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**Salton Sea Restoration Draft EIS/EIR
January 2000**

Review Comments

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1.	ES-10		USFWS	In the discussion of Phase 2 Environmental Consequences, the text states that there could be effects from birds feeding on fish in the highly saline ponds. Birds may attempt to feed in these ponds, but it is unlikely that there will be fish present. Some invertebrate species are highly salt tolerant and could be present for some time.	
2.	ES-11		USFWS	In the discussion of individual alternatives, Alternative 4 would be subject to temporary disturbance of the fishery during construction as was the case for Alternative 1.	
3.	1-12		USFWS	Long-term utility of the Phase 1 alternatives with or without Phase 2 is a key factor that should be considered in the choice of a preferred alternative. Because we don't know what the funding situation will be at the end of Phase 1, it is important to have the flexibility of extending the Phase 1 alternative that has been implemented.	
4.	2-13		USFWS	The statement is made that an additional export action would be required for Alternatives 1 and 5 to provide long-term salinity control. Given that these are the only two alternatives without an export outside the current body of the Sea, it would appear that it is elevation rather than salinity (particularly in Alternative 1) that is more problematic. It would seem that this is not actually an additional export, it is the only export in these two alternatives.	
5.	2-19		USFWS	It would appear that a road across the Salton Sea Test Base would be required for construction of the northern evaporation pond, but a location has not been provided on the figure.	
6.	2-20		USFWS	Closure of the Phase 1 ponds after 30 years would only be appropriate if they were non-functional, too environmentally damaging or the seismic risk could not be managed. A life span of 30 years in the absence of one of these conditions seems unnecessarily arbitrary.	
7.	2-22		USFWS	Concerns remain about the pupfish pond. Please provide any supporting information available that indicates that the appropriate water quality can be maintained in these ponds to allow for ongoing use by the desert pupfish.	
8.	2-22		USFWS	In order to evaluate the appropriateness of the north habitat design, the Final EIS (FEIS) should compare the footprint of the dike with the distribution of desert pupfish in this area.	
9.	2-25		USFWS	Rock that is substrate for benthic invertebrates cannot at the same time be used for nesting by birds as nesting habitat needs to be dry at all times. Some roosting may occur in shallow water.	
10.	2-25		USFWS	Phase 2 actions are required early for Alternative 1 only. It appears from the design that this is related to elevation control rather than salinity. This should be clarified in the final document.	
11.	2-27		USFWS	The Service has concerns about the delivery of flood flows to the Salton Sea via existing water ways. It is not clear that the Alamo River could accommodate such flows, or what impact these flows might have on sediment mobilization. Silt loading is already an issue for the Alamo River.	

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				Salt Creek would not be an appropriate conduit between the Coachella Canal and the Sea because it is currently occupied by desert pupfish.	
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12.	2-28 and 2-29	Figure 2.4-8 and text	USFWS	The dimensions of the dike around the EES ponds, including the final precipitation ponds needs to be disclosed. It is our understanding that these will be from 40 to 100 feet high depending on the location. This will have a significant impact on the habitat value of the area.	
13.	2-32		USFWS	Please provide clarification on the scaling up of the EES from 100,000 to 150,000 ac-ft/yr. How is this expansion achieved in the same footprint, and why does a 50% increase require an increase in the shower lines of 2/3? At the bottom of the page, the last paragraph states that at reduced inflows alternative 4 will not require expansion then proceeds to discuss expansion of the system. Please clarify.	
14.	2-34		USFWS	Given that displacement does not control salinity, it appears that the discussion of Alternative 5 at 0.8 maf/yr should state that the displacement or inflow would be needed to control elevation at 2060 and beyond.	
15.	2-35		USFWS	The fish harvesting techniques described appear to be non-selective. Will any effort be made to return non-target species to the Sea?	
16.	2-37		USFWS	Although it would be prudent to have a skimmer that can handle rough seas, it is unlikely that many dead fish will stay afloat in such conditions. Beach cleaning equipment may not be allowed in certain areas due to sensitive species use, particularly in and around shoreline pools used by the desert pupfish. A special use permit should be obtained from the Sonny Bono Salton Sea National Wildlife Refuge before any cleanup actions occur within the Refuge boundaries.	
17.	2-40		USFWS	Please clarify what aspects of the alternatives described are considered adaptable. It is not clear how the monitoring will be used to adjust such large scale engineering projects once they are constructed.	
18.	2-41		USFWS	The Science Plan provides the framework for additional research at the Salton Sea. Much work remains on determining the actual monitoring and research activities that will be conducted at the Sea.	
19.	2-42		USFWS	The description of the export option for Alternative 1 describes expansion of the Phase 1 EES, but there is no Phase 1 EES in Alternative 1.	
20.	2-43		USFWS	Given the potential impacts associated with the discharge of Salton Sea water into the Gulf of California, it would be prudent to plan on the outfall for this alternative being extended 1 mile or more offshore if it is to be considered at all.	
21.	2-43		USFWS	Exporting Salton Sea water to Palen Lake does not appear to be a solution, but a transfer of the problems associated with the Sea's water quality to another site. This body of water will attract bird and other wildlife use, possibly subjecting them to the same problems experienced by fish and wildlife in the Salton Sea.	
22.	2-45	Table 2.7-1	USFWS	Fisheries and aquatic resources and/or avian resources may be impacted by several additional projects listed in this table, but not currently demarcated as such. We see the potential for impacts to one or both of these groups in the water transfer, canal linings, Total Maximum Daily Load program, Mexicali wastewater improvements, Drain water quality program, Lewis drain program, and duck club evaporation ponds. Please clarify why they were not identified in the table. Some of these impacts may be positive.	
23.	2-48		USFWS	Please clarify if the seepage losses discussed includes the loss associated with pumping, irrigation and runoff from fields in Mexico to the Salton Sea via the New River in addition to	

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				direct seepage to the Salton Sea.	
24.	2-51		USFWS	The discussion of the Lower Colorado River Desert Region Plan should include some examples of the types of actions being taken to achieve the project goals described.	
25.	2-54		USFWS	It would be helpful to provide a description of how the surface portion of the Lewis drain project achieves removal of nutrients and pesticides.	
26.	2-56		USFWS	Regarding the summary for the Phase 1 alternatives, it is unlikely that fish will be present once the ponds are "highly saline". This comment is repeated in Table 2.9-1 and should be corrected.	
27.	2-62	Alt. 5 - Avian resources	USFWS	It is not clear why the nearshore impacts in this alternative are significant and unmitigable when they are not described as such for the in-sea pond portions of Alternatives 1 and 4. Please provide a clarification.	
28.	2-63	Plant communities	USFWS	No upland impacts are described for construction of Alternative 1. Nearshore habitat impacts are described for Alt. 5 as a result of the lower lake level, but this is not included in the discussion under Alt. 2 & 3.	
29.	2-63	Special Status Species	USFWS	The Yuma clapper rail should be included in the No Action alternative with the California black rail.	
30.	2-63	Sensitive plants	USFWS	Why are the impacts of Alt. 5 described as similar to Alt. 2? There is no upland component to Alt. 5 in Phase 1.	
31.	3-1	3.1.1	USFWS	What the Colorado River Delta currently receives needs to be defined in terms of volume and pattern in order that the No Action alternative can be compared to the project with implementation of flood flow deliveries to the Salton Sea.	
32.	3-17		USFWS	The text mentions that selenium may be volatilized into the atmosphere, but does not provide any quantitative information on how much may leave the Sea in this way. The discussion also does not address what portion of the selenium entering the Sea may be taken up into biological organisms and concentrated up the food chain.	
33.	3-21		USFWS	The figure for acres receiving irrigation of 79,000 sounds much too low. A figure of 500,000 acres has been referenced in other documents (including this document on p. 3-22 and Setmire 1998).	
34.	3-67	Fishery Resources	USFWS	It would be appropriate to include in this section a discussion of the current contaminant levels in fish as they relate to the health of the fish. Human health issues are discussed in a later section.	
35.	3-75	Bird Resources	USFWS	In the list of diseases, Newcastle disease is listed twice. It is a viral disease, and salmonellosis is a bacterial disease that has occurred at the Salton Sea in addition to the others listed.	
36.	3-78	"	USFWS	It would have been preferable to address waders and waterfowl separately.	
37.	3-80	"	USFWS	Black-crowned night heron would seem to fit better in the wader group.	
38.	3-82	"	USFWS	Two corrections are required for Table 3.7-1: the Western snowy plover is only listed on the Pacific coast and the mountain plover is a proposed threatened species (not potentially threatened).	
39.	3-85	"	USFWS	Some corrections are needed in Table 3.7-2: the wood stork is a summer visitor, white pelicans are not currently a nesting species at the Salton Sea, California least terns do not nest at the Salton Sea, and least Bell's vireos do not nest at the Salton Sea.	
40.	3-86	"	USFWS	DDE concentrations have not been particularly high in fish sampled from the Salton Sea, but fish collected from the rivers have had very high concentrations. Eggs collected from the nests of wading birds at the Salton Sea have had elevated concentrations of this contaminant.	

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41.	3-97	Vegetation and Wildlife	USFWS	A variety of shorebirds forage in agricultural fields including the proposed threatened mountain plover.	
42.	3-97	"	USFWS	No discussion is provided on the herpetofauna of Sonoran desert scrub.	
44.	3-147		USFWS	The Service was not aware that data had been collected that conclusively links fish and bird die-offs to phytoplankton blooms. Please provide a reference. Also, the decomposition of fish and birds is likely to be a minor contributing factor to the odor problem in comparison to the decomposition of the phytoplankton.	
45.	3-149		USFWS	The first paragraph states that this discussion will not deal with hazards to fish and wildlife. However, Section 3.6.1 (Fisheries Introduction) specifically refers the reader to this section for information. This is indicative of a larger problem with the document in that it does not adequately address the potential impacts of these hazards to fish and wildlife at the Salton Sea.	
46.	3-39		USFWS	In regards to the conclusions drawn from the Levine-Fricke sediment study, detection limits need to be defined before any significance can be ascribed to the fact that several classes of chemicals were not detected.	
47.	4-4	Assessment Methods	USFWS	The text states that the UC Davis Hydrodynamic Model of the Salton Sea was used to estimate the effects of changes in elevation, but it does not specify what those effects would be on. For clarification, it should state that the model looks at the effects changes in elevation on circulation patterns.	
48.	4-17	Effects on the Col. R.	USFWS	The last sentence of this section indicates that reduced flood flow deliveries to Mexico have been factored in, but it is missing the completion of the "resulting from" part of the statement.	
49.	4-18	Alt. 1	USFWS	It would be very helpful to have the precipitation sequence for Salton Sea constituents. Is this being pursued? This information is greatly needed. The evaluation of the potential impacts to wildlife in this regard (the last sentence of the paragraph) is not adequate without better characterization of the risks.	
	4-20	H2O Quality & Construct.	USFWS	Discharge of the dredge spoils into the ponds being constructed would not really constitute a disposal separate from that to the Salton Sea because these areas are still a functional part of the Sea until the berms are complete.	
	4-21	H2O Qual. After Phase 1	USFWS	Does "management is assumed" mean that this has been incorporated into the operation and maintenance budget for this alternative?	
	4-21	Circulation Effects	USFWS	Have impacts to desert pupfish been considered as a result of the eddy produced by the North Pond by San Felipe Creek? The larger eddy east of the South Pond dike may result in accumulation of selenium in the sediments of the delta areas. Currently, it appears that the circulation patterns move this element to deeper water depositional areas where it is likely to be less bioavailable.	
	4-23	Pupfish pond	USFWS	The affects to shoreline habitat in the pupfish pond needs to be evaluated in greater detail than is currently provided by the document. Specific parameters that would be affected need to be included as well as the specific changes to the habitat and species composition.	
	4-25	North and South Ponds	USFWS	This discussion assumes that accelerated imports will be available in order to maintain salinity at 46,000 mg/L. A source or sources, how likely this water is to be available when needed, and the volume that is being incorporated into this calculation should all be identified.	
	4-25	Elevation Effects	USFWS	Please provide some quantification of the risks of catastrophic failure.	

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	4-25	Circulation Effects	USFWS	The fact that the eddies produced could result in increases in disease and/or contaminants near the river mouths should be addressed in this discussion. The benefits of this alternative are to elevation, not circulation per se.	
	4-26	Displacement Dike	USFWS	Again, the effect of the eddy produced by this structure on the deposition of contaminants and increases in pathogenic organisms has not been addressed.	
	4-27	Import flood flows	USFWS	A better evaluation of the feasibility and potential for impacts associated with the discharge of flood flows should have been provided. Volumes have been assumed, and the channel capacity information should be available. Discharge of large volumes of the flood flows into Salt Creek is not appropriate given that this creek is inhabited by the desert pupfish along part of its length.	
	4-27	Salinity Effects in the Sea	USFWS	It appears from the discussion that the EES system would not be operational until 2013. This is longer than the construction times discussed elsewhere in the document. Please clarify.	
	4-28	Circulation Effects	USFWS	It was the Service's understanding that the flood flows were already incorporated into the model that projects an elevation for this alternative of -237 ft. Please clarify the statement that the decline in elevation would be less under Alternative 2 than the No Action Alternative because of the importation of flood flows.	
	4-29	Effects on the Col. R.	USFWS	Please provide some discussion on the impacts of reduced flows to the Rio Hardy wetlands. This should include some sense of the changes that may result from the use of flood flows in the long term. The reader needs to be able to compare the condition of the wetlands with and without the diversion of these flood flows.	
	4-30	Circulation Effects	USFWS	Again, the discussion does not include the effects of an eddy on contaminants and pathogens.	
	4-31	"	USFWS	Again, effects of the eddies on contaminants and pathogens are not addressed.	
	4-32	"	USFWS	As mentioned previously, would this eddy have any impact on desert pupfish moving in and out of San Felipe Creek?	
	4-33	"	USFWS	The discussion does not include contaminants and pathogens.	
	4-34	Displacement Dike	USFWS	There is no displacement dike for this alternative under current inflows. In addition, it was noted that there is no discussion of the displacement dike under Alternatives 2 and 3. While the impacts are likely to be similar to those described under Alternative 1, there should be a discussion under all Alternatives so that the reader is clear on the fact that this component could be incorporated into any of the five alternatives.	
	4-47	Disturbance of bottom sediments	USFWS	The issue of long-term accumulation of contaminants in the ponds as a result of evaporative concentration has not been addressed. This possibility exists even though the sediments may not have high concentrations at this time. This issue needs to be considered as there may be prey available for foraging birds for some time thus completing an exposure pathway. This comment also applies to Alternatives 4 and 5.	
	4-56	"	USFWS	There could be local impacts at the intakes for Alternatives 2 and 3.	
	4-95	Invertebrates	USFWS	In the paragraph which discusses pileworms and other invertebrates, it would be helpful to have some defining statements regarding our expectations relative to these species with increases in salinity. Statements such as "Reproduction is hampered at salinities over 52,000 mg/l." are not particularly helpful in determining how long a given species might remain in the Salton Sea in the long term. Also, several thresholds are provided for these species without	

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				orientation for the reader as to which is the most important in maintaining populations.	
	4-97	Table 4.6-1	USFWS	How is it possible that <i>Neanthes succinea</i> populations could be maintained at a salinity that is too high for life stage survival and life cycle completion?	
	4-102	Effect of No Action	USFWS	The loss of pileworms would result in direct impacts to species of birds that currently consume them (e.g., eared grebes and ruddy ducks) if no other species of the appropriate size was available in large numbers.	
	4-107	Alt. 1	USFWS	Fill material should be tested in conditions that simulate the Salton Sea to determine if trace elements might leach from the fill into the water or be taken up by burrowing organisms.	
	4-109	Pupfish pond	USFWS	The rather long list of potential impacts for this action suggests that we should re-evaluate this aspect of Alternative 1 and 4.	
	4-110	North Wetland Habitat	USFWS	The FEIS needs to look at the distribution of pupfish at this end of the Sea to determine if this action would negatively impact them.	
	4-113	Effect of Alt. 3 w/reduced inflows	USFWS	The southwest habitat pond has been eliminated by the Science Subcommittee and should be dropped from this discussion.	
	4-116	Mitigation Measures	USFWS	How do you implement the construction of these alternatives during the non-spawning period when some of them require 4 years of construction? The river deltas are particularly sensitive and should be avoided to the maximum extent practicable.	
	4-118	No Action Alternative	USFWS	While it seems reasonable to assume increases in bird losses from disease under the No Action Alternative, do we have any data to support that any of the Alternatives in the document will result in decreases in avian disease?	
	4-118	Effect of No Action	USFWS	Although eared grebes and other species may benefit from a proliferation of brine shrimp, the concern is that the conversion from a pileworm dominated system to a brine shrimp dominated system may be disjunct resulting in little or no prey being available for these species for an indefinite period of time. This could be devastating for the eared grebe as the Salton Sea is an extremely important stopover on this species' migration.	
	4-119	Effect of Alt. 1	USFWS	Some of these shoreline areas are used for nesting as well.	
	4-120	"	USFWS	Additional information is needed on the borrow site to better understand the magnitude of the impacts, specifically the location and size. Mitigation of the impacts may be possible in regards to their permanence, but some aspects will remain significant because of the duration of the construction and should be addressed as such in the FEIS.	
	4-120	Pupfish pond	USFWS	The pupfish pond can be considered a viable approach to minimizing pupfish impacts only if the water quality conditions needed for survival and reproduction of the pupfish can be maintained. Dissolved oxygen levels are of great concern given the conditions there. Please clarify what vegetation is expected to be supported by water quality adequate for desert pupfish. Desert pupfish have a salinity tolerance much higher than any of the emergent vegetation that would be appropriate for habitat.	
	4-121	Alt. 1 -	USFWS	The discussion provided does not address the change in circulation pattern that would result	

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		Reduced Inflow		from this feature. This, in turn, could result in greater deposition of contaminants or pathogens in the areas around the river deltas. It may also impact prey availability and thus affect the value of the river deltas, particularly of the New River, as nesting and roosting areas for birds.	
	4-123	Effect of Alt. 2	USFWS	Is there any information to indicate how many "large numbers of birds to be lost due to collisions" is?	
	4-123	Import flood flows	USFWS	Is there any information on how much habitat might be lost from the delta? Might the material that is being deposited from the river carry contaminants that could be harmful to wildlife?	
	4-124	Alt. 3	USFWS	The document needs at least a basic discussion of how the different locations might change the impacts in terms of species affected.	
	4-125	Effect of Alt. 5 - Current Inflow	USFWS	Please explain why the level of the Salton Sea would drop more under this alternative than in Alternatives 2 and 3. The same amount of water is being pumped and the pond itself provides some displacement. The discussion under reduced inflows states that the level will only drop 3 feet under those flows. Also, the project description says that an export is needed to maintain the elevation (prevent flooding). As mentioned previously, the shoreline areas are also used for nesting.	
	4-126	"	USFWS	The potential hazing effect of the machinery should be considered. The size and location of the borrow pit and the time needed for construction should be specified.	
	4-127	Mitigation Measures	USFWS	Who would be responsible for the monitoring described here? Also, has there been any evaluation of the efficacy of cannons for the species of concern here?	
	4-130	Effect of Alt. 1 with Reduced Inflows	USFWS	There would be impacts to vegetation and wildlife with reduced inflows just as there would with current inflows. Construction will result in direct impacts from the borrow area and the road. Some noise related impacts could also occur. These should be discussed in both sections. Also, the benefit of revegetation is not likely given the salinity of the soils in the nearshore areas.	
	4-132	Effect of Alt. 2 with Reduced Inflows	USFWS	As mentioned previously, this habitat loss should be quantified at least generally.	
	4-132	Effect of Alt. 3 at Current Inflow	USFWS	The impacts would not be similar in regards to the flat-tailed horned lizard. This species occurs on the west side of the Sea and could be impacted by Alternative 3. It is the subject of a conservation agreement among the Service, the Bureau of Reclamation, The Bureau of Land Management and others. This species should be addressed in this discussion in the FEIS.	
	4-133	Effect of Alt. 4 with Current and Reduced Inflows	USFWS	By omitting Alternative 5, the wording makes it sound as though Alternative 5 would be worse than all the other alternatives. Please clarify the discussion to put Alternative 5 in the same context.	
	4-134	Alt. 5 w/Current Inflows	USFWS	Please provide clarification as to why the Sea level would drop so far under current inflows. The Sea drops less as compared to the No Action under reduced inflows as currently described.	
	4-134	Mitigation Measures	USFWS	Please provide a description of how these "critical habitats" were determined.	
	4-135	"	USFWS	Please provide a description of how adjacent areas would be enhanced. Where would new	

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				suitable habitat be created? Much more detail is needed in this discussion if the reader is to conclude that any substantive mitigation will be implemented as part of this project. Please provide the specific species that are going to be addressed by such actions as artificial burrows and relocation.	
	4-169	Figure 4.13-2	USFWS	Site 5 is not placed correctly on the map.	
	4-172		USFWS	The proposed haul road along State Route 86 will also be required for Alternative 5, although it will be shorter.	
	4-175	Pupfish Pond	USFWS	Please clarify what is meant by the dimensions "three feet in height and one foot depth".	
	4-175	Odors	USFWS	Please provide a reference that supports the suggestion that a reduction in salinity will result in fewer algal blooms and fish and bird die-offs.	
	4-175-176	Effect of Alt. 1 with Reduced Inflows	USFWS	It is not clear from this discussion whether or not the drop in elevation occurs with or without the displacement dike. Please clarify.	
	4-188	Summary of Consequences	USFWS	In the discussion of mosquito habitat, the north wetland habitat is described only for Alternatives 1 through 4. Why isn't alternative 5 included here?	
	4-189	"	USFWS	The discussion on contaminant removal should specify the other projects that may achieve this beneficial effect.	
	4-191	No Action	USFWS	The fact that selenium will continue to be accumulated by Salton Sea organisms is of concern because that biologically incorporated selenium is more available to higher food chain organisms and may biomagnify up the food chain.	
	4-193	Alt. 1	USFWS	Just because the volume of petroleum products would be small in comparison to the Sea, that does not mean it should be disregarded. Boater education should be developed in order to minimize the potential for spill or dumping incidents.	
	4-200	Cumulative Effects	USFWS	The projects described here are currently very small in comparison the total volume flowing into the Salton Sea. In fact, their effects on constituents in agricultural drainwater are not likely to be measurable at their current scales. If these projects are scaled up or duplicated in other areas, there may be a measurable effect at some point.	
	4-201	Mitigation Measures	USFWS	Spill prevention and response facilities should be incorporated into these mitigation measures.	
	5-1	Fish Harvesting	USFWS	Please provide some examples of techniques that will be used to reduce the incidental catch of other species. Has adequate data been collected to determine what a sustainable harvest level is?	
	5-2	Surface Water Resources	USFWS	Please provide the reference that was lacking in this discussion.	
	5-3	Air Quality	USFWS	What would operational emissions at a fish processing plant be?	
	5-4	Fisheries & Aquatic Eco-	USFWS	Please explain why the reduction in prey items for fish eating birds would only be "initial" when this harvesting action is planned as a long-term action. The real issue is whether the reductions in prey items will result in a reduction in prey availability (i.e., an increase in the time	

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		systems		require per catch) to the foraging birds.	
	5-5	Utilities & Public Services	USFWS	Would a septic system adequately contain the nutrient load going into it? We would not want nutrients to move through the ground water back to the Sea. Also, it would be helpful to provide some estimate of the volume of waste, both liquid and solid, produced by such a facility.	
	5-8	Public Health	USFWS	Several excellent recommendations are made in this section. Is there any commitment on the part of the action agencies to see that these are implemented?	
	5-9	Shoreline Cleanup	USFWS	Shoreline cleanup should not be conducted on the Sonny Bono Salton Sea National Wildlife Refuge without a special use permit. Some areas may be too sensitive for this activity.	
	5-10	Fisheries	USFWS	It is extremely important that no shoreline cleanup activities occur in desert pupfish habitat without compliance with the Endangered Species Act.	
	5-15	Table 5-1	USFWS	Please check the text under the Long-term Science Programs. Some statements do not appear to belong in this column.	
	5-16	"	USFWS	Under fish harvesting, the impacts extend to all fish eating birds, not just scavengers. The endangered brown pelican should be included under special status species. Under shoreline cleanup, the desert pupfish should be considered in the sensitive species category. They could be impacted if their shoreline pool habitat is raked.	
	5-17	"	USFWS	Have surveys been conducted to determine whether sensitive plants are in the footprint of the fish harvesting facilities?	
	6-13	Table 6.3-1	USFWS	Exports to the Gulf of California would increase the nutrient loading as well as the salinity.	
	6-16	"	USFWS	There should be some discussion of ongoing impacts of EES through events such as collisions with the towers. Given that the Phase 1 discussion was given as an interim action, there should be some acknowledgment of the fact that the described impacts would be extended out to 100 years or more. Given the potential salinity and nutrient impacts associated with an export to the Gulf of California, it seems unlikely that there would be no impact whatsoever to birds. These table entries should be re-evaluated. Lastly, there is no discussion provided in the table on the potential for creating an attractive nuisance at Palen Lake as a result of chemical contaminants being evaporatively concentrated in the water.	
	6-23	EES	USFWS	During planning, Phase 2 EES in Alternative 2 and 3 included an expansion of the facility from 150,000 acre-feet /year to 250,000 ac-ft/yr. Is this no longer planned? If this is still being considered it must be disclosed. Several sections refer to an expanded EES. The text needs to clarify whether this is an expansion to 150,000 ac-ft/yr in Alternative 1,4, or 5, or if it is an expansion greater than 150,000 ac-ft/yr for Alternative 2 and 3.	
	6-26	Public Health	USFWS	The text states that the EES system will remove negligible amounts of selenium form the Sea, but then goes on to say that it might reduce the selenium concentrations of fish and waterfowl to the benefit of their consumers. Given the former statement, the latter seems unlikely. Also, the comment regarding drift of concentrated Sea water into Bombay Beach suggests that the wind speed requiring shut down may have to be adjusted once the system is in place.	
	6-27	Export to Gulf	USFWS	A shoreline discharge of this material seems inappropriate as a result of the nutrient loading that would occur to the photic zone. An extended subsurface outfall should be planned and addressed.	
	6-29	Surface	USFWS	The rate given here for the Salton Sea discharge of 250,000ac-ft/yr is not 2/3 of that for the	

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		Water Resources		MODE canal based on the previous page (200,000 ac-ft/yr). Rather the MODE is 4/5 of the proposed discharge from the Salton Sea. Spreading the discharge over several outfalls could lessen the impacts some, but this water body has a limited assimilative capacity given the slow movement of water out of the north end of the Gulf. Please provide an evaluation similar to Thomson <i>et al.</i> (1969) is warranted for the proposed 250,000 ac-ft/yr discharge.	
	6-30	Geology and Soils	USFWS	The significance of impacts resulting from an earthquake causing a pipeline rupture depend on how quickly the flow could be shut off. The system should incorporate multiple shut off valves along its length to shut off the flow if there is a sudden drop in pressure.	
	6-33	Public Health	USFWS	What data is there to support the statement that pathogens would not likely survive passage through the pipeline? If the export of selenium would benefit the Salton Sea, it would also impact the Gulf of California. This impact needs to be addressed along with the benefit described.	
	6-35	Surface Water	USFWS	Please specify the depth of the outfall being considered and the average dissolved oxygen concentration being described as "generally high".	
	6-35	Ground Water	USFWS	Given the significance of the impacts to ground water of a failure, what emergency control systems will be incorporated into the pipeline?	
	6-37	Public Health	USFWS	What data is there to support the statement that pathogens would not likely survive passage through the pipeline? If the export of selenium would benefit the Salton Sea, it would also impact the Pacific Ocean. This impact needs to be addressed along with the benefit described.	
	6-41	Avian Resources	USFWS	Please address the evaporative concentration of waterborne contaminants and the potential impacts to avian resources that use the body of water created.	
	6-41	Vegetation and Wildlife	USFWS	The impacts of this alternative would be similar to the Gulf of California alternative in regards to the impacts associated with the pipeline. This alternative includes the much larger impacts associated with converting 85 square miles of terrestrial habitat into a hypersaline lake and ultimately a salt and particulate matter cake up to 9 feet thick. This needs to be addressed in the FEIS.	
	6-42	Public Health	USFWS	How is access to an 85 sq. mi. lake going to be controlled? If the export of selenium would benefit the Salton Sea, it would also impact the new body of water created at Palen Lake. This impact needs to be addressed along with the benefit described.	
	6-43	Import Water	USFWS	It is our understanding that the CASI water from Yuma would be slightly more saline than existing inflows, but much less saline than the Sea itself.	
	6-43	Surface Water	USFWS	Is there any indication that the CASI water would be bad for the Gulf of California? Should we be putting it into the Salton Sea?	
	6-45	Public Health	USFWS	Before we can assume dilution benefits of CASI water for chemical constituents in the Sea, we need to know what the concentrations of those constituents are in the CASI water.	
	6-47	Surface Water	USFWS	Please clarify the statement that "Importing CASI water to the Salton Sea would contribute to a beneficial cumulative impact on the waters of the Gulf of California by providing an alternative, higher use of the water". How was it determined that use in the Salton Sea is a "higher use"? How does use in the Salton Sea constitute a benefit to the Gulf?	
	6-47	Ground Water	USFWS	The text refers to conditional actions. Where are they discussed?	
	6-47	Public Health	USFWS	The projects referred to in this discussion are only pilot scale projects that will not likely result in a measurable reduction of the concentrations of these constituents in the inflows to the Sea and should be discussed in this context. These efforts would need to be scaled up greatly to	

Cmnt.#	Page #	Line #	Commentor	Comment	Response (Contractor)
				achieve a cumulative benefit to public health. If the pilot testing shows these projects to be successful, it is hoped that the projects will be expanded to treat a greater volume of water to the extent that measurable benefits will be accrued.	
	7-5	Table 7-2	USFWS	No mention is made of the major terrestrial losses associated with construction of an EES alternative. These losses would be significant and permanent.	
	7-6	"	USFWS	The decreased contaminant concentrations in the Sea will only truly be achieved with source control which is outside the scope of this project.	
	9-8	Table 9-1	USFWS	This list should include a Special Use Permit from the Sonny Bono Salton Sea National Wildlife Refuge for any activities that will take place within the Refuge boundaries.	
50.	9-10	Table 9-2	USFWS	The pupfish perimeter channel would require a consultation under the Endangered Species Act. Given that this is a federal action, it is not clear why the "Habitat Conservation Plan" category is included in this table.	