STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WRO 2002 – 0013

In the Matter of

**IMPERIAL IRRIGATION DISTRICT'S (IID) AND
SAN DIEGO COUNTY WATER AUTHORITY'S (SDCWA)
AMENDED JOINT PETITION FOR
APPROVAL OF A LONG-TERM TRANSFER OF CONSERVED WATER
FROM IID TO SDCWA
AND
TO CHANGE THE POINT OF DIVERSION, PLACE OF USE, AND PURPOSE OF USE
UNDER**

PERMIT 7643 ISSUED ON
APPLICATION 7482 OF
IMPERIAL IRRIGATION DISTRICT

SOURCE: COLORADO RIVER

COUNTY: IMPERIAL

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LIST OF ACRONYMS

µg/L	Micrograms per liter
afa	acre-feet per annum
BMPs	Best Management Practices
BO	Biological Opinion
CALFED	California/Federal Bay-Delta Program
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFBF	California Farm Bureau Federation
cfs	cubic feet per second
CRIT	Colorado River Indian Tribes
CRWQCB	California Regional Water Quality Control Board
CVWD	Coachella Valley Water District
DFG	California Department of Fish and Game
DHCS	Drain Habitat Conservation Strategy
DOI	U.S. Department of Interior
DOW	Defenders of Wildlife
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	federal Endangered Species Act
FEIR	Final Environmental Impact Report
HCP	Habitat Conservation Plan
ICAPCD	Imperial County Air Pollution Control District
IID	Imperial Irrigation District
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
PCL	Planning and Conservation League
PM 10	particulate matter, less than 10 microns in size
ppb	parts per billion
ppt	parts per thousand
PVID	Palo Verde Irrigation District
QSA	Quantification Settlement Agreement
R.T.	Reporter's Transcript
SANDAG	San Diego Association of Governments
SB	Senate Bill
SDCWA	San Diego County Water Authority
SIP	State Implementation Plan
SSA	Salton Sea Authority
SSHCS	Salton Sea Habitat Conservation Strategy
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
USBR	U.S. Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

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SOURCE: COLORADO RIVER

COUNTY: IMPERIAL

1.0 INTRODUCTION

In this order, the State Water Resources Control Board (SWRCB) conditionally approves a joint petition filed by the Imperial Irrigation District (IID) and the San Diego County Water Authority (SDCWA) for approval of a long-term transfer of conserved water from IID to SDCWA pursuant to an agreement between IID and SDCWA, and conditionally approves a petition filed by IID to change the point of diversion, place of use, and purpose of use under Permit No. 7643 (Application No. 7482). The proposed transfer is for a term of 45 to 75 years.

Pursuant to Water Code section 1736, the SWRCB may approve a long-term transfer petition if the SWRCB finds that the transfer will not result in substantial injury to any legal user of water and will not unreasonably affect fish, wildlife, or other instream beneficial uses. In this order, the SWRCB finds that the transfer will not result in substantial injury to any legal user of water. We also find that the transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses, provided that certain mitigation measures are implemented. Accordingly, the transfer petition is approved, subject to specified conditions.

The potential for the proposed conservation and transfer project to affect fish and wildlife in and around the Salton Sea has generated the most concern in this proceeding. The Salton Sea is a saline lake that is almost entirely dependent on agricultural runoff, primarily from IID. The Salton Sea supports a productive fishery and numerous fish-eating birds, but this ecosystem is in jeopardy. Because the Salton Sea has no outlet, all the salt and nutrients that flow into the Sea continue to accumulate. Without a salinity control project, the Salton Sea will become too saline to support a viable fishery in the coming decades. The feasibility of restoring the Salton Sea is the subject of an ongoing study by the Secretary of Interior and the Salton Sea Authority.

The implementation of conservation measures within IID that reduce farm runoff or delivery system losses will reduce inflows to the Salton Sea, decreasing the time before the Salton Sea becomes too saline to support the fishery. Conserving water by fallowing agricultural land will also reduce inflows, but to a lesser extent.

In determining whether the impacts of the project to the Salton Sea would be unreasonable, the SWRCB must take into account all relevant factors, including the nature and extent of the impacts, the benefits of the proposed transfer, and the cost of mitigation measures. The proposed transfer is a critical part of California's commitment to reduce its use of water from the Colorado River. The State's water supply could be severely impacted if the transfer is not implemented and the Secretary of Interior limits California's diversions from the Colorado River. In addition, the only viable strategy for mitigating impacts to the Salton Sea that has been identified is providing replacement water to the Sea to compensate for reduced inflows. This mitigation strategy is likely to be costly and, unless an alternative source of water is found, will entail

fallowing land within IID. Land fallowing could have significant socio-economic impacts within Imperial County.

In view of the foregoing considerations, we conclude that salinity levels at the Salton Sea that would have existed in the absence of the transfer should be maintained for a period of 15 years. This requirement mitigates project impacts to the Salton Sea for a long enough period to provide time to study the feasibility of long-term restoration actions and begin implementation of any feasible restoration projects. At the same time, it avoids prejudging those restoration-planning efforts. This order avoids unduly burdening the transfer by limiting mitigation requirements to the incremental impacts of this transfer. It also recognizes that it would be unreasonable to have these mitigation requirements remain in effect if restoration planning either ultimately produces a plan that will restore the Salton Sea without requiring continued mitigation by the parties to the transfer or reveals that restoration is infeasible. In so doing, this order achieves a reasonable balance between the State's interest in protecting the fish and wildlife that depend on the Salton Sea and the State's interest in the implementation of this transfer to meet California's water supply needs.

This matter is brought before the SWRCB as a voluntary change petition. Nothing in this order requires the petitioners to proceed with the transfer, or in the absence of the transfer to satisfy any of the conditions or mitigation measures described in this order.

1.1 IID's Water Right Permit

The SWRCB issued Water Right Permit No. 7643 to IID on January 6, 1950. Permit 7643 authorizes IID to divert a maximum of 10,000 cubic feet per second (cfs) from the Colorado River from January 1st to December 31st of each year for irrigation and domestic use on 992,548 acres of land. The permit limits IID's total annual diversion from the Colorado River under all its water rights and its federal contract to 3,850,000 acre-feet per annum (afa). As specified in the Seven-Party Water Agreement of August 18, 1931, which is described in detail in section 3.1, below, this is a collective right shared with other agricultural water users. IID also

holds pre-1914 appropriative water rights and has a contract with the Secretary of Interior for the delivery of Colorado River water.[1]

1.2 Proposed Project

On October 5, 1998, IID and SDCWA submitted a joint petition to the SWRCB seeking approval to transfer up to 300,000 afa to SDCWA under IID's Permit 7643. (SWRCB 1b.) IID and SDCWA subsequently filed two amendments to the petition, which reduce the quantity of water to be transferred to SDCWA by 100,000 afa, and instead allow for the transfer[2] of 100,000 afa to Coachella Valley Water District (CVWD) and the Metropolitan Water District of Southern California (MWD). (SWRCB 1c; SWRCB 1d.) The transfer is for a term of 45 years with an optional 30-year renewal period, for a total of 75 years.

Under the terms of various agreements among the parties, the transfer to SDCWA initially would be implemented in 20,000 afa increments. (See IID 1, p. 21.) In the 24th year, the full quantity of the transfer will be reached: up to 200,000 acre feet to SDCWA and 100,000 acre feet to CVWD or MWD. According to the terms of IID's agreement with CVWD and MWD, the quantity of water to be transferred to CVWD and MWD may be reduced by 50,000 afa in the 45th year of the transfer. (IID 1a.) The petition also requests that the SWRCB make certain findings, in addition to the findings required to approve the proposed long-term transfer. (SWRCB 1b, pp. 2-3; IID 23, pp. 4-5; see also IID Closing Brief, pp. 13-16.) These findings are discussed in section 7 of this order.

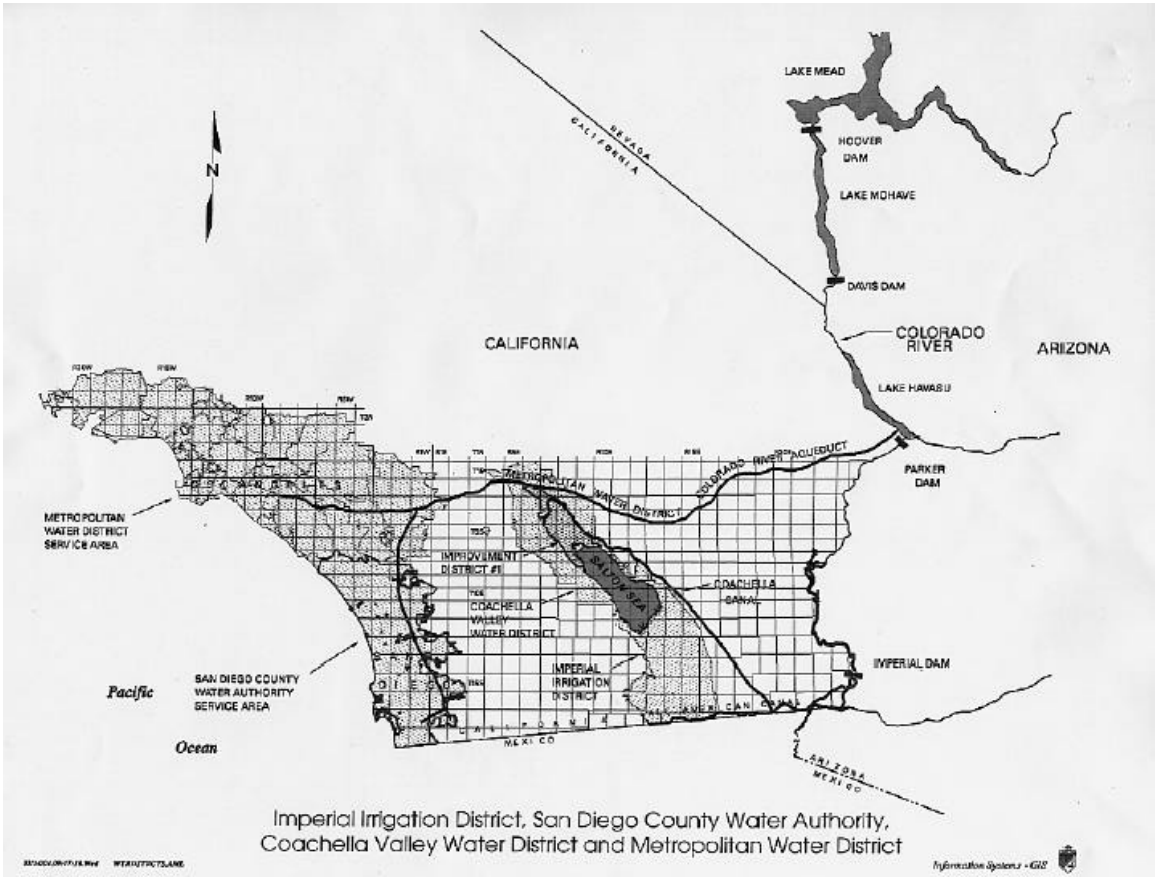
[1] IID holds seven other water right permits for power generation, which are not involved in the proposed water transfer.

[2] IID, SDCWA, CVWD and MWD have characterized the proposed delivery of water to CVWD and MWD as an "acquisition" and object to the SWRCB's characterization of the delivery of water to those districts as a "transfer." However, petitioners, IID and SDCWA, have requested that the SWRCB approve certain changes to IID's permit under the Water Code that will allow for the delivery of water to CVWD and MWD under IID's permit. The water sought by CVWD and MWD could be "acquired" by them under the terms of the Seven-Party Water Agreement, without approval of the SWRCB if IID were to decline to take delivery of the water. Because petitioners are asking the SWRCB to approve changes that would authorize a transfer of water to CVWD and MWD under IID's permit, and for ease of discussion, this order will refer to the proposed delivery of water to CVWD and MWD as a "transfer."

1.3 Proposed Changes to IID's Permit

The petition seeks changes in the place of use, point of diversion, and purpose of use authorized under Permit 7643. The proposed changes are necessary to allow for a transfer under Permit 7643. The petition seeks to expand the authorized place of use to include the service areas of SDCWA, CVWD, Improvement District No. 1, and MWD. For water that is transferred to CVWD, the authorized point of diversion, Imperial Dam, would remain the same. For water that is transferred to SDCWA or MWD, the authorized point of diversion for the water transferred would be 143 miles upstream at the Whitsett Intake at Parker Dam on Lake Havasu, and the primary purpose of use of the transferred water would be municipal use. Figure 1 depicts the proposed new point of diversion and place of use.

Figure 1



1.4 Physical Setting

IID is located within the Salton Trough, a deep valley in the southeastern corner of the state. Due to subsidence along major earthquake fault systems, much of the Salton Trough lies below sea level. The Salton Trough straddles the boundary between Riverside and Imperial Counties and is bounded to the south by the Mexicali Valley in northern Mexico. To the west, the rugged mountains of the Peninsula Ranges separate the major population centers of San Diego County from the Imperial Valley. To the east, about forty miles away, lies the Colorado River, which provides water to support both the agricultural economy of the Salton Trough and the municipal and industrial areas of the coastal plain.

In prehistoric times, the Salton Trough was the northern extension of the Gulf of California. During the Pleistocene epoch, the Colorado River deposited within the Gulf great volumes of sediment eroded from the Colorado Plateau, forming a delta near Yuma, Arizona, close to the current confluence of the Gila River and the Colorado River. Eventually, the delta extended across the mouth of the Gulf, isolating the Salton Trough from the Gulf of California and forming an inland lake of saline water. Since then, intermittent fresh and saline lakes have repeatedly formed in the basin either as a result of flood flows or as a result of the Colorado River changing course back and forth across its delta. At times, the entire flow of the Colorado River would flow into the Salton Trough and at other times it would flow into the Gulf of California. Periods in which the lakes formed would be interspersed with long intervals of drought, during which the lakes would dry up. Estimates indicate that the largest lakes existed over a period of between fifty and five hundred years, depending on the inflow. (SWRCB 5, pp. 75-76; PCL 2, p. 6; PCL 3, pp. 2-6, 28; R.T. pp. 1367, 1492, 1556, 1652.) Between A.D. 695 and A.D. 1580 there were three or four major lacustrine intervals in the Salton Trough, with more frequent minor events. The largest of the lakes formed in the Salton Trough was about 100 miles long, 35 miles wide, with a surface area of about 2100 square miles and a depth of over 300 feet. (PCL 2, p. 6; PCL 3, p. 4; PCL 8.) The most recent major filling of the Trough is estimated to have occurred in the period A.D. 1600-1700. (PCL 2, p. 6.)

There are other reports of the periodic presence of a lake in the Salton Trough during modern times. The source of this water is unknown, but during periods of heavy flooding, water may

flow into the Salton Sink from the Colorado River via the New and Alamo Rivers to the south, from the Whitewater River to the north, from San Filipe Creek to the west, and from the Chuckawalla Wash to the northeast. There are anecdotal reports that water from the Colorado River flowed into the Salton Sink every few years during the period between 1840 and 1867. There is a report in 1848 of a lake in the Salton Sink that was three-quarters of a mile long, half a mile wide, and a foot in depth. By October of 1849, the lake had shrunk to a "series of small lagoons with no surface flow between them." (PCL 7, p. 49.) In June of 1891, a lake 30 miles long, ten miles wide, and six feet deep is reported as a result of flow from the Colorado River through the New River. By 1892, this lake is described as a salt marsh. (PCL 3, pp. 10, 18-19.) By 1900, the lake was dry and there were salt works at what is now the northerly end of the sea. (PCL 6, p. 10.)

In 1901, the California Development Company dug an irrigation canal to divert water from the Colorado River at a point just north of the international boundary between the United States and Mexico. The canal, much of whose length ran through Baja California in Mexico, delivered water to the Imperial Valley. Because heavy silt loads inhibited the flow of water into the canal, engineers created a cut in the western bank of the Colorado River in Mexico to allow more water to reach the valley. Heavy floodwaters broke through the engineered canal in the fall of 1905, and until February 1907 nearly all the river's flow rushed into the valley. By the time the breach was closed in 1907, an inland lake 45 miles long and 17 miles wide with a surface area of 410 square miles and a maximum depth of 83 feet was formed—the Salton Sea. (PCL 3, p. 5; PCL 6, p. 1.)

Based on evaporation rates of approximately 5.7 feet per year, it is clear that without a steady supply of water any lake formed in the Salton Trough would dry up in a relatively brief time. (R.T. pp. 1491, 1499, 1556, 1558-1559, 1564-1567.) Shortly after its formation, it was estimated that the Salton Sea would dry up in ten to twenty years. (PCL 3, pp. 5-6.)

Because the area has abundant sunshine and a secure water supply, a strong agricultural economy has developed in the Coachella and Imperial Valleys at the north and south ends of the Salton Trough, respectively. In July 1911, IID was formed, and by 1922, distribution canals

formerly operated by 13 mutual water companies became part of the district system. In December 1928, the Boulder Canyon Project Act made possible the construction of Hoover Dam, Imperial Dam and the All-American Canal. Construction of the Imperial Dam and All-American Canal, commenced in 1934 and completed in 1942, provided sufficient capacity for development of all the lands within the boundaries of IID. The Coachella Canal, a branch of the All-American Canal, was constructed between 1938 and 1948 and delivers water to the Coachella Valley. (PCL 6, pp. 3-4.)

The flows in the Colorado River Basin exhibit wide annual variation. The development of dams and other facilities on the river has significantly dampened this natural variation by storing water for controlled releases. The combined storage capacity of facilities constructed by the U.S. Bureau of Reclamation (USBR) is about 60 million acre-feet. The operation of Hoover Dam in particular determines the hydrology in the lower basin today. Hoover Dam is operated to meet downstream demands of California, Arizona, Nevada, and the United States' obligation under the U.S.-Mexico Water Treaty. Other dams on the river, including Davis, Parker, Headgate Rock, Palo Verde Diversion, Imperial, Laguna and Morelos Dams further reduce the flow of water to the Colorado River Delta. (IID 56, p. 3.1-18.) As a result of the operation of these facilities, the frequency and magnitude of flood flows on the lower Colorado River have significantly decreased over the last century. Dams have also decreased the river's siltload, further reducing the likelihood of flooding. (PCL 22, p. 2; PCL 3, p. 20.) The development of flood control and water supply improvement projects has altered the geofluvial morphology of the river, which historically resulted in the creation of water bodies in the Salton Trough. In the absence of human intervention, another natural inundation might have occurred. (PCL 22, p. 3; PCL 3, p. 20.)

Today, the Salton Sea is nearly entirely dependent on agricultural drainage flows, with the majority of these flows originating from IID. (R.T. pp. 743-744, 1498, 1527, 1553.) Beginning in 1923, IID constructed an extensive drainage system consisting of 1,456 miles of open and closed drains and thousands of miles of subsurface, or tile, drains. Most of the drains discharge to the Alamo or New Rivers, which in turn drain into the Salton Sea. (IID 55, p. 1-14; PCL 6, pp. 5-6.) The constant supply of nutrients and relatively fresh water inflows have allowed a

vibrant, though precarious, ecosystem to become established in and around the Salton Sea. Because this lake has no outlet, all the salt and nutrients that flow into the Salton Sea continue to accumulate. The salinity of the Salton Sea is currently 25 percent higher than ocean water and the lake's salt load is growing by approximately 4,000,000 tons per year. (R.T. p. 1499.) As stated earlier, without a salinity control project, the Salton Sea will become too salty to support a viable fishery in approximately 11 to 58 years. (SSA 1, p. 7; R.T. pp. 853-858, 1624, 1642.)

2.0 PROCEDURAL BACKGROUND

2.1 Public Notice of the Petition

On July 22, 1998, IID and SDCWA filed with the SWRCB a Joint Petition for Approval of Long-Term Conserved Water Transfer Agreement and Change in Point of Diversion and Place of Use regarding Permit 7643. Later, petitioners amended the petition to add the request that municipal use be added as an authorized purpose of use under Permit 7643. The SWRCB issued a notice of the petition on October 15, 1998, giving interested parties until December 15, 1998 to protest the petition. The SWRCB granted a number of extensions to the deadline for submitting protests to the petition. The final deadline for protesting the petition was September 22, 1999. Because the environmental document for the proposed transfer had not yet been released, the SWRCB informed parties who protested based on allegations that the project would impact the environment, would adversely affect the public trust, or was not in the public interest that it would allow the parties 90 days from the date that the draft environmental documents were released to submit supplemental information to support their protests. The SWRCB later waived the requirement that these parties supplement their protests prior to participating in the hearing.

2.2 Protests to the Petition

A protest to a petition for a long-term transfer may be based on an allegation that the proposed change will injure a legal user of water; that the proposed change will result in unreasonable effects to fish, wildlife or other instream beneficial uses; or that the proposed change is not in the public interest. (Wat. Code, § 1736; Cal. Code Regs, tit. 23, §§ 811, subd. (b), 796, 745.)

The SWRCB received 14 protests to the petition. Acceptable protests to the petition were filed by CVWD, MWD, Coastal Municipal Water District, Central Basin Municipal Water District

and West Basin Municipal Water District, Municipal Water District of Orange County, the City of Los Angeles, the Colorado River Indian Tribes (CRIT), the County of Imperial, the Riverside County Farm Bureau, the California Farm Bureau Federation (CFBF), William DuBois, Larry Gilbert, and Cliff Hurley.

We consider the protestants who did not appear at the hearing to have abandoned their protests, and their protests are hereby dismissed. The unresolved protests of the following parties who did appear at the hearing are addressed by this order: CRIT, the County of Imperial, CFBF, William DuBois, and Larry Gilbert.

2.3 Water Rights Hearing

On December 11, 2001, IID and SDCWA filed a second amendment to their petition. The second amendment made changes to the petition consistent with a protest dismissal agreement reached between IID, SDCWA, CVWD, and MWD. The amendment reduced the amount of water proposed to be transferred to SDCWA to 200,000 afa, provided for acquisition of 100,000 afa of conserved water by CVWD or MWD and requested corresponding changes in the authorized place of use, point of diversion and purpose of use under Permit 7643. On December 20, 2001, the SWRCB issued a Notice of Public Hearing and Notice of Amendment to the Long-Term Transfer Petition. The notice specified that a water right hearing on the amended petition would commence on April 23, 2002. In the notice, the SWRCB waived the requirement that parties file protests regarding the amended petition and, instead, directed parties who objected to the proposed amendments to the petition to file by February 25, 2002, a notice of intent to appear at the water right hearing on the amended petition. The SWRCB also notified parties that it would hold a pre-hearing conference on January 23, 2002, to discuss the scope of the hearing, the status of protests to the petition and other procedural matters.

At the pre-hearing conference, parties to the hearing made several requests regarding the conduct of the hearing. Because the comment period on the draft Environmental Impact Report (EIR) prepared by IID, the lead agency under the California Environmental Quality Act (CEQA), and on the draft Environmental Impact Statement (EIS) prepared by the USBR, the lead agency under the National Environmental Protection Act (NEPA), would not close until April 25, 2002,

several parties requested the SWRCB to hold the hearing in phases. Phase I would address whether the transfer would result in substantial injury to any legal user of water, and Phase II would address whether the transfer would unreasonable affect fish, wildlife, or other instream beneficial uses. By holding the hearing in phases, the parties reasoned, the SWRCB could commence the hearing as scheduled and, at the same time, provide the parties with opportunity to review and comment on the draft environmental documents prior to the deadline for submission of evidence on matters related to the environmental effects of the proposed transfer. Parties also requested, among other things, that the SWRCB hold all or part of the hearing in Imperial County.

On February 5, 2002, the SWRCB issued a Revised Notice of Public Hearing and Amendment to Long-Term Transfer Petition. The Revised Notice made a number of changes to the December 11, 2001 Public Notice of Hearing. Principally, the revised notice specified that the hearing would commence on April 22, 2002, in Holtville California, with a session in which parties could provide policy statements to the SWRCB and that an interpreter would be available to translate the policy statement session into Spanish. The revised notice also specified that the evidentiary portion of the hearing would be held in two phases, as requested, with the first phase to commence on April 23, 2002, and the second phase to commence on April 30, 2002, in Sacramento, California.

The SWRCB held a hearing on the water transfer petition pursuant to the Notice of Public Hearing issued on December 20, 2001, and the revised Notice of Public Hearing issued on February 5, 2002. The hearing was held in two phases and took 15 days, which were scheduled between April 22, 2002, and July 16, 2002.

2.3.1 Key Issues for the Hearing

The February 5, 2002, Revised Notice of Public Hearing specified the following key issues should be addressed at the hearing:

Phase I

1. Is the amount of water that is proposed to be transferred water that will be conserved in accordance with Water Code section 1011?

2. Would the proposed transfer result in substantial injury to any legal user of water? (Wat. Code, § 1736.) The petitioners initially are responsible for showing that there will not be substantial injury to any legal user of water. If the petitioners make such a showing, however, and a party objects to the petitioned changes based on injury to existing water rights, the party claiming injury must present evidence demonstrating the specific injury to the existing water right that would result from approval of the transfer. In addition, the party claiming injury must present evidence that describes the basis of the allegedly injured party's claim of water right, the date the water use began, the quantity of water used during each relevant period of the year, the purpose of use, and the specific place of use.

3. Should the SWRCB make any additional findings or reach any additional conclusions concerning the transfer, IID's water rights, or IID's water conservation program, as requested by petitioners? Specifically, should the SWRCB make any of the following findings or conclusions?

    a. The SWRCB's order and all findings of fact and conclusions of law, with the exception of any decision, order, finding of fact or conclusion of law made with respect to standing or the right to appear or object, shall have no precedential effect (as defined in the California Administrative Procedure Act) in any other proceeding brought before the SWRCB and, specifically but without limitation, shall not establish the applicability or nonapplicability of California law or federal law to any of the matters raised by the Petition or to any other Colorado River transfer or acquisition;

    b. The SWRCB's concerns, if any, with respect to IID's reasonable and beneficial use, are satisfied;

c. The SWRCB does not anticipate the need, absent any substantial material adverse change in IID's irrigation practices or advances in economically feasible technology associated with irrigation efficiency, to reassess the reasonable and beneficial use of water by IID before the end of calendar year 2023;

d. Water Code sections 1011, 1012 and 1013 apply to and govern the transfer and acquisitions and IID's water rights are unaffected by the transfer and acquisitions;

e. The conserved water transferred or acquired retains the same priority as if it were diverted and used by IID;

f. The transfer and acquisitions are in furtherance of earlier SWRCB decisions and orders concerning IID's reasonable and beneficial use of water, California Constitution article X, section 2, and sections 100 and 109 of the Water Code; or

g. IID shall report annually on conservation of water pursuant to its Petition, and such annual reports shall satisfy reporting obligations of IID under Decision 1600 and Water Rights Order 88-20. The quantity of conserved water transferred or acquired will be verified by IID reporting that (i) IID's diversions at Imperial Dam (less return flows) have been reduced below 3.1 million afa in an amount equal to the quantity of conserved water transferred or acquired, subject to variation permitted by the Inadvertent Overrun Program adopted by the DOI; and (ii) IID has enforced its contracts with the participating farmers to produce conserved water and has identified the amount of reduced deliveries to participating farmers and has identified the amount of conserved water created by projects developed by IID.

Phase II

4. Would the petitioned changes unreasonably affect fish, wildlife, or other instream beneficial uses of water? (Wat. Code, § 1736.) The petitioners initially are responsible for showing that there will be no unreasonable effect on fish, wildlife, or other instream beneficial uses of water. If the petitioners make such a showing, however, and a party

objects to the transfer based on the claim that the transfer will unreasonably affect fish, wildlife, or other instream beneficial uses, the party must present evidence supporting the claim.

The issues addressed during each phase of the hearing relate to the two principal findings the SWRCB must make in order to approve the transfer. These required findings are discussed in section 3.7 of this order.

2.3.2 Parties

The parties who appeared at the hearing were: IID, SDCWA, the CRIT, Imperial County, the California Farm Bureau Federation, William DuBois, Larry Gilbert, the Salton Sea Authority, the Planning and Conservation League, the Sierra Club California, the Defenders of Wildlife, the National Wildlife Federation, the National Audubon Society-California, and the California Regional Water Quality Control Board Colorado River Basin Region (Regional Board).

3.0 LEGAL BACKGROUND

3.1 Law of the River

The Law of the River consists of a variety of legal authorities concerning the use and distribution of Colorado River water, including treaties, interstate compacts, federal and state statutes, and case law.

A central component of the Law of the River is the 1922 Colorado River Compact. The 1922 Compact apportions the beneficial consumptive use of 7,500,000 afa of water from the Colorado River System to the Upper Basin States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and the beneficial consumptive use of 7,500,000 afa to the Lower Basin States of Arizona, California, Nevada, New Mexico and Utah.[3] (1922 Colorado River Compact, art. III, para. (a).) The 1922 Compact did not apportion water among the states within the Upper and Lower Basins.

[3] Article III, paragraph (b) of the 1922 Compact apportions an additional 1,000,000 afa to the Lower Basin States.

In 1928, Congress enacted the Boulder Canyon Project Act (43 U.S.C.A. § 617 et seq.) (Project Act), which authorized construction of Hoover Dam and the All-American Canal. The purposes of the Project Act were to control floods, improve navigation, regulate the flow of the river, store and deliver water for beneficial uses, and generate electric power. (43 U.S.C.A. § 617.) Section 5 of the Project Act also authorized the Secretary of Interior to enter into contracts for the storage and delivery of Colorado River water. (43 U.S.C.A. § 617d.)

In *Arizona v. California*, the U.S. Supreme Court interpreted the Project Act to have effectuated the apportionment of the Lower Basin States' 7,500,000 afa share of water from the mainstream of the Colorado River among California, Arizona and Nevada as follows: 4,400,000 afa to California, 2,800,000 afa to Arizona, and 300,000 afa to Nevada. (*Arizona v. California* (1963) 373 U.S. 546, 564-565 [83 S.Ct. 1468, 1480].) The Court held that California was also entitled to half of any surplus. (*Ibid*.)

The Court held that the Project Act authorized the Secretary of Interior to carry out the apportionment among the Lower Basin States and to decide which users within each state would get water, through contracts made under section 5 of the Project Act. (*Arizona v. California, supra*, at pp. 579-580.) The Court stated that the Project Act established a comprehensive scheme for the distribution of Colorado River water pursuant to section 5 contracts. The Court stated further that this scheme left no room for inconsistent state law, but that States are free "to do things not inconsistent with the Project Act or with federal control of the river . . . ." (*Id.* at pp. 587-588.)

The Court also emphasized that a significant limitation to the Project Act was the requirement that the Secretary of Interior satisfy "present perfected rights." (*Arizona v. California, supra*, at p. 584.) In a subsequent decree, the Court defined present perfected rights as those rights that had been perfected in accordance with state law as of June 25, 1929, the effective date of the Project Act. (*Arizona v. California* (1964) 376 U.S. 340, 341 [84 S.Ct. 755, 756].)

In 1931, water users within California entered into the Seven-Party Agreement, which establishes a priority system for the use of Colorado River water. Under the Agreement, the parties have the following priorities to the following quantities of water:

Priority	Description	Acre-feet per year
1	Palo Verde Irrigation District gross area of 104,500 acres	3,850,000
2	Yuma Project not exceeding a gross area of 25,000 acres	
3(a)	IID and lands in Imperial and Coachella Valleys to be served by the All-American Canal	
3(b)	Palo Verde Irrigation District 16,000 acres of mesa lands	
4	MWD and/or the City of Los Angeles and/or others on the coastal plain	550,000
5(a)	MWD and/or the City of Los Angeles and/or others on the coastal plain	550,000
5(b)	City and/or County of San Diego	112,000
6(a)	IID and lands in Imperial and Coachella Valleys	300,000
6(b)	Palo Verde Irrigation District 16,000 of mesa lands	
7	Agricultural Use	All remaining water

The Seven-Party Agreement makes allocations for "lands in Imperial and Coachella Valleys," and sets acreage limits for Palo Verde Irrigation District (PVID) and the Yuma Project, but does not otherwise quantify the individual entitlements of the agricultural users with the first, second and third priorities. The first four priorities combined amount to the 4,400,000 afa apportioned to California under *Arizona v. California*, *supra*. Water may be available under lower priorities when surplus water is available or higher priority users do not use their full entitlement.

3.2 The Need To Reduce California's Use of Colorado River Water

California has been using approximately 5,200,000 afa of Colorado River water. This use is in excess of California's basic apportionment of 4,400,000 afa by approximately 800,000 afa. (SDCWA 15, p. 16.) In the past, Arizona and Nevada were not using their full apportionments, and California could take the surplus. (*Ibid*.) Growing demand in Arizona and Nevada, however, has placed pressure on California to reduce its use to its 4,400,000 afa apportionment during years when no surplus is available. (*Ibid*.)

3.3 California's Colorado River Water Use Plan

California's Colorado River Water Use Plan (SDCWA 15) provides a framework to assist California in reducing its use of Colorado River water to 4,400,000 afa in normal years. The Plan, currently in draft form, was developed by the Colorado River Board of California.[4] Components of the Plan include canal lining projects, groundwater storage and consumptive use projects, and conserved water transfers. A self-described linchpin of the Plan is the voluntary transfer of between 400,000 to 500,000 afa of conserved water from agricultural to urban use, including the proposed transfer from IID to SDCWA. (*Id*. at pp. 25, 32-37.) Although the Plan contemplates that conserved water transfers, including the transfer to SDCWA, will take place in the near term, the Plan is also intended to be flexible, and to allow for the addition, deletion, or substitution of projects or programs where doing so is cost-effective or otherwise appropriate. (*Id*. at pp. 20, 27, 34.)

3.4 The Draft Quantification Settlement Agreement

The Quantification Settlement Agreement (QSA), a draft agreement between IID, MWD and CVWD, would facilitate implementation of the Colorado River Water Use Plan by settling "longstanding disputes regarding the priority, use and transfer of Colorado River water . . . ." (IID 22, p. 2, para. G.) The Colorado River Water Use Plan recognizes that the structure of the Seven-Party Agreement presents a potential obstacle to conserved water transfers from IID to urban users such as SDCWA. (SDCWA 15, pp. 25-26.) Before entering into a protest dismissal agreement with IID and SDCWA, CVWD protested the transfer on the basis that CVWD was entitled to any water conserved by IID, even if the water were conserved in support of a transfer to a third party, under CVWD's unquantified third and sixth priority entitlements. (CVWD protest (Sept. 23, 1999) pp. 6-7; see also R.T. pp. 76-77, 139-140.) Similarly, MWD protested on the basis that it was entitled to any water unused by IID and CVWD because MWD is next in line in the priority system. (MWD protest (Sept. 21, 1999) attachment B.) The terms of the draft QSA would resolve this conflict among the parties.

[4] The Colorado River Board is a state agency that exists within the California Resources Agency. There are 10 members: one from each of the six major public agencies with Colorado River water rights (City of Los Angeles Department of Water and Power, CVWD, IID, MWD, PVID, and SDCWA); two from the general public; the Director of the California Department of Water Resources; and the Director of the California Department of Fish and Game. (SDCWA 15, p. 1.)

Among other things, the QSA would establish water budgets for the parties, and sanction the proposed transfer from IID to SDCWA. Specifically, the QSA would cap IID's third priority entitlement at 3,100,000 afa; CVWD's third priority entitlement would be capped at 330,000 afa, plus 100,000 afa of conserved water from IID. In addition to capping MWD's entitlements consistent with the Seven-Party Agreement, the QSA would authorize MWD to acquire all or a portion of the 100,000 afa of conserved water that CVWD does not use. (IID 22, pp. 9-13; see also SDCWA 15, pp. 33-36.) The QSA would measure the proposed transfer to SDCWA against IID's 3,100,000 cap. The parties' obligations under the draft QSA are contingent on the SWRCB approving IID's and SDCWA's petition, and adopting specified findings and conclusions concerning IID's water use and the precedential nature of the SWRCB's order. (IID 22, pp. 19-20, para. 6.1, p. 23, para. 6.2(11)(a-e).)

3.5 The Interim Surplus Guidelines

In January 2001, the Secretary of Interior adopted Interim Surplus Guidelines. (66 Fed.Reg. 7772.) For a 15-year period, the Guidelines provide for the phase-out of the availability of surplus water, which may be used when demand within California exceeds California's basic 4,400,000 afa apportionment. (*Ibid*; R.T. pp. 128-129.) The Guidelines give California time to reduce its use of Colorado River water in accordance with the Colorado River Water Use Plan and the draft QSA.

The Guidelines require California to reduce its water use to levels at or below specified benchmark water quantities every three years, starting with 2003. (66 Fed.Reg 7772, § 5(C).) The Guidelines will be suspended, and surplus water is much less likely to be available, if California exceeds a benchmark quantity, but the Guidelines will be reinstated if California meets the missed benchmark quantity before the next benchmark date. (*Ibid*.) In addition, the Guidelines will be suspended if IID, MWD, and CVWD do not execute the draft QSA by December 31, 2002. The Guidelines will remain suspended "until such time as California completes all required actions and complies with [the benchmark water] reductions . . . ." (*Id*., § 5(B).)

3.6 Previous SWRCB Decisions Regarding IID's Water Use

In previous decisions, the SWRCB has addressed the need for IID to conserve more water. In 1983, the SWRCB held a hearing on a complaint against IID filed by John Elmore, a farmer with land adjacent to the Salton Sea. Mr. Elmore alleged that IID's water use was wasteful and unreasonable because agricultural run-off from IID was causing the level of the Salton Sea to rise and flood adjacent property. After considering all relevant facts - including the impending shortage of Colorado River water and the availability of practical conservation measures - the SWRCB determined that IID's failure to implement additional water conservation measures was unreasonable and constituted a misuse of water in violation of article X, section 2 of the California Constitution and section 100 of the Water Code. (Decision 1600 (1984) p. 66.) Decision 1600 directed IID to take certain actions to increase water conservation, including the development of a comprehensive water conservation plan.

The SWRCB held hearings in 1987 and 1988 regarding various aspects of IID's conservation efforts and adopted Order WR 88-20. Order WR 88-20 directed IID to submit a plan for implementing conservation measures sufficient to conserve at least 100,000 afa. The SWRCB addressed the lack of funding to implement all of the conservation measures that IID had identified during the hearing and pointed to conserved water transfers as a potential source of funding. (*Id*. at pp. 18-26.) The SWRCB reserved continuing authority to oversee implementation of IID's conservation plan and take any other appropriate action to ensure compliance with article X, section 2 of the Constitution.

In accordance with Order WR 88-20, in 1988 IID entered into a conservation agreement with MWD, whereby, in exchange for funding to support IID's conservation efforts, MWD would acquire approximately 100,000 afa of conserved water. (IID 15.) In this proceeding, IID seeks to resolve any outstanding issues concerning the reasonableness of its water use. IID has requested the SWRCB to find that the SWRCB's concerns, if any, concerning IID's reasonable and beneficial use are satisfied.

3.7 State Law Applicable to Conserved Water Transfers

Water Code sections 1735 through 1737 govern the SWRCB's review of changes in permitted points of diversion, place of use or purpose of use for water transfers for periods in excess of one year. Under Water Code section 1736, the SWRCB may approve a long-term transfer petition if the SWRCB finds that the transfer will not result in substantial injury to any legal user of water and would not unreasonably affect fish, wildlife, or other instream beneficial uses.[5]

A number of other provisions may come into play when water is conserved for purposes of a transfer. Ordinarily, when an appropriative water right is not exercised for a proscribed amount of time, the right is subject to forfeiture for non-use. (See Wat. Code, § 1241.) To the extent that water is being used in accordance with a valid water transfer, however, this provision does not apply because the water is being used. A section recently added to the Water Code codifies this principle, specifying that a transferor's right to use the water transferred is protected from forfeiture due to non-use, provided that the transfer is implemented in accordance with applicable law. (Wat. Code, § 1745.07.)

Section 1011 protects from forfeiture the right to use water under an appropriative right to the extent that the right holder uses less water as a result of conservation efforts. The right to use water that is conserved may be transferred pursuant to other provisions of law governing transfers. (Wat Code, § 1011, subd. (b).) For purposes of section 1011, "water conservation" is defined as the use of less water to accomplish the same purpose or purposes of use. The term "water conservation" is also defined to include temporary "land fallowing" and "crop rotation," which in turn are defined to mean land practices "used in the course of normal and customary agricultural production to maintain or promote the productivity of agricultural land." (Wat. Code, § 1011, subd. (a).) Section 1011 protects the right holder from forfeiture, even if the water is not transferred. If the water right holder carries out a transfer, it is protected from forfeiture under Water Code section 1745.07, even if the measures employed to make water

[5] Although Water Code section 1736 applies more broadly to water bodies that are not navigable and do not support a fishery, section 1736 effectively codifies the SWRCB's duty to consider public trust uses. (See *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 447, fn. 27 [189 Cal.Rptr. 346, 364, fn. 27, 658 P.2d 709, 728, fn. 27].) Accordingly, we need not reach the argument advanced by some parties to this proceeding that the public trust doctrine applies to the Salton Sea.

available for transfer include measures, such as land retirement, that do not constitute "water conservation" as defined in section 1011.

IID has requested the SWRCB to find that Water Code sections 1011, 1012, and 1013 apply to and govern IID's conservation of water in support of the proposed transfer. Consistent with section 1011, section 1012 protects IID's rights from forfeiture to the extent that any conservation effort results in the reduction of water use within IID. Section 1013 provides that if IID, acting under contract with the United States or pursuant to State or federal requirements, reduces through conservation measures inflows to the Salton Sea, IID shall not be liable for any resulting effects to the Salton Sea or its bordering area.

Effective January 1, 2003, Senate Bill 482 (Stats. 2002, ch. 617) will amend section 1013 to extend the protection against forfeiture to a reduction in water use attributable to temporary or long-term land fallowing, regardless of whether it occurs in the course of normal and customary agricultural production, if the fallowing is undertaken in order to carry out or mitigate for a transfer under the QSA and IID consults with Imperial County concerning the potential economic or environmental impacts of fallowing. (*Id*., § 7.)

3.8 Endangered Species Act Requirements

The conservation and transfer project has the potential to "take" certain threatened and endangered species that are protected under the federal Endangered Species Act (16 U.S.C.A. §§ 1531-1544) (ESA) and the California Endangered Species Act (Fish & G. Code, §§ 2050-2116) (CESA).

Under the federal ESA, the Secretary of Interior may permit the taking of a threatened or endangered species if the Secretary finds, among other things, that the taking will be incidental to an otherwise lawful activity, the impacts of the taking will be minimized and mitigated to the extent practicable, and the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. (16 U.S.C.A. § 1539(a).) CESA contains similar provisions. The California Department of Fish and Game (DFG) may issue a permit that authorizes the incidental take of a species listed as threatened or endangered under CESA, provided, among

other things, that the impacts of the take will be minimized and fully mitigated, and the issuance of the permit will not jeopardize the continued existence of the species. (Fish & G. Code, § 2081, subds. (b) & (c).)[6]

IID has developed a habitat conservation plan (HCP) in support of its applications for incidental take permits under section 10(a)(1)(B) of the federal ESA (16 U.S.C.A. § 1539(a)(1)(B)) and section 2081, subdivision (b) of the Fish and Game Code. (IID 93, attachment A.)

Effective January 1, 2003, SB 482 adds a new section 2081.7 to the Fish and Game Code. Section 2081.7 will authorize DFG to issue an incidental take permit in connection with implementation of the QSA, including the transfers authorized under the QSA, under specified conditions. (Stats. 2002, ch. 617, § 2.) Section 2081.7 will authorize the incidental take of affected species even if they are listed as fully protected under the Fish and Game Code. (*Id.*, §§ 2-6.) Unlike species listed as threatened or endangered under CESA, under current law DFG lacks authority to authorize the incidental take of a fully protected species.

4.0 THE TRANSFER WILL NOT RESULT IN SUBSTANTIAL INJURY TO ANY LEGAL USER OF WATER

As stated earlier, Water Code section 1736 provides that the SWRCB may approve a long-term transfer petition if the SWRCB finds that the transfer will not result in substantial injury to any legal user of water. For the reasons described below, the SWRCB concludes that the transfer will not result in substantial injury to any legal user of water.

The statutory "no injury" rule, set forth in Water Code section 1702 and followed in section 1736, codifies the common law no injury rule and therefore should be interpreted consistent with the common law rule. (SWRCB Order WR 98-01, p. 5; SWRCB Order WR 99-012, p. 12.) The common law rule is designed to protect third party water right holders

[6] Under Fish and Game Code section 2835, DFG may also authorize the incidental take of any species whose conservation and management is provided for in a natural community conservation plan (NCCP) that has been approved by DFG. Effective January 1, 2003, chapter 10 of division 3 of the Fish and Game Code (sections 2800-2840), which governs the preparation and implementation of NCCPs, will be repealed and replaced with much more detailed provisions governing NCCPs, but section 2835 will remain substantially unchanged. (Stats. 2002, ch. 4, §§ 1 & 2.)

when a water right is changed. (SWRCB Order WR 2000-02, p. 19.) The rule precludes a change in the point of diversion, place of use, or purpose of use under circumstances where prior rights would bar issuance of a new permit for a project having the same impacts as the change. The Water Code requirement that there be no "injury" from changes or transfers is a term of art that does not necessarily protect every third party who is using water legally. In order to be protected under the no injury rule, a third party must be a water right holder, or have standing to raise issues concerning injury to a water right holder.[7] (*Id*. at pp. 19-21; see Wat. Code, § 1703.6, subd (c) [authorizing the SWRCB to dismiss a protest based on injury to a legal user of water if the protestant fails to submit information necessary to determine if the protestant has a valid water right].)

The transfer will reduce flows in the lower Colorado River between Parker Dam, the point of diversion for the water proposed to be transferred to SDCWA and MWD, and Imperial Dam, IID's existing point of diversion. Reduced flows between Parker Dam and Imperial Dam have the potential to injure water right holders who divert water from that stretch of the river. The transfer will also reduce flows in the All-American Canal, which has the potential to injure third party water right holders who divert water from the canal (instead of diverting directly from the lower Colorado River) between Imperial Dam and IID's points of rediversion from the canal. (See IID 2, ex. B, pp. VII-1 - VII-9.)

The record establishes, however, that the transfer will not result in substantial injury to any third party water right holder. No third party submitted evidence to support an objection to the transfer based on injury to the right to use water for consumptive use purposes. In addition, the record indicates that, even with full implementation of the transfer, IID will continue to divert a substantial amount of water at Imperial Dam and to redivert the water from the All-American Canal. (IID 54, p. 15; IID 55, pp. [2-2]-[2-8]; R.T. pp. 669-676.) Accordingly, water right holders located upstream of IID necessarily will be able to satisfy their rights to divert water for consumptive use purposes.

[7] For example, a water supply contractor who buys water from a water right holder would have standing if a change would deprive the water right holder of water to which it is entitled, without its consent, thereby reducing the contractor's receipt of water. (SWRCB Order WR 2002-02, p. 20.)

The only party who objected to the transfer based on injury to the right to use water for non-consumptive use purposes was the CRIT. CRIT presented evidence that the transfer will adversely affect CRIT's ability to generate hydroelectric power at the Headgate Rock Power Plant, a run-of-the-river hydroelectric facility located downstream from Parker Dam. Evidence presented by CRIT indicates that the transfer could reduce generation by approximately four or five percent. (CRIT 9, pp. 4-5; R.T. pp. 451-452.) The value of the lost power generation is approximately $150,000 a year. (*Ibid*.)

Although CRIT's ability to generate power may be affected, CRIT failed to claim or present any evidence substantiating a claim that CRIT holds a water right for purposes of generating hydroelectric power that would entitle CRIT to protection from injury under Water Code section 1736. The SWRCB afforded CRIT ample opportunity to substantiate a water right claim. The SWRCB's February 6, 2002, hearing notice specified that any party who objected to the transfer based on the allegation that the transfer would result in substantial injury to a legal user of water must present evidence that described the basis of the allegedly injured party's claim of water right. In addition, in a letter to CRIT dated May 14, 2002, SWRCB Chairman Baggett, the hearing officer in this proceeding, explained that CRIT would not be entitled to protection from injury to the extent that CRIT did not hold a water right. Chairman Baggett asked CRIT whether CRIT claimed to hold specific types of water rights and provided CRIT an opportunity to respond and submit evidence in support of any response.

In a May 21, 2002, response to the Chairman's May 14, 2002 letter, CRIT reiterated that CRIT is entitled to use the entire flow of the river to generate power by virtue of the fact that Congress authorized and funded the construction of Headgate Rock Dam for purposes of irrigation and power generation. CRIT also cited to evidence in the record that indicates that the USBR designed Headgate Rock Power Plant to utilize the entire, normal flow of the river, and Congress appropriated money to construct the power plant. CRIT has presented no evidence, however, that Congress granted CRIT a water right for purposes of power generation. The evidence cited by CRIT establishes merely that CRIT is entitled to generate electricity from all of the water that happens to be in the river. CRIT provided no evidence that Congress granted CRIT any right to

the maintenance of any flows in the Colorado River to support that use. Nor did CRIT present evidence that it holds any reserved, riparian, appropriative, or other water right for power generation that would constitute a prior right, entitled to protection from diminution in supply, if a new a new appropriation were proposed upstream. Accordingly, CRIT is not entitled to protection under the no injury rule codified in Water Code section 1736.

5.0 THE TRANSFER WILL NOT RESULT IN UNREASONABLE IMPACTS TO FISH, WILDLIFE, OR OTHER INSTREAM BENEFICIAL USES

Under Water Code section 1736, the SWRCB may approve the transfer if the SWRCB finds that the transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses. The transfer has the potential to affect fish and wildlife present in and around IID's service area, the Salton Sea, the lower Colorado River, and the San Diego region. Most of the concern expressed by the parties relates to potential impacts to the Salton Sea fishery and migratory birds that rely on the fishery.

IID proposes to conserve water for transfer by improving its water delivery system, promoting and financing on-farm irrigation system improvements, or fallowing agricultural land. IID has not specified the precise mix of conservation measures that it will rely on to generate water for transfer. Depending on how water is conserved, the impacts of the project on the Salton Sea and habitat within IID's service area will vary.

Water that flows into the Salton Sea from the IID service area is less saline than water in the Sea. As a result, IID's drainage water provides dilution for the salts that accumulate when the Sea's water evaporates. All of IID's proposed conservation measures that reduce farm runoff will reduce inflows to the Salton Sea and the Sea will become more saline at an accelerated rate. Fallowing agricultural land also affects inflows to the Sea, but to a lesser extent. Fallowing has about one-third of the effect on Salton Sea inflow as compared to a conservation program based on efficiency improvements. As the Sea becomes more saline, the fish that are present in the Sea will become less able to reproduce, the fishery will eventually collapse, and migratory birds will lose a significant food source. In addition, reduced inflows will lower the elevation of the Sea, which could adversely affect shoreline habitat and expose island rookeries.

Some of the species that could be adversely affected by the transfer, including some of the bird species that rely on the Salton Sea, are listed as threatened or endangered under CESA and the federal ESA. As lead agency under CEQA, IID has prepared an EIR, which analyzes the potential impacts of the project on the environment, including the Salton Sea. (IID 55 [Draft EIR]; IID 93 [Final EIR].) As stated in section 3.8 of this order, IID also has prepared an HCP in support of its applications for permits that would authorize the incidental take of these species in connection with the transfer. (IID 93, attachment A.) The HCP includes a Salton Sea Habitat Conservation Strategy (SSHCS), which proposes to mitigate the impacts of the transfer on the Salton Sea by generating water in some fashion to replace water that will no longer flow to the Sea as a result of the proposed transfer. The replacement water is intended to maintain salinity at levels that would have occurred in the absence of the transfer. The SSHCS proposes to provide replacement water until 2030, the year when the Sea is projected to become so salty under baseline conditions that fish will no longer be able to reproduce. The amount of water that will need to be replaced depends on the final combination of conservation measures that IID implements.

Conservation measures also have the potential to adversely affect fish and wildlife that are present in the drains in IID's service area. In addition, reduced flows between Lake Havasu and Imperial Dam could adversely affect fish and wildlife that rely on the river or adjacent habitat.

For the reasons described below, we find that the transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses provided that the mitigation measures required by this order are implemented. In particular, we find that the impacts to fish and wildlife that rely on the Salton Sea are reasonable given the importance of the transfer to the State, so long as IID implements the SSHCS for 15 years.[8]

[8] Although providing replacement water in accordance with the SSHCS will be a condition of approval that is binding on IID, we do not mean to imply that IID necessarily must supply the replacement water under its own water rights in order to satisfy this requirement. Consistent with the provisions of the SSHCS, which does not specify the source of replacement water, IID may satisfy this requirement using water from other sources. Moreover, the imposition of this requirement on IID is not intended to and should not be construed as a determination of the proper allocation of responsibility for mitigating the environmental impacts of the transfer as between IID and SDCWA, or a determination of the extent to which it may be appropriate for IID to obtain assistance in meeting mitigation requirements from federal or state grants or from any other third party. Similarly, any references in this order to required mitigation measures are not intended to be read as requirements that IID
[footnote continues on next page]

5.1 Impacts to Fish and Wildlife that Rely on Drain Habitat

IID maintains approximately 1,456 miles of drains in its service area, most of them in the form of open, unlined channels. These channels create habitat for a variety of plant species. (IID 55, p. 3.2-24.) Vegetation is the key habitat feature that attracts wildlife to the drains in the IID service area. Vegetation occurs along approximately 26 percent of the total area covered by the drains (2,471 acres) for a total potential habitat of 652 acres. (IID 93, p. A3-94.) The majority of vegetation in the drains consists of invasive, non-native phreatophytes (589 acres), but some sporadic patches of cattail also exist (63 acres). A number of avian species, including special status avian species, use this vegetation for cover, nesting and perching habitat. They also use this habitat for foraging for invertebrates and fish. (IID 93, pp. A3-100-112.) Drains in the IID service area that empty directly into the Salton Sea also serve as habitat for desert pupfish, a species listed as endangered under CESA and the federal ESA. (IID 55, p. 3.2-128.)

5.1.1 Existing Water Quality Conditions in the Drains

The average salinity (expressed as Total Dissolved Solids, "TDS") of water diverted by IID at Imperial Dam is 768 mg/l. (IID 55, p. 3.1-17.) This value is expected to increase to 879 mg/l due to changes in water use patterns in upstream areas of the Colorado River. (R.T. pp. 675, 921.) This water makes its way to the IID service area through the All-American Canal, and is delivered to farmers' headgates with nearly the same average TDS. By the time farmers have used the water to irrigate crops and returned the tail and tile water to IID drains, the average TDS is approximately 2245 mg/l. The New and Alamo Rivers water that crosses the border from Mexico is of substantially poorer quality than IID drain water at 3542 mg/l. (See IID 55, p. 3.1-56.) When IID drain water is mixed with New and Alamo Rivers water, the resulting flow into the Salton Sea averages 2727 mg/l. Because the salinity of IID's source water is expected to increase, it is logical to assume that the salinity of drain water will also increase. (R.T. pp. 675-676, 921-922.)

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provide the funding for the mitigation, or that IID must itself implement the mitigation. Mitigation may be paid for or implemented by a party other than IID pursuant to the IID/SDCWA transfer agreement, the QSA, or any other agreement. The mitigation measures required by this order must be funded and implemented if petitioners choose to proceed with the transfer, irrespective of who pays for or implements the mitigation.

The difference between the TDS value of Colorado River water (768 mg/l) and the TDS value of drain water (2245 mg/l) is mainly the result of salt that is leached from agricultural fields in IID. Tile water is the major contributor to the increase of salinity in the drains, because this water serves the important function of removing salt that accumulates in the root zone from previous irrigations. (R.T. pp. 195-196, 205-206.)

Colorado River water imported into the Imperial Valley also contains high levels of selenium that originates from areas upstream of IID's diversion point, principally from irrigation tail water that is discharged to the river in Colorado. (IID 55, p. 3.2-73; R.T. p. 1227.) Selenium (Se) is a metalloid that can be highly toxic to aquatic life at relatively low concentrations, but it is also an essential trace nutrient for many aquatic and terrestrial species. The biogeochemistry of selenium is complex in the aquatic environment. Selenium exists in four oxidation states in the aquatic environment, each state displaying different toxicological and chemical properties. Selenium bioaccumulates in aquatic food webs and can undergo rapid biotransformation between its inorganic and organic forms, which affects its bioavailability and toxicity. Selenium toxicity causes reproductive failure in adult fish and birds and also causes teratogenesis in juveniles. Selenium is released to water from both natural and anthropogenic sources. (See IID 56, p. 3.1-8; 61 Fed.Reg. 58446 (Nov. 14, 1996); 65 Fed.Reg. 31689, 31690 (May 18, 2000).)

The Regional Board adopted a Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) in 1993. The SWRCB approved the Basin Plan in 1994. The Basin Plan identifies beneficial uses for the Salton Sea, which include aquaculture, water contact and non-contact recreation, warm freshwater habitat, wildlife habitat, and preservation of rare, threatened or endangered species. The Basin Plan contains the following water quality standards for the Salton Sea and its tributaries for selenium:

1. A four day average value of selenium shall not exceed 0.005 mg/l [5 µg/L];
2. A one-hour average value of selenium shall not exceed 0.02 mg/l [20 µg/L].

The water quality standards for selenium specified in the Basin Plan are based on the U.S. Environmental Protection Agency's (USEPA) National Ambient Water Quality Criteria.

(R.T. pp. 1209, 1219; see also Regional Water Quality Control Board, Water Quality Control Plan, Colorado River Basin Region (1994).) The USEPA criteria for selenium is 5 ìg/L for freshwater and 71 ìg/L for saltwater. The most recent aquatic criteria for selenium were derived by the USEPA in 1987. USEPA is currently in the process of revising its national freshwater aquatic life criteria for selenium. (64 Fed.Reg. 58409 (Oct. 29, 1999).) Although USEPA recognizes the need to review saltwater aquatic life criteria for selenium, information concerning selenium effects on saltwater organisms is limited compared to freshwater.

The Basin Plan identifies recreation as a beneficial use of water that has been impaired due to elevated levels of selenium in tissues of resident wildlife and aquatic life. As a result, the Regional Board pursuant to the Clean Water Act has identified the Salton Sea, the Alamo River and Imperial Valley agricultural drains as impaired water bodies for selenium. The Salton Sea currently meets the Basin Plan's water quality objective for selenium, but that objective is exceeded in the Alamo River and the agricultural drains that are tributary to the Salton Sea and to the New River. (R.T. p. 1220.)

5.1.2 Project Impacts to Water Quantity and Water Quality in the Drains

Any conservation strategy that reduces agricultural discharge has an effect on the quantity and quality of water flowing in IID's drainage system, which can in turn affect the plants and animals that live there.

In the case of on-farm measures, almost all techniques used to conserve water result in reduced tail water flows, which would impact the quantity and quality of IID's run-off. The current volume of tail water and tile water from IID is approximately equal (IID 93, pp. A2-3 - A2-4), but tail water is of much better quality than tile water. For example, tail water in the IID service area has approximately 15 percent of the total selenium concentrations of tile water. (CRWQCB 4.) If the proportion of tail water is reduced by on-farm conservation, the remaining tile water will make up a larger proportion of water flowing through IID drains and water quality will worsen. While the selenium concentration in many drains in the IID service area will be at or above 5 ìg/L with or without any transfer project, on farm conservation measures would increase the number of miles in the IID system that would exceed this objective. (R.T. p. 1221.)

Conservation measures that reduce losses from the irrigation water delivery system can affect water quantity in two ways. Currently, water sometimes "spills" into drains when more water is delivered than is needed. The effects of reducing canal spills are similar to those that would result from on-farm conservation measures because the net result would be reduced flows in IID's drains and in the New and Alamo Rivers. If water is conserved by reducing seepage from unlined ditches, the result would be either reduced base flows in IID's drains and the New and Alamo Rivers, or reduced subsurface flows to the Salton Sea. This would diminish the dilution effect that inflows have on the Sea. In either case, the effect on the quantity of water flowing in either IID's drains, the New and Alamo Rivers, or subsurface flow to the Salton Sea would not be seen immediately, because water flows very slowly in the subsurface. (R.T. p. 674.) But witnesses for IID testified that this type of conservation would eventually have the same result on the quantity of flows as would on-farm conservation. (R.T. p. 686.)

If water for the transfer is generated by temporary land fallowing, the effects on water quality in IID's drains and the Salton Sea would be expected to be less significant, equating to roughly one-third of the impact (in terms of water quality constituents) from on-farm conservation. (R.T. p. 698.) Fallowing agricultural fields in IID to provide water for transfer has less impact on the Salton Sea and its tributaries than using strictly conservation measures to generate a like volume of water. For every acre-foot of transfer water generated through the use of on-farm and system improvements, the Sea loses an acre-foot of inflow. When fallowing is used to generate transfer water, for every three acre-feet of water transferred, the Sea only realizes a one acre-foot loss.

5.1.3 Project Impacts to Fish and Wildlife that Rely on Drain Habitat

By implementing conservation measures that will provide water for the transfer, IID may reduce flows in agricultural drains by 7 percent to 39 percent, depending on the location of the drain and type of conservation measure. Reduced flows can cause water temperatures in affected drains to increase to the extent that the drain becomes unsuitable to support aquatic invertebrates. When flows are reduced, fish that live in the drains, such as the desert pupfish can be exposed, resulting

in increased predation. Their movement can also be restricted to the point that their range is reduced.

Conservation measures would also affect vegetation, and thus bird habitat, in IID's drains. The greatest threat to the vegetation is rising salinity due to the increased proportion of tile water generated by on-farm conservation measures. Table 3.2-39 of the EIR illustrates the effects of the transfer on rising salinity for different conservation measures that may be utilized by IID. Conserving water for transfer by fallowing only would have a minor effect on vegetation, due to reduced flows in the drain.

TABLE 3.2-39
Acres of Cattail Vegetation in the Drains Potentially Affected by Increases in Salinity under the Proposed Project and Alternatives

Alternative	Good Growth (salinity < 3 g/L)	Stunted Growth (salinity 3-5 g/L)	Total Cattail Vegetation
Baseline (Alt 1)	40	23	63
130 KAF on-farm (Alt 2)	30	32	62
230 KAF on-farm (Alt 3)	20	39	59
130 KAF on-farm + 100 KAF system (Alt 3)	19	41	60
230 KAF on-farm + 70 KAF system (Proposed Project)	13	46	59

(IID 55, p. 3.2-115.)

As discussed above, selenium concentration in the drains and in the Alamo and New Rivers may increase as a result of conservation measures. Increased concentrations of selenium due to reduced flows in the drains and rivers could contribute to reproductive failure and teratogenesis in birds and fish. Impacts to breeding birds could include decreased egg hatchability and embryo deformity. (R.T. p. 2429.)

5.1.4 The Drain Habitat Conservation Strategy

IID's HCP includes a Drain Habitat Conservation Strategy (DHCS), which mitigates the impacts of altering the quantity and quality of drainage water in its system. The strategy is to analyze the effects of different conservation measures and create managed marsh habitat to compensate for any detrimental water quality effects, up to a maximum of 652 acres. The full habitat

replacement project would take place over a period of 15 years. In essence, the DHCS intends to replace all habitat in IID drains as the proposed project is phased into place. The water used to sustain the created habitat will be of equal or better quality than lower Colorado River water diverted by IID for irrigation purposes.

5.1.5 Conclusion on Drain Habitat Impacts

We recognize that the selenium concentration in existing drains will not be reduced as a result of implementing this mitigation measure, and impacts associated with high selenium concentrations in the drains and outlets to the Salton Sea will still occur. However, by creating alternative habitat with better water quality, the combined reproductive output of wildlife in the drains plus the alternate habitat will not change.

To protect the species that rely on drain habitat, IID should begin replacing all drain habitat as soon as efficiency based conservation measures are undertaken. As a condition of approval, the SWRCB will require IID to complete a vegetation survey of the IID service area and undertake a project to replace at least the amount of habitat found to exist during the survey, up to 652 acres.

In taking action on a water right application or change petition, the SWRCB must consider the applicable regional water quality control plan (Basin Plan). (See Wat. Code, § 1258.) In particular, the SWRCB must consider impacts on the instream beneficial uses that have been designated for protection in the Basin Plan, and the water quality objectives that have been adopted for protection of those uses, in determining whether the proposed change would have an unreasonable impact on instream beneficial uses.[9]

[9] The water quality standards applicable to waters of the state also include SWRCB Resolution 68-16 and, for waters of the United States, the federal antidegradation policy. (See 40 C.F.R. § 131.6; see also 40 C.F.R. § 131.12 [the federal antidegradation policy]; SWRCB Order WQ 86-17, pp. 17-19 [interpreting SWRCB Resolution 68-16 to incorporate the federal antidegradation policy under circumstances where the federal antidegradation policy applies].) As applied to instream beneficial uses of the drains, consideration of the measures necessary to implement the beneficial use designations and water quality objectives in the basin plan also serves to consider the measures necessary to apply antidegradation requirements. (Compare *PUD No. 1 v. Washington Department of Ecology* (1994) 511 U.S. 700, 714-715 [to ensure consistency with applicable water quality standards a state may set requirements to protect designated beneficial uses] with 40 C.F.R. § 131.12(a)(1) [providing for protection of instream beneficial uses and the water quality necessary to protect those uses].)

For the first 15 years of the transfer, this order requires that Salton Sea salinity levels be maintained at levels that would have existed in the absence of the project. To the extent that land is fallowed to meet this requirement, there will be no increase in salinity or selenium levels in IID's drains, the New River, the Alamo River, or the Salton Sea. In addition, the creation of up to 652 acres of managed marsh habitat will provide for protection, on an overall basis, of species dependent on vegetation in the drains. Nevertheless, salinity and selenium concentrations may increase as a result of the transfer, at least to the extent that the transfer is based on water conservation measures that reduce tail water flows.

Other than by creating replacement habitat, the Final EIR (FEIR) concludes that increased selenium concentrations cannot feasibly be mitigated. While it may not be feasible to fully mitigate the impacts of this transfer as part of this order, there may be feasible measures to address the overall selenium problem, as part of a more global strategy. The issue of selenium impacts to the Salton Sea and its tributaries should be investigated. Because the impact to beneficial uses results from bioaccumulation of selenium, the ultimate resolution of the problem is to reduce the load of selenium to the Salton Sea and its tributaries.

We take official notice that in 1997, the Colorado Water Quality Commission amended its Classifications and Numeric Standards for the Gunnison and Lower Dolores River Basins to include new standards for selenium and the adoption of temporary modifications for selenium standards in four segments of the basin. (See Colorado Department of Public Health and Environment, Water Quality Control Commission, "Regulation No. 35, Classification and Numeric Standards for Gunnison and Lower Dolores River Basins," pp. 32-33.) These segments are now included in Colorado's 303(d) list of impaired waters for selenium and actions have commenced to determine the appropriate allocation of the basin's assimilative capacity for selenium to basin dischargers. (See Colorado Department of Public Health and Environment, Water Quality Control Commission, 2002 § 303(d) List and Monitoring and Evaluation List (Sept. 10, 2002).) This should result in a reduction of selenium levels in irrigation water imported into Imperial County. (R.T. p. 1268.) We also note that, to the extent that this transfer results in reduced water deliveries to the Imperial County, it will also reduce selenium loading to the Salton Sea and its tributaries. (*Cf*. SWRCB Order WQ 2001-16, pp. 19-21 [approving mass

emission limits as an appropriate measure to implement antidegradation policies as applied to an impaired water body].) In this order, we will condition our approval of the transfer on IID participating in a comprehensive planning process to address selenium impacts to the Salton Sea and its tributaries.

The impact of increasing selenium in the drains is of significant concern. In view of the important state interest in the proposed transfer, however, it would not be reasonable to deny approval of the transfer simply because it is not feasible, as part of this order, to prevent the proposed transfer from contributing to further violations of the water quality objective for selenium. While the SWRCB must consider water quality impacts as part of its water right proceedings, it is not required to fully implement applicable water quality standards as part of each individual water right decision or order. (See Wat. Code, §§ 174 [providing for "consideration" of water quality]; 1258 [the SWRCB shall "consider" applicable water quality control plans, and "may" condition appropriations to carry out such plans].) Water quality standards may be implemented as part of a more comprehensive effort. (See *id.*, § 13242 [the program for implementation may include measures for implementation by any entity, not just the SWRCB].) We conclude that, with the mitigation provided, including IID's participation in a comprehensive planning process to address selenium impacts, and based on the public interest in the transfer, the impacts of the transfer on instream beneficial uses dependent on drain habitat are not unreasonable.

As with selenium, salt accumulation in the Imperial Valley and ultimately in the Salton Sea is a direct result of the rising salinity of Colorado River water, which affects all Colorado River stakeholders and is a major concern with respect to the United States' commitment to Mexico. Much of this salt originates either from federally owned lands, or from lands served by federally-developed irrigation projects. To address the problem of rising salinity of Colorado River water, the Colorado River Basin states established the Colorado River Salinity Control Forum in 1973. In addition to the efforts of the Colorado River Salinity Control Forum, the federal government is continuing with on-going efforts to control salinity and has authorized substantial funding for implementation of various programs and projects intended to address the salinity problem. (SWRCB 5, pp. 81-94.) Clearly, controlling salinity of Colorado River water

is an issue that needs to be addressed in a much broader context than the current proceeding, which can only address the incremental effects that can be attributed to the proposed water transfer. Salinity levels in IID's drains are primarily due to the salinity of the Colorado River water supply and the impacts of the transfer on fish and wildlife attributable to an incremental increase in the salinity of the drains will not be unreasonable.

5.2 Potential Impacts to the Salton Sea

The Salton Sea is home to roughly 400 species of birds, and on any given day, between 100,000 and 3,000,000 of these birds use the habitat in and around the Sea. As stated earlier, a number of the birds in and around the Sea are rare species that are protected under CESA or the federal ESA. Some, like the endangered brown pelican, use the main body of the Sea directly by foraging on the abundant fish. Others, like the Yuma clapper rail, use wetland areas that are sustained by IID drainage water and high ground water levels that exist immediately adjacent to the Sea.

The Salton Sea is an important part of a network of North American wetlands that support a vast number and diversity of waterfowl and shorebirds. With the loss of 95 percent of all of California's wetlands, the remaining 5 percent are of great importance to the migratory birds that use these habitats to feed, rest, nest, and raise their young. (PCL 17, p. 1.) The Salton Sea is an important stop along the Pacific flyway for migratory birds, as well as an important breeding area for some of these same species. (PCL 1, pp. 1-2, 5-6.) The Sea supports 25 to 30 percent of the U.S. population of American white pelicans and 90 percent of the population of eared grebes, as well as the some of the largest breeding colonies of double-crested cormorants and cattle egrets in North America. (R.T. p. 1865.) The Sea has grown increasingly important as the Colorado River Delta has become degraded with the decrease in river flows over time. (R.T. pp. 1553, 1873, 2420.)

The fish in the Sea are important not only to the species that forage on them directly, but also to sport fishermen who often find excellent fishing in the Sea. Tilapia, a fish native to the African continent, provides most of the forage base for the piscivorous (fish-eating) birds that frequent the Sea. It is believed that tilapia were introduced to the Sea sometime in 1964 or 1965 and by

the early 1970's were the dominant fish in the Sea. They are successful because of their ability to thrive in the Sea's warm, often oxygen deficient, hyper saline water. (DOW 13, p. 3.) In the 1950's, the DFG made several trips to the Gulf of California to obtain a number of game fish species for release to the Salton Sea. Of the more than 30 species collected, only three became established in the Sea. The orange mouth corvina, the gulf croaker, and the sargo continue to persist in the Sea, with the corvina being the most sought after by sport fishermen. (DOW 9, p. 3.) The gulf croaker and the tilapia are the most abundant species in the Sea, while the population of sargo is very limited.

Only one native fish exists in the tributaries and main body of the Sea. The desert pupfish, a species listed as endangered under CESA and the federal ESA, persists in pools and tributaries to the Sea, sometimes using the main body of water to move from one drain to another. This species is uniquely adapted to the harsh desert environment of the Imperial Valley. It is able to survive daily air temperature fluctuations of 70° to 80° F, and a water temperature range of 36°F to 113°F. It also has a high salinity tolerance.

5.2.1 Existing Water Quality Conditions

The water quality of the Salton Sea is affected by several factors. Because the Sea is located in a closed basin, all natural and anthropogenic activities in the basin have the potential to affect the water quality of the Sea. These activities include agricultural operations and recreational, domestic and industrial uses. Although domestic and industrial users discharge water to the Sea or its tributaries, the vast majority of Sea inflow is provided by agricultural drainage water. As such, the quality and quantity of inflow is heavily dependant on agricultural operations in the Imperial and Coachella Valleys.

Along with salt and selenium, there are a variety of other minerals, chemicals and nutrients discharged into the Sea from agricultural operations. Some of these pollutants cause extremely eutrophic conditions. Nutrient loading from fertilizer use, as well as domestic wastewater from Mexico (R.T. p. 1534), contribute to the extremely high biological activity at the Sea. This biological activity is responsible for many of the benefits to wildlife of the Sea, as well as many of the conditions that harm wildlife. (R.T. pp. 1212, 1240-1241, 1643-1644.) While the

eutrophic conditions of the Sea support a simple, but bountiful food chain, it also drives the Sea into anoxia when the rate of biological oxygen consumption exceeds the ability of photosynthesizing organisms to produce enough oxygen to keep up with demand. (PCL 24, p. 4.) These anoxic conditions lead to massive aquatic organism die-offs, which have been linked to episodes of avian disease.

A sediment reconnaissance of the Sea performed by Mr. Richard Vogl showed a wide variety of heavy metals (nickel, cadmium, molybdenum, etc.) along with selenium and a variety of pesticides. (PCL 28.) These constituents are not all detrimental to Salton Sea water quality, and by extension, to the wildlife that uses the Sea, as many are trapped in the anoxic seabed. (PCL 28, p. 11.) While the concentration of selenium in the water column is below the 5 ppb aquatic life criterion for fresh water set by the USEPA, this may be due to its rapid uptake by microorganisms, causing selenium to enter the food chain. This would account for the high levels found in the fish in the Salton Sea, leading to a fish consumption advisory issued by the Office of Environmental Health Hazard Assessment. (R.T. p. 1266.)

The largest threat to Salton Sea sustainability, however, is rising salinity. (R.T. p. 1279.) The Salton Sea and previous lakes that occurred in the basin have been affected by rising salinity in the past, an inevitability for terminal bodies of water lying in closed basins. The periodic flooding of the Salton Trough by the Colorado River created a freshwater lake, which would recede over a period of 60 to 120 years, leaving behind the salts carried by the river. (PCL 2, p. 6.) This periodic flooding and drying is evidenced by turn of the century salt mining operations, as well as tales of native Californians mining salt by hand in the lake bed. (PCL 3, p. 10.)

As explained earlier, the Colorado River, which is the water source for most of the irrigated agriculture in the Imperial and Coachella Valleys, is the source of most of the salts that accumulate in the basin. The concentrations of salts in IID's water supply is expected to increase due to agricultural activities in the Colorado River watershed, and their associated return flows. (R.T. pp. 675-676, 921-922.) As irrigation water becomes more saline so will the irrigation tail water that flows into the drains and then into the tributaries to the Salton Sea. Currently, the

concentration of salt in the Sea is about 45 parts per thousand (ppt), and without intervention or a change in average inflows, it will increase about 1 ppt every 4 years, indefinitely. (R.T. p. 1282.)

Historically, inflows from IID have contributed to flooding problems around the Sea, which persist today. (R.T. pp. 1212, 2759.) The elevation of the Sea is projected to decrease, however, under baseline conditions. The Sea is projected to reach –230 feet by 2010, and to continue to decrease until it reaches –235 feet by approximately 2069. (IID 93, p. A3-24, fig. 3.3-7.) Lowering the current elevation of the Sea would seem to be desirable, but it comes at a steep cost unless some sort of measure to mitigate for the effects of increased salinity is in place. Due to the amount of dissolved salt in the top portion of the Sea (200,000,000 tons in the top 17 feet), if the Sea is lowered appreciably, salt concentrations in the remaining water column will increase substantially. (R.T. p. 1285.)

5.2.2 Effects of Salton Sea Water Quality on Fish and Wildlife

The non-native marine fish and invertebrates that inhabit the Sea are already stressed by elevated salinity. The Salton Sea Authority summarized the plight of the Sea in its Draft 2000 EIS/EIR:

> The Salton Sea ecosystem is under stress from increasing salinity, nutrient loading, oxygen depletion, and temperature fluctuations that may be threatening the reproductive ability of some biota, particularly sportfish species, and also causing additional ecosystem health problems. There are indications that the deteriorating environmental conditions may be contributing to the prominence of avian disease at the Sea. Without restoration, the ecosystem at the Sea will continue to deteriorate.

(IID 69, p. ES-1.) As the salinity of the Salton Sea increases, reproductive rates could fall, as environmental stress begins affecting the sex organs of fish, and eggs and juvenile fish become unable to survive in the more saline water. (DOW 13, p.16.) Should the salinity of the Sea continue to increase, the non-native fishery, including tilapia, will collapse. If the tilapia fishery collapses, the primary food source for piscivorous birds will be eliminated.

Fish populations of the Sea will decline gradually rather than in one catastrophic event. (DOW 2, p. 1.) Reduced prey for piscivorous birds will force these birds to look elsewhere for forage. If the fishery resource of the Salton Sea disappears, the birds will likely look to the Colorado River Delta for suitable habitat, as it is the closest, most similar body of water. The Delta, however, may not be able to provide the same habitat value as the Salton Sea because of differences in the type and quality of habitat available. In addition, 95 percent of the wetlands in the Colorado River Delta have been lost due to various activities in the U.S. and Mexico, leaving only a fragment of the extensive habitat that existed there before water development projects began on the Colorado River. (Audubon 10, p. 4.)

5.2.3 Effects of Reductions in Elevation on Fish and Wildlife

In addition to affecting water quality, reductions in elevation of the Sea could adversely affect shoreline habitat. Shoreline habitat is vegetation that occurs on or near the shoreline of the Salton Sea. Tamarisk is the dominant plant in this community, and although it is an invasive non-native, it provides some benefits to avian species that use the Sea and surrounding areas. (IID 93, p. A3-57.) According to the transfer EIR, there are about 293 acres of tamarisk and iodine bush that make up shoreline strand habitat along the Salton Sea itself. These communities probably rely on seepage from the Sea, or a shallow groundwater table that is present immediately adjacent to the Sea. Another 2,349 acres of tamarisk-dominated wetlands occur immediately adjacent to the Sea. (IID 93, p. A3-29.) This wetland habitat is most likely to be found in private duck clubs, and state and federally managed marshlands.

Reductions in elevation of the Sea also will expose several small islands in the Sea, which serve as nesting and roosting habitat for colonial birds. Mullet Island is the most important of these, supporting the largest known breeding colony of double-crested cormorants in California. (IID 93, p. A3-33.) In addition, there is a pair of small islets in the south end of the Sea that also support cormorants. All three of these islands will be connected to the mainland if the Salton Sea elevation falls four feet from its current level, and the breeding colonies will be subject to predation. (IID 93, p. A3-18.) Under baseline conditions, the Sea is projected to decrease four feet by 2015. (IID 93, p. A3-20, table 3.3-7.)

5.2.4 Potential Impacts of the Project

As explained in greater detail in section 5.1.2, above, the conservation and transfer project has the potential to adversely affect fish and wildlife at the Salton Sea by impacting both the quantity and quality of water that flows in IID's drains, the New and Alamo Rivers, and eventually to the Salton Sea. As stated earlier, the nature and extent of the impacts will depend on the conservation measures employed.

In order to assess the impacts to the Salton Sea, an accurate picture of current and likely future conditions is necessary. Because the Sea is a dynamic ecosystem, the transfer EIR relies on modeling studies to forecast future conditions both with and without the proposed transfer. (IID 93, pp. [3-19] – [3-21].)

In modeling baseline conditions, the EIR makes the following assumptions: the salinity of Colorado River source water will continue to increase, the federal government will take certain entitlement enforcement actions, the full effects of the 1988 IID/MWD Agreement will be realized, and inflow from CVWD, Mexico and IID will be reduced.[10] A number of models were used in succession to predict the effects of certain variables on the Salton Sea. The Salton Sea Accounting Model (developed by the USBR) is the final step in this series of models.

The Salton Sea Accounting Model demonstrates that the project will accelerate the rate of salinization of the Salton Sea. The piscivorous birds of the Salton Sea rely almost solely on tilapia for food; therefore, tilapia are used as the keystone species for evaluating project impacts to piscivorous birds. The EIR estimates that tilapia will no longer be able to reproduce at 60 ppt salinity. (IID 55, p. 3.2-147.) The EIR predicts that if 300,000 afa are conserved and transferred using conservation measures other than fallowing, the salinity of the

[10] Parties to this proceeding raised a number of concerns regarding the baselines used to compare project impacts to anticipated future conditions. In response to these concerns, the Final EIR incorporates a sensitivity analysis which analyzes the effects that various assumptions have on projected water quality and quantity conditions of the Salton Sea. (IID 93, pp. 3-28, 3-29.) For example, parties took issue with the Draft EIR's characterizations of the future impacts of the 1998 IID/MWD Agreement, entitlement enforcement by the federal government, and reduced flows from various sources. The sensitivity analysis showed an error of roughly plus or minus 10 to 15 percent when all assumptions that had been questioned were modified. Based on the results of the sensitivity analysis, the SWRCB finds that the baseline relied upon in the Final EIR/EIS is a reasonably accurate depiction of future conditions of the Salton Sea.

Salton Sea will reach 60 ppt by 2012, eleven years earlier than under baseline conditions. (*Id*. at p. 3.2-151.) The projected rate of salinization under various transfer scenarios is shown in Figure 3.3-1 of the EIR, depicted below.

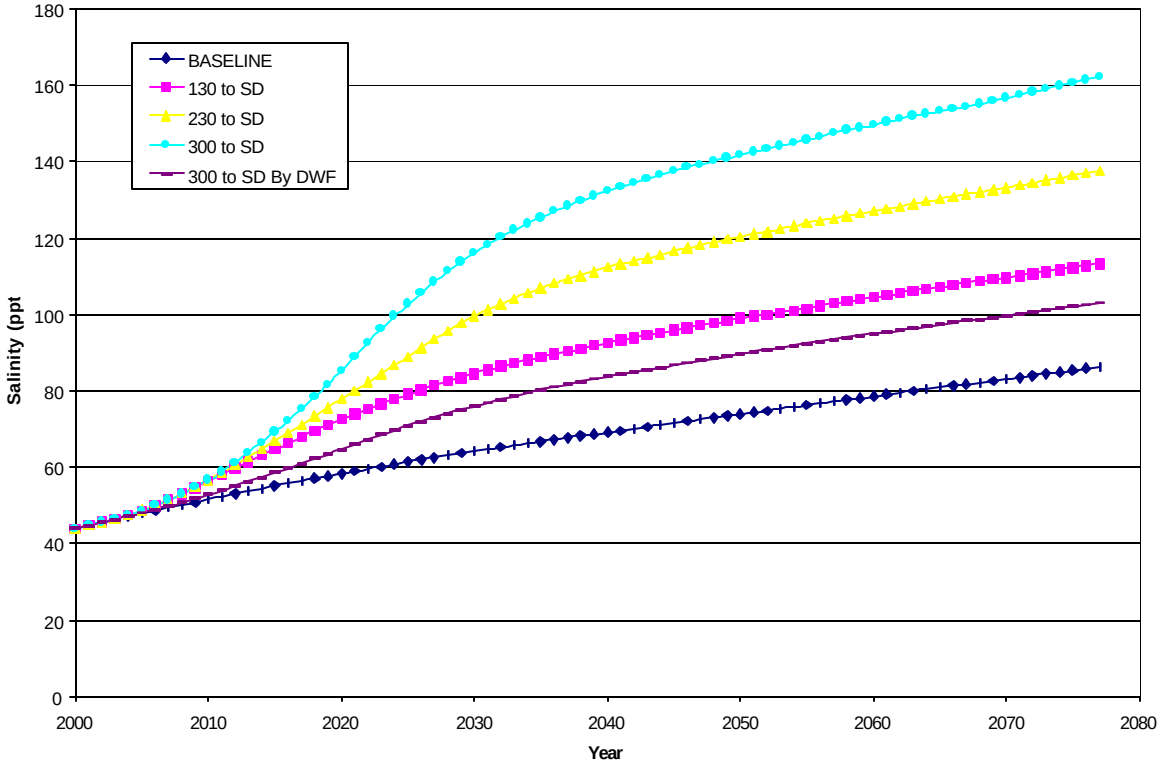

FIGURE 3.3-1
Projected Salinity Levels With and Without Implementation of the Water Conservation and Transfer Programs

(IID 93, p. A3-7.)

The Salton Sea Accounting Model also shows that, with a 300,000 acre-foot transfer, the Sea could drop as much as 15 feet as compared to baseline conditions, eventually reaching –250 feet. The elevation changes under different transfer scenarios are shown in Figure 3.3-4 of the EIR, reproduced below.

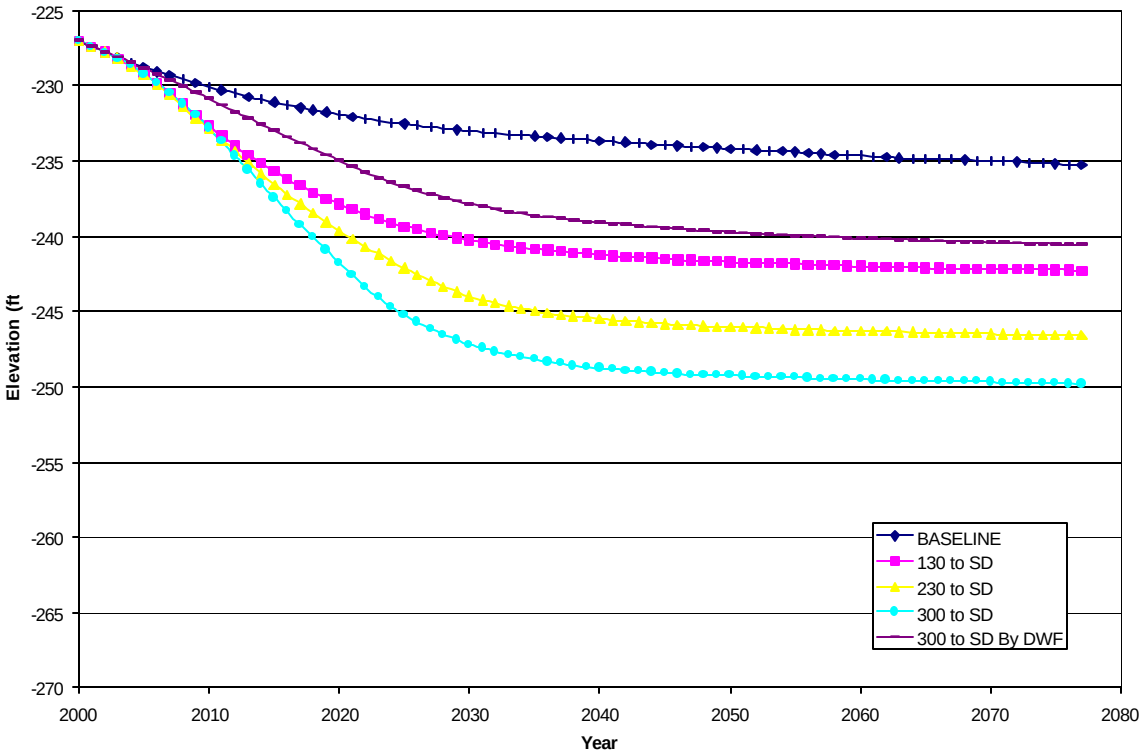

FIGURE 3.3-4
Projected Water Surface Elevation With and Without Implementation of the Water Conservation and Transfer Programs

(IID 93, p. A3-17.)

5.2.5 Impacts to Feasibility of Restoration

By reducing inflows to the Salton Sea, the project could affect the feasibility of long term restoration of the Sea before California and the federal government have had an opportunity to complete a study of restoration alternatives. The Salton Sea Reclamation Act of 1998 (Pub.L. No. 105-372 (Nov. 12, 1998) 112 Stat. 3377) directs the Secretary of Interior, acting through the USBR, to prepare a study on the feasibility of restoring the Salton Sea. The study must evaluate the feasibility and cost-benefit of various options to: (1) continue to use the Salton Sea as a reservoir for irrigation drainage, (2) reduce and stabilize salinity, (3) stabilize the surface elevation, (4) reclaim, in the long-term, healthy fish and wildlife resources and their habitats, and (5) enhance the potential for recreational uses and economic development. (*Id.*, § 101(b)(1)(A).)

The Secretary of Interior is to carry out the study in accordance with a memorandum of understanding (MOU) with the Salton Sea Authority and the Governor of California. (*Id.*, § 101(b)(1)(C)(i).) In evaluating options, the Secretary must take into account the

possibility that water may be transferred out of the Salton Sea Basin. (*Id*., § 101(b)(3).) Although the Salton Sea Reclamation Act required the study to be submitted to certain congressional committees by January 1, 2000, the Secretary has not done so yet. (Salton Sea Authority 1, p. 5.)

Recently, the California Legislature also addressed restoration of the Salton Sea. SB 482 finds that restoration of the Salton Sea is in the state and national interest. (Stats. 2002, ch. 617, § 1.) SB 482 adds a new section 2081.7, subdivision (e) to the Fish and Game Code, which requires the Secretary of the Resources Agency to enter into an MOU with the Secretary of Interior, Salton Sea Authority, and the Governor of California, for the purpose of evaluating and implementing restoration projects that meet the objectives of the Salton Sea Reclamation Act. The MOU is to establish a process for preparing and releasing a report on restoration alternatives, selecting a preferred alternative, and submitting a final report to Congress and the California Legislature by January 1, 2007. (*Id*., § 2.)

The conservation and transfer project could foreclose the possibility of restoring the Salton Sea before the state and federal governments have determined whether long-term restoration of the Sea is feasible. A witness for the Salton Sea Authority testified that restoration of the Sea would be possible with existing inflows. (R.T. pp. 1453-1456.) The witness testified that salinity could be controlled by diverting 80,000 to 90,000 afa from the Sea into in-sea salt evaporation ponds, which would result in only a couple of feet of decline in elevation of the Sea. (R.T. p. 1455.) If, however, on-farm and delivery system improvements are used to generate water for transfer, witnesses for the Salton Sea Authority and the Planning and Conservation League testified that restoration of the Sea would be infeasible. (R.T. pp. 1285, 1291, 1304, 1396-1397, 1673.) With reduced inflows, salinity control and other restoration alternatives would more than triple in cost, and could exceed one and a half billion dollars. (SSA 1, pp. 3-4; R.T. p. 1506.)

5.2.6 The Salton Sea Habitat Conservation Strategy (SSCHS)

The HCP prepared by IID in support of IID's applications for incidental take permits includes the SSHCS, which is designed to mitigate the impacts of the project on the biological resources of the Salton Sea. The SSHCS calls for providing replacement water to the Sea to mitigate for

reduced inflows caused by the transfer project. The salinity value relied on in the SSHCS for mitigation purposes is 60 ppt, which, as stated earlier, represents the level at which tilapia are postulated to cease reproduction. (IID 55, p. 3.2-147; IID 93, p. A3-25.) However, some uncertainty exists regarding the ability of tilapia to exist and propagate in hyper-saline waters. (DOW 6, p. 7; R.T. pp. 1615-1616.) Because of the uncertainty involved in determining specific values that will result in the demise of a species (DOW 2, p. 1) and the uncertainty involved in modeling water quality and quantity parameters, the SSHCS takes a conservative approach to providing mitigation water to the Sea. Figure 3.3-6 of the EIR (below) depicts the results of multiple model runs of the Salton Sea accounting model as it relates to future salinity conditions in the Sea.

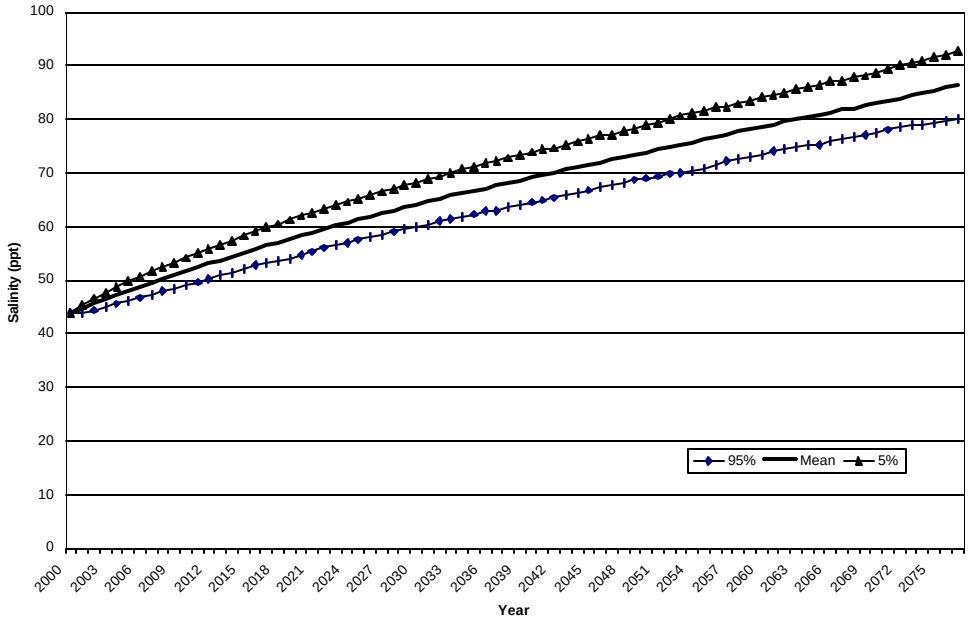

FIGURE 3.3-6
Salinity Projections in the Salton Sea Under the Baseline

(IID 93, p. A3-23.)

The mean salinity curve depicted in the figure is a modeled estimate of what the Sea will experience in the coming years under no-project, baseline conditions. Although the mean salinity curve indicates that the Sea will reach 60 ppt by 2023, the SSHCS proposes to maintain salinity levels at or below the 95 percent confidence bound line until 2030. In effect, the SSHCS could extend the life of the Sea by approximately 7 years. (IID 93, p. A3-25.) Reduced inflows would be replaced on a one-for-one basis, plus or minus any amount of water necessary to

maintain the salinity trajectory of the 95 percent confidence bound under the baseline. (IID 93, p. A3-23.) IID would not be required to provide replacement water if doing so would increase the elevation of the Sea above the level projected for the proposed project, as shown in Figure 3.3-7 of the EIR, below. (*Ibid*.) In addition, the SSHCS would allow IID to discontinue providing replacement water prior to 2030 if a Salton Sea restoration project is implemented, or if it can be demonstrated that tilapia can no longer reproduce successfully. (*Ibid*.)

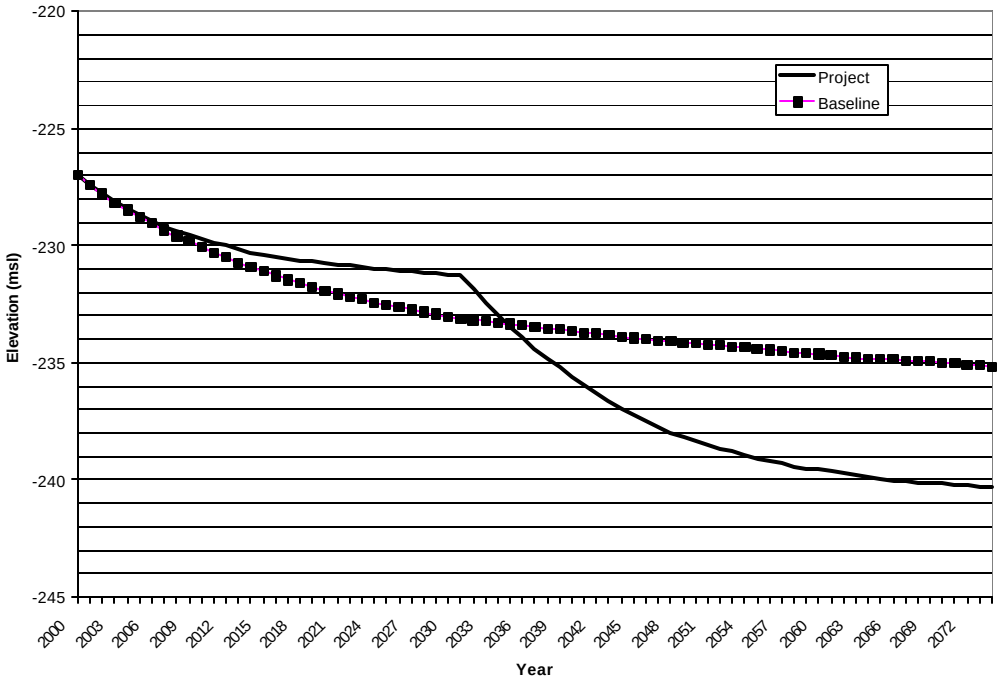

FIGURE 3.3-7
Projected Mean Water Surface Elevation of the Salton Sea Under the Proposed Project and the Baseline

(IID 93, p. A3-24.)

The SSHCS proposes to mitigate for the potential loss of shoreline habitat by surveying and replacing lost habitat beginning in the year 2030, or after IID's obligation to provide replacement water ends, whichever occurs first. The replacement habitat would consist of mesquite bosque or cottonwood-willow habitat, both of which are native riparian communities that have much higher habitat value to avian species than non-native tamarisk habitat. (IID 93, pp. A3-27 – A3-31.)

5.2.7 IID Should Be Required to Implement the SSHCS for Fifteen Years

The Salton Sea is a highly valuable resource for fish and wildlife and for recreation. Both Congress and the California Legislature have recognized the importance of addressing long-term restoration of the Sea. At the present time, however, no one knows whether restoration of the Sea will prove to be feasible. Moreover, providing replacement water to the Sea could be costly to petitioners and the residents of Imperial County. If the proposed transfer is not implemented because the cost of mitigation is too high, the consequences to the State's water supply and to the San Francisco Bay/Sacramento San Joaquin River Delta (Bay-Delta) could be severe. In view of these competing considerations, we conclude that IID should be required to maintain baseline salinity levels, as specified by the SSHCS, for 15 years. Fifteen years will allow the Secretary of Interior, Salton Sea Authority, Secretary of Resources, and the Governor of California sufficient time to study the feasibility of restoration of the Salton Sea and begin implementation of any identified feasible restoration measures.

Under Water Code section 1736, the SWRCB may approve the proposed transfer if the impacts to fish, wildlife, and other instream beneficial uses are not unreasonable. In considering whether the impacts would be unreasonable, the SWRCB must take into account not just the extent of the impacts, but all relevant factors, including the benefits of the proposed transfer and the cost of mitigation.

Also relevant in this case is the fact that, while maintaining baseline salinity levels will keep the habitat values of the Sea intact for some period of time, it will not solve the basic problem of increasing salinity in the long term. Without some sort of reclamation project to reduce salinity, the Salton Sea will become too saline to support the variety of fish and wildlife species that presently use the Salton Sea. Although witnesses for the Salton Sea Authority testified that restoration of the Sea with current inflows would be feasible, the evidence on the feasibility of restoration under different inflow scenarios was inconclusive. It would be unreasonable to require the continued mitigation of the impact of the transfer on the Salton Sea if the decline of the Sea continues to the point where restoration is no longer feasible, or if it becomes clear that no implementation plan will ever be developed. At the point when it becomes unreasonable to require continued mitigation of impacts on the Salton Sea, because there is no longer any hope

for saving the Sea, the public interest in avoiding inappropriate burdens on this important transfer outweighs any harm to instream beneficial uses of the Sea.

Mitigating the impacts to the Salton Sea could have socio-economic impacts in Imperial County. Implementation of the SSHCS will require a large volume of replacement water. Although the SSHCS does not specify the source of the replacement water, the only possible source identified during this proceeding was water conserved by fallowing land within IID. (R.T. pp. 3106-3108.) In addition, it probably will not be practicable to provide replacement water by fallowing unless some amount of land is fallowed in order to generate water for transfer. (R.T. p. 3167.) Fallowing extensive acreage within IID could have significant socio-economic impacts in Imperial County, as discussed in section 6.4, below.

In addition, the possibility exists that if the cost of mitigation is too high, IID may not be willing to implement the transfer on a voluntary basis. If the transfer stalls, the QSA may not be executed by December 31, 2002, which would lead to suspension of the Interim Surplus Guidelines. A witness for MWD testified that if the Interim Surplus Guidelines are suspended and California is limited to its 4,400,000 afa apportionment, then under the terms of the Seven-Party Agreement, Southern California as a whole would face an immediate short-fall of approximately 800,000 afa, and MWD would face an immediate short-fall of 600,000 afa. (SDCWA 4, p. 5; R.T. pp. 149-150.) This could have significant economic consequences in Southern California and lead to increased pressure on the limited amount of water available from the Bay-Delta. (SDCWA 4, p. 5; SDCWA 5, pp. 5-6; R.T. pp. 116-117.) Increased demand for a significant amount of water for Southern California could also upset ongoing efforts to improve water management and restore the ecological health of the Bay-Delta through the CALFED planning process. (SDCWA 5, pp. 2-3, 6; R.T. p. 116.)

In considering the appropriate balance of the competing considerations outlined above, we are guided by the provisions of SB 482. As previously stated, SB 482 will authorize DFG to issue an incidental take permit in connection with implementation of the QSA, including the transfers authorized under the QSA, under specified conditions. (Stats. 2002, ch. 617, § 2.) In effect, SB 482 balances the same considerations at issue here. As discussed previously, SB 482 recognizes the value of restoring the Salton Sea.

The law as recently enacted also recognizes that mitigating the impacts of the transfers on the Sea may entail fallowing, which could have socio-economic impacts. SB 482 requires the Resources Agency and the Technology, Trade, and Commerce Agency, in consultation with IID and Imperial County, to prepare a report on the economic impacts of fallowing. (Stats. 2002, ch. 617, § 9.) If necessary, the report is to include recommendations concerning the amount of funds needed to mitigate economic impacts and a program to administer those funds. (*Ibid*.)

Finally, SB 482 expressly finds that it is important for the state to reduce its use of Colorado River water, but that actions taken to reduce California's Colorado River water use should be consistent with the state's commitment to restore the Salton Sea. (Stats. 2002, ch. 617, § 1.) SB 482 resolves that DFG may authorize the incidental take of fully protected, threatened and endangered species in connection with implementation of the QSA, provided that certain conditions are met. Among other things, the QSA must be executed by December 31, 2002, and DFG must find, in consultation with the Department of Water Resources, that implementation of the QSA, during the first 15 years that the agreement is in effect (1) will not result in a material increase in projected salinity levels at the Salton Sea and (2) will not foreclose alternatives for reclamation of the Salton Sea. (*Id*., § 2.) SB 482 also requires compliance with the existing provisions governing the issuance of incidental take permits. (*Ibid*.)

SB 482 achieves a reasonable balance between the importance of mitigating project impacts to the Sea long enough to study the feasibility of long-term restoration, the economic impacts of fallowing, and the importance of the transfer to California's water supply needs. Accordingly, by this order we require IID to maintain baseline salinity levels, as outlined under the SSHCS, for 15 years following the effective date of the QSA, with the following two exceptions. The SSHCS would allow IID to discontinue providing replacement water in the event that the tilapia can no longer successfully reproduce. It is unclear what "successful reproduction" means. No specific methods are suggested in the FEIR to define the meaning and scope of "successful reproduction." The intent of this order is to preserve the feasibility of restoration for a period of 15 years. If, for example, the tilapia fishery were to "collapse" in the year 2004 and IID were to reduce its inflows consistent with the SSHCS, the rate of salinization could sharply increase. A

sharp increase in salinity in the near term could render a salinity control project infeasible. Therefore, we find that IID should be required to continue to implement the SSHCS for 15 years, regardless of the health of the tilapia fishery. In addition, instead of following the 95 percent confidence interval for salinity, IID should follow the mean projected salinity trajectory (as depicted in Figure 3.3-6).

To the extent that shoreline habitat is affected after the 15-year mitigation period, we will require IID to provide replacement habitat as specified in IID's HCP. (IID 93, p. A3-27.) The island rookeries will become connected to the mainland in the year 2011 under baseline conditions. The 15-year mitigation period protects these nesting sites beyond their forecasted useful life and no additional mitigation is warranted.

In conclusion, we find that, with the implementation of the SSHCS for 15 years, the impacts of the conservation and transfer project on the fish, wildlife, and other instream beneficial uses of the Salton Sea will not be unreasonable. Fifteen years will allow the Secretary of Interior, Salton Sea Authority, Secretary of Resources, and the Governor of California sufficient time to study the feasibility of restoration of the Salton Sea and begin implementation of any identified feasible restoration measures. The feasibility study could call for an allocation of responsibility for protecting the Salton Sea that includes a continuation of the responsibility of the petitioners to mitigate the effects of the transfer.

It is also possible that a plan will be developed that provides for restoration, based on federal funding or contributions from other sources, sufficient to avoid the need for the petitioners to continue to mitigate the impacts of the transfer on the Salton Sea. This order keeps the options open by preventing the transfer from accelerating the decline of the Salton Sea long enough to allow for the feasibility of restoration to be studied and a restoration plan to be developed. We will reserve continuing authority to consider whether it would be appropriate to add, delete, or modify the mitigation measures required by this order to protect the Salton Sea in light of the results of the study on the feasibility of restoration to be prepared by the Secretary of Interior in

cooperation with the Resources Agency, the Salton Sea Authority, and the Governor of California.[11]

5.2.8 Implementation of the SSHCS Is Legally Feasible

SDCWA called into question the legal feasibility of the SSHCS, arguing that IID may not use water conserved by fallowing as a source of replacement water because the Law of the River does not allow the use of Colorado River water for purposes of preserving fish and wildlife habitat. For the reasons set forth below, we conclude that, consistent with the Law of the River, petitioners may use water conserved by fallowing as replacement water, and therefore implementation of the SSHCS is legally feasible.

As explained in section 3, above, the U.S. Supreme Court held in *Arizona v. California* that the Boulder Canyon Project Act (Project Act) established a comprehensive scheme for the distribution of Colorado River water which preempts inconsistent state law. (*Arizona v. California*, *supra*, 373 U.S. 546, 587-588.)

SDCWA argues that IID may not require delivery of Colorado River water for fish and wildlife purposes under section 5 of the Project Act, which authorizes the Secretary of Interior to contract for the storage and delivery of water for "irrigation and domestic uses, and generation of electrical energy . . . ," but does not expressly provide for the delivery of water for fish and wildlife purposes. (43 U.S.C.A. § 617d.) Section 5 specifies further that no person shall be entitled to the use of water stored by the Secretary of Interior except by contract. (*Ibid*.) SDCWA also cites to article III, paragraph (e) of the 1922 Compact. Article III, paragraph (e) prohibits Upper Division States from withholding and Lower Division States from requiring the delivery of water "which cannot reasonably be applied to domestic and agricultural uses."

[11] The Regional Board, the Planning and Conservation League, and Defenders of Wildlife call for protection of the water quality of the Salton Sea, consistent with the requirements of the federal antidegradation policy. (40 C.F.R. § 132.12.) With the mitigation requirements imposed by this order, the transfer will not have an adverse impact on the water quality of the Salton Sea, and the degradation will not occur for at least 15 years. It is uncertain what the future of the Sea will be after 15 years. Restoration efforts may continue to maintain the water quality of the Salton Sea, or it may be determined that maintaining the existing beneficial uses is impossible. As explained in section 5.1.5, it is appropriate to apply water quality standards as part of a more comprehensive review, and not just to this transfer in isolation. Because we are reserving continuing authority, we need not speculate at this time on how or under what circumstances the SWRCB should address degradation that may occur 15 years from now.

Under California law, the use of water for the preservation and enhancement of fish and wildlife resources is recognized as a beneficial use. (Wat. Code, § 1243.) Water Code section 1707 authorizes any water right holder to petition the SWRCB for a change for purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation.

We question whether the Law of the River can or should be interpreted to preclude the use of water for fish and wildlife purposes where that use is made in order to mitigate the adverse environmental impacts of conserving and transferring water for irrigation and domestic uses. We need not resolve the issue here, however, because the Law of the River plainly does not limit IID's ability to exercise its present perfected rights consistent with California law. Article VIII of the 1922 Compact states that present perfected rights to the use of Colorado River water are unimpaired by the Compact. Similarly, as the Supreme Court recognized in *Arizona v. California*, a significant limitation to the Project Act is the requirement that the Secretary of Interior satisfy present perfected rights. (*Arizona v. California*, *supra*, 373 U.S. 546, 584.) Section 6 of the Project Act provides that water stored under the Project Act is to be used first for river regulation, navigation, and flood control; second for irrigation and domestic uses and satisfaction of present perfected rights pursuant to article VIII of the Compact; and third for power generation. (43 U.S.C.A. § 617e.)

The Supreme Court has defined present perfected rights as rights that had been perfected in accordance with state law as of June 25, 1929, the effective date of the Project Act. (*Arizona v. California*, *supra*, 376 U.S. 340, 341.) IID holds a present perfected right to 2,600,000 afa, or the quantity of water necessary to irrigate 424,145 acres and satisfy related uses, whichever is less, with a priority date of 1901. (*Arizona v. California* (1979) 439 U.S. 419, 429 [99 S.Ct. 995, 1000].)

In *Bryant v. Yellen* (1980) 447 U.S. 352 [100 S.Ct. 2232], the U.S. Supreme Court affirmed that that the Project Act does not limit the ability of the holder of a present perfected right to exercise the right consistent with state law. Coincidentally, *Bryant v. Yellen* involved the question whether the use of water by IID under its present perfected rights was subject to the requirement

of federal reclamation law, which was incorporated by the Project Act, that water be used on parcels no larger than 160 acres. The Supreme Court reiterated that a significant limitation to the Project Act was the requirement that the Secretary of Interior satisfy present perfected rights. (*Id*. at pp. 364, 370.) The Court explained that present perfected rights originated under state law and that, with respect to present perfected rights, the Project Act did not displace state law, which must be consulted in determining the content and characteristics of a presented perfected right. (*Id*. at pp. 370-371.) The Court held that IID had the right under state law to deliver water under its present perfected rights without regard to the acreage limitation. (*Id*. at pp. 371-374.)

Likewise, IID is entitled under California law to change the authorized purposes of use of its present perfected rights to include the preservation of fish and wildlife habitat, even if the Compact or the Project Act would otherwise limit the use of Colorado River water to irrigation, domestic use, and generation of hydroelectric power.

A related issue is whether IID would be required to obtain approval from the SWRCB before using water for fish and wildlife purposes. The use of water for fish and wildlife purposes as contemplated under the SSHCS also may entail a change in place of use, for which SWRCB approval may be required. Whether SWRCB approval of these changes would be required depends on whether IID proposes to exercise its rights under Permit 7643 or under its pre-1914 appropriative rights. If IID proposes to add fish and wildlife as an authorized purpose of use or expand the authorized place of use under Permit 7643, IID must file a change petition with the SWRCB. If, on the other hand, IID proposes to exercise its pre-1914 appropriative rights, IID may change the authorized purpose of use, place of use, or point of diversion without obtaining SWRCB approval, provided that others are not injured by the change. (Wat. Code, § 1706.)[12]

[12] In cases where dedicating water to an instream use involves simply bypassing the water, it would be advisable for a pre-1914 appropriative right holder to file a change petition under section 1707, even if doing so is not required. Going through the SWRCB's formal process would serve to place downstream water users on notice that the water has been dedicated to an instream use and is unavailable for diversion and would protect the right holder from claims of abandonment or forfeiture for nonuse. Under the facts of this case, however, these considerations do not appear to be an issue. If IID chooses to provide replacement water to the Salton Sea under its present perfected rights, it will continue to exercise a measure of control over the diversion and delivery of the water.

5.3 Impacts to Fish and Wildlife in and around the Lower Colorado River

The lower Colorado River is home to a diversity of common and rare plant, bird, fish and mammal species. The Colorado River of today is vastly different from the river that existed before human intervention. Throughout its history, the river would flood and recede based on local and regional meteorological patterns, often cutting new channels or reclaiming old ones. The river moved millions of tons of sediments, sometimes destroying miles of established riparian vegetation, while creating opportunities for new vegetation to establish itself in other areas. The highly variable periodicity and intensity of flows in the river dictated that the kind of vegetation that established itself in the lower Colorado River be able to adapt to changing conditions. (IID 55, p. 3.2-14.)

Today, the lower Colorado River has been controlled to a great extent. Seven dams have been constructed in the 143 miles that make up the lower Colorado River region alone. The normalization of flow in the lower Colorado River has had the effect of channelizing the main stem of the river, while filling many backwater and oxbow areas with sediment. The sediment that is removed from the main channel is not replenished from upland area erosion as it once was; it is now trapped in the impoundments created by dams. Gone too are the periodic flood flows that would sustain phreatophytic vegetation communities in the river's floodplain. Sediment filled, warm water has been replaced by clear, cold water released from the bottom of reservoirs. (IID 55, p. 3.2-14.)

The drastic changes in the lower Colorado River's behavior have diminished the plant and wildlife communities that relied on an untamed river. The current river management system rarely allows more than localized flooding. Stabilized banks do not allow the river to meander within its floodplain, effectively limiting riparian vegetation to a very narrow corridor along the river. Riparian plant communities have also suffered due to the invasion of non-native phreatophytes such as salt cedar (Tamarix genus), and the limited ability of native trees to spread their seeds by utilizing flood flows. As soil salinities continue to increase in areas that were once flushed periodically, salt cedar has an even greater advantage over native vegetation because of its greater tolerance for saline soils. (IID 55, p. 3.2-15.)

The transfer will reduce flows between Imperial Dam to Parker Dam, which has the potential to affect the habitat values associated with the lower Colorado River between these two points (143 river miles). Because riparian habitat relies on shallow groundwater levels to survive and reproduce, any lowering of these levels has the potential to affect these habitat types. The maximum anticipated change in average elevation of the lower Colorado River as a result of the proposed project is 4.48 inches, which would expose a maximum of 10 inches of shoreline. (IID 55, p. 3.2-104.) Almost 7,000 acres of cottonwood willow habitat exists in the section of river that could be affected by the proposed project, of which approximately 1,500 acres have been shown to be occupied by Southwestern willow flycatchers, a species listed as endangered under CESA and the federal ESA. Of this acreage, up to 279 acres could be lost as a result of the transfer. (*Id.* at p. 3.2-107.)

Backwater areas also stand to be impacted by reduced water levels in the lower Colorado River. These areas serve as important breeding and nursery habitat that is used by razorback sucker and bonytail chub, both endangered native Colorado River fish species. Reduced water levels in these areas can impede fish movement between the backwaters and the main stem of the river. Backwaters also provide habitat for the Sonoran mud turtles, which feed on submerged vegetation and invertebrates. Some avian species also rely on backwater pools for foraging and watering. The proposed project could alter or significantly affect up to 33 acres of backwater habitat in the lower Colorado River. (IID 55, p. 3.2-109.) In addition to the value of riparian habitat for fish and wildlife, riparian habitat on the lower Colorado River has historical and current cultural significance to CRIT. (CRIT 16, 17.)

CRIT argued that the analysis of impacts to the lower Colorado River contained in the transfer EIR is not accurate because the analysis relies on an average decrease in river levels and does not estimate the duration and frequency of the projected decrease in river levels. However, in view of the fact that under existing conditions river levels fluctuate widely, and can fluctuate by as much as five feet on a daily basis (IID 55, p. 3.2-105), we find that a more detailed analysis is not necessary in order to develop a reasonable estimate of the impacts of the transfer on the biological resources of the lower Colorado River.

As part of the Final EIS for the Interim Surplus Guidelines (IID 57), the USBR analyzed the potential impacts to the lower Colorado River of changing the point of diversion of up to 400,000 acre-feet of water. Subsequently, the U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion (BO) that identified habitat conservation measures necessary to mitigate for the actions contemplated in the Interim Surplus Guidelines. (IID 58.) The transfer EIR/EIS relies on the mitigation measures outlined in the BO to be implemented by the USBR to mitigate the impacts of the transfer on the lower Colorado River to a less than significant level. These measures include:

1. Monitoring and replacement of up to 744 acres of cottonwood-willow habitat,
2. Replacement of up to 44 acres of backwater habitat,
3. Stocking of up to 20,000 juvenile razorback suckers and an indefinite number of bonytail chubs below Parker Dam.

CRIT expressed concern about the lack of specificity regarding implementation of these mitigation measures, including where the replacement habitat will be located, what the criteria for selecting replacement habitat will be, and what the proposed monitoring plan will entail. Because the USBR has assumed responsibility for mitigating these impacts, details concerning implementation of the proposed mitigation plan should be addressed by the USBR. We anticipate that the USBR will implement the mitigation measures in coordination with ongoing efforts to conserve habitat and work toward the recovery of certain species on the lower Colorado River pursuant to the Colorado River Multi-Species Conservation Program. (See IID 93b, p. 1-21.)

The SWRCB finds that, with the mitigation measures defined by the USFWS BO to mitigate for the impacts created by the change in point of diversion of 400,000 acre-feet, as contemplated by the Interim Surplus Guidelines, the impacts of the transfer to fish, wildlife, and other instream

beneficial uses of the lower Colorado River will be reasonable.[13] We will reserve continuing authority to consider whether any feasible mitigation measures should be implemented by IID in the event that the measures identified in the BO are not implemented by the USBR as expected. Even if any impacts to the lower Colorado River remain unmitigated, we find that the impacts will not be unreasonable in light of the benefits of the project, as described in section 5.2.7, above.

5.4 Potential Impacts to Fish and Wildlife in the San Diego Region

A number of parties submitted evidence regarding potential growth inducing impacts in the SDCWA service area. The parties alleged that the water received from IID will be more reliable than the water SDCWA currently receives under contract from MWD, and will therefore allow local planning agencies in the San Diego region to approve new construction, which will unreasonably affect fish, wildlife, and other instream beneficial uses in the region.[14]

To the extent that historic patterns indicate future trends, reduced water availability is unlikely to affect growth in urban areas. Water is one of many factors that may influence growth in a region but does not, by itself, cause the growth of a region. Economic, legal, and societal factors all play a role in growth, and water shortages have rarely done more than slow the progress of adequately financed development proposals.

In the San Diego region, the San Diego Association of Governments (SANDAG) is tasked with identifying future water supply needs through its Regional Growth Forecasts, and SDCWA is

[13] It merits note that these mitigation measures were designed to mitigate the impacts of a 400,000 acre-foot transfer, and therefore should be more than adequate to mitigate the impacts of the proposed 300,000 acre-foot transfer.

[14] SDCWA questions whether the requirement of Water Code section 1736 that there be no unreasonable impact on instream beneficial uses applies to instream beneficial uses in the proposed place of use to which water will be transferred. By its terms, section 1736 does not limit its application to impacts within the watershed of the existing point of diversion or place of use, and recognizing the intent of the Legislature that the SWRCB consider the water quality impacts of its water right decisions and orders, we do not construe section 1736 to incorporate such a limitation. (See generally Wat. Code, § 174.) While the SWRCB should consider potential water quality impacts, section 1736 does not necessarily require that any water quality impacts in the proposed place of use be avoided as a condition of approval of the transfer. Especially where any water quality impacts would result from the discharge of waste from land uses supported by the transfer, and the potential for and extent of any impacts is remote or speculative, it may be appropriate to rely on other regulatory programs to determine that any impacts will not be unreasonable.

charged with locating and acquiring the water. (IID 93, p. 3-101.) The roles of these agencies confirm that growth is not fueled by the availability of excess water. Rather, growth spurs the search for additional supply. A representative from SANDAG testified that water supply does not enter into the growth forecasts produced by SANDAG for the region. (SDCWA 39, pp. 5-6.) Instead, growth forecasts are based on birth, death, immigration, and emigration rates. (*Ibid*.)

Because urban water areas, such as the metropolitan San Diego area, have a large economic base as compared to other water users, urban water supply agencies can generally identify many feasible potential sources of supply. Testimony from a number of witnesses showed that San Diego will seek out water from other sources if this transfer is not approved or implemented, chief among those sources is the Sacramento/San Joaquin Delta, an ecologically valuable and sensitive area. (R.T. pp. 116, 143, 165, 366, 372, 395.)

Although a reliable water supply does not cause growth, the cost of the water supply can affect where development in a region is likely to occur and the types of industry that can be supported. Under the proposed transfer, the quantity of water delivered within MWD's service area will not change. MWD's Colorado River Aqueduct is operated at or near full capacity. (IID 93, pp. 3-94, 3-95; IID 93a, pp. 6-3, 6-7; SDCWA 40, p. 9.) Instead, the proposed project will result in a redistribution of water among the agencies that receive Colorado River water delivered through MWD's Colorado River Aqueduct. (IID 93a, p. 6-3.) Accordingly, growth in the metropolitan region of coastal Southern California will not change as a result of this project.

However, it is possible that SDCWA could receive a slightly greater share of the water diverted through the aqueduct than it currently receives. To the extent that the proposed transfer results in impacts to fish and wildlife in the San Diego area, those impacts are most likely to stem from changes in water quality in water bodies in and around San Diego or from changes in land use. But the SWRCB cannot speculate which water bodies or what lands might be affected and to what extent.

The California Legislature has determined that land use decisions should be made at the local level. (See *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 782 [38 Cal.Rptr.2d 699, 711, 889

P.2d 1019, 1031] ["The Legislature, in its zoning and planning legislation, has recognized the primacy of local control over land use."]; see also Gov. Code, § 65800 [declaring intent of Legislature "to provide only a minimum of limitation in order that counties and cities may exercise the maximum degree of control over local zoning matters"].) Land use decisions are affected by many factors that are beyond the scope of this proceeding. We do not believe that it serves the public interest for the SWRCB to control the local decision-making process through water supply actions.

To the extent that impacts occur in the San Diego region as a result of this action, they are best controlled through existing programs. The SANDAG adopted a Regional Growth Management Strategy in 1993. San Diego County and the County's 18 cities have incorporated the provisions of this strategy into their individual general plans. (IID 93a, p. 6-1.) Any changes in land use must be approved in conformance with these general plans and CEQA. Water quality impacts are best controlled through the implementation of Best Management Practices (BMPs) and other measures specified in municipal storm water permits issued by the San Diego Regional Water Quality Control Board and in the Model Urban Management Stormwater Mitigation Plan for San Diego County, the Port of San Diego and Cities in San Diego County that has been developed by local jurisdictions.

Because the proposed transfer probably will not have any growth inducing impacts, and because regulatory programs are in place and are being refined to address the water quality impacts of land use and development, including any new land uses or development that might be supported by the transfer, we conclude that the proposed transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses in the San Diego region.

A number of parties argued that SDCWA should explore desalination as an alternative to the proposed transfer. Although we disagree that desalination is currently a viable alternative to the transfer, desalination could become an important future source of water for Southern California. In fact, in its 2000 Urban Water Management Plan Report, SDCWA identified desalination as one of several water supply sources that could meet SDCWA's future needs. (SDCWA 7, pp. 4-23 – 4-26.) In accordance with the Urban Water Management Planning Act, SDCWA

must prepare an urban water management plan every five years that identifies existing and planned sources of water. (Wat. Code, §§ 10620, 10621, 10631.) This order directs SDCWA to report to the SWRCB biannually beginning within one year of the effective date of this approval, on the status of progress towards implementation of any desalination projects.

6.0 CEQA COMPLIANCE AND OTHER PUBLIC INTEREST ISSUES

In this section, we address Imperial County's motion to deny the transfer petition or adjourn this proceeding until IID approves the transfer project under CEQA. For the reasons set forth below, we disagree with Imperial County's argument that IID's project is not ripe for consideration.

We also make findings as required by CEQA based on the Final EIR for IID's Water Conservation and Transfer Project (FEIR). IID certified the FEIR, as the lead agency under CEQA, on June 28, 2002.

Finally, we address other public interest issues, the potential socio-economic impacts and impacts to fish and wildlife associated with fallowing land.

6.1 The SWRCB's Role as a Responsible Agency under CEQA

For purposes of considering whether to approve IID's and SDCWA's transfer petition, the SWRCB is a responsible agency under CEQA. (See Pub. Resources Code, § 21069.) In deciding whether and how to approve a project, a responsible agency must consider the environmental effects of the project as disclosed in the environmental documentation prepared by the lead agency. (Cal. Code Regs, tit. 14, § 15096, subd. (f).) Except under limited circumstances when a responsible agency may assume lead agency status or prepare subsequent documentation, a responsible agency must presume that the conclusions reached by the lead agency in its environmental documentation regarding the environmental effects of the proposed project are adequate, or challenge the lead agency in court. (*Id*., subds. (e) & (f).) A responsible agency is responsible for mitigating or avoiding only the environmental effects of the parts of the project it decides to approve. (*Id.*, subd. (g)(1); see Cal. Code Regs., tit. 23, § 3751, subd. (a); Decision 1632, pp. 90-91.)

6.2 Imperial County's Motion to Deny the Transfer Petition or Adjourn this Proceeding Until IID Approves the Transfer Project under CEQA

A preliminary CEQA issue is Imperial County's argument that the transfer petition is not ripe for SWRCB action until IID approves the transfer project under CEQA. Although IID has certified the FEIR, it has not yet approved the project, made findings in connection with the approval, or issued a notice of determination, the final steps required under CEQA before IID may implement the project. (Cal. Code Regs., tit. 14, §§ 15091-15094.) Imperial County urges the SWRCB to deny the transfer petition or adjourn this proceeding until IID approves the project.

Imperial County has cited to no authority for the proposition that the SWRCB may not take action on the transfer petition before IID has approved the project. As a responsible agency, the SWRCB is only required to consider the FEIR prepared by IID in reaching the SWRCB's own conclusions on whether and how to approve the project. (Cal. Code Regs, tit. 14, § 15096; see also SWRCB Order WR 2000-13, p. 21.) Nothing in CEQA or the CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 -15387) requires a lead agency to approve a project before a responsible agency may approve the project in reliance on an EIR or negative declaration certified by the lead agency.

Imperial County also argues that, if the SWRCB approves the project before IID does, then the SWRCB will become the lead agency. Again, Imperial County has not cited to any authority that supports this argument. Section 15052 of the Guidelines sets forth the conditions when a responsible agency must assume the duties of a lead agency, and Imperial County acknowledges that none of those conditions exist in this case.

Under CEQA and the CEQA Guidelines, the timing of agency action is relevant to the issue of lead agency status only when the project proponent is not a governmental entity, and more than one governmental agency can claim to have primary responsibility for approving the project.

Under those circumstances, the first agency to act is the lead agency. (Cal. Code Regs., tit. 14, § 15051, subds. (b) & (c).) But in this case, the project will be carried out by IID, which is a public agency.[15]

In short, even though the SWRCB is taking action in reliance on the FEIR before IID, IID will remain the lead agency. As the lead agency, it is IID's responsibility to ensure that the FEIR complies with CEQA. (Cal. Code Regs., tit. 14, § 15090, subd. (a)(1).) As a responsible agency, the SWRCB must consider the FEIR prepared by IID. (*Id*., § 15096, subds. (a) & (i).)

Imperial County also contends that if the SWRCB approves the project and files a notice of determination before IID, the CEQA statute of limitations for challenges to the adequacy of the FEIR will begin to run, and the SWRCB will be forced to defend the adequacy of the FEIR in any judicial challenge under CEQA. But the SWRCB's approval of the project and filing of a notice of determination triggers only the statute of limitations for an action challenging the SWRCB's compliance with its duties, as a responsible agency, under CEQA. (See Pub. Resources Code, § 21167, subd. (e).) Those duties do not include responsibility for the adequacy of the FEIR. (See Cal. Code Regs, tit. 14, § 15096, subd. (e); *id*. § 15096, subd. (i) ["[T]he responsible agency does not need to state that the EIR . . . complies with CEQA."].) IID will remain the lead agency, and any action challenging the adequacy of the FEIR may be brought against IID. CEQA expressly provides that the period for filing an action challenging the adequacy of an EIR commences with the filing of a notice of determination "by the lead agency." (Pub. Resources Code, § 21167, subd. (c).) In the event that an action challenging the adequacy of the FEIR nonetheless is brought against the SWRCB, the SWRCB agrees with IID's position that IID must be named as a respondent or joined as an indispensable party, and that it would be incumbent on IID to defend the adequacy of the FEIR.

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[15] Similarly, neither of the cases cited by Imperial County addressed the circumstances in this case. In *Citizens Task Force on Sohio v. Board of Harbor Commissioners* (1979) 23 Cal.3d 812 [153 Cal.Rptr. 584], the project proponent was a private company. *Planning and Conservation League* v. *Department of Water Resources* (2000) 83 Cal.App.4th 892 [100 Cal.Rptr.2d 173] involved the issue whether the agency that had assumed lead agency status was the agency with primary responsibility for carrying out or approving the project in question. The case did not involve the question whether an agency that is otherwise properly designated as the lead agency will lose lead agency status if the agency does not approve the project before any other discretionary approvals are issued.

Finally, Imperial County contends that the SWRCB cannot make the findings required by the Water Code and other provisions of law, or the findings requested by petitioners, because the project has not been "fixed." Imperial County argues that IID may, under section 15132, subdivision (e) of the Guidelines, add more information to the FEIR between certification and final approval action. Imperial County alleges that when and if IID approves the project, it may be different from the project defined in the FEIR. The basis for Imperial County's argument appears to be that IID has not determined what combination of conservation measures IID will undertake, and to what extent IID will fallow land.

As explained in section 5, above, one component of the project described and assessed in the FEIR is a water conservation program, which includes a number of different conservation measures, including fallowing. (IID 55, pp. 2-1 – 2-34.) IID has not specified the exact combination of conservation measures that IID will implement, however, in order to allow for variation over time and the flexibility to adapt to changed circumstances. (*Id*. at pp. 2-8, 2-31.)[16] Thus, one flaw in Imperial County's argument is that IID is not likely to change the project description to more specifically define the combination of conservation measures when it approves the project under CEQA.[17]

It also bears emphasis that the issue of whether the project has been adequately defined for purposes of CEQA is distinct from the issue of whether the project has been adequately defined for purposes of making the findings required under the Water Code in order to approve the transfer. As explained earlier, it is IID's responsibility, as lead agency, to ensure that the FEIR complies with CEQA. It is the SWRCB's responsibility to make the findings required by the Water Code.

[16] In addition, the extent to which it may be necessary to fallow land in order to mitigate the environmental impacts of the transfer will not be certain until IID obtains the approvals necessary to implement the transfer, including the approval of the SWRCB and incidental take permits from DFG and USFWS.

[17] It should be noted that a water project may not be "fixed," even when the lead agency issues its approval. A water project operator may make further changes or adjustments in the course of project implementation, so long as those changes are within the scope of the SWRCB's approval and do not violate any conditions of approval, although some of those changes may trigger SWRCB review under its continuing authority.

The definition of the water conservation program contained in the FEIR is adequate for the SWRCB's purposes in reviewing the transfer petition under the Water Code because IID has assessed the range of potential environmental and socio-economic impacts associated with the conservation measures identified. The FEIR analyzes the "worst-case scenario" for each of the conservation measures that IID is considering implementing, including on-farm conservation methods, delivery system improvements, and fallowing. Generally, on-farm and delivery system improvements have a greater adverse effect on the environment, but fallowing has a greater adverse socio-economic effect on Imperial County. As a result, the FEIR fully discloses the full range of significant environmental and socio-economic impacts of the project.

In summary, the SWRCB has been provided sufficient information to determine whether the project will unreasonably affect fish, wildlife, and other instream beneficial uses, and whether the transfer will be in the public interest, based on the range of potential impacts described in the FEIR. Accordingly, the fact that IID has not specified the exact combination of conservation measures that it intends to implement does not prevent action by the SWRCB. In order to ensure, however, that the SWRCB does not approve a project that is ultimately disapproved by IID, our approval will not become effective until IID has approved the project and issued a Notice of Determination under CEQA. In addition, we will reserve continuing authority to consider any new information that may become available if IID revises, amends or supplements the FEIR before it approves the project, or to consider whether any changes to this order may be appropriate in the event that, upon project approval, IID makes substantial changes to the project.

6.3 Compliance with the California Environmental Quality Act

This section addresses the SWRCB's responsibilities as a responsible agency under CEQA, discusses significant environmental impacts identified in the FEIR, and makes the mandatory findings required by CEQA. CEQA establishes a duty for public agencies to minimize environmental damage if feasible. (Cal. Code Regs., tit. 14, §§ 15091, 15096, subd. (g)(2).) For each significant environmental effect identified in the FEIR that is within the SWRCB's area of responsibility as a responsible agency under CEQA, the SWRCB must make one or more of the following findings: (1) changes have been required in the project that mitigate or avoid the significant effect, (2) such changes are within the responsibility and jurisdiction of another public

agency and have been or can and should be adopted by that agency, or (3) specific economic, legal, social, technological, or other considerations make the mitigation measures identified in the FEIR infeasible. (Pub. Resources Code, §§ 21002.1, 21081; Cal. Code Regs, tit. 14, §§ 15091, 15093.)

If a public agency makes changes or alterations in a project to mitigate or avoid the significant adverse environmental effects of the project, it must adopt a monitoring or reporting program to ensure compliance with the changes or alterations. (Cal. Code Regs, tit. 14, § 15091, subd. (d).) This order contains terms and conditions to implement a mitigation and monitoring plan for mitigation measures required to avoid or lessen significant environmental effects of the SWRCB's approval of the project that are within the SWRCB's responsibility. Additionally, this order requires IID to report to the Chief of the Division of Water Rights annually on its activities under the mitigation and monitoring plan and on the implementation of each measure. Finally, this order identifies significant effects on the environment that are unavoidable but are acceptable due to overriding considerations. The FEIR certified by IID on June 28, 2002, identifies the following significant effects that are within the SWRCB's control: Impacts to Hydrology and Water Quality; Impacts to Agricultural Resources; Impacts to Recreation; and Impacts to Air Quality.

6.3.1 Summary of Significant Impacts and Mitigation Measures

The following table, "Summary of Significant Impacts and Mitigation Measures," indicates the impacts of the proposed transfer that IID has identified as significant in its FEIR and that are within the SWRCB's area of responsibility. Where mitigation is available and feasible, the table also briefly describes the mitigation measures identified in the FEIR for each impact. The SWRCB will require that the mitigation measures be implemented as shown on the table and discussed below.

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Impact Code	Summary	Impact	Mitigation Identified by IID and the SWRCB
BR-1	**Reduced flow levels in the LCR could reduce the acreage of cottonwood-willow communities**	Less than significant impact with implementation of biological conservation measures	USBR will mitigate the impacts along the lower Colorado River by replacing cottonwood-willow habitat occupied by willow flycatchers that may be affected by reduced flows, monitor the results and potentially increase the amount of this habitat.
BR-4	**Reduced flow levels in the LCR could reduce the acreage of backwater habitat**	Less than significant impact with implementation of biological conservation measures	USBR will restore or create 44 acres of backwater habitat along the lower Colorado River between Parker and Imperial Dams to mitigate for the affects of reduced flows.
BR-5	**Reduced acreage of cottonwood-willow vegetation could affect special-status species**	Less than significant impact with implementation of biological conservation measures	USBR will mitigate the impacts along the lower Colorado River by replacing cottonwood-willow habitat occupied by willow flycatchers that may be affected by reduced flows, monitor the results and potentially increase the amount of this habitat.
BR-6	**Reduced acreage of open water in backwaters could affect special-status wildlife species**	Less than significant impact with implementation of biological conservation measures	USBR will restore or create 44 acres of backwater habitat along the lower Colorado River between Parker and Imperial Dams to mitigate for the affects of reduced flows.
BR-7	**Reduced acreage of emergent vegetation in backwaters could affect special-status species**	Less than significant impact with implementation of biological conservation measures	USBR will restore or create 44 acres of backwater habitat along the lower Colorado River between Parker and Imperial Dams to mitigate for the affects of reduced flows.
BR-8	**Reduced acreage of aquatic habitat could affect special-status fish species**	Less than significant impact with implementation of biological conservation measures	USBR will restore or create 44 acres of backwaters. They will also re-introduce and monitor 20,000 sub-adult razorback suckers below Parker Dam and continue a study of Lake Mead. USBR will also fund the capture of wild bonytail chubs that will be broodstock for this species.

Impact Code	Summary	Impact	Mitigation Identified by IID and the SWRCB
BR-11	**Increased salinity in the drains could alter drain vegetation and affect wildlife**	Less than significant impact with implementation of the measures identified in the HCP	IID will create up to 652 acres of managed marsh habitat that is expected to support a larger population of Yuma clapper rails than currently exist.
BR-12	**Changes in water quality in drains could affect wildlife**	Less than significant impact with implementation of the DHCS	Implementation of the DHCS to offset the increased selenium concentrations that could affect the reproductive success of bird species.
BR-24	**Reduced flows in the drains could affect desert pupfish**	Less than significant impact with implementation of the measures identified in the HCP	Implement desert pupfish conservation strategy where appropriate to decrease the effects on the species.
BR-25	**Construction of system-based measures could affect razorback suckers**	Less than significant impact with implementation of the measures identified in the HCP	Implement razorback sucker conservation strategy measures to minimize mortality of suckers as a result of canal dewatering. Salvaged fish will be returned to the lower Colorado River.
BR-26	**Water quality changes in the drains could affect special-status species**	Less than significant impact with implementation of the DHCS	Implement DHCS as outlined in the HCP. IID will monitor to ensure that the amount of managed marsh habitat is sufficient to offset the selenium impacts from the transfer.
BR-27	**Changes in drain habitat could affect special-status species**	Less than significant impact with implementation of the DHCS	Implement DHCS as outlined in the HCP. IID will monitor to ensure that the amount of managed marsh habitat is sufficient to offset the selenium impacts from the transfer.
BR-46	**Reduced fish abundance would affect piscivorous birds**	Less than significant impact with implementation of the SSHCS	Implementation of SSHCS would avoid impacts to fish and birds since salinity impacts would be avoided for 15 years.

Impact Code	Summary	Impact	Mitigation Identified by IID and the SWRCB
BR-51	**Increased salinity could isolate drains supporting desert pupfish**	Less than significant impact with implementation of the SSHCS	Impacts to pupfish populations may not be affected by the proposed project for 15 years as a result of implementation of the SSHCS. Because of their high salinity tolerance, the Sea will not be a barrier to pupfish for at least 15 years.
AR-1	**Reclassification of up to 50,000 acres of prime farmland or farmland of statewide importance**	Significant, unavoidable impact	Refer to section 6.3.6 and section 6.3.9 of this order.
HCP-AR-2	**Conversion of agricultural lands from implementation of the HCP**	Significant, unavoidable impact	Refer to section 6.3.6 and section 6.3.9 of this order.
R-7	**Reduction on Salton Sea elevation would render boat launching and mooring facilities inoperable**	Less than significant impact with mitigation	With SSHCS elevation of the Salton Sea may not decline for 15 years. To the extent that a decline in elevation impacts boat launching facilities, these facilities may be temporarily relocated until the Sea reaches its minimum and stable elevation, at which point permanent facilities must be provided.
R-8	**Reduced sport fishing opportunities**	Significant, unavoidable impact	Refer to section 6.3.7 and section 6.3.9 of this order.
R-9	**Reduced opportunity for bird watching and waterfowl hunting**	Less than significant impact with mitigation	Implementation of SSHCS may avoid impacts to bird watching since salinity impacts would be avoided for 15 years.
R-10	**Reduction in Salton Sea elevation could impact campgrounds and ancillary facilities**	Less than significant impact with mitigation	No impacts to elevation are expected for 15 years. See Mitigation Measure R-7.
AQ-3	**Windblown dust from fallowed land**	Less than significant impact with mitigation	IID will implement one or more of the BMPs outlined in Mitigation Measures AQ-2 and AQ-3 of the EIR. Refer to section 6.3.8.1 of this order.

Impact Code	Summary	Impact	Mitigation Identified by IID and the SWRCB
HCP2-AQ-6	**Windblown dust from fallowing as well as emissions resulting from construction and operation of on farm and water delivery system conservation measures for SSHCS (This is a secondary impact of mitigation)**	Less than significant impact with mitigation	IID will implement one or more of the BMPs outlined in Mitigation Measures AQ-2 and AQ-3 of the EIR.
AQ-7	**Indirect air quality impacts due to the potential for windblown dust from exposed shoreline**	Potentially significant unavoidable impact	Refer to section 6.3.8 and section 6.3.9 of this order.
A-1	**Impacts on aesthetics would occur from a drop in the level of the Salton Sea**	Less than significant impact with mitigation	Salton Sea elevation may not drop for 15 years, therefore aesthetics would not be affected until that time. Mitigation Measures outlined in A-1 will reduce these to less than significant after that time.

6.3.2 Impacts that Will Be Reduced to Less Than Significant Levels with Mitigation

The following impacts will be reduced to less than significant levels if mitigated as outlined on the table: BR-1, BR-4, BR-5, BR-6, BR-7, and BR-8. These impacts all affect the lower Colorado River. The FEIR states that the USBR will mitigate these impacts. Implementation of the identified mitigation measures is within the USBR's responsibility and the USBR can and should implement them. To the extent that the USBR does not fully implement these mitigation measures, we will reserve continuing authority to require IID to implement them to the extent feasible.

The following impacts within IID's service area are also less than significant if mitigated: BR-11, BR-12, BR-24, BR-25, BR-26, and BR-27. We will require that IID implement the Drain Habitat Conservation Strategy, the Desert Pupfish Conservation Strategy, and the Razorback Sucker Conservation Strategy as mitigation for these impacts.

Finally, the following impacts to recreation, air quality and aesthetics are less than significant if mitigated: R-7, R-10, AQ-3, HCP2-AQ-6, and A-1. We will require that IID implement the mitigation measures identified in the FEIR and summarized on the table.

6.3.3 Impacts for Which Mitigation Is Unavailable or Infeasible

The FEIR identifies the following impacts as significant, unavoidable impacts for which no mitigation is available or feasible: AR-1, HCP-AR-2, R-8, and AQ-7. These impacts are discussed in detail in other parts of this order.

6.3.4 Impacts That May Be Avoided for 15 Years

This order requires IID to maintain for 15 years salinity levels in the Salton Sea that would have occurred in the absence of the project. We anticipate that water elevation levels will follow the trajectory shown on figure 3.3-1 of the FEIR and reproduced in section 5.2.4 of this order. Therefore, the following impacts may be avoided for the first 15 years of this project: BR-46, BR-51, R-8, and R-9. Because the SWRCB is reserving continuing authority to amend the conditions specified in this order after 15 years, we may consider other actions to mitigate these impacts in the future.

6.3.5 Impacts to Hydrology and Water Quality

The FEIR states that increased selenium concentrations are a significant and unavoidable impact. As discussed in section 5, IID proposes to mitigate impacts of increased selenium by creating sufficient alternate habitat to offset reduced reproductive output of wildlife using the drains. The HCP proposes that up to 652 acres of managed marsh habitat be created to mitigate the biological impacts of selenium. By this order, the SWRCB will impose the requirement that up to 652 acres of managed marsh replacement habitat be created. By creating alternate habitat with better water quality, the combined reproductive output of wildlife in the drains plus the alternate habitat will not change. Thus, some of the biological impacts of selenium will be mitigated. We recognize, however, that selenium concentrations will not be reduced as a result of implementing the measure in the HCP, and that there will still be impacts associated with high selenium concentrations in the drains and the outlets to the Sea.

Therefore we will require that IID, in consultation with DFG, the Regional Board, and the USEPA, prepare a plan acceptable to the Chief of the Division of Water Rights to study the local practices and projects that result in the concentration of selenium discharged to the affected water bodies. Upon the approval of the study plan by the Division Chief, IID shall complete the study, prepare a report summarizing the results of the study and recommending ways of reducing selenium discharges to levels that meet the water quality objectives. IID shall work cooperatively with the Regional Board to implement the recommended actions that are within the control of IID.

With respect to the mass loading of selenium, the Regional Board is directed to address this issue through the Total Maximum Daily Load (TMDL) process or any other appropriate process. The Regional Board states that "the proposed selenium TMDL would focus on selenium throughout the Upper and Lower Colorado River Basin States (Colorado River Watershed), and would address selenium reduction at the sources, but could also include management practices to address concentrating of selenium in Imperial Valley." (IID 93, p. 3-9.)

6.3.6 Impacts to Agricultural Resources

Examples of significant environmental effects on agricultural resources include the following: (1) conversion of prime farmland, unique farmland, or farmland of statewide importance to

non-agricultural use, (2) conflict with existing zoning for agricultural use, or a Williamson Act contract, and (3) other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use. (See CEQA Guidelines, *supra*, appendix G.)

If fallowing were used as a conservation measure, it could be rotational, permanent or a combination of the two. As identified in the FEIR, the worst-case impact of the proposed project would be the permanent fallowing of up to 75,000 acres of farmland in the IID service area. This represents up to about 15 percent of the total net acreage in agricultural production within the IID water service area. (Audubon 18, pp. 21-22.) The FEIR finds that permanent fallowing to this extent would result in a significant, unavoidable impact. The only mitigation measure proposed to avoid or minimize this impact is to prohibit the use of permanent fallowing under the proposed project. Permanent fallowing could increase the likelihood of land, especially land in close proximity to urban areas, being converted to a non-agricultural use. On the other hand, permanently fallowed farmland could be converted for system improvements such as canals, or other uses in support of on-farm irrigation system or water delivery system improvements. These changes would not result in an impact to agricultural resources as the land use would not be reclassified as non-agricultural, and thus the change would not affect the land's status under the Williamson Act.

It is likely that fallowing will occur on a temporary basis and may be combined with other conservation measures to further lessen the acreage that would be fallowed at any given time. Although impacts to agricultural resources are not likely to be as severe as the worst-case impact identified in the FEIR, we recognize that significant, unmitigable impacts may occur.

6.3.7 Impacts to Recreation

The Salton Sea currently supports a fishery, with 400,000 visitors using the Sea for sport fishing every year. Reduced inflows to the Salton Sea resulting from the proposed project will result in reduced water level elevations. This can impact recreational use of the Sea by making recreational facilities inaccessible to users. The FEIR indicates that these facilities can be moved so that they are located adjacent to the shoreline of the Sea during and after the elevation declines. These

actions should fully mitigate the impacts to recreation that will result from changes in the Sea's elevation.

Reduced inflows could also result in an accelerated increase in salinity in the Salton Sea. As salinity levels in the Sea approach and then exceed the salt tolerance of the various fish species, the fishery will first decline and then be eliminated. Species such as tilapia and desert pupfish have greater salinity tolerances, and they are expected to survive in the Sea longer than other species that reside in the Sea. However, as discussed in section 5 of this order, it is expected that at a salinity of 60 ppt, tilapia will no longer be able to reproduce. Once the fishery declines, associated recreational activities dependent on the fishery such as fishing and bird-watching will be adversely affected.

This order requires that IID maintain for 15 years the salinity of the Sea at the forecasted mean salinity level that would occur in the absence of the project. To the extent that the salinity level of the Sea increases at a faster rate after 15 years than it would have in the absence of the proposed project, the proposed project will result in unavoidable significant impacts to recreation.

6.3.8 Impacts to Air Quality

This section discusses the impacts of the proposed project on air quality. Of particular concern is the potential emission of small particles with a diameter of less than 10 micrometers. These particles, referred to as PM10, can adversely affect human and animal health because they lodge in small passages in the lungs and affect respiration. (R.T. pp. 35-37.) The impacts to air quality of the proposed transfer depend on the method that IID employs to conserve water in order to implement the proposed transfer. If IID employs efficiency measures, such as tailwater recovery systems, this will reduce Sea elevations, exposing shoreline, which could result in significant air quality impacts. Alternatively, if IID fallows land in order to conserve water to implement the transfer, less shoreline will be exposed, but other impacts within IID may occur as discussed below.

6.3.8.1 Air Quality Impacts of Fallowing

Fallowing of lands in the IID service area is one of the water conservation methods that may occur under the proposed project and as part of the SSHCS. Parties presented testimony at the hearing

regarding the air quality impacts of fallowing. This issue is quite complicated and the potential impacts cannot be determined with any certainty. On the one hand, particulate emissions, including PM10 emissions, could decrease because the fallowed land would be not be subject to disturbance due to plowing or other agricultural practices that disturb soil. On the other hand, fallowed lands may be subject to wind erosion, creating fugitive dust impacts unless actions are taken to reduce these effects. As discussed in the FEIR (IID 93, p. 3-54) it is not possible to qualitatively estimate dust/PM10 emissions associated with fallowing. The EIR concluded that there is a potential for significant unavoidable impacts associated with fallowing unless BMPs are implemented. These could include, but are not limited to, the following: implement conservation cropping sequences and wind erosion protection measures as outlined by the U.S. Department of Agriculture Natural Resources Conservation Service; apply soil stabilization chemicals to fallowed lands; re-apply drain water to allow protective vegetation to be established; or reuse irrigation return flows to irrigate windbreaks across blocks of land including many fields to reduce emissions from fallowed, farmed, and other lands within the block. If BMPs such as these are implemented, then emissions would be reduced to less than significant.

The IID service area is under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). As a result of the area's designation as a federal moderate non-attainment area for PM10, the ICAPCD has published a State Implementation Plan (SIP) for PM10 in the Imperial Valley (ICAPCD 1993). (IID 93, pp. 3-53, 3-64.)[18] The SIP will demonstrate ICAPCD's proposed control measures, methods, and schedule for attainment of the applicable ambient air quality standards, and the ICAPCD Rules and Regulations will be revised to implement the required control measures. By this order we will require that IID comply with all applicable requirements of the final updated SIP and implement the mitigation measures and BMPs for air quality impacts associated with fallowing as outlined in the FEIR. Implementation of these measures and BMPs should reduce the effect of the proposed project on air quality as a result of changes in agricultural practices to less than significant levels.

[18] Imperial County's witness testified that the area is in attainment, but for emissions from Mexico. (R.T. p. 2103.)

6.3.8.2 Shoreline Exposure

Parties presented considerable testimony concerning the possibility that emissive sediments will be exposed as inflows to the Sea are reduced and the water level in the Sea declines. Once again, the testimony was inconclusive. With implementation of the SSHCS, we do not expect the project to cause air quality impacts during the first 15 years of this project. The water level and the total surface area of the Salton Sea would, however, decrease in the long term, unless a restoration program is developed that prevents that decrease. In light of the potential for shoreline exposure, resulting in potentially significant impacts, we will require that IID follow the monitoring and mitigation plan as outlined in the FEIR. (IID 93, p. 3-50 – 3-52.) This requires a phased approach to addressing the problem, including ongoing monitoring. The four-step plan is as follows: (1) restrict access to minimize disturbance of exposed shoreline, (2) conduct an ongoing research and monitoring program as the Sea recedes, (3) create or purchase offsetting emission reduction credits, and (4) direct emission reductions at the Sea. Step four could include implementing feasible dust mitigation measures or supplying water to re-wet emissive areas of the Sea.

The air quality impacts of exposed shoreline associated with the proposed project are difficult to predict using existing studies and technology. We accept the phased approach proposed in the Monitoring and Mitigation Plan (IID 93, pp. 3-50 – 3-52) for mitigation of potential shoreline exposure effects. The FEIR calls for incremental implementation of the plan as shoreline is exposed. In order to develop an adequate baseline, this order requires that step two of the plan, research and monitoring, be implemented within six months of the effective date of this approval. In addition, this order delegates to the Division Chief the authority to determine, in consultation with the ICAPCD, the South Coast Air Quality Management District and the California Air Resources Board, whether any mitigation measure identified as part of the four-step plan is feasible. With this mitigation measure, we believe that the impacts to air quality due to exposed shoreline will be less than significant. Nonetheless, the FEIR states that dust emissions from shoreline exposure is a potentially significant, unavoidable impact.

6.3.9 Statement of Overriding Considerations

This order imposes conditions of approval to mitigate the potential adverse effects of the conservation and transfer project. Nevertheless, for the following potential significant adverse

environmental effects of the project as approved by this order, other parties are responsible for carrying out potential mitigation measures or overriding considerations outweigh the potential significant adverse effects:

- Potential impacts to habitat along the lower Colorado River. Mitigation measures are to be implemented by the USBR. If the USBR does not implement these mitigation measures, we will require IID to implement those measures that are within IID's authority to implement. To the extent that IID can not implement these measures and impacts occur, the SWRCB finds that the overriding considerations discussed below outweigh the impacts.

- Potential impacts to water quality, especially as a result of increased levels of selenium in agricultural drains and increased salinity at the Salton Sea. Mitigation measures are required by this order. To the extent that impacts occur, the SWRCB finds that the overriding considerations discussed below outweigh the impacts.

- Potential short-term impacts to agricultural resources in Imperial County are unavoidable and unmitigable, and the SWRCB finds that overriding considerations discussed below outweigh the impacts.

- Potential impacts to the Salton Sea fishery, piscivorous birds, and to recreation at the Sea after water level elevations decline and salinity increases. This order requires full mitigation for these impacts for 15 years. After the 15-year mitigation period required by this order, the SWRCB finds that the overriding considerations discussed below outweigh any impacts that may occur.

- Potential impacts to air quality due to shoreline exposure at the Salton Sea. We expect that these impacts will be mitigated to less than significant levels by IID. Nonetheless, the FEIR finds that air quality impacts from shoreline exposure are potentially significant and unavoidable. To the extent that impacts are unmitigable and unavoidable, the SWRCB finds that the overriding considerations discussed below outweigh the impacts.

The benefits of this project to the public, the uncertainties regarding the feasibility of restoring the Sea, and the potential impacts to the State if the project is not approved are discussed at length in section 5.2 of this order. The SWRCB finds that the benefit of a reliable Colorado River water supply under the USBR's Interim Surplus Criteria are critically important to the people of the State. The California Water Plan identifies the Colorado River as a source of supply for Southern California. In the absence of the proposed transfer, the State may be required to immediately reduce its diversions from the Colorado River by approximately 800,000 acre-feet of water per year. The only infrastructure currently in place that could provide an alternative source of water is the State Water Project, which diverts water from the Sacramento-San Joaquin Delta Estuary. Increased diversion from the Bay-Delta could have negative impacts on fish and wildlife resources that rely on the Bay-Delta, and the resulting measures to protect threatened and endangered species under the CESA and the federal ESA could result in severe and unpredictable water shortages throughout the State. At the same time, there are many uncertainties regarding the feasibility of restoring the Salton Sea. Unless and until a feasible restoration plan can be developed, the Sea is ultimately imperiled. Therefore, to the extent that this order does not fully mitigate the adverse effects of this action, the environmental, economic, and social benefits of implementing the conservation and transfer project outweigh the potential adverse environmental effects that are not avoided or fully mitigated.

6.4 Socio-Economic Impacts Should Be Reduced or Mitigated to the Extent Feasible

To the extent that IID fallows land in order to conserve water to transfer, or to mitigate the environmental impacts of the transfer, the transfer may adversely affect the local economy within Imperial County.

The SWRCB has authority to consider whether the transfer would be in the public interest in view of the potential socio-economic impacts of fallowing. In evaluating proposed changes in a water right permit or license, including changes that will allow a transfer to take place, the SWRCB considers the same factors that it considers when evaluating a water right application, including

whether the changes will be in the public interest. (See Wat. Code, §§ 1253, 1255, 1256; *Johnson Rancho County Water Dist. v. State Water Rights Board* (1965) 235 Cal.App.2d 863, 874 [45 Cal.Rptr. 589]; Order WR 95-9, p. 29; Revised Decision 1641, pp. 117, 123-124, 129.)[19]

As summarized below, the record indicates that the economic impacts may not be as significant as estimated by IID. In addition, in determining whether the transfer would be in the public interest, the SWRCB also must consider the benefits of the transfer, which, as discussed above, is an integral part of California's Colorado River Water Use Plan. (See Wat. Code, § 1256 [in considering whether an appropriation would be in the public interest, the SWRCB must consider the California Water Plan; SDCWA 5, pp. 4-5 [Colorado River Water Use Plan is incorporated into the California Water Plan].)

The record also indicates, however, that it may be feasible to minimize potential economic impacts, and to mitigate those impacts that cannot be eliminated. We conclude that the transfer will be in the public interest, notwithstanding the potential socio-economic impacts associated with fallowing, but that socio-economic impacts should be minimized and mitigated to the extent feasible. SB 482 (Stats. 2002, ch. 617), provides a process for evaluating and mitigating any economic impacts of the transfer. We will reserve continuing authority to consider whether any additional measures should be taken based on the analysis and recommendations developed as part of that process.

Based on the analysis of socio-economic impacts contained in the FEIR, IID estimated that if water is conserved exclusively through fallowing, annual losses to the personal income of employees and

[19] SDCWA contends that no legal basis exists for considering socio-economic impacts because Water Code section 1736 does not expressly provide for an evaluation whether a long-term change will be in the public interest. In contrast to the provisions of the Water Code governing short-term transfers, however, section 1736 does not require the SWRCB to approve a long-term transfer even if the requirements for protecting third-party water right holders and instream beneficial uses are satisfied. (Compare Wat. Code, § 1727, subd. (b) [the SWRCB "shall approve" a short-term transfer if specified conditions are met], with *id*. § 1736 [the SWRCB "may approve" a long-term transfer if specified conditions are met].) In purpose and effect, a long-term change is an amendment to a permit or license. Except in the case of short-term transfers, where expedited approval is required, the language of the Water Code does not require, and sound public policy does not support, a construction that precludes the SWRCB from considering the public interest as part of its review of a change petition when the SWRCB would be required to consider the public interest if the change had been proposed as part of the original application. The SWRCB is also mindful that it is the official policy of the State to facilitate voluntary water transfers "where consistent with the public welfare of the place of export and the place of import." (Wat. Code, § 109, subd. (a); see also Wat. Code, § 174 [the SWRCB exercises the adjudicatory and regulatory functions of the State in the field of water resources].)

business owners in Imperial County could be $5,000,000 per year during the first six years of the transfer, and could eventually reach $30,000,000 per year if the full 300,000 afa were conserved by fallowing. (IID 65, p. 8; R.T. pp. 953-954.) In addition, the economic stimulus expected from a conservation program that does not include fallowing would be foregone. IID estimated that if a conservation program that does not include fallowing were implemented, personal income would increase by as much as $25,000,000 annually. (IID 65, p. 7; R.T. p. 953.)

Similarly, the FEIR estimated that if 300,000 afa is conserved through fallowing, approximately 1,400 jobs would be lost, whereas approximately 700 jobs would be created if the water is conserved without fallowing. (IID 55, pp. 3.14-17 – 3.14-18.) Imperial County already has a high unemployment rate relative to the State average. (*Id*. at p. 3.14-5.) Fallowing land could also adversely affect local government by reducing property tax and sales tax revenues. (Imperial County 3A, p. 2.)

The record indicates that the potential economic impacts of fallowing may not be as significant as IID estimated. The analysis performed in the FEIR and by IID assumed that different types of crops would be fallowed in proportion to the historic mix of crop types. Economic impacts would be reduced, however, if a higher proportion of less valuable, less labor-intensive, high water use crops such as alfalfa hay were fallowed. (R.T. pp. 2554, 2615-2617.) IID estimated that, if 300,000 afa were conserved by fallowing alfalfa exclusively, the loss in personal income would be approximately $6,700,000, one-fourth to one-fifth the personal income lost if the full mix of crops were fallowed. (IID 65, pp. 11-12.) Similarly, the number of jobs lost would be approximately one-third the number of jobs that would be lost if the full crop mix were fallowed. (*Id*. at p. 13.)

The economic impacts of fallowing also might be reduced to the extent that less productive soils are fallowed. (R.T. pp. 1016, 1049.) In addition, by fallowing on a temporary basis, it may be possible to avoid the impacts to soil productivity and property values that could result from long-term fallowing. (R.T. 1013-1014, 2167-2168, 2549, 2568-2569; SDCWA 49, pp. 2-3.)

Finally, in estimating losses in personal income and jobs, IID did not take into account the economic benefits of mitigating impacts to the Salton Sea. (R.T. p. 1025.) Based on a 1987 survey,

the FEIR estimates that recreational activity at the Sea could generate as much as $80,000,000 in business output per year. (IID 55, pp. 3.14-24 – 3.14-25; see also R.T. pp. 990-995.) Based on that estimate, the present value of the lost business output that would result from accelerating the demise of sportfishing and other recreational activities by eleven years is approximately $790,000,000. (*Ibid*.)

IID questioned whether a higher proportion of alfalfa would be fallowed because retaining alfalfa in a farmer's crop rotation diversifies risk and maintains soil productivity. (IID 65, pp. 10-11.) In a two-year test fallowing program conducted by MWD and PVID, however, the primary crops displaced were alfalfa and wheat. (PCL 31, p. 10.) In that case, alfalfa was not fallowed exclusively, but the percentage of alfalfa that was fallowed (approximately 64 percent) was high relative to the percentage of acres planted in alfalfa in the year preceding the program (approximately 45 percent). (IID 81; R.T. pp. 2794-2795.)

SDCWA and PCL introduced evidence concerning the PVID test program, which was conducted in the early 1990s, as an example of a fallowing program that did not have significant economic impacts. As part of the program, farmers within PVID fallowed approximately 20,215 acres, which resulted in a water savings of approximately 186,000 acre-feet over two years, for which MWD received credit. (PCL 31, p. i; SDCWA 48, p. 2.) According to a study prepared by consultants for MWD, the program did not have a significant effect on the local economy as a whole, although it did adversely affect businesses that provide services or supplies to farmers. (PCL 31, pp. i-ii; SDCWA 48, pp. 2-3; R.T. pp. 2546-2547.) The study found that the program resulted in the loss of 59 jobs. (PCL 31, p. i; R.T. p. 2622.)

IID criticized the methodology employed in the study of the PVID test program, and questioned the relevancy of the PVID program to a fallowing program in IID in view of differences between the two agricultural districts. (R.T. pp. 2789-2796.) We recognize that the PVID program may not reflect precisely what the economic impacts of a fallowing program within IID would be. But the program indicates that the economic impacts of fallowing may be minimized if a higher proportion of particular crops such as alfalfa are fallowed.

Due to the success of the test program, MWD and PVID are currently negotiating a 35-year temporary fallowing program. (R.T. pp. 2546-2549.) MWD and PVID are in the process of studying the potential, socio-economic impacts of the program. In order to mitigate socio-economic impacts, MWD proposes to establish a fund of approximately $6,000,000 for community improvement projects, which would be administered by a committee comprised of representatives from MWD, PVID, and members of the Palo Verde Valley community. (SDCWA 50, pp. ES-3 - ES-4, 3-4; R.T. pp. 2563-2564.)

SB 482 requires the Resources Agency and the Technology, Trade and Commerce Agency to submit to the Legislature by June 30, 2003, a report prepared in consultation with IID and Imperial County, which evaluates: (1) the nature and extent of any economic impacts of land fallowing in Imperial County in connection with the QSA, (2) measures taken by IID to minimize economic impacts, (3) and the extent to which funds in excess of the funds received by IID for water transferred may be necessary to mitigate economic impacts. (Stats. 2002, ch. 617, § 9.) If additional funds are necessary, the report is to make recommendations regarding providing the additional funds, and formulating a program to administer the funds. (*Ibid*.)

SB 482 provides a mechanism for addressing the potential socio-economic impacts of the transfer. We will reserve continuing authority pending the outcome of the report described above to consider whether any additional measures should be required in the public interest to minimize or mitigate for economic impacts.

6.5 Potential Impacts of Fallowing on Fish and Wildlife that Rely on Agricultural Fields

Agricultural fields provide foraging and resting opportunities for a number of species of special status as well as common avian species. (IID 93, p. A3-166.) Most crops in IID are flood irrigated. This process provides standing water in agricultural fields that bird species can take advantage of. White faced ibis, cattle egrets and mountain plovers all frequent these fields, foraging on invertebrates, while geese will often forage directly on the crops being grown. (IID 55, p. 3.2-49.) Burrowing owls often use the embankments of irrigation and drainage ditches for their burrows, and forage for mammals in adjacent agricultural fields. (IID 93, p. A3-147.) Some species also find

refuge in small wetland areas formed by water that seeps from IID's delivery and drainage system canals. (IID 55, pp. 3.2-23 – 3.2-24.)

Agricultural acreage in IID approaches 500,000 acres in some years, and is expected to remain stable into the future under baseline conditions. Should a fallowing program generate the whole quantity of water necessary for transfer and mitigation, approximately 15 percent of the farmland in IID would be idled at any given time. This could affect the ability of some species to find adequate forage, depending on the crop types fallowed and the food preferences of those species.

Though agricultural field habitat will be lost when land is idled, it will be replaced when it is no longer necessary to fallow land to generate water. The Salton Sea and its surroundings provide rare and irreplaceable habitat, which requires a constant and relatively steady supply of inflow. The loss of 15 percent of one habitat type must be balanced, in this case, with the near total loss of a much larger and more rare habitat type. We find that the transfer is in the public interest, notwithstanding the potential loss of habitat that may occur if agricultural fields in IID are fallowed to provide water for transfer, or to mitigate the impacts of the transfer on the Salton Sea.

7.0 ADDITIONAL FINDINGS REQUESTED BY PETITIONERS

In addition to approving the transfer petition, petitioners have requested the SWRCB to make additional findings of fact and conclusions of law. These requests are addressed below.

7.1 This Order Is Designated as Non-Precedential

Petitioners have requested that the SWRCB make this order and all findings of fact and conclusions of law non-precedential. We agree to this request.

Government Code section 11425.60, subdivision (b) provides that an agency "may designate as a precedent decision a decision or part of a decision that contains a significant legal or policy determination of general application that is likely to recur." Whether to designate an order or decision as precedent is discretionary and is not subject to judicial review. (*Ibid.*)

The SWRCB's determination not to designate this order as precedential is a condition of the protest dismissal agreement between IID, SDCWA, MWD and CVWD. MWD and CVWD have taken the

position that the SWRCB's authority to take action on the transfer petition is preempted by the Law of the River. In view of the statewide importance of the transfer and California's Colorado River Water Use Plan, however, MWD and CVWD agreed not to object to the transfer or this proceeding, provided, among other things, that the SWRCB's order is not designated as precedential. (IID 23; R.T. pp. 72-77.)

Imperial County argues that the SWRCB's order in this proceeding should be designated as precedential because of the significance of this proceeding and the potential for this transfer to serve as a model for future transfers. We conclude, however, that the importance of supporting the efforts of petitioners, MWD, and CVWD to resolve their disagreements pertaining to the transfer petition, without prejudice to other parties, outweighs the value of designating this order as precedent.[20]

7.2 Need to Reassess the Reasonableness of IID's Water Use Before 2024

Petitioners also request the SWRCB to find that the SWRCB's concerns, if any, with respect to IID's reasonable and beneficial water use are satisfied, and that the SWRCB does not anticipate the need to reassess the reasonable and beneficial use of water by IID before the year 2024, absent any substantial, material, adverse change in IID's irrigation practices or advances in economically feasible technology associated with irrigation efficiency. Petitioners request the SWRCB to find that the transfer and acquisitions are in furtherance of previous SWRCB decisions concerning the reasonableness of IID's water use, including Decision 1600 and Order WR 88-20. In support of its position that its water use is reasonable, IID presented evidence concerning its irrigation efficiency relative to other agricultural districts. (IID 2, pp. 4-11, ex. B.)

Article X, section 2 of the California Constitution and Water Code section 100 require "that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented . . . ." (See also Wat. Code, § 275.) Through the requested finding, IID seeks assurance that the SWRCB

[20] The designation of this order as non-precedential will not affect the enforceability of this order as against the parties to this proceeding during the term of the transfer; only the SWRCB's authority to rely on the order in future proceedings will be affected. (See Gov. Code, § 11425.60, subd. (a); 25 Cal. Law Revision Com. Rep. (1995) p. 55, reprinted in West's Ann. Gov. Code (1992 ed.) foll. § 11425.60, p. 151.)

will not reassess whether IID is meeting the constitutional mandate of reasonable use during the period when IID is ramping up to full implementation of the conservation and transfer project.

As explained in Decision 1600, the reasonableness doctrine embodied in article X, section 2 of the Constitution calls for consideration of all relevant facts, not just a single fact such as irrigation efficiency. (Decision 1600, pp. 22-24.) In Decision 1600, the SWRCB identified a number of facts relevant to the reasonableness of IID's water use. Those facts included the anticipated shortage in the amount of Colorado River water available to satisfy existing uses, the fact that IID's return flows were contributing to flooding problems at the Salton Sea, and the fact that practical conservation measures were available. (*Id*. at pp. 37-55, 58, 66.)

Currently, IID proposes to conserve 230,000 to 300,000 afa, a substantial amount of water, in accordance with a ramp-up schedule to which SDCWA, MWD, and CVWD have agreed. IID's irrigation efficiency should improve as a result of the implementation of conservation measures.[21] Provided that the QSA is executed, the principal users of Colorado River water will have resolved their competing claims to California's supply of Colorado River water.

As to the flooding issue, the record indicates that, even in the absence of the project, the elevation of the Sea will decrease, alleviating flooding problems. Witnesses' testimony indicated that the flooding problem might be resolved if the Sea were to drop three feet from its current elevation to -230 feet below sea level. (See R.T. pp. 1415, 3166.) Under baseline conditions, the elevation of the Sea is projected to reach –230 feet by 2010, and to drop another two feet by 2021. (IID 93, p. A3-24, fig. 3.3 -7.) If replacement water is provided to the Sea under the SSHCS, the elevation of the Sea will decline more slowly, but it will reach –230 by approximately 2012. (*Ibid*.)

Provided that IID implements the transfer in accordance with the QSA and the flooding problem is resolved, we do not anticipate the need, absent a change in circumstances, to reassess the reasonableness of IID's water use before 2024. IID's conservation and transfer of 230,000 to

[21] We recognize that IID's irrigation efficiency will not improve to the extent that IID chooses to fallow land in order to meet requirements to mitigate impacts to the Salton Sea. IID cannot be faulted for the failure to improve irrigation efficiency to the extent that mitigation requirements preclude such an improvement.

300,000 afa will be in furtherance of the SWRCB's directive to IID, contained in Decision 1600 and Order WR 88-20, to evaluate, secure funding for, and implement potential conservation measures. Because irrigation efficiency is not the only fact relevant to a determination of reasonableness, it would not be appropriate to find, as requested by IID, that the circumstances under which we anticipate it may be necessary to reassess IID's water use are limited to changes in IID's irrigation practices or technological advances in irrigation efficiency.

It bears emphasis that by making this finding we do not intend to bind the SWRCB in any future proceeding, particularly if circumstances change. To do so would be an abdication of the SWRCB's ongoing responsibility to prevent the unreasonable use of water. (See Wat. Code, § 275; see also *Tulare Dist. v. Lindsay-Strathmore Dist*. (1935) 3 Cal.2d 489, 567 [45 P.2d 972, 1007] ["What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time."].)

7.3 Applicability of Water Code Sections 1011, 1012, and 1013

Petitioners request the SWRCB to find that Water Code sections 1011, 1012, and 1013 apply to and govern the transfer and acquisitions, and that IID's water rights, including IID's priority of right, will be unaffected by the transfer and acquisitions. As explained in section 3, above, Water Code sections 1011 and 1012 protect IID's appropriative water rights from forfeiture to the extent that IID uses less water as a result of conservation efforts.

Regardless whether sections 1011, 1012, or 1013 apply in this case, IID's rights will be protected from forfeiture, diminution, or impairment to the extent that IID transfers water, provided that the transfer is implemented in accordance with applicable law. (Wat. Code, §§ 1745.07, 1014, 1017.) Moreover, effective January 1, 2003, SB 482 will amend Water Code section 1013 to protect IID's water rights from forfeiture to the extent that IID implements water efficiency conservation measures or fallows land in order to carry out or mitigate for a transfer under the QSA. (Stats. 2002, ch. 617, § 7.)[22]

[22] Water Code section 1013 provides that if IID, acting under contract with the United States or pursuant to State or federal requirements, reduces through conservation measures inflows to the Salton Sea, IID shall not be liable for any resulting effects to the Salton Sea or its bordering area. The extent to which section 1013 protects IID from liability is not an issue in this case, and it would be inappropriate to offer an advisory opinion on this issue.

7.4 Reporting Requirements

Finally, petitioners request the SWRCB to make findings concerning IID's reporting obligations. Petitioners request that IID be allowed to verify the amount of conserved water transferred or acquired each year by (1) reporting that IID's diversions at Imperial Dam (less return flows) have been reduced below 3,100,000 acre-feet in an amount equal to the quantity of conserved water transferred or acquired, subject to variation permitted by the Inadvertent Overrun Program adopted by the Department of Interior, and (2) by reporting the amount of reductions in deliveries to participating farmers and the amount of water conserved by conservation projects implemented by IID itself. Petitioners request the SWRCB to determine that these annual reports satisfy the reporting requirements under Decision 1600 and Order WR 88-20. The only outstanding reporting requirement stems from Order WR 88-20, which required semi-annual reports on the conservation measures undertaken in satisfaction of Order WR 88-20.

The reporting requirement proposed by petitioners is adequate. IID may measure the amount of water transferred against the 3,100,000 acre-foot baseline because 3,100,000 acre-feet is less than the maximum amount of water that may be diverted under Permit 7643.[23] If adopted by the Secretary of Interior, the Inadvertent Overrun and Payback Policy would afford IID greater operational flexibility by allowing IID to payback inadvertent diversions in excess of IID's 3,100,000 acre-foot cap. (IID 53, pp. 2-4 - 2-8.)

The record indicates that the measuring device for IID's diversions at Imperial Dam has a significant margin of error relative to the volume of water diverted by IID. (See R.T. pp. 915-916.) IID will further verify, however, that it has reduced its diversions in an amount equal to the amount of water transferred by reporting the amount of reductions in deliveries to farmers and the amount of water saved by conservation projects implemented by IID.

[23] The full face-value of a permit or license does not necessarily define the amount of water that may be transferred under the permit or license. As discussed above in section 3.7, to the extent that a given water right has been unexercised, the right is subject to forfeiture for non-use (except to the extent that the right holder has transferred water or has conserved water under Water Code section 1011). To the extent that a right has been forfeited, it cannot serve as the basis for a transfer. In this case, however, the possibility of forfeiture does not appear to be an issue because 3,100,000 acre-feet is substantially less than the 3,850,000 acre-foot, maximum face-value of Permit 7643, and well within the historic range of IID's water use. (See IID 11.)

IID may submit a single report that includes the information described above and includes information concerning conservation measures that IID has undertaken in satisfaction of Order WR 88-20. Although Order WR 88-20 required semi-annual reports, we find that an annual report will be adequate now that the conservation program required by WR 88-20 is substantially complete.

8.0 ENDANGERED SPECIES ACT REQUIREMENTS

As stated previously, IID has developed an HCP in support of its applications for incidental take permits under section 10(a)(1)(B) of the federal ESA and section 2081, subdivision (b) of the Fish and Game Code. Effective January 1, 2003, new Fish and Game Code section 2081.7 will authorize DFG to issue an incidental take permit to IID in connection with the transfer, under specified conditions. (Stats. 2002, ch. 617, § 2.) DFG will also be required to ensure that any permit issued to IID complies with existing provisions governing incidental take permits. (*Ibid*.) Compliance with CESA and the federal ESA may require implementation of mitigation measures different from or in addition to those measures identified in Fish and Game Code section 2081.7 and IID's HCP. Accordingly, as a condition of approval of the transfer petition we will require IID to obtain any necessary approvals under CESA and the federal ESA. In addition, we will require IID to comply with the fully protected species provisions of the Fish and Game Code to the extent applicable.

9.0 CONCLUSION

With the mitigation measures specified in this order, the proposed transfer is in the public interest, will not injure any legal user of water, and will not unreasonably affect fish, wildlife or other instream beneficial uses. Accordingly, the transfer is approved, subject to specified conditions.

As explained in section 4, above, no party submitted evidence to support an objection to the transfer based on injury to the right to use water for consumptive use purposes. CRIT was the only party who submitted evidence in support of an objection based on injury to the right to use water for non-consumptive use purposes. Although CRIT submitted evidence in support of its assertion that the transfer would adversely affect CRIT's ability to generate hydroelectric power, CRIT failed to claim or present any evidence substantiating a claim that CRIT holds a water right that would provide a basis for requiring that flows be maintained in the Colorado River for use by CRIT's

hydroelectric facilities. CRIT's use of water to generate hydroelectric power is not an interest entitled to protection under the "no injury" rule codified in Water Code section 1736.

As set forth more fully in section 5, the transfer as mitigated will not unreasonably affect fish and wildlife that rely on the drains in the IID service area. Impacts to fish, wildlife, and other instream beneficial uses of the Salton Sea will not be unreasonable, provided that IID implements the SSHCS for 15 years and replaces lost shoreline habitat. Impacts to cottonwood willow habitat and backwater habitat on the lower Colorado River will be reasonable, particularly if mitigated by the USBR as proposed. Impacts to fish and wildlife in the San Diego region resulting from any growth that may be induced by this project will not be different in kind or extent from impacts attributable to growth from other causes, and will not be unreasonable.

This order incorporates requirements that avoid or mitigate the adverse environmental impacts of the transfer to the extent feasible. To the extent that environmental impacts are not fully mitigated, and to the extent that fallowing may result in adverse socio-economic impacts, the public interest in the transfer outweighs those adverse impacts. The transfer is a critical part of California's efforts to reduce its use of Colorado River water in accordance with California's Colorado River Water Use Plan, the Interim Surplus Guidelines, and the draft QSA. Implementation of the transfer as approved by this order will benefit not just the parties to the transfer, but the State as a whole.

10.0 ORDER

IT IS HEREBY ORDERED:

Imperial Irrigation District's (permittee) and San Diego County Water Authority's (SDCWA) petition to transfer conserved water from permittee to SDCWA and to change the point of diversion, place of use, and purpose of use under Permit No. 7643 is approved. The term of this approval is a period of 75 years beginning on the effective date of this approval. This approval shall not become effective until the Quantification Settlement Agreement, as defined in Senate Bill 482 (Stats. 2002, ch. 617, § 1), has been executed, and permittee has approved the transfer and issued a Notice of Determination under the California Environmental Quality Act. The right to transfer water in accordance with this order is subject to the permittee's compliance with the following conditions:

1. For the period of the transfer, Permit 7643 is amended to add the Whitsett Intake at Lake Havasu as a point of diversion. Whitsett Intake is located at N0319200, E3160300 by California Coordinates in Zone 5 and is within Section 28, Township 03 N, Range 27 E, SBB&M.

2. For the period of the transfer, Permit 7643 is amended to add municipal use as an authorized purposes of use.

3. For the period of the transfer, Permit 7643 is amended to add as authorized places of use the service areas of San Diego County Water Authority; Coachella Valley Water District, Improvement District No. 1; and Metropolitan Water District, as shown on maps to be submitted to the SWRCB.

   This approval is subject to the permittee first submitting to the Chief of the Division of Water Rights, an amended application map(s) with the Whitsett Intake point of diversion and the service areas of Coachella Valley Water District, Improvement District No. 1, Metropolitan Water District, and the San Diego County Water Authority.

4. The permittee shall submit an annual report to the Chief of the Division of Water Rights that verifies the amount of water transferred or acquired pursuant to this order by reporting:

   a. The quantity of water diverted at Imperial Dam;
   b. An estimate of the quantity of water that is returned to the Colorado River from diversions made at Imperial Dam;
   c. The quantity of water subject to variation permitted by the Inadvertent Overrun Program adopted by the Department of Interior;
   d. Gross diversions at Whitsett Intake plus the quantity of water diverted at Whitsett Intake pursuant to this order;
   e. An estimate of the reductions in deliveries to participating farmers; and
   f. An estimate of the quantity of water conserved by conservation projects implemented by the permittee.
   g. An estimate of the quantity of water conserved by efficiency-based conservation measures.

The quantities specified shall be reported for the period from January 1 to December 31 of each year of the transfer and shall be submitted by March 31 of the following calendar year. The permittee shall submit with its first report a description of the methods used to estimate those quantities of water that are not directly measured. Permittee may submit a single, annual report that includes the information described above and information concerning conservation measures that the permittee has undertaken in satisfaction of Order WR 88-20. This reporting requirement supersedes the requirement set forth in Order WR 88-20 that the permittee submit semi-annual reports of its conservation efforts in satisfaction of that order.

5. Permittee shall implement all provisions of the Salton Sea Habitat Conservation Strategy outlined in the Final Environmental Impact Report and Habitat Conservation Strategy (SCH # 1999091142), as certified by permittee on June 28, 2002, for a period of 15 years from the date of execution of the Quantification Settlement Agreement, as defined in Senate Bill 482 (Stats. 2002, ch. 617, § 1), with the following exceptions:

   A. At a minimum, permittee shall meet the mean modeled future baseline salinity trajectory; and

   B. Permittee shall continue to implement the Salton Sea Habitat Conservation Strategy for 15 years, even if the tilapia fishery collapses before the end of the 15-year term.

6. To demonstrate compliance with the Salton Sea Habitat Conservation Strategy, permittee shall submit a plan indicating how it intends to monitor salinity and elevation of the Salton Sea. The plan shall be submitted to the Chief of the Division of Water Rights within one year of the effective date of this approval. The plan shall identify proposed locations for monitoring salinity and elevation and shall specify proposed sampling and analytical methods. The plan must be approved by the Division Chief, who may modify the plan as appropriate. If existing elevation measuring gages are not satisfactory to the Division Chief, measuring gages that are satisfactory to the Division Chief shall be installed.

The plan shall be implemented upon approval by the Division Chief. Elevation and salinity monitoring data shall be collected in a manner that allows comparison to the modeled future salinity and elevation conditions found in the Final Environmental Impact Report and Habitat Conservation Strategy (SCH # 1999091142), as certified by permittee on June 28, 2002. The data shall be collected from January 1 through December 31 of each year and shall be submitted to the Chief of the Division by March 31 of the subsequent year.

7. The SWRCB reserves continuing authority to consider whether it would be appropriate to add, delete, or modify the mitigation measures required by Conditions 5 and 6, above, in light of the results of the study on the feasibility of restoration to be prepared by the Secretary of Interior, in cooperation with the Resources Agency, the Salton Sea Authority, and the Governor of California, in accordance with the Salton Sea Reclamation Act of 1998 (Pub.L. No. 105-372 (Nov. 12, 1998) 112 Stat. 3377) and Senate Bill 482 (Stats. 2002, ch. 617, § 2).

8. Permittee shall implement the monitoring and mitigation plan for air quality outlined in pages 3-50 through 3-52 of the Final Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142), as certified by permittee on June 28, 2002. Permittee shall implement step two of the plan within six months of the effective date of this approval. Permittee shall continue to implement the plan as long as project-related air quality impacts occur.

In addition, permittee shall implement the best management practices designed to mitigate for PM10 (particulate matter, less than 10 microns in size) emissions associated with land fallowing as described in Mitigation Measures AQ-3 and HCP2AQ-6 on pages 3.7-31 and 3.7-33 of the Draft Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142) and on page 3-54 of the Final Environmental Impact Report and Habitat Conservation Plan, as certified by permittee on June 28, 2002. Permittee shall also comply with any relevant requirements of the State Implementation Plan for PM10 Emissions (SIP), as amended by the Imperial County Air Pollution Control District (ICAPCD).

Permittee shall submit an annual report to the SWRCB on actions taken during each calendar year to comply with this condition. The report for each calendar year shall be submitted to the Chief of the Division of Water Rights by March 31 of the subsequent year.

In each report, if the air quality impacts of the project are not being mitigated to less than significant levels, permittee shall identify any air quality mitigation measure that it determined was infeasible. Notwithstanding such a determination by permittee, if the Chief of the Division of Water Rights determines, after consultation with the ICAPCD, the South Coast Air Quality Management District and the California Air Resources Board, that the mitigation measure is feasible and necessary to mitigate the air quality impacts of the project, then permittee shall implement the mitigation measure.

9. Permittee shall submit an annual report to the SWRCB on the efforts of the United States Bureau of Reclamation (USBR) to implement the mitigation measures outlined in the United States Fish and Wildlife Service's Biological Opinion for the Interim Surplus Criteria, Secretarial Implementation Agreements, and Conservation Measures on the lower Colorado River, Lake Mead to the Southerly International Boundary Arizona, California and Nevada (Jan. 12, 2001). The mitigation measures include the replacement of up to 744 acres of cottonwood – willow habitat, restoration of 44 acres of backwater habitat, and the re-introduction of some native fish species to the lower Colorado River. The report for each calendar year shall be submitted to the Chief of the Division of Water Rights by March 31 of the subsequent year.

The SWRCB reserves continuing authority to require the permittee to implement any of the mitigation measures described above that are not implemented by the USBR, provided that it is feasible for the permittee to implement the measures.

10. Permittee shall implement all the provisions of the Tamarisk Scrub Habitat Conservation Strategy, the Drain Habitat Conservation Strategy, the Desert Pupfish Conservation Strategy, and the Razorback Sucker Conservation Strategy, as described in the Final

Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142), as certified by permittee on June 28, 2002.

Permittee shall be responsible for compliance with all State and federal environmental laws and any permits necessary to carry out the mitigation measures described in the conservation strategies described above.

Permittee shall submit an annual report to the SWRCB on actions taken during each calendar year to comply with this condition. The report for each calendar year shall be submitted to the Chief of the Division of Water Rights by March 31 of the subsequent year.

11. Permittee may petition the Chief of the Division of Water Rights to modify any of the mitigation measures required by this order if alternate mitigation measures are found to be equally protective, or more protective, of any species addressed in the Salton Sea Habitat Conservation Strategy, Tamarisk Scrub Habitat Conservation Strategy, Drain Habitat Conservation Strategy, Desert Pupfish Conservation Strategy, or Razorback Sucker Conservation Strategy, as described in the Final Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142), as certified by permittee on June 28, 2002.

12. Permittee, in consultation with the California Department of Fish and Game, the Regional Water Quality Control Board, Colorado River Basin Region (Regional Board), and the U.S. Environmental Protection Agency shall prepare a plan acceptable to the Chief of the Division of Water Rights to study the practices within IID that result in the concentration of selenium discharged to the Salton Sea and its tributaries, including agricultural drains used by fish and wildlife. Upon the approval of the study plan by the Division Chief, permittee shall complete the study and prepare a report summarizing the results of the study and recommending any ways to reduce selenium discharges to levels that meet water quality objectives. The study plan shall be submitted to the Division Chief for approval at least 30 days prior to commencement of the study. The study as approved by the Division Chief and the report shall be completed prior to implementation of efficiency-based conservation

measures that will save more than 25,000 afa. A copy of the study report shall be submitted to the Chief, Division of Water Rights and the Executive Officer of the Regional Board. Permittee shall work cooperatively with the Regional Board to implement any actions recommended by the report that are within the control of the permittee.

Permittee shall submit an annual report to the SWRCB on any actions taken pursuant to recommendations of the report during each calendar year. The report for each calendar year shall be submitted to the Chief of the Division of Water Rights by March 31 of the subsequent year.

13. To mitigate for the recreational and aesthetic impacts of a receding Salton Sea shoreline, permittee shall relocate or construct new recreational facilities as described in Mitigation Measures R-7 and R-10 on pages 3-6.19 through 3.6-21 in the Draft Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142) and on pages 4-7 through 4-10 in the Final Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142), as certified by permittee on June 28, 2002. Permittee also shall implement Mitigation A-1 as described on page 4-20 of the Final Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142), as certified by permittee on June 28, 2002.

Permittee shall submit an annual report to the SWRCB on actions taken during each calendar year to comply with this condition. The report for each calendar year shall be submitted to the Chief of the Division of Water Rights by March 31 of the subsequent year.

14. The SWRCB reserves continuing authority to consider whether any changes to this order may be appropriate in light of any new information that may become available if permittee revises, amends or supplements the Final Environmental Impact Report and Habitat Conservation Plan (SCH # 1999091142), as certified by permittee on June 28, 2002, before permittee approves the project under CEQA, or any substantial changes that the permittee may make to the project as part of its approval decision.

15. The SWRCB reserves continuing authority to consider whether any changes to this order to minimize or mitigate for socio-economic impacts may be appropriate in light of the evaluation and recommendations of the report to be prepared by the Resources Agency and the Technology, Trade and Commerce Agency in accordance with SB 482. (Stats. 2002, ch. 617, § 9.)

16. This order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under California's fully protected species statutes, the California Endangered Species Act or the federal Endangered Species Act (ESA). Permittee shall obtain any necessary approvals under the Fish and Game Code and the federal ESA prior to carrying out the transfer. If a "take" of a species listed as fully protected, threatened or endangered under the Fish and Game Code or the federal ESA will result from the transfer, the permittee shall obtain an incidental take permit from the Department of Fish and Game or the U.S. Fish and Wildlife Service, as appropriate, prior to carrying out the transfer.

17. No work shall commence and no water shall be diverted, stored or used under this order until a copy of a stream or lake alteration agreement between the Department of Fish and Game and the permittee is filed with the Division of Water Rights. Compliance with the terms and conditions of the agreement is the responsibility of the permittee. If a stream or lake agreement is not necessary for this permitted project, the permittee shall provide the Division of Water Rights a copy of a waiver signed by the California Department of Fish and Game.

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18. Permittee shall allow representatives of the SWRCB and other parties, as may be authorized from time to time by the SWRCB, reasonable access to project works to determine compliance with the terms of this order.

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CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 28, 2002.

AYE: Arthur G. Baggett, Jr.
Richard Katz
Gary M. Carlton

NO: None

ABSENT: None

ABSTAIN: Peter S. Silva

Maureen Marché
Clerk to the Board