CHAPTER 5
Plan Implementation and Costs and Funding

5.1 Plan Participants and Covered Persons
IID only shall receive an ITP, under Section 10(a)(1)(B) of the FESA, from the USFWS pursuant to this HCP. Similarly, IID only shall receive an ITP under Section 2081(b) of the California Fish and Game Code from CDFG pursuant to this HCP. Coverage under the ITPs shall extend to others (e.g., farmers) engaged in activities related specifically to the water conservation program, as described below under Section 5.1.2 Other Covered Persons.

5.1.1 IID’s Roles and Responsibilities
IID will have the sole responsibility for implementing the HCP. Specific duties include the following:

- Administer funds received from SDCWA pursuant to the Transfer Agreement
- Enter into water conservation agreements with willing farmers
- Implement the mitigation strategy, including the following:
  - Oversee habitat creation and management as described in Chapter 3
  - Conduct monitoring in the HCP area and of created habitats, as described in Chapter 4
  - Implement adaptive management strategies, as described in Chapter 4
  - Generate the periodic reports as described in Chapter 4
- Manage available funds to implement this HCP

5.1.2 Third-party Beneficiaries
The covered activities include installation and operation of on-farm water conservation activities and fallowing which is considered an on-farm water conservation technique. Under the water conservation and transfer programs, individual farmers would voluntarily participate in the conservation program. The method of achieving water conservation would be at the discretion of the individual farmer. Any take of covered species attributable to farmers resulting from installation or operation of water conservation measures is covered by the HCP. Furthermore, any take of covered species resulting from cessation of water conservation practices is covered. Farmers are not covered by this HCP for take of any covered species potentially resulting from other ordinary agricultural practices.

5.2 HCP Implementation Team
Under the HCP, IID will convene an HCP Implementation Team (HCP IT) consisting of representatives of the USFWS, CDFG, and IID to guide execution of the HCP over the term of the HCP. The HCP IT will be responsible for the following:
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5.2 DRAFT HABITAT CONSERVATION PLAN

• Guiding implementation of the HCP measures (e.g., identifying the location and characteristics for managed marsh habitat to be created under the Drain Habitat Conservation Strategy)

• Developing specific methodologies for survey programs and studies, and

• Adjusting the HCP measures under the Adaptive Management Program.

Specific responsibilities of the HCP IT are identified in the HCP measures contained in Chapter 3 Habitat Conservation Plan Components and Effects on Covered Species and in Chapter 4 Monitoring and Adaptive Management.

Although IID will remain responsible for complying with the terms of the HCP, the HCP IT will play an important role in the implementation of specific aspects of the HCP. For example, the HCP IT may recommend revisions to the standard minimization and avoidance measures for O&M activities in desert habitat. While the HCP IT has the authority to recommend revisions, the HCP IT will not have the power to authorize IID to implement the revised measures and remain in compliance with the HCP. Only the USFWS and CDFG can approve that future adjustments are in compliance with the HCP requirements. Because the HCP IT will be composed of representatives from the USFWS and CDFG, conflicts between the recommendations of the HCP IT and authorizing individuals of these agencies are not expected. Nevertheless, in the event of such disagreements, both CDFG and the USFWS will have veto power over any recommendations/decisions made by the HCP IT. The CDFG and USFWS have 60 days from when the HCP IT makes a recommendation or decision to veto the decision. If an HCP IT decision is vetoed, the practices being implemented prior to the decision remain in effect unless or until the HCP IT issues a decision that is not vetoed by either resource agency.

5.3 Costs and Funding

The estimated cost of implementing the HCP ranges widely depending on the ultimate amount of habitat creation necessary under the Drain Habitat and Tamarisk Scrub Habitat Conservation Strategies, and for tamarisk adjacent to the Salton Sea under the Salton Sea Habitat Conservation Strategy. Per commitments identified in the IID/SDCWA Water Conservation and Transfer Agreement and the QSA, approximately $22.5 million has been allocated for the environmental mitigation required to mitigate project impacts and to minimize the impact of the potential take of covered species. Any mitigation costs in excess of the $22.5 million estimated to minimize and mitigate project impacts could be funded through one or a combination of the following: revenue generated through conservation and transfer of water, additional funds contributed by the water agencies, and grants or funding provided by the federal and state governments.

5.4 Response to Emergencies

Occasionally IID must respond to emergency situations. Emergency activities are actions that IID must take immediately and unpredictably to repair or prevent damage to its facilities in order to prevent property damage or protect human health and safety. Emergencies are situations under which IID cannot follow the normal procedures detailed
under each of the conservation strategies (Chapter 3) to correct or prevent damage to property or risk to human health or safety. Emergency activities are most frequently required to respond to storm events or natural disaster (e.g., earthquakes) that result in damage to IID facilities (e.g. canal wash out, plugged siphon) and interrupt the distribution or collection of water.

Responding to an emergency requires IID to take immediate action. Because of the need to respond immediately in emergency situations, IID would not be able to follow the avoidance measures of HCP. These measures generally consist of surveying areas for covered species use prior to conducting construction activities and avoiding construction during sensitive time periods if covered species are present. In addition, Tree Habitat – 1 requires that construction areas be surveyed prior to construction to determine the acreage and plant species composition of vegetation that would be impacted. Similarly Desert Habitat – 5 requires a habitat survey if desert habitat would be impacted. In an emergency situation, IID would not be able to conduct the required species or habitat surveys nor schedule construction to avoid sensitive time periods. The measures IID would not be able to comply with are listed in Table 5.4-1. However, IID would be able to comply with HCP measures that specify restoration or creation of replacement habitat.

When an emergency occurs such that IID cannot comply with all of requirements of the HCP, IID will implement the following procedures.

- IID will notify the USFWS and CDFG within 24 hours of initiating emergency activities. In notifying the USFWS and CDFG, IID will describe the nature of the emergency and the actions necessary to correct the problem.

- The HCP Implementation Biologist will visit sites where emergency activities are being implemented as soon as possible. The biologist will take pictures of the damaged areas and note the general extent and species composition of any vegetation impacted by the emergency response activities. IID will use this information to restore or create replacement habitat in accordance with Tree Habitat – 1 and Desert Habitat – 3 and 5.

- For burrowing owls, the HCP Implementation Biologist will estimate the number of burrows impacted during the emergency activities based on the on-going surveys and the emergency action site visit. In accordance with Owl – 8, IID will install two burrows for every burrow permanently lost as a result of the emergency activities.

- Within one month of completing emergency actions, IID will meet with USFWS and CDFG to review the measures IID will implement to mitigate any impacts resulting from the emergency actions.
### TABLE 5.4-1

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Habitat - 1</td>
<td>For construction activities, the site will be surveyed before initiation of construction activities. If tamarisk scrub habitat occurs on the project site and would be affected by the construction activities, the acreage and plant species composition of the affected vegetation will be determined.</td>
</tr>
<tr>
<td>Tree Habitat – 3</td>
<td>For scheduled construction activities, the site will be surveyed to determine whether any covered species are potentially breeding at the site. If covered species are found, IID will schedule the construction activities that directly affect habitat to occur outside of the breeding season.</td>
</tr>
<tr>
<td>Drain Habitat – 2</td>
<td>IID will not dredge the river deltas between February 15 and August 31.</td>
</tr>
<tr>
<td>Desert Habitat – 3</td>
<td>Prior to initiating construction activities, the HCP Implementation Biologist will conduct a habitat survey of the construction area and adjacent areas. IID will implement the species-specific minimization and avoidance measures contained for the species identified by the biologist as potentially occurring at the construction site. A biological monitor will be on-site during construction activities or exclusion fencing will be erected to keep covered species out of the construction area. The construction area will be clearly flagged prior to the start of construction activities and all construction activities will be confined to the demarcated area.</td>
</tr>
<tr>
<td>Owl – 5</td>
<td>Prior to replacing facilities or constructing new facilities, workers will coordinate with the HCP Implementation Biologist. The biologist will determine if burrows occupied by burrowing owls would be filled or collapsed by the required work. If occupied burrows would be affected, the work will be scheduled to occur during October through February. Prior to conducting the work, the HCP Implementation Biologist will ensure that owls are not present in the burrows.</td>
</tr>
<tr>
<td>Owl – 8</td>
<td>For activities that would permanently eliminate burrows suitable for burrowing owls, IID will determine if owls are currently using burrows that would be impacted. If owls are using burrows that would be impacted, IID will conduct the activity during October through February and prior to the start of the activity, the HCP Implementation Biologist will ensure that owls are not present in the burrows.</td>
</tr>
<tr>
<td>Pupfish – 5</td>
<td>For construction activities (i.e., in-channel modifications) that directly affect pupfish drains, IID will gradually dewater the affected drain segment. IID will ensure that a person qualified to capture and handle pupfish and that meets the approval of the USFWS and CDFG will be present during the dewatering process to salvage and transport any pupfish stranded in the affected portion of the drain. Salvaged fish will be transported to a safe location downstream of the construction site or to a location determined by the HCP Implementation Team.</td>
</tr>
<tr>
<td>Sucker – 1</td>
<td>IID will salvage any razorback suckers found stranded in the dewatered portions of canals. Salvaged fish will be transported to the Colorado River.</td>
</tr>
</tbody>
</table>
5.5 Changed and Unforeseen Circumstances

5.5.1 The No Surprises Rule

The No Surprises Rule, published as a final rule on February 28, 1998 (63 FR 8859), generally provides that, as long as the HCP is properly implemented, the federal government will not require additional land, water, or money from the permittee in the event of unforeseen circumstances. Also, any additional measures to mitigate reasonably foreseeable changed circumstances will be limited to those changed circumstances specifically identified in the HCP and only to the extent of the mitigation specified in the HCP.

The No Surprises Rule has the following two major components:

- **Changed Circumstances**: USFWS regulations (50 CFR 17.32) state that “If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and were provided for in the plan's operating conservation program, the permittee will implement the measures specified in the plan. If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and such measures were not provided for in the plan's operating conservation program, the Director will not require any conservation and mitigation measures in addition to those provided for in the plan without the consent of the permittee, provided the plan is being properly implemented.”

- **Unforeseen Circumstances**: USFWS regulations (50 CFR 17.32) state, in part, that “In negotiating unforeseen circumstances, the Director will not require the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed upon for the species covered by the conservation plan without the consent of the permittee. If additional conservation and mitigation measures are deemed necessary to respond to unforeseen circumstances, the Director may require additional measures of the permittee where the conservation plan is being properly implemented, but only if such measures are limited to modifications within conserved habitat areas, if any, or to the conservation plan's operating conservation program for the affected species, and maintain the original terms of the conservation plan to the maximum extent possible. Additional conservation and mitigation measures will not involve the commitment of additional land, water or financial compensation or additional restrictions on the use of land, water, or other natural resources otherwise available for development or use under the original terms of the conservation plan without the consent of the permittee. The Director will have the burden of demonstrating that unforeseen circumstances exist, using the best scientific and commercial data available.”

For the purposes of this HCP, changed circumstances are those changes affecting a species or geographic area covered by an HCP that can reasonably be anticipated and planned for by IID and the USFWS at the time of preparation of the HCP. Unforeseen circumstances refer to changes that could not reasonably have been anticipated by IID and the USFWS at the time the HCP was developed and negotiated, and that result in a substantial and adverse change in the status of a species covered by the HCP. The USFWS bears the burden of demonstrating that unforeseen circumstances exist, using the best available scientific and commercial data available, and considering certain specific factors.
Consistent with the No Surprises Rule and long-established agency practice, the HCP Implementation Agreement includes provisions restricting the authority of the USFWS and CDFG to require additional mitigation measures from IID to provide for the conservation of the covered species.

### 5.5.2 Changed Circumstances

In discussions with USFWS and CDFG, IID identified several circumstances under which changes could occur during the term of the ITP that would result in a substantial and adverse change in the status of a species covered by the HCP. These relate primarily to circumstances that influence IID’s ability to carry out its obligations 1) on managed marsh and native tree habitats created and managed for mitigation, 2) in habitats supported by IID water (e.g., pupfish drains), and 3) in habitats acquired and managed for mitigation. These circumstances include:

- Seismic activity that affects IID’s conveyance and drainage infrastructure and/or its ability to deliver or drain water
- Storm events that result in damage to IID infrastructure and substantial flooding
- Toxic spills that influence operations or directly affect species and habitat
- Introduction and invasion by exotic plant or animal species that affect covered species or their habitat
- Drought conditions in the Colorado River basin that influence the availability of water in the Imperial Valley

The potential for each of these circumstances is reasonably foreseeable. IID’s strategy for addressing each of these is described below.

#### 5.5.2.1 Earthquake

Because of its proximity to several faults, the Imperial Valley lies within a very seismically active area. The most recent surface ruptures in the valley occurred on October 15, 1979 (Mw 6.4) and on May 18, 1940 (Mw 6.9). During these events, IID sustained damage to the concrete lined portions of its system; however, IID’s ability to deliver and drain water was not significantly affected. Earthquakes of the magnitude of the 1979 quake are anticipated to occur at a frequency of 30 to 40 years, whereas earthquakes of the magnitude of the 1940 event may occur only every 700 years. Because of the projected low frequency of a 6.9 magnitude earthquake in the valley, IID does not anticipate an event of greater magnitude during the term of the HCP.

The potential for an earthquake to cause a changed circumstance stems primarily from the possibility of a canal rupture or blockage that impairs IID’s ability to deliver or drain water locally. This could potentially inhibit IID’s ability to deliver water to the managed marsh and tree habitat mitigation sites over the short term or adversely influence conditions in the drains that support pupfish. In the event that an earthquake ruptures canals or drains, IID will implement the emergency measures described above in Section 5.4. These measures are intended to address repairs as quickly as possible and to mitigate potential habitat losses associated with those activities. Because IID’s primary business is delivering irrigation...
water for agriculture in the Imperial Valley, it has a strong incentive to repair damage and restore deliveries as quickly as possible. IID will give managed marsh and tree habitat mitigation sites and pupfish drains the same priority as the most sensitive crops when restoring service to affected areas.

In addition to the potential consequences of earthquake on mitigation sites and pupfish, the repair of earthquake damage along canals (including concrete lining) and drains could affect burrowing owls. Actions taken by IID to repair damage to canals and drains will be carried out according to the emergency measures described in Chapter 3. In addition to these measures, which address the direct effects of emergency repair activities, the HCP Implementation Team will have access to a contingency fund allocated specifically to remedy adverse changes in the status of the burrowing owl population (for any reason) in the HCP area as evidenced by the population monitoring program for this species.

Since IID began operations, water conveyed through the AAC and its major canals has not been disrupted due to earthquake, and IID does not anticipate that earthquakes of the magnitude reasonably expected during the term of the HCP would significantly affect IID’s ability to deliver water, nor would they cause damage that would result in the change of the status of a covered species. In addition, IID anticipates that any local disruptions in water delivery or damage to the system can be corrected and mitigated (if necessary) under the emergency measures of the HCP. Therefore, any changes in a species status resulting from long-term disruption of flow in the AAC or IID’s major canals due to earthquake is considered an unforeseen circumstance.

5.5.2.2 Flood

On average, the Imperial Valley receives just over three inches of precipitation annually and the potential for major flooding is low. Nonetheless, intense storms occasionally result in local flooding and damage to IID canals and drains. These flood events typically are short in duration, and are not expected to result in a change in the status of a covered species. Flood damage to IID facilities (e.g., canals and drains) will be addressed and mitigated by the emergency measures described above in Section 5.4. A storm related flood event of sufficient magnitude to change the status of a covered species is not a reasonably foreseen event, and thus is considered an unforeseen circumstance.

5.5.2.3 Exotic Species

Invasive exotic plant species, such as tamarisk, are common in the agricultural areas of the Imperial Valley. These exotic species, as well as other unwanted vegetation, are routinely controlled by various means in the irrigated areas by farmers and IID. An invasion of exotic species could impair IID’s ability to maintain its mitigation lands and habitats or reduce the suitability of these areas to covered species if left unmanaged. Weed control will be an integral element of the management plans developed with the HCP IT for each of the mitigation sites. Therefore, IID anticipates that the potential for exotic or competing plants to adversely affect habitat and covered species is very low and that reasonable outbreaks will be addressed by the current measures identified in the HCP. In the event that an exotic plant species is introduced that cannot be controlled by conventional means, IID will notify USFWS and CDFG, and work with the HCP IT to develop an appropriate corrective
strategy. These activities will be coordinated with, comparable to, and conducted on a scale similar to the efforts conducted on similar habitats managed by area refuges.

In addition to the possibility of invasive plants affecting habitat and covered species, introduced animal species have the potential to influence the status of covered species over the term of the HCP. Introduced animals that prey upon or compete with covered species could influence the persistence and survival of covered species in the mitigation sites and the HCP area. If the introduction of an exotic species creates a circumstance that adversely affects a covered species, IID will work with the USFWS, CDFG, and HCP IT to develop a strategy for reducing the effects of that species’ introduction. Actions could include modifying the management of mitigation lands to discourage the use by exotic species, implementing control measures, or developing educational materials for IID workers and farmers. Any activities conducted by IID in response to an exotic species must be conducted within the original operating budget for the HCP.

5.5.2.4 Drought

As previously described, agricultural production in the Imperial Valley is supported by irrigation and is not dependent on natural rainfall. Similarly, the managed marsh and native tree habitat mitigation sites, and flows in the pupfish drains are supported by water from the Colorado River. While drought in the conventional sense is not a foreseeable concern in the valley, long-term drought conditions in the Colorado River Basin could produce occasional reductions in water supplies that could affect IID’s ability to fully deliver water to some or all of its customers. Such an event has not occurred since IID began operation. In the unlikely event that water supplies from the Colorado River were reduced, IID would continue to give the mitigation sites and pupfish drains priority in water delivery. Given the amount of water necessary to support these mitigation and habitat areas relative to the agricultural needs in the valley, IID could easily continue to deliver water to the mitigation lands and the drains that support pupfish.

Over the history of IID’s operation, agricultural users in the Imperial Valley have not lost crops nor changed cropping patterns due to the unavailability of irrigation water. This is due in large part to the storage capacity of water projects on the Colorado River, the reliability of IID’s delivery infrastructure and the seniority of IID’s water rights. Although local water deficiencies could occur, changes in water availability sufficient to change the status of a covered species are not expected. Therefore, circumstances where insufficient water availability precludes delivery of water to mitigation sites and existing habitat or substantially changes cropping patterns are not reasonably foreseeable and are considered unforeseen circumstances.

5.5.2.5 Disease

Various avian diseases (e.g., avian botulism) are common in the Imperial Valley, and USFWS and CDFG maintain ongoing programs to monitor and control disease outbreaks in the Salton Sea area. Managed marsh habitat created and managed by IID as mitigation associated with the HCP likely will attract waterfowl and other birds susceptible to these diseases. As part of its ongoing management of these sites, IID will monitor the open water areas for dead and sick birds, and coordinate the removal and disposal of dead and dying birds with the refuges and the Salton Sea Authority. During periods of severe outbreaks, IID
will work with the HCP IT to modify its water management practices in the mitigation sites or implement other measures to reduce the potential for infection. The removal and disposal of dead birds and adjustments in water management were incorporated in the budgets allocated for the managed marsh mitigation. Additional activities to reduce disease outbreaks will be conducted to the extent the operating budget allows.

5.5.2.6 Toxic Spills

Toxic materials (e.g. anhydrous ammonia, diesel, and pesticides) are frequently transported or used in the Imperial Valley to support agriculture. Although the likelihood of a toxic spill changing the status of a covered species is remote, a spill occurring in a canal or drain could have broad effects on covered species and habitat. In the event of a spill in a canal that conveyed water to one of the mitigation sites, IID will take immediate action to minimize the migration of the material from the spill site and prevent movement of the material into the mitigation site (e.g., close delivery gates). IID will notify USFWS and CDFG, and work with the HCP IT to develop a plan for restoring water to the affected site. The timing and mechanism for restoring water will be determined by IID and the HCP IT in consideration of the characteristics of the spill and the type of material released.

The accidental release of a toxic material into a drain that supports pupfish will be treated in a manner similar to spills in canals. IID will take actions to minimize the downstream impact of the material in the drain and notify USFWS and CDFG immediately. These actions may include opening spill gates from laterals to the drain to dilute as much as practicable the concentration of the toxic substance within the drain flow. IID and the HCP IT will develop a course of action based on the specific circumstances of the event. Any activities conducted by IID in response to toxic spills must be conducted within the original operating budget for the HCP.

5.5.3 Unforeseen Circumstances

There are various, reasonably foreseen events that have the potential to affect the status of a covered species or influence IID’s ability to meet its obligations under the HCP. A strategy for responding to potential changed circumstances associated with these events is outlined above. All circumstances not described above that would result in a change in the status of a covered species or additional impacts on the covered species not addressed by the HCP are considered unforeseen.

Based on its operation history, IID considers any event that disrupts delivery of water through the AAC, East Highline, Westside Main, or Central Main canals for a sufficient duration to cause a change in the status of a covered species to be an unforeseen circumstance. In addition, all projections of Salton Sea elevation indicate a reduction over the term of the HCP. These projections take into consideration a reasonable range of hydrologic conditions, and a change in hydrology that results in an increase in elevation of the Salton Sea is not anticipated. Therefore, impacts on habitat for covered species and created mitigation sites resulting from an increase in the elevation of the Salton Sea is an unforeseen circumstance.