II.6 Comments from Organizations and Businesses and Responses

II.6.1 Duane Morris LLP (on behalf of the Exchange Contractors)

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August 10, 2015

VIA EMAIL

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Re: Draft Mendota Pool Bypass and Reach 2B Improvement Project, Environmental Impact Statement/Environmental Impact Report, June 2015; FCH #2009072044

O-EC-1

Dear Ms. Victorine, Ms. Harrison and Mr. Huitt:

The following comments are submitted on behalf of the San Joaquin River Exchange Contractor's Water Authority, San Joaquin River Resource Management Coalition, Central California Irrigation District, and Columbia Canal Company. (For convenience, these entities are referred to herein collectively as "Exchange Contractors" or with regard to the water

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providers as "Water Providers"). The Exchange Contractors are pleased to be able to comment on a project that was on their short list of priority projects as discussed in our comments to the 2015 Draft Framework for Implementation. These comments are included in Appendix J of the recently released Revised Framework for Implementation (Framework). The Framework and Appendices are included as an exhibit to these comments. (Due to the size of the Framework and its appendices, it is not possible to attach hardcopy to this letter. Here is the link to the www.restoresjr.net website where the Framework resides: http://www.restoresjr.net/documentsreports/program-documents/) This project, together with seepage protection/mitigation, Mendota Pool improvements and Sack Dam/Arroyo Canal improvements are the priority projects identified by the Exchange Contractors in the Framework. In addition, the significant subsidence that is damaging the flood control system and the San Joaquin River must also be proactively addressed.

General Comments

O-EC-2 The Exchange Contractors support Reclamation's identification of the stakeholder consensus project as the preferred alternative. The process of developing the preferred alternative was inclusive and proactive. The Exchange Contractors are appreciative of Reclamation's efforts in this regard.

The following are overarching comments to the draft EIS/R.

O-EC-3 Funding. As Reclamation is aware, the Exchange Contractors are concerned about the adequacy of secure funding for the San Joaquin River Restoration Program (SJRRP). We note that Reclamation has also forthrightly identified the funding shortfall problem both in the Framework (See for example, Framework, Page ES-3) as well as in response to Congressional inquiry as set forth in the March 18, 2014 letter from Acting Commissioner Pimley to Rep. Jim Costa which stated "The annual funding amounts and schedule provided in the June 2012 Framework continue to be difficult to achieve and likely unrealistic considering the funding realities that face the Program, Reclamation, and the Nation." We note that in the just released July 2015 Revised Framework for Implementation, Reclamation has changed the accounting for federal budgeting from that in the draft Framework and has identified an additional at least $60 million that may be available to the SJRRP due to an oddity of federal appropriations accounting. If correct, this will provide an additional increment of funding that will help meet the needs of the SJRRP.[1]

O-EC-4 Prioritization of Projects. Notwithstanding the continued funding challenges, prioritization of the key projects identified by the Exchange Contractors through the Framework process will enable Reclamation to put flows down the San Joaquin River and bypass channels at levels that are likely to be supportive of fish migration, absent considerations for habitat

[1] The Exchange Contractors express no opinion as to whether Reclamation's interpretation of the accounting for federal budgeting is correct.

sufficiency, maintenance of adequate temperature and predation. These challenges will continue in spite of the construction of various improvement projects. Nevertheless, the Mendota Pool Bypass and Reach 2B Improvements Projects (Project) is an essential step towards the implementation of the SJRRP.

O-EC-5

Project and Alternatives Description. The project description and description of alternatives is very general and conceptual. How the project is actually configured and operated will have profound impacts on adjacent lands, water supply from the Mendota Pool and downstream landowners. The EIS/R could be improved by providing meaningful information and details in the descriptions of the proposed alternatives, including information on proposed facilities configurations, site layouts, and operations. This information is essential to any meaningful analysis of the alternatives and their potential environmental effects.

According to the schedule set forth in the Framework, the Mendota Pool portion of the Project is to be completed by 2019 and the Reach 2B Bypass portion is to be completed by 2024. (See Framework, Table ES-1 on page ES-1) Seepage protection to 1300 cfs and 2500 cfs are to be completed by 2019 and 2024, respectively. We note that the schedule calls for expenditures on other SJRRP projects during this same period. It would be very helpful to track the expenditure of secured funds in the EIS/R, as distinguished from unappropriated and not yet authorized funds, on all of these projects to inform the stakeholders of the circumstances that are likely to exist given actually available funds and what may not be built if future sufficient funds are not forthcoming. For example, might Reclamation run out of funds after completing the construction of the Reach2B bypass and if so, what are the environmental impact of having a partially built program?

O-EC-6

Mendota Pool Fish Screen. The preferred alternative for the Project includes a fish screen at the Mendota Pool. Reclamation has stated several times that they do not believe a fish screen is necessary. This is a change in position from the letter sent to Regional Director Donald Glaser to the Exchange Contractors on September 1, 2009, wherein Reclamation promised a fish screen or other similarly effective device to keep fish out of the Mendota Pool where they would be entrained or otherwise perish. Specifically, Regional Director Glaser stated, "We will continue to evaluate the need for a fish screen or other fish diversion facility at this location [Mendota Pool] as part of the EIS/R and will commit to include such a facility as part of the project unless other measures can be taken to adequately reduce fish entrainment in the Mendota Pool." (Underscore added) (Copy of letter attached.) The Exchange Contractors and Water Providers want to make it emphasize that inclusion of a fish screen at the head of the Mendota Pool is an essential component of their support for the SJRRP. A fish screen is essential to keeping salmonids and other species out of the Pool during both flood years and low flow years when water must be delivered to the Mendota Pool. While Reclamation has taken the position that water will only pass into the Pool during flood years, the reality of a new critical period on the basis of the current drought dictates more conservative water management in the long run and the strong likelihood that calls on Friant will be more common in the future than they have

been historically. This is even more so the case should the concerns related to climate change be realized with resulting decreases in long-term storage in the Sacramento basin.

O-EC-7

Land Subsidence. The serious issue of land subsidence is mentioned or discussed in Chapters 2, 11, 13, 14 and 25. For the most part, these discussions involve either general information about causes of subsidence in the Central Valley generally, historic rates of subsidence (e.g., 1950s or 1960s) or specific rates of subsidence near the Mendota Dam. Nowhere, however, does the Draft EIS/R discuss as part of the existing environmental conditions or environmental setting the alarming and serious rates of subsidence currently being measured in the vicinity of Sack Dam. This ongoing rate of subsidence of between 6-12 inches per year has the potential to cause serious and permanent impacts to the routing and hydrology of the San Joaquin River and necessary facilities on the river with implications for the success of the SJRRP as a whole and each component project. Reclamation has been aware of the issue of subsidence for some years. The Exchange Contractors included subsidence maps with its submission of supplemental comments to the Programmatic EIS/R on August 15, 2012. (Copy attached.) The failure of the current Draft EIS/R for the Mendota Pool Bypass and Reach 2B Improvement Project to account for the more serious rates of subsidence just downstream of the Project Area represents a flaw in the analysis of the Draft EIS/R that undermines its impacts analysis as a whole.

The draft EIS/R does not adequately discuss subsidence that has occurred since 2008. Please see comments to Chapter 13 which are set forth below. Pursuant to *Lands Council v. Powell*, 395 F.3d 1019, 1031, 1032 (9th Cir. 2005), an EIS must include up to date science. Failing to provide complete baseline data, or relying on stale or misleading data, violates the NEPA's requirement that agencies provide a fair benchmark for their decisions. See *N. Plains Res. Council v. Surface Trans. Bd.*, 668 F.3d 1067, 1084-86 (9th Cir. 2011) Relying on six year old date has been found to be arbitrary and capricious. (Id., citing *Lands Council*) CEQA provides for the same when environmental conditions are changing during the course of environmental review. (See *Communities for a Better Environment v South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 327-328, wherein the court stated: "the date for establishing baseline cannot be a rigid one. Environmental conditions may vary from year to year and in some cases it is necessary to consider conditions over a range of time periods." (Save Our Peninsula Committee v. Monterey County Bd. of Supervisors, supra, 87 Cal.App.4th at p. 125.) In some circumstances, peak impacts or recurring periods of resource scarcity may be as important environmentally as average conditions. Where environmental conditions are expected to change quickly during the period of environmental review for reasons other than the proposed project, project effects might reasonably be compared to predicted conditions at the expected date of approval, rather than to conditions at the time analysis is begun. (Id. at pp. 125-126.) A temporary lull or spike in operations that happens to occur at the time environmental review for a new project begins should not depress or elevate the baseline; overreliance on short-term activity averages might encourage companies to temporarily increase operations artificially, simply in order to establish a higher baseline.")

In the EIS/R the action agencies are relying on stale data. Significant subsidence has occurred in the Project area over the past several years. Apparently Reclamation is seeking to rely on a scoping document prepared in 2008. The information derived during scoping is now substantively stale due to changes in physical conditions at the Project site and adjacent thereto.

O-EC-8

Mendota Pool Operations. An additional consideration not included in the analysis is that the Mendota Pool has been used by many parties during the last few decades to convey/transfer water in and around the area. The Mendota Pool system has limited capacity. The introduction of Restoration Flows may have a significant impact on the balance that has been obtained by all parties currently using the system. The EIS/R does not contain any discussion of current operations and how changes to the Pool could impact current operations.

O-EC-9

State Lands Commission as Lead Agency for State of California. When the Notice of Intent (NEPA) and Notice of Preparation (CEQA) was issued in June 2009, the Department of Water Resources (DWR) was the state lead agency. At some point the State Lands Commission (SLC) was substituted. Pursuant to CEQA, the proper agency to be the lead agency is the agency with principal responsibility for implementing the project. (PRC § 21067; *PCL v DWR* (2000) 83 Cal.App.4th 982) Responsible agencies are those with responsibilities for implementation other than principal responsibility and for issuing permits, etc. It is unclear from the text of the draft EIS/R as to which agency, DWR or CSLC has principal responsibility and it is unclear as to why CSLC was substituted for DWR. A review of the EIS discloses only that CSLC will approve some leases and assess the State's property interests in the channel of the San Joaquin River. On the other hand, DWR is one of the State implementing agencies along with the Department of Fish and Wildlife, was the first state agency to take action on this project, possesses the necessary skills and charter to assist in the development of the project, and depending upon the responsibility for constructing new levees, may be the agency that at a minimum overseas that construction or may actually be the agency to perform the construction. While funding for levee improvements is unclear as to the responsible party, reclamation in the framework has identified DWR as being the entity that will construct the levees in reach 2B. As the framework states: "The responsible agency for levee stability improvements has not been identified, but it is assumed that California Department of Water Resources (DWR) would continue to lead the work on levee evaluations and improvements if State funds are available." (Framework, Page 3-9) The EIS/R should provide a clearer explanation as to how the roles of DWR and CSLC are differentiated such that one or the other is the principal action agency. (*PCL v DWR, supra*; *City of Sacramento v. State Water Resources Control Board* (1992) 2 Cal.App.4th 960)

Specific Comments

O-EC-10

The Executive Summary (ES) comments

ES1. *The ES states that "Project would be implemented consistent with the Settlement and the San Joaquin Restoration Settlement Act (Act), with implementation dates clarified by the*

draft Framework for Implementation (San Joaquin River Restoration Program [SJRRP] 2015)." Pursuant to the Act, the SJRRP is to be implemented consistent with the Settlement. Pursuant to the Settlement, deadlines were established for the completion of the Paragraph 11, Phase 1 and Phase 2 Projects. There is no analysis of the environmental impacts associated with the delay in implementation of the various projects. Similarly, there is no analysis of the environmental impacts of the release of flows and the introduction of salmon without the required and necessary Paragraph 11 improvement projects. The PEIS/R did not analyze the flows and fish present but no improvements scenario. That scenario should be included here since the flows and fish are now present in the system.

Where the conditions under which a Project was to be implemented have to dramatically changed from that set forth in the environmental analysis, both CEQA and NEPA require that, at a minimum, supplemental analysis be conducted. There is no analysis of the materially changed circumstances.

O-EC-11

ES4. The first paragraph discusses the Mendota Pool Bypass, which would include a bifurcation structure which would include a fish passage facility to enable up-migrating salmon to pass the structure and "a fish screen, if appropriate, to direct out-migrating fish into the Bypass channel and minimize or avoid fish entrainment to the pool." What standard will be applied to determine whether a fish screen is necessary? What is the basis for this standard? Attached to these comments is a letter from the Regional Director, Reclamation, dated September 1, 2009, which specifically states that a fish screen or alternative facility to prevent fish from entering the Pool would be constructed. What changes have occurred in the program since the writing of that letter that would justify not constructing a fish stream to prevent the certain death of thousands of otherwise out-migrating salmon? In fact, due to the two consecutive years of calls on Friant, the incidence of occurrence of flows into the Pool have increased, not decreased since the time the Regional Director's letter was written. The increased occurrence of flows into the Pool would appear to provide even more justification to expend relatively small dollars for a substantial fishery benefit.

At the time of the preparation of the Programmatic Environmental Impact Study/Environmental Impact Report (PEIS/R), it was anticipated that flows to the Mendota Pool would "only" occur during flood years, which occur at least one out of five years on the San Joaquin River. Since 2012, due to dry hydrologic conditions, in two consecutive dry years, flows have been directed to the Mendota Pool in order to deliver water to the Exchange Contractors. The occurrence of deliveries to the Mendota Pool will occur with greater frequency in the future due to more conservative operations, climate change and likely increasing Delta regulation, all of which decrease the amount of water potentially available to the Exchange Contractors and other south Delta CVP water users. This greater frequency of shortages will increase the occurrence of deliveries to the Mendota Pool. What analysis has been conducted regarding the likely increase of deliveries to the Pool? At what threshold is loss of out-migrating salmon considered detrimental to the Program? The outmigrating fish could include both juveniles and 1 year old salmonids as well as steelhead kelts. At an initial target population of

500 spring run Chinook salmon (SRCS), the loss of 20-40 percent of these fish in a year would be highly detrimental to the SJRRP, and these loses could occur in consecutive years.

O-EC-12

ES11. The descriptions of the four alternatives indicates that there would be conveyance of at least 4,500 cfs in Reach 2B and through the Mendota Pool Bypass and the diversion and screening of up to 2,500 CFS from Reach 2B into the Mendota Pool.

(a) Once construction is complete, what is Reclamation's timetable for increasing flows in the river?

(b) To what level will flows be increased?

(c) Flows at a level of 700 cfs have resulted in seepage damage to adjacent properties. Despite what will be by 2025 the then post-completion of construction of the Projects and the entirely foreseeable pressure to increase flows, how will Reclamation prevent seepage damage from occurring?

(d) It is unclear whether Reclamation is including screening of flows into the Mendota Pool or not. Previously it was stated that whether a screen would be included is yet to be determined. However, at page ES11, no contingency is included.

O-EC-13

ES24. It is stated the Project may utilize a phased approach to implementation. This phased implementation would involve building selected components of the Project in separate phases, thereby allowing project funding to be secured over time. What analysis has been conducted regarding the impacts of a failure of adequate funding? What if the Project is only partially built and no further funding is forthcoming? What analysis has been done on realistic phasing? How would phasing effect the other Paragraph 11 improvements and the timetable for completion of all of the improvements? In the EIS/R, no explanations are provided as to how the Project would be phased, how the Project will operate under phased condition, the environmental impacts of phasing, the impacts on fisheries, water supply, land use, flooding, backwater impacts, use of the river versus use of the flood control channel, etc. If this Project is to be phased, how will fish traverse up and down stream?

O-EC-14

ES25. The Project includes long-term operations and maintenance (O&M) of the facilities. According to the 2015 Framework for implementation, no funds have been set aside for O&M. What impacts will result in the event that O&M is not adequately funded? What impacts will occur if O&M is not implemented? As Reclamation is aware, the SJR in the area of the SJRRP is very sandy. Siltation has been a major problem. If there are insufficient funds for O&M, sands will quickly accumulate. What effects will this have on the river, fishery, fish migration, projects that are constructed?

O-EC-15

ES29. The strategy to minimize flood risk based on the use of then-existing channel capacity does not account for longer term seepage impacts that can cause levee failure. These failures are a function of the flow duration and not just the level of water surface elevation.

To minimize flood risk the program must provide adequate funding to support the increased flood system O&M that will be required due to increased frequency of restoration flows that will cause erosion, sedimentation, and vegetation growth throughout the flood system.

O-EC-16

ES30. Areas of known controversy and issues to be resolved. Areas of known controversial issues are identified. Groundwater seepage is a controversial issue that the Project proponents intend to discuss elsewhere. Pushing off discussion of groundwater seepage is inappropriate. Mitigation for seepage damages is part and parcel of the effects of this project. Channel widening and the creation of floodplains is solely for the purpose of moving water through this area in order to provide habitat for fish. A direct result of that action is seepage damage. How seepage is mitigated bears directly on the extent of impacts from the Project.

The Project is designed to convey 2,500 – 4,500 cfs through this area. It has been established that flows of approximately 1,200 –1300 cfs are not damaging in Reach 2B. Flows above that level are expected to cause damage. No analysis of flows above the 1,200 – 1,300 cfs level have been provided. If properly designed, new levees and seepage mitigation measures could eliminate flooding and seepage damage. The draft EIS/R contains insufficient information in order to analyze whether the expansion of the river and creation of floodplain will cause damage or not. Further, in order for flows of the magnitude of even 1,200 – 1,300 cfs to occur in this reach of the river, flows of that same magnitude will occur above and below this reach. Seepage impacts are significant below this reach of the river. Further, since the water supply to the San Luis Canal Company (SLCC) are in addition to the Restoration Flows, total flows will be 500-600 cfs higher. This level of flow needs to be analyzed.

The Project proponents contend that recreational development is not within the scope of the Project. However, various assumptions are being made regarding access to the river, the ability to cross the river, and to portage around Project structures. Signage regarding safety and trespass issues alone is insufficient. In order to cross the river, bridges or other crossings are necessary. It is not possible to use existing dam structures or any other structure protected from access by Reclamation homeland security-related requirements. There is no discussion regarding the lack of access across the river.

O-EC-17

ES32, et seq. Summary and comparison of impacts and mitigation measures. Table S-3 sets forth a summary of impacts and mitigation measures. Nowhere is phased development of the Project discussed. What impacts will there be on biological resources – fisheries? Will fish passage be impeded? Salmonids stranded in parts of the river? Salmonids subject to higher rates of predation because of an inability to quickly traverse portions of the river? Will there be temperature increases due to ponding of water in areas that should otherwise be riverine?

O-EC-18

Hydrology – Flood Management.

Will a phased project increase the possibility of flooding due to back-water impacts? Will drainage patterns be altered such that new areas of flooding or seepage could occur? Will

levees be stressed due to increased water levels in the Mendota Pool in the event the Pool is blocked off from the San Joaquin river but is still fed flows from the Delta Mendota Canal and the Kings River?

The Lower San Joaquin River Flood Control Project is operated as a complete system to minimize flood impacts. Any modifications to the system that impact flood management will require a detailed evaluation of flood operations and potential revisions to the Operations & Maintenance (O&M) Manual prepared by the State for the flood project. Any proposed construction phasing will also require evaluation of impacts to flood operations to ensure there is no increased risk of channel erosion, sedimentation, or seepage that will compromise facility performance and endanger public safety. This analysis needs to include potential impacts to the project area, as well as to the city of Firebaugh, Reaches 3 and 4 and the Eastside Bypass. The program must provide adequate funding to support the increased flood system O&M that will be required due to increased frequency of restoration flows that will cause erosion, sedimentation, and vegetation growth throughout flood system.

Land Use Planning and Agricultural Resources.

O-EC-19

LU-4 indicates a less than significant impact regarding degradation of agricultural land productivity due to seepage. It is understood that seepage impacts do not occur until flows increase above 1,200 – 1,300 cfs. Yet, Project operations are anticipated at the 2,500 – 4,500 cfs level. This will cause seepage within the Project area. Further, flows at even the 1,200 – 1,300 cfs range will result in seepage impacts both above and below the Project area. How will the Project be operated in order to avoid significant impacts due to seepage?

Land Use Planning and Agricultural Resources.

O-EC-20

LU-1 indicates that land will be removed from agricultural production. The impact after mitigation is significant and it is designated as significant and unavoidable (SU). Pursuant to section 10004(d) of the Act, the Secretary of the Interior is legally required to mitigate the impacts identified. There is no provision within the Act for simply identifying an unavoidable impact and not mitigating. Failure to mitigate would constitute a violation of the Secretary's obligation. Similarly, LU-2 indicates that designated farm land will be converted to non-agricultural uses and that following mitigation impacts are significant and unavoidable. The same is true of LU-3 concerning conflicts with Williamson Act Contracts. Again, pursuant to the Act, the Secretary must mitigate these impacts.

LU-1 indicates that degradation of agricultural land productivity due to seepage will occur. The EIS/R indicates that the impact will be less than significant (LTS). Pursuant to section 10004(d) of the Act, seepage impacts must be mitigated. As discussed above, flows above approximately 1,300 cfs will result in significant seepage damage. Further, flows at the 1,300 cfs level above and below the Project area will cause seepage damage. There is no

O-EC-20 cont. analysis of these impacts in EIS/R. It is unclear upon what basis the less than significant determination is made.

Socio-economic and Economics.

O-EC-21 This section indicates that there will be changes in agricultural production values and impacts on the economy that are less than substantial. What is intended by the standard "less than substantial" ?

Transportation and Traffic

O-EC-22 TRA-4 indicates that there is a potential to result in inadequate emergency access that is significant and unavoidable even after mitigation measures. This is absolutely unacceptable. Any loss of access to emergency services cannot be tolerated. People's lives cannot be put at risk by this program. It is unclear as to exactly what the impact will be because under the description of impact's to utilities and service systems, UTL-1, the summary indicates, page ES-43, that there is a less than significant impact related to an increased need for new or physically altered governmental facilities due to reduced emergency access and increased emergency response times. If no new facilities, including street crossings or stream crossings are needed, then how is there inadequate emergency access? This analysis seems inconsistent. Please explain.

O-EC-23 Table S-4 is a summary of impacts for environmental justice. It indicates that land will be moved from agricultural production that will have a disproportionate effect on communities of concern. Again, Section 10004(d) requires mitigation of impacts without regard to NEPA, etc.

COMMENTS TO MAIN TEXT

O-EC-24 **Chapter 1 Introduction comments**

1-18. This section describes the San Mateo Crossing in Reach 2B and states that the crossing is inundated at flows above 150 cfs. As noted in the text, the crossing is essentially a private river crossing because south portion of the crossing is on private land. The local landowners are amenable to having this crossing eliminated. The EIS/R should make it clear that the loss of this crossing will necessitate a far longer route to cross the river and that passage over critical infrastructure is not available due to Reclamation and homeland security-related restrictions.

Chapter 2 Description of Alternatives

O-EC-25 2-14 to 2-15. The No-Action alternative makes the incorrect assumption that other components of the SJRRP, and other reasonable foreseeable actions consistent with current management direction expected to occur in the Project area, would be implemented. The

O-EC-25 cont. Mendota Bypass and Reach 2B Improvements Project are mandated Phase I improvements under Paragraph 11 of the Stipulated Settlement, which the Secretary of Interior is authorized and directed to implement by the Act. Other "components" of the SJRRP, such as the reintroduction of spring-run Chinook salmon, cannot be implemented in the absence of these or any other mandated improvement projects. As a result, the environmental analysis is comparing the impacts of the current Project, Mendota Pool Bypass and Reach 2B Improvement Project, against an "alternative" that cannot be implemented, that is in fact not a viable option or alternative. (14 C.C.R. 15091(a)(3), a project alternative is not feasible if: "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.") Further, there has never been an environmental review of such a partially implemented SJRRP. All the alternatives analyzed in the PEIS/R included all common restoration actions mandated by the Stipulated Settlement.

O-EC-26 2-18. All Action Alternatives apparently include a further evaluation of the need for fish screens at diversion facilities as Project planning and design continues. Further, the following fish screens are included in the Activities in the event that they are determined necessary: the Lone Willow Slough fish screen, Big and Little Bertha pumps screens, and screens on other smaller diversions. This list excludes the Mendota Pool fish screen at the head of Mendota Pool, which is essential to keeping salmonids and other species out of the Pool.

The inclusion of fish screens is essential to the success of the SJRRP. The Program is not in a position to lose a substantial percentage of fish due to entrainment in multiple consecutive wet or very dry years. There is a substantial history of multiple consecutive years of flood flows and there is significant uncertainty regarding future CVP deliveries through the DMC due to changing Delta hydrology, outflow requirements, and endangered species restrictions on export pumping. Exchange Contractor calls on San Joaquin River water from Friant will most likely continue in the future, as has occurred the last two years. What standard will be applied to determine whether a fish screen is necessary? What is the basis for this standard?

O-EC-27 2-18. What is the technical basis for maintaining a 300-foot buffer zone between the levee and the river channel? The distance required may vary based river conditions and what criteria will be used to determine where it is appropriate?

O-EC-28 2-19. All Action Alternatives include seepage control measures, as necessary, including cut-off walls, interceptor drain or ditches, seepage wells, seepage berms, land acquisition (fee title or seepage easements) and other measures that can be implemented within the Project area. The Draft EIS/R, however, provides no environmental review of the Project Alternatives in which any of these particular seepage measures are actually implemented. For example, there is no analysis of the impacts of installing and operating cut-off walls or interceptor drains or ditches under any of the Action Alternatives, though some amount of under-seepage is expected. Instead, project-level environmental analysis for seepage management measures continues to be "kicked" down the road impermissibly segmenting the analysis of the impacts of such measures from the project-level analysis of the projects in which they are to be implemented, here the

O-EC-28 cont. Mendota Pool Bypass and Reach 2B Improvement Project. As such, there is no way to assess the actual impacts of the Project, as a whole and at a project-level, which by necessity will contain seepage management measures.

O-EC-29 2-21. A sediment jetting and management system will be needed to prevent the buildup of sediment in front of and behind the fish screen.

O-EC-30 2-23 – 2-25. Existing infrastructure such as groundwater wells, pumps, electrical and gas distribution lines, water pipelines and canals in the Project area will require relocation, retrofitting or floodproofing to protect the structures from future Restoration Flows and increased floodplain area. Further, floodproofed wells must be provided with year-round vehicular access via a raised roadbed across the floodplain.

O-EC-31 2-23. A pilot channel dug from the low flow river channel to the relocated pump intake will fill with sediment and required continual maintenance.

O-EC-32 2-27. The project will require continued long-term maintenance due to sediment build up and operations of fish facilities and screens. Adequate long-term funding must be provided to support the intensive O&M that the project will require.

O-EC-33 2-32. Phased Implementation. See comment above to ES24.

O-EC-34 2-32. Project phasing must be developed to allow continued operation of all water supply and flood control facilities during and after construction. If the project is only partially completed and no further funding is available, all water supply and flood facilities must retain full operational capability without any reduction in protection for public safety.

O-EC-35 2-32. The fish screens should be constructed as an integral part of the bifurcation structure as part of a first phase to promote safe fish passage.

O-EC-36 2-52. An unlined earthen channel in sandy soils will be prone to migration. Grade control and revetment will be required to stabilize the channel and prevent scour, erosion, and migration of the channel toward Mendota Pool.

O-EC-37 2-51. Construction of a fish passage facility must not compromise the ability to pass flood flows or restrict flood operations.

O-EC-38 2-52. Proposed fish passage improvements must not compromise ability to pass flood flows or restrict flood operations. Flood operations must take precedent over all other operations during a flood event.

O-EC-39 2-53. The bifurcation structure will need to be designed to handle the backwater conditions from Mendota Pool and upstream. The pool water surface elevation of about 152 ft. will put about 6 feet of water on the downstream side of gates at the entrance to the pool. This is a significant water surface differential that must be accounted for in the design. The gates allowing flow into the bypass will also experience a significant head differential when the gates are closed to allow flows to be diverted into the pool for water supply purposes. A significant

O-EC-39 cont. backwater will need to be created to raise the water surface elevation enough in Reach 2B to allow flow to enter Mendota Pool. Inadequate design and consideration of all operation issues could result in a poor operations performance and hydraulic failure of the facility.

O-EC-40 2-53 to 2-54. Alternative B Compact Bypass Bifurcation Structure includes, if appropriate, the Mendota Pool Fish Screen. Please see General Comments and comments to ES4 and 2-18 regarding a fish screen for the Mendota Pool above.

O-EC-41 2-54.1. The inclusion of a fish screen is essential. There may be multiple consecutive years of flood flows and there is significant uncertainty regarding future CVP deliveries through the DMC due to changing Delta hydrology, outflow requirements, and endangered species restrictions on export pumping. Exchange Contractor calls on San Joaquin River water from Friant will most likely continue in the future, as has occurred the last two years.

O-EC-42 2-54.2. This section also needs to describe the impact to Mendota Pool operations that will be caused by the reduction in volume of the pool due to the construction of the new bifurcation structure cutting off the flow connection with the lower portion of Reach 2A upstream towards San Mateo Ave. This reduction in the operating volume of the pool will make the water surface elevation more sensitive to operational changes and cause potential seepage and pump cavitation problems with diverters upstream on Fresno Slough.

O-EC-43 2-54.3. The reduced pool volume will also have less of ability to dampen the impacts of changes in water quality associated with inflows to the pool from the DMC, Kings River through Fresno Slough, and San Joaquin River.

O-EC-44 2-54.4. Due to the large amount of debris in the river during flood flows, the fish screen facility must include a design to prevent debris from accumulating and damaging the trash rack and screen plate.

O-EC-45 2-54.5. Grade control structures must prevent channel incision, erosion, undermining, and migration toward Mendota Pool. Continual maintenance will be required to remove sediment build up behind structures.

O-EC-46 2-56. Since this alternative does not include a fish barrier below Mendota Dam, an intake and pipeline should be constructed from Mendota Pool to Reach 3 downstream of the Compact Bypass to convey irrigation deliveries without attracting fish toward the base of Mendota Dam.

O-EC-47 2-57. Passive habitat restoration must be designed to develop in a timely manner to prevent erosion of large areas and increased sediment conveyance into Reach 3 and the Eastside Bypass.

O-EC-48 2-60.1. The document needs to provide a full detailed description and site plans for the facilities and proposed operations to provide water deliveries to Mendota Pool under the entire range of potential flow conditions. A detailed hydraulic analysis of the full range of potential operating conditions is required to confirm the feasibility and identify any potential adverse impacts associated with these operations. Since the Mendota Pool operating level is almost 6 ft.

O-EC-48 cont. higher than the upstream water surface this adds significant complexity to the design and operation of the facilities.

O-EC-49 2-60.2. The water deliveries section needs to describe proposed changes to Columbia Canal Company facilities, including the new pump station and siphon under Mendota Pool, required to provide water deliveries after construction of the bypass. These new facilities will need to be designed to prevent sedimentation and water quality issues.

O-EC-50 2.61. Project phasing must allow water supply and flood control operations to continue during construction.

O-EC-51 2-100.1. To minimize flood risk the Program must provide funding for additional operations and maintenance (O&M) needs due to increased sedimentation and vegetation growth in the flood bypass channels. Also, the flood project was designed for O&M under dry conditions and the release of restoration flows into normally dry flood bypasses will increase costs to perform O&M under wet conditions. How will the Program provide funds for this additional O&M?

O-EC-52 2-110.2. Flood control operations for public safety must take precedence over all proposed restoration flow releases and operations.

O-EC-53 2-108. Flood risk mitigation must provide funding for additional operations and maintenance (O&M) needs due to increased sedimentation and vegetation growth in the flood bypass channels. Also, the flood project was designed for O&M under dry conditions and the release of restoration flows into normally dry flood bypasses will increase costs to perform O&M under wet conditions. How will the Program mitigate this risk and provide funds for this additional O&M?

O-EC-54 **Chapter 3. Considerations for Describing the Affected Environment and Environmental Consequences**

3-1 to 3-4. The study area for direct, indirect and cumulative impacts does not include reaches downstream of Reach 3 or upstream of Reach 2A, even though potential impacts of the Project can occur in such areas. For example, the impacts of increasing flows through Reach 2B, made possible by the Projects increased channel capacities, can potentially have impacts to downstream reaches that warrant analysis, in particular if the Project (and other related SJRRP Projects in other reaches) are implemented in currently-unknown phases.

O-EC-55 **Chapter 4. Air Quality**

Section 4.1.2 describes sensitive receptors. Sensitive receptors include schools. The draft fails to identify Mendota Elementary School, which is located at 605 Bass Ave., Mendota, CA 93640.

O-EC-56 **Chapter 5. Biological – Resources Fisheries**

O-EC-56 cont.

5-1. The environmental setting narrowly focuses on Reach 2B with some minor inclusion of 1.7 miles below the Mendota Dam and parts of Fresno Slough. The San Joaquin River, however, is a hydrologic unit in which impacts of a Project that includes a re-routing of the river and creation of acres of new floodplain, will directly and indirectly affect both upstream and downstream reaches of the river. For example, the increased channel capacity in Reach 2B allowing for increased flows will impact water temperatures in downstream reaches with concomitant effects on fish habitat. Similarly, increased floodplain habitat will have an effect on the aquatic foodweb downstream. Finally, increased rearing habitat in Reach 2B may have an effect on fish assemblages and population sizes well upstream and downstream of Reach 2B.

O-EC-57

5-1. Existing conditions are defined as conditions existing when the Notice of Intent and Notice of Preparation were filed in July 2009 along with some information from more recent field efforts. Both the SJRRP and existing conditions in the Restoration Area have changed significantly since 2009. California is currently in a record multi-year drought. Salmon reintroduction efforts are showing low survivability with acknowledged problematic river temperature conditions and potentially high rates of predation. Moreover, there is a now-documented high rate of subsidence in reaches in, near and downstream of the Project area with the potential to significantly impact river conditions (e.g., channel location, channel capacity) including within the Project area. Due to the current and continued rates of subsidence the Reach 2b area has the potential to experience a flood disaster. The capacity of the Eastside Bypass has diminished significantly and the river has lost capacity as well mostly due to river channel vegetation. This public safety issue needs to be addressed prior to putting additional pressures on the fragile system due to the restoration program. These significant changes and new information have not been incorporated into the analysis.

O-EC-58

5-19.1. The No-Action Alternative incorrectly assumes that, among other components of the SJRRP, reintroduction of spring-run Chinook salmon can occur in the absence of these mandated, Phase I improvement projects, the Mendota Pool Bypass and the modification in Reach 2B. This assumption violates the Act, which expressly authorizes and directs the implementation of the Stipulated Settlement, including the mandatory Phase I improvement projects under Paragraph 11(a) found necessary for the reintroduction of spring-run Chinook salmon. Comparisons against a No-Action Alternative that violates the Act, and thus is technically non-implementable, provides no meaningful comparison of the true impacts of foregoing implementation of the analyzed Project. The correct No Action alternative is halting implementation of the SJRRP as a whole if a mandated Phase I project cannot be implemented.

O-EC-59

5-19.2. A number of the impacts analyzed for the No-Action Alternative find a beneficial effect, largely due to the assumed continued releases of Restoration Flows. (See e.g., AQUA-2 (salmonid rearing habitat), AQUA 3 (upstream migration of adult salmonids) and AQUA 4 (downstream migration of juvenile salmonids). However, it is questionable to call a marginal improvement in one factor in an environmental setting that remains far below sub-marginal for salmonid rearing as "beneficial." A partially-implemented SJRRP that releases restoration flows and reintroducing fish without addressing the habitat conditions necessary to sustain a viable fish

O-EC-59 cont. population is not "beneficial" to a reintroduction effort that will fail without necessary habitat improvements. There is no analysis of beneficial or detrimental impact to the thousands/millions of juvenile salmon that would perish under the proposed No-Action approach.

O-EC-60 5-19.3. Impact AQUA-3 additionally assumes that there is sufficient infrastructure and funding for the long-term trapping and hauling of fish in its conclusion that the No-Action Alternative analyzed here would have a beneficial effect on upstream adult passage. There is no provision under the SJRRP for a permanent trap and haul program in perpetuity. A permanent trap and haul program would be contrary to the goal of a viable self-sustaining salmonid population.

O-EC-61 5-30.1. A fish screen will be required to prevent fish from entering Mendota Pool.

O-EC-62 5-30.2. An intake and pipeline should be constructed from Mendota Pool to Reach 3 downstream of the Compact Bypass to convey irrigation deliveries without attracting fish toward the base of Mendota Dam.

O-EC-63 5-31. The inclusion of a fish screen is essential. There may be multiple consecutive years of flood flows and there is significant uncertainty regarding future CVP deliveries through the DMC due to changing Delta hydrology, outflow requirements, and endangered species restrictions on export pumping. Exchange Contractor calls on San Joaquin River water from Friant will most likely continue in the future, as has occurred the last two years.

O-EC-64 **Chapter 11.0 Geology and Soils**

11-31. Scour and erosion monitoring and mitigation will be required to prevent impacts due to sediment transport of material from Reach 2B into Reach 3 and the Eastside Bypass.

O-EC-65 11-32. Under-seepage is a significant problem in the area due to the permeable soils. Long-term monitoring will be required to ensure the stability of all structures and facilities constructed as part of the program.

O-EC-66 **Chapter 12.0 Hydrology Flood Management**

12-5.1. Need to cite appropriate DWR manual as McBain and Trush is not a valid reference for the intended level of flood protection.

O-EC-67 12-5.2. Need to note that the current capacity of Reach 2B is estimated at about 1200 cfs due to significant seepage issues.

O-EC-68 12-16.1. Sec. 12.3.3. This section needs to be rewritten. The increase in conveyance capacity above 2500 cfs in Reach 2B is a restoration benefit only. Increased flood flows through this reach will cause more downstream seepage and sediment impacts to the City of Firebaugh, along Reach 3, and in the Eastside Bypass. Portraying this as a benefit is incorrect.

O-EC-69 12-16.2. Sec. 12.3.3. This section needs to be rewritten. The operational strategy is to maximize the amount of flood flow in the Chowchilla Canal Bypass to minimize impacts to the City of Firebaugh and along Reach 3. Allowing more flow through Reach 2B will increase impacts to the system and adjacent land owners.

O-EC-70 12-16.3. Lines 36-39. This statement is purely hypothetical and has no merit. This section needs to be rewritten.

O-EC-71 12-17.1. Section 12.3.3. This section needs to be rewritten. The flood project is operated as a complete system to minimize flood impacts, and not in a piece wise fashion as suggested in the text. Any modifications to the system that impact flood management will require an evaluation of flood operations and potential revisions to the O&M manual for the project from a system wide perspective. As an example, if there are 4500 cfs of Restoration Flow in the Mendota Pool Bypass and flood flows are forecast from the Kings River, there needs to be clear direction in the O&M manual that the Restoration releases must be decreased from Friant and any remaining Restoration Flow in Reach 2A be diverted into the Chowchilla Canal Bypass and that Friant releases will be reduced to accommodate priority Kings River flows through the Mendota Pool.

O-EC-72 12-17.2. How will the program set aside adequate funding to support the increased O&M that will be required due to increased restoration flows that will cause erosion, sedimentation, and vegetation growth?

O-EC-73 12-17.3. This period provides some insight into past hydrologic conditions, but does not account for projected increases in extreme flow events due to climate change.

O-EC-74 12-17.4. This increase from 0.5 to 2.5 percent seems minimal, but these flows can be very damaging and cause extensive erosion, sedimentation, and seepage damage at the city of Firebaugh and along Reach 3.

O-EC-75 12-18.1. The significant increase in flows for events less than the 2 percent annual exceedance will cause additional downstream erosion, sedimentation, and seepage impacts. The 2000 cfs increase from 1000 cfs to 3000 cfs at the 50 percent exceedance will cause the city of Firebaugh to monitor flows and initiate sand bagging if flows reach 4000 cfs under current conditions. The city also experiences a rise in local groundwater levels that stops percolation at the waste water treatment plan settling ponds, saturates embankments and levees, and floods recreation facilities. The document does not adequately describe potential impacts of increased flow frequency.

O-EC-76 12-18.2. Sec. 12.3.3 lines 15 -16. The conclusion that the increase in design capacity of Reach 2B is neutral is incorrect. The significant increase in the frequency and damage caused by smaller events will not be offset by a decrease in events greater than 2 percent exceedance. Reach 3 has a design capacity of 4500 cfs. Therefore, San Joaquin River flood flows are diverted into the Chowchilla Canal Bypass to minimize flows in Reach 3 to protect the city of Firebaugh and prevent downstream seepage impacts. Flood flows above the 2 percent exceedance would not be routed through Reach 2B and into Reach 3, especially if Kings River flows are coming over through Fresno Slough. The decreased flows associated with the larger events would conveyed in the Chowchilla Canal Bypass and provide no offset in Reach 3.

O-EC-77 12-18.3. lines 18-19. How will the Program address the increased O&M that will be required due to increased restoration flows that will cause erosion, sedimentation and vegetation growth?

O-EC-78 12-21. Lines 40-41. See comments on Impact FLD-1 (Alternative A). The section needs significant reevaluation to adequately characterize flood control operations and management issues.

O-EC-79 **Chapter 13. Hydrology – Groundwater**

General comments on Chapter 13: 13.1. The Exchange Contractors, Paramount Farming, and the Mendota Pool Group have been intensively studying, monitoring and managing groundwater in this area for over 15 years. The Mendota Pool pumpers are in the process of developing a 25-year extension of their program; significant work and modeling have gone into the preparation of the environmental documentation. This groundwater discussion and the cumulative impacts section should include the data from that joint effort that deals with all the topic areas contained in this 2B groundwater section.

O-EC-80 13.2. The rates, extent and threats that subsidence exerts on the Project needs to be thoroughly discussed. Subsidence in the patterns (if not the rates) as shown on figure 13-4, if they were to continue from this time forward, would reduce the available flow rate capacity in the river and bypass system, likely below the rates needed for successful restoration. This is especially the case including the new subsidence that is occurring in the Red Top area.

O-EC-81 13.3. This draft correctly identifies the construction of the San Luis Canal and import of water as the reason the historical pattern of subsidence has been reduced, or nearly eliminated for a number of years in this area. What the draft fails to articulate is the increase in subsidence due to the reduction of water imported into the area because of export restrictions. The draft needs to consider the data being generated in the BDCP process, extrapolate the bookends of CVP water into the area, and analyze how much subsidence will they have to deal with over a) the construction horizon, and b) a thirty-year Project horizon. If the subsidence continues unabated, the fishery will end up being routed through a warm water lake that will be formed by the time the final SJRRP is completed.

O-EC-82 13-1. Reference is made to Figure 1-2 of Chapter 1 to describe the Project area. The Project area described, however, does not include reaches 1, 4, or 5, and may not cover all of reach 3. Increased channel capacity in Reach 2B, however, enables higher flows to originate upstream and pass downstream through lower reaches, with resulting impacts including increased potential for seepage and groundwater recharge.

O-EC-83 13-5. There is discussion of subsidence in the San Joaquin Valley stating that maximum land subsidence rates occurred in the 1960s. (Page 13-9 discusses the Tulare Lake Region.) Figure 13-4 illustrates land subsidence contours in the San Joaquin River and Tulare Lake hydrologic regions from 1926 to 1970. The discussion completely ignores the more recent increased rates of subsidence documented in the vicinity of Sack Dam, which has serious implications for the SJRRP and its component projects.

O-EC-84

13-12. There is discussion of subsidence in the Delta-Mendota subbasin as part of the "Project Setting". It mentions average rates of subsidence near the Mendota Pool noting that maximum rates of subsidence were observed in the 1950s but that in recent years (2003-2008), the rate of subsidence has declined to 0.04 in/yr. The timeframe selected is not representative of subsidence currently occurring in and near Reach 2b. Data relative to subsidence at the COR station P304, near Mendota, shows that subsidence has occurred by as much as 8 inches over the past 3 1/2 years. These data are also verified by the 2013 USGS mapping of subsidence in the Central Valley and in particular along the Delta-Mendota Canal. In addition, the Draft EIR/S fails to discuss the more significant rates of subsidence downstream in the vicinity of Sack Dam as an existing environmental condition. Rates of subsidence in the vicinity of Sack Dam have the ability to impact the routing and hydrology of the San Joaquin River within the Restoration Area with impacts on the SJRRP both as a whole and each individual component. The subsidence also has affected the flood control system such that flow capacity has been reduced significantly, in excess of 25%. Further, the analysis must consider that there is a now-documented high rate of subsidence in reaches in, near and downstream of the Project area with the potential to significantly impact river conditions (e.g., channel location, channel capacity) including within the Project area. Due to the current and expected continued rates of subsidence the Reach 2b area has the potential to experience a flood disaster. The capacity of the Eastside Bypass has diminished significantly and the river has lost capacity as well mostly due to river channel vegetation. This public safety issue needs to be addressed prior to putting additional pressures on the fragile system due to the restoration program.

O-EC-85

13-17.1. It is stated that the USGS is currently updating the CVHM (Central Valley Hydrologic Model) for the Project Area as well as refined grid spacing and layering for the purposes of assessing SJRRP groundwater impacts, but that the revised CVHM was not available for the Draft Environmental Impact Statement/Report. A USGS paper was issued in 2014 called "Documentation of a Groundwater Flow Model (SJRRPGW) for the San Joaquin River Restoration Program Study Area, California" by Jonathan A. Traum, Steven P. Phillips, George L. Bennett, Celia Zamora and Loren F. Metzger that involved the CVHM. This documentation is not included in the reference section. Based on information, is our understanding that the report on the new SJRRPGW model was released in October 2014. This is well before the draft EIS/R was released in 2015. Why is information from the SJRRPGW not included in the draft EIS/R?

O-EC-86

13-17.2. All Alternatives, including the No-Action Alternative, assume the release of restoration flows and determine that changes to groundwater levels (seepage) would be less than significant due to the levee design features and the implementation of seepage management measures. The conclusion is that seepage impacts would be avoided or substantially reduced by implementation of Project design and seepage management measures. The Project, however, doesn't specify the exact seepage management measures that will be employed, but includes merely a laundry list of possibilities, and does not conduct an environmental review of the implementation of the seepage management measures. In fact, use of specific seepage management measures such as cut-off walls, seepage plugs, interceptor drains or berms as part of

B-EC-86 cont. the SJRRP have not been subject to project-level environmental review. (See Draft Seepage Management Plan dated September 2014, p. 10-1.)

B-EC-87 13-17.3. In the Reach 2B modifications, the environmental impacts of land acquisition or easements to mitigate seepage impacts could be greatly different than the impacts due to the installation of interceptor drains or drainage ditches. None are reviewed here in this draft EIS/R. Pushing off the project-level review of the implementation of seepage management measures to an unknown future date instead of analyzing such measures as an integral part of the implementation of the Mendota Pool Bypass and Reach 2B Improvements Project is impermissible segmentation of the true impacts of the Project.

B-EC-88 13-17.4. There is also no analysis of the seepage impacts on downstream reaches (e.g., Reaches 3, 4 and 5) resulting from the increased capacity of Reach 2B and the release of restoration flows. Project-level review of the impact of restoration flows was undertaken in the Programmatic EIS/R issued in 2012 in isolation from the project-level review of the improvement projects to increase channel capacity to allow the release of restoration flows. However, an analysis of the impact of flows cannot be separated from an analysis of the increase in channel capacity in Reach 2B done for the express purpose of allowing the passage of restoration flows. The impacts of increasing channel capacity in Reach 2B to 4500 cfs must be analyzed in this Draft EIS/R. Here, the release of restoration flows is assumed in all alternatives, including the No-Action Alternative.

B-EC-89 13-17.5. In addition, there is no analysis of the impact on groundwater levels, including seepage, of a phased Project or phasing of the SJRRP. Is there a thought that if funding runs out, that seepage mitigation would not be constructed? There is no analysis of phasing in this regard. For example, if the channel capacity was increased but funding was lacking to complete installation of seepage management measures the landowners would be subject, at a minimum, to flooding impacts of a nature that have never before been experienced. So, it is not just a question of keeping Restoration Flows to non-damaging levels; there is the other issue of a totally altered environment with changed flow patterns that have never been experienced and not yet analyzed. Further, one seepage management measure includes the acquisition of land or easements. However, there is no analysis of a situation where not all landowners agree to such measures resulting in a patchwork of protection. Similarly, there is no analysis of a situation where there is a future lack of funding to operate and maintain seepage management measures long after installation has been completed.

Chapter 14.0 Hydrology – Surface Water Resources and Water Quality

B-EC-90 14-6.1. Lines 23 -25. Text needs to explain the importance of the Exchange Contractors water rights and capability to divert San Joaquin River water at Mendota Pool for irrigation purposes during flood flows and per the Exchange Contract. This information is critical to understanding the significance of the proposed water supply operations under the alternatives and the need for a fish screen for flow entering the pool from the San Joaquin River. Up to 700 cfs can be released through Mendota Dam for delivery to the Arroyo Canal.

O-EC-91 14-6.2. Section 14.1.1 also needs to describe the impact to Mendota Pool that will be caused by the reduction in volume of the pool due to the construction of the new bifurcation structure cutting off the flow connection with the lower portion of Reach 2A upstream towards San Mateo Ave. This reduction in the operating volume of the pool will make the water surface elevation more sensitive to operational changes and cause potential seepage and pump cavitation problems with diverters upstream on Fresno Slough.

O-EC-92 14-6.3. The reduced pool volume will also have less of ability to dampen the impacts of changes in water quality associated with inflows to the pool from the DMC, Kings River through Fresno Slough, and San Joaquin River.

O-EC-93 14-31.1. Comments have been submitted on the numerous previous SJRRP documents describing modeling results for hydraulics, sediment transport, and channel dynamics. The primary focus of these comments are questions on the development of assumptions, adequacy of model calibration, and requests for sensitivity analysis and adequate characterization of uncertainty in the presentation and interpretation of model results. Simply referencing previous studies is inadequate and quantitative model results must be presented to substantiate impact analysis conclusions. The uncertainty associated with model input data, methods, calibration, and analysis results must be characterized for the reader to allow adequate understanding of the analyses that were conducted. Appendixes must be provided with a full descriptions of the modeling tools, methods, and quantitative comparisons of model results for all the action alternatives versus the No-Action Alternative and existing conditions.

O-EC-94 14-31.2. The document appendixes need to provide a full detailed description and site plans for facilities and proposed operations to provide water deliveries to Mendota Pool under the entire range of potential flow conditions. A detailed hydraulic analysis of the full range of potential operating conditions for each alternative must be provided to confirm the feasibility of the alternative and identify any potential adverse impacts associated with these operations.

O-EC-95 14-43.1. How will the program set aside adequate funding to support the increased O&M that will be required due to increased restoration flows that will cause erosion and sedimentation in Reach 3 and the Eastside Bypass?

O-EC-96 14-43.2. The uncertainty associated with the sediment transport model input data, assumptions, calibration, and results needs to be evaluated to adequately characterize the potential impacts including significant bed erosion and deposition in Reach 3. There needs to be a better understanding of the significant amount of sediment the project will generate in the first 15 years and where it will deposit downstream and the impact to O&M needs and funding. The feasibility of maintaining a stable channel in a sand bed environment is very challenging and potential impacts need to be fully understood. The channel down cutting in Reach 2B is extreme and could have unintended impacts upstream and to the adjacent bifurcation structure.

O-EC-97 14-44. The uncertainty associated with the sediment transport model input data, assumptions, calibration, and results used to develop the transport balance need to be evaluated to adequately characterize the potential impacts including significant bed erosion and deposition in Reach 3.

Chapter 16. Land Use Planning and Natural Resources

O-EC-98 Chapter 16 analyzes potential impacts on agricultural resources, but primarily within the Reach 2B area ignoring impacts from increased channel capacity and resulting flows to lands beyond those just adjacent to the river inasmuch as seepage impacts will occur up to three miles away from the river. There is also no discussion of impacts in reaches downstream of Mendota Dam that will result if the increased flow capacity in Reach 2B is utilized. Increased flows in the San Joaquin River will have impacts on downstream agricultural land either rendering it unsuitable for agricultural production or degrading the production value of the land.

O-EC-99 16-19 to 16-20. Analysis of the No-Action Alternative concludes that implementation of seepage management measures would minimize impacts to agricultural resources, primarily keeping flows within channel capacity. Again, the No-Action Alternative assumes partial implementation of the SJRRP, restoration flows and reintroduction of fish among other components. However, the Act directs the mandatory completion of Phase I improvements set out in Paragraph 11 of the Stipulated Settlement. Thus, a No-Action alternative that violates the Act does not provide a meaningful comparison.

O-EC-100 16-20 to 16-21 (Alt. A), 16-29 to 16-30 (Alt. B), 16-33 to 16-34 (Alt. C), 16-37 to 16-38 (Alt D). Under LU-1, all Action Alternatives find removal of land from agricultural production to be a significant but unavoidable impact. Pursuant to section 10004(d) of the Act, the Secretary of the Interior is legally required to mitigate the impacts identified. There is no provision within the Act for simply identifying an unavoidable impact and not mitigating. Failure to mitigate would constitute a violation of the Secretary's obligation.

O-EC-101 16-24 to 16-25 (Alt. A), 16-30 to 16-31 (Alt. B), 16-34 to 16-35 (Alt. C), 16-38 to 16-39 (Alt. D). LU-2 under all Action Alternatives indicates that designated farm land will be converted to non-agricultural uses and that even with mitigation impacts are significant and unavoidable. Such impacts cannot be simply deemed unavoidable but must be mitigated pursuant to Sec. 10004(d) of the Act.

O-EC-102 16-25 to 16-26 (Alt. A), 16-31 to 16-32 (Alt. B), 16-35 to 16-36 (Alt. C), 16-39 to 16-40 (Alt. D). The same is true of LU-3, for all Action Alternatives, concerning conflicts with Williamson Act Contracts. Again, pursuant to the Act, the Secretary must mitigate these impacts.

O-EC-103 16-26 to 16-27 (Alt. A),16-32 (Alt. B), 16-36 (Alt. C), 16-40 (Alt D.) LU-4 indicates that there will be degradation of agricultural land productivity due to seepage. The discussions state that a range of seepage control measures are incorporated or included into the Project that would avoid or minimize seepage outside the levee alignments. Such measures could include slurry walls, interceptor drains, seepage wells, seepage berms, land acquisition (fee title or seepage easements) and other measures as laid out in Section 2.2.4. However, none of these measures are actually planned for in the Project and the impact of implementing such measures are not subject

O-EC-103 cont.

to environmental review in the Draft EIS/R, as already noted in comments above. It is currently unknown which seepage measures will actually be used and each one carries its own environmental impacts. For example, the impact of installing seepage wells or interceptor drains can be greatly different from environmental impacts associated with taking agricultural land out of production. Such measures should be actually "incorporated" or "integrated" into the Project" and subject to the review process in the Draft EIS/R. Otherwise, the true impacts of the Project cannot be assessed. As it is now, the Draft EIS/R improperly segments the project-level environmental review for the Mendota Pool Bypass and Reach 2B Improvement Project. Further, the EIS/R indicates that the impact LU-4 will be less than significant (LTS) due to seepage mitigation measures. Since it is unclear which measures will be implemented, their impacts and effectiveness, it is unclear on which basis the less than significant determination is made.

Chapter 21. Socioeconomics and Economics

O-EC-104

21-16. The impacts analyzed in this chapter were determined to be "substantial" or "less than substantial" based on (1) the value of the agricultural production relative to region-wide conditions, (2) regional employment and/or income level relative to region-wide conditions, and (3) property tax revenue relative to region-wide conditions. Evaluating an economic impact only on an essentially region-wide scale, may be missing the significant economic impacts to individual landowners or groups/associations of landowners who may own appreciable land along the San Joaquin River. This is particularly true here inasmuch as the Fresno County assessor is raising property taxes based on water rights held by parcels plus production under Williamson Act, which becomes substantial under the new Delta operations. Pursuant to the Act, all impacts are required to be mitigated and landowners are only required to assume costs that they volunteer to incur.

O-EC-105

21-17. Restoration flows are assumed to continue under the No-Action Alternative. See comments to formulation of No-Action Alternative above.

O-EC-106

21-19. Alternative A permanently removes over a thousand acres of farmland from production and shifts agricultural use to pasture on another 580 acres but the impact to agricultural production (ECON-1) is found to be less than substantial when viewed on a regional-scale. However, the economic impact to individual landowners or corporations within the Project area from the creation of the floodplain and seepage impacts can be substantial or significant. Under the Act, all such impacts must be mitigated. The discussion does note that the direct economic impact on farmers would be negligible because privately-owned farmland would be purchased and property owners compensated at fair market value for their land. This does not necessarily account, however, for land that will be economically degraded due to seepage impacts. It also assumed that all landowners would be amenable to purchase at rates set by the SJRRP.

O-EC-107 21-25. The same is true of Alternative B in which significant acreages is either taken out of production or agricultural use is shifted to a lower-value use such as grazing pasture on the floodplain. Again, analysis on a regional scale missing the significant socio-economic impact to the more local area such as individual landowners, groups or associations of landowners or, even, nearby communities such as the City of Mendota.

O-EC-108 21-24, 21-27 to 21-28 and 21-30. Alternatives B, C and D make the same analysis of changes in agricultural production as Alternative A. See the above comment to ECON-1.

Chapter 25. Cumulative Impacts

O-EC-109 25-21. The analysis concludes that while there is an overall significant cumulative impact on groundwater due to past, present and reasonably foreseeable probable future actions, the Project Alternatives will not cause an incremental contribution to a cumulative significant impact on groundwater levels in the Project area largely due to monitoring and implementation of mitigation measures. This is even though the Project intends to raise the capacity of Reach 2B to 4500 cfs to allow for the release of full restoration flows. This conclusion assumes that all other components of the SJRRP, such as downstream channel capacity improvements, will be implemented and that potential seepage mitigation measures will be successfully implemented. However, none of the available measures are actually planned for implementation and none have been subject to environmental review.

Conclusion

O-EC-110 Thank you for this opportunity to comment. If any of our comments are unclear, please contact us and we will attempt to clarify. The Exchange Contractors look forward to continuing to work with Reclamation and others to ensure that the SJRRP is developed and implemented in a manner that meets the needs of all stakeholders.

Very truly yours,

Thomas M. Berliner

TMB/koj

Enclosures

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