

those observed in recent history. While the action agencies are clearly aware of the historic and existing conditions of the Salton Sea, they choose to utilize a faulty predictive model for the environmental baseline, in violation of both the California Environmental Quality Act and the National Environmental Policy Act. (§§3.1.3, 3.2.3).

The model utilized by the DEIR/EIS and DHCP is selective in the elements that it embraces and those that it excludes. The extrapolative baseline focuses on elements that exaggerate the potential for decline in the elevation of the Salton Sea and the increase of the contamination of the Sea's water sources, but fails to consider potential activities that could benefit the Sea, such as the variety of activities proposed for Salton Sea restoration. By presenting a picture of a doomed Salton Sea, the DEIR/EIS establishes a fallacious baseline that eases the burden of mitigating the environmental consequences of the Project.

T1-16

The most obvious error incorporated into the baseline model is the prediction that IID will not be able to continue to use water at or above its historic level of use. IID's recent usage has been 2.93 million acre-feet per year. The Quantification Settlement Agreement will allow IID to use up to 3.1 million acre-feet per year. This means that IID has the leeway to transfer 170,000 acre-feet per year before even beginning to conserve water. Therefore, IID will be able to provide more than half of the "conservation water" contemplated by the various water transfer agreements before any effects would be felt at the Salton Sea due to a reduction in IID's use and the accompanying inflows to the Sea. Overall, the implication is that the quantity and quality of the Salton Sea will continue to decline at an exceedingly rapid rate without implementation of the Project. This unsubstantiated implication eases the burden of the action agencies improperly, and creates an unacceptable excuse for the United States to ignore impacts to Tribal trust assets.

T1-17

The DEIR/EIS also predicts that without implementation of the Project, the level of the Salton Sea will drop from its current elevation of -228' to -235'. The DEIR/EIS then proceeds to rely upon the -235' elevation as the baseline for environmental impact analysis. This is done despite the fact that the Salton Sea level has remained reasonably steady at -227' over the last ten years. By adopting the -235' elevation for the baseline analysis, the DEIR/EIS and DHCP avoid the need for the action agencies to mitigate the environmental impacts of the interim drop of 7 feet in the elevation of the Salton Sea.

T1-18

Salton Sea Water Quality

The erroneous use of predictive models for an environmental baseline is described in the DEIR/EIS itself. (3.1-92, 3.1-93). Prediction of increasing salinity, pesticide and herbicide levels through the life of the Project are utilized for the DEIR/EIS baseline, rather than existing conditions. For example, the baseline salinity level of 879 mg/L at Imperial Dam is considerably higher than the 771 mg/L average of salinity levels at Imperial Dam between 1987 and 1999. This predicted increase in salinity levels is adopted without regard for salinity control efforts such as those proposed by the Salton Sea Restoration Project or currently being implemented by the Colorado River Basin Salinity Control Program. The discussion of the levels of dissolved solids in the Salton

Response to Comment T1-17

Please refer to the Master Response on *Hydrology—Development of the Baseline* in Section 3 of this Final EIR/EIS.

Response to Comment T1-18

Please refer to the Master Responses on *Hydrology—Development of the Baseline* and *Biology—Approach to Salton Sea Habitat Conservation Strategy* in Section 3 of this Final EIR/EIS. In addition, the following detailed information is offered:

A draft paper titled "EFFECT OF SALT PRECIPITATION ON HISTORICAL AND PROJECTED SALINITIES OF THE SALTON SEA: SUMMARY COMMENTS FROM WORKSHOP AT UC (RIVERSIDE)" (2001) summarizes joint expert opinions relative to salt precipitation and/or biologic reduction within the Salton Sea. This paper is the basis for the 0.7 to 1.2 million tons per year adjustments to salinity within the Salton Sea Accounting Model. The workshop participants and panel experts made no conclusions relative to future increases in parameters such as the salinity of the Salton Sea. In addition, there are no other known scientific investigations pertinent to this issue. As a result, there is no available scientific basis for precipitation increase and/or reduction as salinity rises in the future within the Salton Sea Accounting Model.

Sea Accounting Model utilized for the DEIR/EIS acknowledges that there is a wide range in the potential amount of salt precipitation and biological reduction of sulfates in the Sea. Nonetheless, the DEIR/EIS and the DHCP do not attempt to incorporate these future reductions in salinity, instead adopting a dramatic prediction that salinity levels will reach 60 g/L by 2025. (3.0-16).

T1-18

Another critical element that is omitted from the predictive baseline is the foreseeable change in water quality standards. The EPA has informed the action agencies that it anticipates revision of the selenium aquatic life criteria to a level of 2ug/L. (EPA Comments on the QSA DPEIR, April 16, 2002, p. 3). This is vital information to include in any predictions of environmental impacts as the selenium levels at the New River and Alamo River outlets to the Salton Sea already exceed the current standard of 5ug/L (3.1-56). Also ignored is the ongoing development of beneficial use criteria, water quality standards and TMDLs by the Tribe and other members of the Coachella Valley Tribal Consortium.

T1-19

Also omitted from DEIR/EIS analysis is any potential for mitigation of excessive selenium levels. The DEIR/EIS claims that selenium levels cannot be mitigated (3.1-11), completely ignoring any potential utilization of anaerobic, microalgal, or chemical selenium removal, or potential methods of alternative drainage management. It also ignores the potential impacts of the DHCP's mitigation approach 2, to utilize conserved water to maintain Salton Sea levels, which could also be used to dilute flows in the New River and Alamo River.

T1-20

Finally, the predictions of contaminant levels in the Salton Sea are meaningless without a firm decision of how water is to be conserved within IID. Without that information no reasonable analysis can be made of the DEIR/EIS or the DHCP, rendering them invalid decision-making tools. The degree to which on-farm and conveyance system efficiencies and fallowing are used to conserve water will vary the level of salts, selenium and other contaminants in the water that eventually reach the Salton Sea and the Reservation. In addition, where different types of conservation water are transferred will also affect the level and type of contaminants that impact the Salton Sea. The DHCP itself recognizes the inherent impossibility of accurately predicting the salinity levels of the Salton Sea based on the operational parameters developed to date. (3-7, 3-8).

T1-21

Rather than coming to the honest conclusion that reasonable contaminant levels can not be accurately ascertained, the DHCP draws the unsubstantiated and speculative conclusion that, "the differences between the salinity projections with implementation of the water conservation and transfer programs and the baseline would not be expected to change substantially." (3-8). This incredible inference that salinity levels will not substantially differ with or without the implementation of the Project is used to support an number of biologic conclusions, creating a domino effect of unreliability within the analysis of the DHCP and the DEIR/EIS.

Response to Comment T1-19

Please refer to the Master Response on *Hydrology—Selenium Mitigation* in Section 3 of this Final EIR/EIS.

Response to Comment T1-20

Please refer to the Master Response on *Hydrology—Selenium Mitigation* in Section 3 of this Final EIR/EIS.

Response to Comment T1-21

As noted by the commenter, the salinity trajectory of the Salton Sea will be influenced by how water conservation is achieved. The EIR/EIS and HCP present and encompass the range of salinization rates that could occur at various levels of conservation and through various methods of conservation. The Salton Sea Habitat Conservation Strategy is designed to address the worst case but is flexible enough to be applicable to the range of conservation levels and methods that could be employed. The presentation of salinity projections for the Salton Sea and associated discussion contained in Section 3.3.2.1 of the HCP also has been revised to include confidence intervals of salinity levels to show the range of potential impacts (see Attachment A in this Final EIR/EIS).

The commenter appears to have misinterpreted the statement "the difference between the salinity projections with implementation of the water conservation and transfer programs and the baseline would not be expected to change substantially." This statement is not intended to mean that there is no difference in the salinity projections under the Baseline and the Proposed Project. Rather, it indicates that while there is a difference in the salinity trajectories of the baseline and the Proposed Project, the magnitude of the difference would stay the same in consideration of other factors because other factors would act equally on the Baseline and the Proposed Project.

Fish and Wildlife Resources

The DEIR/EIS and DHCP fail to adequately consider the impacts from the accelerated lowering of the Salton Sea and accompanied increase in contaminant levels to the over 400 bird species, 27 mammal species, and five reptile and amphibian species that rely on the Salton Sea. These fish and wildlife populations include 58 species classified by the U.S. federal government as sensitive. Most significantly 25 to 40% of the Yuma clapper rail U.S. population, half of the California population of snowy plover, 80 to 90% of the entire population of American white pelicans, and the second largest population of wintering white-faced ibis utilize the Salton Sea.

T1-22

The discussions of impacts to the Salton Sea inadequately describe the massive die-off events of both fish and birds that will be caused by the accelerated eutrophication of the Sea caused by the Project. More significantly, the DEIR/EIS disposes of the need to mitigate the predictable extirpation of all fish in the Salton Sea by claiming that all fish in the Sea are introduced, non-natives. (3.2-150). This approach is flawed in two aspects. First, the fish that currently exist in the Salton Sea attract more than 400,000 fishermen every year, injecting millions of dollars into the local, low-income economies. The DEIR/EIS itself estimates the economic impact of the Project to be -\$790 million. (3.14-24). Therefore, the destruction of the Salton Sea's fisheries will create significant economic and social justice effects. Second, the Salton Sea supports the native endangered desert pupfish. The Tribal concerns regarding the suspect mitigation plans for the desert pupfish, discussed above, are only heightened by the claim that the loss of the Salton Sea fisheries is less than significant. (3.2-150). Additionally, there is no discussion of mitigation for the odor and airborne disease impacts that will accompany the die-off of the Salton Sea's fisheries.

T1-23

T1-24

T1-25

The DHCP touches upon the impacts to bird habitat, such as the loss of shoreline habitat and the exposure of land bridges to island rookeries, but fails to adequately provide mitigation strategies for these impacts. For example, there is no meaningful discussion of the impacts that will be felt by the thousands of shorebirds that rely on the Salton Sea as existing shoreline habitat is destroyed by recession of the waterline and the quality and slope of the shoreline becomes altered. Moreover, there is no mitigation strategy presented for the needs of shoreline birds, as the small fishponds will not be able to mimic required shoreline conditions.

T1-26

Given the above-described inadequacies of the DEIR/EIS and DHCP, the Tribe clearly cannot concur with the conclusion that there will be no significant impacts to biological resources after mitigation. (ES-1).

Air Quality

The DEIR/EIS and HCP fail to recognize the Project's likely air quality impacts and do not provide adequate mitigation options. The air quality at the Salton Sea already exceeds both national and state ambient air quality standards. (3.7-6). Therefore the finding of the DEIR/EIS that the air quality impacts predicted to arise from exposure of up to 78 square miles of shoreline would be a significant impact is correct. However, the DEIR/EIS is incorrect in asserting that this will be an unavoidable impact. First, this

T1-27

Response to Comment T1-22

The HCP has been revised to include more detailed evaluations of the impact of the Proposed Project and the effects of the mitigation on special-status species. The EIR/EIS references the species-specific evaluations contained in the HCP where appropriate.

The evaluation of impacts to biological resources of the Salton Sea is based on assessing changes in the values provided by the Sea and subsequently how groups of species using these values could be affected. For example, shorebirds are addressed in the evaluation of changes in invertebrate resources of the Salton Sea and changes in the extent of mudflat and shallow water habitat. An evaluation of the effects of the Proposed Project on each species individually is not necessary to disclose the nature and magnitude of the Project's impacts on biological resources or to determine their significance.

Response to Comment T1-23

Please refer to the Master Response on *Biology—Approach to the Salton Sea Habitat Conservation Strategy* in Section 3 of this Final EIR/EIS.

Response to Comment T1-24

The approach to addressing potential impacts to piscivorous birds at the Salton Sea was revised (see Master Response on *Biology—Salton Sea Habitat Conservation Strategy* in Section 3 of this Final EIR/EIS). Under the revised approach, IID would offset reductions in inflow to the Sea resulting from water transfer by supplying water to the Sea. This approach would result in the maintenance or reduction in salinity relative to the Baseline until the year 2030 and provide an overall benefit to the sport fish in the Sea. Also, see response to Comment T1-14.

Response to Comment T1-25

As stated in the Draft EIR/EIS, odors in the Salton Sea are most likely primarily associated with the effects of eutrophication. Eutrophication occurs as a result of nutrient inflows from agricultural drainage. In this process, algae production is limited by the availability of phosphorus. When the algae respire, dissolved oxygen is consumed from the Sea. Dissolved oxygen deficits are thought to be responsible for fish die-offs

Response to Comment T1-25 (continued)

which contribute to odor problems at the Salton Sea. Decomposition and sulfate reduction processes are also likely contributors to odors. TMDLs for phosphates in the New and Alamo Rivers are expected to be proposed to reduce loading of phosphates in the Salton Sea. Implementation of these TMDLs could be expected to result in reduced odor occurrences. See Master Response on *Hydrology—TMDLs* in Section 3 of this Final EIR/EIS.

With the Proposed Project, implementation of the Salton Sea Habitat Conservation Strategy will maintain Baseline inflows into the Sea until about 2035. Depending on the source water used for mitigation water, the loading of phosphates could remain the same as the Baseline or be improved. After 2030, when IID's obligation to maintain salinity levels in the Salton Sea at Baseline conditions ceases, inflows to the Salton Sea will fall below Baseline levels. At that point, unless a Restoration Project has been successfully implemented, it is expected that the fishery will have ceased to reproduce and will no longer exist. Thus odors from fish die-offs will not be a factor. Also, after 2035, inflows to the Sea will be reduced, also reducing the loading of phosphorus into the Salton Sea. Although the Sea will be decreasing in size at the same the time flows are reduced, the effects of the implementation of the TMDLs could result in an improved condition in terms of the loading of TMDLs in relationship to the amount of water in the Sea.

Given the complexity of the interrelationship of phosphate inputs, water quantity and water quality, it is not possible to quantify a change in odor that could be expected from implementation of the Project. However, compared to the existing condition and projected ongoing eutrophication conditions at the Salton Sea, the effects of the Proposed Project on odors is expected to be less than significant, as stated in the Draft EIR/EIS.

Response to Comment T1-26

The HCP only addresses impacts to the 96 species that are proposed for coverage in the incidental take permits. Impacts from changes in shoreline habitat and creation of land bridges are evaluated for covered species, and appropriate mitigation is included in the Habitat Conservation Strategies. Impacts of the Proposed Project on species of shorebirds and colonial nesting birds that are not covered species in the HCP are addressed in Impacts BR-49 and BR-48, respectively, in the Draft EIR/EIS (Section 3.2).

Response to Comment T1-27

Please refer to the Master Response on *Air Quality—Salton Sea Air Quality Monitoring and Mitigation Plan* in Section 3 of this Final EIR/EIS.

assumes that the second mitigation approach in the DHCP of maintaining Salton Sea elevations with conserved water will not be pursued, enhancing the appearance that the DHCP analysis is unreliable. (3.7-36). Second, this analysis fails to consider mitigation strategies such as planting of vegetative groundcover or the use of shallow flooding.

T1-27

The quantity of air quality impacts is not approximated by the DEIR/EIS, apparently because the soils have not yet been exposed. (3.7-34). The DEIR/EIS relies on the assumption that a saline crust covering would form over newly exposed lands, minimizing fugitive air emissions. However, the massive air emissions experienced at the Owens dry lakebed undermines this hypothesis. The DEIR/EIS provides some discussion that attempts to distinguish the Salton Sea scenario from the Owens lake experience, however this discussion is speculative at best and is not founded on any study of the potential durability or sustainability of crust formation at the Salton Sea. The DEIR/EIS concludes that the crust would not be disturbed by human activity, such as agricultural or other activities that the DEIR/EIS suggests the Tribe might engage in, such as development of newly exposed resources. This internal inconsistency brings into question both the finding of no significant impact to Tribal assets and the analysis of fugitive air emissions. Given the reliance of the DEIR/EIS on assumptions about the quality and characteristics of the sediments to be exposed by the Project, it is imperative that meaningful data is collected, studied and evaluated, and reliable conclusions are issued regarding both the potential for fugitive air emissions and the potential that the exposed land may be used for any specific use before the EIR/EIS is finalized and approved.

T1-28

Environmental Justice

The DEIR/EIS and DHCP currently violate Executive Order 12898 due to a complete lack of analysis of the disproportionate impacts to low income and minority populations, such as the Tribe. As discussed above, the DEIR/EIS and DHCP do not consider the tremendous environmental, economic and cultural harm the impact of the massive fish and wildlife die-offs will have on the Tribe. The Tribe has deep cultural, religious, and natural resource management connection with the Salton Sea, its shoreline and attendant habitat and with the creatures that utilize those areas. The Tribe would be severely impacted by their demise.

T1-29

Distributive Justice

The DEIR/EIS and DHCP also violate Joint Secretarial Order No. 3206. That Order was implemented to ensure that the Departments of Interior and Commerce carry out their duties, "in a manner that...strives to ensure that Indian tribes do not bear a disproportionate burden for the conservation of listed species." (S.O. 3206, §1). The principle underlying Secretarial Order 3206, often referred to as distributive justice, sets forth the concept that those who benefit from the actions that jeopardize the survival of species should be the ones held responsible for implementing conservation measures to ensure their survival.

T1-30

In their current state, the DEIR/EIS and the DHCP present the potential to encourage federally listed species to seek refuge from the Project's environmental consequences on

Response to Comment T1-28

Please refer to the Master Response on *Air Quality—Salton Sea Air Quality Monitoring and Mitigation Plan* in Section 3 of this Final EIR/EIS.

Response to Comment T1-29

Please refer to the Master Response on *Biology-Approach to Salton Sea Habitat Conservation Strategy* in Section 3 in this Final EIR/EIS. In addition, the previous Draft EIR/EIS has been revised to address this and other comments on Environmental Justice and ITAs. These changes are indicated in subsections 3.15 and 3.8, respectively, under Section 4.2, Text Revisions of this Final EIR/EIS.

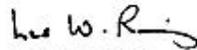
Response to Comment T1-30

Impacts to habitats and associated wildlife species in the Imperial Valley would be mitigated under the HCP through creation of additional habitat or protection of existing habitat. This additional habitat creation and protection would serve to offset any habitat losses in the Imperial Valley that occur as a result of the covered activities, including water conservation and transfer. For example, under the Drain Habitat Conservation Strategy, an acreage of managed marsh equivalent to the total acreage of existing vegetation in the drains would be created. Because no substantial changes in the extent of vegetation in the drains is expected, the Drain Habitat Conservation Strategy is expected to increase the amount of habitat in the Imperial Valley for species associated with drain habitat. As the HCP would compensate for lost habitat value for habitats in the Imperial Valley, the occurrence of special-status species on the Reservation would not be expected to change.

the Torres-Martinez Indian Reservation. Moreover, the significant impacts to the water quality and quantity of the Salton Sea, described above, increase the likelihood that the survival of additional species, which currently occupy the Reservation or may be pushed onto the Reservation by the Project's impacts, will become jeopardized. The foreseeable need to propose and list additional species due to the environmental consequences of the Project is contrary to the Secretarial Order's mandate that agencies of the Departments of Interior and Agriculture take affirmative steps to promote healthy ecosystems and Indian self-government. (S.O. 3206, §3). Rather, the DEIR/EIS and DHCP present the real possibility that Tribal self-government will be hampered by the increased presence of proposed, candidate and listed species on the Reservation and the associated conservation burdens, and that the Tribe may become, by default, liable for the consequences of Project.

Thank you for considering these comments. Please do not hesitate to contact me to discuss these issues in greater detail.

Sincerely,



Les W. Ramirez
Special Counsel for Water Resources &
Environmental Affairs



COLORADO RIVER INDIAN TRIBES
OFFICE OF THE ATTORNEY GENERAL

**Letter - T2. Colorado River Indian Tribes Office of the
Attorney General. Signatory - Eric N. Shepard.**

April 26, 2002

VIA FACSIMILE



Mr. Bruce D. Ellis
Bureau of Reclamation
Phoenix Area Office
P.O. Box 81169
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Mr. Elliston Grubaugh
Manager of Resources, Management,
and Planning Department
Imperial Irrigation District
P.O. Box 937
Imperial, CA 92251

Re: Comments on Draft EIR/EIS for the Imperial Irrigation District Water
Conservation Plan and Transfer Project and Draft Habitat Conservation Plan

Dear Mr. Ellis and Mr. Grubaugh:

The Colorado River Indian Tribes (CRIT) hereby submit the following comments on the Draft EIR/EIS for the Imperial Irrigation District Water Conservation Plan and Transfer Project and Draft Habitat Conservation Plan. CRIT's comments focus the impacts of the proposed transfer on the reservation environment and power production at Headgate Rock Dam.

Environmental Impacts

If the proposed transfer is implemented, annual stream flows through the CRIR will be reduced by as many as 388,000 acre-feet. As the Draft EIR/EIS states, the proposed transfer will impact CRIT's biological resources within the riparian corridor. (Chapter 3.2). This area includes the 'Ahakhav Tribal Preserve and several of CRIT's proposed restoration areas. The projected impacts to the riparian corridor include reduction in the area of open water and emergent vegetation, drops in groundwater levels, and potential impacts on riparian vegetation. (Chapter 3.2). These findings were based upon the Biological Assessment (BA) prepared by the BOR and referred to throughout the Lower Colorado River (LCR) analysis of the Draft EIR/EIS.

While CRIT agrees that the transfer will impact biological resources in the riparian corridor; CRIT does not believe the magnitude of these impacts has been fully identified, quantified and

evaluated. Specifically, CRIT is concerned about the scope of the Draft EIR/EIS and the impacts of the transfer on groundwater.

T2-1

CRIT strongly believes that the Draft EIR/EIS should model the combined effect of the transfer and the maximum projected effects of the Inadvertent Overrun and Payback Policy (IOP). The IOP includes a schedule for paybacks of inadvertent overruns to the River. The maximum payback amount in a given year is 176,000 af under the dEIS prepared by the BOR. When the historic pattern of water use by California is considered, we believe that it is highly likely that inadvertent overruns will occur. Therefore, the biological impacts of the proposed transfer have not yet been completely modeled.

T2-2

In addition, the analysis of biological impacts in the Draft EIR/EIS is based on an average reduction of surface water elevation of up to 4.48 inches (p. 3.2-104). The use of an average to project biological impacts is problematic, as it does not address the specific issues of amount, duration, frequency, and timing of extreme low-flow conditions. The final EIS should contain an analysis of daily flows, water surface elevations, and elevation-duration-frequency analyses for the areas between Parker and Imperial Dams.

T2-3

Furthermore, current groundwater conditions should be accurately mapped in order to adequately assess the impact of the transfer and IOP on groundwater. Groundwater elevations are expected to drop a maximum of 4.4 inches (p. 3.9-18). Cottonwood and willow trees as well as marsh vegetation are more susceptible than other riparian plants (p. 3.9-18). More information is needed in order to more accurately assess the biological impacts of a drop in groundwater elevation. For example, accurate groundwater maps and data regarding changes in groundwater elevation will allow for more specific projections of the acreage and location of impacted cottonwood/willow land cover. If a baseline of groundwater elevations is established it could then be correlated with existing cottonwood/willow habitat and also proposed mitigation sites. Correlations between stand condition and depth to groundwater could also be established. Cottonwood/willow habitat is sensitive to groundwater changes and would be useful as an indicator of the biological impacts of the transfer and IOP. Monitoring of cottonwood/willow habitat could be incorporated into a comprehensive research and monitoring program. Such a program would enable mitigation to be more effectively planned and implemented.

T2-4

Several cottonwood/willow restoration projects have been established on CRIT land. Average depth to water table on sites restored to cottonwood/willow vegetation has ranged from 1.97 to 5.4 ft. Optimum depth to water table for cottonwood/willow stand maintenance is 4 ft. with 9 ft. being considered to be deep for successful establishment (BA page 46). A reduction in groundwater elevation has the potential to cause mortality of established cottonwoods and willows (p. 3.2-107). Drops in groundwater levels would also reduce restoration projects' suitability as habitat for endangered southwestern willow flycatcher (*Empidonax trailii eximius*).

T2-5

While the Draft EIR/EIS discusses habitat conservation and mitigation, however the document does not specify the criteria for the selection of mitigation sites. CRIT believes it is important that impacted cottonwood/willow or other sensitive habitat on the CRIR be offset by mitigation on the Reservation. CRIT has invested considerable time and resources in its existing restoration projects and would be interested in hosting mitigation projects for impacted habitat off the Reservation. There are several suitable areas potentially available as mitigation sites on the CRIR.

T2-6

A plan for the long-term monitoring of the impacts of the transfer and related federal actions is needed. The Colorado River is a complex and unpredictable system. This makes it extremely

Response to Comment T2-1

As described in Section 3.1.2 of the IA EIS, which is incorporated into this EIR/EIS by reference, different but interrelated modeling efforts and impact analyses were necessary to estimate changes from the IA and IOP due to the fundamental nature of each component of the Proposed Project. For example, the IA is in effect at all times, while the IOP represents variable year-to-year changes. We analyzed the cumulative effects by "layering" the effect of the IOP (assuming either the average or "worse case" impacts) onto impacts of the IA. We believe that this method is appropriately used in the assessment of the relative differences between Baseline and Proposed Project conditions.

Response to Comment T2-2

Reclamation completed two analyses to determine the biological impacts of the Proposed Project. The first analysis was used to determine the impacts to groundwater and Southwestern willow flycatcher habitat impacts. This analysis assumed the average daily flow releases from Parker Dam (with and without the Proposed Project) were routed downstream to various points along the Colorado River. The downstream water surface elevations were determined from the attenuated average daily flow. The change in water surface elevation, at a particular site downstream of Parker Dam, was determined from the difference of the water surface elevations with and without the water transfers. Using the amount of reduced water surface elevation, groundwater changes were predicted adjacent to the river. Using the changed groundwater maps, potential acreages of impacted Southwestern willow flycatcher was determined.

The second analysis was used to determine the impacts to the open water in the main channel, and open water in backwaters that are connected to the main channel. In this analysis, the daily minimum flows from Parker Dam were routed downstream to various points along the Colorado River. The downstream water surface elevations were determined from the attenuated minimum daily flow. The change in water surface elevation, at a particular site downstream of Parker Dam, was determined from the difference of the water surface elevations with and without the water transfers. Using the amount of reduced water surface elevations, groundwater changes were predicted adjacent to the river. Using the changed groundwater maps, potential acreages of impacted open water and emergent vegetation were determined.

Response to Comment T2-2 (continued)

The analysis of biological impacts was primarily based on the previously published Biological Assessment (Reclamation 2000). The Biological Assessment included an analysis of daily flows and water surface elevations for the reach between Parker and Imperial Dams. A further explanation of that methodology has been added as Appendix J of the Final IA. In addition, minimum and maximum hourly analysis for selected months is included in the Biological Assessment. Duration of flows relies on many factors such as antecedent conditions, water demands, and scheduling of releases to meet power demands. It is extremely difficult to effectively model duration because of the variability inherent in these factors.

Response to Comment T2-3

Reclamation cannot determine the actual groundwater depth near the river because the number of observation wells along the full length of the river would be prohibitively expensive in both time and cost. The only reasonable approach is to estimate the change in groundwater elevation.

Response to Comment T2-4

While there is no disagreement that a significant drop in groundwater would affect survival of established cottonwoods and willows and reduce habitat suitability, the reality is that the approximate 4.5 inches projected reduction would occur over a period of 15 to 20 years. This, in a practical sense, would be a long enough duration for even the most shallow-rooted cottonwood or willow to follow reductions in water levels. Indeed, cottonwood and willow become established naturally by seeding on newly exposed saturated substrate, thus, the seedlings have to be able to follow declining groundwater far more than 4.5 inches in the first season.

Response to Comment T2-5

We agree that the most effective way to offset impacts would be to replace them in the reach where the losses occur whenever possible. Where that is not possible, the Lead Agencies welcome the opportunity to offset the losses with entities who have the lands and expertise to do so. We will work with CRIT to evaluate the potential for habitat mitigation projects on CRIT lands.

Response to Comment T2-6

We agree long-term monitoring is necessary to accurately determine those impacts. This monitoring is part of the requirements Reclamation has agreed to for the Biological Opinion issued by USFWS. This monitoring would also help to determine that impacts are caused by the Proposed Project and other stochastic events that may occur in the system.

T2-6

difficult and perhaps impossible to identify all factors that may affect projected impacts to biological resources. Long-term biological monitoring is needed in order to properly assess and mitigate impacts unforeseen in the Draft EIR/EIS. Regular biological monitoring for the life of the transfer should be required. In order to conduct such regular biological monitoring, a baseline must first be established prior to the implementation of the transfer. While the Draft EIR/EIS and related environmental documents provide the outlines of such a baseline, additional data is also needed.

T2-7

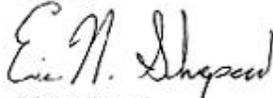
Because of a strong possibility of impacts on CRIT lands, we would like to be included as a full partner in the mitigation planning and monitoring processes on the lower Colorado River. CRIT possesses the infrastructure to be a valuable participant in both these areas. We believe that CRIT's inclusion as a full partner in this process is necessary in order to protect tribal sovereignty and ensure the impacts of the proposed transfer are fully mitigated.

Impacts on Power Generation

The impacts of the proposed transfer on power generation at Headgate Rock Dam were not fully discussed in the Draft EIR/EIS. However, these impacts were detailed in the Draft EIS for the Implementation Agreement, Inadvertent Overrun and Payback Policy and Related Federal Actions prepared by the Bureau of Reclamation. The Water Resources Department of the Colorado River Indian Tribes requested an extension of the comment period for the Draft EIS. While the BOR did not extend formally the comment period, CRIT was informed that comments on the Draft EIS could be submitted in conjunction with comments on the Draft EIR/EIS. Therefore, CRIT submits the following comments on the Draft EIS prepared by Leland Gardner, utilities consultant.

If you have any questions or require any additional information, please do not hesitate to call me at (928) 669-1271.

Sincerely,



Eric N. Shepard
Assistant Tribal Attorney

Enc.

CC: Tribal Council
Gary Hansen
Leland Gardner

Response to Comment T2-7

Reclamation intends to work with CRIT to evaluate the potential for habitat mitigation projects on CRIT lands. We recognize that the Tribe has the lands and expertise to develop successful projects, and we would work in partnership with the Tribe on any potential projects identified on CRIT lands.