

# [***ARTICLE: A HISTORY OF COLLABORATION: TWENTY YEARS OF DROUGHT RESPONSE IN THE MANAGEMENT OF THE COLORADO RIVER***](https://advance.lexis.com/api/document?collection=analytical-materials&id=urn:contentItem:667B-D5F1-JJ1H-X4KR-00000-00&context=1516831)

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**Reporter**

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**Highlight**

The ***Colorado*** ***River*** basin has experienced unprecedented and prolonged drought for over twenty years, and today, as focus turns to upcoming negotiations for post-2026 operations of the major reservoirs on the ***Colorado*** ***River***, there is recognition that the next set of operational rules must be appropriately responsive to the significant challenges facing the basin. Water managers have come together in the past to tackle difficult issues in the ***Colorado*** ***River*** basin and have worked together within the existing legal and regulatory framework that governs the management of the ***Colorado*** ***River***. Over the last twenty years, as drought persisted, water managers have developed increasingly flexible, collaborative approaches to the management of the ***Colorado*** ***River*** with the implementation of the 2007 Interim Guidelines and the 2019 Drought Contingency Plans. By looking back at these pivotal documents and the circumstances in which they were created, one can see a history of collaboration that provides context for present and future discussions on the ***Colorado*** ***River***.

**Text**

**[\*272]**

**INTRODUCTION**

The majority of the western United States, particularly those in the ***Colorado*** ***River*** basin, have experienced unprecedented and prolonged drought for more than twenty years. [[2]](#footnote-3)2State water managers are currently implementing the Upper and Lower Basin Drought Contingency Plans developed in 2019. In August 2021, the Department of the Interior declared the first shortage on the ***Colorado*** ***River***, requiring cuts in deliveries to certain Lower Basin water users in 2022. [[3]](#footnote-4)3The Department also made emergency releases from Upper Basin reservoirs in August and September 2021, [[4]](#footnote-5)4all in the hopes of protecting critical elevations in the largest man-made reservoirs in the United States. Those reservoirs - Lake Powell and Lake Mead - are sitting at the lowest levels since their initial filling over sixty years ago, rimmed in stark bathtub rings of white, and reaching new record lows every year. [[5]](#footnote-6)5

Concerns over continued drought in the basin are warranted, given the importance of the ***Colorado*** ***River***. The ***Colorado*** ***River*** basin supplies water to over forty million people [[6]](#footnote-7)6and thirty Indian Tribes; reaching beyond the bounds of the ***river***'s watershed, it supplies water to major cities including Denver, Cheyenne, Santa Fe, Albuquerque, Las Vegas, Phoenix, Tucson, Los Angeles, San Diego, and Salt Lake City. [[7]](#footnote-8)7It irrigates over 5.5 million acres of farmland in the United States alone [[8]](#footnote-9)8and supports a $ 1.4 trillion economy annually. [[9]](#footnote-10)9It drains nearly 250,000 square miles, [[10]](#footnote-11)10approximately eight percent of the continental **[\*273]**United States, and passes through seven National Wildlife Refuges, eleven National Parks, and four National Recreation Areas. [[11]](#footnote-12)11

Hydrology in the ***Colorado*** ***River*** basin is increasingly dry and highly variable, creating conditions that are increasingly dire. But as former ***Colorado*** Supreme Court Justice Gregory Hobbs observed: "The early 21st Century drought reminds us once again that the law of nature and the law of man require understanding, reconciliation, and continued community problem-solving." [[12]](#footnote-13)12Over the last century, and particularly the last twenty years, water managers in the basin have worked toward increasingly flexible, collaborative approaches to management of the ***Colorado*** ***River***. This article reviews the management approaches developed to respond to drought conditions on the ***Colorado*** ***River*** in the last twenty years to offer a piece of the understanding and history of community problem-solving in the basin. This collaboration will hopefully continue into the future to guide decision makers to workable solutions, especially given the challenging hydrologic conditions and the upcoming negotiations for post-2026 operations of the major reservoirs on the ***Colorado*** ***River***.

This article reviews the interim operational guidelines and pivotal agreements developed in the last twenty years that manage the operations of the ***Colorado*** ***River*** and respond to drought conditions. Section I summarizes the pertinent background of management on the ***Colorado*** ***River***, including water allocations, legal obligations, and reservoir operations. Section II examines the 2007 Interim Guidelines and management approaches under shortage conditions developed as a response to declining hydrology. Finally, Section III reviews the 2019 Drought Contingency Plans, the necessary additional measures taken to respond to ongoing dry conditions.

**I. BACKGROUND**

Management of the ***Colorado*** ***River*** includes considerations related to legal obligations, water allocations, and reservoir operations, which are all based on the body of laws, agreements, and regulations known as the Law of the ***River***. [[13]](#footnote-14)13This article does not provide a comprehensive overview of the Law of the ***River*** or all the components of management of the ***Colorado*** ***River***; rather, it provides a review of the key components to understand the foundation of management on the ***Colorado*** ***River***.

A. WATER ALLOCATIONS AND LEGAL OBLIGATIONS

This year marks the 100th anniversary of the 1922 ***Colorado*** ***River*** Compact ("Compact") - the first brick in the foundation of the Law of the ***River*** - and it is therefore fitting for this article to celebrate what a feat the Compact is. It was the first of its kind - the first interstate water compact negotiated in the **[\*274]**United States. [[14]](#footnote-15)14It laid the foundation for the use and management of the ***Colorado*** ***River***, and it continues to serve that purpose today. At a time when states resolved their claims to interstate ***rivers*** in court, [[15]](#footnote-16)15the seven ***Colorado*** ***River*** Basin States [[16]](#footnote-17)16negotiated an agreement instead of litigating their claims, [[17]](#footnote-18)17initiating a pattern of collaboration that would later define the management of the ***Colorado*** ***River***.

In function, the Compact allocated the use of the ***Colorado*** ***River*** [[18]](#footnote-19)18between an Upper Basin [[19]](#footnote-20)19and a Lower Basin [[20]](#footnote-21)20divided at Lee Ferry, and set legal obligations, based on the hydrologic record at the time [[21]](#footnote-22)21and predicated on storage. [[22]](#footnote-23)22In pertinent part, the Compact apportions the exclusive beneficial consumptive use of 7.5 million acre-feet ("MAF") of water from the ***Colorado*** ***River*** each year in perpetuity to each the Upper Basin and the Lower Basin. [[23]](#footnote-24)23Additionally, the Compact requires the Upper Division States [[24]](#footnote-25)24of ***Colorado***, New Mexico, Utah, and Wyoming to "not cause the flow of the ***river*** at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years." [[25]](#footnote-26)25The Compact also anticipated international allocations and obligations with respect to Mexico, which the parties did not solidify until the **[\*275]**enactment of the 1944 Mexican Water Treaty. [[26]](#footnote-27)26

In the last 100 years since the Basin States negotiated the Compact, the Basin States have defined their individual allocations, and Congress has enacted federal legislation that authorized the necessary storage to develop Compact apportionments and meet Compact obligations, as well as legislation to coordinate operations of the major storage facilities in the basin.

The Upper Basin States defined their individual ***Colorado*** ***River*** allocations pursuant to the 1948 Upper ***Colorado*** ***River*** Basin Compact ("Upper Basin Compact"). The Upper Basin Compact allocates the consumptive use of 50,000 acre-feet per year to Arizona, [[27]](#footnote-28)27and allocates the remaining Upper Basin apportionment based on percentages of water available for consumptive use in a given year to the other four states as follows: ***Colorado***, 51.75%; New Mexico, 11.25%; Utah, 23%; and Wyoming, 14%. [[28]](#footnote-29)28The Upper Basin Compact also creates an interstate administrative agency known as the Upper ***Colorado*** ***River*** Commission ("UCRC"). [[29]](#footnote-30)29

The Lower Basin States litigated their individual claims to the ***Colorado*** ***River*** in the Supreme Court case of *Arizona v. California*, [[30]](#footnote-31)30which spanned multiple decades and resulted in a decree [[31]](#footnote-32)31allocating the Lower Basin apportionment [[32]](#footnote-33)32among the Lower Division States of Arizona, California, and Nevada. **[\*276]**Pursuant to the decree, Arizona is allocated 2.8 MAF annually, California 4.4 MAF annually, and Nevada 300,000 AF annually. [[33]](#footnote-34)33

B. CREATION OF STORAGE AND COORDINATED RESERVOIR OPERATIONS

Because the Basin States predicated the 1922 ***Colorado*** ***River*** Compact on the development of storage, Congress enacted federal legislation that authorized the necessary storage to develop Compact apportionments and meet Compact obligations. In 1928, Congress enacted the Boulder Canyon Project Act ("BCPA") that authorized the construction of Hoover Dam and Lake Mead. [[34]](#footnote-35)34The BCPA further authorized the Secretary of the Interior to contract for water deliveries to Lower Basin entities from Lake Mead, effectively making the Secretary the water master in the Lower Basin. [[35]](#footnote-36)35In 1956, Congress enacted the ***Colorado*** ***River*** Storage Project Act ("CRSPA") that authorized construction of Glen Canyon Dam and Lake Powell, as well as other reservoirs in the Upper Basin including Aspinall, Flaming Gorge, and Navajo ("Initial Units"). [[36]](#footnote-37)36CRSPA provided storage to the Upper Basin States to promote Upper Basin development of its ***Colorado*** ***River*** allocation while meeting Compact obligations. [[37]](#footnote-38)37

Given the authorization and construction of Lake Powell and Lake Mead pursuant to these federal laws, in 1968, Congress enacted the ***Colorado*** ***River*** Basin Project Act [[38]](#footnote-39)38("CRBPA") which directed the Secretary of the Interior to prepare long-range operating criteria for Lake Powell and Lake Mead, [[39]](#footnote-40)39recognizing the existing Law of the ***River***. The CRBPA also directed the Secretary to develop annual operating plans and annual consumptive uses and losses reports on a state-by-state basis. [[40]](#footnote-41)40

The Secretary of the Interior developed the *Criteria for Coordinated Long-Range Operation of* ***Colorado******River*** *Reservoirs Pursuant to the* ***Colorado******River*** **[\*277]** *Basin Project Act of September 30, 1968 (*[*P.L. 90-537*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5CCB-R210-01XN-S30D-00000-00&context=1516831)*)* ("LROC"), [[41]](#footnote-42)41operational guidelines that established the criteria for releases from Lake Powell to fulfill the requirements of the CRBPA. [[42]](#footnote-43)42The LROC set Lake Powell's "minimum objective release" at 8.23 MAF per year. [[43]](#footnote-44)43Releases from Lake Powell under the LROC may be greater than the minimum objective release of 8.23 MAF when the storage estimates in Lake Powell are greater than the amount needed to meet Compact obligations without impairing Upper Basin uses, and Lake Powell's active storage is greater than Lake Mead's active storage. [[44]](#footnote-45)44The LROC required releases from Lake Mead based on specific reservoir conditions determined by the Secretary of the Interior pursuant to "normal," "surplus," and "storage" (shortage) conditions. [[45]](#footnote-46)45

**II. MANAGING FOR SHORTAGE: A SWIFT JUMP FROM SURPLUS**

A. 1999: SURPLUS CONDITIONS

At the turn of the millennium, water appeared plentiful in the ***Colorado*** ***River*** basin. In 1999, Lake Powell and Lake Mead were nearly full at a combined 94% capacity, and there were above average inflows into Lake Powell. [[46]](#footnote-47)46California had been annually using around 1.0 MAF more than its apportionment, and Arizona and Nevada were approaching full use of their respective ***Colorado*** ***River*** apportionments. [[47]](#footnote-48)47Although hydrologic variability was well known in the basin - the lowest flow year on record at that time was 1977 followed by the highest flow years in 1983 and 1984 - surplus was the dominant focus in management approaches on the ***Colorado*** ***River***. And as such, the Department of the Interior and the Basin States developed the Interim Surplus Guidelines. [[48]](#footnote-49)48The Interim Surplus Guidelines modified the implementation of **[\*278]**the LROC, provided further criteria for surplus conditions, and addressed California's reliance on surplus deliveries from Lake Mead. [[49]](#footnote-50)49Thus, the Interim Surplus Guidelines were not a drought plan, but rather, a component of the operating rules in place at that time and a strategy to gradually reduce California's overuse. [[50]](#footnote-51)50However, conditions in the ***Colorado*** ***River*** basin quickly forced California to develop a plan to use less water sooner than anticipated.

B. 21ST CENTURY DROUGHT

In 2002, the ***Colorado*** ***River*** experienced the driest year on record, with inflows to Lake Powell at 28% of average. [[51]](#footnote-52)51The period of 2000-2004 was the lowest five-year average annual hydrology in the observed record at the time, [[52]](#footnote-53)52and the combined storage in Lake Mead and Lake Powell dropped from 55.7 MAF to 29.7 MAF, a drop from 94% capacity to only 52% capacity. [[53]](#footnote-54)53The mindset in the basin quickly shifted from one of surplus to one of shortage.

In 2004, the Upper Division States requested assistance from the Department of the Interior to modify operations at Lake Powell to respond to the drought; but in December 2004, the Secretary of the Interior "urged the ***Colorado*** ***River*** Basin States ... to develop a plan to manage the ***river*** during drought." [[54]](#footnote-55)54In April 2005, the Upper Division States again sought assistance from the Secretary concerning operations at Lake Powell and the ongoing drought. The Upper Division States urged that the drought conditions "warranted retaining as much water as possible in Lake Powell for the year 2005," and that the Department of the Interior should not draw Lake Powell down at a rate faster than conditions warranted. [[55]](#footnote-56)55The Lower Basin runoff that year had resulted in filling and spilling in most Lower Basin tributary storage reservoirs, and Lake Mead's storage capacity increased to 62%, while Lake Powell remained at 33% capacity. [[56]](#footnote-57)56

In response, the Department of the Interior conducted a mid-year review and determined that the release amounts in Lake Powell did not warrant an adjustment. [[57]](#footnote-58)57However, given the continuing concern with drought, the Secretary committed to developing shortage guidelines by 2007. [[58]](#footnote-59)58

**[\*279]**

C. THE ROAD TO MANAGEMENT UNDER SHORTAGE CONDITIONS

The Basin States responded to the Secretary's commitment and worked together to develop alternatives and a comprehensive management arrangement for the development of such shortage guidelines. [[59]](#footnote-60)59In August 2005, the Basin States collaborated and agreed on key elements of a shortage strategy: (1) coordinated reservoir management and Lower Basin shortage strategies, (2) ***Colorado*** ***River*** system efficiency and management, and (3) augmentation of supply. [[60]](#footnote-61)60They emphasized the importance of limiting any operational strategy developed to an interim period for maximum flexibility and to provide dedicated reassessment of such guidelines. [[61]](#footnote-62)61They urged that the Secretary first use the interim period to learn and then determine the necessity for any changes in operations. [[62]](#footnote-63)62

The Department of the Interior and the Basin States continued to work together to discuss and refine recommended management strategies for the ***Colorado*** ***River***, recognizing areas of disagreement and working to resolve those matters. [[63]](#footnote-64)63In February 2006, the Basin States offered a proposal for the interim operational guidelines, [[64]](#footnote-65)64and in the summer of 2006, the Department of the Interior published an Environmental Impact Statement to develop and adopt interim operational guidelines to address the coordinated operations of Lake Powell and Lake Mead during drought and low reservoir conditions under the LROC. [[65]](#footnote-66)65One of the proposed action alternatives was the Basin States' proposal, and the Department of the Interior incorporated elements of the proposal into its preferred alternative during the NEPA analysis. [[66]](#footnote-67)66

In April 2007, the Basin States entered into an agreement and requested that the Secretary of the Interior adopt the preferred alternative. [[67]](#footnote-68)67In keeping with the pattern of collaboration, the agreement emphasized the purpose of furthering the "law and practice" of consultation and collaboration to reach agreements in the basin. [[68]](#footnote-69)68The agreement sought to avoid litigation and reach **[\*280]**the workable solution of "additional security and certainty in the water supply of the ***Colorado*** ***River*** System for the benefit of the people served by water from the ***Colorado*** ***River*** System." [[69]](#footnote-70)69As stated in the agreement, "these discussions focused on ways to improve the management of water in Lakes Powell and Mead so as to enhance the protection afforded to the Upper Basin by Lake Powell, and to delay the onset and minimize the extent and duration of shortages in the Lower Basin." [[70]](#footnote-71)70

As the Department of the Interior worked to finalize the NEPA process and adopt interim guidelines, the Basin States issued a final comment letter. [[71]](#footnote-72)71In the letter, the Basin States described their process of collaboration with each other and with the Department, and while reaching an agreement, they recognized individual interests and remaining areas of disagreement. [[72]](#footnote-73)72They also stated that they had outstanding concerns and issues with the proposed final guidelines given some key changes and differences between the Basin States' proposed alternative and the preferred alternative, but in the interest of comity and recognizing the importance of the interim nature of the guidelines, the Basin States agreed to not oppose the Record of Decision. [[73]](#footnote-74)73

In 2007, the Department of the Interior adopted the ***Colorado******River*** *Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead* ("2007 Interim Guidelines"), effective through December 31, 2025. [[74]](#footnote-75)74The seven Basin States affirmed the 2007 Interim Guidelines and recognized that they reflected the continued collaborative approach to management of the ***Colorado*** ***River***. [[75]](#footnote-76)75

D. 2007 INTERIM GUIDELINES

The 2007 Interim Guidelines were designed to address shortage conditions while implementing the LROC. [[76]](#footnote-77)76The LROC offered no specific operational guidelines that addressed reservoir operations during drought and low reservoir conditions; therefore, the 2007 Interim Guidelines were needed to address ongoing drought conditions. [[77]](#footnote-78)77The 2007 Interim Guidelines coordinated releases from Lake Powell based on conditions and elevation levels in Lake Mead to minimize shortages in the Lower Basin and avoid the risk of curtailment in the Upper Basin. [[78]](#footnote-79)78Under the LROC, the objective minimum release from Lake **[\*281]**Powell was 8.23 MAF. [[79]](#footnote-80)79The 2007 Interim Guidelines created a tiered structure so that water managers could release less than 8.23 MAF, depending on the elevation levels in Lake Mead. [[80]](#footnote-81)80The tiered structure was intended to increase flexibility in the coordinated operations of Lake Powell and Lake Mead. At the same time, the 2007 Interim Guidelines allowed releases from Lake Powell in excess of 8.23 MAF, specifically up to 9.5 MAF, depending on elevation levels. [[81]](#footnote-82)81

The 2007 Interim Guidelines further addressed operations under drought conditions by creating, for the first time, a shortage sharing strategy in the Lower Basin. [[82]](#footnote-83)82The Guidelines established escalating reductions in Lower Basin water allocations based on elevation levels in Lake Mead. [[83]](#footnote-84)83Shortages are shared between the Lower Division States of Arizona and Nevada, while California does not take any shortages. [[84]](#footnote-85)84

Finally, the 2007 Interim Guidelines created an additional mechanism for the storage and release of water in Lake Mead to minimize shortage conditions, known as Intentionally Created Surplus ("ICS"). [[85]](#footnote-86)85The Guidelines intended ICS to incentivize the Lower Division States to conserve more water in Lake Mead, for later use, as a means to maintain elevation levels in Lake Mead. [[86]](#footnote-87)86There are multiple types of ICS based on the method of creation, and the total allowable ICS account in Lake Mead is 2.1 MAF. [[87]](#footnote-88)87The Lower Division States are allowed under certain conditions in subsequent years to take delivery of their ICS water created. [[88]](#footnote-89)88

\* \* \* The 2007 Interim Guidelines are interim in nature, expiring at the end of 2025, and are intended to provide the Basin States time to gain experience, adjusting as needed. They offered additional flexibility in the management of the ***Colorado*** ***River***, but ultimately proved insufficient to offset the effects of persistent drought conditions that continued beyond the first decade of the **[\*282]**twenty-first century. [[89]](#footnote-90)89

**III. Drought Response Continues**

Even despite one or two good water years, the drought persisted after 2007, and the reservoirs continued to decline. The Basin States recognized a need for additional drought response planning. The Lower Division States began working with the Department of the Interior on drought contingency planning in 2013, [[90]](#footnote-91)90and the Upper Division States developed a drought contingency planning resolution in 2014. [[91]](#footnote-92)91In 2017, the seven Basin States worked together and requested support from the Department of the Interior for continued discussions and negotiations related to drought contingency planning, [[92]](#footnote-93)92and in 2019, the seven Basin States agreed to the Upper and Lower Basin Drought Contingency Plans ("DCPs"). The Basin States succinctly stated the DCPs purpose and need in the DCP Agreement:

Based on the actual operating experience gained after the adoption of the 2007 Interim Guidelines and emerging scientific information regarding the increasing variability and anticipated decline in ***Colorado*** ***River*** flow volumes, the Parties recognize and acknowledge that those relying on water from the ***Colorado*** ***River*** System face increased individual and collective risk of temporary or prolonged interruptions in water supplies, with associated adverse impacts on the society, environment, and economy of the ***Colorado*** ***River*** Basin. Therefore, the Parties have agreed that it is necessary and beneficial to pursue additional actions beyond those contemplated in the 2007 Interim Guidelines to reduce the likelihood of reaching critical elevation levels in Lake Powell and Lake Mead through the Interim Period. [[93]](#footnote-94)93

The Basin States intended the DCPs to offer additional flexibilities in the management of the ***Colorado*** ***River*** and more acutely respond to the dry hydrologic conditions and low reservoir elevations, building upon the flexibilities created in the 2007 Interim Guidelines.

A. UPPER BASIN DROUGHT CONTINGENCY PLAN

In 2014, the Upper ***Colorado*** ***River*** Commission ("UCRC") passed a Resolution Regarding Development of an Emergency Upper Basin Drought Contingency Plan. The plan committed to expand weather modification programs **[\*283]**to boost snow accumulation and system water, to develop a plan regarding the coordinated operations of CRSPA Initial Units to protect critical elevations and recover storage, and to explore the feasibility of a potential Demand Management Program in the Upper Basin. [[94]](#footnote-95)94Driven by the commitments and working together with the Department of the Interior, the Upper Division States developed the Upper Basin DCP, which is comprised of the Drought Response Operations Agreement ("DROA") and the Demand Management Storage Agreement ("DMSA"). [[95]](#footnote-96)95The Upper Basin DCP also called for continuation of the Weather Modification program, though this did not require federal legislation because the program was already in place. [[96]](#footnote-97)96

1. DROA

The DROA focuses on potential operational adjustments or releases made at or from the CRSPA Initial Units [[97]](#footnote-98)97to minimize the risk of Lake Powell declining below a target elevation of 3,525 feet, as well as to provide for recovery of storage at the Initial Units in subsequent years. [[98]](#footnote-99)98The primary goals of the DROA are to (1) help ensure continued Compact compliance while exercising rights to develop the Upper Basin apportionment, (2) maintain the ability to generate hydropower at Glen Canyon Dam, and (3) minimize adverse effects to resources and infrastructure in the Upper Basin. [[99]](#footnote-100)99

The DROA outlines principles and processes for drought response operations triggered by certain hydrologic projections. The process begins with increased coordination, modeling, and meetings among the Upper Division States and the Department of the Interior to track conditions and the status at the Initial Units, and then results in the development of a DROA Plan after another modeling trigger is met. [[100]](#footnote-101)100The target elevation of 3,525 feet is intended to assure there is enough water in Lake Powell to protect the minimum power pool and infrastructure at approximately 3,490 feet, as well as to protect the Upper Division States' ability to continue to comply with the Compact. [[101]](#footnote-102)101

2. DMSA

The DMSA authorizes the Upper Division States to store 500,000 acre-feet of additional water in the CRSPA Initial Units at no charge and which is not subject to releases to the Lower Division States pursuant to the operations of the 2007 Interim Guidelines. Any releases from this 500,000-acre-foot pool would only occur at the direction of the Upper Division States to assist in maintaining **[\*284]**Compact compliance. The Upper Division States would create this additional volume of stored water through an Upper Basin Demand Management Program, temporarily and voluntarily reducing consumptive uses among the Upper Division States. [[102]](#footnote-103)102

Before the Upper Division States can approve and establish an Upper Basin Demand Management Program, the DMSA requires the Upper Division States and the UCRC to "investigate the feasibility of developing and implementing an Upper Basin Demand Management Program." [[103]](#footnote-104)103The DMSA also outlines requirements for an Upper Basin Demand Management Program, should the Upper Basin States approve and establish one, including specific requirements for the water contributed to such a program. [[104]](#footnote-105)104The DMSA further requires that such a program must comply with the state laws of each Upper Division State. [[105]](#footnote-106)105

B. LOWER BASIN DROUGHT CONTINGENCY PLAN

The Lower Basin DCP [[106]](#footnote-107)106requires additional reductions in water deliveries from Lake Mead, beyond the shortages required by the 2007 Interim Guidelines, in order to protect the elevation of 1,020 feet in Lake Mead. [[107]](#footnote-108)107Under the Lower Basin DCP, California shares in shortages with Arizona and Nevada if Lake Mead reaches 1,045 feet or below. [[108]](#footnote-109)108These additional reductions are called "DCP contributions" and, similar to ICS [[109]](#footnote-110)109under the 2007 Interim Guidelines, they predominately function as DCP ICS [[110]](#footnote-111)110and are available under certain conditions for subsequent delivery to the Lower Division States. [[111]](#footnote-112)111Under the Lower Basin DCP, the Department of the Interior also committed to work and create or conserve 100,000 acre-feet annually of ***Colorado*** ***River*** water. [[112]](#footnote-113)112

Additionally, the Lower Basin DCP provides for a mandatory consultation when certain modeling projects Lake Mead will fall below a trigger elevation of 1,030 feet. [[113]](#footnote-114)113The plan requires the Lower Division States and the Secretary of **[\*285]**the Interior to consult and determine what additional measures may be taken to avoid and protect against the potential of Lake Mead to a decline below 1,020 feet. [[114]](#footnote-115)114

1. Mexico Binational Water Scarcity Contingency Plan

At the same time the Lower Division and Upper Division States discussed drought contingency planning, the International Boundary and Water Commission ("IBWC") was also considering drought contingency measures. [[115]](#footnote-116)115The IBWC similarly recognized the impacts due to ongoing drought in the basin and the "clear need for continued and additional actions" to address those impacts. [[116]](#footnote-117)116In 2017, the IBWC adopted Minute 323, which included the adoption of the Binational Water Scarcity Contingency Plan ("BWSCP"). [[117]](#footnote-118)117The BWSCP outlines Mexico's commitment to DCP contributions in parity with a Lower Basin DCP. [[118]](#footnote-119)118Under the BWSCP, Mexico will conserve defined volumes of water at specified elevations in Lake Mead in alignment with Lower Basin DCP contributions. [[119]](#footnote-120)119Mexico will also benefit from the same flexibility provisions applicable to DCP ICS in the Lower Basin. [[120]](#footnote-121)120

**CONCLUSION**

Conditions in the ***Colorado*** ***River*** basin have not improved. The vast majority of the West - 89% - is experiencing drought, with 35% experiencing extreme or exceptional drought. [[121]](#footnote-122)121Above-average inflows have only occurred in five years since 2000, and four of the five lowest years on record have occurred during the last twenty years, with 2020 and 2021 being the driest consecutive two-year period in recorded history. [[122]](#footnote-123)122Water year 2002 was the lowest flow year on record and 2021 was the second lowest year. [[123]](#footnote-124)123Current conditions in the basin show Lake Powell at 24% capacity and Lake Mead at 33%. [[124]](#footnote-125)124

As we look to the future of management on the ***Colorado*** ***River***, learning from the implementation of the DCPs and the interim operational agreements, **[\*286]**the intention is that the pattern of collaboration in the management of the ***Colorado*** ***River*** will continue to guide decision makers to workable solutions in light of the significant challenges facing the basin. As water managers come together to discuss post-2026 operations of the major reservoirs on the ***Colorado*** ***River***, the stakes have never been higher, and collaboration has never been more critical to balance the diverse needs across the basin and preserve certainty needed to provide a reliable source of water to the nearly forty million people who depend upon the ***Colorado*** ***River***.

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1. 1Assistant Attorney General, ***Colorado*** Attorney General's Office. The views expressed in this article are solely mine and do not reflect the official position of the ***Colorado*** Department of Law, ***Colorado*** Attorney General, or the State of ***Colorado***. There are many other important topics and collaborations that have occurred from the local to regional levels in the ***Colorado*** ***River*** basin, but this article narrowly focuses on the interim operational agreements developed over the last twenty years that particularly respond to drought conditions in the basin. [↑](#footnote-ref-2)
2. 2 *See* U.S. DROUGHT MONITOR, TIME SERIES, [*https://droughtmonitor.unl.edu/DmData/*](https://droughtmonitor.unl.edu/DmData/) TimeSeries.aspx; *see also* Henry Fountain, *How Bad Is the Western Drought? Worst in 12 Centuries, Study Finds*, N.Y. TIMES (Feb. 14, 2022), [*https://www.nytimes.com/2022/02/*](https://www.nytimes.com/2022/02/) 14/climate/western-drought-megadrought.html. [↑](#footnote-ref-3)
3. 3 *See* U.S. BUREAU OF RECLAMATION, DRAFT 2022 ANNUAL OPERATING PLAN FOR ***COLORADO*** ***RIVER*** RESERVOIRS (May 27, 2021), [*https://www.usbr.gov/uc/water*](https://www.usbr.gov/uc/water) /rsvrs/ops/aop/AOP22\_draft.pdf; *see also* Henry Fountain, *In a First, U.S. Declares Shortage on* ***Colorado******River****, Forcing Water Cuts*, N.Y. TIMES (Aug. 27, 2021), [*https://www.nytimes.com/2021/08/16/climate/****colorado****-****river****-water-cuts.html*](https://www.nytimes.com/2021/08/16/climate/colorado-river-water-cuts.html). [↑](#footnote-ref-4)
4. 4News Release, Reclamation's July 24-Month Study implements contingency operations in the Upper ***Colorado*** ***River*** Basin, U.S. BUREAU OF RECLAMATION (July 16, 2021), [*https://www.usbr.gov/newsroom/#/news-release/3917?filterBy=region&region=Upper%20Colo*](https://www.usbr.gov/newsroom/#/news-release/3917?filterBy=region&region=Upper%20Colo) rado%20Basin. Note that the actual releases totaled approximately 161,000 acre-feet, instead of the projected 181,000 acre-feet. [↑](#footnote-ref-5)
5. 5 *See* *Historical Annual Operating Plans for* ***Colorado******River*** *Reservoirs*, U.S. BUREAU OF RECLAMATION (Oct. 27, 2020), [*https://www.usbr.gov/uc/water/rsvrs/ops/aop/index.html*](https://www.usbr.gov/uc/water/rsvrs/ops/aop/index.html). [↑](#footnote-ref-6)
6. 6U.S. BUREAU OF RECLAMATION, ***COLORADO*** ***RIVER*** BASIN WATER SUPPLY AND DEMAND STUDY: EXECUTIVE SUMMARY 3 (2012), [*https://www.usbr.gov/lc/region/programs*](https://www.usbr.gov/lc/region/programs) /crbstudy/finalreport/Executive%20Summary/CRBS\_Executive\_Summary\_FINAL.pdf. [↑](#footnote-ref-7)
7. 7Map of ***Colorado*** ***River*** Basin, U.S. BUREAU OF RECLAMATION [*https://www.usbr.gov/lc/images/maps/CRBSmap.jpg*](https://www.usbr.gov/lc/images/maps/CRBSmap.jpg). [↑](#footnote-ref-8)
8. 8***COLORADO*** ***RIVER*** BASIN WATER SUPPLY AND DEMAND STUDY, *supra* note 6, at 3. [↑](#footnote-ref-9)
9. 9TIM JAMES ET AL., W.P. CAREY SCH. OF BUS., ARIZ. STATE UNIV., THE ECONOMIC IMPORTANCE OF THE ***COLORADO*** ***RIVER*** 32 (2014). [↑](#footnote-ref-10)
10. 10MILTON N. NATHANSON, U.S. BUREAU OF RECLAMATION, UPDATING THE HOOVER DAM DOCUMENTS 1 (1978). [↑](#footnote-ref-11)
11. 11***COLORADO*** ***RIVER*** BASIN WATER SUPPLY AND DEMAND STUDY, *supra* note 6, at 3. [↑](#footnote-ref-12)
12. 12Hon. Gregory Hobbs, *Upper* ***Colorado******River*** *Basin Compact*, 32 WYO. LAW. 20, 21 (Oct. 2009). [↑](#footnote-ref-13)
13. 13The Law of the ***River*** refers to the collective group of compacts, a treaty, laws, decrees, and more that govern the management of the ***Colorado*** ***River***. Additionally, there are specific laws, regulations, and agreements used to implement the Law of the ***River***. [↑](#footnote-ref-14)
14. 14NORRIS HUNDLEY, JR., WATER AND THE WEST 2-3 (2d ed., Univ. of Cal. Press 2009) (1975). [↑](#footnote-ref-15)
15. 15 *See* [*Wyoming v.* ***Colorado****, 259 U.S. 419 (1922)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-45S0-003B-H2C4-00000-00&context=1516831); [*Kansas v.* ***Colorado****, 206 U.S. 46 (1907)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-B060-003B-H2B5-00000-00&context=1516831). [↑](#footnote-ref-16)
16. 16The seven states in the ***Colorado*** ***River*** basin are Arizona, California, ***Colorado***, Nevada, New Mexico, Utah, and Wyoming. ***COLO.*** ***RIVER*** COMPACT, art. II (1922). [↑](#footnote-ref-17)
17. 17The Basin States were concerned that litigating claims may result in unfavorable allocations based on strict interstate prior appropriation, as the Supreme Court held in *Wyoming v.* ***Colorado***. *See* HUNDLEY, *supra* note 14, at 180-82. In fact, Delph Carpenter of ***Colorado*** was particularly concerned, and he "circulated a proposal that eventually became the basis for the ***Colorado*** ***River*** Compact [that] called for dividing the ***Colorado*** ***River*** basin into sections and then allocating the waters equally to each division." *Id.* at 182. [↑](#footnote-ref-18)
18. 18The Compact allocated the use of the ***Colorado*** ***River*** System, defined as "that portion of the ***Colorado*** ***River*** and its tributaries within the United States of America." ***COLO.*** ***RIVER*** COMPACT, art. II(a) (1922). [↑](#footnote-ref-19)
19. 19"Those parts of the States of Arizona, ***Colorado***, New Mexico, Utah, and Wyoming." *Id.* at art. II(f). [↑](#footnote-ref-20)
20. 20"Those parts of the States of Arizona, California, Nevada, New Mexico, and Utah." *Id.* at art. II(g). [↑](#footnote-ref-21)
21. 21 *See generally Minutes of the Fourteenth Meeting*, ***Colo.*** ***River*** Comm'n (Nov. 13, 1922); *Minutes of the Fifteenth Meeting*, ***Colo.*** ***River*** Comm'n (Nov. 14, 1922). [↑](#footnote-ref-22)
22. 22The Compact was predicated on storage because the negotiating commissioners understood that storage would be necessary to ensure that each Basin met its obligations and received its allocation in the "fat years to the lean." *Minutes of the Eleventh Meeting*, ***Colo.*** ***River*** Comm'n 51 (Nov. 11, 1922); *see* *Minutes of the Twelfth Meeting*, ***Colo.*** ***River*** Comm'n 21 (Nov. 12, 1922); *Minutes of the Thirteenth Meeting*, ***Colo.*** ***River*** Comm'n 20, 22, 27-28, 31 (Nov. 13, 1922). [↑](#footnote-ref-23)
23. 23***COLO.*** ***RIVER*** COMPACT, art. III(a). The Lower Basin has the right to increase its beneficial consumptive use by 1.0 MAF per year from its tributaries in addition to its annual 7.5 MAF. *Id.* at art. III(b). [↑](#footnote-ref-24)
24. 24The Compact defines the Upper Basin and the Upper Division differently based on geographic boundaries of the drainage area of the ***Colorado*** ***River*** System and the political boundaries of the States, respectively. *Id.* at art. II. [↑](#footnote-ref-25)
25. 25 *Id.* at art. III(d). Further, the Compact does not allow the Upper Division States to withhold water that can be reasonably applied to domestic and agricultural uses downstream, nor does the Compact allow the Lower Division States of Arizona, California, and Nevada to require the delivery of water which cannot reasonably be applied to domestic and agricultural uses. *Id.* at art. III(e). [↑](#footnote-ref-26)
26. 26The 1944 Mexican Water Treaty allocates 1.5 MAF of the waters of the ***Colorado*** ***River*** to Mexico annually. Utilization of Waters of the ***Colorado*** and Tijuana ***Rivers*** and of the Rio Grande, Mex.-U.S., art. 10, Nov. 14, 1944, Treaty Series 944. The 1922 ***Colorado*** ***River*** Compact provides that such apportionment shall be supplied first from any water over and above the aggregate amounts of 7.5 MAF to each the Upper and Lower Basin, and the additional 1.0 MAF to the Lower Basin, specified as surplus water. ***COLO.*** ***RIVER*** COMPACT, art. III(c). If the surplus water is insufficient to supply the apportionment to Mexico, the deficiency "shall be equally borne by the Upper Basin and the Lower Basin." *Id.* Whenever a deficiency exists, the Upper Division States must deliver one-half of the deficiency at Lee Ferry in addition to the obligation set forth in Compact Art. III(d). *Id.* [↑](#footnote-ref-27)
27. 27UPPER ***COLO.*** ***RIVER*** BASIN COMPACT, art. III(a)(1) (1948) [hereinafter "Upper Basin Compact"]. [↑](#footnote-ref-28)
28. 28 *Id.* at art. III(a)(2). [↑](#footnote-ref-29)
29. 29 *Id.* at art. VIII. The UCRC is composed of one commissioner from each Upper Division State. *Id.* at art. VIII(a). The UCRC makes findings as to the use of the ***Colorado*** ***River*** in the Upper Basin and makes findings as to the Upper Division's Compact obligations. *Id.* at art. VIII(d). If the UCRC determines curtailment of use of water in the Upper Division States is necessary to meet Compact obligations, the Upper Basin Compact sets forth general curtailment principles. *Id.* at art. IV. [↑](#footnote-ref-30)
30. 30[*373 U.S. 546 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831), *disavowed by* [*California v. United States, 438 U.S. 645 (1978)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-8P40-003B-S193-00000-00&context=1516831) (disavowing the dictum in Arizona v. California that a State may impose conditions on water use that are not inconsistent with congressional directives authorizing the federal reclamation project in question). Earlier cases include [*Arizona v. California, 283 U.S. 423 (1931)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-DBF0-003B-74V2-00000-00&context=1516831); [*Arizona v. California, 292 U.S. 341 (1934)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-BS80-003B-70WK-00000-00&context=1516831); [*United States v. Arizona, 295 U.S. 174 (1935)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-BBP0-003B-74VP-00000-00&context=1516831); and [*Arizona v. California, 298 U.S. 558 (1936)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9P80-003B-737H-00000-00&context=1516831). [↑](#footnote-ref-31)
31. 31[*Arizona v. California, 373 U.S. at 550-51*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831); [*Arizona v. California, 376 U.S. 340 (1964)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H350-003B-S2D6-00000-00&context=1516831). [↑](#footnote-ref-32)
32. 32The 1928 Boulder Canyon Project Act ("BCPA") effectuated a congressional apportionment of water among the Lower Basin States, and the Supreme Court in *Arizona v. California* did not base its opinion on, nor did it interpret, the [*1922* ***Colorado******River*** *Compact. Arizona v. California, 373 U.S. at 566*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831) ("Nothing in that Compact purports to divide water among the Lower Basin States nor in any way to affect or control any future apportionment among those States or any distribution of water within a State."). The Court further recognized that while the BCPA referred to the Compact in several provisions, it also made the BCPA apportionment expressly subject to the Compact apportionment. [*Id. at 567*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9P80-003B-737H-00000-00&context=1516831); *see* BCPA, §§1, 8, 13(b) and (c). The Court stated: "The Act also declares that the Secretary of the Interior and the United States in the construction, operation, and maintenance of the dam and other works and in the making of contracts shall be subject to and controlled by the ***Colorado*** ***River*** Compact. These latter references to the Compact are quite different from the Act's adoption of Compact terms. Such references, unlike the explicit adoption of terms, were used only to show that the Act and its provisions were in no way to upset, alter, or affect the Compact's congressionally approved divisions of water between the basins." [*373 U.S. at 567*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831). [↑](#footnote-ref-33)
33. 33[*Arizona v. California, 376 U.S. at 341-42*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H350-003B-S2D6-00000-00&context=1516831). This allocation is from the mainstream of the ***Colorado*** ***River***. *Id.* at 340-42. [↑](#footnote-ref-34)
34. 34Boulder Canyon Project Act of 1928, [*Pub. L. No. 70-642*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5C9D-VNP0-01XN-S392-00000-00&context=1516831), [*45 Stat. 1057*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5C9D-VNP0-01XN-S392-00000-00&context=1516831) (codified as amended at [*43 U.S.C.§§617*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73R7-00000-00&context=1516831)-[*619b*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73SV-00000-00&context=1516831)). The BCPA also ratified the 1922 ***Colorado*** ***River*** Compact. *Id.* § 13(a). [↑](#footnote-ref-35)
35. 35 *Id.* § 5. Thus, the Department of the Interior, specifically the Bureau of Reclamation, is charged with distributing water pursuant to water contracts and administering the Lower Basin States' ***Colorado*** ***River*** allocations. [↑](#footnote-ref-36)
36. 36***Colorado*** ***River*** Storage Project Act of 1956, Pub. L. No. 485, Ch. 203 (codified as amended at [*43 U.S.C. § 620*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73SX-00000-00&context=1516831)). [↑](#footnote-ref-37)
37. 37 *Id.* [↑](#footnote-ref-38)
38. 38***Colorado*** ***River*** Basin Project Act of 1968, [*Pub. L. No. 90-537*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5CCB-R210-01XN-S30D-00000-00&context=1516831) (codified as amended at [*43 U.S.C.§§1501*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-74D2-00000-00&context=1516831)-[*56*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-72VD-00000-00&context=1516831)). [↑](#footnote-ref-39)
39. 39 *Id.* § 602(a). The CRPBA further requires that the criteria must provide for the storage and release of water from Lake Powell according to certain priorities. *Id.* [↑](#footnote-ref-40)
40. 40 *Id.* § 601(b)(1). The CRBPA also authorized the Central Arizona Project ("CAP"). *Id.* § 301(a). CAP is not discussed in this article, but it is important to know that the approval of CAP placed CAP's priority on the ***River*** junior to California's allocation and other senior Lower Basin rights. *Id.* § 301(b). [↑](#footnote-ref-41)
41. 41U.S. BUREAU OF RECLAMATION, CRITERIA FOR COORDINATED LONG-RANGE OPERATION OF ***COLORADO*** ***RIVER*** RESERVOIRS PURSUANT TO THE ***COLORADO*** ***RIVER*** BASIN PROJECT ACT OF SEPTEMBER 30, 1968 ([*P.L. 90-537*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5CCB-R210-01XN-S30D-00000-00&context=1516831)) (1970) [hereinafter "LROC"]. [↑](#footnote-ref-42)
42. 42It also recognized use of the Glen Canyon Powerplant for releases and set certain requirements for the power pool in Lake Powell. *Id.* § II(4). [↑](#footnote-ref-43)
43. 43 *Id.* § II(2). This amount was derived as a component of 602(a) storage. *Id.* § II(1)-(2). "602(a) storage" is one of the set priorities under the CRBPA and is the storage of water necessary for the other listed priorities without impairment to Upper Basin uses, considering historic stream flow, most crucial period of record, probabilities of water supply, and estimated future depletions. ***Colorado*** ***River*** Basin Project Act of 1968, s *upra* note 38, § 602(a)(3). Note that this "minimum objective release" was an objective, and the release could be more or less than 8.23 MAF as demonstrated by the 2007 Interim Guidelines. [↑](#footnote-ref-44)
44. 44LROC, § II(3). The LROC aimed to not release water from Lake Powell below 602(a) storage. *See id.* § II(2). [↑](#footnote-ref-45)
45. 45 *Id.* § III(3). [↑](#footnote-ref-46)
46. 46 *See* *Historical Annual Operating Plans for* ***Colorado******River*** *Reservoirs*, *supra* note 5. [↑](#footnote-ref-47)
47. 47U.S. DEP'T OF INTERIOR, REC. OF DECISION ***COLO.*** ***RIVER*** INTERIM SURPLUS GUIDELINES FINAL ENV'T IMPACT STATEMENT, 3 (2001) [hereinafter "Interim Surplus Guidelines"]. [↑](#footnote-ref-48)
48. 48The Department of the Interior developed the ***Colorado******River*** *Interim Surplus Guidelines* ("Interim Surplus Guidelines") in 2001 to provide criteria for determining the conditions under which the Secretary of the Interior would declare the availability of surplus water pursuant to the Long-Range Operating Criteria. *Id.* at 2. The Interim Surplus Guidelines were meant to provide greater certainty to the Lower Division States regarding the likely existence of surplus conditions in a given year, and they were intended to reduce California's reliance on surplus deliveries and assist the state in living within its apportionment. *Id.* at 3. [↑](#footnote-ref-49)
49. 49 *Id.* [↑](#footnote-ref-50)
50. 50 *See id.* [↑](#footnote-ref-51)
51. 51U.S. BUREAU OF RECLAMATION, *supra* note 5 (using the 30-year average from 1981-2010). [↑](#footnote-ref-52)
52. 52U.S. BUREAU OF RECLAMATION, REV. OF THE ***COLO.*** ***RIVER*** INTERIM GUIDELINES FOR LOWER BASIN SHORTAGES AND COORDINATED OPERATIONS FOR LAKE POWELL AND LAKE MEAD, 2 (2020) [hereinafter "7.D. Review Report"]. [↑](#footnote-ref-53)
53. 53 *Id.* [↑](#footnote-ref-54)
54. 54 *Id.* [↑](#footnote-ref-55)
55. 55Letter from the States of ***Colorado***, New Mexico, Utah, and Wyoming to Secretary of the Interior Gale Norton (Apr. 18, 2005), [*https://www.usbr.gov/lc/region/g4000/*](https://www.usbr.gov/lc/region/g4000/) AOP2005/letter4.pdf. [↑](#footnote-ref-56)
56. 56 *Id.* [↑](#footnote-ref-57)
57. 57Letter from Secretary of the Interior Gale Norton to Governor Jon Huntsman, Jr. (May 2, 2005), [*https://www.usbr.gov/lc/region/g4000/AOP2005/DOIDecision.pdf*](https://www.usbr.gov/lc/region/g4000/AOP2005/DOIDecision.pdf). [↑](#footnote-ref-58)
58. 58 *Id.* [↑](#footnote-ref-59)
59. 59 *See* Letter from the States of Arizona, California, ***Colorado***, Nevada, New Mexico, Utah, and Wyoming to Secretary of the Interior Gale Norton (Aug. 25, 2005). [↑](#footnote-ref-60)
60. 60 *Id.* [↑](#footnote-ref-61)
61. 61 *Id.* The States also suggested that the interim guidelines should be tied to additional measures that would accomplish the objectives of supplementing supply of the ***Colorado*** ***River*** and operating the existing infrastructure more efficiently. *Id.* [↑](#footnote-ref-62)
62. 62 *Id.* ("The basin states representatives recommend that the Secretary adopt interim guidelines, concurred to by the states, for the implementation of the Long Range Operating Criteria (LROC) under low reservoir conditions in Lakes Mead and Powell, together with interim shortage guidelines in the Lower Basin. If at the end of the interim period changes to the LROC are warranted, then the Secretary may consider such changes."). [↑](#footnote-ref-63)
63. 63Letter from the States of Arizona, California, ***Colorado***, Nevada, New Mexico, Utah, and Wyoming to Secretary of the Interior Gale Norton (Feb. 3, 2006). [↑](#footnote-ref-64)
64. 64 *Id.* [↑](#footnote-ref-65)
65. 65 ***Colorado******River*** *Basin*, U.S. BUREAU OF RECLAMATION, [*https://www.usbr.gov/****Colorado***](https://www.usbr.gov/Colorado) RiverBasin/ (last updated Dec. 18, 2020). [↑](#footnote-ref-66)
66. 66U.S. BUREAU OF RECLAMATION, ***COLORADO*** ***RIVER*** INTERIM GUIDELINES FOR LOWER BASIN SHORTAGES AND THE COORDINATED OPERATIONS FOR LAKE POWELL AND LAKE MEAD 8-11 (2007) [hereinafter "2007 Interim Guidelines"]. [↑](#footnote-ref-67)
67. 67 *Agreement Concerning* ***Colorado******River*** *Management and Operations*, (Apr. 23, 2007), [*https://www.usbr.gov/ColoradoRiverBasin/documents/2007%20Seven%20States%20Agreement%20CO%20River.pdf*](https://www.usbr.gov/ColoradoRiverBasin/documents/2007%20Seven%20States%20Agreement%20CO%20River.pdf). [↑](#footnote-ref-68)
68. 68 *Id.* P B.1. [↑](#footnote-ref-69)
69. 69 *Id.* P C. [↑](#footnote-ref-70)
70. 70 *Id.* P B.3. [↑](#footnote-ref-71)
71. 71Comment Letter from the States of Arizona, California, ***Colorado***, Nevada, New Mexico, Utah, and Wyoming to Secretary of the Interior Dirk Kempthorne (Nov. 30, 2007), [*https://www.usbr.gov/lc/region/programs/strategies/FEIScomments2/7States.pdf*](https://www.usbr.gov/lc/region/programs/strategies/FEIScomments2/7States.pdf). [↑](#footnote-ref-72)
72. 72 *Id.* [↑](#footnote-ref-73)
73. 73 *Id.* [↑](#footnote-ref-74)
74. 742007 Interim Guidelines, *supra* note 66, § II. The 2007 Interim Guidelines expire at the end of 2025, but they remain in effect for determinations regarding water supply and reservoir operating decisions through 2026. *Id.* Therefore, it is common to see the expiration date of 2025 and the term "post-2026 operations." [↑](#footnote-ref-75)
75. 75Affirmation of the States of Arizona, California, ***Colorado***, Nevada, New Mexico, Utah, and Wyoming (Dec. 13, 2007), [*https://www.usbr.gov/lc/region/programs/strategies*](https://www.usbr.gov/lc/region/programs/strategies) /Affirmation.pdf. [↑](#footnote-ref-76)
76. 762007 Interim Guidelines, *supra* note 66, § II. [↑](#footnote-ref-77)
77. 77 *Id.* § I. [↑](#footnote-ref-78)
78. 78 *Id.* § XI.G.6. [↑](#footnote-ref-79)
79. 79LROC, *supra* note 41, § II(2). [↑](#footnote-ref-80)
80. 802007 Interim Guidelines, *supra* note 66, § XI.G.6. [↑](#footnote-ref-81)
81. 81 *Id.* The 2007 Interim Guidelines created an equalization table in addition to the tier structure for releases from Lake Powell. *Id.* The equalization table set certain elevations in Lake Powell that incrementally increased with each year during the interim period based on projected Upper Basin depletions. *Id.* The Guidelines intended that any releases in excess of 8.23 MAF be administered to the extent that the excess releases would not cause Lake Powell's content to fall below the stated elevation in the equalization table. *Id.* However, at the close of negotiations and before signing, Arizona asked to change the Guidelines to allow releases in excess of 8.23 MAF from Lake Powell to the extent the contents in Powell did not fall more than 20 feet below the equalization elevation. *See id.* [↑](#footnote-ref-82)
82. 82 *See* 2007 Interim Guidelines, *supra* note 66, § XI.G.2.D. [↑](#footnote-ref-83)
83. 83 *Id.* § XI.G.2.D.1. The reductions escalate from a total of 333,000 acre-feet when Lake Mead is below 1,075 and above 1,050 feet, to 417,000 acre-feet when Lake Mead is below 1,050 and above 1,025 feet, then to 500,000 acre-feet when Lake Mead is below 1,025 feet. 7.D. Review Report,  *supra* note 52, § 7.1.4.3 *.* [↑](#footnote-ref-84)
84. 842007 Interim Guidelines, *supra* note 66, § XI.G.2.D.1. California has a senior priority in its water allocation than Arizona or Nevada in the Lower Basin pursuant to the decree in [*Arizona v. California. 376 U.S. 340 (1964)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H350-003B-S2D6-00000-00&context=1516831), *enforcing* [*373 U.S. 546 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831); *see* [*Arizona v. California, 547 U.S. 150, 155-58 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:4JKB-4T40-004B-Y037-00000-00&context=1516831). [↑](#footnote-ref-85)
85. 852007 Interim Guidelines, *supra* note 66, § XI.G.3. [↑](#footnote-ref-86)
86. 86 *Id.* [↑](#footnote-ref-87)
87. 87 *Id.* [↑](#footnote-ref-88)
88. 88 *Id.* [↑](#footnote-ref-89)
89. 89The 2007 Interim Guidelines require the Department of the Interior to perform a retrospective review and report on the effectiveness of the Guidelines. 2007 Interim Guidelines, *supra* note 66, at XI.G.7.D. The Department issued the Final 7.D. Review Report in December 2020. 7.D. Review Report,  *supra* note 52. [↑](#footnote-ref-90)
90. 90Letter from ***Colorado*** ***River*** Basin States Representatives of Arizona, California, ***Colorado***, Nevada, New Mexico, Utah, and Wyoming to Secretary of the Interior Ryan Zinke (Mar. 8, 2017) [hereinafter "7 States Letter"]. [↑](#footnote-ref-91)
91. 91UPPER ***COLO.*** ***RIVER*** COMM'N, RESOL. REGARDING DEV. OF AN EMERGENCY UPPER BASIN DROUGHT CONTINGENCY PLAN (2014). [↑](#footnote-ref-92)
92. 92 *See* 7 States Letter, *supra* note 90. [↑](#footnote-ref-93)
93. 93 *Agreement Concerning* ***Colorado******River*** *Drought Contingency Management and Operations*, Recital P A.6 (May 20, 2019) [hereinafter "Companion Agreement"]. The Interim Period is the same effective timeline as the 2007 Interim Guidelines, and, therefore, the DCPs are effective through December 31, 2025. [↑](#footnote-ref-94)
94. 94UPPER ***COLO.*** ***RIVER*** COMM'N, RESOL. REGARDING DEV. OF AN EMERGENCY UPPER BASIN DROUGHT CONTINGENCY PLAN (2014). [↑](#footnote-ref-95)
95. 95Companion Agreement, *supra* note 93. [↑](#footnote-ref-96)
96. 96 *See* UPPER ***COLO.*** ***RIVER*** COMM'N, *supra* note 94, at 2. [↑](#footnote-ref-97)
97. 97The CRSPA Initial Units include Lake Powell, Flaming Gorge, Aspinall, and Navajo. *Agreement for Drought Response Operations at the Initial Units of the* ***Colorado******River*** *Storage Project Act*, Attachment A1 (May 20, 2019) [hereinafter "DROA"]. [↑](#footnote-ref-98)
98. 98 *Id.* PP II.A.2, II.A.3.a. [↑](#footnote-ref-99)
99. 99 *Id.* P I.A. [↑](#footnote-ref-100)
100. 100 *Id.* P II.A.4. [↑](#footnote-ref-101)
101. 101 *Id.* P II.A.2. [↑](#footnote-ref-102)
102. 102 *Agreement Regarding Storage at* ***Colorado******River*** *Storage Project Act Reservoirs Under an Upper Basin Demand Management Program*, Attachment A2, at Recital 4, P B.2.b.iv (May 20, 2019) [hereinafter "DMSA"]. [↑](#footnote-ref-103)
103. 103 *Id.* P III.B.1. [↑](#footnote-ref-104)
104. 104 *Id.* P III.B.2.a. [↑](#footnote-ref-105)
105. 105 *Id.* P III.B.1.f. [↑](#footnote-ref-106)
106. 106 *Lower Basin Drought Contingency Plan Agreement*, Attachment B, May 20, 2019 [hereinafter Lower Basin DCP]. The Lower Basin DCP also includes as Exhibit 1 the "Lower Basin Drought Contingency Operations." *Lower Basin Drought Contingency Operations*, Exhibit 1 to the Lower Basin Drought Contingency Plan Agreement, May 20, 2019 [hereinafter LBOps]. [↑](#footnote-ref-107)
107. 107LBOps, *supra* note 106, PP I, V.B.2. [↑](#footnote-ref-108)
108. 108 *Id.* P III.B. [↑](#footnote-ref-109)
109. 109Intentionally created surplus ("ICS") is a mechanism created by the 2007 Interim Guidelines intended to incentivize the Lower Division States to conserve more water in Lake Mead, for later use, as a means to maintain elevation levels in Lake Mead. 2007 Interim Guidelines, *supra* note 66, § XI.G.3. [↑](#footnote-ref-110)
110. 110LBOps, *supra* note 106, P II. DCP contributions may be made by converting ICS to DCP ICS but may be made by creating non-ICS water. *Id.* [↑](#footnote-ref-111)
111. 111 *Id.* P III.F. [↑](#footnote-ref-112)
112. 112Lower Basin DCP, *supra* note 106, P 3.b. [↑](#footnote-ref-113)
113. 113LBOps, *supra* note 106, P V.B.2. [↑](#footnote-ref-114)
114. 114 *Id.* [↑](#footnote-ref-115)
115. 115 *See* INT'L BOUNDARY & WATER COMM'N, MINUTE NO. 323: EXTENSION OF COOPERATIVE MEASURES AND ADOPTION OF A BINATIONAL WATER SCARCITY CONTINGENCY PLAN IN THE ***COLORADO*** ***RIVER*** BASIN 1 (2017) [hereinafter Minute 323]. [↑](#footnote-ref-116)
116. 116 *Id.* at 1-2. [↑](#footnote-ref-117)
117. 117 *Id.* at 6, 23 [↑](#footnote-ref-118)
118. 118 *Id.* at 6, 7 ("The United States and Mexico need to take additional immediate measures to protect and benefit the ***Colorado*** ***River*** system by seeking to avoid reaching critical reservoir elevations at Lake Mead."). [↑](#footnote-ref-119)
119. 119 *Id.* at 7. [↑](#footnote-ref-120)
120. 120 *See* *id.* [↑](#footnote-ref-121)
121. 121 *West*, U.S. DROUGHT MONITOR, [*https://droughtmonitor.unl.edu/CurrentMap/State*](https://droughtmonitor.unl.edu/CurrentMap/State) DroughtMonitor.aspx?West (last visited Mar. 26, 2022). [↑](#footnote-ref-122)
122. 122 *See* *Historical Annual Operating Plans for* ***Colorado******River*** *Reservoirs*, *supra* note 5. [↑](#footnote-ref-123)
123. 123 *See* U.S. BUREAU OF RECLAMATION, 2003 ANNUAL OPERATING PLAN FOR ***COLORADO*** ***RIVER*** SYSTEM RESERVOIRS (2002); U.S. BUREAU OF RECLAMATION, ANNUAL OPERATING PLAN FOR ***COLORADO*** ***RIVER*** RESERVOIRS 2022 (2021). [↑](#footnote-ref-124)
124. 124 ***River*** *Basin Tea-Cup Diagrams*, BUREAU OF RECLAMATION, [*https://www.usbr.gov/uc/water/basin/index.html*](https://www.usbr.gov/uc/water/basin/index.html) (last visited Mar. 26, 2022); *Lower* ***Colorado******River*** *Teacup Diagram*, BUREAU OF RECLAMATION, [*https://www.usbr.gov/lc/region/g4000/TeacupDiagram.html*](https://www.usbr.gov/lc/region/g4000/TeacupDiagram.html) (last visited Mar. 26, 2022). [↑](#footnote-ref-125)