

CHAPTER 4 – OTHER NEPA CONSIDERATIONS

4.1 INTRODUCTION

NEPA requires that the impacts to resources from proposed federal actions include the perspectives of cumulative impacts, relationship between short-term uses of the environment and long-term productivity, and irreversible and irretrievable commitments of resources. While an attempt was made to incorporate those considerations in the discussion for each resource, they are summarized here in recognition of the emphasis they are given in NEPA and the CEQ Regulations.

4.2 CUMULATIVE IMPACTS

A *cumulative impact* is an impact that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

As discussed in Chapter 3, effects that could occur as a result of interim surplus criteria are each associated with potential changes in the probabilities for Lake Mead and Lake Powell surface elevation reductions and changes in Colorado River flows from Glen Canyon Dam to the NIB. Generally, other actions that could result in cumulative impacts when considered in tandem with the effects of interim surplus criteria (as identified in Chapter 3), have been incorporated into modeling of future system conditions. Such actions include future increases in consumptive use of Colorado River water in the Upper Division states, intrastate water transfers in the Lower Division states, and various requirements and constraints applied to the operation of the Colorado River system.

Current circumstances and expected future actions have been included in system modeling conducted for, and the analysis presented in, this DEIS. The fundamental analytical approach for this DEIS is based on identifying the difference between baseline conditions and conditions that would exist under each interim surplus criteria alternative. In projecting future baseline Colorado River system conditions, as well as conditions with the interim surplus criteria alternatives, modeling included expected future actions and other factors that would influence system conditions during the 50-year period of analysis. The assumptions made with regard to future actions are discussed in Section 3.3. The interim surplus criteria were then modeled using a similar set of assumptions (with modification to the assumptions made when necessary to reflect changes in likely future actions associated with the implementation of the various interim surplus criteria alternatives).

Due to the incorporation of current system conditions and various assumptions concerning future actions that would effect the Colorado River system within the areas considered, the analysis of potential effects discussed in Chapter 3 is inclusive of cumulative effects and no additional analysis is necessary.

4.3 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

Because the implementation of interim surplus criteria is a management action that would require no direct physical change to the environment, for the purposes of this discussion, short-term uses of resources are limited to potential changes in the probability for certain environmental effects to occur as a result of changed system conditions. Also for the purposes of this discussion, long-term productivity refers to the benefits that would be realized during and following the period in which interim surplus criteria would be in place.

As stated in Section 1.1.3, Purpose of and Needs for the Proposed Action, the benefit sought by means of the interim surplus criteria alternatives consists of increasing the efficiency of the Secretary's annual decision-making process regarding the availability of Colorado River water. This would afford the mainstream users of this water a greater degree of predictability which would assist them in their water resources planning and operation.

The resources that may be affected in the short term would be primarily those affected by lower reservoir levels. The effects of the interim surplus criteria on those resources would depend on the alternative selected for implementation. The Flood Control Alternative would result in insignificant changes in reservoir levels from baseline conditions. The other three alternatives would tend to cause lower average water levels than baseline conditions by 2015 and for a limited period of time thereafter. However, those other three alternatives would have a greater probability of surplus water than the Flood Control Alternative or baseline. Long-term benefits that would be realized due to interim surplus criteria would include increased opportunities for making more efficient use of Colorado River water supplies.

4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Irreversible commitments are decisions affecting renewable resources such as soils, wetlands and waterfowl habitat. Such decisions are considered irreversible because their implementation would affect a resource that has deteriorated to the point that renewal can occur only over a long period of time or at great expense or because they would cause the resource to be destroyed or removed.

The application of the interim surplus criteria would include reviews at five-year intervals to consider the workability of the criteria in light of the multiple purposes served by the operation of the Colorado River system, including environmental maintenance. Based on those reviews, interim surplus criteria could be revised or eliminated as needed. If the State of California fails to meet its water conservation and management goals throughout the stipulated term of implementation of the criteria (through 2015), the Secretary may choose to terminate the interim criteria and revert to the current method. Finally, after 2015, determinations of the availability of surplus will revert the current method.

None of the resources assessed in this DEIS would experience a deterioration in condition such that the resource would be destroyed or removed as a result of implementation of interim surplus criteria or under the no action alternative. There would be no construction of facilities needed to facilitate the Secretary's determination of surplus water under the criteria.

Irretrievable commitment of natural resources means loss of production or use of resources as a result of a decision. It represents opportunities forgone for the period of time that a resource cannot be used.

All of the resources assessed in the DEIS would continue to be available for production or use under any of the alternatives; however, application of the interim surplus criteria may result in a determination for any given year that surplus water is available from the Colorado River. That water may not have been determined to be surplus in the absence of interim surplus criteria. Although water is a renewable resource, the delivery of surplus water under all of the alternatives, including no action, would irretrievably commit (to beneficial consumptive uses) the water declared to be surplus.