130 cont'd of growth will take more and more water. Additional supplies from the Colorado River are not available except under surplus conditions, and beyond 2020, the likelihood for surplus decreases. There are issues of indirect effects and cumulative effects inherent in the statements in this paragraph that need to be addressed.

131 paragraph 3: As we have noted previously, the certainty of the determinations of a surplus being made are not changing because they are still based on inflows and outflows. What is changing is the probability one will be called because of the more liberal criteria.

132 paragraph 5: MWD can take 1.3 maf per year through the Colorado River aqueduct, and they want to maintain that amount at capacity into the future. They have an allocation of approximately 440,000 af and the 4.4 Plan water transfers will give them about 400,000 af to use. This still leaves about 460,000 af to find to keep the aqueduct full. Where do they plan to get that water from? Future surpluses beyond 2015? Additional transfers?

Page 3.4-8, Figure 3.4-2

133 In this Figure, California's surplus demand projection is above 5.2 maf until about 2005. Why does it decline over this period when the normal demand projection is also declining and one would expect that additional surplus would be needed to make up total demand. Since the 4.4 Plan will not be implemented by then, is it appropriate to show demand reduced 100% to the allocation level so early?

Page 3.4-9, 3.4.3.3

134 paragraph 2: Would the Coachella Groundwater Storage Program also use surplus water? If there would need to be "unused apportionment" created to provide for the future use of this water, this needs to be addressed in this document. This is another example of the difficulty in seeing the entire effect of the surplus criteria without the companion 4.4 Plan being included.

135 paragraph 5: When was the compliance for this demonstration program completed?

Page 3.4-10, 3.4.3.4

136 paragraph 4: Please separate the 212,000 af of surplus water from the 300,000 af of Nevada's allocation.

Page 3.4-11, 3.4.3.4

137 paragraph 1: Mention any groundwater storage initiatives in Arizona or Nevada that could be used to store surplus water for future uses.

Page 3.4-11, 3.4.3.5

138 The issue of where Upper Basin future depletions should be analyzed has not yet been resolved.

131: Please see Section 1.1.3 for description of the "Purpose and Need for Action."

132: Please see response to Comment 11-11 for information on California's Colorado River Water Use Plan.

133: The full surplus depletion schedule plotted in Figure 3.4-2 of the DEIS for California was incorrectly plotted. The actual California depletion schedule that was used in the water supply analysis is presented in Table G-4 in Attachment G of the DEIS. The Lower Basin states prepared and submitted revised depletion schedules for the FEIS. This revised schedules are presented in Attachment H of the FEIS.

134: Please see response to Comment 11-11 for information on California's Colorado River Water Use Plan.

135: The referenced project was a project undertaken by the CAP, SNWA and MWD. NEPA documentation was accomplished for the demonstration project (indirect recharge) by a CEC (LC-93-9) dated April 9, 1993, and amended by CEC (LC-95-10) dated March 30, 1995.

136: The full surplus schedule specifies the total amount of water to be delivered under full surplus water supply conditions. The delivery of limited surplus amounts are also possible. The amount above the normal depletion amount under limited or surplus water conditions is variable.

137: The State of Nevada has not provided specific details on initiatives or programs for groundwater banking in Arizona. Based on information available to Reclamation, the concept of Nevada-Arizona interstate banking appears to be highly feasible, although currently at a conceptual stage.

138: Please see response to Comment 57-10 for a discussion of Upper Basin depletions.

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Page 3.4-13, 3.4.4

139 A general comment on this subsection is to make sure all line patterns are consistent throughout the figures, and many of the graphs are at a scale that makes reviewing differences between alternatives difficult.

140 paragraphs 3-4: The two methods of presenting the data appear to be similar to those used in the river reaches sections earlier in the DEIS. Is this correct? If so, comments referencing those methods will also hold true for this section. Further, there appears to be little integration of the results of the two methods in this section. The results are presented without suitable interpretation.

Page 3.4-14, 3.4.4.1.1

141 In Figure 3.4-5, Is 90th percentile line derived from the surplus depletion line in Figure 3.4-1? How can the 90th percentile line remain so high, and indeed, raise over time, if the amount of surplus available in the future declines due to Upper Basin depletions? Why does the median line show such a precipitous drop near 2045 when the graphs for Lake Mead do not reflect this type of decreased water availability. Is this a result of the steadily decreasing Mead levels finally triggering a change in the median? Is that why the 10th percentile line drops earlier? Why does the median and 10th percentile line match up after 2044?

Page 3.4-15

142 paragraph 1: As asked previously, why does the 90th percentile line increase and not decrease over time.

143 paragraph 2: Why does the 50th percentile line drop so precipitously after 2044?

Page 3.4-17, 3.4.4.1.1

144 Please provide more detail on the differences in effects between baseline and surplus alternatives in this section. The fact that decreases in probability occur earlier is as important as the level attained and this is not fully acknowledged here. This section should also allow for integration of the results of other modeling as appropriate with the findings here. That the percentile lines "coincide" with the proposed depletion lines should also be addressed here if it has not been earlier.

145 paragraph 5: In Table 3.4-1, the columns for Normal and Shortage years are clearly additive percentages. The Surplus percentages are a subset of the Normal year, correct? If so, is the Surplus percentage provided a percentage of the Normal years, or is it the percentage of Normal years in which a surplus is expected. For example, under baseline conditions in 2016 to 2050, Normal conditions occur in 70% of the 35 years and shortage in 30%. Is the surplus 26% of the 35 years (which would mean that normal years occurred in 44% of the 35 years), or is it 26% of 70%?

139: The scales and units used on each figure are clearly marked and readable. The vertical scale on various figures are varied to focus on the range of the data being presented. The line patterns on all figures have been reviewed and made consistent for the FEIS.

140: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

141: This analysis first ranks the outcome for the 85 traces for each condition modeled. The 90th percentile line depicts the value of the upper limit of the bottom 90 percent of the modeled values (traces) in any given year. Another way to say this, is the values of 10 percent of the outcome (traces) in a given year will be equal to or greater than the value depicted by the 90th percentile line for that year. The median values are represented by the 50th percentile line. The median value represents the depletion amount where half of the values are above and half are below. On Figure 3.4-5 of the DEIS, the 50th and 10th percentile lines sometimes overlie each other. When this ocurs, the implication is that there is very little or no difference between the values in the bottom half of the ranked values (modeled outcome). This all relates to the distribution of the values in the outcome for each condition being modeled.

142: See response to Comment 57-141.

143: See response to Comment 57-141.

144: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

145: The percentage values presented under the column heading labeled "Normal" in Table 3.4-1 and similar tables in Section 3.4, represent the total percentage of time that depletions under the noted conditions would be at or above the normal depletion schedule amount. The values presented under the column labeled "Surplus" represent the total percentage of time that depletions under the noted conditions would be above the normal depletion schedule amount. The values presented under the column labeled "Shortage" represent the total percentage of time that depletions under the noted conditions would be below the normal depletion schedule amount.