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cont'd

important to note that native fishes in new reservoirs may experience a recruitment window if water levels are very low and then raise suddenly. The discussion of these issues in the DEIS is not adequate to support your conclusions.

183

Page 3.7-7, 3.7.3.2.2

This is the first example of where the lower Colorado River (below Hoover, Davis and Parker Dams) is not included in the analysis. Please correct this oversight.

184

Page 3.7-7, 3.7.3.3.1

paragraph 2: The water level fluctuations have not been described as "gradual" in the DEIS. No discussion on the speed of fluctuations has been made. Changes of 15-20 feet per month may not be "gradual" in a biological sense. The statements made here require additional supporting information, including a discussion under the effects to lake elevation and river flow earlier in Chapter 3, of changes to the speed of elevational changes due to the surplus criteria.

185

Page 3.7-8, 3.7.3.3.1

Please explain why selenium levels would not be affected. If Endrin or other toxic materials are entering the system via Las Vegas Wash, would not reduced levels of flow in Las Vegas Bay have an effect on its concentrations and dispersal?

186

Page 3.7-8, 3.7.3.3.2

There is no discussion of the river below Hoover, Davis or Parker Dams. Please correct this oversight.

Special Status Species

187

Page 3.8-1, 3.8-1

Why does this section not address species in the riverine sections below Hoover, Davis and Parker Dams? Please correct this oversight throughout this section.

188

Page 3.8.5, 3.8.2.2.1.2

paragraph 2: Under declining water levels, beaches currently used may no longer be available, and new beaches in areas not presently desirable may be subject to heavy usage. The assumption made in this paragraph is not supported. Further declining water levels may change the depth to water or other factors supporting the milkvetch, contributing to the reduction or elimination of a population. Because the changes to elevation will be occurring over a year or set of years, there may not be sufficient time for the plant to regenerate a population at the new water line, or if it does, it may be more likely to be flooded out by any sudden increase from a wet year. The dynamics of this species, and the relation to reservoir levels are not fully analyzed in this section. This discussion holds true for the Grand Canyon evening primrose, Las Vegas bear poppy and sticky buckwheat as well as the Geyer's milkvetch.

183: The FEIS includes expanded and new discussions in appropriate sections of impacts to resources below Hoover Dam.

184: The 15 to 20-foot elevation changes described in the text occur over a year, not month-to-month. The rate of fluctuations would remain approximately the same with adoption of interim surplus criteria. Section 3.7.3.3.1 has been modified.

185: Studies are ongoing to determine effects of toxins on fish, with the premise that increased concentrations show increased effects, and to determine what limits need to be enforced. Section 3.5.3 discusses potential water quality effects associated with Las Vegas Wash and Lake Mead.

186: The FEIS considers the potential effects of increases in the temperature of water released from Hoover Dam under decreased reservoir elevations on the sport fishery within the river between Hoover Dam and Lake Mohave in Section 3.7.3. Reclamation has determined that fluctuations in flows below Hoover Dam to the SIB under the alternatives would be within the historical operating range of the river and would, therefore, not affect aquatic resources within this segment.

187: Section 3.8 of the FEIS addresses species below Hoover Dam, downstream to the SIB with Mexico.

188: This section is meant only to provide existing information. The analysis on how the changes in reservoir levels might impact these plant species is included in the Environmental Consequences section.

COMMENT LETTER

RESPONSES

26

- 189 | Page 3.8-6, 3.8.2.2.2
There is no discussion of the river below Hoover, Davis or Parker Dams. Please correct this oversight.
- 190 | paragraph 2: This paragraph, which references Table 3.8-2, is confusing. There are 19 species listed in the table; two of which are eliminated from the discussion because of a lack of records (which is incorrect if the lower river is appropriately added to the discussion), two others are eliminated for lack of effects, and five are in the Grand Canyon only and are covered under other consultations. This leaves 10 species. Please revise the paragraph to be more clear.
- 191 | Page 3.8-7, Table 3.8-2
Please reorganize this table by species groups, starting with invertebrates, then reptiles and amphibians, birds and mammals.
- 192 | Page 3.8-8, 3.8.2.2.2.1
There is a considerable amount of general information on lakeside habitats on pages 3.8-8 through 3.8-10 that perhaps would be more appropriate under its own heading at the beginning of this section. Also, this section does not contain any information on the riverside habitats along the lower river and how they would be affected.
- 193 | Page 3.8-10, 3.8.2.2.2.1
paragraph 3: Clear and complete information on the formation and destruction of this important southwestern willow flycatcher habitat is essential to the analysis of the effects of this action. This section needs to provide more specifics on the elevations at which the habitat forms, the elevations at which it is dried out or inundated and the extent of this habitat at various new lake elevations. Why were models not run that focused on these lake elevations that created or destroyed flycatcher habitat?
- 194 | Page 3.8-11, 3.8.2.2.2.1
paragraph 1: The discussion of the formation of riparian habitats within the lower Grand Canyon requires the same level of background as the preceding discussion of the Lake Mead delta. Why do water elevations that benefit the delta not benefit the lower Canyon?
- 195 | paragraph 3: Marshes and backwaters along the river below Hoover, Davis and Parker Dams will also be affected by the proposed action and should be discussed here and in subsequent paragraphs.
- 196 | Page 3.8-12, 3.8.2.2.1
paragraph 1: The last sentence does not appear to belong here.
- 197 | Page 3.8-13, 3.8.2.2.2.1.2
Please address the presence of these species in the lower river reaches below the dams.
- 189: See response for Comment 57-187.
- 190: Paragraph has been modified in the FEIS for clarification.
- 191: The table, and subsequent discussion of the species, has been reorganized as you suggested.
- 192: The discussion on lakeside habitat and riverside habitat in the lower canyon will be presented in separate sections in the FEIS in order to clarify these two distinct areas. No additional information will be added to the existing discussion on habitat in the lower canyon and potential changes in riverside and marsh habitat as it is adequately addressed.
- 193: The lakeside habitat has been organized under its own headings. Riverside habitat along the lower river has been added with reference to detailed discussions from the biological assessment (BA) prepared by Reclamation for the interim surplus criteria.
- 194: Additional information on water levels and development of riparian and marsh habitats in the Lake Mead Delta and Lower Grand Canyon has been added to the discussion of the FEIS. This information summarizes findings from the following Reclamation report: Willow Flycatcher Disturbances, Threats and Protective Management Along the Lower Virgin and Colorado Rivers - 1997 (Reclamation, 1998).
- 195: Additional information on marshes and backwaters along the Colorado River from below Hoover Dam to the SIB has been added. The discussion references findings from Reclamation's BA that examines potential effects of the implementation of the interim surplus criteria on these habitats.
- 196: The sentence has been reworded in the FEIS.
- 197: See response to Comment 57-187.