



THE SECRETARY OF THE INTERIOR  
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## Record of Decision

### Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead

December 2007

**Recommending Official:**

*Robert Johnson* *December 13, 2007*  
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Commissioner, Bureau of Reclamation

**Approved:**

*Dirk Kempthorne* *December 13, 2007*  
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Secretary of the Department of the Interior



## Record of Decision

# Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead Final Environmental Impact Statement (November 2007)

## I. Introduction

The Colorado River Basin (Basin) is in the eighth year of drought – the worst eight year period in over a century of continuous recordkeeping. Reservoir elevations have declined over this period and the duration of this ongoing, historic drought is unknown. This is the first long-term drought in the modern history of the Colorado River, although climate experts and scientists suggest droughts of this severity have occurred in the past and are likely to occur in the future. The Colorado River provides water to two nations, and to users within seven western states. With over 27 million people relying on the Colorado River for drinking water in the United States, and over 3.5 million acres of farmland in production in the Basin, the Colorado River is the single most important natural resource in the Southwest.

The Secretary of the Interior (Secretary) has a unique role on the Colorado River – charged with management of a vast system of dams and reservoirs that have provided water for the development of the Southwest.

Under these conditions, conflict over water is unsurprising and anticipated. Declining reservoir levels in the Basin led to interstate and inter-basin tensions. As the agency charged with management of the Colorado River, the Department of the Interior (Department) had not yet developed operational rules for the full range of operations at Lake Powell and Lake Mead because these types of low-reservoir conditions had simply not yet occurred.

Against this background, at the direction of the Secretary, the Department initiated a public process in May of 2005 to develop additional operational guidelines and tools to meet the challenges of the drought in the Basin. While water storage in the massive reservoirs afforded great protection against the drought, the Department set a goal to have detailed, objective operational tools in place by the end of 2007 in order to be ready to make informed operational decisions if the reservoirs continued to decline.

During the public process, a unique and remarkable consensus emerged in the basin among stakeholders including the Governor's representatives of the seven Colorado River Basin States (Basin States). This consensus had a number of common themes: encourage conservation, plan for shortages, implement closer coordination of operations of Lake Powell and Lake Mead, preserve flexibility to deal with further challenges such

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as climate change and deepening drought, implement operational rules for a long – *but not permanent* – period in order to gain valuable operating experience, and continue to have the federal government facilitate – *but not dictate* – informed decision-making in the Basin.

Today, this Record of Decision (ROD) constitutes the Department’s final decision after facilitating, analyzing, and considering public input over the past two and one-half years, during which the ongoing drought continued to focus nationwide attention on the Basin. A broad range of considerations have been analyzed, involving water supply, environmental protection, hydropower production, and recreation – all benefits that flow from the management of the Colorado River.

This document is the ROD of the Department of the Interior, regarding the Preferred Alternative for Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations of Lake Powell and Lake Mead (Guidelines). The Secretary is vested with the responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. This responsibility is carried out consistent with applicable federal law.

The Bureau of Reclamation (Reclamation), the agency that is designated to act on the Secretary’s behalf with respect to these matters, is the lead federal agency for the purposes of the National Environmental Policy Act. The Final Environmental Impact Statement – *Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead*, dated October 2007, (FES-07-37) (Final EIS) was prepared pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, the Council on Environmental Quality’s (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), Department of the Interior Policies, and Reclamation’s NEPA Handbook. The Final EIS was filed with the Environmental Protection Agency (EPA) on October 26, 2007 and noticed by EPA (72 Fed. Reg. 62229) and Reclamation (72 Fed. Reg. 62272) in the *Federal Register* on November 2, 2007.

The Final EIS was prepared by Reclamation to address the formulation and evaluation of specific interim guidelines for shortage determinations and coordinated reservoir operations, and to identify the potential environmental effects of implementing such guidelines. The Final EIS addresses the environmental issues associated with, and analyzes the environmental consequences of various alternatives for specific interim guidelines. The alternatives addressed in the Final EIS are those Reclamation determined would meet the purpose of and need for the federal action and represented a broad range of the most reasonable alternatives.

The Bureau of Indian Affairs (BIA), Fish and Wildlife Service (FWS), National Park Service (NPS), Western Area Power Administration (Western) and the United States Section of the International Boundary and Water Commission (USIBWC) are

cooperating agencies for purposes of assisting with the environmental analysis in the Final EIS.

The BIA has responsibility for the administration and management of lands held in trust by the United States for American Indians (Indian) and Indian tribes located within the Basin. Developing forestlands, leasing assets on these lands, directing agricultural programs, protecting water and land rights, developing and maintaining infrastructure, and economic development are all part of the BIA's responsibility.

FWS manages four national wildlife refuges along the Colorado River. Among its many other key functions, the FWS administers and implements federal wildlife laws, protects endangered species, manages migratory birds, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and assists foreign governments with international conservation efforts.

The NPS administers areas of national significance along the Colorado River, including Glen Canyon National Recreation Area, Grand Canyon National Park, and Lake Mead National Recreation Area. The NPS conserves natural and cultural resources and administers visitor use, and also grants and administers concessions for the operation of marinas and other recreation facilities at Lake Powell and Lake Mead, as well as concessions' operations along the Colorado River between Glen Canyon Dam and Lake Mead.

Western markets and transmits power generated from the various hydropower plants located within the Basin operated by Reclamation. Western customers include municipalities, cooperatives, public utility and irrigation districts, federal and state agencies, investor-owned utilities, and Indian tribes located throughout the Basin.

The USIBWC is the United States component of a bi-national organization responsible for administration of the provisions of the February 3, 1944 Treaty between the United States and Mexico Relating to the Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande (1944 Treaty), which includes the Colorado River waters allotted to Mexico, protection of lands along the Colorado River from floods by levee and floodway construction projects, resolution of international boundary water sanitation and other water quality problems, and preservation of the Colorado River as the international boundary. The International Boundary and Water Commission (IBWC) consists of the United States Section and the Mexican Section, which have their headquarters in the adjoining cities of El Paso, Texas and Ciudad Juarez, Chihuahua, respectively.

## **II. Decision**

The recommendation is the approval of the following federal action: the adoption of specific interim guidelines for Lower Basin shortages and coordinated operations of Lake Powell and Lake Mead, as provided below in Section XI. These interim

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Guidelines are based upon the Preferred Alternative analyzed in the Final EIS, and include several operational refinements as a result of public input, described below in Section VII. The interim Guidelines would be used each year by the Department in implementing the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 (Long-Range Operating Criteria or Operating Criteria or LROC), through issuance of the Annual Operating Plan for Colorado River Reservoirs (AOP). The Guidelines would remain in effect for determinations to be made through 2025 regarding water supply and reservoir operating decisions through 2026, as provided below in Section 8 of the Guidelines.

The Preferred Alternative proposes:

- ◆ discrete levels of shortage volumes associated with Lake Mead elevations to conserve reservoir storage and provide water users and managers in the Lower Basin with greater certainty to know when, and by how much, water deliveries will be reduced in drought and other low reservoir conditions;
- ◆ a coordinated operation of Lake Powell and Lake Mead determined by specified reservoir conditions that would minimize shortages in the Lower Basin and avoid the risk of curtailments in the Upper Basin;
- ◆ a mechanism to encourage and account for augmentation and conservation of water supplies, referred to as Intentionally Created Surplus (ICS), that would minimize the likelihood and severity of potential future shortages; and
- ◆ the modification and extension of the Interim Surplus Guidelines (66 Fed. Reg. 7772, Jan 25, 2001) (ISG) through 2026.

### **III. Background**

The Secretary, acting through Reclamation, is responsible for water management throughout the western United States. Reclamation's authority is limited throughout the west by the limiting provisions of Reclamation law, beginning with the Reclamation Act of 1902.

The Secretary also has a broader and unique legal role as he manages the lower Colorado River system in accordance with federal law, including the Boulder Canyon Project Act of 1928, the 1963 Decision of the U.S. Supreme Court in *Arizona v. California*, the 2006 Consolidated Decree of the U.S. Supreme Court in *Arizona v. California* (Consolidated Decree), the Colorado River Basin Project Act of 1968 (CRBPA), the LROC, and the Grand Canyon Protection Act of 1992, and other applicable provisions of federal law. Within this legal framework, the Secretary makes annual determinations regarding the availability of water from Lake Mead by considering various factors, including the amount of water in system storage and

predictions for natural runoff. The CRBPA directed the Secretary to propose and adopt criteria: “In order to comply with and carry out the provisions of the Colorado River Compact, the Upper Colorado River Basin Compact, and the Mexican Water Treaty, ... for the coordinated long-range operation of the reservoir constructed and operated under the authority of the Colorado River Storage Project Act, the Boulder Canyon Project Act, and the Boulder Canyon Project Adjustment Act.”

Pursuant to the CRBPA, the narrative provisions of LROC are utilized by the Secretary, on an annual basis, to make determinations with respect to the projected plan of operations of the storage reservoirs in the Basin. The AOP is prepared by Reclamation, acting on behalf of the Secretary, in consultation with representatives of the Basin States and other parties, as required by federal law. In the AOP, with respect to operations of Hoover Dam, the Secretary is required to determine when Normal, Surplus, or Shortage conditions occur in the lower Colorado River, based on various factors including storage and hydrologic conditions in the Basin.

As described in the Final EIS:

- ◆ A “Normal Condition” exists when the Secretary determines that sufficient mainstream water is available to satisfy 7.5 million acre-feet (maf) of annual consumptive use in the Lower Division states (Arizona, California, and Nevada). If a state will not use all of its apportioned water for the year, the Secretary may allow other states of the Lower Division to use the unused apportionment, provided that the use is authorized by a water delivery contract with the Secretary.
- ◆ A “Surplus Condition” exists when the Secretary determines that sufficient mainstream water is available for release to satisfy consumptive use in the Lower Division states in excess of 7.5 maf annually. The water available for excess consumptive use is surplus and is distributed for use in Arizona, California, and Nevada pursuant to the terms and conditions provided in the ISG. The current provisions of the ISG are scheduled to terminate in 2016. In general terms, the ISG link the availability of surplus water to the elevation of Lake Mead. When Lake Mead is full and Reclamation is making flood control releases, surplus supplies are unlimited. As Lake Mead’s elevation drops, surplus water amounts are reduced, and ultimately eliminated. The ISG also link surplus availability to continued progress by California in reducing its agricultural use of water to benchmarks established in the ISG. If a state does not use all of its apportioned water for the year, the Secretary may allow other Lower Division states to use the unused apportionment, provided that the use is authorized by a water delivery contract with the Secretary.
- ◆ A “Shortage Condition” exists when the Secretary determines that insufficient mainstream water is available to satisfy 7.5 maf of annual consumptive use in the Lower Division states. To date, the Secretary has never made such a

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determination, as flow in the Colorado River has been sufficient to meet Normal or Surplus delivery amounts. When making a shortage determination, the Secretary must consult with various parties as set forth in the Consolidated Decree and consider all relevant factors as specified in the LROC, including 1944 Treaty obligations, the priorities set forth in the Consolidated Decree, and the reasonable consumptive use requirements of mainstream water users in the Lower Division states. If a state does not use all of its apportioned water for the year, the Secretary may allow other Lower Division states to use the unused apportionment, provided that the use is authorized by a water delivery contract with the Secretary.

As discussed above, during the period from 2000 to 2007, the Colorado River has experienced the worst drought conditions in approximately one hundred years of recorded history. This drought in the Basin has reduced Colorado River system storage, while demands for Colorado River water supplies have continued to increase. From October 1, 1999 through September 30, 2007, storage in Colorado River reservoirs fell from 55.8 maf (approximately 94 percent of capacity) to 32.1 maf (approximately 54 percent of capacity), and was as low as 29.7 maf (approximately 52 percent of capacity) in 2004. This drought was the first sustained drought experienced in the Basin at a time when all major storage facilities were in place, and when use by the Lower Division states met or exceeded the annual “normal” apportionment of 7.5 maf pursuant to Article II(B)(1) of the Consolidated Decree.

Currently, the Department does not have specific operational guidelines in place to address the operations of Lake Powell and Lake Mead during drought and low reservoir conditions. To date, storage of water and flows in the Colorado River have been sufficient so that it has not been necessary to reduce Lake Mead annual releases below 7.5 maf; that is, the Secretary has never reduced deliveries by declaring a “shortage” on the lower Colorado River. Without operational guidelines in place, however, water users in the Lower Division states who rely on Colorado River water are not currently able to identify particular reservoir conditions under which the Secretary would reduce the annual amount of water available for consumptive use from Lake Mead to the Lower Division states below 7.5 maf. Nor are these water users able to identify the frequency or magnitude of any potential future annual reductions in their water deliveries.

Accordingly, the Secretary, acting through Reclamation, proposes adoption of specific Colorado River Lower Basin shortage guidelines and coordinated reservoir management strategies to address operations of Lake Powell and Lake Mead, particularly under drought and low reservoir conditions. These Guidelines are found at Section XI of this ROD. This action is proposed in order to provide a greater degree of certainty to United States Colorado River water users and managers of the Basin by providing detailed, and objective guidelines for the operations of Lake Powell and Lake Mead, thereby allowing water users in the Lower Basin to know when, and by how much, water deliveries will be reduced in drought and other low reservoir conditions.



The Secretary has also determined the desirability of developing additional operational guidelines that will provide for releases greater than or less than 8.23 maf from Lake Powell. To further enhance this coordinated reservoir approach, the Secretary has determined a need for guidelines that provide water users in the Lower Division states the opportunity to conserve and take delivery of water in and from Lake Mead for the purposes of enhancing existing water supplies, particularly under low reservoir conditions. In addition, the Secretary has determined the need to modify and extend the ISG to coincide with the duration of the proposed new Guidelines. This will provide an integrated approach for reservoir management and more predictability for future Lower Division water supplies.

#### **IV. Alternatives Considered**

The purpose of the proposed federal action is to:

- ◆ improve Reclamation's management of the Colorado River by considering trade-offs between the frequency and magnitude of reductions of water deliveries, and considering the effects on water storage in Lake Powell and Lake Mead, and on water supply, power production, recreation, and other environmental resources;
- ◆ provide mainstream United States users of Colorado River water, particularly those in the Lower Division states, a greater degree of predictability with respect to the amount of annual water deliveries in future years, particularly under drought and low reservoir conditions; and
- ◆ provide additional mechanisms for the storage and delivery of water supplies in Lake Mead to increase the flexibility of meeting water use needs from Lake Mead, particularly under drought and low reservoir conditions.

This proposed federal action considers four operational elements that collectively are designed to address the purpose and need for the proposed federal action. The interim Guidelines would be used by the Secretary to:

- ◆ determine those circumstances under which the Secretary would reduce the annual amount of water available for consumptive use from Lake Mead to the Colorado River Lower Division states below 7.5 maf (a "Shortage") pursuant to Article II(B)(3) of the Consolidated Decree;
- ◆ define the coordinated operation of Lake Powell and Lake Mead to provide improved operation of these two reservoirs, particularly under low reservoir conditions;
- ◆ allow for the storage and delivery, pursuant to applicable federal law, of conserved Colorado River system and non-system water in Lake Mead to

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increase the flexibility of meeting water use needs from Lake Mead, particularly under drought and low reservoir conditions; and

- ◆ determine those conditions under which the Secretary may declare the availability of surplus water for use within the Lower Division states. The proposed federal action would modify the substance of the existing ISG and the term of the ISG from 2016 through 2026.

Six alternatives are considered and analyzed in the Final EIS. The alternatives consist of a No Action Alternative and five action alternatives. The five action alternatives are: Basin States Alternative, Conservation Before Shortage Alternative, Water Supply Alternative, Reservoir Storage Alternative, and the Preferred Alternative. The action alternatives reflect input from Reclamation staff, the cooperating agencies, stakeholders, and other interested parties.

Reclamation received two written proposals for alternatives that met the purpose and need of the proposed federal action, one from the Basin States and another from a consortium of environmental non-governmental organizations (NGO). These proposals were used by Reclamation to formulate two of the alternatives considered and analyzed in the Final EIS (Basin States Alternative and Conservation Before Shortage Alternative). A third alternative (Water Supply Alternative) was developed by Reclamation, and a fourth alternative (Reservoir Storage Alternative) was developed by Reclamation in coordination with the NPS and Western. The No Action Alternative and the action alternatives analyzed in the Draft EIS were posted on Reclamation's project website (<http://www.usbr.gov/lc/region/programs/strategies.html>) on June 30, 2006.

A fifth alternative, the Preferred Alternative, was developed (and included in the Final EIS) after consideration of the comments received on the Draft EIS and further analysis. The Preferred Alternative was posted on Reclamation's project website on June 15, 2007 and is composed of operational elements from the action alternatives identified and analyzed in the Draft EIS.

The Preferred Alternative is the most reasonable and feasible alternative; all environmental effects of this alternative, as well as the No Action Alternative and the remaining four action alternatives have been fully analyzed in the Final EIS. The identified environmental effects of the Preferred Alternative are well within the range of anticipated effects of the alternatives presented in the Draft EIS and do not affect the environment in a manner not already considered in the Draft EIS.

Reclamation identified the Preferred Alternative and the Conservation Before Shortage Alternative as the environmentally preferred alternatives, as provided in 50 CFR 1505.2. The combination of the ICS mechanism and the coordinated operations between Lake Powell and Lake Mead maintains and enhances water supply and environmental benefits at both reservoirs. In addition, these alternatives strike an

appropriate balance between the storage of water for future deliveries and the lack of disruption of near-term water deliveries.

Reclamation selected from among the four key operational elements disclosed in the Draft EIS to formulate the Preferred Alternative. Reclamation has determined that the four operational elements selected under this alternative best meet all aspects of the purpose and need of the proposed federal action.

### **A. No Action Alternative**

The No Action Alternative represents a projection of future conditions that could occur during the life of the proposed federal action without an action alternative being implemented. It provides a baseline for comparison of each of the action alternatives.

Pursuant to LROC, the Secretary makes a number of determinations at the beginning of each operating year through the development and execution of the AOP, including the water supply available to users in the Lower Basin and the annual release from Lake Powell. However, the LROC currently does not include specific guidelines for such determinations. Furthermore, there is no actual operating experience under low reservoir conditions, i.e., there has never been a shortage determination in the Lower Basin. Therefore, in the absence of specific guidelines, the outcome of the annual determination in any particular year in the future cannot be precisely known. However, a reasonable representation of future conditions under the No Action Alternative is needed for comparison to each action alternative. The modeling assumptions used for this representation are consistent with the assumptions used in previous environmental compliance documents for the ISG, the Colorado River Water Delivery Agreement, and the Lower Colorado River Multi-Species Conservation Program (LCR MSCP). However, the assumptions used in the No Action Alternative are not intended to limit or predetermine these decisions in any future AOP determination.

### **B. Basin States Alternative**

The Basin States Alternative was developed by the Basin States and proposes a coordinated operation of Lake Powell and Lake Mead that would minimize shortages in the Lower Basin and avoid risk of curtailments of Colorado River water use in the Upper Basin. This alternative includes shortages to conserve reservoir storage; coordinated operations of Lake Powell and Lake Mead determined by specified reservoir conditions; a mechanism for the creation, accounting, and delivery of conserved system and non-system water (ICS); and a modification and extension of the ISG through 2026.

### **C. Conservation Before Shortage Alternative**

The Conservation Before Shortage Alternative was developed by a consortium of environmental NGOs, and includes voluntary, compensated reductions (shortages) in water use to minimize involuntary shortages in the Lower Basin and to avoid risk of curtailments of Colorado River water use in the Upper Basin. This alternative includes voluntary shortages prior to involuntary shortages; coordinated operations of Lake Powell and Lake Mead determined by specified reservoir conditions; an expanded ICS mechanism for the creation, accounting, and delivery of conserved system and non-system water, including water for environmental uses; and modification and extension of the ISG through 2026. There are two aspects of the Conservation Before Shortage proposal that are unique to the Conservation Before Shortage Alternative: a funding mechanism for the voluntary conservation program, and a recommendation that a portion of the conserved water be used to benefit the environment. However, as noted in the Final EIS, the viability of the Conservation Before Shortage program funding proposal is not known at this time. The Department currently does not have the authority to implement all facets of this proposal and additional legislation would be necessary to gain such authority.

### **D. Water Supply Alternative**

The Water Supply Alternative maximizes water deliveries at the expense of retaining water in storage in the reservoirs for future use. This alternative would reduce water deliveries only when insufficient water to meet entitlements is available in Lake Mead. When reservoir elevations are relatively low, Lake Powell and Lake Mead would share water (“balance contents”). This alternative does not include a mechanism for the creation, accounting, and delivery of conserved system and non-system water in Lake Mead. The existing ISG would be extended through 2026.

### **E. Reservoir Storage Alternative**

The Reservoir Storage Alternative was developed in coordination with the cooperating agencies and other stakeholders, primarily Western and the NPS. This alternative would keep more water in storage in Lake Powell and Lake Mead by reducing water deliveries and by increasing shortages to retain more water in storage and thereby, benefit power and recreational interests. This alternative includes larger, more frequent shortages that serve to conserve reservoir storage; coordinated operations of Lake Powell and Lake Mead determined by specified reservoir conditions (more water would be held in Lake Powell than under the Basin States Alternative); and an expanded mechanism for the creation, accounting, and delivery of conserved system and non-system water in Lake Mead. The existing ISG would be terminated after 2007.

## F. Preferred Alternative

The Preferred Alternative incorporates operational elements identified in the Basin States and Conservation Before Shortage alternatives. This alternative includes shortages to conserve reservoir storage and a coordinated operation of Lake Powell and Lake Mead determined by specified reservoir conditions that would minimize shortages in the Lower Basin and avoid risk of curtailments of use in the Upper Basin; and also adopts the ICS mechanism for promoting water conservation in the Lower Basin. It is anticipated that the maximum cumulative amount of ICS would be 2.1 maf pursuant to Section XI.D. of this ROD; however, the potential effects of a maximum cumulative amount of ICS of up to 4.2 maf have been analyzed in the Final EIS. This alternative also includes modification and extension of the ISG through 2026.<sup>1</sup>

## V. Basis for Decision

In 2005, tensions among the Basin States brought the basin closer to multi-state and inter-basin litigation than perhaps any time since the adoption of the Compact. On May 2, 2005, in a decision of the Secretary, the Department outlined a number of fundamental considerations that would guide the NEPA process that concludes with the adoption of this ROD. These considerations include:

- ◆ concern regarding the impacts of drought throughout the Colorado River Basin;
- ◆ a recognition of the recent history of close and productive working relationships among the Basin States;
- ◆ a belief that discussions among the states could facilitate the development of additional tools to improve coordinated operation of Colorado River reservoirs;

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<sup>1</sup> It is anticipated that elements of the decision adopted by this ROD will be implemented through a number of agreements. The following agreements are anticipated to be executed at or about the time of issuance of this ROD:

- Delivery Agreement between the United States and Imperial Irrigation District (IID)
- Delivery Agreement between the United States and The Metropolitan Water District of Southern California (MWD)
- Delivery Agreement between the United States, Southern Nevada Water Authority (SNWA) and the Colorado River Commission of Nevada (CRCN)
- Funding and Construction of the Lower Colorado River Drop 2 Storage Reservoir Project Agreement among the United States, SNWA, and CRCN
- Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement among the Arizona Department of Water Resources, the Southern Nevada Water Authority, CRCN, the Palo Verde Irrigation District (PVID), IID, Coachella Valley Water District (CVWD), MWD, and the City of Needles
- California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus among the PVID, IID, CVWD, MWD and the City of Needles

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- ◆ a preference that operational strategies not be developed in the AOP setting, which is used by the Department to annually implement operational strategies that are developed through separate, public processes;
- ◆ an intention to develop operational tools that would avoid unnecessary, protracted or destabilizing litigation; and
- ◆ a commitment to continue to consult with and work with all stakeholders in the Basin.

In light of the severity of the drought, the Department announced its intention to complete the development of drought and low-reservoir operational tools by December 2007, and to do so through an open, public process. In closing, the Secretary expressed the opinion that “all parties must work together to find creative solutions that will conserve reservoir storage and help to minimize the adverse effects of drought in the Colorado River Basin.”

The fundamental basis for this decision is that each of the above foundational considerations have been honored and achieved through the development of a consensus seven-state recommendation that has been incorporated, as appropriate, into the Preferred Alternative adopted herein today.

The Department selected the Preferred Alternative based on the Department’s determination that it best meets all aspects of the purpose and need for the federal action, including: the need to remain in place for the extended period of the interim Guidelines; the desirability of the alternative based on the facilitated consensus recommendation from the Basin States; the likely durability of the mechanisms adopted in the Preferred Alternative in light of the extraordinary efforts that the Basin States and water users have undertaken to develop implementing agreements that will facilitate the water management tools (shortage sharing, forbearance, and conservation efforts) identified in the Preferred Alternative; and the range of elements in the alternative that will enhance the Secretary’s ability to manage the Colorado River reservoirs in a manner that recognizes the inherent tradeoffs between water delivery and water storage.

Importantly for the long-term stable management of the Colorado River, adoption of this decision activates a legal agreement among the Basin States that contains a critically important provision: the Basin States have agreed to mandatory consultation provisions to address future controversies on the Colorado River through consultation and negotiation, as a requirement, before resorting to litigation. With respect to the various interests, positions and views of each of the seven Basin States, this provision adds an important new element to the modern evolution of the legal framework for the prudent management of the Colorado River.

In recent years, in a number of settings, and facing a broad range of water management challenges, the Department has highlighted the important role of the Basin States in the

statutory framework for administration of Basin entitlements and the significance that a seven-state consensus represents. Multi-state consensus is a rare and unique achievement that should continue to be recognized and facilitated.

With respect to the information within the scope of the proposed action, Reclamation concluded that the Preferred Alternative is a reasonable alternative and fully analyzed the environmental effects of this alternative in the Final EIS. The identified environmental effects of the Preferred Alternative are well within the range of anticipated effects of the alternatives presented in the Draft EIS and do not affect the environment in a manner not already considered in the Draft EIS. Thus, based on all available information, this alternative is the most reasonable, feasible, implementable, and durable alternative.

Drought is not limited to the Southwest, nor are interstate tensions over water management. As a final basis for this decision, the Department believes that a model for interstate cooperation can be found in the elements of the Preferred Alternative adopted today.

## **VI. Public Response to the Final Environmental Impact Statement**

Following the *Federal Register* Notice of Availability of the Final EIS on November 2, 2007, and as of 8:00 PM (EST), Tuesday, December 11, 2007, Reclamation received six comment letters on the Final EIS and the updated draft Interim Operational Guidelines for Lake Powell and Lake Mead posted November 16, 2007 on Reclamation's project website. After appropriate consideration, the Department concludes that the comments received do not identify or raise any significant issues that would require supplementing the Final EIS. The major issues noted in the comment letters are summarized below:

The Basin States submitted a letter expressing their appreciation to Reclamation and Department staff for their diligence in working with the Basin States and others in developing the draft Guidelines for Lake Powell and Lake Mead; and they further stated that the adoption of the Guidelines "represent a significant and historic milestone, reflecting the continuation of the consultative approach to river management between the federal government and affected states on the Colorado River."

The San Diego County Water Authority submitted a comment letter fully supporting the statements in the Basin States' letter to the Secretary on the Final EIS. The Authority also noted their concern that the proposed implementation of Guidelines, specifically ICS, should not inadvertently conflict with the implementation of certain terms of October 10, 2003 Allocation Agreement. The Department agrees that the creation, release, or delivery of ICS or the declaration of an ICS Surplus Condition in a calendar year shall not constitute a determination by the Secretary of the existence of surplus Colorado River water in that calendar year for the purposes of Section 9.2.2 of the Allocation Agreement Among the United States of America, The Metropolitan Water

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District of Southern California, Coachella Valley Water District, Imperial Irrigation District, San Diego County Water Authority, the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, the City of Escondido and Vista Irrigation District, dated October 10, 2003. This understanding has also been expressly stated in the proposed Delivery Agreements for IID and MWD (Section V of this ROD).

The EPA submitted a comment letter noting it had no objections to the proposed project and some of the details of the Final EIS pertinent to their views. Further, EPA encouraged Reclamation to “play an active role in facilitating comprehensive water management among all water sectors in the Basin.” Reclamation intends to continue to pursue its mission in the 17 western states, and in particular on the Colorado River, to assist in meeting the increasing water demands of the West while protecting the environment and the public's investment in these structures. Reclamation places great emphasis on fulfilling its water delivery obligations, water conservation, water recycling and reuse, and developing partnerships with our customers, states, and Native American Tribes, and in finding ways to bring together the variety of interests to address the competing needs for our limited water resources.

The Colorado River Board of California submitted comments on behalf of its member agencies on the updated draft Guidelines. The majority of the comments were editorial and to the extent the individual comments improved the clarity of the Guidelines they were incorporated into the Guidelines found in Section XI of this ROD.

A comment letter dated November 12, 2007, was received from a single member of the public and noted his concern that the terms of the Biological Opinion (BO) should be met and that impacts due to climate change on “listed fish and birds” are addressed. FWS issued the BO on the Preferred Alternative described in this ROD on December 12, 2007. Reclamation has agreed to implement Conservation measures to benefit the listed species addressed in the BO and comply with the terms and conditions of the incidental take statement in the BO. Acknowledging the potential for impacts due to climate change and increased hydrologic variability, the Secretary proposes that the Guidelines be interim in duration and extend through 2026, providing the opportunity to gain valuable operating experience for the management of Lake Powell and Lake Mead, particularly for low reservoir conditions, and improve the basis for making additional future operational decisions, whether during the Interim Period (Section 8 of the Guidelines) or thereafter. In addition, the Preferred Alternative has been crafted to include operational elements that would respond if potential impacts of climate change and increased hydrologic variability are realized. In particular, the Preferred Alternative includes a coordinated operation element that allows for the adjustment of Lake Powell’s release to respond to low reservoir storage conditions in Lake Powell or Lake Mead as described in Section 2.7 and Section 2.3 in the Final EIS. In addition, the Preferred Alternative will enhance conservation opportunities in the Lower Basin and the retention of water in Lake Mead through adoption of the ICS mechanism. Finally, the Preferred Alternative includes a shortage strategy at Lake Mead that would result in



additional shortages being considered, after appropriate consultation, if Lake Mead elevations drop below 1,025 feet mean sea level (msl).

The Defenders of Wildlife submitted a comment letter dated December 11, 2007, on behalf of their organization, the National Wildlife Federation, the Pacific Institute, and the Sierra Club regarding the updated draft Guidelines. The comments are limited to information that was published in Appendix S of the Final EIS dated November 2, 2007. The letter offers a number of clarifying comments, raises concerns regarding the appropriate mechanisms for consultation between federal and non-federal parties, and raises detailed comments regarding the implementation of the ICS and Developed Shortage Supply (DSS) components of the Guidelines. Reclamation thoroughly reviewed the comments submitted and concluded that no changes to the Guidelines were necessary. With respect to the issues regarding consultation, Reclamation will continue to meet all legal obligations for appropriate consultation with non-federal parties and believes that the commitments for continued consultation with the Basin States can be implemented in a manner consistent with the provisions of applicable federal law. Moreover, Reclamation believes that some of the concerns identified in this comment letter have been addressed by Section 7.D of the updated draft Guidelines posted on December 10, 2007, which provides that the Lower Colorado Regional Director will establish procedures for the implementation of ICS and DSS after issuance of this ROD. Reclamation will continue to work closely with all stakeholders in the development of ICS and DSS procedures and in the implementation and administration of the Guidelines.

## **VII. Refinement of Operational Guidelines for the Preferred Alternative in Response to Public Comments**

Hydrologic modeling of the Colorado River system was used to determine the potential hydrologic effects of each of the alternatives and also provided the basis for analyzing the potential effects on other environmental resources (such as recreation, biology, and energy, etc.). Nearly all modeling assumptions were common to each alternative; only the assumptions specific to each alternative were different. This approach allowed a relative comparison of the potential effects of each alternative compared to the No Action Alternative and lead to the identification of the Preferred Alternative.

Historically, the determination of the annual release volume for Lake Powell could change on a monthly basis throughout the water year. This approach afforded great flexibility to respond to changing monthly runoff forecasts yet was practical to implement since there were effectively only two operational tiers (a minimum objective release of 8.23 maf per year or releases greater due to equalization or spill avoidance). The annual release volume for Lake Mead, however, was essentially determined on an annual basis primarily to provide a greater degree of certainty to water users with respect to the water supply in the Lower Basin. The modeled operation of Lake Powell and Lake Mead for all alternatives in the Final EIS was consistent with this past operational experience and provided a valid basis for comparison.

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However, given the more complicated proposed operation for Lake Powell under all of the action alternatives, Reclamation conducted additional investigations and subsequently refined the operational guidelines to include a combined monthly/annual methodology to determine the annual release volume for Lake Powell. This methodology consists of a January 1 determination of the release volume with appropriate April adjustments to those volumes, and providing the necessary flexibility to respond to changing inflow forecasts while ensuring that the operation does not result in excessive changes in monthly releases from Lake Powell.

In addition, comments were also received in both written and oral form from representatives of the Basin States with respect to the modeling assumptions used for the Basin States Alternative and the Preferred Alternative, reflected in Appendix S of the Final EIS. Specifically, the comments were in regard to the coordinated operation of Lake Powell and Lake Mead when Lake Powell is relatively high and operating near or in the equalization tier. A concern was identified where the proposed operation might not respond effectively when Lake Powell is relatively high, Lake Mead is relatively low, and a reasonably high inflow forecast occurs. Reclamation conducted additional investigations to identify approaches to ensure some additional water is released from Lake Powell when this situation arises.

Reclamation refined the proposed operational guidelines to incorporate these changes (contained in Section 6, 7, and 8 of the Guidelines) and published those refinements on the project website on November 16, 2007. An evaluation concluded that these refinements to the proposed Guidelines would not result in substantial changes with regard to the environmental effects and fall within the impacts already analyzed in the Final EIS.

## **VIII. Environmental Impacts and Implementation of Environmental Commitments**

Hydrologic modeling of the Colorado River system was conducted to determine the potential hydrologic effects of the alternatives. Modeling provided projections of potential future Colorado River system conditions (i.e., reservoir elevations, reservoir releases, river flows) for comparison of those conditions under the No Action Alternative to conditions under each action alternative. Due to the uncertainty with regard to future inflows into the system, multiple simulations were performed in order to quantify the uncertainties of future conditions and as such, the modeling results are typically expressed in probabilistic terms.

Hydrologic modeling also provided the basis for the analysis of the potential effects of each alternative on other environmental resources. The Final EIS evaluated 14 resource areas: hydrologic resources (including reservoir storage and releases, groundwater, and water deliveries), water quality, air quality, visual resources, biological resources (including vegetation and wildlife and special status species), cultural resources, Indian trust assets, electrical power resources, recreation (including shoreline facilities, boating

and navigation, and sport fish populations), transportation, socioeconomics (including employment, income and tax revenue, municipal and industrial water users, and recreation economics), environmental justice, indirect effects of the ICS mechanism, and climate change considerations. The potential effects to specific resources were identified and analyzed for each action alternative and compared to the potential effects to that resource under the No Action Alternative. These comparisons are typically expressed in terms of the relative differences in probabilities between the No Action Alternative and the action alternatives.

Based on the analyses in the EIS, Reclamation determined that specific measures to avoid or mitigate environmental harm were not required, with the exception of conservation measures for listed species as noted below. For other resource areas, the impacts of the Preferred Alternative were well within the range of the alternatives considered, and generally improved conditions compared to the No Action Alternative. For a few resource areas, the Preferred Alternative resulted in minor negative impacts compared to the No Action Alternative, and measures to avoid such impacts were determined to be unnecessary or not feasible.

#### **A. Lower Colorado River Multi-Species Conservation Plan**

It is important to note that Reclamation is already undertaking significant environmental mitigation measures on the Colorado River, including the LCR MSCP from Lake Mead to the Southerly International Boundary (SIB) with Mexico, and implementation of activities pursuant to the 1996 Glen Canyon Dam ROD for the reach of the Colorado River from Glen Canyon Dam to Lake Mead.

The LCR MSCP is a 50-year cooperative effort between federal and non-federal entities, approved by the Secretary in April 2005. This program was developed to address potential effects to listed and other selected special status species (covered species) from identified ongoing and future anticipated federal discretionary actions and non-federal activities on the lower Colorado River (covered actions). The development and implementation of shortage criteria on the lower Colorado River was one of the federal covered actions (MSCP Biological Assessment Section 2.2.2.1) included in the LCR MSCP and covered under the LCR MSCP BO (FWS 2005). The LCR MSCP BO provides Endangered Species Act (ESA) compliance for the effects of covered actions for a reduction of Lake Mead reservoir elevations to 950 feet msl and flow reductions of up to 0.845 maf from Hoover Dam to Davis Dam, 0.860 maf from Davis Dam to Parker Dam, and 1.574 maf from Parker Dam to Imperial Dam. The LCR MSCP identified, and it is mitigating for, impacts to the covered species and their habitats from the flow reduction conditions described above. These impacts included the potential loss of up to:

- ◆ 2,008 acres of cottonwood-willow habitats;
- ◆ 133 acres of marsh habitat; and

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- ◆ 399 acres of backwater habitat.

To address these impacts, the LCR MSCP will:

- ◆ restore 5,940 acres of cottonwood-willow habitat;
- ◆ restore 512 acres of marsh habitat;
- ◆ restore 360 acres of backwater habitat;
- ◆ stock 660,000 razorback sucker over the term of the LCR MSCP; and
- ◆ stock 620,000 bonytail over the term of the LCR MSCP.

In addition, these habitats will be actively managed to provide habitat values greater than those of the impacted habitats. While the LCR MSCP is geared toward special status species, it is important to understand that all species that use the habitats impacted by the LCR MSCP covered activities benefit by the conservation actions currently being carried out under the LCR MSCP.

Reclamation has reviewed the effects of the Preferred Alternative in this Final EIS and has determined that all potential effects to listed species and their habitats along the Colorado River from the full pool elevation of Lake Mead to the SIB are covered by the LCR MSCP. FWS has concurred with Reclamation's determination in a letter dated November 28, 2007.

### **B. Glen Canyon Dam Adaptive Management Program**

The 1996 Glen Canyon Dam ROD describes detailed criteria and operating plans for Glen Canyon Dam operations and includes other management actions to accomplish this objective; among these are the Glen Canyon Dam Adaptive Management Program (AMP). The AMP provides a process for assessing the effects of Glen Canyon Dam operations on downstream resources and project benefits. The results of that assessment are used to develop recommendations for modifying Glen Canyon Dam operations and other resource management actions. This is accomplished through the Adaptive Management Work Group (AMWG), a federal advisory committee. The AMWG consists of stakeholders that include federal and state agencies, representatives of the Basin States, Indian tribes, hydroelectric power customers, environmental and conservation organizations, and recreational and other interest groups.

### **C. Endangered Species Act Compliance**

In compliance with the ESA, Reclamation submitted a Biological Assessment (BA) to FWS on September 10, 2007 and requested formal consultation on the Preferred

Alternative. Reclamation divided the analysis of potential effects on listed species into three geographic areas: Lake Powell to the upper end of Lake Mead, Lake Mead to the SIB with Mexico, and potential interdependent/interrelated effects on the Virgin and Muddy Rivers in southern Nevada. Reclamation determined the effects of the Preferred Alternative within the geographic area of the MSCP (Lake Mead to SIB with Mexico) were covered by the earlier consultation on LCR MSCP, and requested FWS' concurrence on this determination by memo dated October 26, 2007. FWS concurred with this determination by memo dated November 28, 2007. For the remainder of the action area, Reclamation determined the Preferred Alternative may affect, and is likely to adversely affect the southwestern willow flycatcher, humpback chub, and Kanab ambersnail, and that the Preferred Alternative may affect, but would not be likely to adversely affect seven other species.

FWS issued its BO for the Preferred Alternative by memo dated December 12, 2007. The BO concurred with Reclamation's "not likely to adversely affect" findings for the seven species addressed in the BA, and found that the adverse effects to southwestern willow flycatcher, humpback chub, and Kanab ambersnail would not jeopardize the continued existence of those species. Reclamation has included the following conservation measures for listed species in the action area as part of its proposed action:

- ◆ **Nonnative Fish Control** – In coordination with other Department of the Interior AMP participants and through the AMP, Reclamation will continue efforts to control both cold- and warm-water nonnative fish species in the mainstem of Marble and Grand canyons, including determining and implementing levels of nonnative fish control as necessary. Control of these species using mechanical removal and other methods will help to reduce this threat.
- ◆ **Humpback Chub Refuge** – Reclamation will assist FWS in development and funding of a broodstock management plan and creation and maintenance of a humpback chub refuge population at a federal hatchery or other appropriate facility by providing expedited advancement of \$200,000 in funding to the FWS during calendar year 2008; this amount shall be funded from, and within, the amount identified in the 2005 LCR MSCP BO. Creation of a humpback chub refuge will reduce or eliminate the potential for a catastrophic loss of the Grand Canyon population of humpback chub by providing a permanent source of genetically representative stock for repatriating the species
- ◆ **Genetic Biocontrol Symposium** – Reclamation will transfer up to \$20,000 in fiscal year 2008 to FWS to help fund an international symposium on the use and development of genetic biocontrol of nonnative invasive aquatic species which is tentatively scheduled for January 2009. Although only in its

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infancy, genetic biocontrol of nonnative species is attracting worldwide attention as a potential method of controlling aquatic invasive species. Helping fund an effort to bring researchers together will further awareness of this potential method of control and help mobilize efforts for its research and development.

- ◆ Sediment Research – In coordination with other Department of the Interior AMP participants and through the AMP, Reclamation will monitor the effect of sediment transport on humpback chub habitat and will work with the Grand Canyon Monitoring and Research Center to develop and implement a scientific monitoring plan acceptable to FWS. Although the effects of dam operation-related changes in sediment transport on humpback chub habitat are not well understood, humpback chub are known to utilize backwaters and other habitat features that require fine sediment for their formation and maintenance. Additional research will help clarify this relationship
- ◆ Parasite Monitoring – In coordination with other Department of the Interior AMP participants and through the AMP, Reclamation will continue to support research on the effects of Asian tapeworm on humpback chub and potential methods to control this parasite. Continuing research will help better understand the degree of this threat and the potential for management actions to minimize it.
- ◆ Monitoring and Research – Through the AMP, Reclamation will continue to monitor Kanab ambersnail and its habitat in Grand Canyon and the effect of dam releases on the species, and Reclamation will also continue to assist FWS in funding morphometric and genetic research to better determine the taxonomic status of the subspecies.
- ◆ Kanab Ambersnail Monitoring and Research –Through the AMP, Reclamation will continue to monitor Kanab ambersnail and its habitat in Grand Canyon and the effect of dam releases on the species, and Reclamation will also continue to assist FWS in funding morphometric and genetic research to better determine the taxonomic status of the subspecies.
- ◆ Southwestern Willow Flycatcher Monitoring and Research – Through the AMP, Reclamation will continue to monitor southwestern willow flycatcher and its habitat and the effect of dam releases on the species throughout Grand Canyon and report findings to FWS, and will work with NPS and other AMP participants to identify actions to conserve the flycatcher.

## IX. Implementing the Decision

### A. Setting

Against the backdrop of prolonged drought, in 2005, with reservoir elevations dropping rapidly, the Department was faced with the challenge of making operational decisions regarding modified operations of Glen Canyon Dam and Hoover Dam. One of the challenges that the Department faced was that there were not detailed, objective guidelines to determine how the operation of the two reservoirs would be modified in drought and other low-reservoir conditions.

After receiving conflicting recommendations from representatives of the four Upper Division and the three Lower Division states, the Secretary issued a decision on May 2, 2005, charging Reclamation with the development of operational tools that can continue to assure productive use of the Colorado River into the future, while avoiding unnecessary, protracted or destabilizing litigation.

More than two years later, the drought conditions have continued and the need for detailed operational guidelines is even more necessary today as compared with mid-2005. Reclamation has conducted an extensive public process, seeking input from state, tribal and local governments, along with input from members of environmental organizations and members of the general public. These Guidelines represent the Department's determination as to the most appropriate set of guidelines to adopt at this stage of the ongoing drought.

### B. Scope of Guidelines

These Guidelines are intended to be applied each year during the Interim Period with respect to the operation and management of the waters of the Colorado River stored in Lake Powell and Lake Mead. The relevant sections of these Guidelines address the following:

- ◆ determine those circumstances under which the Secretary would reduce the annual amount of water available for consumptive use from Lake Mead to the Colorado River Lower Division states below 7.5 maf (a "Shortage") pursuant to Article II(B)(3) of the Consolidated Decree;
- ◆ define the coordinated operation of Lake Powell and Lake Mead to provide improved operation of these two reservoirs, particularly under low reservoir conditions;
- ◆ allow for the storage and delivery, pursuant to applicable federal law, of conserved Colorado River system and non-system water in Lake Mead to increase the flexibility of meeting water use needs from Lake Mead, particularly under drought and low reservoir conditions; and,

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- ◆ determine those conditions under which the Secretary may declare the availability of surplus water for use within the Lower Division states. The proposed federal action would modify the substance of the existing ISG and would change the term of the ISG from 2016 through 2026.

## **X. Operational Setting**

### **A. Criteria for the Coordinated Long-Range Operation of Colorado River Reservoirs**

Section 602 of the CRBPA required the Secretary to propose and adopt criteria for the coordinated long-range operation of the reservoirs constructed and operated under the authority of the Colorado River Storage Project Act of 1956, the Boulder Canyon Project Act of 1928 (BCPA), and the Boulder Canyon Project Adjustment Act. The Secretary adopted such “Long-Range Operating Criteria” (LROC) in 1970 and has been operating the Colorado River consistent with the LROC since 1970. In 2005, the Secretary approved minor changes to the text of the LROC. (70 Fed. Reg. 15873, Mar. 29, 2005). The Secretary identified the bases for the limited changes as: (1) specific change in federal law applicable to the Operating Criteria, (2) language in the current text of the Operating Criteria that was outdated, and (3) specific modifications to Article IV(b) of the Operating Criteria that reflect actual operating experience.

It is the Department’s decision that these Guidelines implement the LROC on an annual basis through the Interim Period and that the operation of the relevant Colorado River reservoirs be documented in each year’s AOP (Subsection C, below). See also Section 7 of the Guidelines for further description of the relationship between the LROC and these Guidelines.

### **B. Interim Surplus Guidelines**

Beginning in 1999, the Secretary determined that there was a need for detailed, objective guidelines to assist in the determination of availability of water in excess of 7.5 maf per year to water users in the three Lower Division states of Arizona, California, and Nevada. One of the important issues facing the Department at that time was the question of whether to modify the LROC to address determination of a Surplus Condition or whether to adopt guidelines that would implement the LROC with detailed provisions.

At the time, the Department sought public input on the concept of modifying Article III(3)(b) of the LROC during the process that led to adoption of the ISG. See 64 Fed. Reg. 27010 (May 18, 1999). After reviewing the public comments received, the Department announced its intention to adopt “interim implementing criteria pursuant to Article III(3) of the Long-Range Operating Criteria” rather than modifying the actual text of the LROC. See 64 Fed. Reg. 68373 (December 7,



1999). This approach was carried through and set forth in the ROD for the ISG adopted by the Secretary. See 66 Fed. Reg. 7772, 7780 at Section XI(5) (“These Guidelines, which shall implement and be used for determinations made pursuant to Article III(3)(b) of the [Operating Criteria] ... are hereby adopted ...”). See also discussion at 70 Fed. Reg. 15878 (March 29, 2005) (review of LROC).

It is the Department’s decision in adopting these Guidelines to continue the approach initially adopted in the ISG, and accordingly is not modifying the LROC at this time. Instead, the determinations made under these interim Guidelines will implement the relevant provisions of Article II (Lake Powell) and Article III (Lake Mead) during the Interim Period, as defined in Section 7, herein.

### **C. Annual Operating Plan for Colorado River Reservoirs**

Section 602(b) of the CRBPA of 1968 requires that the Secretary transmit to the Congress and to the Governors of the Basin States, by January 1st of each year, a report describing the actual operation under the LROC for the preceding compact water year and the projected operation for the current year. This report is commonly referred to as the “Annual Operating Plan” or the “AOP.”

In 1992, in the Grand Canyon Protection Act, Congress required that, in preparing the 602(b) AOP, the Secretary shall consult with the Governors of the Basin States and with the general public, including representatives of academic and scientific communities, environmental organizations, the recreation industry; and contractors for the purpose of federal power produced at Glen Canyon Dam.

Each year the Secretary implements the provisions of the 1968 and 1992 statutes regarding the projected operation of Colorado River reservoirs and stakeholder consultation through the Colorado River Management Work Group. This process involves appropriate consultation prior to finalization of the proposed AOP. The AOP is used to memorialize operational decisions that are made pursuant to individual federal actions (e.g., ISG, 1996 Glen Canyon Dam ROD, this ROD). Thus, the AOP serves as a single, integrated reference document required by section 602(b) of the CRBPA of 1968 regarding past and anticipated operations.

It is the Department’s decision that these Guidelines be implemented on an annual basis through the Interim Period and documented in each year’s AOP. This ROD addresses annual volumes of releases from Glen Canyon Dam and Hoover Dam. Accordingly, this ROD does not modify the authority of the Secretary to determine monthly, daily, hourly, or instantaneous releases from Glen Canyon Dam and Hoover Dam. See Section 7 of the Guidelines for further description of the relationship between the AOP and these Guidelines.

## **XI. Conditions of Implementation**

### **A. Forbearance**

1. Role of Forbearance Agreements within the Context of the Law of the River and Relationship to Intentionally Created Surplus (ICS)

For the purposes of these Guidelines, the term “forbearance agreements” refers to agreements that a party who has a right to surplus Colorado River water could enter into that would provide that party’s agreement to forgo (or not exercise) its right to surplus Colorado River water. In any such agreements, the party agrees to “forbear” or refrain from exercising its right to surplus Colorado River water under the specified terms and conditions of the applicable agreement. Through such agreements, increased flexibility of Colorado River water management can be achieved – resulting in greater conservation of water than would otherwise be accomplished.

In Years in which the Secretary determines that sufficient Mainstream water is available for delivery to satisfy annual consumptive use in the Lower Division states in excess of 7.5 maf, Article II(B)(2) of the Consolidated Decree directs the Secretary to apportion such surplus Mainstream water 50% for use in California, 46% for use in Arizona, and 4% for use in Nevada. The Boulder Canyon Project Act and Articles II(B)(2) and II(B)(6) of the Consolidated Decree, taken together, authorize the Secretary to apportion surplus water and to deliver one Lower Division state’s unused apportionment for use in another Lower Division state. Pursuant to such authority and for the purpose of increasing the efficiency, flexibility, and certainty of Colorado River management and thereby helping satisfy the current and projected regional water demands, the Secretary determined that it is prudent and desirable to promulgate guidelines to establish a procedural framework for facilitating the creation and delivery of ICS within the Lower Basin.

In the absence of forbearance, surplus water is apportioned for use in the Lower Division states according to the specific percentages provided in Article II(B)(2) of the Consolidated Decree discussed above. In order to allow for management flexibility, the seven Colorado River Basin States have recommended an operational program for the creation and delivery of ICS. In furtherance of this recommendation, numerous major water users within the Lower Basin have identified their willingness, under specified circumstances, to participate in such an operational program. These parties have submitted a draft “Forbearance Agreement,” as preliminarily approved by the parties, as part of a package of documents (Appendix J) submitted for consideration by the Secretary as a necessary element to enable implementation of the operations contemplated by the Basin States Alternative. The Secretary has developed a Preferred

Alternative based on this information, as well as other information submitted during the NEPA process.

The parties to the Forbearance Agreement have indicated that they intend that the Agreement provide the appropriate legal mechanism to achieve successful implementation of this element of the Preferred Alternative. The parties have indicated that among the conditions on their forbearance, they will forbear only with respect to a specified ICS volume and only to ICS created by projects described in exhibits attached to the Forbearance Agreement or added thereto by written consent of all parties. Given the voluntary nature of the forbearance concept, it is appropriate for the parties to clearly identify the limited conditions upon which their forbearance is granted.

Through adoption and implementation of these Guidelines, the Secretary will only approve the creation, delivery and use of ICS in a manner that is fully consistent with the provisions of the Consolidated Decree, including Articles II(B)(2) and II(B)(6) therein. The Secretary will require forbearance by the State of Arizona, the Palo Verde Irrigation District, the Imperial Irrigation District, the Coachella Valley Water District, The Metropolitan Water District of Southern California, the City of Needles, and other California entities as appropriate, the Southern Nevada Water Authority, and the Colorado River Commission of Nevada for implementation of this element of these Guidelines (regarding ICS). If, in the opinion of the Secretary, the State of Arizona or the Palo Verde Irrigation District, the Imperial Irrigation District, the Coachella Valley Water District, The Metropolitan Water District of Southern California, the City of Needles, or other California entities as appropriate, the Southern Nevada Water Authority, or the Colorado River Commission of Nevada, unreasonably withhold forbearance, the Secretary may, after consultation with the Basin States, modify these Guidelines. Moreover, the Secretary will ensure that implementation of the ICS mechanism does not infringe on the rights of any third party who is a Contractor and who is not a party to the Forbearance Agreement.

## 2. Monitoring Implementation

Under these Guidelines, Colorado River water will continue to be allocated for use among the Lower Division states in a manner consistent with the provisions of the Consolidated Decree. It is expected that Lower Division states and individual Contractors for Colorado River water have or will adopt arrangements that will affect utilization of Colorado River water during the Interim Period. It is expected that water orders from Colorado River Contractors will be submitted to reflect forbearance arrangements by Lower Division states and individual Contractors. The Secretary will deliver Colorado River water to Contractors in a manner consistent with these arrangements, provided that any such arrangements are consistent with the BCPA, the

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Consolidated Decree and do not infringe on the rights of third parties. Surplus water will only be delivered to entities with contracts for surplus water. ICS will be delivered pursuant to Section 3.C. of these Guidelines and a Delivery Agreement.

**B. Delivery Agreement**

Article II(B)(5) of the Consolidated Decree in *Arizona v. California* states that mainstream Colorado River water shall be released or delivered to water users in Arizona, California, and Nevada “only pursuant to valid contracts therefore made with such users by the Secretary of the Interior, pursuant to Section 5 of the Boulder Canyon Project Act or any other applicable federal statute.” Section 5 of the Boulder Canyon Project Act authorizes the Secretary to enter into such contracts.

Numerous Contractors in Arizona, California, and Nevada now hold contracts which entitle them to the delivery of Colorado River water under the circumstances and in the priorities specified in the individual contracts. Contracts entered into prior to the adoption of these Guidelines do not, however, expressly address circumstances in which ICS or DSS might be created or delivered.

To ensure the requirements of Section 5 of the Boulder Canyon Project Act and Article II(B)(5) of the Consolidated Decree are complied with, and to reduce the possibility of ambiguity, the Secretary anticipates entering into delivery contracts with any person or persons intending to create ICS or DSS. Such contracts are expected to address the requirements set forth in the Guidelines for the approval of ICS or DSS plans, the certification and verification of the ICS or DSS created under the plans, the ordering and delivery of ICS or DSS, the accounting for ICS or DSS in the annual report filed with the U.S. Supreme Court in accordance with Article V of the Consolidated Decree, and such other matters as may bear on the delivery of the ICS or DSS, as for example the point of delivery and place of use, if not already provided for under existing contracts.

**C. Mexico**

The United States delivers an annual allotment of Colorado River water to Mexico pursuant to the treaty between the United States of America and Mexico relating to the utilization of waters of the Colorado and Tijuana Rivers and of the Rio Grande, signed February 3, 1944, and its supplementary protocol signed November 14, 1944. In adopting these Guidelines the Department of the Interior is making a final agency action regarding the operation of Lake Powell and Lake Mead, and the delivery of water to water users in the United States, in response to the worst drought in the Basin in over a century of recordkeeping.

Prior to adopting these Guidelines, the Department provided information on the proposed action to the USIBWC, and met with representatives of the Mexican Section of the IBWC and the Mexican Government. The Department has

considered the information provided by the USIBWC prior to adopting these Guidelines, including information representing the views of the Government of Mexico. The USIBWC has advised that the Department may proceed with planning and implementation activities for these Guidelines with the understanding that these Guidelines are not intended to constitute an interpretation or application of the 1944 Treaty or to represent current United States policy or a determination of future United States policy regarding deliveries to Mexico.

The Department notes the intention of the Governments of the United States and Mexico, memorialized in a Joint Statement issued August 13, 2007, to cooperate and collaborate regarding issues related to the lower portion of the Colorado River under the auspices of the IBWC.

#### **D. Intentionally Created Surplus**

##### **1. Findings**

ICS may be created through projects that create water system efficiency or extraordinary conservation or tributary conservation or the importation of non-Colorado River System water into the Mainstream. ICS is consistent with the concept that entities may take actions to augment storage of water in the lower Colorado River Basin. The ICS shall be delivered to the Contractor that created it pursuant to both Articles II(B)(2) and II(B)(6) of the Consolidated Decree and Forbearance Agreements. Implementation of these Guidelines for ICS is conditioned upon execution of Forbearance Agreements and Delivery Agreements as further provided for in these Guidelines.

##### **2. Purposes**

The primary purposes of ICS are to: (a) encourage the efficient use and management of Colorado River water; and to increase the water supply in Colorado River System reservoirs, through the creation, delivery and use of ICS; (b) help minimize or avoid shortages to water users in the Lower Basin; (c) benefit storage of water in both Lake Powell and Lake Mead; (d) increase the surface elevations of both Lake Powell and Lake Mead to higher levels than would have otherwise occurred; and (f) assure any Contractor that invests in conservation or augmentation to create ICS that no other Contractor will claim the ICS created by the Contractor pursuant to an approved plan by the Secretary.

##### **3. Quantities**

The maximum quantities of Extraordinary Conservation ICS that may be accumulated in all ICS Accounts, at any time, upon the effective date of these Guidelines is limited to the amounts provided in Section 3.B.5. of these Guidelines. The maximum quantities of Extraordinary Conservation ICS that

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may be created and/or delivered in any given Year are also limited to the amounts provided in Sections 3.B.4. and 3.C.4., respectively. As described in the Final EIS, Reclamation has analyzed ICS amounts in excess of the amounts approved by this Record of Decision and provided in these Guidelines. Any decision by the Secretary to increase the amounts in excess of the amounts provided in these Guidelines would be based on actual operating experience and would require modification of these Guidelines after consultation with the Basin States.

**E. Relationship with Existing Law**

These Guidelines are not intended to, and do not:

1. guarantee or assure any water user a firm supply for any specified period;
2. change or expand existing authorities under applicable federal law, except as specifically provided herein with respect to determinations under the Long-Range Operating Criteria and administration of water supplies during the effective period of these Guidelines;
3. address intrastate storage or intrastate distribution of water, except as may be specifically provided by Lower Division states and individual Contractors for Colorado River water who may adopt arrangements that will affect utilization of Colorado River water during the effective period of these Guidelines;
4. change the apportionments made for use within individual States, or in any way impair or impede the right of the Upper Basin to consumptively use water available to that Basin under the Colorado River Compact;
5. affect any obligation of any Upper Division state under the Colorado River Compact;
6. affect any right of any State or of the United States under Sec. 14 of the Colorado River Storage Project Act of 1956 (70 Stat. 105); Sec. 601(c) of the Colorado River Basin Project Act of 1968 (82 Stat. 885); the California Limitation Act (Act of March 4, 1929; Ch. 16, 48th Sess.); or any other provision of applicable federal law;
7. affect the rights of any holder of present perfected rights or reserved rights, which rights shall be satisfied within the apportionment of the State within which the use is made, and in the Lower Basin, in accordance with the Consolidated Decree; or
8. constitute an interpretation or application of the 1944 Treaty between the United States and Mexico Relating to the Utilization of the Waters of the

Colorado and Tijuana Rivers and of the Rio Grande (1944 Treaty) or to represent current United States policy or a determination of future United States policy regarding deliveries to Mexico. The United States will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Treaty with Mexico through the International Boundary and Water Commission (IBWC) in consultation with the Department of State.

## **F. Definitions**

For purposes of these Guidelines, the following definitions apply:

1. “24-Month Study” refers to the operational study that reflects the current Annual Operating Plan that is updated each month by Reclamation to project future reservoir contents and releases. The projections are updated each month using the previous month’s reservoir contents and the latest inflow and water use forecasts. In these Guidelines, the term “projected on January 1” shall mean the projection of the January 1 reservoir contents provided by the 24-Month Study that is conducted in August of the previous Year.
2. “AOP” shall mean the Annual Operating Plan for the Colorado River System Reservoirs.
3. “Active Storage” shall mean the amount of water in reservoir storage, exclusive of bank storage, which can be released through the existing reservoir outlet works, consistent with the Colorado River Basin Project Act of 1968 (82 Stat. 885).
4. “BCPA” shall mean the Boulder Canyon Project Act of 1928 (28 Stat. 1057).
5. “Basin States” shall mean the seven Colorado River Basin States of Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming.
6. “Certification Report” shall mean the written documentation provided by a Contractor that provides the Secretary with sufficient information to allow the Secretary to determine whether the quantity of ICS or DSS approved by the Secretary in an approved plan has been created and whether the creation was consistent with the approved plan.
7. “Colorado River System” shall have the same meaning as defined in the 1922 Colorado River Compact.
8. “Consolidated Decree” shall mean the Consolidated Decree entered by the United States Supreme Court in *Arizona v. California*, 547 U.S. 150 (2006).

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9. “Contractor” shall mean an entity holding an entitlement to Mainstream water under (a) the Consolidated Decree, (b) a water delivery contract with the United States through the Secretary, or (c) a reservation of water by the Secretary, whether the entitlement is obtained under (a), (b) or (c) before or after the adoption of these Guidelines.
10. “DSS Account” shall mean records established by the Secretary regarding DSS.
11. “Delivery Agreement” shall mean an agreement consistent with these Guidelines entered into between the Secretary of the Interior and one or more Contractors creating ICS.
12. “Developed Shortage Supply (“DSS”)” shall mean water available for use by a Contractor under the terms and conditions of a Delivery Agreement and Section 4 of these Guidelines in a Shortage Condition, under Article III(B)(3) of the Consolidated Decree.
13. “Direct Delivery Domestic Use” shall mean direct delivery of water to domestic end users or other municipal and industrial water providers within the Contractor’s area of normal service, including incidental regulation of Colorado River water supplies within the Year of operation but not including Off-stream Banking. For the Metropolitan Water District of Southern California (MWD), Direct Delivery Domestic Use shall include delivery of water to end users within its area of normal service, incidental regulation of Colorado River water supplies within the Year of operation, and Off-stream Banking only with water delivered through the Colorado River Aqueduct.
14. “Domestic Use” shall have the same meaning as defined in the 1922 Colorado River Compact.
15. “Forbearance Agreement” shall mean an agreement under which one or more Contractors agree to forbear a right to ICS, under a water delivery contract or the Consolidated Decree.
16. “ICS Account” shall mean records established by the Secretary regarding ICS.
17. “ICS Determination” shall mean a determination by the Secretary that ICS is available for delivery.
18. “Intentionally Created Surplus (“ICS”)” shall mean surplus Colorado River System water available for use under the terms and conditions of a Delivery Agreement, a Forbearance Agreement, and these Guidelines.



- a. ICS created through extraordinary conservation, as provided for in Section 3.A.1., shall be referred to as “Extraordinary Conservation ICS.”
  - b. ICS created through tributary conservation, as provided for in Section 3.A.2., shall be referred to as “Tributary Conservation ICS.”
  - c. ICS created through system efficiency projects, as provided for in Section 3.A.3., shall be referred to as “System Efficiency ICS.”
  - d. ICS created through the importation of non-Colorado River System Water, as provided for in Section 3.A.4., shall be referred to as “Imported ICS.”
19. “Interim Period” shall mean the effective period as described in Section 8.
  20. “Long-Range Operating Criteria (“LROC”)” shall mean the Criteria for the Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 (Pub. L. No. 90-537), published at 35 Fed. Reg. 8951 (June 10, 1970), as amended March 21, 2005.
  21. “Lower Division states” shall mean the Colorado River Basin States of Arizona, California, and Nevada.
  22. “Mainstream” shall have the same meaning as defined in the Consolidated Decree.
  23. “Off-stream Banking” shall mean the diversion of Colorado River water to underground storage facilities for use in subsequent Years from the facility used by a Contractor diverting such water.
  24. “ROD” shall mean the Record of Decision issued by the Secretary for the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead.
  25. “Upper Division states” shall mean the Colorado River Basin States of Colorado, New Mexico, Utah, and Wyoming.
  26. “Water Accounting Report” shall mean the annual *Colorado River Accounting and Water Use Report – Arizona, California, and Nevada* that includes, but is not limited to, the compilation of records in accordance with Article V of the Consolidated Decree.
  27. “Water Year” shall mean October 1 through September 30.

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28. “Year” shall mean calendar year.

**G. Interim Guidelines for the Operation of Lake Powell and Lake Mead**

These Guidelines shall include Sections XI.A., B., E., and F. above and this Section XI.G. These Guidelines which shall implement and be used for determinations made pursuant to the Long-Range Operating Criteria during the effective period identified in Section 8, are hereby adopted:

**Section 1. Allocation of Unused Basic Apportionment Water Under Article II(B)(6)**

**A. Introduction**

Article II(B)(6) of the Consolidated Decree allows the Secretary to allocate water that is apportioned to one Lower Division state, but is for any reason unused in that State, to another Lower Division state. This determination is made for one Year only and no rights to recurrent use of the water accrue to the state that receives the allocated water.

**B. Application to Unused Basic Apportionment**

Before making a determination of a Surplus Condition under these Guidelines, the Secretary will determine the quantity of apportioned but unused water excluding ICS created in that Year from the basic apportionments under Article II(B)(6), and will allocate such water in the following order of priority:

1. Meet the Direct Delivery Domestic Use requirements of MWD and Southern Nevada Water Authority (SNWA), allocated as agreed by said agencies;
2. Meet the needs for Off-stream Banking activities for use in California by MWD and for use in Nevada by SNWA, allocated as agreed by said agencies; and
3. Meet the other needs for water in California in accordance with the California Seven-Party Agreement as supplemented by the Quantification Settlement Agreement.

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**Section 2. Determination of Lake Mead Operation During the Interim Period**

In the development of the AOP, the Secretary shall use the August 24-Month Study projections for the following January 1 system storage and reservoir water surface elevations to determine the Lake Mead operation for the following Calendar Year as described in this Section 2.

**A. Normal Conditions**

**1. Lake Mead above elevation 1,075 feet and below elevation 1,145 feet**

In Years when Lake Mead elevation is projected to be above 1,075 feet and below elevation 1,145 feet on January 1, the Secretary shall determine either a Normal Condition, or, under Section 2.B.5., an ICS Surplus Condition.

**B. Surplus Conditions**

**1. Partial Domestic Surplus**

[Adopted January 16, 2001; Deleted December 13, 2007]

**2. Domestic Surplus**

(Lake Mead at or above elevation 1,145 feet and below the elevation that triggers a Quantified Surplus (70R Strategy))

In years when Lake Mead content is projected to be at or above elevation 1,145 feet, but less than the amount which would initiate a Surplus under Section 2.B.3., Quantified Surplus, or Section 2.B.4., Flood Control Surplus, on January 1, the Secretary shall determine a Domestic Surplus Condition. The amount of such Surplus shall equal –

- a. From the effective date of these Guidelines through December 31, 2015 (through preparation of the 2016 AOP):
  - 1) For Direct Delivery Domestic Use by MWD, 1.250 maf reduced by the amount of basic apportionment available to MWD.
  - 2) For use by SNWA, the Direct Delivery Domestic Use within the SNWA service area in excess of the State of Nevada's basic apportionment.
  - 3) For use in Arizona, the Direct Delivery Domestic Use in excess of Arizona's basic apportionment.

- b. From January 1, 2016 (for preparation of the 2017 AOP) through December 31, 2025 (through preparation of the 2026 AOP):
  - 1) For use by MWD, 250,000 af per Year in addition to the amount of California's basic apportionment available to MWD.
  - 2) For use by SNWA, 100,000 af per Year in addition to the amount of Nevada's basic apportionment available to SNWA.
  - 3) For use in Arizona, 100,000 af per Year in addition to the amount of Arizona's basic apportionment available to Arizona Contractors.

3. Quantified Surplus (70R Strategy)<sup>2</sup>

In years when the Secretary determines that water should be delivered for beneficial consumptive use to reduce the risk of potential reservoir spills based on the 70R Strategy the Secretary shall determine a Quantified Surplus Condition and allocate a Quantified Surplus sequentially as follows:

- a. Establish the volume of the Quantified Surplus. For the purpose of determining the existence, and establishing the volume, of Quantified Surplus, the Secretary shall not consider any volume of ICS as defined in these Guidelines.
- b. Allocate and distribute the Quantified Surplus 50 percent to California, 46 percent to Arizona, and 4 percent to Nevada, subject to c. through e. that follow.
- c. Distribute California's share first to meet basic apportionment demands and MWD's demands, and then to California Priorities 6 and 7 and other surplus contracts. Distribute Nevada's share first to meet basic apportionment demands and then to the remaining demands. Distribute Arizona's share to surplus demands in Arizona including Off-stream Banking and interstate banking demands. Nevada shall receive first priority for interstate banking in Arizona.
- d. Distribute any unused share of the Quantified Surplus in accordance with Section 1.
- e. Determine whether MWD, SNWA and Arizona have received the amount of water they would have received under Section 2.B.2., if a Quantified Surplus

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<sup>2</sup>70R is a spill avoidance strategy that determines a surplus if the January 1 projected system storage space is less than the space required by the flood control criteria, assuming a natural inflow of 17.4 maf (the 70<sup>th</sup> percentile non-exceedence flow). See ISG Final EIS at Section 2.3.1.2.

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Condition had not been determined. If they have not, then determine and meet all demands provided for in Section 2.B.2.

4. Flood Control Surplus

In years in which the Secretary makes space-building or flood control releases<sup>3</sup> pursuant to the 1984 Field Working Agreement between Reclamation and the Army Corps of Engineers (as may be amended), the Secretary shall determine a Flood Control Surplus for the remainder of that Year or the subsequent Year. In such years, releases will be made to satisfy all beneficial uses within the United States, including unlimited Off-stream Banking.

5. ICS Surplus

- a. In years in which Lake Mead's elevation is projected to be above elevation 1,075 feet on January 1, a Flood Control Surplus has not been determined, and delivery of ICS has been requested, the Secretary may determine an ICS Surplus Condition in lieu of a Normal Condition or in addition to other operating conditions that are based solely on the elevation of Lake Mead.
- b. In years in which a Quantified Surplus or a Domestic Surplus is available to a Contractor, the Secretary shall first deliver the Quantified Surplus or Domestic Surplus before delivering any requested ICS to that Contractor. If available Quantified Surplus or Domestic Surplus is insufficient to meet a Contractor's demands, the Secretary shall deliver ICS available in that Contractor's ICS Account at the request of the Contractor, subject to the provisions of Section 3.C.

C. Allocation of Colorado River Water and Forbearance and Reparation Arrangements

[Content of 2001 ISG Section 2.C., Allocation of Colorado River Water and Forbearance and Reparation Arrangements, is now found at III.A., as modified]

D. Shortage Conditions

1. Deliveries to the Lower Division States during Shortage Condition Years shall be implemented in the following manner:

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<sup>3</sup> Under current practice, surplus waters are made available to Mexico pursuant to the 1944 Treaty (when Mexico may schedule up to an additional 0.2 maf) when flood control releases are made. These Guidelines are not intended to affect that practice. Any issues relating to the implementation of the 1944 Treaty, including any potential changes in approach relating to surplus declarations under the 1944 Treaty, would be addressed with Mexico as appropriate through the USIBWC.

- a. In years when Lake Mead content is projected to be at or below elevation 1,075 feet and at or above 1,050 feet on January 1, a quantity of 7.167 maf shall be apportioned for consumptive use in the Lower Division States of which 2.48 maf shall be apportioned for use in Arizona and 287,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 4.4 maf shall be apportioned for use in California.
  - b. In years when Lake Mead content is projected to be below elevation 1,050 feet and at or above 1,025 feet on January 1, a quantity of 7.083 maf shall be apportioned for consumptive use in the Lower Division States of which 2.4 maf shall be apportioned for use in Arizona and 283,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 4.4 maf shall be apportioned for use in California.
  - c. In years when Lake Mead content is projected to be below elevation 1,025 feet on January 1, a quantity of 7.0 maf shall be apportioned for consumptive use in the Lower Division States of which 2.32 maf shall be apportioned for use in Arizona and 280,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 4.4 maf shall be apportioned for use in California.
2. During a Year when the Secretary has determined a Shortage Condition, the Secretary shall deliver Developed Shortage Supply available in a Contractor's DSS Account at the request of the Contractor, subject to the provisions of Section 4.C.

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**Section 3. Implementation of Intentionally Created Surplus**

[Content of 2001 ISG Section 3., Implementation of Guidelines, is now found at Section 7., as modified herein.]

**A. Categories of ICS**

**1. Extraordinary Conservation ICS**

A Contractor may create Extraordinary Conservation ICS through the following activities:

- a. Fallowing of land that currently is, historically was, and otherwise would have been irrigated in the next Year.
- b. Canal lining programs.
- c. Desalination programs in which the desalinated water is used in lieu of Mainstream water.
- d. Extraordinary conservation programs that existed on January 1, 2006.
- e. Extraordinary Conservation ICS demonstration programs pursuant to a letter agreement entered into between Reclamation and the Contractor prior to the effective date of these Guidelines.
- f. Tributary Conservation ICS created under Section 3.A.2. and not delivered in the Year created.
- g. Imported ICS created under Section 3.A.4. and not delivered in the Year created.
- h. Other extraordinary conservation measures, including but not limited to, development and acquisition of a non-Colorado River System water supply used in lieu of Mainstream water within the same state, in consultation with the Basin States.

**2. Tributary Conservation ICS**

A Contractor may create Tributary Conservation ICS by purchasing documented water rights on Colorado River System tributaries within the Contractor's state if there is documentation that the water rights have been used for a significant period of Years and that the water rights were perfected prior to June 25, 1929 (the effective date of the Boulder Canyon Project Act). The actual amount of any Tributary Conservation ICS introduced to the Mainstream shall be subject to verification by the Secretary as provided in Section 3.D. Any Tributary



Conservation ICS not delivered pursuant to Section 3.C. or deducted pursuant to Section 3.B.2. in the Year it was created will, at the beginning of the following Year, be converted to Extraordinary Conservation ICS and will thereafter be subject to all provisions applicable to Extraordinary Conservation ICS. Tributary Conservation ICS may be delivered for Domestic Use only.

### 3. System Efficiency ICS

A Contractor may make contributions of capital<sup>4</sup> to the Secretary for use in projects designed to realize system efficiencies that save water that would otherwise be lost from the Mainstream in the United States. An amount of water equal to a portion of the water conserved would be made available to contributing Contractor(s) by the Secretary as System Efficiency ICS.<sup>5</sup> System efficiency projects are intended only to provide temporary water supplies. System Efficiency ICS will be delivered to the contributing Contractor(s) on a schedule of annual deliveries as provided in an exhibit to a Forbearance Agreement and Delivery Agreement. The Secretary may identify potential system efficiency projects, terms for capital participation in such projects, and types and amounts of benefits the Secretary could provide in consideration of non-federal capital contributions to system efficiency projects, including identification of a portion of the water saved by such projects.

### 4. Imported ICS

A Contractor may create Imported ICS by introducing non-Colorado River System water in that Contractor's state into the Mainstream. Contractors proposing to create Imported ICS shall make arrangements with the Secretary, contractual or otherwise, to ensure no interference with the Secretary's management of Colorado River System reservoirs and regulatory structures. Any arrangement shall provide that the Contractor must obtain appropriate permits or other authorizations required by state and federal law. The actual amount of any Imported ICS introduced to the Mainstream shall be subject to verification by the Secretary as provided in Section 3.D. Any Imported ICS not delivered pursuant to Section 3.C. or deducted pursuant to Section 3.B.2. in the Year it was created will be converted, at the beginning of the following Year, to Extraordinary Conservation ICS and thereafter will be subject to all provisions applicable to Extraordinary Conservation ICS.

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<sup>4</sup> To the extent permitted by federal law, monies to pay construction, operation, maintenance, repair, and/or replacement costs.

<sup>5</sup> Should other Contractor(s) elect to participate in a system efficiency project following the Secretary making an amount of water available to the contributing Contractor(s), the Secretary shall reduce the amount of water in the contributing Contractor(s)' ICS Account(s) and credit the electing Contractor(s)' ICS Account(s) in an equal amount in accordance with the terms of the Secretary's agreement for the funding of the system efficiency project.

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**B. Creation of ICS**

A Contractor may only create ICS in accordance with the following conditions:

1. A Contractor shall submit a plan for the creation of ICS to the Secretary demonstrating how all requirements of these Guidelines will be met in the Contractor's creation of ICS. Until such plan is reviewed and approved by the Secretary, subject to such environmental compliance as may be required, such plan or any ICS purportedly created through it shall not be a basis for creation of ICS. An ICS plan will consist of at a minimum the following information:
  - a. Project description, including what extraordinary measures will be taken to conserve or import water;
  - b. Term of the activity;
  - c. Estimate of the amount of water that will be conserved or imported;
  - d. Proposed methodology for verification of the amount of water conserved or imported; and
  - e. Documentation regarding any state or federal permits or other regulatory approvals that have already been obtained by the Contractor or that need to be obtained prior to creation of ICS.

A Contractor may modify its approved plan for creation of ICS during any Year, subject to approval by the Secretary. A Contractor with an approved multi-Year plan for System Efficiency ICS is not required to seek further approval by the Secretary in subsequent Years unless the Contractor seeks to modify the plan.

2. There shall be a one-time deduction of five percent (5%) from the amount of ICS in the Year of its creation. This system assessment shall result in additional system water in storage in Lake Mead. This one-time system assessment shall not apply to:
  - a. System Efficiency ICS created pursuant to Section 3.B. because a large portion of the water conserved by this type of project will increase the quantity of system water in storage over time.
  - b. Extraordinary Conservation ICS created by conversion of Tributary Conservation ICS that was not delivered in the Year created, pursuant to this Section 3.B. because 5% of the ICS is deducted at the time the Tributary Conservation ICS is created.

- c. Extraordinary Conservation ICS created by conversion of Imported ICS that was not delivered in the Year created, pursuant to this Section 3.B. because 5% of the ICS is deducted at the time the Imported ICS is created.
  - d. ICS created under demonstration programs in 2006 and 2007 which has already been assessed the 5% system assessment.
3. Except as provided in Sections 3.A.2. and 3.A.4., Extraordinary Conservation ICS can only be created if such water would have otherwise been beneficially used.
4. The maximum total amount of Extraordinary Conservation ICS that can be created during any Year is limited to the following:
  - a. 400,000 af for California Contractors;
  - b. 125,000 af for Nevada Contractors; and
  - c. 100,000 af for Arizona Contractors.
5. The maximum quantity of Extraordinary Conservation ICS that may be accumulated in all ICS Accounts, at any time, is limited to the following:
  - a. 1.5 maf for California Contractors;
  - b. 300,000 af for Nevada Contractors; and
  - c. 300,000 af for Arizona Contractors.
6. Except as provided in Sections 3.A.2. and 3.A.4., no category of surplus water can be used to create Extraordinary Conservation ICS.
7. The quantity of Extraordinary Conservation ICS remaining in an ICS Account at the end of each Year shall be diminished by annual evaporation losses of 3%. Losses shall be applied annually to the end-of-the-Year balance of Extraordinary Conservation ICS beginning in the Year after the ICS is created and continuing until no Extraordinary Conservation ICS remains in Lake Mead. No evaporation losses shall be assessed during a Year in which the Secretary has determined a Shortage Condition.
8. Extraordinary Conservation ICS from a project within a state may only be credited to the ICS Account of a Contractor within that state that has funded or implemented the project creating ICS, or to the ICS Account of a Contractor within the same state as the funding entity and project and with written agreement of the funding entity.

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9. A Contractor must notify Reclamation of the amount of ICS it wishes to create for the subsequent Year pursuant to an existing, approved plan. A Contractor may request mid-Year modification(s) to reduce the amount of ICS created during that Year, subject to the requirements of this Section 3.B. A Contractor cannot increase the amount of ICS it had previously scheduled to create during the Year.

**C. Delivery of ICS**

The Secretary shall deliver ICS in accordance with the following conditions:

1. The delivery shall be consistent with the terms of a Delivery Agreement with a Contractor regarding ICS.
2. The Secretary has determined an ICS Surplus Condition.
3. The existence of Forbearance Agreements necessary to bring the delivery of the ICS into compliance with Articles II(B)(2) and II(B)(6) of the Consolidated Decree.
4. A limitation on the total amount of Extraordinary Conservation ICS that may be delivered in any Year is as follows:
  - a. 400,000 af for California Contractors;
  - b. 300,000 af for Nevada Contractors; and
  - c. 300,000 af for Arizona Contractors.
5. If the May 24-Month Study for that Year indicates that a Shortage Condition would be determined in the succeeding Year if the requested amounts for the current Year under Section 3.C. were delivered, the Secretary may deliver less than the amounts of ICS requested to be delivered.
6. If the Secretary releases Flood Control Surplus water, Extraordinary Conservation ICS accumulated in ICS Accounts shall be reduced by the amount of the Flood Control Surplus on an acre-foot for acre-foot basis until no Extraordinary Conservation ICS remains. The reductions to the ICS Accounts shall be shared on a pro-rata basis among all Contractors that have accumulated Extraordinary Conservation ICS.
7. If a Contractor has an overrun payback obligation, as described in the October 10, 2003 Inadvertent Overrun and Payback Policy or Exhibit C to the October 10, 2003 Colorado River Water Delivery Agreement, the Contractor must pay the overrun payback obligation in full before requesting or receiving delivery of

ICS. The Contractor's ICS Account shall be reduced by the amount of the overrun payback obligation in order to pay the overrun payback obligation.

8. If more ICS is delivered to a Contractor than is actually available for delivery to the Contractor in that Year, then the excess ICS delivered shall be treated as an inadvertent overrun until it is fully repaid.
9. A Contractor may request mid-Year modification(s) to increase or reduce the amount of ICS to be delivered during that Year because of changed conditions, emergency, or hardship, subject to the requirements of this Section 3.C.
10. The Contractor shall agree in the Delivery Agreement that the records of the Contractor relating to the creation of ICS shall be open to inspection by the Secretary and by any Contractor or Basin State.

#### D. Accounting for ICS

The Secretary shall develop procedures to account for and verify, on an annual basis, ICS creation and delivery. At a minimum such procedures shall include the following:

1. A Contractor shall submit for the Secretary's review and verification, appropriate information, as determined by the Secretary, contained in a Certification Report, to demonstrate the amount of ICS created and that the method of creation was consistent with the Contractor's approved ICS plan, a Forbearance Agreement, and a Delivery Agreement. Such information shall be submitted in the Year following the creation of the ICS.
2. The Secretary, acting through the Lower Colorado Regional Director, shall verify the information submitted pursuant to this section, and provide a final written decision to the Contractor regarding the amount of ICS created. The results of such final written decisions shall be made available to the public through publication pursuant to Section 3.D.3. and other appropriate means. A Contractor and any party to an applicable Forbearance Agreement may appeal the Regional Director's verification decision first to the Regional Director and then to the Secretary; and through judicial processes.
3. Each Year the Water Accounting Report will be supplemented to include ICS Account balance information for each Contractor and shall address ICS creation, deliveries, amounts no longer available for delivery due to releases for flood control purposes, deductions pursuant to Section 3.B.2., deductions due to annual evaporation losses pursuant to Section 3.B.7., any amounts of ICS converted to Extraordinary Conservation ICS, and ICS remaining available for delivery.

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**Section 4. Implementation of Developed Shortage Supply**

[Content of 2001 ISG Section 4., Effective Period & Termination, is now found at Section 8., as modified herein.]

**A. Categories of DSS**

**1. Tributary Conservation DSS**

A Contractor may create Tributary Conservation DSS by purchasing documented water rights on Colorado River System tributaries within the Contractor's state if there is documentation that the water rights have been used for a significant period of Years and that the water rights were perfected prior to June 25, 1929 (the effective date of the Boulder Canyon Project Act). The actual amount of any Tributary Conservation DSS introduced to the Mainstream shall be subject to verification by the Secretary as provided in Section 4.D. Tributary Conservation DSS may be delivered for Domestic Use only.

**2. Imported DSS**

A Contractor may create Imported DSS by introducing non-Colorado River System water in that Contractor's state into the Mainstream, making sufficient arrangements with the Secretary, contractual or otherwise, to ensure no interference with the Secretary's management of Colorado River System reservoirs and regulatory structures. Any arrangement shall provide that the Contractor must obtain appropriate permits or other authorizations required by state and federal law. The actual amount of any Imported DSS introduced to the Mainstream shall be subject to verification by the Secretary as provided in Section 4.D.

**B. Creation of DSS**

A Contractor may only create DSS in accordance with the following conditions:

1. A Contractor shall submit a plan for the creation of DSS to the Secretary demonstrating how all requirements of these Guidelines will be met in the Contractor's creation of DSS. Until such plan is reviewed and approved by the Secretary, subject to such environmental compliance as may be required, such plan, or any DSS purportedly created through it, shall not be a basis for creation of DSS. A DSS plan will consist of at a minimum the following information:
  - a. Project description, including what extraordinary measures will be taken to conserve or import water;
  - b. Term of the activity;

- c. Estimate of the amount of water that will be conserved or imported;
- d. Proposed methodology for verification of the amount of water conserved or imported; and
- e. Documentation regarding any state or federal permits or other regulatory approvals that have already been obtained by the Contractor or that need to be obtained prior to creation of DSS.

A Contractor may modify its approved plan for creation of DSS during any Year, subject to approval by the Secretary.

- 2. There shall be a one-time deduction of five percent (5%) from the amount of DSS in the Year of its creation. This system assessment shall result in additional system water in storage in Lake Mead.
- 3. DSS may only be created during a Year when the Secretary has determined a Shortage Condition.
- 4. DSS may only be created by a project that is approved by the Secretary for creation prior to the Secretary determining a Shortage Condition.
- 5. A Contractor must notify Reclamation of the amount of DSS it wishes to create for the subsequent Year pursuant to an existing, approved plan. A Contractor may request mid-Year modification(s) to reduce the amount of DSS created during that Year, subject to the requirements of this Section 4.B. A Contractor cannot increase the amount of DSS it had previously scheduled to create during the Year.

### C. Delivery of DSS

The Secretary shall deliver DSS in accordance with the following conditions:

- 1. The delivery shall be consistent with the terms of a Delivery Agreement with a Contractor regarding DSS.
- 2. The Secretary has determined a Shortage Condition.
- 3. Delivery of DSS shall not cause the total deliveries within the Lower Division states to reach or exceed 7.5 maf in any Year.
- 4. Delivery of DSS shall be in accordance with Article II(B)(3) of the Consolidated Decree.
- 5. If a Contractor has an overrun payback obligation, as described in the October 10, 2003 Inadvertent Overrun and Payback Policy or Exhibit C to the October

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10, 2003 Colorado River Water Delivery Agreement, the Contractor must pay the overrun payback obligation in full before requesting or receiving delivery of DSS. The Contractor's DSS Account shall be reduced by the amount of the overrun payback obligation in order to pay the overrun payback obligation.

6. If more DSS is delivered to a Contractor than is actually available for delivery to the Contractor in that Year, then the excess DSS delivered shall be treated as an inadvertent overrun until it is fully repaid.
7. A Contractor may request mid-Year modification(s) to increase or reduce the amount of DSS to be delivered during that Year because of changed conditions, emergency, or hardship, subject to the requirements of this Section 4.C.
8. The Contractor shall agree in the Delivery Agreement that the records of the Contractor relating to the creation of DSS shall be open to inspection by the Secretary or by any Contractor or Basin State.
9. DSS may only be delivered in the Year of its creation. Any DSS not delivered pursuant to this Section 4.C. in the Year it is created may not be converted to Extraordinary Conservation ICS.

**D. Accounting for DSS**

The Secretary shall develop procedures to account for and verify, on an annual basis, DSS creation and delivery. At a minimum such procedures shall include the following:

1. A Contractor shall submit for the Secretary's review and verification appropriate information, as determined by the Secretary, contained in a Certification Report, to demonstrate the amount of DSS created and that the method of creation was consistent with the Contractor's approved DSS plan and a Delivery Agreement. Such information shall be submitted in the Year following the creation of the DSS.
2. The Secretary, acting through the Lower Colorado Regional Director, shall verify the information submitted pursuant to this section, and provide a final written decision to the Contractor regarding the amount of DSS created. The results of such final written decisions shall be made available to the public through publication pursuant to Section 4.D.3. and other appropriate means. The Contractor may appeal the Regional Director's verification decision first to the Regional Director and then to the Secretary; and through judicial processes.
3. Each Year the Water Accounting Report will be supplemented to include DSS information for each Contractor and shall address DSS creation, deliveries, and deductions pursuant to Section 4.B.2.



**Section 5. California’s Colorado River Water Use Plan Implementation Progress**

A. Introduction

[Adopted January 16, 2001; Deleted December 13, 2007]

B. California’s Quantification Settlement Agreement

[Adopted January 16, 2001; Deleted December 13, 2007]

C. California’s Colorado River Water Use Reductions

The California Agricultural (Palo Verde Irrigation District, Yuma Project Reservation Division, Imperial Irrigation District, and Coachella Valley Water District) usage plus 14,500 af of Present Perfected Right (PPR) use would need to be at or below the following amounts at the end of the Year indicated in Years other than Quantified or Flood Control Surplus (for Decree accounting purposes all reductions must be within 25,000 af of the amounts stated):

Benchmark Date (Calendar Year)	Benchmark Quantity (California Agricultural usage & 14,500 AF of PPR Use in MAF)
2003	3.75 <sup>6</sup>
2006	3.64 <sup>6</sup>
2009	3.60 <sup>7</sup>
2012	3.47

In the event that California has not reduced its use in accordance with the limits set forth above in any Year in which the Benchmark Quantity applies, the surplus determination under Section 2.B.2. of these Guidelines will be suspended and will instead be based upon the 70R Strategy, for up to the remainder of the term of these Guidelines. If however, California meets the missed Benchmark Quantity before the next Benchmark Date or the 2012 Benchmark Quantity after 2012, the surplus determination under Section 2.B.2. shall be reinstated as the basis for the surplus determination under the AOP for the next following Year(s).

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<sup>6</sup> The Benchmark Quantities in 2003 and 2006 were met.

<sup>7</sup> The 2009 Benchmark Quantity is modified from 3.53 maf due to construction delays that have been experienced for the All-American Canal Lining Project.

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As part of the AOP process during the Interim Period of these Guidelines, California shall report to the Secretary on its progress in implementing its California Colorado River Water Use Plan.

**Section 6. Coordinated Operation of Lake Powell and Lake Mead During the Interim Period**

[Content of 2001 ISG Section 6., Authority, is now found at Section 9., as modified herein.]

During the Interim Period, the Secretary shall coordinate the operations of Lake Powell and Lake Mead according to the strategy set forth in this Section 6.

The objective of the operation of Lake Powell and Lake Mead as described herein is to avoid curtailment of uses in the Upper Basin, minimize shortages in the Lower Basin and not adversely affect the yield for development available in the Upper Basin.

The August 24-Month Study projections of the January 1 system storage and reservoir water surface elevations, for the following Water Year, shall be used to determine the applicable operational tier for the coordinated operation of Lake Powell and Lake Mead as specified in the table below.

Consistent with the provisions of this Section 6, equalization or balancing of storage in Lake Powell and Lake Mead shall be achieved as nearly as is practicable by the end of each Water Year. When equalizing or balancing the contents of the reservoirs, scheduled Water Year releases from Lake Powell will be adjusted each month based on forecasted inflow, and projected September 30 Active Storage at Lake Powell and Lake Mead. In this Section 6, the term “storage” shall mean Active Storage.

When determining lake elevations and contents under this Section 6, no adjustment shall be made for ICS.

Coordinated operation of Lake Powell and Lake Mead as described herein will be presumed to be consistent with the Section 602(a) storage requirement contained in the Colorado River Basin Project Act.

Releases from Lake Powell for coordinated operations will be consistent with the parameters of the Record of Decision for the Glen Canyon Dam Final Environmental Impact Statement and the Glen Canyon Dam Operating Criteria (62 Fed. Reg. 9447, March 3, 1997).

Notwithstanding the quantities set forth in this Section 6, the Secretary shall evaluate and take additional necessary actions, as appropriate, at critical elevations in order to avoid Lower Basin shortage determinations as reservoir conditions approach critical thresholds. Any actions shall also be consistent with avoidance of curtailment of consumptive uses in the Upper Basin.

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<b>Lake Powell Operational Tiers</b> (subject to April adjustments or mid-year review modifications)		
Lake Powell Elevation (feet)	Lake Powell Operational Tier	Lake Powell Active Storage (maf)
3,700		24.32
3,636 – 3,666 (see table below)	<b>Equalization Tier</b> equalize, avoid spills or release 8.23 maf <hr style="border-top: 1px dashed black;"/> <b>Upper Elevation Balancing Tier</b> release 8.23 maf; if Lake Mead < 1,075 feet, balance contents with a min/max release of 7.0 and 9.0 maf	15.54 – 19.29 (2008 – 2026)
3,575	<hr style="border-top: 1px dashed black;"/> <b>Mid-Elevation Release Tier</b> release 7.48 maf; if Lake Mead < 1,025 feet, release 8.23 maf	9.52
3,525	<hr style="border-top: 1px dashed black;"/> <b>Lower Elevation Balancing Tier</b> balance contents with a min/max release of 7.0 and 9.5 maf	5.93
3,370		0

April adjustments to Lake Powell operations in the Upper Elevation Balancing Tier (as specified in Sections 6.B.3. and 6.B.4.) shall be based on the April 24-Month Study projections of the September 30 system storage and reservoir water surface elevations for the current Water Year. Any such adjustments shall not require re-initiation of the AOP consultation process. In making these projections, the Secretary shall utilize the April 1 final forecast of the April through July runoff, currently provided by the National Weather Service’s Colorado Basin River Forecast Center.

A. Equalization Tier

In each Water Year, the Lake Powell equalization elevation will be as follows:

Lake Powell Equalization Elevation Table	
Water Year	Elevation (feet)
2008	3,636
2009	3,639
2010	3,642
2011	3,643
2012	3,645
2013	3,646
2014	3,648
2015	3,649
2016	3,651
2017	3,652
2018	3,654
2019	3,655
2020	3,657
2021	3,659
2022	3,660
2023	3,662
2024	3,663
2025	3,664
2026	3,666

1. In Water Years when Lake Powell elevation is projected on January 1 to be at or above the elevation stated in the Lake Powell Equalization Elevation Table, an amount of water will be released from Lake Powell to Lake Mead at a rate greater than 8.23 maf per Water Year to the extent necessary to avoid spills, or equalize storage in the two reservoirs, or otherwise to release 8.23 maf from Lake Powell. The Secretary shall release at least 8.23 maf per Water Year and shall release additional water to the extent that the additional releases will not cause Lake Powell content to be below the elevation stated in the Lake Powell Equalization Elevation Table or cause Lake Mead content to exceed that of Lake Powell; provided, however, if Lake Powell reaches the elevation stated in the Lake Powell Equalization Elevation Table for that Water Year and the September 30 projected Lake Mead elevation is below elevation 1,105 feet, the Secretary shall release additional water from Lake Powell to Lake Mead until the first of the following conditions is projected to occur on September 30: (i) the reservoirs fully equalize; (ii) Lake Mead reaches elevation 1,105 feet; or (iii) Lake Powell reaches 20 feet below the elevation in the Lake Powell Equalization Elevation Table for that year.

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**B. Upper Elevation Balancing Tier**

1. In Water Years when the projected January 1 Lake Powell elevation is below the elevation stated in the Lake Powell Equalization Elevation Table and at or above 3,575 feet, the Secretary shall release 8.23 maf from Lake Powell if the projected January 1 Lake Mead elevation is at or above 1,075 feet.
2. If the projected January 1 Lake Powell elevation is below the elevation stated in the Lake Powell Equalization Elevation Table and at or above 3,575 feet and the projected January 1 Lake Mead elevation is below 1,075 feet, the Secretary shall balance the contents of Lake Mead and Lake Powell, but shall release not more than 9.0 maf and not less than 7.0 maf from Lake Powell in the Water Year.
3. When operating in the Upper Elevation Balancing Tier, if the April 24-Month Study projects the September 30 Lake Powell elevation to be greater than the elevation in the Lake Powell Equalization Elevation Table, the Equalization Tier will govern the operation of Lake Powell for the remainder of the Water Year (through September).
4. When operating under Section 6.B.1, if the April 24-Month Study projects the September 30 Lake Mead elevation to be below 1,075 feet and the September 30 Lake Powell elevation to be at or above 3,575 feet, the Secretary shall balance the contents of Lake Mead and Lake Powell, but shall release not more than 9.0 maf and not less than 8.23 maf from Lake Powell in the Water Year.
5. When Lake Powell is projected to be operating under Section 6.B.2. and more than 8.23 maf is projected to be released from Lake Powell during the upcoming Water Year, the Secretary shall recalculate the August 24-Month Study projection of the January 1 Lake Mead elevation to include releases above 8.23 maf that are scheduled to be released from Lake Powell during the months of October, November, and December of the upcoming Water Year, for the purposes of determining Normal or Shortage conditions pursuant to Sections 2.A. or 2.D. of these Guidelines.

**C. Mid-Elevation Release Tier**

1. In Water Years when the projected January 1 Lake Powell elevation is below 3,575 feet and at or above 3,525 feet, the Secretary shall release 7.48 maf from Lake Powell in the Water Year if the projected January 1 elevation of Lake Mead is at or above 1,025 feet. If the projected January 1 Lake Mead elevation is below 1,025 feet, the Secretary shall release 8.23 maf from Lake Powell in the Water Year.

D. Lower Elevation Balancing Tier

1. In Water Years when the projected January 1 Lake Powell elevation is below 3,525 feet, the Secretary shall balance the contents of Lake Mead and Lake Powell, but shall release not more than 9.5 maf and not less than 7.0 maf from Lake Powell in the Water Year.

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**Section 7. Implementation of Guidelines**

[Content of 2001 ISG Section 7, Modeling and Data Authority, is now found at Section 7.A., as modified herein.]

**A. AOP Process**

During the Interim Period, the Secretary shall utilize the AOP process to determine operations under these Guidelines concerning the coordinated operations of Lake Powell and Lake Mead pursuant to Section 6 of these Guidelines, and the allocation of apportioned but unused water from Lake Mead and the determinations concerning whether Normal, Surplus or Shortage conditions shall apply for the delivery of water from Lake Mead, pursuant to Section 1 and Section 2 of these Guidelines.

**B. Consultation**

The Secretary shall consult on the implementation of these Guidelines in circumstances including but not limited to the following:

1. The Secretary shall first consult with all the Basin States before making any substantive modification to these Guidelines.
2. Upon a request for modification of these Guidelines, or upon a request to resolve any claim or controversy arising under these Guidelines or under the operations of Lake Powell and Lake Mead pursuant to these Guidelines or any other applicable provision of federal law, regulation, criteria, policy, rule, or guideline, or regarding application of the 1944 Treaty that has the potential to affect domestic management of Colorado River water, the Secretary shall invite the Governors of all the Basin States, or their designated representatives, and the Department of State and USIBWC as appropriate, to consult with the Secretary in an attempt to resolve such claim or controversy by mutual agreement.
3. In the event projections included in any monthly 24-Month Study indicate Lake Mead elevations may approach an elevation that would trigger shortages in deliveries of water from Lake Mead in the United States, the Secretary shall consult with the Department of State, the USIBWC and the Basin States on whether and how the United States may reduce the quantity of water allotted to Mexico consistent with the 1944 Treaty.<sup>8</sup>

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<sup>8</sup> These Guidelines are not intended to constitute an interpretation or application of the 1944 Treaty or to represent current United States policy or a determination of future United States policy regarding deliveries to Mexico. The United States will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Treaty with Mexico through the IBWC in consultation with the Department of State.



4. Whenever Lake Mead is below elevation 1,025 feet, the Secretary shall consult with the Basin States annually to consider whether Colorado River hydrologic conditions, together with the anticipated delivery of water to the Lower Division states and Mexico, is likely to cause the elevation of Lake Mead to fall below 1,000 feet. Upon such a consideration, the Secretary shall consult with the Basin States to discuss further measures that may be undertaken. The Secretary shall implement any additional measures consistent with applicable federal law.
5. During the Interim Period the Secretary shall consult with the Basin States regarding the administration of ICS.
6. During the Interim Period the Secretary shall consult with the Basin States regarding the creation of ICS through other extraordinary conservation measures pursuant to Section 3.A.1.h.
7. During the Interim Period the Secretary shall consult with the Basin States regarding the creation of System Efficiency ICS pursuant to Section 3.A.3.
8. The Secretary shall consult with the Basin States to evaluate actions at critical elevations that may avoid shortage determinations as reservoir elevations approach critical thresholds.

### C. Mid-Year Review

In order to allow for better overall water management during the Interim Period, the Secretary may undertake a mid-year review to consider revisions to the AOP. The Secretary shall initiate a mid-year review if requested by any Basin State or by the Upper Colorado River Commission. In the mid-year review, the Secretary may modify the AOP to make a determination that a different operational tier (Section 2.A., B., or D., or Section 6.A., B., C., or D.) than that determined in the AOP will apply for the remainder of the Year or Water Year as appropriate, or that an amount of water other than that specified in the applicable operational tier will be released for the remainder of the Year or Water Year as appropriate. The determination of modification of the AOP shall be based upon an evaluation of the objectives to avoid curtailment of uses in the Upper Basin, minimize shortages in the Lower Basin and not adversely affect the yield for development available in the Upper Basin. In undertaking such a mid-year review, the Secretary shall utilize the April 1 final forecast of the April through July runoff, currently provided by the National Weather Service's Colorado Basin River Forecast Center, and other relevant factors such as actual runoff conditions, actual water use, and water use projections. For Lake Mead, the Secretary shall revise the determination in any mid-year review for the current Year only to allow for additional deliveries from Lake Mead pursuant to Section 2 of these Guidelines.

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D. Operations During Interim Period

These Guidelines implement the LROC and may be reviewed concurrently with the LROC five-year review. The Secretary will base annual determinations regarding the operations of Lake Powell and Lake Mead on these Guidelines unless extraordinary circumstances arise. Such circumstances could include operations that are prudent or necessary for safety of dams, public health and safety, other emergency situations, or other unanticipated or unforeseen activities arising from actual operating experience.

Beginning no later than December 31, 2020, the Secretary shall initiate a formal review for purposes of evaluating the effectiveness of these Guidelines. The Secretary shall consult with the Basin States in initiating this review.

Procedures will be established for implementation of ICS and DSS by Reclamation's Lower Colorado Regional Director.

## **Section 8. Interim Period and Termination**

[Adopted January 16, 2001; Deleted and Modified December 13, 2007]

### **A. Interim Period**

These Guidelines will be effective upon the date of execution of the ROD for Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations of Lake Powell and Lake Mead and will, unless subsequently modified, remain in effect through December 31, 2025 (through preparation of the 2026 AOP).

The Department promulgated these Guidelines based on consideration of multiple sources of information, including existing applicable guidelines, information submitted by the general public, an Agreement and recommendation submitted by the representatives of the Governors of the seven Colorado Basin States, modeling, and other information contained in environmental compliance documentation. The Secretary recognizes that the Basin States' recommendation was developed with the intent to be consistent with existing law, as addressed by Section 9 of the April 23, 2007, Agreement among the Basin States.

The Secretary recognizes that differences exist with respect to interpretations of certain provisions contained in the Law of the River and the proper application of those provisions, including, for example, Section 602(a) of the Colorado River Basin Project Act of 1968. In lieu of a formal determination regarding such disputes, the Secretary will apply the operational criteria in these Guidelines. By way of further example, positions and rights concerning the calculation of the quantity of Section 602(a) storage and releases of water from Lake Powell are reserved. The Secretary, through the adoption of these Guidelines, makes no determination with respect to the correctness of any interpretation of Section 602(a) storage and release requirements or other positions of the individual Colorado River Basin states.

Actual operations under these Guidelines shall not represent interpretations of existing law by the Secretary, nor predetermine in any manner the means of operation that the Secretary may adopt following the Interim Period. Releases from Lake Powell or Lake Mead pursuant to these Guidelines shall not prejudice the position or interests of either the Upper or Lower Division states, or any Colorado River Basin state, with respect to required storage or deliveries of water pursuant to applicable federal law, either during or after the Interim Period.

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**B. Effective Period - Special Provisions**

1. The provisions for the delivery and accounting of ICS in Section 3 shall remain in effect through December 31, 2036, unless subsequently modified, for any ICS remaining in an ICS Account on December 31, 2026.
2. The provisions for the creation and delivery of Tributary Conservation ICS and Imported ICS in Section 3 shall continue in full force and effect until fifty years from the date of the execution of the ROD.
3. The provisions for the creation and delivery of DSS in Section 4 shall continue in full force and effect until fifty years from the date of the execution of the ROD.

**C. Termination of Guidelines**

Except as provided in Section 8.B., these Guidelines shall terminate on December 31, 2025 (through preparation of the 2026 AOP). At the conclusion of the effective period of these Guidelines, the operating criteria for Lake Powell and Lake Mead are assumed to revert to the operating criteria used to model baseline conditions in the Final Environmental Impact Statement for the Interim Surplus Guidelines dated December 2000 (i.e., modeling assumptions are based upon a 70R Strategy for the period commencing January 1, 2026 (for preparation of the 2027 AOP)).

**Section 9. Authority**

These Guidelines are issued pursuant to the authority vested in the Secretary by federal law, including the Boulder Canyon Project Act of 1928 (28 Stat. 1057), the Colorado River Storage Project Act (70 Stat. 105), and the Consolidated Decree issued by the U.S. Supreme Court in *Arizona v. California*, 547 U.S. 150 (2006) and shall be used to implement Articles II and III of the Criteria for the Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 (Pub. L. No. 90-537), as amended.