sup> Oakeshott, Gordon B., 1978. *California's Changing Landscapes: A Guide to the Geology of the State, Second Edition*. McGraw-Hill Book Co., Inc., New York.

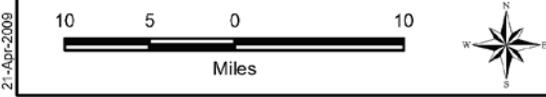
<sup>14</sup> California DWR, 1975. *California's Groundwater, Bulletin 118* September 1975

<sup>15</sup> Hart, Earl W., and Bryant, William A., 1999. *Fault-Rupture Hazard Zones in California – Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*. California Department of Conservation, Division of Mines and Geology, Special Publication 42, Sacramento.



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SOURCE: IID Boundary, CaSIL, 2003; Groundwater Basins, Bulletin 118, DWR, 2003; Watersheds, Calwater 2.2.1, CA Interagency Watershed Mapping Committee, 2004.



IID IRWMP  
 Imperial County, California  
 Imperial Irrigation District

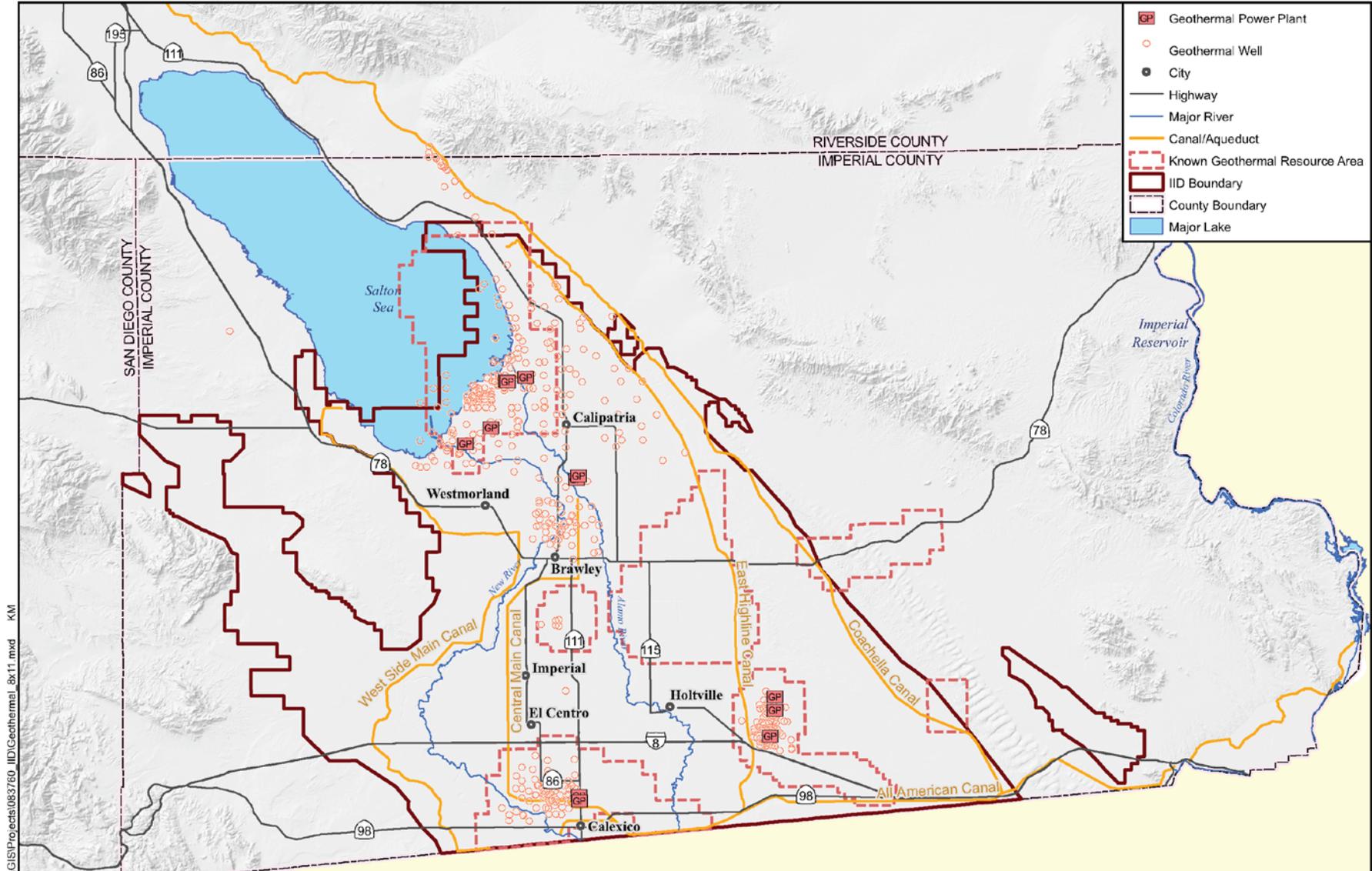


HYDROLOGIC FEATURES  
 APRIL 2009 **DRAFT** FIGURE 3-1

### **3.1.2 Other Geologic Resources**

Other geologic resources in the IID water service area include mineral resources (rock and stone, sand, gravel, clay, and gypsum), metals (gold, silver, nickel, and lead), radioactive elements, and geothermal areas. Geothermal resource areas and sources of sand and gravel are generally located along the southern border of the Salton Sea; other resources are found in the surrounding hills. As shown in Figure 3-2, there are seven known geothermal resource areas (KGRAs) in Imperial Region: the Dunes KGRA, East Mesa KGRA, Glamis KGRA, Heber KGRA, East Brawley KGRA, South Brawley KGRA, and Salton Sea KGRA. Ensuring that there is adequate water supply for existing and geothermal power plants and other power production operations is a key issue for the Imperial Region IRWMP. The Imperial County General Plan has a geothermal resources element, which anticipated future water demands for economic development of the region's geothermal resources and for developing other sustainable power generation operations, primarily solar and wind.

In the Imperial Region sand and gravel are significant economic resources. Most of these materials are derived from shoreline deposits from ancient Lake Cahuilla. Additional sources of lower quality sand and gravel are found in alluvial fan deposits.



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SOURCE: IID Boundary from CaSIL, 2003; Geothermal Wells from DOGGR, 2006; KGRA and Geothermal Power Plants from DOGGR, 2008.



IID IRWMP  
 Imperial County, California  
 Imperial Irrigation District



**EXISTING GEOTHERMAL RESOURCES**  
 APRIL 2009 **DRAFT** **FIGURE 3-2**

### 3.1.3 Water Use and Supply

Water supply in the Imperial Region is governed by a series of agreements known as the Law of the River. Of particular importance to Imperial County are the California Seven-Party Agreement (Table 3-1) and the QSA/Transfer Agreement (Table 3-2).

In addition to the water diverted to the Imperial Valley by IID, five other water districts supply Colorado River water to parts of Imperial County that lie outside Imperial Region boundaries. These are PVID, CVWD, Palo Verde County Water District (PVCWD), Bard Water District (Bard WD) and Winterhaven Water District (Winterhaven WD).

**Table 3-1. California Seven-Party Agreement**

Priority Order	User	Annual Apportionment	Present Perfected Rights (PPRs)
1	<b>Palo Verde Irrigation District</b> - for use exclusively on 104,500 acres of Valley land in and adjoining district	3,850,000 AF	219,790 AF (or consumptive use for 33,604 acres)
2	<b>Yuma Project</b> - for use on California Division, not exceeding 25,000 acres of land		38,270 AF (or consumptive use for 6,294 acres)
3a	<b>Imperial Irrigation District</b> - for use on lands served by All-American Canal in Imperial and Coachella Valleys		2,600,000 AF (or consumptive use for 424,145 acres) (IID only)
3b	<b>Palo Verde Irrigation District</b> - for use exclusively on additional 16,000 acres of mesa lands		
4	<b>Metropolitan Water District</b> - for use on the Southern California Coastal Plain	550,000 AF	
	<b>Subtotal:</b> California limit (not including surplus waters) of Colorado River water per Boulder Canyon Project Act and 1929 Limitation Act	<b>4,400,000 AF</b>	
5a	<b>Metropolitan Water District</b> - for use on the Southern California Coastal Plain	550,000 AF	
5b	<b>City and County of San Diego</b> - through MWD	112,000 AF	
6a	<b>Imperial Irrigation District</b> - lands served by All-American Canal in Imperial and Coachella Valleys	300,000 AF	
6b	<b>Palo Verde Irrigation District</b> - for use exclusively on 16,000 acres of mesa lands		
7	<b>California Agricultural Use</b> - Colorado River Basin lands in California	All remaining available water	

**Table 3-2. QSA/Transfer Agreement Colorado River Use**

<b>Annual Apportionment Cap for Agricultural Consumptive Use (Excluding Transfers and Exchanges)</b>	
<b>User</b>	<b>Annual Apportionment (AF)</b>
<b>Palo Verde Irrigation District &amp; USBR Yuma Project*</b>	420,000
<b>Imperial Irrigation District</b>	3,100,000
<b>Coachella Valley Irrigation District</b>	330,000
<b>Metropolitan Water District*</b>	550,000
<b>TOTAL</b>	4,400,000

\*PVID & USBR Yuma Project did not agree to a cap; value represents a contractual obligation by MWD to assume responsibility for any overages or be credited with any volume below this value.

### 3.1.3.1 Agricultural

Over 120 types of crops are grown in the Imperial Valley, with a total area of approximately 520,000 acres receiving water. Currently, around 430,000 acres are in cultivation, with some 40,000 acres being fallowed, and the remainder in municipal, commercial, industrial or other use. Around 65,000 acres of the cultivated area are double-cropped.<sup>16</sup> Crops grown on this acreage consume around 1.75 MAF per year of water (5-year average estimated crop ET, 2000-2004).<sup>17</sup> Additional water is needed for leaching and other agricultural practices, with the estimated minimal agricultural requirement being around 5.25 acre-feet per acre (AF/AC). Agriculture has the highest water consumptive use in Imperial County. Historically, IID has delivered up to 2.8 MAF per year of water primarily for agricultural purposes to its customers in Imperial County. See Tables 3-1 and 3-2 for IID rights to Colorado River water for beneficial uses.

PVID supplies Colorado River water to approximately 100,000 acres of agricultural land in Riverside and Imperial Counties. Currently, parts of the area that is served by PVID are fallowed under an agreement between PVID and MWD. The water is strictly for irrigation purposes, and all water drained from this area flows back into the Colorado River. See Tables 3-1 and 3-2 for PVID rights to Colorado River water for beneficial uses in agriculture.

CVWD roots are in agricultural irrigation. It delivers about 280,000 AF per year of imported Colorado River water to nearly 70,000 acres. Colorado River water is transported to the CVWD service area via the Coachella Branch Canal, which receives water from the All-American Canal.<sup>18</sup> See Table 2 for CVWD rights to Colorado River water for beneficial uses.

Bard Valley is located at the southeastern corner of Imperial County in an area known as the Reservation Division of the USBR. Bard Water District, which is part of the USBR Yuma Project, serves approximately 175 landowners and supplies approximately 90,000 AF of water per year to around 15,000 acres of agricultural land. The water is used for irrigation purposes only and is taken from the Colorado River via the All-American Canal. All drainage from the

<sup>16</sup> IID website. Annual Inventory of Areas Receiving Water & Crop Report

<sup>17</sup> IID. *Final IID 2007 Water Conservation Plan*, p. 30

<sup>18</sup> CVWD website About CVWD

Bard service area discharges back into the Colorado River.<sup>19</sup> See Tables 3-1 and 3-2 for Yuma Project rights to Colorado River water for beneficial uses.

### 3.1.3.2 Municipal

Domestic water uses account for approximately three percent (3%) of Imperial Region total water use, but only around two percent (2%) of Imperial County total water use. Ten Imperial Region communities receive water for domestic purposes from IID: Calexico, Holtville, El Centro, Imperial, Brawley, Westmorland, Calipatria, Niland, Seeley, and Heber (Figure 3-2). Water is also delivered to the Naval Air Facility from IID's Elder Lateral Canal. From June 1, 1986, to October 23, 1991, the NAF used approximately 3,714 AF of water, with a daily average water use of 2.0 acre-feet.<sup>20</sup> Each city and unincorporated community served by IID have their own facilities for water treatment and distribution to the users in their jurisdiction. In addition, as noted previously, IID tracks nearly 4,000 raw water service accounts that are required by the CDPH to have alternate drinking water service, maintains a small-acreage pipe and drinking water database, and provides an annual compliance update to CDPH.

Not all water utilized in the Imperial Region is delivered by IID. Groundwater of mixed quality can be found on the eastern and western sides of Imperial County, particularly in the Ocotillo-Coyote Wells Groundwater Basin. The safe yield of these formations is limited due to the desert climate and minimal natural recharge. Imperial Region communities of Ocotillo, Nomirage, and Yuha Estates rely on groundwater from the Ocotillo-Coyote Wells groundwater basin. The County of Imperial commissioned a study of the groundwater basin by the USGS, known as the Skriwan Report, which was released in November 1977. The study reported an overdraft of 500 AF per year and warned of possible saline intrusion. The County also employed Dr. David Huntley, a geohydrology consultant, to review the report and the basin. He projects even greater overdraft of 1608 AF per year to 2410 AF per year and saline intrusion.<sup>21</sup> Future growth in Ocotillo/Nomirage is, therefore, expected to consist primarily of infill on existing lots, rather than expansion of community boundaries, except at very low densities.

The East Mesa Unit and the West Mesa Unit, which are within the Imperial Region boundaries, also have wells that are used to extract water from the groundwater basin. East Mesa Unit has four wells that are approximately six hundred feet deep. Scattered residential development is found in the East Mesa Unit along with some mines.<sup>22</sup> As mentioned earlier, some geothermal developments in the East Mesa Unit may have potential to cause water pollution.

The West Mesa Unit is primarily land that is owned or regulated by the Bureau of Land Management. A portion of the land in the West Mesa Unit is used by the Naval Air Facility for bombing practices and exercises. In the West Mesa, groundwater is also pumped for industrial use at the U.S. Gypsum plant at Plaster City. US Gypsum reportedly has constructed six production wells in this area, three of which are inactive. Water from the remaining three wells is transported to Plaster City via pipeline. The quality of the groundwater pumped in this area of the Basin is reportedly good.

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<sup>19</sup> Imperial County. *General Plan, Water Element*. Planning/Building Department.

<sup>20</sup> Imperial County. *General Plan, Water Element*. Planning/Building Department.

<sup>21</sup> David Huntley, Ph.D. 1979. "The Magnitude and Potential Effect of Declining Ground Water Elevations in the Ocotillo-Coyote Wells Basin"

<sup>22</sup> Imperial County. *General Plan, Water Element*. Planning/Building Department.

Outside of the Imperial Region, CVWD boundaries encompass nearly 640,000 acres, most of which are located in Riverside County; however, boundaries extend into Imperial and San Diego counties. In total, CVWD provides drinking water to more than 100,000 homes and businesses in Riverside and Imperial Counties, including the communities of Salton City and the Hot Mineral Spa/Bombay Beach. This water is from wells drilled into an aquifer with capacity estimated at 39.2 MAF. Nearly as many residents receive their sanitation services from the district; 6.5 billion gallons of sewage are treated yearly. Whenever and wherever possible, this wastewater is treated and recycled for golf courses and other outdoor irrigation. Recycled water supplements imported water for use in recharging groundwater tables, a vital program to ensure adequate supplies of water for future generations.<sup>13</sup>

Also outside the Imperial Region, PVCWD is responsible for supplying water to approximately 162 customers for domestic purposes using water produced from a deep well in the community of Palo Verde that is then treated at a plant before it is distributed to customers. The deep water well extracts approximately 45,000 gallons per day of fairly good quality water from the groundwater basin.

Winterhaven WD supplies water to approximately 1,000 people in Winterhaven, using two wells, one of which is a standby well, to extract approximately 150,000 gallons of water per day from the groundwater basin for distribution to approximately 1,000 people for domestic purposes. The groundwater basin is recharged by the Colorado River, which passes just south of Winterhaven. The community of Winterhaven has two 100,000 gallon tanks for storing domestic water. A sewage system serves Winterhaven and also a few developments within the Indian Reservation lands adjacent to the community of Winterhaven. A water treatment facility in Winterhaven treats sewage and then is discharged and piped to Yuma, Arizona. This is a joint venture between the community of Winterhaven and the Indian Reservation lands under a grant from the Federal Government. The pipeline is approximately 16 inches in size and decreases to a ten inch line at the bridge crossing to Yuma.

In the community of Bard, wells are used to extract groundwater for certain domestic purposes such as watering landscapes and taking baths. Drinking water sources are supplied by 100 gallon tanks that are filled periodically by private water companies.

### **3.1.3.3 Industrial**

Extensive geothermal resources have been identified in several areas of the Imperial Valley. These are identified as Known Geothermal Resource Areas (KGRAs), and are shown on Figure 3-2. Power plants are currently generating electricity from the hot water resources in the Salton Sea, the Heber KGRA, and the East Mesa KGRA. The 15 existing power plants can generate about 300 megawatts, and it is estimated that the Imperial Valley resource could support approximately 2,750 megawatts of power production on a sustained basis.

Geothermal power plants extract hot water through large wells drilled from 2,000 to 12,000 feet below the surface. The hot water is either allowed to boil to produce steam or passed through heat exchangers. Return flows of hot water from both processes are injected back into the geothermal reservoirs through separate wells. Problems of contaminating the surface waters or nearby non-geothermal groundwater can arise if return flows are not injected to a significant depth; if they are injected under too much pressure; if they are injected into faults or fractures

that connect to the surface; or if the injection wells leak. The potential for surface spills exists from pipeline failures or well blowouts.

#### **3.1.3.4 Recreational**

Some of the waters in the Imperial Region provide recreational activity. The Salton Sea was once a popular recreation and marine sport fishery area. Several commercial marinas, residential recreational communities, and public parks are now located around the sea.

Within the IID water service area are a number of recreational water bodies and refuge areas, including Ramer Lake, Sunbeam Lake, Wister Wildlife Refuge, and a number of duck club areas. These water bodies receive IID lateral spill and/or drain water. Water-based recreational activities are not allowed in IID reservoirs, irrigation canals or drains; however, in most reservoirs and all main and lateral canals, individuals do fish for species such as channel catfish, bass and sunfish.<sup>23</sup>

Weist Lake County Park, located along the Alamo River near Brawley, includes facilities for boating, fishing and waterfowl hunting. Also located within the region are the Sonny Bono Salton Sea National Wildlife Refuge and the Imperial Wildlife Area.<sup>24, 25</sup>

The Sonny Bono Salton Sea National Wildlife Refuge, managed by the US Fish and Wildlife Service (USFWS), was designed to reduce waterfowl depredation in adjacent croplands. Management practices include an intensive farming program that involves cooperative farmers. Crops are grown for waterfowl consumption during the winter. The refuge winters up to 30,000 snow, Ross's, and Canada geese, and 60,000 ducks from November through February. Marsh birds and shorebirds account for more than 6,000,000 use-days each year. Endangered species observed on the refuge include the southern bald eagle, peregrine falcon, California brown pelican, Yuma clapper rail, and desert pupfish.

A significant Yuma clapper rail population nests on the refuge. Sensitive species using the refuge include the fulvous whistling-duck, wood stork, long-billed curlew, mountain plover, western snowy plover, burrowing owl, and white-faced ibis. The refuge manipulates water levels in ponds to provide habitat for shorebirds and waterfowl.

The Imperial Wildlife Area is made up of three units owned by CDFG. The Wister (5,423 acres) and Hazard (535 acres) units' area are located along the southern shoreline of the Salton Sea. They consist of upland habitat and managed wetlands, primarily to provide waterfowl forage. The wildlife areas provide hunting, fishing, and recreational uses. Public use information of the unit has been recorded since 1961, with an average of around 15,000 visits per year.<sup>24</sup>

The Wister Unit is a long, narrow sliver sandwiched between the desert and the Salton Sea on a gentle slope, where 189 miles of levees and 27 miles of canals form terraces between seasonally flooded ponds and fields. Fresh Colorado River water for the ponds is pumped to Wister from

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<sup>23</sup> IID website; and Salton Sea Ecosystem Restoration Draft PEIR Chapter 13: Recreation  
[http://www.saltonsea.water.ca.gov/PEIR/draft/Chapter\\_13\\_Recreation.pdf](http://www.saltonsea.water.ca.gov/PEIR/draft/Chapter_13_Recreation.pdf)

<sup>24</sup> Text copied/adapted from USFWS: <http://www.fws.gov/Refuges/profiles/index.cfm?id=81631>

<sup>25</sup> Text copied/adapted from CDFG: <http://www.dfg.ca.gov/lands/articles/imperial01.html>

out of the Coachella Canal. The Hazard Unit, which abuts the Northern portion of the Sonny Bono Salton Sea National Wildlife Refuge, is south and east of the Wister Unit.

The Salton Sea forms the entire western boundary of the Wister and Hazard Units in a line that shifts as agricultural runoff changes. Salts in the runoff account for ever-increasing salinity of the sea. Under the QSA/Transfer Agreements, IID is to retain what would have been normal flow to the sea through 2018. After that IID expects to reduce flows, causing the Salton Sea to recede and saline concentrations to increase more rapidly. This makes the wildlife area's fresh water ponds bordering the Sea even more crucial for wildlife. Most species must have sources of fresh water to survive.

The Finney-Ramer Unit (2,047 acres) is located south of the Salton Sea near Calipatria and the Alamo River. It was originally established by the USBR as a waterfowl refuge and includes four lakes. All of the Imperial Wildlife Area units receive water that would otherwise be IID lateral or canal spill or drain water. More than 90 percent of the Wister and Hazard units are flooded in the fall; fresh greenery fringes and carpets the ponds.

Imperial Wildlife Area is a crossroads for birds from the north and the Pacific Ocean and some unusual varieties from the south. Imperial Region probably has one of the highest species counts of all wildlife areas - nearly 400 different species can be found here. This human-made marsh provides essential habitat for migratory birds navigating the Pacific Flyway.

There are numerous opportunities for nature viewing, photographing, hiking and bird watching. Activities for visitors on the Wister, Hazard and Finney-Ramer units include hunting for waterfowl, dove, coots, moorhens, snipe, pheasant, quail, raccoon, and rabbit in season; fishing for catfish, largemouth bass, and bluegill on the wildlife area, and corvina, sago and croaker on the Salton Sea.<sup>25</sup>

Mudpots underscore geothermal activity in the Imperial Region Earthquake fault lines and are marked by a series of bubbling pools of mud. This unusual effervescence is produced by carbon dioxide, which rises from below the water table. As the escaping gas is vented, it mixes with surface water and soil to produce a cool, bubbling mixture of mud. Imperial Wildlife Area has the largest concentration of mudpots in the entire Imperial Region.<sup>24</sup>

The Salton Sea International Bird Festival, which is held each February, brings in several hundred bird watchers from throughout the country. The festival consists of tours, lectures and exhibits, and generates considerable economic activity.

### **3.1.4 Physical Components**

Imperial County extends over 4,597 square miles, bordering on Mexico to the south, Riverside County to the north, San Diego County on the west, and the State of Arizona on the east. The terrain varies from 235 feet below sea level at the Salton Sea to 4,548 feet at Blue Angel Peak.

#### **3.1.4.1 Watershed**

California DWR divides the state into 10 hydrologic regions corresponding to the state's major water drainage basins. The Imperial Region is located in the Colorado River Hydrologic Region.

Figure 1-1, presented in the Introduction, shows the boundary of the Colorado River Hydrologic Region, Imperial Region boundary and the relation to other Southern California features.

Despite its dry climate, the Colorado River Hydrologic Region contains some substantial surface water bodies, including the Colorado River and the Salton Sea. Figure 3-1 presents more localized hydrologic features including the groundwater basin boundaries and the surface water divide for the south Salton Sea watershed, which includes the New and Alamo and extends into the Mexico border.<sup>26</sup>

### **3.1.4.2 Surface Water Supplies**

#### **3.1.4.2.1 IID Water Delivery System**

IID's delivery system begins at Imperial Dam where Colorado River water is diverted into IID's desilting basins at Senator's Wash. After being desilted, the water is conveyed by gravity through the 80-mile-long All-American Canal. The All-American Canal discharges water to several turnouts, including the Coachella Branch Canal, before reaching the IID water service area where it branches off to three primary main canals: the East Highline, Central Main, and Westside Main. East Highline Canal, an unlined 49-mile canal, serves the eastern part and a portion of the central part of the IID water service area. The canal follows the eastern boundary of the IID water service area and conveys irrigation water to agricultural fields via a series of east-to-west laterals. The Central Main Canal connects to the All-American Canal just north of Calexico and serves most of the central part of the IID water service area. The Westside Main Canal joins the All-American Canal near the western edge of the IID water service area and serves the western portion of the IID water service area. These three main canals serve as the main arteries of IID's water delivery system, which consists of approximately 1,667 miles of canals and laterals that distribute untreated surface water for irrigation to over 6,000 farm delivery gates and for non-potable use to rural service pipes and small parcels, and to all other users within the IID water service area.

While constrained by the QSA/Transfer Agreements, delivery of Colorado River water to users in the IID water service area is driven by user demand. Agricultural demand varies throughout the year and from year to year in response to a combination of influences, including changes in climate and local rainfall, crop cycles, crop prices, and government crop programs. IID delivers water 24/7, 365 days a year, with demand typically being highest in April, and remaining fairly high until August, after which it starts to decline. This period of highest use is the driest and hottest time of the year in the Imperial Region. Municipal, industrial, and commercial demand is fairly constant throughout the year, but it is expected to grow as economic opportunities arise and come to fruition.

#### **3.1.4.2.2 IID Drainage System**

IID's drainage system includes a network of 1,456 miles of open and closed (pipeline) drains, 750 surface and subsurface drainage pumps, thousands of miles of subsurface drains (tile) and associated collection of pipelines and water recovery systems. Water entering the drainage system can originate from the following sources:

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<sup>26</sup> Imperial County, 2007. *Flood Management Plan*. February, 2007.

- System seepage (i.e., water that has seeped from canals and laterals; this is intercepted by IID drains)<sup>27</sup>
- Operational spill (unused water that has traveled through the delivery system to ensure full demand is met; this is discharged to IID drains)<sup>28</sup>
- On-farm tailwater runoff (i.e., surface water runoff from the end of an irrigated field when total water applied exceeds the soil infiltration rate)
- On-farm tilewater (i.e., water passing the crop root zone that normally enters a tile drain, also referred to as leach water)
- Stormwater runoff
- Groundwater (i.e., intercepted groundwater that has moved into the drains from the deeper aquifer near the east boundary of the irrigated area)<sup>29</sup>

### 3.1.4.3 Water Systems

#### 3.1.4.3.1 Drinking Water Systems

Ten communities in the Imperial Region receive water for domestic purposes from IID: Calexico, Holtville, El Centro, Imperial, Brawley, Westmorland, Calipatria, Niland, Seeley, and Heber. IID also delivers water to the Naval Air Facility. Each city and unincorporated community has its own facilities for treating and distributing water to its users. Five other districts supply water to areas in Imperial County that are outside of the Imperial Region. Of these, PVCWD, Winterhaven Water District (WWD), and Coachella Valley Water District (CVWD) distribute treated water for domestic use.

As noted earlier, to comply with US EPA requirements and avoid termination of canal water service, residents in the IID service area who do not receive treated water service must obtain alternative water service for drinking and cooking from a state-approved provider. To avoid penalties that could exceed \$25,000 a day, IID strictly enforces this rule. IID tracks nearly 4,000 raw water service accounts required by the CDPH to have alternate drinking water service.

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 - 10656). The Act states that a city is required to create an Urban Water Management Plan (UWMP) when the city services more than 3,000 connections or if the city delivers more than 3,000 acre-feet of water per year. In the Imperial Region, cities that meet the criteria for an UWMP and have submitted them for review to DWR are: El Centro, Calexico, Brawley, and Imperial. Communities that do not yet need to prepare an UWMP are Holtville, Calipatria, Westmorland, Heber, Seeley, and Niland.

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<sup>27</sup> IID has seepage recovery systems along the All-American Canal and the East Highline Canal.

<sup>28</sup> IID has three lateral interceptor systems and a portion of the Westside Main Canal (serving around 100,000 acres) where such water is collected and delivered to other users; this is called Operational Discharge.

<sup>29</sup> CH2MHill. 2008. *Draft – Supplement to the IID Water Conservation and Transfer Project EIR/IES for the Managed Marsh Complex*. January 2008.

### **3.1.4.3.2 Wastewater Systems**

Table 3-3 lists the Imperial Region wastewater treatment plants, providing information on owner, location, capacity, and related data. Based on the information currently available, no community in the Imperial Region is recycling municipal water. Each community that has adopted an Urban Water Management Plan (Imperial, Brawley, Calexico, and El Centro), states that it currently does not have plans to begin recycling municipal water, most specifically citing the lack of cost-effectiveness for this strategy.

Imperial Region communities have stated that consideration for implementing any kind of reclaimed water program has been limited due to the concerns arising from the terms of the QSA/Transfer Agreements about reducing inflows to the Salton Sea. Treated wastewater from facilities within IID ultimately discharges to the Salton Sea (via drains that discharge to the Alamo and New River), along with water from CVWD and other sources. Within the Imperial region, these inflows support habitats on the rivers and the Salton Sea depends on such inflows for several reasons.

Imperial Region inflow, though salty, provides a constant source of water, which in volume has typically equaled the Sea's evaporation. Therefore, these flows have maintained the Sea's level and helped to reduce the effect of evaporation, which causes the salinity levels in the Sea to concentrate (at present, the Sea is about 50% more saline than the Pacific Ocean). As noted in the section on Recreation, the Sea serves as a critical link on the Pacific Flyway for bird migration.

Under the terms of the QSA/Transfer Agreements, IID and its water users are required to maintain "normal" flow to the Sea through 2018. This is being achieved through IID's Fallowing Program and through taking care that no QSA/Transfer Agreements or other activity impacts this flow. Nevertheless, flows through the New River from Mexico have reduced due to water being treated and reused in Mexico. Inflow from the IID water service area is expected to decrease greatly starting in 2019, when, in accord with the terms of the QSA/Transfer Agreements, all transferred water will be from conservation savings. Inflow from Mexico is also expected to decrease further as Mexicali continues to implement its reclaimed water program.<sup>30</sup>

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<sup>30</sup> Salton Sea Authority Plan for Multi-Purpose Project July 2006 Draft for Board Review

<b>Table 3-3 – Wastewater Effluent in Imperial County</b>					
<b>Discharge sources</b>	<b>Current Conditions</b>				
	<b>Plant Capacity [AFY]</b>	<b>Average Flow [AFY]</b>	<b>Treatment Level</b>	<b>TDS<sup>+</sup> (NPDES permit limits) [mg/L]</b>	<b>Discharge to (Discharge point / End of Drainage Path)</b>
City of Brawley WWTP	6,608 <sup>+/^</sup>	3,920 <sup>+/^</sup>	Secondary <sup>+</sup>	4,500 max. daily, 4,000 avg. annual	New River <sup>+</sup> / Salton Sea
City of Calexico Municipal WWTP	4,816 <sup>+/^</sup>	3,024 <sup>^</sup>		4,500 mean 7-day, 4,000 mean 30-day	New River / Salton Sea <sup>+</sup>
Calipatria WWTP	1,938 <sup>+/^</sup>	1,120 <sup>+/^</sup>		4,500 max. daily, 4,000 avg. annual	G Drain / Salton Sea via Alamo River <sup>+</sup>
El Centro Municipal WWTP	8,960 <sup>+/^</sup>	4,480 <sup>+/^</sup>	Secondary <sup>^</sup>	4,500 mean 7-day, 4,000 mean 30-day	Central Main Drain / Salton Sea via Alamo River <sup>+</sup>
El Centro Generating Station	1,165 <sup>+</sup>			4,500 mean 7-day, 4,000 mean 30-day	Central Drain No. 5 / Salton Sea via Alamo River <sup>+</sup>
Gateway of the Americas WWTP	224 <sup>^</sup>	205 <sup>^</sup>			
Heber Geothermal Company, Heber	4,816 <sup>+</sup>			4,500 max. daily, 4,000 avg. annual	Strout Drain <sup>+</sup>
Heber PUD WWTP	907 <sup>^</sup>	392 <sup>^</sup>			
City of Holtville Municipal WWTP	952 <sup>^</sup>	728 <sup>^</sup>			Pear Drain/Salton Sea via Alamo River <sup>^</sup>
City of Imperial Water Pollution Control Plant	1,568 <sup>+/^</sup>	1,073 <sup>+/^</sup>	Tertiary <sup>^</sup>	4,500 max. daily, 4,000 avg. annual	Dolson Drain / Salton Sea via Alamo River <sup>+</sup>
Second Imperial Geothermal Co., Heber	1,680 <sup>+</sup>			4,500 max. daily, 4,000 avg. annual	Beech Drain / Salton Sea via New River <sup>+</sup>
Niland WWTP	560 <sup>^</sup>	258 <sup>^</sup>			
Seeley County WWTP	224 <sup>+/^</sup>	95 <sup>+/^</sup>		4,500 max. daily, 4,000 avg. annual	New River <sup>+</sup> / Salton Sea
Westmorland WWTP	560 <sup>^</sup>	291 <sup>^</sup>		4,500 mean 7-day, 4,000 mean 30-day	Trifolium Drain No. 6 / Salton Sea via New River <sup>+</sup>
<b>Totals</b>	<b>34,978</b>	<b>15,586</b>	<b>--</b>	<b>--</b>	<b>--</b>

**Table 3-3 – Wastewater Effluent in Imperial County**

**Note: Capacities and flows based on information in NPDES permits and Service Area Plans; therefore, the date of information varies.**

+ From NPDES Permit

^ From Service Area Plan

\*For total calculation, it was assumed that future plant capacity would remain the same for facilities where no information on future expansion has been found.

? Future average flows from Service Area Plan projections for 2020 except for El Centro Municipal WWTP and Heber PUD WWTP, which are for 2014.

**Remarks:**

<p>City of Brawley WWTP NPDES permit CA0104523 (Effective June 29, 2005 to June 29, 2010). City of Brawley Final Service Area Plan, February 2007. City of Calexico WWTP NPDES permit CA7000009 (Effective 2004-2009). City of Calexico Service Area Plan, May 31, 2006. Calipatria WWTP NPDES permit CA0105015 (Effective June 29, 2005 to June 29, 2010). Final Calipatria Service Area Plan (CL1-04), November 2004. El Centro Municipal WWTP NPDES permit CA0104426 (Effective 2003-2008). City of El Centro Service Area Plan, November 2005. El Centro Generating Station NPDES permit CA0104248 (Effective 2004-2009). Gateway of the Americas WWTP NPEDES permit CA7000015 referenced in SAP, unable to locate copy of permit at this time. Gateway of the Americas Service Area Plan, December 2005. Heber Geothermal Company, Heber NPDES permit CA0104965 (Effective June 29, 2005 to June 29, 2010).</p>	<p>Heber PUD WWTP Heber Public Utility District DRAFT Service Area Plan, June 2004. Holtville WWTP City of Holtville Final Service Area Plan/Municipal Service Review, October 2006. NPDES permit CA 0104361 (Effective to June 21, 2011 identified, unable to locate copy of permit at this time City of Imperial Water Pollution Control Plant NPDES permit CA0104400 (Effective June 29, 2005 to June 29, 2010). City of Imperial Service Area Plan, June 26, 2008. Second Imperial Geothermal Company, Heber NPDES permit CA7000003 (Effective June 29, 2005 to June 29, 2010). Niland WWTP Sanitation District Service Area Plan for Wastewater Facilities, February 2006. Seeley County WWTP NPDES permit CA0105023 (Effective 2002-2007). Seeley County Water District Service Area Plan, Final July 10, 2003. Westmorland WWTP NPDES permit CA0105007 (Effective 2001-2006). City of Westmorland Service Area Plan, March 3, 2005.</p>
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**3.1.4.3.3 Flood Protection Measures**

Imperial Region structural flood protection measures include a dike system that protects areas adjacent to the Salton from 100 and 500 year floods. Breakwaters at various locations near the shore of the Salton Sea prevent damage from wave action.

Several of the washes along the western shore of the Salton Sea were channelized when that area was developed. Many of these washes contain the 100-year flood within their channel banks. Non-structural measures are being utilized to aid in the prevention of future flood damage. These are in the form of land use regulations adopted from the Code of Federal Regulations that control building within areas that have a high risk of flooding. Imperial County has an ordinance that requires a permit for any construction near Salton Sea below the minus 220-foot contour.

Per the U.S. Army Corps of Engineers Reconnaissance Report: Flood Control and Related Purposes, September 1989, the IID drainage system largely consists of earthen open channels paralleling irrigation canals on the downstream side of the fields. The drains collect excess surface flows from the agricultural fields (tailwater), subsurface flows from a system of tile drains underlying the fields (tilewater), and operational spill from the canals and laterals. The entire system was designed strictly to drain excess irrigation water; consequently, the system has no more than incidental capacity to intercept and convey storm runoff from the surrounding desert, mountains or the urban areas in the Imperial Valley.<sup>31</sup>

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<sup>31</sup> Imperial County, 2007. *Flood Management Plan*. February 2007.

## 4 IRWMP Regional Boundary

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### 4.1 Basis for Imperial Region Boundary

The basis for formation of the Imperial Region is the purpose and perceived need for the plan, and the specific goals and objectives that were identified in Section 1, and to address the issues and conflicts identified in Section 2. Figure 1-1 shows the project location and Imperial Region boundary in relation to its Southern California neighbors.

Figure 1-2, Jurisdictional and Administrative Features showed city and county boundaries, public land ownership, water district boundaries, tribal areas, and other appropriate administrative boundaries. Figure 3-1, Hydrologic Features, presented DWR Bulletin 118 groundwater basins boundaries; geologic fault lines, which influence groundwater flow and storage areas; watershed divides; water delivery canal infrastructure; and other physical and topographic features.

The area selected for Imperial Region lies completely with DWR's Colorado River Hydrologic Region.<sup>32</sup> It is also entirely within the State Water Resources Control Board Region 7, Colorado River Basin Region.<sup>33</sup>

In developing the proposed IRWMP boundary (boundary), a number of meetings and conference calls were held to evaluate both physical and institutional features. The proposed Imperial Region boundary encompasses the service areas of multiple local agencies, as shown in Figure 4-1, and will maximize opportunities to integrate water management activities related to natural and man-made water systems, including water supply reliability, water quality, environmental stewardship, and flood management. The boundaries were established to be inclusive of a larger area where practical. In the Imperial Region there are no overlapping areas or areas not covered (voids), nor are there any known voids immediately outside the Imperial Region boundary.

To the south, the boundary is based on the international border with the Republic of Mexico. To the west, the boundary follows the Imperial County line up from Mexico to the point where it meets with the CVWD boundary; thence, it follows the southern CVWD boundary going east to the point where it abuts the northern IID boundary. The Imperial Region boundary then continues to follow the IID boundary east under the Salton Sea to where the IID boundary again abuts the CVWD boundary. It then follows the CVWD boundary north to a point where a line was extended north to the Imperial County line, whence it was extended east along the county line until it reaches the eastern boundary of the East Salton Sea Basin. The eastern boundaries of the East Salton Sea Basin, Amos Valley Basin and Ogilby Valley Basin watersheds form the remainder of the Imperial Region boundary to the east, following the Ogilby Valley Basin watershed divide south to where it meets the Yuma Valley Basin. The Yuma Valley Basin boundary is then followed down to the Mexican Border. As shown on Figure 4.1, much of the

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<sup>32</sup> DWR website: DWR Bulletin 160-05, <http://www.waterplan.water.ca.gov/previous/cwpu2005/index.cfm>

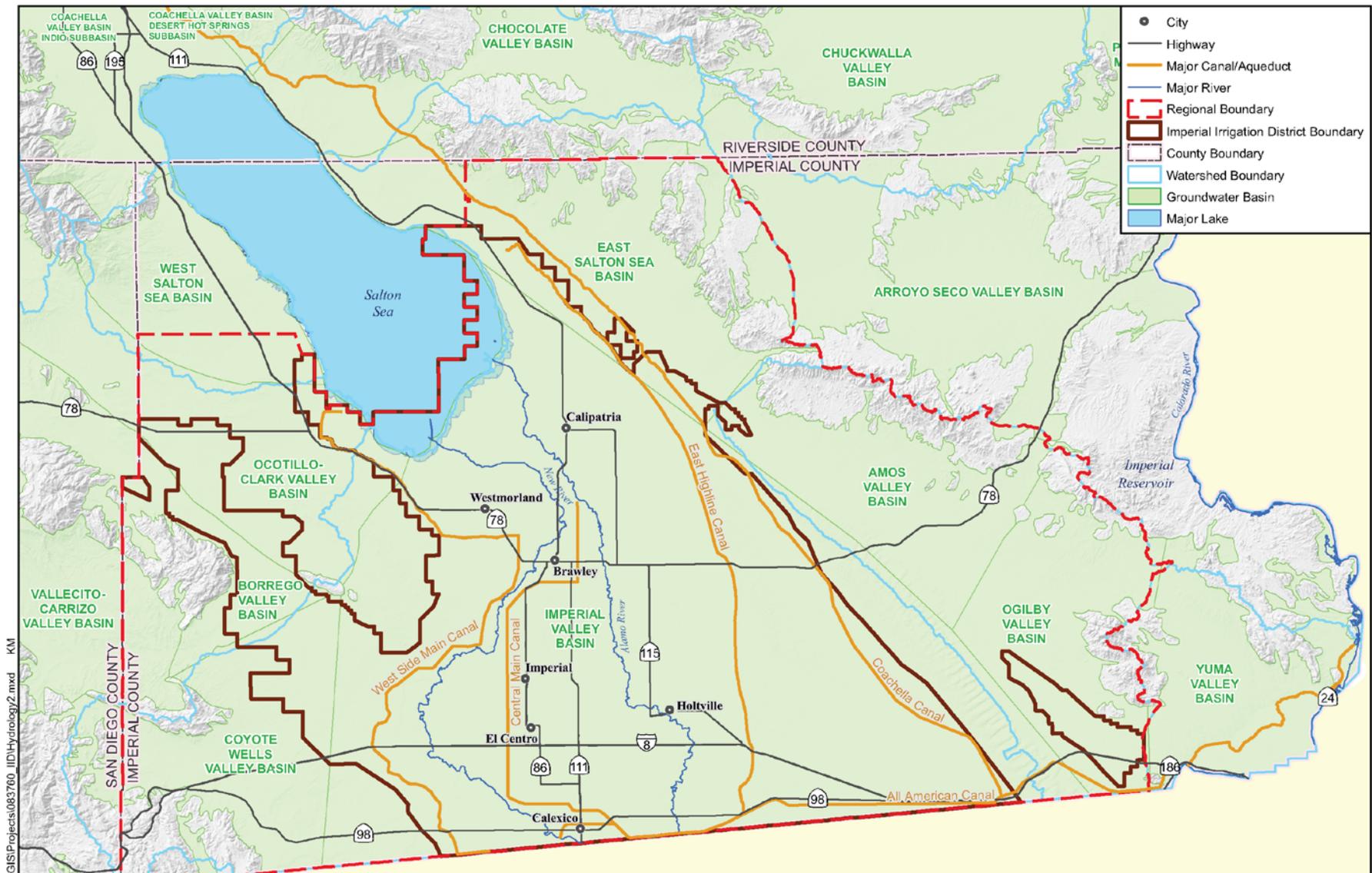
<sup>33</sup> CAEPA website: <http://www.waterboards.ca.gov/coloradoriver/>

land within the Imperial Region is under Federal control, and these lands are managed under existing plans prepared pursuant to Federal laws.

The basis for selection of the boundaries was also made for the reasons below:

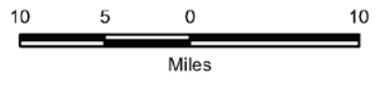
- Imperial RWMG members already have experience working together to address complex issues, so they will be well equipped to develop an IRWMP.
- Urban and rural development of the Imperial Valley south of the Salton Sea tie together the Imperial RWMG members, and the County and Imperial Region cities need to work together to better integrate land use and water supply plans and the planning process.
- Primary conflicts within the region related to future land use and new water demands are intensified by issues surrounding the apportionment of IID's water supply and competing uses within the Imperial Valley.
- Imperial Region presents opportunities for recycled and reclaimed water use because of the geographic proximity of its municipal, commercial and industrial users.
- Imperial Region has prospects for conjunctive water management has unique and distinct groundwater condition, issues and aquifers.

A CD will be provided with maps of the proposed boundaries in UTM Zone 10, NAD 27 format.



21-Apr-2009 S:\GIS\Projects\083760 IID\Hydrology2.mxd KM

SOURCE: IID Boundary, CaSIL, 2003; Groundwater Basins, Bulletin 118, DWR, 2003; Watersheds, Calwater 2.2.1, CA Interagency Watershed Mapping Committee, 2004



IID IRWMP  
 Imperial County, California  
 Imperial Irrigation District



**IMPERIAL REGION BOUNDARY**  
 APRIL 2009 **DRAFT** **FIGURE 4-1**

## 4.2 Relationship and Coordination with other IRWMPs

By virtue of the QSA/Transfer Agreements and reliance on the Colorado River, the Imperial Region is interrelated and interdependent with the DWR South Coast Hydrologic Region (SDCWA, MWD) and other IRWM regions in the Colorado River Hydrologic Region in Southern California. Coordinating with adjacent regional planning efforts is particularly important in the Imperial Region because of the linkages through the QSA/Transfer Agreements and because other plans in the area have a bearing on the Salton Sea and/or the Colorado River. Coordination on Colorado River issues occurs through other existing management structures such as the Colorado River Board of California, the Colorado River Water Users Association, as well as various USBR initiatives. Local cooperation on Salton Sea issues is primarily through the Salton Sea Authority. These have an influence on the Imperial Region IRWMP and are part of the baseline conditions.

Despite this connection and the desire for interregional cooperation, unique and distinct water management issues separate the Imperial Region from the South Coast hydrologic region and from other integrated planning efforts within the DWR Colorado Hydrologic Region.

The South Coast hydrologic region is not geographically proximate to the Imperial Region; is primarily urban, with a complex array of water agencies, multiple counties and cities; reliant on MWD for most of its main Colorado River water supply and for delivery of its IID/SDCWA Transfer of Colorado River water; with multiple additional sources of water (groundwater, local surface water, and imported SWP). The South Coast is also socioeconomically very different than the Imperial Region.

The draft 2009 California Water Plan update references the Colorado River Water Delivery Agreement: Federal QSA<sup>7</sup> as an integrated regional planning effort along with other efforts in the Colorado River Hydrologic Region, including:

- Coachella Valley Regional Water Management Group (CVRWMG)
- Mojave Water Agency IRWM
- Salton Sea Water Authority
- Borrego Water District

The boundary with CVWD was used since CVWD is part of the CVRWMG, which along with other local water districts, Riverside County, the local cities and stakeholders is preparing its own IRWMP. The Coachella Valley Region is unique and distinctly different from the Imperial Region: the Coachella Valley RWMG has its own water distribution facilities, Colorado River apportionment, and State Water Project allocation. In addition, the region is more reliant on groundwater, has problems of overdraft; and is mostly urban. Within CVWD, the crop mix and delivery system are tangibly different from those of IID. IID and CVWD have been in contact regarding the congruent boundaries of the two regions and are communicating on how they will work together in the future as the two plans are developed (Attachment B).

With signing of the QSA/Transfer Agreements, historical conflicts between CVWD and IID over Colorado River water have been largely resolved, and it is appropriate that IID work within the

Imperial Region to address the localized water management issues, conflicts and opportunities facing the Imperial Region.

The Mojave IRWM effort is well north of the Imperial Region, being more geographically proximate to the Coachella Valley Region.

The Borrego Water District is located in San Diego County, is not geographically proximate to the Imperial Region and has its own unique water resources, economic, political, social and technical issues.

It is the intent of the Imperial RWMG to coordinate with other regional planning efforts on an annual or as-needed basis to discuss water policy, implementation projects, monitoring and data management, and/or other water management issues. The Imperial RWMG plans to effectively integrate with other IRWMPs in Coachella Valley by having representatives attend meetings, and by providing agendas, reports, and minutes to other organizations and actively collaborating with other organizations on Imperial Region projects and issues.

#### **4.3 Relation to other Plans**

The Imperial IRWMP will seek to be consistent with and integrate key elements of the other land use, water supply and environmental management plans that currently exist. The planning process will include review and consideration of the goals and objectives of the existing plans to evaluate how the IRWMP is influenced by, and could have an influence on, these other plans. This includes, at a minimum, the following:

- QSA/Transfer Agreements
- IID Definite Plan
- IID Equitable Distribution Plan
- City Urban Water Management Plans
- City General Plans
- Imperial County General Plan
- Salton Sea Restoration Plan
- Water Quality Control Plan for the Regional Water Quality Control Board, Colorado River Basin Region
- IID Water Transfer Agreement Habitat Conservation Plan
- Lower Colorado River Multispecies Habitat Conservation Plan

Other key plans will be identified as the process moves forward.

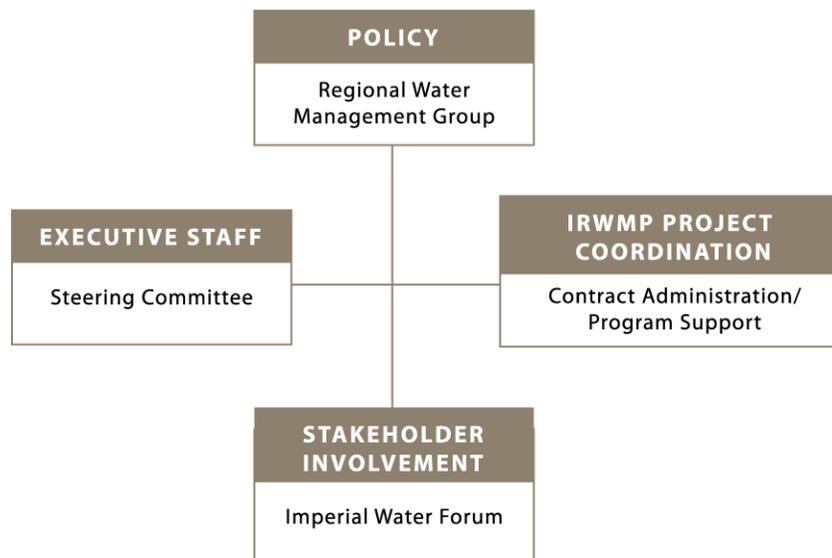
## 5 Imperial Governance, Management and Roles

This section provides a description of the governance, structures, and roles for oversight and management of the Imperial Region IRWMP. It describes the Imperial RWMG members, their role in the RWMG process, regional water management responsibilities, and the level of IRWM participation. It is anticipated that at the end of the planning process, each of the participating entities would adopt the IRWMP.

### 5.1 Decision Making Structure and Purpose

The proposed governance structure will facilitate the IRWM planning process and the sustained development of regional water management strategy, both now and in the future. A basic organizational chart is shown in Figure 5-1 showing functional relationships and responsibilities including: the Regional Water Management Group operating at the policy and elected officials level; an Steering Committee operating at the executive or senior staff level; IID operating as the contract administration & program management level; and the Imperial Water Forum, which will served as the mechanism for stakeholder and public involvement.

Figure 5-1  
**IMPERIAL IRWMP GOVERNANCE & MANAGEMENT STRUCTURE**



The governance structure of the Imperial Region IRWMP is intended support development of a collaborative water management portfolio. The purpose of the governance structure is to:

- Support prudent decisions and allow for timely completion of the IRWMP
- Provide opportunities for diverse interests to contribute to the IRWMP
- Improve coordination of individual plans, programs and projects for the mutual benefit of the Imperial Region

- Support identification, development and implementation of a collaborative process that results in projects that may be beyond the scope or capability of a single public agency or group, but that would be of mutual benefit if implemented among multiple parties in the Imperial Region
- Foster coordination, collaboration and communication among public agencies and interested stakeholders to achieve greater efficiencies and to enhance public service and public support for projects vital to the Imperial Region’s economic growth
- Assist disadvantaged communities (DACs) in the Imperial Region
- Implement a representative decision-making process

Current members of the RWMG will work together to address complex issues, develop and negotiate solutions, and demonstrate their ability to function and produce results as an oversight body.

### **5.1.1 Imperial RWMG Composition and Authorities**

The Imperial RWMG is essentially an extension of an existing Water Planning Group that consists of two members of the IID Board of Directors and two members of the Imperial County Board of Supervisors, with the inclusion of three representatives from Imperial Region cities, at least two of which will be from DACs. IID and Imperial County are the two agencies with statutory water management authorities and have strongly endorsed the development of the IWRMP (Attachment A). The RWMG purpose is:

- To serve as a consensus building, negotiating, and conflict resolution body;
- To provide policy direction and overall guidance during the development of the IRWMP;
- Increase communications and create a link between agencies to convey information to, and provide input from, the elected bodies;
- Support adoption of the IRWMP; and
- Encourage staff to develop integrated projects or projects that fit into the regional portfolio of water management strategies.

Each participating agency’s governing board will specifically authorize the agency to participate in the planning process and assign representatives to participate in the RWMG and Steering Committee. The RWMG will be responsible for developing the IRWMP, including public outreach, oversight and review of the draft plan, briefing their governing boards, obtaining plan adoption, and coordinating with the other entities. Additional agencies are expected to join at a later date by indicating their support of the planning process through a resolution approved by their governing boards. It is the responsibility of each public agency to provide existing water management plans or to identify the need for water management strategies for each service area carried out in the individual agencies jurisdiction.

It is anticipated that each agency will adopt the Imperial Region IRWMP. It is intended that the IRWMP provide critical information that participating land use agencies are able to incorporate

directly or by reference into other related documents such as the pending 2010 UWMP updates and any future city or Imperial County general plan updates.

**Imperial Irrigation District.** IID is an irrigation district organized under the California Irrigation District Law, codified at §§ 20500 et seq. of the California Water Code, and delivers Colorado River water in Imperial County, California for potable and irrigation purposes. By a decisive favorable vote at an election held on July 14, 1911, the people of the Valley organized the IID and the vote was made effective by resolution of the Board of Supervisors of Imperial County on July 24, 1911. IID is governed by a five-member Board of Directors. While elected by vote of all qualified voters, each member represents a separate geographical division of the District. Directors serve a four-year term. Critical functions of the IID are 1) diversion and delivery of Colorado River water, 2) operation and maintenance of the drainage canals and facilities, and 3) generation and distribution of electricity.

**Imperial County.** The County has statutory authority for groundwater resource management in Imperial County as codified under the County Groundwater Ordinance (Title 9, Division 22) adopted in May 2004 for the purpose of preserving, protecting, and managing the groundwater within the County. The County therefore exercises permit requirements on all projects related to groundwater within its boundaries. In addition, the Imperial County Groundwater Management Act of 1992 (i.e., Groundwater Management Plan) defines the County's responsibility for groundwater management within Imperial County. Under this Act, the County is responsible for the preservation and management of groundwater within Imperial County for the protection of domestic, commercial, agricultural, industrial, municipal, and other uses. The County also has land use authority in the unincorporated areas.

**Imperial Region Cities.** The incorporated cities are responsible for water treatment, distribution and sales through their municipal utilities or by franchise agreements with investor owned utilities. They also have land use authorities, prepare Urban Water Management Plans, and operate the wastewater treatment facilities within their jurisdiction.

### ***5.1.2 Imperial RWMG Steering Committee***

The Imperial RWMG will appoint staff members to the Steering Committee from their respective organizations. The Steering Committee will provide staff review, support to the planning process and be responsible for the ongoing and regular coordination of the IRWMP planning process. The Steering Committee will:

- Facilitate communications between the RWMG and the Water Forum
- Set and coordinate agendas for the Forum
- Identify needs and make recommendations to the RWMG
- Track progress
- Find, coordinate and pursue funding opportunities
- Make interim decisions and commitments

- Form and coordinate, ad hoc work groups as needed
- Coordinate with the contractor and Water Forum facilitator

The Steering Committee will include, at minimum, the IID program management staff as appointed by the IID General Manager, a representative of the County Administrative Officer, and representatives appointed by the City Manager.

### **5.1.3 Imperial Irrigation District: Contract Administration & Program Management**

IID has retained the services of a consultant to support development of the Imperial IRWMP. IID will provide overall contract administration and program management. Some of the activities associated with this task include:

- Administration of the professional services contract
- Issuing task orders to consultants
- Acting as liaison to the state
- Reviewing the consultant’s work
- Managing project budget and schedule
- Reviewing consultant invoices
- Coordinating with agencies and other stakeholders
- Project reporting
- Coordinating grant writing for IRWMP related funding
- Preparing Water Forum meeting agendas, minutes and coordinating follow-up actions

### **5.1.4 Imperial Water Forum**

The Imperial Water Forum (Water Forum) will be the primary mechanism for stakeholder involvement in the process. The role of the Water Forum is to allow for obtaining a diverse range of perspectives on water management strategies, projects and policies and to make recommendations to the RWMG that can then be further presented to the respective decision making bodies for action. Participation will be sought from a wide array of stakeholder groups and organizations as described in the next Section. The purpose of the Water Forum is to:

- Share information, provide comment and feedback to the consultant
- Refine and enhance the purpose and need, goals and objectives
- Review, comment, prioritize and make recommendation to the RWMG on water management strategies

- Identify projects concepts for further evaluation
- Establish criteria for ranking alternatives, review the results of the alternatives and advise the RWMG on a priorities
- Develop an implementation plan, including review and definition of funding strategies and define long-term governance

### **5.1.5 Ad Hoc Working Groups**

The RWMG or Water Forum may form Ad Hoc Working Groups composed of IID Staff, consultants, stakeholders, and other technical resources to address specific issues or topics and to bring recommendations back to the Water Forum and RWMG. Work groups will be used as needed to provide technical or policy level review of projects or policies concepts. Examples of Work Groups include Outreach/Communications, Governance, or Finance and Funding; and/or will evaluate specific project or management strategies (e.g., recycled water, groundwater banking).

## **5.2 Decision Process and Functions of the Water Forum**

A decision process is needed for purposes of negotiating and conflict resolution. The elements of the decision process and functions of the Water Forum are discussed below. The independent agencies give up none of their powers or authorities and are the ultimate entities to decide the direction of their respective organizations related to participation in the IRWMP and any of the projects that may be proposed.

Decisions are made by members of the RWMG, listed above. Decisions will be by consensus. If consensus cannot be achieved, a majority vote will be used. An alternate is authorized to vote if the appointed representative is absent. Representatives serve staggered four-year terms and are appointed by an agency's legislative body, but are not required to be a member of that legislative body. The following sections provide examples of the RWMG's decision-making process including establishing IRWM plan goals and objectives, prioritizing projects, financing RWMG and IRWMP activities, implementing plan activities, making future revisions to the IRWM plan, and hiring and managing consultants.

Decisions and recommendation to the RWMG by the Water Forum will be based on consensus of the Forum members. Should consensus be lacking, the facilitator and consultant will work to ensure minority positions are communicated to the RWMG. The overall process and approach is discussed below.

### **5.2.1.1 Share information**

The Forum will allow interested parties to provide critical data, ideas and prior analysis results to support project development, justify projects proposed by sponsoring entities, and conduct further engineering or economic feasibility studies. White papers, briefings and presentations will be made to the Forum to obtain input and provide feedback to the consulting team.

#### **5.2.1.2 Refine and Enhance Purpose & Needs, Goals, and Objectives for IRWMP**

Preliminary Purpose & Needs, Goals and Objectives for the Imperial Region IRWMP have been developed by the IID Board and will be used as a starting point for consideration by the RWMG and Forum. The stakeholder process will be used to refine the purpose and need for the IRWMP and gain a consensus and common understanding of the problems to be addressed. In order to lay the foundation for agreement and practicable solutions, it is critical that RWMG and Water Forum members understand the nature and extent of the issues facing the Imperial Region.

The Forum will refine and enhance the planning goals and objectives for the Imperial Region IRWMP. Specific planning objectives will be developed based on:

- Previous regional efforts,
- Local planning documents, such as Urban Water Management Plans and City or County General Plans,
- Studies performed by IID and/or the RWMG,
- Discussions among RWMG and stakeholders,
- Consensus of the Forum, and
- Final adoption by the RWMG member's boards and councils.

Based on preliminary information it is evident that the IRWMP will be designed to provide a roadmap for long-term water supply reliability and water demand management in the Imperial Region. Additional objectives are likely to be included early in the IRWMP process through stakeholder involvement.

#### **5.2.1.3 Review Water Management Strategies**

The Water Forum will be briefed on water management strategies recommended by DWR for IRWMP inclusion. In developing water management options, each water management strategy included in the California Water Plan Update 2009 will be examined to determine its applicability to an integrated approach for the Imperial Region. The water management strategies are the building blocks for the IRWMP and will help support further project definition and integration opportunities.

The consultant will develop a preliminary analysis of the strategies and priorities for review and discussion by the Water Forum and, along with IID staff, will support development of a consensus on the final recommendations to the RWMG. The Forum will review and comment on the strategies and preliminary analysis and provide input on recommended integration approaches and priorities to the RWMG. Separate work groups may be formed to consider applicable strategies in greater detail, refine project concepts and make recommendations to the full Forum and RWMG. Any participant in the Water Forum may recommend projects to the full group.

A final consensus on strategies is to be achieved as an outcome of the process. The outcome of this task will be a determination of the Water Management Strategies that are most likely to meet the objectives of the Imperial Region and that should be considered in the IRWMP. Because the

IRWMP is intended to meet multiple water management objectives, multiple strategies will be identified. Therefore, an important aspect of this task will be to describe how individual strategies will be integrated into strategic options that present a cohesive program for land and water use in the Imperial Region.

#### **5.2.1.4 Identification of Projects, Develop Integrated Management Strategies for Region**

Specific project options will be evaluated in the context of individual and integrated water management strategies to determine feasible projects that generate the greatest regional benefits at acceptable levels of impact and cost. Candidate strategies or groups of strategies will be assembled into strategic options and decision support methodologies will be applied to assist local decision makers in identifying strategic options that are responsive to the objectives of the IRWMP.

Use of decision support methodologies will be important for framing project options in ways that clearly define the advantages and disadvantages of each project option and describes the interrelations between project elements and water management strategies. In this way key issues and potential solutions can be presented to stakeholders in a manner that facilitates discussion, enables participants to focus on central issues, and leads to well informed, insightful decision making. The goal of this process is to enable the strategic options that move forward in the planning process to be those that are technically sound and that generate broad support.

Specific projects to be ranked and prioritized will be identified. Any participant in the RWMG and Forum can recommend specific projects within any one of the water management strategies, or based in a combination of the strategies (e.g., groundwater development coupled with desalination). Ideally, regional projects would include multiple participants, provide multiple benefits, and would integrate multiple water management strategies. Ideally, benefits would accrue to the region and help meet regional objectives, rather than provide limited benefits or meet singular objectives.

#### **5.2.1.5 Establishing of Criteria for Ranking Alternatives**

A specific project identification and prioritization process will be developed. Decision criteria will be developed by the consultant for consultation and final acceptance by the Forum and RWMG for purposes of ranking projects. The criteria will then be applied by a Working Group and projects prioritized to meet regional water use objectives. Some of the prioritization factors to be considered will likely include: urgency for the project (whether there is a safety issue or a fine associated), consistency with objectives and priorities, whether the project generates significant regional benefits at acceptable levels of impact and cost, and contribution of the project to meeting planning goals.

### **5.2.2 Implementation Plan Activities**

The RWMG makes decisions regarding the implementation of plan activities by:

- Looking at all alternatives,
- Incorporating public and stakeholder input,
- Maintaining an open process,

- Making decisions using a stakeholder driven process,
- Establishing a long-term governance mechanism,
- Establishing long-term funding and financing,
- Adoption of the IRWMP by key water and land use agencies, and
- Adaptive management and IRWMP update and revision.

An implementation schedule that extends beyond the adoption of the IRWMP will be developed. This will include review and evaluation of funding and financial strategies and the long-term program for oversight and governance during plan implementation.

### **5.2.3 *Future Revisions to the IRWMP***

The RWMG will conduct an open review process, as required by statute, for any updates or revisions to the IRWMP. Priorities may need shifting or adjustments as needs of the Imperial Region and its stakeholders change with time. The RWMG structure will allow periodic changes to the plan, which are expected over the life of the plan.

## **5.3 Financing the Imperial RWMG and IRWMP Activities**

Currently, development of the plan is funded by impact fees on new industrial water users and developers collected by IID. This seed money has been collected and provided by IID to help support preparation of the RAP, development of project concepts, and to support the RWMG during the beginning stages of the IRWMP process. IID will likely seek grant funding from DWR to further develop the IRWMP and to support a facilitator and the community outreach and stakeholder efforts.

In the future, a finance plan will be developed and presented at a regularly scheduled meeting for RWMG adoption. Potential sources of funding for the projects and continued implementation of the IRWMP will be identified. The finance plan will be designed to have an appropriate weighting and scheduling of local and external funding.

## **5.4 New Members**

The RWMG will incorporate new members into the Water Forum as needed to be representative of the larger community and to ensure that there is a diverse range of perspectives and interests representing different sectors, regardless of their ability to contribute financially to the IRWMP. New members will be incorporated into the governance structure by indicating their support of the planning process through a resolution approved by their governing boards. The Water Forum is open to all stakeholders. A balance of interested persons and entities will be achieved through stakeholder and public outreach and involvement. Interested parties will be invited and encouraged to participate in regularly scheduled meetings, workshops, the public review process, and the stakeholder and public review and comment period.

## **5.5 Working Relationships**

While water users in the Imperial Region have worked together for years in various arenas, the IWRM process seeks to improve interagency liaisons and working relationships. Of course, regionally, there are several agencies and organizations that conduct planning activities that must collaborate to deliver a truly integrated plan for the area. The IRWMP planning process must consider these other activities. The process must know the scope and impacts of future actions developed by neighboring jurisdictions and other organizations that co-exist within the region. This necessary coordination will prevent duplication, avoid missed opportunities, and make sure there are no gaps in the IRWM plan.

Other planning in the region include efforts such as land use planning (e.g., update of the Imperial County and City General Plan), the Salton Sea (including Salton Sea Authority input and the DWR Salton Sea Ecosystem Restoration Program), the QSA/Transfer Agreements, and economic development (alternative energy, recreation, etc.). It is important to structure the IRWMP process to allow and encourage effective coordination among planning efforts. The plan integration process should:

- Utilize existing organizational structures where possible.
- Ensure other planning agencies participate as stakeholders in the IRWMP. This would mean not just inviting, but encouraging or insisting upon participation.
- Seek common objectives between planning efforts where possible.
- Collect common information that can be shared by agencies.
- Look for joint strategies between and/or among plans.
- Tier or coordinate actions among agencies so they complement each other and address mutual objectives.
- Look for duplication in planning efforts and minimize them.
- Incorporate agencies as funding partners where strategies align.
- Check back with agencies after compilation of the IRWMP to ensure no conflicts exist.

### **5.5.1 Land-Use Planning**

Because the Imperial RWMG is comprised of Imperial County and the Cities and organizations responsible for management of both water and land use, local land-use planning decision makers will be integrally involved in formulation of the Imperial Region IRWMP. This will ensure constant evaluation of the interactions between IRWMP water management strategies and land use. It is intended that the IRWMP would review opportunities for better integration of the land use and water supply and demand management plans and planning process to ensure that there are no impacts to water supplies and that proposed development is able to ensure a safe, secure and reliable water supply.

Under California law, the management of land use is the responsibility of local government. Imperial Region cities and Imperial County have the powers and authorities to regulate land use, develop general plans, and review and approve new development proposals. The IRWMP could define the process to integrate information and meet the procedural requirements for Imperial Region cities, Imperial County, and the IID. One of the IRWMP objectives is to define cost-effective mitigations that the cities, county, and developers can use to ensure that a long-term, sustainable water supply is available and that demands are managed; that appropriate findings can be made; and that decisions are technically supported by IID and able to withstand potential legal challenge.

The IRWMP may be used to:

- Define IID standards, guidelines, and policies for review of new development that has a change in water use or increases water use over historical levels.
- Streamline development review process for IID, Imperial Region cities, Imperial County, and the developers.
- Update IID Developers Guidelines and IID CEQA Guidelines.
- Document regional water demand and supply sources to a level of detail that would serve as a basis for water supply assessment submission consistent with state law. .
- Define projects (physical solutions) and a water supply portfolio and provide mitigations for water-related impacts; also provide the mechanism for Imperial Region cities and Imperial County to verify water supply availability, thus allowing for adoption of legally defensible findings of sufficiency.
- Define project funding requirements and financing mechanism.

Creating a consistent planning horizon and set of demand-and-supply assumptions between land use and water supply plans will help to avoid conflicts and make both types of plans more defensible and less subject to legal challenge. Consistent future land use and water planning horizon assumptions will provide the basis for calculation of future water demands. The future water demands will provide the basis for planning and design of new supplies and requirements for conservation beyond the scope of those required for the QSA/Transfer Agreements. The future water demand scenarios for alternatives analysis will be created using city and county growth projections and land use changes and for development of the no action or no project alternative. Creating common assumptions for both the land use and water supply/demand management plans will provide benefits to cities and county because their growth projections and long-term water needs will be included in the IRWMP technical information and analysis, and the IRWMP results can be used to expedite and support future updates to the land use and general plans, UWMP and during individual project reviews.

The IRWMP will create benefits for IID by facilitating the water supply assessment process, and by allowing the District to address the beneficial and reasonable water use demands of all its customers.

### **5.5.2 Urban Water Conservation**

Over the years IID has initiated many water conservation programs. These have been targeted at system improvement and agriculture use, because they represented the largest potential savings in the Imperial Region. Initial efforts were undertaken on the basis of stewardship. Later efforts were the consequence of the legal challenges and actions of the State Water Resources Control Board and the USBR. These resulted in the IID/MWD transfer, which has been subsumed in the QSA/Transfer Agreements. Implementation of the required practices is evidenced by the IID Fallowing Program (through 2018), IID Definite Plan, and IID Equitable Distribution Plan. Certainly the Imperial Region's commitment to efficient regional water use management is most clearly demonstrated by the Definite Plan.

Additional water conservation programs are needed to demonstrate the reasonable, beneficial use of the municipal (including domestic), commercial and industrial use sectors through use of innovative and creative programs to reduce water consumption. Programs may include structural, operational, administrative, educational, cooperative, and demonstration elements. In addition, the 2010 round of Urban Water Management Plan updates need information on how much water supply is available through IID or other sources for future development. The IRWMP will develop information to support Imperial Region cities in their 2010 UWMP update. Further, integration of IRWMP and UWMP information is anticipated to support the land use agencies and the Imperial Local Agency Formation Commission when making findings on water supply availability needed to approve or reject new development proposals.

## 6 Stakeholder and Public Involvement

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### 6.1 Stakeholder Outreach and Involvement

The Imperial Region is developing the IRWMP through a collaborative, multi-stakeholder process and the RWMG has created a geographically inclusive region where diverse views and water management issues are represented. This section provides a description of how stakeholders, including DACs, are identified and invited to participate, further listing the procedures and processes that promote access to, and collaboration with, people or agencies with diverse views within the region. Along with the information on the management structure above, it is intended to present how the outreach efforts will address the diversity of water use issues, geographical representation, and stakeholder interests in the Imperial Region; and how stakeholders can help develop integrated, multi-benefit, regional solutions and incorporate environmental stewardship.

Stakeholder outreach is a significant part of the IRWMP planning process. The Water Forum will provide the framework and a facilitated process for an earnest exchange of ideas; help reduce polarization; create understanding; and recognize common interests and solutions. The facilitated dialog will continue through the development and adoption of the Imperial Region IRWMP and then, while at a somewhat reduced effort, will continue as part of the daily business practice of the RWMG as the Region's work continues and the plan is implemented.

Objectives for Stakeholder Involvement include:

- Promote IRWMP as the mechanism for addressing water supply issues
- Prevent surprises for the IID Board of Directors, customers or other stakeholders; for Imperial County Board of Supervisors; and for City Councils
- Demonstrate desire to engage the inform customers, stakeholders, and the public on the part of IID's Board of Directors, the County's Board of Supervisors, and the City Councils
- Create awareness, and get consensus on solutions, including funding strategies
- Reduce the potential for conflicts, manage expectations, and develop strategies to respond to identified issues and concerns

The Imperial Region shares common attributes, a common watershed (South Salton Sea watershed), adjacent groundwater basins, and service by IID as a common water wholesaler to most of the water users in the Region. Through the IRWMP process, the RWMG will represent the Imperial Region to fairly and efficiently manage water resources and implement environmental stewardship practices. The RWMG recognizes that to provide fair representation for the stakeholders, it is imperative that they implement a collaborative, multi-stakeholder process. The stakeholder outreach process includes a comprehensive effort to activate and engage stakeholders, including DACs and the public in the IRWM planning process.

For the most part, Imperial County, Imperial Region cities and the development community are totally reliant on IID for water. These customers will be significantly affected by decisions on the IRWMP and during implementation of the actions defined in the IRWMP. The consultants held discussions with the IID, Imperial Region cities and Imperial County, and it is clear that there is a desire to be kept informed as the plan develops, and to participate actively in the IRWMP process. There are great expectations for the IRWMP and the plan is perceived by the non-agricultural interests as the mechanism for solving a number of outstanding issues and for reducing uncertainty related to what water is available for future development and non-agricultural use.

The expectations of both the agricultural and urban water use communities need to be managed; perceptions and alternative views need to be shared between these groups; facts need to be presented; and the vitality and creativity within the community need to be productively channeled so that there is ultimate acceptance of the IRWMP, and so that the plan does not become a source of conflict, rather than the means to resolve current conflicts. In addition to the primary agricultural and non-agricultural customers, other stakeholders could strongly influence decisions. These “influencers” include groups like the Farm Bureau, Chamber of Commerce, labor groups, building industry association, and various non-governmental organizations.

By directly contacting currently identified stakeholders and inviting and encouraging them to participate in the IRWMP efforts, the stakeholders will be able to voice their interests and issues to the Region’s decision makers. Through the RWMG’s proactive stakeholder outreach efforts, additional stakeholders will be identified and invited to participate in the IRWMP efforts. The more stakeholders that are involved in the process, the more the RWMG can enhance its understanding of the water use issues in the region as a whole, which will ultimately promote the development of a truly integrated regional water management plan.

### **6.1.1 DAC Outreach**

The RWMG is actively engaging and proudly advocates for economically-disadvantaged communities. The Median Household Income (MHI) in the Imperial Region was \$31,672 based on US Census Bureau Estimates for 2000. The RWMG has specifically identified DACs within the Imperial Region and will include them in planned outreach efforts. DACs were specifically identified by utilizing census tracts and census blocks to analyze and determine the MHI for the area. Table 6-1 excerpts the MHI and other information by city for the RWMG membership. All communities, with the exception of Imperial, have MHIs below the threshold of 80 percent of the statewide MHI (\$37,994), the current ceiling for disadvantaged status. DACs will be represented by cities and communities with full membership in the development of the IRWMP and will provide input and comments. This participation will ensure that their water supply and water quality are protected and enhanced. The RWMG will employ specific mechanisms to assist DACs in identifying projects to include in the IRWMP development process. Regular RWMG meeting locations will rotate and will be held periodically in DAC cities.

**Table 5-1 Demographic information for the Participating Imperial Region Cities.**

<b>City or Developed Area</b>	<b>Median Household Income</b>
Brawley	\$31,277
Calexico	\$28,929
Calipatria	\$31,302
El Centro	\$33,161
Heber	\$28,221
Holtville	\$36,318
Imperial	\$47,494
Niland	\$25,592
Seeley	\$31,058
Westmorland	\$23,365

1. Based on 2000 Census information, 2006 data not available.

2. Disadvantaged communities.

### **6.1.2 Stakeholder Outreach Process**

The proposed stakeholder outreach process for the development of the IRWMP includes the following items and activities.

#### **6.1.2.1 Develop Stakeholder List and Final Communications Plan**

The RWMG has developed a working list of stakeholders in the region (Table 6-1) and through outreach efforts the RWMG will expand the existing list. The RWMG will initially contact stakeholders in writing. The RWMG will specifically notify the stakeholders when the meetings are held for the IRWMP. Additional stakeholders will be identified and included during the IRWMP development process.

A draft communications plan and strategy has been prepared and the RWMG and IID, as program manager, intend to finalize a detailed communications plan specifically for the IRWMP process. With input obtained from stakeholders at the proposed kick-off meeting, the RWMG will develop a final communications plan that documents the method and process that will allow the stakeholders to participate in the planning process, ensuring that their opinions can influence decisions about water use and management. Because meetings will be regularly scheduled throughout the IRWMP process, interested stakeholders will have many opportunities to provide input during the development of the IRWMP. By participating in the Water Forum meetings, stakeholders will have a mechanism for review, comment and input throughout the development of the IRWMP. Subject to budget limitations, a Web site may be developed or existing agency Web resources may be used.

**Table 6-1 Stakeholders Participation in the Imperial Water Forum**

<b>City and County Government</b>	
Imperial County	City of Brawley
Imperial Valley Association of Governments	City of Calexico
Imperial County Local Agency Formation Commission	City of Imperial
County Community Services Districts	City of El Centro
City of Westmoreland	City of Holtville
Imperial Valley Economic Development Corp	Salton Sea Authority
Others	
<b>Non- Governmental Organization</b>	
Imperial County Farm Bureau	Imperial County Joint Chambers of Commerce
IID Water Conservation Advisory Board	Coalition of Agriculture, Labor and Business
Coalition of Ag Labor and Business	Sierra Club, Imperial Chapter
Center for Socio-Economic Justice	California Rural Legal Assistance
Building Industry Association	Desert Wildlife Unlimited
Others	
<b>State and Federal</b>	
California EPA, Colorado River Regional Water Quality Control Board (Region 7)	U.S. Bureau of Reclamation
California Department of Fish and Game	U.S. Fish and Wildlife Service
California Department of Water Resources	California Department of Public Health
Other	

**6.1.2.2 Initial Water Forum Kick-off Meeting**

The RWMG will hold an initial Water Forum kick-off meeting to solicit input from the community regarding the preparation of an IRWMP. The RWMG will publicly announce the meeting in local newspapers, on the radio, and on their web site, inviting stakeholders to attend. The RWMG will specifically contact currently identified stakeholders to ensure they receive an invitation. The purpose of the meeting is to present the stakeholders with information about the proposed IRWMP planning process and receive comments from interested parties. The presentation will describe the region encompassed by the IRWMP. RWMG members or their representatives will be at the meeting to answer questions, solicit input, and increase public awareness of the proposed IRWMP. Documentation of the meeting and the comments received from the public will be recorded and made available to the public.

**6.1.2.3 Regular RWMG and Water Forum Meetings**

A final schedule of meetings will be developed once stakeholder input is obtained as a result of the kick-off meeting. The RWMG may meet monthly at the onset of the project, then as needed at key milestones. It is anticipated that the RWMG Steering Committee will meet monthly to plan Water Forum Meetings and act on the direction from the RWMG. The Water Forum will meet monthly or as key meeting milestones and deliverables are produced.

#### **6.1.2.4 Work Group Meetings**

Special meetings for RWMG assignments, plan actions and/or workshops will be held as necessary by Working Groups.

#### **6.1.2.5 Existing Decision Making Bodies**

The RWMG is comprised of appointed members of their respective elected bodies. Members of the RWMG, with support from their Steering Committee representatives, will convey information back to their respective elected bodies for further discussion and to provide input at regularly scheduled public meetings. This provides the opportunity to more directly and closely communicate within their respective communities during regular business meetings of the Board of Directors, Board of Supervisors, and City Councils.

### **6.2 Public Outreach**

The final communications plan will describe the process to be used that makes the public both part of and aware of the regional management and IRWMP efforts. It will further describe the transparent process and ways for the public to gain access to the RWMG and IRWMP process for information, and how they could provide input.

In order for the RWMG to fairly and comprehensively represent the cities, communities, and agencies of the Imperial Region, it will incorporate public outreach through existing programs and communications channels during the IRWMP development efforts. The people of the Imperial Region are ultimately the beneficiaries of the IRWMP and their input is imperative to the process. Similar to the stakeholder outreach process outlined, the RWMG plans to engage the public, including DACs, and encourage their involvement.

The RWMG plans to utilize a variety of media in its public outreach efforts to publicize the IRWM process and encourage public participation, including the internet, newspaper, radio, written announcements, brochures, reports and existing newsletters. The RWMG intends to leverage existing resources at IID to fulfill public relations functions. A speaker's bureau of RWMG and the RWMG Steering Committee members will be developed along with standard presentations and public affairs materials suitable for distribution at RWMG or other stakeholder offices or during other regularly schedule business meetings.

Subject to budget constraints, development of a website will be investigated to publish draft and final technical memorandums, briefings, presentations, meeting agendas and minutes, and draft and final IRWMP. Links could also be provided on City Council and RWMG member websites. Meeting agendas should be posted before the meeting and regular meeting notices will be announced at least one week before the meeting. The meeting minutes will be posted as soon after the meeting as possible. Contact information should be posted on the website, with directions on who the public may contact with comments, questions, and concerns.

In addition to the RWMG website, meeting announcements will be made via local newspapers, local radio stations, and posted in public places. Any individual RWMG decisions related to IRWMP adoption would be posted on individual RWMG member websites, at the meeting location, and in public locations such as city libraries and city buildings in accordance with regular process and state requirements.

### **6.2.1 Outreach Process**

The proposed public outreach process is summarized below.

#### **6.2.1.1 Public Involvement Plan**

The communications plan will refine the method and process that will allow the public to participate in the IRWMP process and ensure that their opinions can influence decisions during IRWMP development. Since much of the Imperial Region public is Spanish speaking, materials will need to be produced in both English and Spanish. Interested members of the public will have many opportunities to provide input throughout the IRWMP process at regularly scheduled Water Forum meetings and on the RWMG website.

A draft of the IRWMP Purpose & Need, Goals and Objectives has been developed. Once finalized, specific messages can be crafted and brochures or other public affairs materials can be developed and delivered to the Customers/Stakeholders (target audience) using appropriate tools and media.

#### **6.2.1.2 Initial Public Meeting**

As described above, the RWMG plans to hold Water Forum meetings to solicit input from the community regarding the preparation of an IRWMP. These meetings will be open to the public. The RWMG will publically announce the meeting in local newspapers, on the radio, and on their website, inviting all members of the public to attend. The meeting will be announced and the agenda will be made available no less than 72 hours prior to the meeting.

The purpose of the meeting is to present the public and stakeholders with information about the proposed IRWMP planning process and receive comments from interested parties. The presentation will describe the region encompassed by the IRWMP. RWMG members will be at the meeting to answer questions, solicit input, and increase public awareness of the proposed IRWMP. Documentation of the meeting and the comments received from the public will be recorded and made available to the public via the RWMG's website, the City Council websites, the local library, and the RWMG members' websites.

#### **6.2.1.3 Public Meeting on Draft IRWMP**

Within two weeks after the draft IRWMP has been made available, a hearing will be held for the general public to address concerns and provide their comments on the IRWMP. Members of the RWMG and the consultant will answer questions and facilitate public involvement.

#### **6.2.1.4 IRWMP Implementation**

As part of the development of the draft and final IRWMP, the RWMG will consider development of a broader Public Outreach and Communications Plan whose purpose would be to gain support for funding and implementation of the proposed solutions. Such a plan would provide a strategic foundation and direction for specific tasks to be conducted to gain support for IRWMP implementation. This will be critical if a Proposition 218 election or other voter approval is needed, and would create a more broadly targeted public affairs effort aimed to the wider decision making community and the general public. Such a program could utilize a combined approach of community relations tools and media to reach the target audiences. The plan would evaluate which tools and media would be used to reach specific audiences, and which media would be used for communicating the specific message concepts.

# Attachment A

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Imperial County  
Board of Supervisors  
940 Main Street, Suite 209, El  
Centro, CA. 92243



Imperial Irrigation District  
Board of Directors  
1285 Broadway  
El Centro, CA. 92243

April 28, 2009

State of California  
Department of Water Resources  
Division of Planning and Local Assistance  
Attn: Ralph Svetich  
P.O. Box 942836  
Sacramento, CA 94236

Dear Mr. Svetich:

In recognition of the importance of the integrated water resource management plan that the Imperial Irrigation District is preparing to meet the current and future demands for water in an era of limits, we, the undersigned, endorse the development of a companion regional water management program that would serve as a framework for countywide collaboration and community input in the years ahead.

It is our intention to initiate the application process leading to final regional acceptance of this community-based component of the district's integrated water resource management plan and to signal our agencies' mutual commitment to providing the local governance structure, technical assistance and stakeholders' forum that will be vital to ensuring its success.

We realize that by endorsing this regional component of the integrated water resource management plan, we are agreeing to an open-ended process that, like the IRP itself, will be based on the twin principles of multiple use and sustained yield. Further, we pledge to devote those organizational resources necessary to attaining our shared goal of advancing the public good.

Cordially,

Handwritten signature of Wally J. Leimgruber in black ink.

Wally J. Leimgruber, Chairman  
Imperial County Board of Supervisors

Handwritten signature of James C. Hanks in black ink.

James C. Hanks, President  
Imperial Irrigation District

## **Attachment B**

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# IMPERIAL IRRIGATION DISTRICT

OPERATING HEADQUARTERS • P. O. BOX 937 • IMPERIAL, CALIFORNIA 92251

April 28, 2009

Mr. Steve Robbins, General Manager-Chief Engineer  
Coachella Valley Water District  
P.O. Box 1058  
Coachella, CA 92236

Subject: Imperial/Coachella Valley IRWM Plan Boundaries

Dear Mr. Robbins:

As discussed in our prior conversations regarding the Imperial and Coachella Integrated Regional Water Management Plan (IRWMP) boundaries, this letter should confirm the Imperial Irrigation District's (IID) shared perspective that these IRWMP regions are distinct and should proceed separately.

The Imperial IWRMP Region (Imperial Region) being proposed by IID on behalf of the Imperial Region Water Management Group (RWMG) is in an area located completely within the Colorado River Hydrologic Region (as defined by the California Department of Water Resources) as well as the Colorado River Region (Region 7) of the Regional Water Quality Control Board. The Imperial Region boundary encompasses the service areas of multiple local agencies, and will maximize opportunities to integrate water management activities related to natural and man-made water systems, including water supply reliability, water quality, environmental stewardship and flood management.

The Imperial Region boundaries were established to be inclusive of a larger area where practical. There are no overlapping areas, areas not covered or voids immediately outside or within the Imperial Region boundary. To the south, the boundary is based on the international border with Mexico. To the west, the boundary follows the Imperial County line up to the point where it meets with the southern Coachella Valley Water District (CVWD) boundary. From there, it follows the southern CVWD boundary to the point where it abuts the northern IID boundary. The Imperial Region boundary then continues to follow the IID boundary under the Salton Sea to where the IID boundary again abuts the CVWD boundary. It then follows the CVWD boundary to a point where a line was extended up to the southern Salton Sea watershed boundary on the north. The Southern Salton Sea watershed boundary is then used to form the Imperial Region boundary to the north and east, following the watershed divide down to the point where it meets the Yuma Indian Reservation. The reservation boundary is then followed down to the Mexican border.

The basis for selection of the Imperial Region boundaries includes the following:

- The working group members already have experience working together to address complex issues, so they will be well-equipped to develop an IRWMP.
- The urban and rural development of the Imperial Valley south of the Salton Sea further ties the Imperial RWMG members together, and Imperial County and IID cities need to work together to better integrate land use and water supply plans and the planning process.
- Primary conflicts within the region are related to future land use and new water demands, and surrounding the apportionment of IID water supplies between competing uses within the Imperial Valley.
- The Imperial Region has great opportunities for conjunctive water management, recycled and reclaimed water use because of the Imperial RWMG geographic proximity.
- The Imperial Region has unique and distinct groundwater conditions, issues and aquifers.
- The Imperial Region is constrained on the east and west by mountains.

By virtue of the QSA/Transfer Agreements and reliance on the Colorado River, the Imperial Region is interrelated and interdependent with other planning regions, including the Coachella IRWMP Region. Coordinating with adjacent regional planning efforts is particularly important in the Imperial Region because of the linkages through the QSA/Transfer Agreements and because other plans in the area have a bearing on the Salton Sea or the Colorado River. Despite this water supply connection and the obvious desire for inter-regional cooperation, there are unique and distinct water management issues that separate the Imperial and Coachella regions. The Coachella IWRMP Region varies from the Imperial Region in many ways: it has its own water distribution facilities, Colorado River apportionment and State Water Project allocation; it is more reliant on groundwater and has problems of overdraft; it is comprised of more urban areas; it has a different crop mix; and it has contrasting land uses. With adoption of the QSA/Transfer Agreements, the historical conflicts between CVWD and IID over Colorado River water were largely resolved, so it is more appropriate than ever for IID to work within its own region to address the more localized water management issues and conflicts.

It is the intent of the Imperial RWMG to coordinate with other regional planning efforts on an annual or as-needed basis to discuss water policy, implementation projects, and other water management issues. As IID leads this effort, we hope to effectively integrate with the Coachella IRWMP and actively collaborate with your agency and

Mr. Steve Robbins  
April 28, 2009  
Page 3

other organizations regarding Imperial Region projects and issues. I look forward to continued partnerships with you on water management and supply issues and the ongoing development of our respective IRWMPs.

Sincerely,



MICHAEL L. KING  
Manager, Water Department

MLK/ceb