
Technical Appendix 4

Water Deliveries

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Acronyms and Abbreviations

Acronym or Abbreviation	Full Phrase
1944 Water Treaty	1944 United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande
2007 Final EIS	Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead Final Environmental Impact Statement
2007 Interim Guidelines	2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead
2007 ROD	2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead Record of Decision
2024 Final SEIS	Record of Decision
2024 ROD	2024 Near-term Colorado River Operations Record of Decision
ADM	Alternative Distribution Model
af	acre-feet
afy	acre-feet per year
Basin	Colorado River Basin
BCPA	Boulder Canyon Project Act
CCS	Continued Current Strategies
CRSS	Colorado River Simulation System
DCP	Drought Contingency Plan
DMDU	Decision Making under Deep Uncertainty
EIS	Environmental Impact Statement
IBWC	International Boundary and Water Commission
ICS	Intentionally Created Surplus
kaf	thousand acre-feet
kafy	thousand acre-feet per year
LB Priority	Lower Basin Priority
LB Pro Rata	Lower Basin Pro Rata
Lower Basin	Lower Colorado River Basin
maf	million acre-feet
Mexico	United Mexican States
PPR	Present Perfected Right

Reclamation	Bureau of Reclamation
SAM	Shortage Allocation Model
Secretary	Secretary of the Interior
SNWA	Southern Nevada Water Authority
U.S.	United States
Upper Basin	Upper Colorado River Basin

TA 4. Water Deliveries

TA 4.1 Affected Environment

Water from the Colorado River is delivered to entities in the Lower Division States and the United Mexican States (Mexico) for domestic and agricultural use, in accordance with the Law of the River. Colorado River water is also used to serve many purposes in the Upper Colorado River Basin (Upper Basin). The geographic scope of this Environmental Impact Statement (EIS) does not extend above Lake Powell and accordingly does not include an analysis of the impact on Upper Basin water users. With respect to Upper Basin conservation, the nexus to the proposed federal action is the storage and delivery of that conserved water in Lake Powell. The effects of this storage in and delivery from Lake Powell are within the scope of the EIS (see EIS **Chapter 3, Section 3.3**, Hydrologic Resources, and **TA 3**, Hydrologic Resources), while specific activities that may be undertaken in the Upper Basin to generate the conserved water are not within the scope of this EIS. Any such activities are unknown at this time and will not necessarily require federal decision making. Any federal decisions associated with these conservation activities will be assessed outside of this EIS.

The Law of the River is an umbrella term for the collection of laws, compacts, decrees, court decisions, contracts, and regulatory guidelines that govern management and operation of the Colorado River. Most notable among these documents are the Colorado River Compact of 1922, the Boulder Canyon Project Act (BCPA), the 1944 United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande (1944 Water Treaty), the 1968 Colorado River Basin Project Act, and the 2006 Consolidated Decree (Reclamation 2016a). Several additions to this collection of documents include the: Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead Final EIS (2007 Final EIS; Reclamation 2007a) and Record of Decision (2007 ROD; Reclamation 2007b), which established the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines); Minute 323, Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin in 2017 (International Boundary and Water Commission 2017); the 2019 Lower Basin Drought Contingency Plan (DCP; Reclamation 2019), the 2024 Glen Canyon Long-Term Experimental and Management Plan Final Supplemental EIS (Reclamation 2016a) and Record of Decision (Reclamation 2016b); and the 2024 Near-term Colorado River Operations Final Supplemental EIS (Reclamation 2024a) and Record of Decision (2024 ROD, Reclamation 2024b). Specific to the Upper Basin, changes include implementation of the 2019 Upper Basin DCP's Drought Response Operating Agreement, which seeks to prevent reaching critically low elevations in Lake Powell while maintaining compliance with the Colorado River Compact. The 2007 Interim Guidelines and 2019 DCP are set to expire at the end of 2026, necessitating the development of new guidelines that are proposed and analyzed in this EIS.

The Colorado River Compact apportions 7.5 million acre-feet (maf) of water per year to the Upper Basin, and 7.5 maf to the Lower Colorado River Basin (Lower Basin), with division of the two basins occurring at Lees Ferry, Arizona. Within each basin, further apportionments are made to individual states and entities. The 2007 Interim Guidelines as modified by the 2024 ROD provide, among other things, guidelines for Normal, Surplus, and Shortage Conditions in the Lower Basin during the interim period through 2026.

This section describes historic water deliveries to entities within the Colorado River Basin (Basin), including apportionments to the Upper and Lower Division States, entitlements, depletion schedules, allotments to Mexico, and distribution of shortages to the Lower Division States. See EIS **Chapter 1, Section 1.8** for a description of historical water use across the Upper and Lower Basins.

TA 4.1.1 Apportionments to the Upper Division States

Water is distributed among the Upper Division States by the 1948 Upper Colorado River Basin Compact as a percentage of the total amount available for consumptive use each year after the deduction of Arizona's 50 thousand acre-feet (kaf) apportionment of Upper Basin water. These apportionment percentages are provided in **Table TA 4-1**. The Upper Division State apportionments have not yet been fully developed.

Table TA 4-1
Upper Division States Apportionment

State	Annual Apportionment (Percent)
Colorado	51.75
New Mexico	11.25
Utah	23.00
Wyoming	14.00

Source: Upper Colorado River Basin Compact 1948

TA 4.1.2 Apportionments to the Lower Division States

Water apportionments to the Lower Division States were established by the BCPA and are summarized in **Table TA 4-2**.

Table TA 4-2
Lower Division States Apportionment

State	Annual Apportionment (maf)
Arizona	2.8
California	4.4
Nevada	0.3
Total	7.5

Source: U.S. Congress 1928

TA 4.1.3 Water Delivery Entitlements to Entities in the Lower Division States

Rights to use Colorado River water within the Lower Division States, known as entitlements, are established in accordance with the BCPA and the Consolidated Decree. All of the water apportioned to the Lower Division States is allocated in accordance with these documents. For users in the Lower Division States, entitlements arise through (i) a decreed right, (ii) a Section 5 water delivery contract, or (iii) a Secretarial reservation.

According to Section 5 of the BCPA, the Secretary of the Interior (Secretary) is authorized as the contracting authority for the Lower Colorado River, and any user of Colorado River water in the Lower Basin is required to have a contract with the Secretary acting through the Bureau of Reclamation (Reclamation).

The Consolidated Decree lists and quantifies all Present Perfected Rights (PPRs) in the Lower Division States. PPRs are the highest priority Lower Basin mainstream Colorado River water entitlements that were perfected before June 25, 1929. The Consolidated Decree also lists federal reserved water rights for five Indian reservations. PPRs are satisfied first in order of priority in years when less than 7.5 maf of water is available from the Colorado River for consumptive use in the Lower Division States before other entitlements are fulfilled. A summary of the total amounts of water apportioned through PPRs for each of the Lower Division States is provided in **Table TA 4-3**. These entitlements are summarized in terms of both diversion and consumptive use. The return flows used to compute the consumptive use equivalent of diversion entitlements have been estimated from historical data.

Table TA 4-3
PPRs in the Lower Division States

State	Estimated Diversion Entitlement (acre-feet per year (afy))	Estimated Consumptive Use Entitlement (afy)
Arizona	1,077,971	597,811
California	3,019,573	2,801,326
Nevada	13,034	8,698
Total Lower Division States	4,110,578	3,407,835

Source: Reclamation 2023

The BCPA stipulates that all mainstream Colorado River water delivery contracts in the Lower Basin are for permanent use. Water delivery contracts may describe entitlements as an annual diversion, an annual consumptive use, or both.

A Secretarial reservation is an entitlement established by the Secretary for use at federal facilities or on federal lands. Secretarial reservations have been established for water use on Bureau of Land Management lands, on the Cibola, Imperial, and Havasu National Wildlife Refuges, at Hoover and Davis Dams, and at the Lake Mead National Recreation Area.

Storage & Delivery of Conserved and Non-System Water and Treatment of Pre-2027 Intentionally Created Surplus

As outlined in the 2007 Interim Guidelines, Lower Basin entitlement holders can store conserved water in Lake Mead, provided they have an Intentionally Created Surplus (ICS) exhibit and an approved ICS creation plan. ICS may only be created in a given year via approved conservation actions and a reduction in consumptive use. The ICS created is also subject to constraints as defined in the 2007 ROD (Reclamation 2007b) and the 2019 DCP agreement (Reclamation 2019).

Under the 2007 Interim Guidelines, ICS can be delivered to the Lower Division States when an ICS Surplus Condition is determined. The ICS Surplus Condition is enacted when (i) Lake Mead's January 1 elevation is projected to be above 1,075 feet, (ii) a Flood Control Surplus has not been determined, and (iii) delivery of ICS has been requested by one or multiple of the Lower Division States. The ICS Surplus Condition is enacted concurrent with the Normal operating condition in a given year and differs from other surplus conditions under the 2007 Interim Guidelines as discussed below. The Lower Basin DCP modified ICS delivery provisions, allowing for delivery of ICS below elevation 1,075 feet to elevation 1,025 feet. Beginning in 2027, guidelines regarding the delivery and creation of ICS will change in accordance with the 2007 ROD and Lower Basin DCP to incorporate additional thresholds and repayment timelines.

TA 4.1.4 Lower Division States' Water Supply Determination

As outlined in the Consolidated Decree and Article III of the 1968 Long-Range Operating Criteria, the Secretary determines the water supply condition for the Lower Division on an annual basis. The water supply conditions are:

- Normal Condition: sufficient water is available to satisfy 7.5 maf of consumptive use in the Lower Division States;
- Surplus Condition: sufficient water is available to satisfy an excess of 7.5 maf of consumptive use in the Lower Division States; and
- Shortage Condition: insufficient water is available to satisfy 7.5 maf of consumptive use in the Lower Division States.

The 2007 ROD provides objective criteria used to make annual water supply determinations. The supply condition is annually determined based on the projected elevation of Lake Mead on January 1, as modeled by the prior year's August 24-Month Study (Reclamation 2024c). The guidance provides supply thresholds under which the consumptive use from Lake Mead would be Normal, Surplus, or Shortage Conditions, as well as outlining coordinated reservoir management strategies between Lake Powell and Lake Mead.

Under a Surplus Condition, 46 percent of the surplus water is to be apportioned to Arizona, 50 percent to California, and 4 percent to Nevada, as outlined in the Consolidated Decree. In addition to the Consolidated Decree, the 2007 Interim Guidelines provide guidance regarding when a Surplus Condition should be declared, how surplus water should be distributed by use (e.g., agriculture, domestic, etc.), and recognition of modifications to surplus distributions amongst the states via forbearance agreements. Lake Mead has not operated in a Surplus Condition since the publication of the 2007 ROD.

Table TA 4-4 summarizes historical ICS deliveries for the Lower Division States. Note that states may elect not to request ICS deliveries during an ICS Surplus year, and may also create ICS during that year, hence some of the years under this condition display zero volume delivered.

Table TA 4-4
Lower Basin Annual Historical ICS Deliveries by State

Calendar Year	Operating Condition	ICS Delivered (acre-feet (af))			
		AZ	CA	NV	Total
2008	Normal/ICS Surplus	0	46,976	9,638	56,614
2009	Normal/ICS Surplus	0	0	0	0
2010	Normal/ICS Surplus	0	5,191	0	5,191
2011	Normal/ICS Surplus	0	0	0	0
2012	Normal/ICS Surplus	0	0	1,000	1,000
2013	Normal/ICS Surplus	0	93,857	0	93,857
2014	Normal/ICS Surplus	0	320,992	0	320,992
2015	Normal/ICS Surplus	0	70,756	75,000	145,756
2016	Normal/ICS Surplus	0	0	0	0
2017	Normal/ICS Surplus	0	0	0	0
2018	Normal/ICS Surplus	0	0	0	0
2019	Normal/ICS Surplus	0	0	0	0
2020	Normal/ICS Surplus and DCP Contributions	4,606	0	0	4,606
2021	Normal/ICS Surplus and DCP Contributions	0	18,786	0	18,786
2022	Level 1 Shortage and DCP Contributions	52,841	111,392	0	164,233
2023	Level 2 Shortage and DCP Contributions	1,318	0	0	1,318
2024	Level 1 Shortage and DCP Contributions	8,180	0	0	8,180
2025	Level 1 Shortage and DCP Contributions	0	0	0	0

Source: Reclamation 2024d

Under a Shortage Condition, the Consolidated Decree stipulates that all PPRs must be satisfied first in order of their priority dates before the remaining available water can be allocated consistent with the BCPA and other applicable federal statutes. In total, the annual water supply condition is currently governed by Section 2 of the 2007 Interim Guidelines, Articles III(3)(c) of the Operating Criteria and Article II(B)(3) of the Consolidated Decree, the 2019 Lower Basin DCP, and the 2024 ROD.

Each year, Reclamation develops an Annual Operating Plan for management of reservoirs on the Colorado River. The Annual Operating Plan reports on rules, guidelines, and decisions made for operations in the previous year as well as projected operations for the upcoming year. From 2008 to 2021, Lake Mead operated in an ICS/Surplus Condition, before switching to a Shortage Condition

for the years 2022 through 2025. Additionally, DCP contributions were implemented from 2020 through 2025 (Reclamation 2024d).

TA 4.1.5 Depletion Schedules for Upper Division States

Projected depletions for the Upper Division States were updated in 2017 and adopted in 2022 by the Upper Colorado River Commission. This includes detailed depletion volumes on a decadal basis through 2070 for each of the Upper Division States. Tabular data for these projections through 2060¹ can be found in **Appendix L**, Upper Division States Depletion Schedules.

TA 4.1.6 Depletion Schedules for the Lower Division States

Projected mainstream depletions for the Lower Division States can be found in **Appendix M**, Lower Division States Depletion Schedules.

Historical lower Colorado River mainstream consumptive use by state is shown from 2008 to 2025 in **Table TA 4-5**. At the time of this report, the data was only available through 2025. Total annual lower Colorado River mainstream consumptive use has declined on average from 2008 to 2025.

Table TA 4-5
Consumptive Use of Lower Colorado River Mainstream Water by Lower Division States (Annual)

Calendar Year	Arizona (af)	California (af)	Nevada (af)	Lower Division States Total (af)
2008	2,752,497	4,498,810	269,654	7,520,961
2009	2,831,711	4,358,074	248,613	7,438,398
2010	2,780,367	4,356,839	241,437	7,378,643
2011	2,781,108	4,312,661	222,847	7,316,616
2012	2,789,667	4,416,718	237,161	7,443,546
2013	2,778,867	4,475,789	223,563	7,478,219
2014	2,774,661	4,649,734	224,616	7,649,011
2015	2,604,732	4,620,756	222,729	7,448,217
2016	2,612,833	4,381,101	238,326	7,232,260
2017	2,509,503	4,026,515	243,425	6,779,443
2018	2,632,260	4,265,525	244,103	7,141,888
2019	2,491,707	3,840,686	233,996	6,566,389
2020	2,470,776	4,059,911	255,568	6,786,255
2021	2,425,736	4,404,727	242,168	7,072,631
2022	2,014,176	4,424,247	223,670	6,662,093
2023	1,889,517	3,699,155	186,844	5,775,516
2024	1,934,518	3,943,741	212,428	6,090,687
2025	1,910,524	3,646,992	197,570	5,755,086

Source: Reclamation 2026

¹ While the UCRC depletion demand schedule is through 2070, the CRSS modeling was only performed through 2060.

TA 4.1.7 Mexico's Allotment

Mexico's allotment of Colorado River water is described under Article 10 of the 1944 Water Treaty. The 1944 Water Treaty guarantees that 1.5 maf will be delivered to Mexico annually. Additionally, it outlines Surplus Conditions such that no greater than 1.7 maf shall be delivered to Mexico in a given year, and Extraordinary Drought such that deliveries are reduced in proportion to reductions of United States (U.S.) consumptive uses. Minute 242 provides guidance for the geographic locations where deliveries from the U.S. will be made, specifically that approximately 1.36 maf will be delivered upstream of Morelos Diversion Dam, with the remainder being delivered downstream of the dam. Subsequent agreements included Minute 319 to the 1944 Water Treaty, which established four coordination mechanisms that affected flows in the International Border Region of the Colorado River. Upon Minute 319's expiration, Minute 323 built upon and extended these provisions by providing operational flexibility, storage options, and binational mechanisms for adjusting deliveries to Mexico under low and high elevation reservoir conditions.

Minute 323 does not change Mexico's allotment, but it does adjust how and under what conditions deliveries occur. Since 2019, the deliveries to Mexico were further adjusted for water savings contributions, as required under Minute 323, and since 2021 for reductions under low elevation reservoir conditions. Minute 323 additionally secures Mexico's ability to create water for or take delivery of Mexico's Water Reserve. Mexico's Water Reserve refers to the volume of Mexico's Colorado River allotment that is intentionally deferred (not taken for immediate use) and stored in Lake Mead for later delivery or recovery. This is in addition to the volumes of Mexico's Recoverable Water Savings, which are deferred during certain low reservoir elevations for recovery at a future time. Deliveries to Mexico were further adjusted in 2024, 2025, and 2026 through additional conserved water by Mexico under Minute 330.

Modeling assumptions have been made to project deliveries to Mexico. These projected deliveries are for analysis purposes only and are not intended to reflect an interpretation or application of the 1944 Water Treaty or to be misconstrued as U.S. policy regarding water deliveries to Mexico. For further information regarding Mexico's allotment and pertinent policy, please refer to **Appendix N**, International Border Region of the Colorado River.

TA 4.1.8 Distribution of Shortages and Reductions to and within the Lower Division States

The 2007 Interim Guidelines, the 2019 DCP and Minute 323 to the 1944 Water Treaty provide for a maximum of 1.375 maf of shortages and reductions (including DCP contributions and BWSCP savings). Beyond these required activities, Reservoir Protection Conservation implemented through the 2024 ROD resulted in additional Lower Basin conservation from 2023 to 2026. The Reservoir Protection Conservation may vary year to year, but is designed to achieve a collective total volume of 3.0 maf. A summary of the 2007 Interim Guidelines Shortages, 2019 DCP contributions, and 2024 ROD conservation is shown in **Table TA 4-6**.

Distribution of Shortages within Arizona

Arizona's 2.8 maf apportionment is allocated via the priority system outlined in **Table TA 4-7**, as presented and analyzed in the 2007 Final EIS. Arizona's priority system is divided into six priorities as displayed in **Table TA 4-7**.

Table TA 4-6
Lower Division States' Total 2007 ROD Shortages, 2019 DCP Contributions, and 2024 ROD Conservation

Lake Mead Elevation (feet)	2007 ROD Shortages + 2019 DCP Contributions (kaf)				2024 ROD Conservation (kaf)*				Total 2007 ROD Shortages + 2019 DCP Contributions + 2024 ROD Conservation (kaf)**			
	AZ	NV	CA	Total	AZ	NV	CA	Total	AZ	NV	CA	Total
1,090 – 1,075	192	8	0	200	280	70	400	750	472	78	400	950
1,075 – 1,050	512	21	0	533					792	91	400	1,283
1,050 – 1,045	592	25	0	617					872	95	400	1,367
1,045 – 1,040	640	27	200	867					920	97	600	1,617
1,040 – 1,035	640	27	250	917					920	97	650	1,667
1,035 – 1,030	640	27	300	967					920	97	700	1,717
1,030 – 1,025	640	27	350	1,017					920	97	750	1,767
<1,025	720	30	350	1,100					1,000	100	750	1,850

Source: Reclamation 2024a

* Actual 2024 ROD conservation by state may vary each year depending on the conservation agreements in place in that year. 2024 ROD conservation shown are approximations and only apply for years 2023 to 2026, such that collectively a total of 3.0 maf of 2024 ROD conservation would occur through 2026.

** The total of 2007 ROD shortages, DCP contributions, 2024 ROD conservation, and any other additional conservation would not exceed 2.083 maf in a given year. These total volumes only apply to 2023 through 2026.

Table TA 4-7
Arizona's Priority System for Mainstream Colorado River Water

Priority	Rights to Be Satisfied
First	PPRs established prior to June 25, 1929
Second ¹	Federal reservations and perfected rights established or effective prior to September 30, 1968
Third ¹	Entitlements pursuant to contracts executed on or before September 30, 1968
Fourth	(1) Entitlements pursuant to contracts, Secretarial reservations, and other arrangements between the U.S. and water users established subsequent to September 30, 1968 (2) Contract for Central Arizona Project
Fifth	Any unused Arizona entitlement
Sixth	Entitlements to surplus water

Source: Reclamation 2024a

¹ The Arizona second and third priorities are coequal in their priority.

Distribution of Shortages within California

California's 4.4 maf apportionment is allocated using a priority system based upon Secretarial regulations which incorporate provisions of the California Seven-Party Agreement of 1931. California's priority system is outlined below in **Table TA 4-8** from the 2007 Final EIS.

Table TA 4-8
California Seven-Party Agreement Priorities for Mainstream Colorado River Water

Priority	Rights to Be Satisfied
First	PPRs established prior to June 25, 1929: Palo Verde Irrigation District for beneficial use upon 104,500 acres
Second	Reclamation's Yuma Project for beneficial use on up to 25,000 acres
Third ^{1,2}	(a) Imperial Irrigation District and Coachella Valley Water District (b) Palo Verde Irrigation District for use on 16,000 acres on the Lower Palo Verde Mesa
Fourth ³	Metropolitan Water District and/or the City of Los Angeles and/or others on the coastal plain of Southern California for 550 thousand acre-feet per year (kafy)
Fifth	(a) Metropolitan Water District and/or the City of Los Angeles and/or others on the coastal plain of Southern California for 550 kafy (b) City and/or County of San Diego for 112 kafy
Sixth ⁴	(a) Imperial Irrigation District and Coachella Valley Water District (b) Palo Verde Irrigation District for use on Lower Palo Verde Mesa
Seventh	All remaining water available within California for agricultural use

Source: Reclamation 2024a

¹ The total beneficial use of priorities 1, 2, and 3 shall not exceed 3.85 mafy.

² Article 4.7 of the Quantification Settlement Agreement by and among Imperial Irrigation District, The Metropolitan Water District of Southern California, and Coachella Valley Water District, dated October 10, 2003, refers to provisions of the Acquisition Agreements and the Allocation Agreement regarding shortage sharing between these two agencies.

³ The sum of priorities 1 through 4 is 4.4 mafy.

⁴ The sum of priority 6 is 300,000 afy.

Distribution of Shortages within Nevada

Nevada's 0.3 maf apportionment is allocated as outlined in **Table TA 4-9** below. The priority system was designed and implemented in 1992 through the contracting of Southern Nevada Water Authority (SNWA) by Reclamation for the balance of Nevada's apportionment.

Table TA 4-9
Nevada's Priority System for Mainstream Colorado River Water

Priority	Rights to Be Satisfied
First	PPRs established prior to June 25, 1929: Fort Mojave Indian Reservation (12,534 afy) Lake Mead National Recreation Area (Diversion = 500 afy or Consumptive Use = 300 afy)
Second	Lake Mead National Recreation Area (1,500 afy, estimated)
Third	Boulder City (5,876 afy)
Fourth	City of Henderson (15,878 afy) Precision Castparts Corporation or Henderson Water Company, LLC (8,208 afy) SNWA (from Basic Water Company) (14,950 afy)
Fifth	Lakeview Company (0 afy) Pacific Coast Building Products (928 afy)
Sixth	Las Vegas Valley Water District (15,407 afy)

Priority	Rights to Be Satisfied
Seventh	U.S. Air Force (delivery from SNWA; 4,000 afy), Boy Scouts (annexed by SNWA; 10 afy), Reclamation (300 afy), and Nevada Department of Wildlife (formerly Nevada Department of Fish and Game; consumptive use 25 afy)
Eighth	Robert B. Griffith Project (308,000 afy) and Big Bend (10,000 afy) SNWA (balance of state apportionment, unused and surplus)

Source: Reclamation 2024a

TA 4.2 Environmental Consequences

This section compares water deliveries from the mainstream Colorado River under the No Action Alternative, four action alternatives (as described in **Appendix S**), the Continued Current Strategies (CCS) Comparative Baseline (as described in **Chapter 3, Section 3.2.4**), and the Representative Preferred Alternative (as described in **Chapter 2**).

As discussed in **Chapter 2**, the Preferred Alternative is a multi-year decision framework that establishes the process and criteria that would govern development and adoption of operating guidelines through 2036. The decision framework is anticipated to be implemented in two-year operating intervals. Unlike other alternatives, the operating guidelines for each interval are not specified in this Final EIS. The sideboards provide a basis for assumptions included in the Representative Preferred Alternative, which captures the range of operating guidelines that may be adopted during each interval, but exact operations would be subject to the guidelines in place during each interval.

TA 4.2.1 Methodology

This section examines potential effects on water deliveries under the action alternatives as compared to the No Action Alternative and the CCS Comparative Baseline. Potential impacts are considered for the following water delivery resources: shortage volumes, dead pool–related reductions, depletion volumes, and surplus volumes. Also provided is a comparison of Upper Basin conservation across the alternatives.

Reclamation uses the Colorado River Simulation System (CRSS) model for long-term planning studies. CRSS simulates Basin conditions decades into the future (the full analysis period is through 2060) and can be used to account for hydrologic and operational uncertainty. CRSS is a monthly time-step model that produces reservoir elevations, releases, and river flows as outputs. Refer to **Appendix A**, CRSS Model Documentation, for more details related to model documentation.

Additionally, the Shortage Allocation Model(s) (SAM) and Alternative Distribution Model(s) (ADM) were used to analyze potential impacts of the alternatives on individual water users within each Lower Division State under varying levels of shortage. Modeling assumptions for the SAMs and ADMs are summarized in **Appendix C**, Shortage Allocation Model and Alternative Distribution Model Documentation.

Decision Making under Deep Uncertainty (DMDU) is the approach used for quantitative analysis. It is a non-probabilistic evaluation framework that compares alternatives based on their ability to meet

specific performance criteria in many potential future conditions and analyzes how the alternatives respond to specific hydrologic conditions. Additional background and technical details about the DMDU framework are provided in **Appendix E**, DMDU Overview and Approach.

Throughout the analysis, there are three standard figures: conditional boxplots, robustness heatmaps, and vulnerability bar plots. Each type of figure explains key information regarding performance. When taken together, the figures provide a full picture of how the alternatives compare and whether significant negative impacts are reasonably foreseeable under each alternative. The conditional boxplot figures show how the alternatives respond to different categories of preceding hydrology and enable a comparison of alternatives in specific hydrologic conditions (e.g., average conditions or dry conditions). To create these figures, all 34 years (2027–2060) from all 400 simulated futures (13,600 data points per alternative) are separated into five categories based on their preceding 3-year average Lees Ferry natural flow. Robustness heatmaps show the alternatives' ability to meet different levels of performance over one or more decades in the wide range of potential future conditions used in the analysis. Vulnerability bar plots provide complementary analysis to the robustness heatmaps by identifying the specific hydrologic conditions in which each alternative is likely to succeed or fail the preferred minimum performance level. For more information about these figures and detailed interpretation guidance, see **Chapter 3, Section 3.2.6**, Decision Making under Deep Uncertainty.

Impact Analysis Area

The geographic scope of the water deliveries analysis is the Colorado River corridor from the upstream limit of full pool elevation of Lake Powell to the downstream limit of the Southerly International Boundary. The geographic scope of this EIS does not extend above Lake Powell and accordingly does not include an analysis of the impact on Upper Basin water users. Although assumptions about Upper Basin conservation are included in various alternatives, no assumptions are made with respect to where conserved water is generated nor about the specific activities that produce it (see **Appendix B**, Modeling Assumptions: Lake Powell and Lake Mead Storage and Delivery of Conserved Water, for more information).

Assumptions

CRSS was used to analyze shortage volumes and Lower Basin water deliveries, and the SAMs and ADMs were used to analyze shortage impacts on specific groups of water users. CRSS also includes assumptions regarding Upper Basin conservation activities but does not make assumptions with respect to conservation by different entities or via specific activities. Refer to their respective appendices for more details related to model assumptions and documentation. All action alternatives except for the Basic Coordination Alternative incorporate mechanisms related to the storage and delivery of conserved water in Lake Powell and/or Lake Mead (see **Chapter 2, Section 2.4**; see also **Appendix S**). Unless otherwise specified, impacts reflect modeling assumptions about voluntary conservation behavior.

Impact Indicators

This section discusses impacts on the Lower Division States' water deliveries, deliveries to Mexico, and the distribution of shortages within the Lower Division States. To quantify impacts, the following indicators are used:

- Magnitude of shortage volumes
- Distribution of shortages and depletions among and within the Lower Division States

TA 4.2.2 Issue 1: Apportionments to the Upper Division States

The alternatives would not affect apportionments to the Upper Division States. Therefore, no impact analysis is warranted.

TA 4.2.3 Issue 2: Lower Division States' Apportionments and Water Entitlements

The approaches to distributing shortages incorporated in all alternatives are designed to explore a wide range of potential concepts and impacts; they do not reflect an intention by Reclamation to alter apportionments or water entitlements. However, because the concepts would affect a range of users, impacts on deliveries to different entities are analyzed in Issues 3, 5, and 7, and addressed in **Appendix C**, Shortage Allocation Model and Alternative Distribution Model Documentation.

TA 4.2.4 Issue 3: Lower Division States' Water Supply Determinations

Issue 3 addresses how operational activities affect water deliveries for the Lower Division States and Mexico. It also presents total Basin conservation activity across different alternatives. Impacts will be analyzed through the comparison of the various action alternatives to the No Action Alternative and the CCS Comparative Baseline for the following metrics:

- Annual Lower Basin Reductions (Shortage and Lake Mead Dead Pool–Related Reductions)
- Effects of Modeling Assumptions for Upper Basin and Lower Basin Conservation Activity on Lower Basin Shortages and Deliveries
- Shortage
- Maximum Shortage
- 2027 Shortage Volumes Under Each Set of Initial Conditions
- Annual Lower Basin Shortage
- Annual Shortage by State (Arizona, California, Nevada) and water delivery reductions to Mexico
- Annual Depletions by State (Arizona, California, Nevada) and Mexico
- Surplus

Shortage vs Dead Pool–Related Reductions: Comparison for full Lower Basin

Shortage refers to delivery reductions at the Basin, state, or individual apportionment level that are defined and distributed as part of an alternative's shortage operations. Volumes and distributions of shortage are described in **Chapter 2**. Dead pool–related reductions occur when there is not enough water in Lake Mead to fully meet downstream demands and/or when Hoover Dam infrastructure constraints result in releases below the demand volume. In some cases, these unplanned reductions

occur because Lake Mead is approaching dead pool (elevation 895 feet), and in some cases they occur higher (up to elevation 950 feet).

Note that the approach to distributing unplanned reductions associated with dead pool is not a component of any alternative. It is important for the impact analysis to show that these volumes occur, but it is not appropriate to analyze how they may impact specific states or users. Therefore, shortage results beyond this section will focus on shortage only. Where impacts due to dead pool–related reductions are presented, they will be specifically noted.

Annual Lower Basin Reductions

Figure TA 4-1 shows annual Lower Basin shortages and dead pool–related reductions for each alternative using conditional boxplots. The box plots show how the alternatives perform under varying hydrologic conditions, defined by the preceding three-year average of Lees Ferry natural flow. The bottom and top of each box capture the 25th to 75th percentile of the modeled results, respectively. The lines extend to the 10th and 90th percentiles, and outliers are shown as dots. To enable easier comparison of all flow categories, the vertical axes have been truncated at the high end, and some outliers in the Critically Dry Flow Category have been omitted. Statistical summaries of the left and right columns are provided in **Table TA 4-10** and **Table TA 4-11** at the end of this technical appendix.

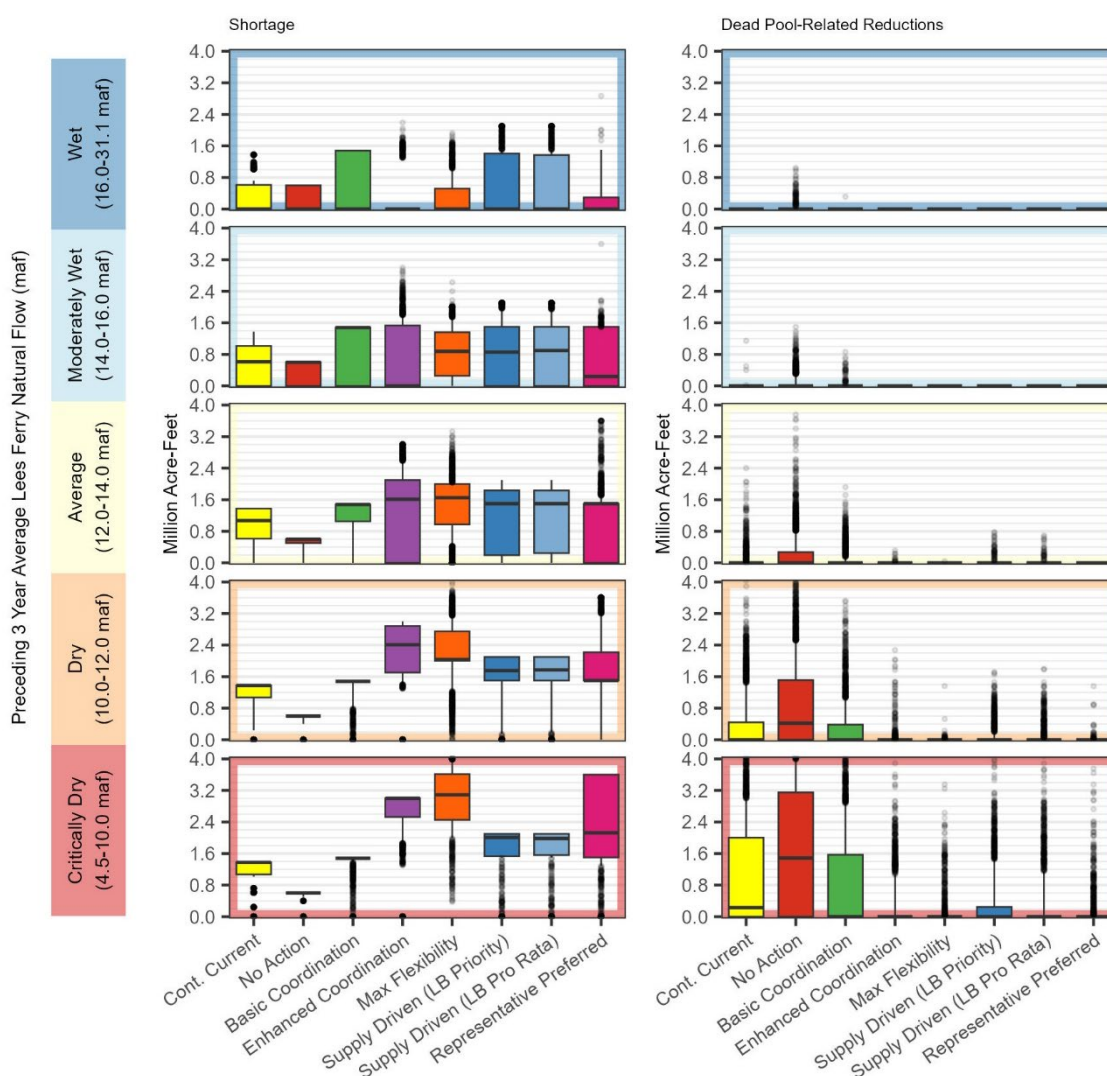
Generally, lower maximum volumes of shortages correspond to higher frequency and larger volumes of dead pool–related reductions, seen most prominently in the No Action Alternative. Dead pool–related reductions occur when there is not enough water in Lake Mead to fully meet downstream demands and/or when Hoover Dam infrastructure constraints result in releases below the demand volume. In the Average Flow Category, the medians and interquartile ranges for shortage involve reductions of 2.1 maf or less. The Maximum Operational Flexibility Alternative has the highest median shortage at 1.7 maf. The Enhanced Coordination Alternative has a median shortage of 1.6 maf and has the largest interquartile range of shortages. The remaining action alternatives have less variability (smaller interquartile ranges) but similar medians; all action alternative medians are higher than the CCS Comparative Baseline (1.1 maf) and the No Action Alternative (0.6 maf).

In the Average Flow Category, all action alternatives except for the Basic Coordination Alternative have infrequent dead pool–related reductions: only the outlier years, if any at all, and the largest volume is 0.8 maf. The Basic Coordination Alternative has greater maximum dead pool–related reductions of 1.9 maf, similar to the 2.4 maf for the CCS Comparative Baseline. The No Action Alternative has the most frequent and highest magnitude dead pool–related reductions, with a maximum value of 3.8 maf in the Average Flow Category.

The greatest contrast between alternatives occurs in the Critically Dry Flow Category. All action alternatives except for the Basic Coordination Alternative show increases in median shortage reductions compared to their respective medians in the Average Flow Category, with the Enhanced Coordination Alternative and Maximum Operational Flexibility Alternative reaching median shortages of 3.0 maf and 3.1 maf, respectively. The No Action Alternative has the lowest median shortage among all alternatives, and the Basic Coordination Alternative has the second lowest median shortage at 1.5 maf. These two alternatives have minimal variability because they are almost

always at their maximum shortages, but this leads to much larger medians and variability in dead pool-related reductions than other alternatives.

Figure TA 4-1
Annual Lower Basin Reductions



Note: Shortage and dead pool-related reduction volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the International Boundary and Water Commission (IBWC) in consultation with the Department of State.

While dead pool-related reductions increase across all alternatives as the flow categories become drier, these reductions only occur above the 50th percentile (i.e., in less than 50 percent of years) for all action alternatives in the Critically Dry Flow Category. While shortages under the Basic Coordination Alternative remain low (not exceeding 1.5 maf), this alternative results in a larger percentage of futures with dead pool-related reductions from Lake Mead as it is compared to other

action alternatives. In the Critically Dry Flow Category, all action alternatives have lower dead pool-related reductions than the CCS Comparative Baseline and the No Action Alternative.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median shortage is 1.5 maf, and there is variability within the interquartile range, especially comparing the 75th percentile volume of 2.2 maf to the median. The median dead pool-related reduction is 0.0 maf, and only outlier years exhibit any dead pool-related reductions, with a maximum of 1.4 maf.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median shortage is 2.1 maf, and the interquartile range is large (25th and 75th percentile of 1.5 and 3.6 maf, respectively). The median dead pool-related reductions are 0.0 maf, and 10 percent of years exhibit dead pool-related reductions with a maximum of 3.8 maf. (Note that the 2027-2028 Operating Guidelines specify a maximum shortage of 1.5 maf, and consultations triggered by critical elevations at Lake Mead would be undertaken before larger volumes of shortage could occur during that term.)

Lake Mead Dead Pool-Related Reductions

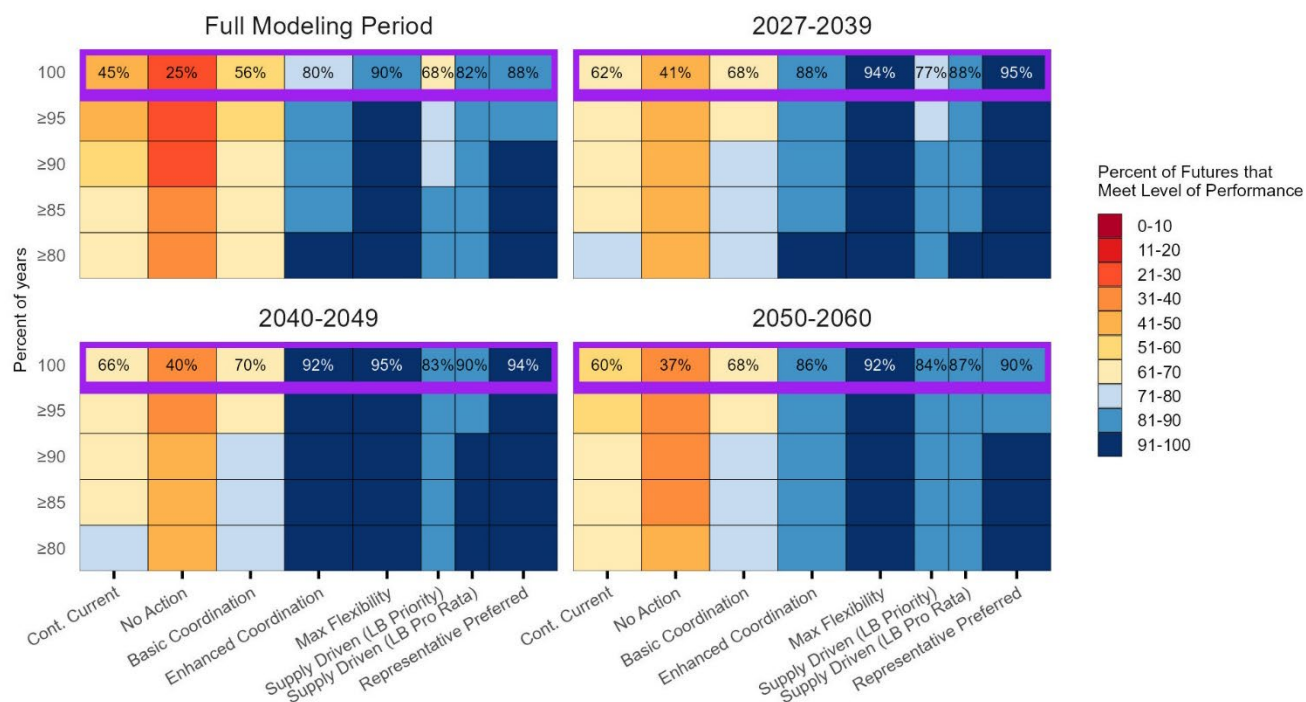
Lake Mead Dead Pool-Related Reductions Robustness

Figure TA 4-2 below depicts the ability of each alternative (columns) to avoid dead pool-related reductions at Lake Mead in the specified percent of years (rows). Four modeling periods are shown to capture the full modeling period, 2027-2039, 2040-2049, and 2050-2060. The preferred minimum performance is shown in the purple highlighted row, which represents the percentage of futures that an alternative avoids dead pool-related reductions in 100 percent of years.

Over the full modeling period, the Maximum Operational Flexibility Alternative is the most robust, avoiding any dead pool-related reductions in 90 percent of the futures, followed by the Representative Preferred Alternative and Supply Driven (Lower Basin Pro Rata [LB Pro Rata] approach) Alternatives, which avoid dead pool-related reductions in 88 and 82 percent of the futures, respectively. The Enhanced Coordination Alternative avoids dead pool-related reductions in 80 percent of modeled futures. All four of these action alternatives, as well as the Supply Driven Alternative (Lower Basin Priority [LB Priority] approach), are more robust than the Basic Coordination Alternative and the CCS Comparative Baseline, which avoid dead pool-related reductions in 56 percent and 45 percent of futures, respectively. The No Action Alternative is the least robust, avoiding dead pool-related reductions in only 25 percent of futures.

Based on the planned length of this decision, it is important to compare robustness in the 2027-2039 modeling period. The Representative Preferred and Maximum Operational Flexibility Alternatives are the most robust, meeting the preferred minimum performance level in 95 and 94 percent of futures, respectively. The Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives both meet the preferred minimum performance level in 88 percent of futures, and the Supply Driven Alternative (LB Priority approach) meets this performance level in 77 percent of futures. The No Action and Basic Coordination Alternatives and the CCS Comparative Baseline are less robust, meeting the preferred minimum performance level in 41, 68, and 62 percent of futures, respectively.

Figure TA 4-2
Lake Mead Dead Pool-Related Reductions: Robustness
 Percent of futures in which dead pool-related reductions are avoided in the percent of years specified by each row



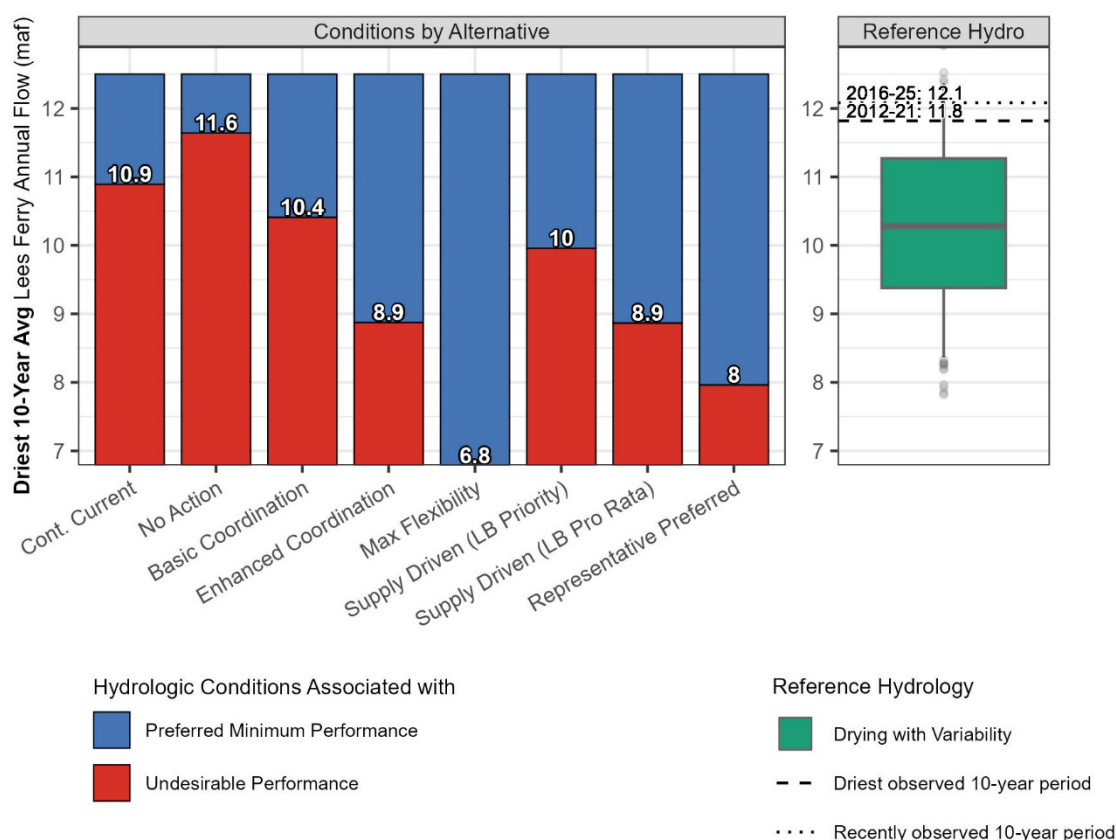
Note: Dead pool-related reduction volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Lake Mead Dead Pool-Related Reductions Vulnerability

Figure TA 4-3 below shows what flow conditions are likely to cause dead pool-related reductions from Lake Mead in any year. This definition of undesirable performance is based on the highlighted row in **Figure TA 4-2** above, which defined a future as successful when an alternative avoided dead pool-related reductions 100 percent of the time.

For this vulnerability analysis, the driest 10-year average Lees Ferry annual flow was determined to be skillful at predicting undesirable performance. The vulnerability threshold for each alternative is described and compared to the observed record and the Drying with Variability Ensemble using this streamflow summary statistic. The driest observed 10-year average flow from 2012-2021 (11.8 maf) and the average flow from 2016-2025 (12.1 maf) are also provided as dashed and dotted lines, respectively, for comparison.

Figure TA 4-3
Lake Mead Dead Pool–Related Reductions: Vulnerability.
Conditions that could cause Lake Mead Dead Pool–Related Reductions in Any Year



Note: Dead pool-related reduction volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

The Basic Coordination Alternative would likely be vulnerable to dead pool-related reductions under a 10-year average Lees Ferry natural flow of 10.4 maf or drier, which is slightly less vulnerable than the CCS Comparative Baseline, which is likely to be vulnerable if the 10-year average is 10.9 maf or drier. The No Action Alternative is vulnerable to a 10-year average of 11.6 maf, which is similar to the driest observed 10-year average of 11.8 maf. The Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives are not likely to be vulnerable to undesirable performance unless the 10-year average flow is much drier than any observed conditions, and fewer than 50 percent of the traces in the Drying with Variability ensemble include conditions that would be likely to cause vulnerability in these alternatives. Modeling indicates that the Representative Preferred Alternative would likely be vulnerable to at least one occurrence of dead pool-related reductions under a 10-year average flow of 8.0 maf. This alternative is not likely to be vulnerable in the next 10 years because these conditions

have not been observed and they occur in fewer than 10 percent of traces in the Drying with Variability Ensemble, which represents how hydrologic conditions may change in a warmer future.

Conservation Activity

All action alternatives except for the Basic Coordination Alternative incorporate mechanisms related to the storage and delivery of conserved water in Lake Powell and Lake Mead. **Table TA 4-12** below summarizes the various conservation mechanisms for each action alternative. Refer to **Chapter 2** and **Appendix S** for specifics related to each alternative's policy on conservation.

For modeling purposes, assumptions about conservation and delivery of pre-2027 conserved water were developed to show the maximum impacts of the conservation pools on reservoir elevations and downstream flows; they are not intended to represent specific activities or constraints on individual users. See **Chapter 2** and **Appendix S** of the EIS for more information about the assumptions for each alternative. Upper Basin conservation activity is discussed in Issue 6, below.

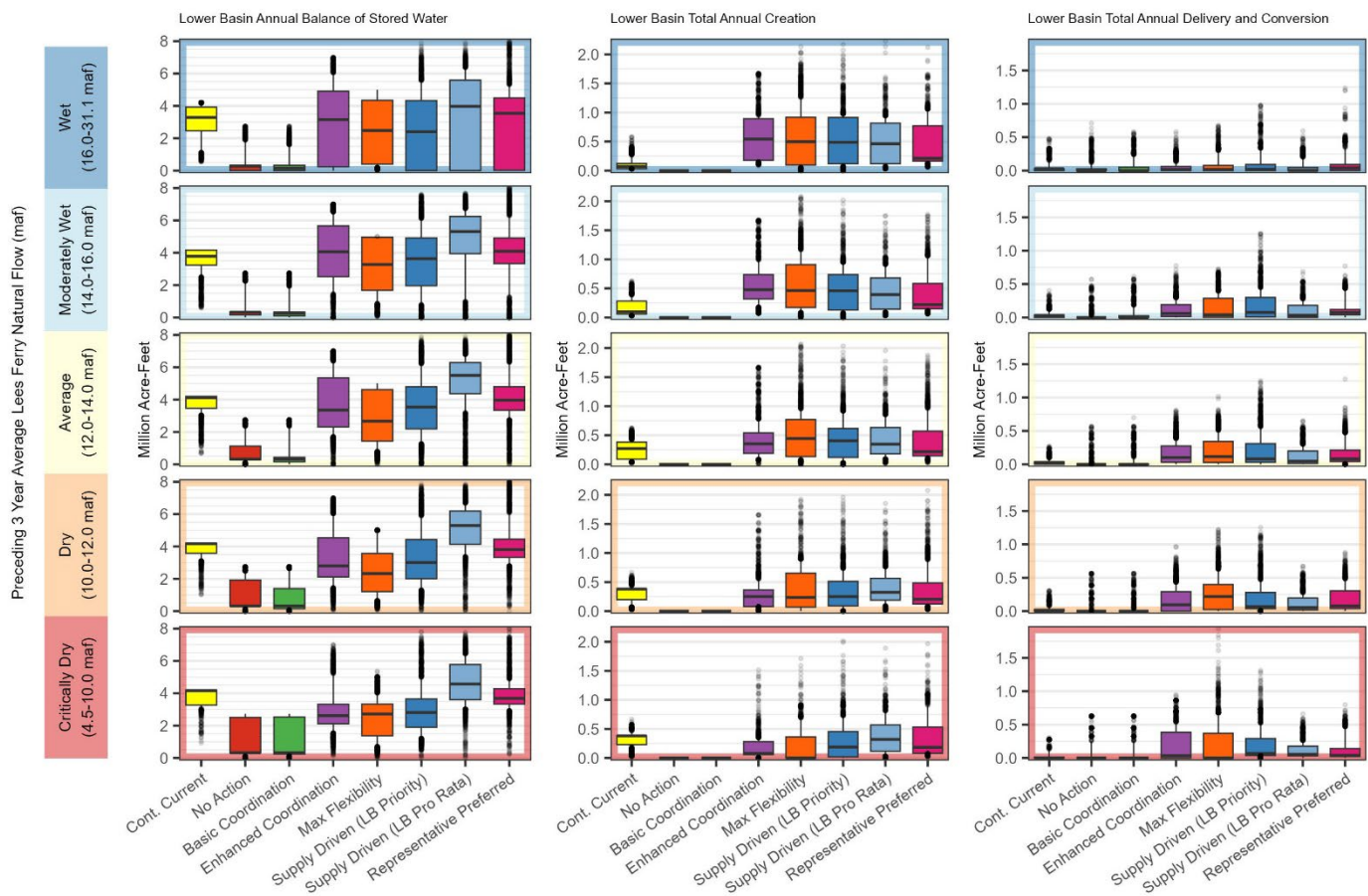
Table TA 4-12
Summary of Conservation Mechanisms by Alternative

Alternative	Conservation Pool Volume	Conservation Pool Mechanism
CCS Comparative Baseline	0.5 maf	Upper Basin pool in Lake Powell
	4.2 maf	Lower Basin pool in Lake Mead
No Action		No new mechanism; delivery of pre-2027 conservation only
Basic Coordination		No new mechanism; delivery of pre-2027 conservation only
Enhanced Coordination	2 maf	Upper Basin pool in Lake Powell
	5 maf	Lower Basin pool in Lake Mead
	2 maf	Protection Pool in Lake Mead
Maximum Operational Flexibility	5 maf	Upper Basin pool (distributed strategically across Lake Powell and Lake Mead)
	3 maf	Lower Basin pool (distributed strategically across Lake Powell and Lake Mead)
Supply Driven (both LB Priority and LB Pro Rata approaches)	3 maf	Upper Basin pool in Lake Powell
	8 maf	Lower Basin pool in Lake Mead
Representative Preferred	3 maf	Upper Basin pool in Lake Powell
	7 maf	Lower Basin pool in Lake Mead
	1 maf	Federally Managed Water Resources Pool in Lake Mead

Lower Basin Conservation Activity

Figure TA 4-4 shows three components of Lower Basin conservation activity for each alternative² using three columns of conditional boxplots. The first column shows the annual balance of stored water, which includes any conserved water retained in system reservoirs from prior years. The second column shows total annual creation, which represents new conservation generated each year. The third column shows total annual delivery and conversion, which represents the use of previously conserved water to meet authorized operational purposes. Statistical summaries of the data shown in **Figure TA 4-4** are provided in **Table TA 4-13** through **Table TA 4-15** at the end of this technical appendix.

Figure TA 4-4
Annual Lower Basin Conservation Activity



Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

² For all alternatives except the Maximum Operational Flexibility Alternative, Lower Basin conserved water is only stored in Lake Mead. For the Maximum Operational Flexibility Alternative, this water can be stored in Lake Mead, Lake Powell, or both.

In the Average Flow Category, the Supply Driven (LB Pro Rata approach) Alternative has the highest median balance of stored water at 5.5 maf (left column). The Supply Driven Alternative (LB Priority approach) has the same size pool, but a lower median balance of 3.5 maf due to different assumptions about shortage distribution and conservation activity among Lower Basin water users. The CCS Comparative Baseline has a higher median balance than the Enhanced Coordination and Maximum Operational Flexibility Alternatives, but the ranges of the banks in those two action alternatives are larger because they have larger pools. The No Action and Basic Coordination Alternatives have small balances of stored water because they do not include new conservation mechanisms and the balances only reflect pre-2027 conservation. The Representative Preferred Alternative has a similar median to the CCS Comparative Baseline, 4.0 maf and 4.1 maf, respectively, but more variability due to a larger-sized bank.

In the Dry and Critically Dry Flow Categories, the relative rankings of median balances are similar to those in the Average Flow Category, but balances decrease because annual creation volumes (middle column) decrease as conditions get drier. Conversion and delivery volumes (right column) increase between the Average and Dry Flow Categories, but stay the same or decrease in the Critically Dry Flow Category due to lower available stored water and/or low Lake Mead elevations that preclude delivery or conversion.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median annual balance of stored water is 3.8 maf, and there is relatively low variability within the interquartile range: the 75th percentile balance is 4.5 maf, and the 25th percentile balance is 3.3 maf. The median volume of annual creation is 0.2 maf, and the median volume of annual delivery and conversion is 0.1 maf.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median annual balance of stored water is 3.7 maf, and there is relatively low variability within the interquartile range: the 75th percentile balance is 4.3 maf, and the 25th percentile balance is 3.3 maf. The median volume of annual creation is 0.2 maf, and the median volume of annual delivery and conversion is 0.0 maf.

Effects of Modeling Assumptions for Total Basin Conservation Activity on Lower Basin Shortages and Deliveries

The following section evaluates how modeling assumptions about conservation activities (which are different for each alternative) affect Lower Basin shortages and depletions by comparing scenarios with all conservation activities removed to those that include conservation activities. While the No Action and Basic Coordination Alternatives do not include mechanisms to conserve and store water in Lake Powell or Lake Mead, the alternatives do include assumptions for the delivery of existing ICS that was conserved prior to 2027. In the conservation-off results, activity related to pre-2027 conservation is turned off for all the alternatives and the CCS Comparative Baseline.

For the purposes of this technical appendix, the analysis for each figure comparing the effects of conservation activities will provide context for the subsequent figures; it will not synthesize the implications of different conservation mechanisms across resources.

Shortage

Figure TA 4-5 shows the effects of conservation activity on annual Lower Basin shortages using paired boxplots. For each alternative, conservation activity is turned on for the left of each pair (darker color) and conservation activity is turned off for the right of each pair (lighter color). Unless otherwise specified, all analyses in this EIS have conservation activity turned on. A statistical summary of the data shown in **Figure TA 4-5** is provided in **Table TA 4-16** at the end of this technical appendix.

For all alternatives and the CCS Comparative Baseline, and across the Average, Dry, and Critically Dry Flow Categories, the median shortages are generally similar when comparing results with conservation activity on and conservation activity off. In other words, modeled conservation activity does not greatly impact the median shortage. However, conservation activity does have a variety of effects on overall variability of shortage for the different action alternatives that include conservation mechanisms. The analysis below is organized by alternative. The minimal differences in the CCS Comparative Baseline and the No Action and Basic Coordination Alternatives are not described.

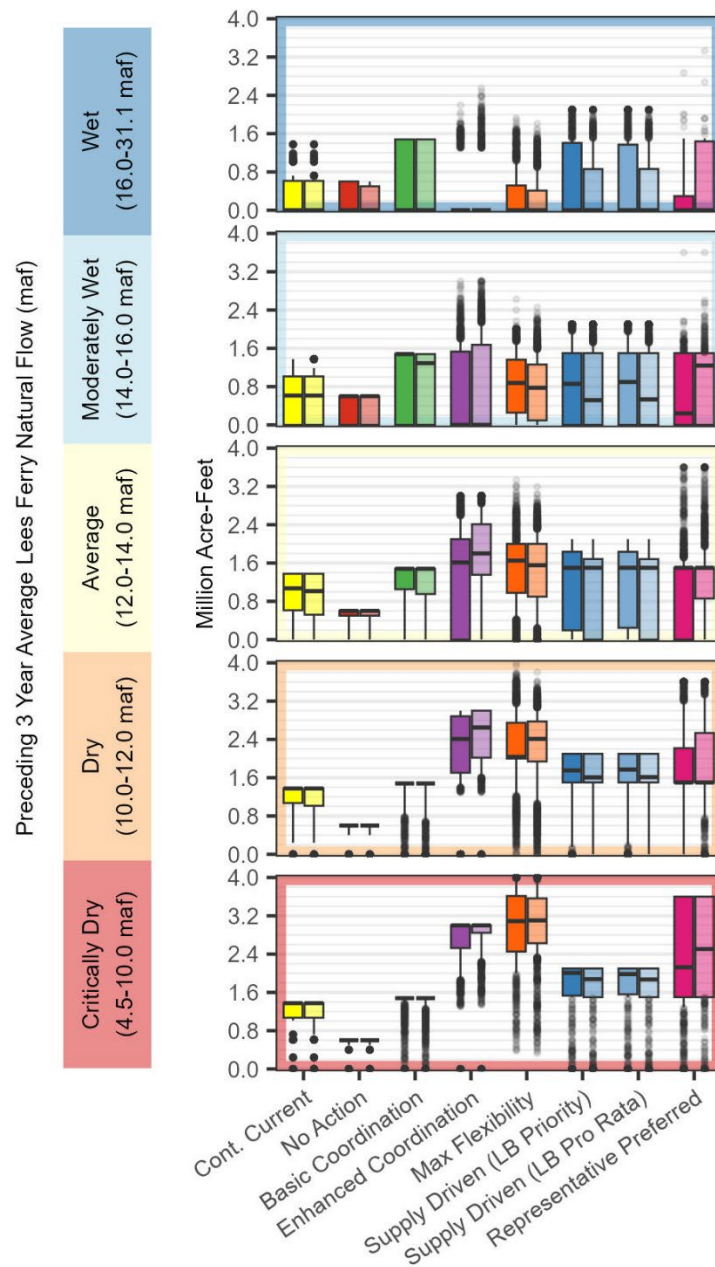
In the Enhanced Coordination Alternative, turning off conservation activity slightly increases shortage volumes in most percentiles in the Average, Dry, and Critically Dry Flow Categories. This is because conservation is not operationally neutral when determining shortages, so lower overall combined storage in Lake Powell and Lake Mead increases shortage volumes.

In the Average Flow Category, turning off conservation activity for the Maximum Operational Flexibility Alternative results in slightly lower shortages at the 25th and 10th percentiles. Similarly to the dynamics in the Supply Driven Alternative (both LB Priority and LB Pro Rata approaches), an operationally neutral conservation mechanism does not impact shortage determinations, but without conservation conversion or delivery to offset shortages, the shortages have a more positive impact on storage, which drives shortages along with hydrologic conditions. The relationship between conservation activity on versus off is different in the Dry and Critically Dry Flow Categories, with complex dynamics related to total system storage, hydrologic conditions, and changes in available conserved water impacting the comparisons of shortage with and without conservation activity. In the Critically Dry Flow Category, median shortage is nearly identical with slightly more variability if conservation activity is turned on.

The Supply Driven Alternative (both LB Priority and LB Pro Rata approaches) shows the same impacts of conservation activity on versus off. In the Average Flow Category, shortage is slightly lower at the 75th, 25th, and 10th percentiles with conservation turned off because, without the operationally neutral conservation that can be used to partially offset shortages, shortage volumes are actual delivery reductions and therefore have a more positive impact on Lake Mead elevation, which is the driver of shortage. This also explains the small differences in median shortages in the Dry and Critically Dry Flow Categories.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median shortage with conservation on and off is 1.5 maf. The interquartile range is large whether conservation activity is on or off due to the differences between the median and 75th percentiles. This range is slightly smaller with conservation on: the 25th and 75th percentiles of shortage are 1.5 maf and 2.2 maf, respectively, with conservation on and 1.5 maf and 2.5 maf, respectively, with conservation off.

Figure TA 4-5
Effects of Conservation Activity Modeling Assumptions on Lower Basin Shortage
 (Conservation On: Darker Shade, Left; Conservation Off: Lighter Shade, Right)



Note: Shortage volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median shortage with conservation on is 2.1 maf and 2.5 maf with conservation off. The interquartile range is large whether conservation activity is on or off: the 25th and 75th percentiles of shortage are 1.5 maf and 3.6 maf, respectively, with conservation on and 1.5 maf and 3.6 maf, respectively, with conservation off.

Dead Pool-Related Reductions

Figure TA 4-6 shows the effects of conservation activity on annual Lake Mead dead pool-related reductions using paired boxplots. For each alternative, conservation activity is turned on for the left of each pair (darker color) and conservation activity is turned off for the right of each pair (lighter color). Unless otherwise specified, all analyses in this EIS have conservation activity turned on. A statistical summary of the data shown in **Figure TA 4-6** is provided in **Table TA 4-17** at the end of this technical appendix.

Across flow categories, the CCS Comparative Baseline, No Action, Basic Coordination, Enhanced Coordination, and Representative Preferred Alternatives are minimally affected by conservation activity. The discussion for **Figure TA 4-6** will focus on the Maximum Operational Flexibility Alternative and the Supply Driven Alternative (both LB Priority and LB Pro Rata approaches).

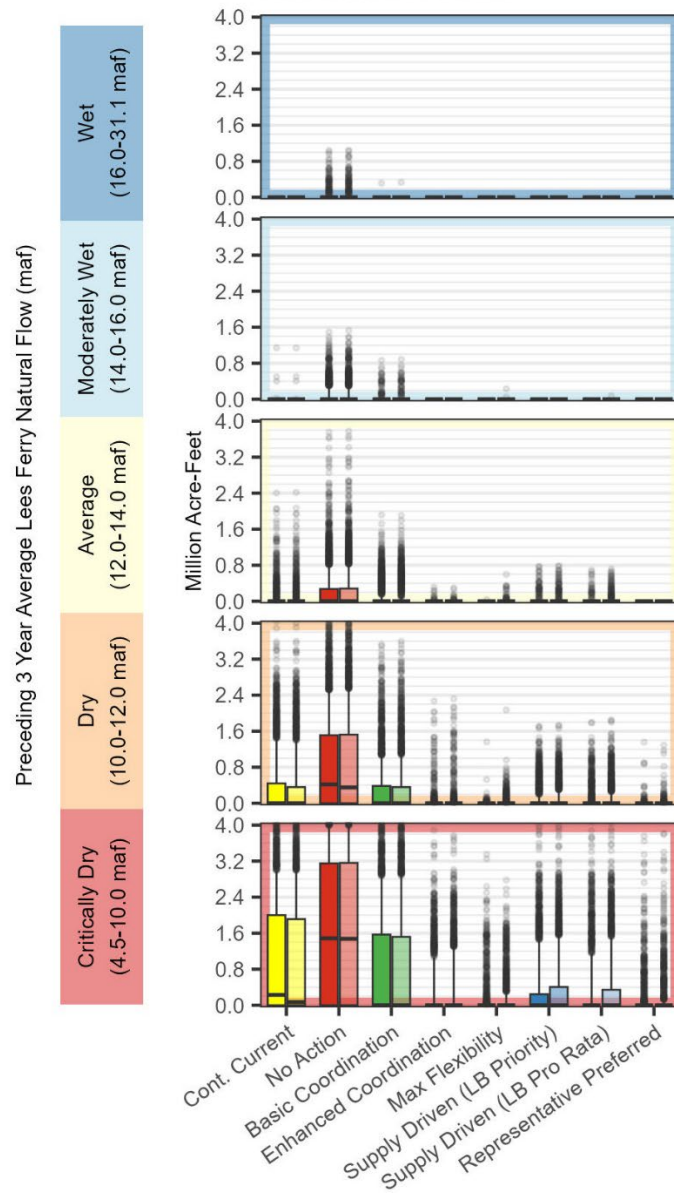
In the Average Flow Category, only the Maximum Operational Flexibility Alternative is notably affected by turning conservation activity off; instead of only one year having minimal dead pool-related reductions, turning off conservation activity results in a larger number of years with the reductions and a maximum volume of 0.6 maf. These outlier volumes are lower than the dead pool-related reductions seen in the Supply Driven Alternative (both LB Priority and LB Pro Rata approaches), which do not show significant impacts related to conservation activity assumptions.

In the Dry Flow Category, the Maximum Operational Flexibility Alternative shows a large increase in the number of years with dead pool-related reductions when conservation activity is removed, and the maximum volume is 2.1 maf compared to 1.4 maf with conservation activity turned on. The conservation activity does not make a significant impact on the Supply Driven Alternative (LB Priority approach), but there is some impact in the Supply Driven Alternative (LB Pro Rata approach): the median dead pool-related reductions in this alternative are 0.0 maf in both cases, but the 90th percentile of years with conservation activity removed is 0.3 maf, compared with 0.0 maf with conservation activity turned on.

The differences for all three alternatives are largest in the Critically Dry Flow Category. For the Maximum Operational Flexibility, while median dead pool-related reductions are 0.0 maf and there are many non-zero outlier years both with and without conservation activity, the 90th percentile of years with conservation activity turned off is 0.3 maf. The Supply Driven Alternative (both LB Priority and LB Pro Rata approaches) both show significant effects when conservation activity is turned off, but the difference is larger in the Supply Driven Alternative (LB Pro Rata approach), especially comparing 75th percentiles: with conservation activity on, the 75th percentile is 0.0 maf and with conservation activity removed, the 75th percentile is 0.3 maf.

Figure TA 4-6
Effects of Conservation Activity Modeling Assumptions on Lake Mead Dead Pool-Related Reductions

(Conservation On: Darker Shade, Left; Conservation Off: Lighter Shade, Right)



Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Depletions

Figure TA 4-7 shows the effects of conservation activity on annual Lower Basin depletions using paired boxplots. The right-hand vertical axis shows depletions as the percent of apportionment and the left-hand axis shows volume. Results will be described using percent of apportionment. For each alternative, conservation activity is turned on for the left of each pair (darker color) and conservation activity is turned off for the right of each pair (lighter color). Unless otherwise specified, all analyses in this EIS have conservation activity turned on. A statistical summary of the data shown in **Figure TA 4-7** is provided in **Table TA 4-18** at the end of this technical appendix.

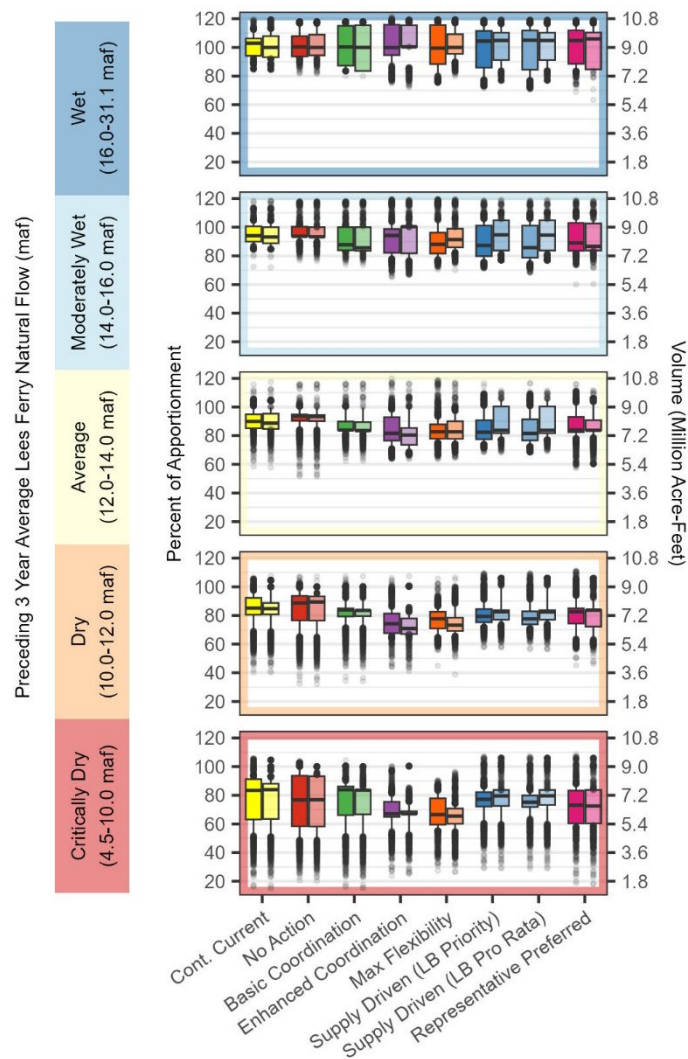
For all alternatives and the CCS Comparative Baseline, and across the Average, Dry and Critically Dry Flow Categories, the median depletions are similar when comparing results with conservation activity on and conservation activity off (no changes greater than 5 percent of apportionment). In other words, conservation activity does not greatly impact the median depletions. However, conservation activity does have a variety of effects on overall variability of depletions for the different action alternatives that include conservation mechanisms. The analysis below is organized by alternative. The minimal differences in the CCS Comparative Baseline and the No Action and Basic Coordination Alternatives are not described.

Under the Enhanced Coordination Alternative, in the Average Flow Category, the median depletions with conservation activity on are 81.6 percent of apportionment and with conservation activity off, they are 80.4 percent of apportionment. While median depletions are similar with and without conservation activity, depletions are moderately to significantly lower in the Average, Dry, and Critically Dry Flow Categories when conservation is turned off. This occurs because the conservation mechanism is not operationally neutral with respect to Lower Basin shortage determinations, and without conserved water to increase reservoir elevations, shortages are higher, and depletions are lower.

In the Average Flow Category, the median depletions under the Maximum Operational Flexibility Alternative are 82.8 percent of apportionment with conservation activity on and 82.7 percent of apportionment and with conservation activity off. Overall, depletions are slightly higher with conservation activity turned on, but depletions are moderately lower without conservation activity in the Dry and Critically Dry Flow Categories. In the two drier flow categories, the absence of the ability to offset shortages by delivering conserved water reduces overall depletions.

Depletions under the two Supply Driven Alternative approaches respond similarly to conservation activity on versus off: in the Average Flow Category, Supply Driven Alternative (LB Priority approach) median depletions with conservation activity on and off are 82.4 and 83.7 percent of apportionment and the median depletions for Supply Driven Alternative (LB Pro Rata approach) are 81.6 and 83.7 percent of apportionment, respectively, with conservation activity turned on and off. The 25th percentile of depletions is higher with no conservation activity and in the 75th percentile depletions are 10 percent higher in the Average Flow Category. In this flow category, shortages are similar with conservation on and off (see **Figure TA 4-5**) but without conservation, depletions are higher. In the Dry and Critically Dry Flow Categories, the differences in depletions with conservation on and off are smaller because of higher shortages and, in the conservation-on results, limited opportunity to conserve water while there is more delivery of previously conserved water.

Figure TA 4-7
Effects of Conservation Activity Modeling Assumptions on Lower Basin Depletions
 (Conservation On: Darker Shade, Left, Conservation Off: Lighter Shade, Right)



Note: The modeled annual Lower Basin depletions include modeling assumptions for reductions in water deliveries to Mexico and storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median depletion with conservation on is 82.6 percent of apportionment and 83.7 percent of apportionment with conservation off. The interquartile range is relatively large whether conservation activity is on or off due to the differences between the median and 25th percentiles; the 25th and 75th percentiles of depletions are 74.4 and 85.0 percent, respectively, with conservation on, and 72.2 and 83.7 percent, respectively, with conservation off.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median depletion with conservation on is 73.1 percent of apportionment and 72.5 percent of apportionment with conservation off. The interquartile range is relatively large whether conservation activity is on or off; the 25th and 75th percentiles of depletions are 60.4 and 83.3 percent, respectively, with conservation on, and 60.4 and 83.7 percent, respectively, with conservation off.

Shortage

This section compares all the alternatives and the CCS Comparative Baseline with respect to shortages to each of the Lower Division States and Mexico.

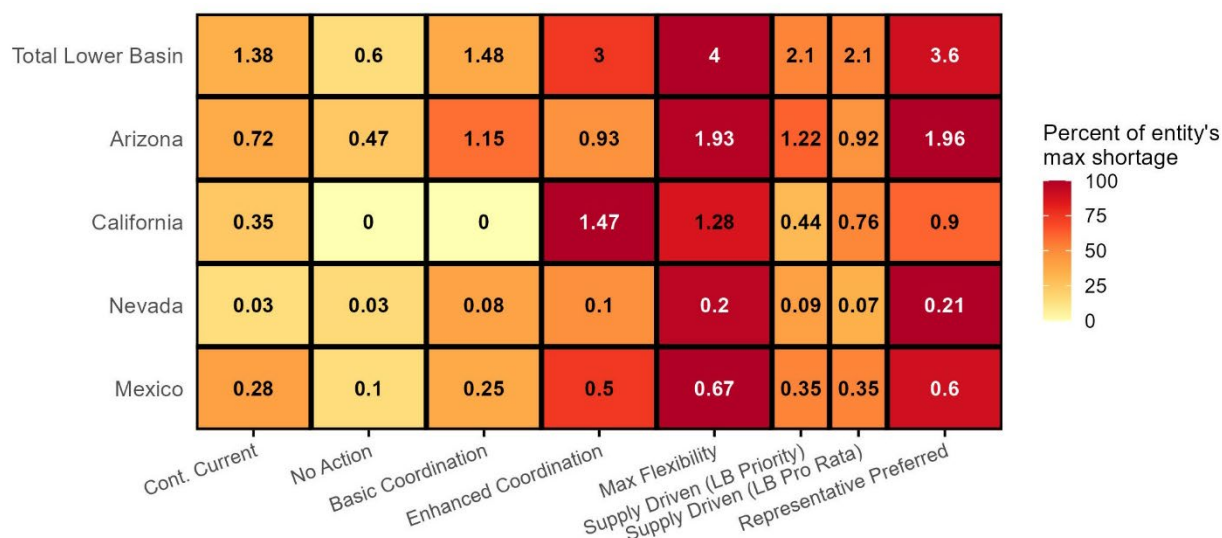
Maximum Shortage

Figure TA 4-8 compares alternatives based on the maximum shortage volume applied to the total Lower Basin and to each state and Mexico. The rows correspond to the entire Lower Basin (top row) and to different states or Mexico, and the columns correspond to different alternatives. Under each alternative, the shortages per state and Mexico sum to the total Lower Basin shortage shown in the top row³. Because the alternatives have different maximum volumes and also different distributions of shortage, each row has an independent color scale to facilitate identifying the maximum shortage to each entity: the darkest color in each row identifies the alternative that produces the maximum shortage for that entity. Under the CCS Comparative Baseline, DCP contributions and Binational Water Scarcity Contingency Plan savings are counted as shortages, though the required volumes are recoverable under certain conditions.

For all entities except California, either the Maximum Operational Flexibility Alternative or Representative Preferred Alternative imposes the largest maximum shortages. (Note that, as demonstrated by the 2027-2028 Operating Guidelines, the distribution of shortage under any specific operating guidelines adopted under the Preferred Alternative decision framework may differ from the priority distribution method reflected here for the Representative Preferred Alternative.) The Enhanced Coordination Alternative is highest for California. For all entities, the No Action Alternative imposes the lowest (or is tied for lowest in Nevada and California) maximum shortage. California takes its largest shortage under the Enhanced Coordination Alternative, due to its pro rata approach to shortage distribution and large total shortage volumes.

³ The sum of individual entities' volumes is different than the Total Lower Basin volumes for the Maximum Operational Flexibility and Representative Preferred Alternatives due to rounding values to two decimal places. The Total Lower Basin volume is correct.

Figure TA 4-8
Maximum Shortage (maf)



Note: Lower Basin shortage volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

First Year Shortage

Figure TA 4-9 compares each alternative's 2027 Lower Basin shortage volume based on the modeled initial reservoir conditions. The color scale represents volume of shortage; darker colors correspond to the higher shortages.

Figure TA 4-9
Lower Basin Shortage in 2027



Note: Lower Basin shortage volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

In 2027, the largest Lower Basin shortages would be imposed by the Enhanced Coordination Alternative, while the No Action Alternative would impose the lowest shortages. The Representative Preferred Alternative would impose 1.5 maf of shortage.

Annual Lower Basin Shortage

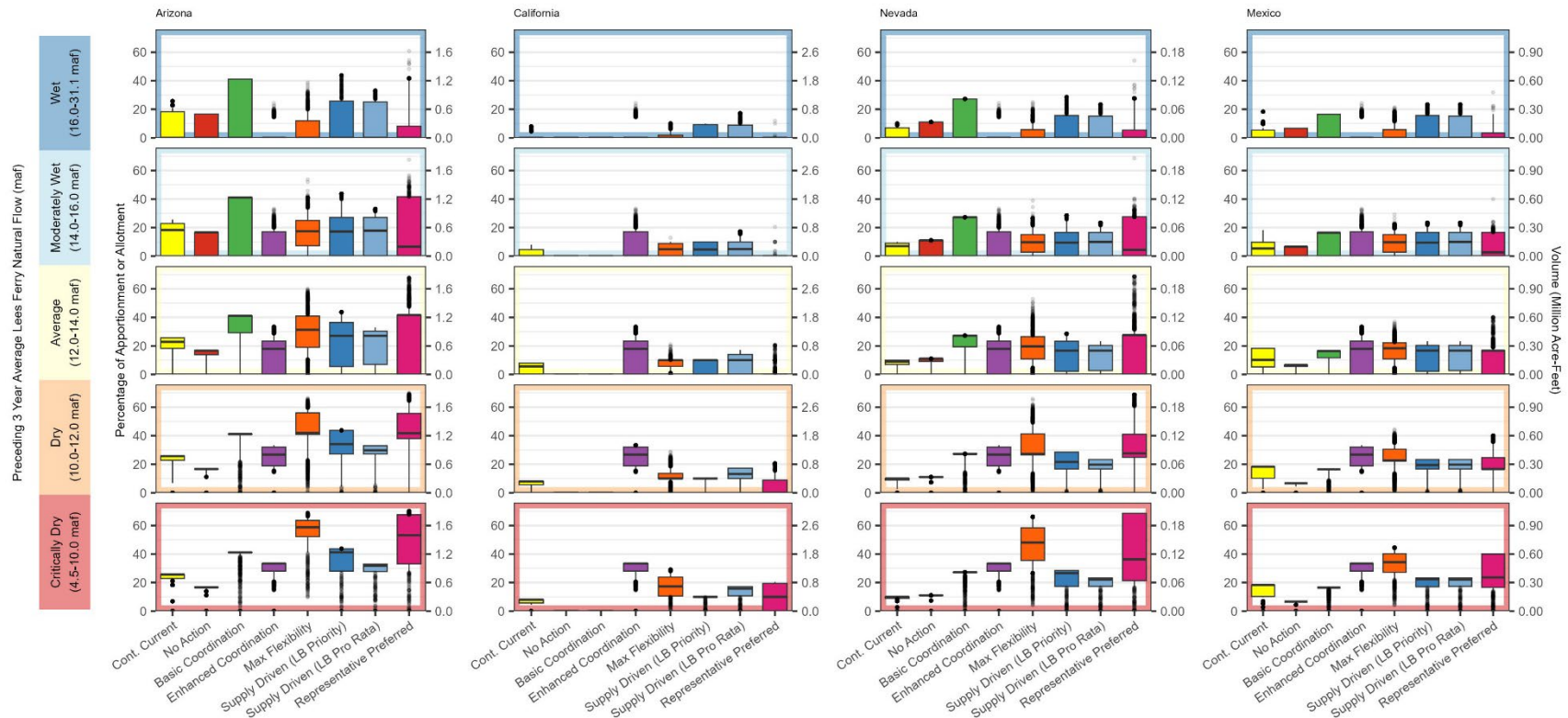
Figure TA 4-10 shows shortages to each Lower Division State and Mexico using four columns of conditional boxplots. The vertical axis for each state's column is scaled based on its respective volume of apportionment or allotment; the percent apportionment is shown on the left side of each column, and the absolute volume of shortage is shown on the right. Results will be described using percent of apportionment. Statistical summaries of the data shown in **Figure TA 4-10** are provided in **Table TA 4-19**, **Table TA 4-23**, **Table TA 4-29**, and **Table TA 4-37** at the end of this technical appendix.

Arizona, Nevada, and Mexico show similar relationships between alternatives across flow categories and are described together. In the Average Flow Category, the CCS Comparative Baseline and the No Action Alternative generally have the lowest median shortages, between 6.7 percent of allotment (Mexico, No Action Alternative) to 22.9 percent of apportionment (Arizona, CCS Comparative Baseline). These alternatives also show relatively low variability from the 25th to 75th percentiles, except for CCS Comparative Baseline for Mexico, which ranges from 5.3 percent to 18.3 percent of allotment. Recall that low shortages in **Figure TA 4-10** are associated with large and frequent dead pool-related reductions (see **Figure TA 4-1**, **Figure TA 4-2**, and **Figure TA 4-3**). Under the Basic Coordination Alternative, 50 percent of years have the maximum shortage volume in Arizona and Nevada and Mexico shortages of 41.1 percent, 27.2 percent and 16.4 percent of apportionment or allotment, respectively. The Maximum Operational Flexibility and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives have similar median shortage percentages in Mexico and Nevada, around 20 percent, but Arizona takes shortages at a higher percentage of apportionment in these alternatives, around 30 percent. The Enhanced Coordination Alternative has exactly the same median shortage (17.9 percent of apportionment) and variability (25th and 75th percentiles of 0.0 and 23.3 percent of apportionment, respectively) across all entities since shortages are distributed using a pro rata approach.

In the Dry Flow Category, median shortages for Arizona, Nevada, and Mexico generally increase, and variability generally decreases. The Critically Dry Flow Category continues this shift, with most alternatives showing median shortages at the maximum shortage possible and some lower end variability. The exception in this category is the Maximum Operational Flexibility Alternative, which only reaches its largest shortages in high outliers and has large variability.

Shortages in California exhibit different patterns from the other three entities due to the shortage distribution methods associated with each alternative. The No Action and Basic Coordination Alternatives apply a priority distribution scheme, but the total Lower Basin shortages are low enough that they do not impose any shortages on California. In the Average Flow Category, the Enhanced Coordination Alternative shows the highest median shortage (17.9 percent of apportionment) because it uses a pro rata distribution scheme and it also has the most variability among the alternatives. The Maximum Operational Flexibility and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives all have median shortages of 10.0 percent of apportionment.

Figure TA 4-10
Calendar Year Shortage by State and Water Delivery Reductions to Mexico



Note: The modeled annual delivery reductions in Mexico include modeling assumptions for reductions in water deliveries to Mexico and storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

In the Critically Dry Flow Category, the CCS Comparative Baseline and Supply Driven Alternative (LB Priority approach) show median shortages of 8.0 and 10.0 percent of California's apportionment, respectively. The Supply Driven (LB Pro Rata approach) and Maximum Operational Flexibility Alternatives have median shortages of 15.8 and 17.3 percent of apportionment, respectively. The Enhanced Coordination Alternative has the highest median shortages of 33.3 percent of California's apportionment.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median calendar year shortage for Arizona is 41.7 percent, and the 25th to 75th percentiles range from 38.0 to 55.6 percent. For California, the median shortage is 0.0 percent with a 75th percentile of 8.9 percent. For Nevada, the median shortage is 27.6 percent, and the 25th to 75th percentiles range from 24.9 to 41.0 percent. For Mexico, the median water delivery reduction is 16.7 percent, and the 25th to 75th percentiles range from 16.7 to 24.6 percent.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median calendar year shortage for Arizona is 53.1 percent, and the 25th to 75th percentiles range from 33.1 to 67.6 percent. For California, the median shortage is 10.0 percent, and the 25th to 75th percentiles range from 0.0 to 19.5 percent. For Nevada, the median shortage is 36.3 percent, and the 25th to 75th percentiles range from 21.4 to 68.5 percent. For Mexico, the median water delivery reduction is 23.6 percent, and the 25th to 75th percentiles range from 16.7 to 40.0 percent.

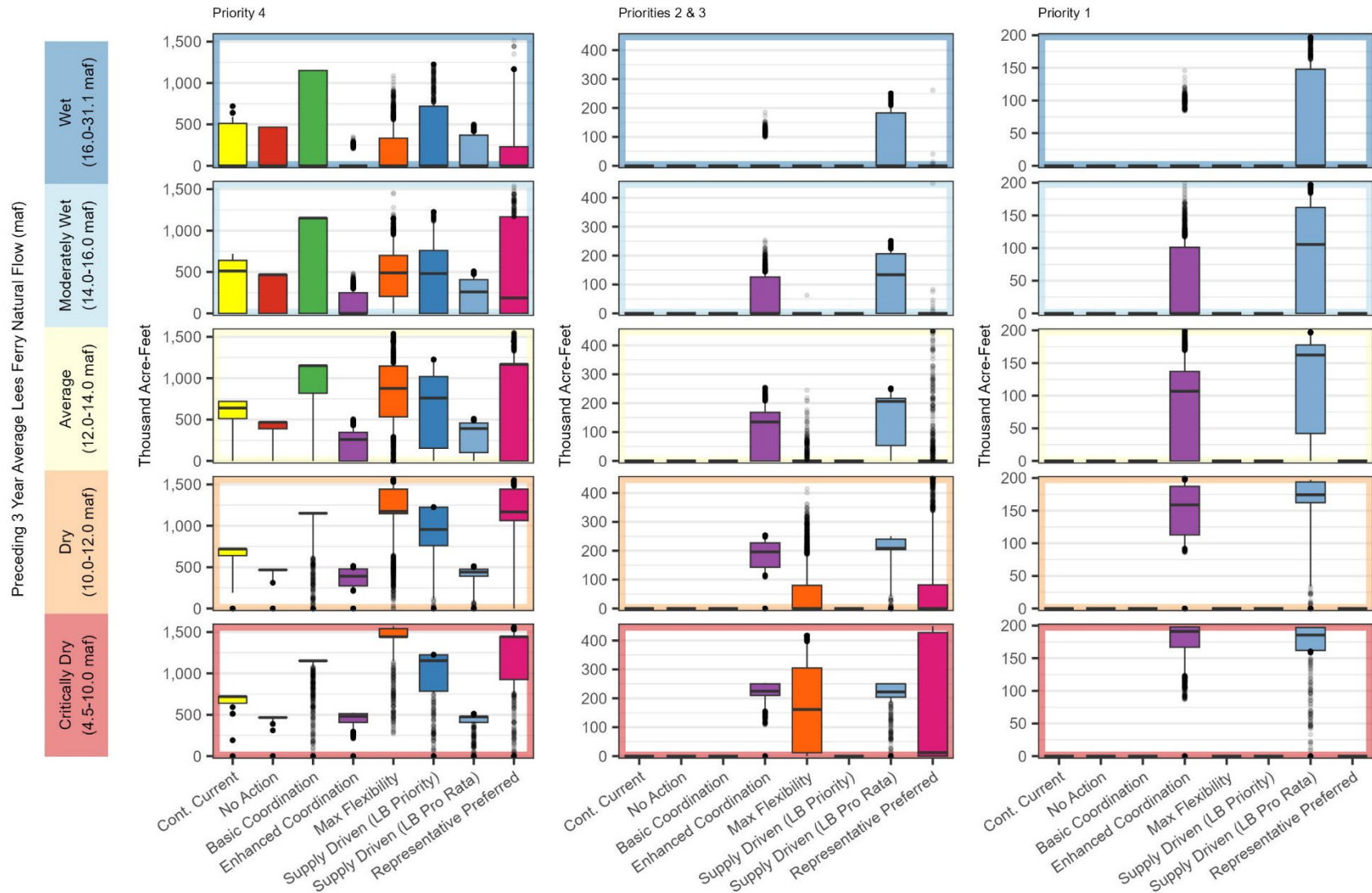
Annual Shortage by State and Priority

Arizona

Figure TA 4-11 compares the shortages to different priority groups in Arizona using three columns of conditional boxplots, a column for each priority within the state; Priorities 2 and 3 are co-equal. The vertical axis for each column is scaled based on the volume of shortages applied to the priority group. The sum of the shortages across priority groups (i.e., the sum of the columns in **Figure TA 4-11**) is shown in the previous figure, **Figure TA 4-10**. Statistical summaries of the data shown in **Figure TA 4-11** are provided in **Table TA 4-20** through **Table TA 4-22** at the end of this technical appendix.

All alternatives apply shortages to Priority 4 users, the most junior users in Arizona. The Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives impose shortages on Priorities 1, 2, and 3 users because they use pro rata-based approaches to distributing shortages, and the shortages under the Supply Driven Alternative (LB Pro Rata approach) are slightly higher because of how shortages are distributed across states. The Maximum Operational Flexibility and Representative Preferred Alternatives result in shortages to Priority 2 and 3 users because, while they use priority-based distribution methods, the total Lower Basin shortage volumes are large enough to extend to these users. The remaining discussion will focus primarily on Priority 4 users.

Figure TA 4-11
Annual Shortage for Arizona



In the Average Flow Category, the Maximum Operational Flexibility and Supply Driven (LB Priority approach) Alternatives have median Priority 4 shortages of 876.5 and 760.0 kaf, respectively, and both have wide variability between their 25th and 75th percentiles. The Basic Coordination, Supply Driven (LB Pro Rata approach) and Enhanced Coordination Alternatives have less variability, with median shortages of 1,151.6 kaf, 391.6 and 259.5 kaf, respectively. The No Action Alternative and CCS Comparative Baseline have low variability with medians of 466.8 and 640.0 kaf, respectively.

As conditions get drier, median shortages to Priority 4 users increase, and variability decreases. In the Critically Dry Flow Category, the Maximum Operational Flexibility, Basic Coordination, and Supply Driven (LB Priority approach) Alternatives show similar volumes of shortage to Arizona Priority 4 users at 1,442.6, 1,151.6 and 1,153.0 kaf, respectively. The No Action, Enhanced Coordination, and Supply Driven (LB Pro Rata approach) Alternatives have similar median shortages, with volumes between 466.9 and 480.9 kaf.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: For Priority 4 users, the median state shortage is 1,167.1 kaf, and the 25th to 75th percentiles range from 1,063.6 to 1,442.6 kaf, respectively. For Priority 2 and 3 (co-equal) users, the median is 0.0 kaf, and the 75th percentile is 82.0 kaf. Priority 1 users do not take shortage under this alternative.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: For Priority 4 users, the median state shortage is 1,442.6 kaf, and the 25th to 75th percentiles range from 926.3 to 1,442.6 kaf. For Priority 2 and 3 users, the median shortage is 12.0 kaf, and the 25th to 75th percentiles range from 0.0 to 427.5 kaf. Priority 1 users do not take shortage under this alternative.

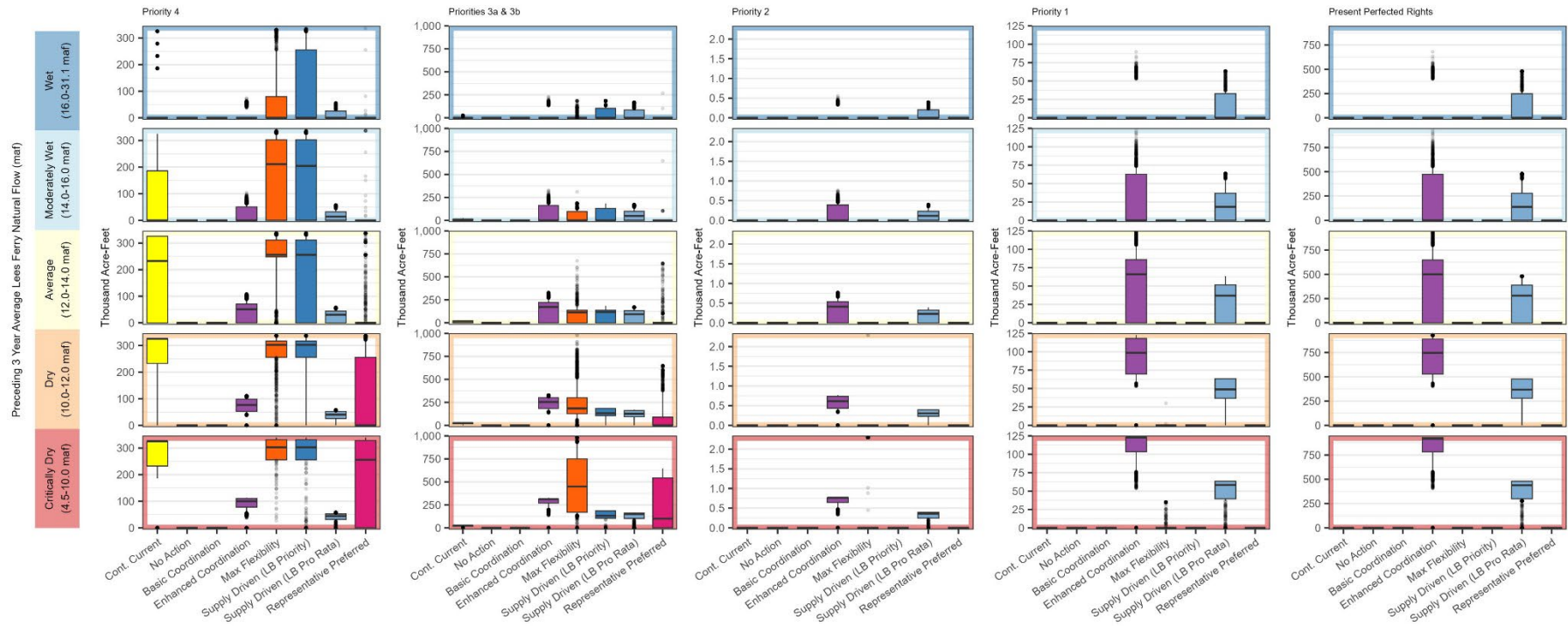
California

Figure TA 4-12 compares the shortages to different priority groups in California using five columns of conditional boxplots, a column for each priority within the state. The vertical axis for each column is scaled based on the volume of shortages applied to the priority group. The sum of the shortages across priority groups (i.e., the sum of the columns in **Figure TA 4-12**) is shown in **Figure TA 4-10**. Statistical summaries of the data shown in **Figure TA 4-12** are provided in **Table TA 4-24** through **Table TA 4-28** at the end of this technical appendix.

The No Action and Basic Coordination Alternatives do not apply shortages to California water users due to their combinations of low maximum Lower Basin shortages and use of the priority system to distribute the shortages. However, recall that low maximum Lower Basin shortage volumes translate to higher volumes of dead pool-related reductions (see **Figure TA 4-12**).

The Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives use pro rata-based distribution approaches, so these alternatives apply shortages to senior priority groups while other alternatives do not. In the Average, Dry, and Critically Dry Flow Categories, the Enhanced Coordination Alternative applies higher median shortages than the Supply Driven Alternative (LB Pro Rata approach) for Priorities 1 and 2 and PPRs. The Maximum Operational Flexibility Alternative also applies shortages to these groups in a small number of years in the Dry and Critically Dry Flow Categories. The remaining discussion will focus on Priority 4 and the co-equal Priorities 3a and 3b.

Figure TA 4-12
Annual Shortage for California



Priority 4 users are the most junior and experience the largest volumes of shortages relative to their total volume of rights. In the Average, Dry and Critically Dry flow categories, the Maximum Operational Flexibility and Supply Driven (LB Priority approach) Alternatives have the same median shortages of 255.7, 302.7 and 302.7 kaf, respectively, due to using the same distribution method. The Supply Driven Alternative (LB Priority approach) has a wider interquartile range in the Average Flow Category, but the interquartile ranges are the same for these two alternatives in the Dry and Critically Dry flow categories. The Supply Driven (LB Pro Rata approach) and Enhanced Coordination Alternatives both have lower medians and smaller ranges than the other alternatives that short these users due to their pro rata-based distribution methods, but the Enhanced Coordination Alternative has higher medians in all flow categories (50.8, 76.5, and 100.0 kaf in Average, Dry, and Critically Dry, respectively) than the Supply Driven Alternative (LB Pro Rata approach) (30.3, 40.1, and 44.0 kaf in Average, Dry, and Critically Dry, respectively).

The Representative Preferred Alternative exhibits the following shortages to Priority 4 users in the Dry Flow Category: the median shortage is 0.0 kaf, and there is large variability within the interquartile range, especially comparing the 75th percentile volume of 255.7 kaf to the median. The Representative Preferred Alternative exhibits the following shortages to Priority 4 users in the Critically Dry Flow Category: the median shortage is 255.7 kaf, and there is large variability within the interquartile range, with the 25th percentile of shortages being 0.0 kaf and the 75th percentile of shortages being 328.2 kaf.

Priorities 3a and 3b (co-equal) users have relatively small differences in median shortages across alternatives that short these users in the Average and Dry flow categories; excluding the Representative Preferred Alternative (described later), the median shortages range from 172.3 kaf to 93.6 kaf in the Average Flow Category under Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives, respectively. The median shortages in the Dry Flow Category range from 254.1 kaf to 125.9 kaf under these same two respective alternatives. In the Critically Dry Flow Category, comparisons between alternatives are similar, but with higher medians and less variability, with the exception of the Maximum Operational Flexibility Alternative, which has the highest median shortage of 448.7 kaf and large variability, with 168.7 kaf of shortage at the 25th percentile and 749.7 kaf at the 75th percentile.

The Representative Preferred Alternative exhibits the following shortages to Priorities 3a and 3b users in the Dry Flow Category: the median shortage is 0.0 kaf, and with some variability within the interquartile range when comparing the 75th percentile volume of 89.0 kaf to the median. The Representative Preferred Alternative exhibits the following shortages to Priorities 3a and 3b users in the Critically Dry Flow Category: the median shortage is 100.4 kaf, and there is large variability within the interquartile range, with the 25th percentile of shortages being 0.0 kaf and the 75th percentile of shortages being 542.9 kaf.

Nevada

Figure TA 4-13 compares the shortages to different priority groups in Nevada using four columns of conditional boxplots, a column for each priority group within the state. The vertical axis for each column is scaled based on the volume of shortages applied to the priority group. The sum of the shortages across priority groups (i.e., the sum of the columns in **Figure TA 4-13**) is shown in **Figure TA 4-10**. Statistical summaries of the data shown in **Figure TA 4-13** are provided in **Table TA 4-30** through **Table TA 4-33** at the end of this technical appendix.

A comparison of the vertical axis units and ranges for each column shows that the Priority 8 group captures the vast majority of water rights in Nevada, so discussion will focus on the leftmost column. The other priority groups receive shortages under the Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives because of the pro rata-based shortage distribution methods.

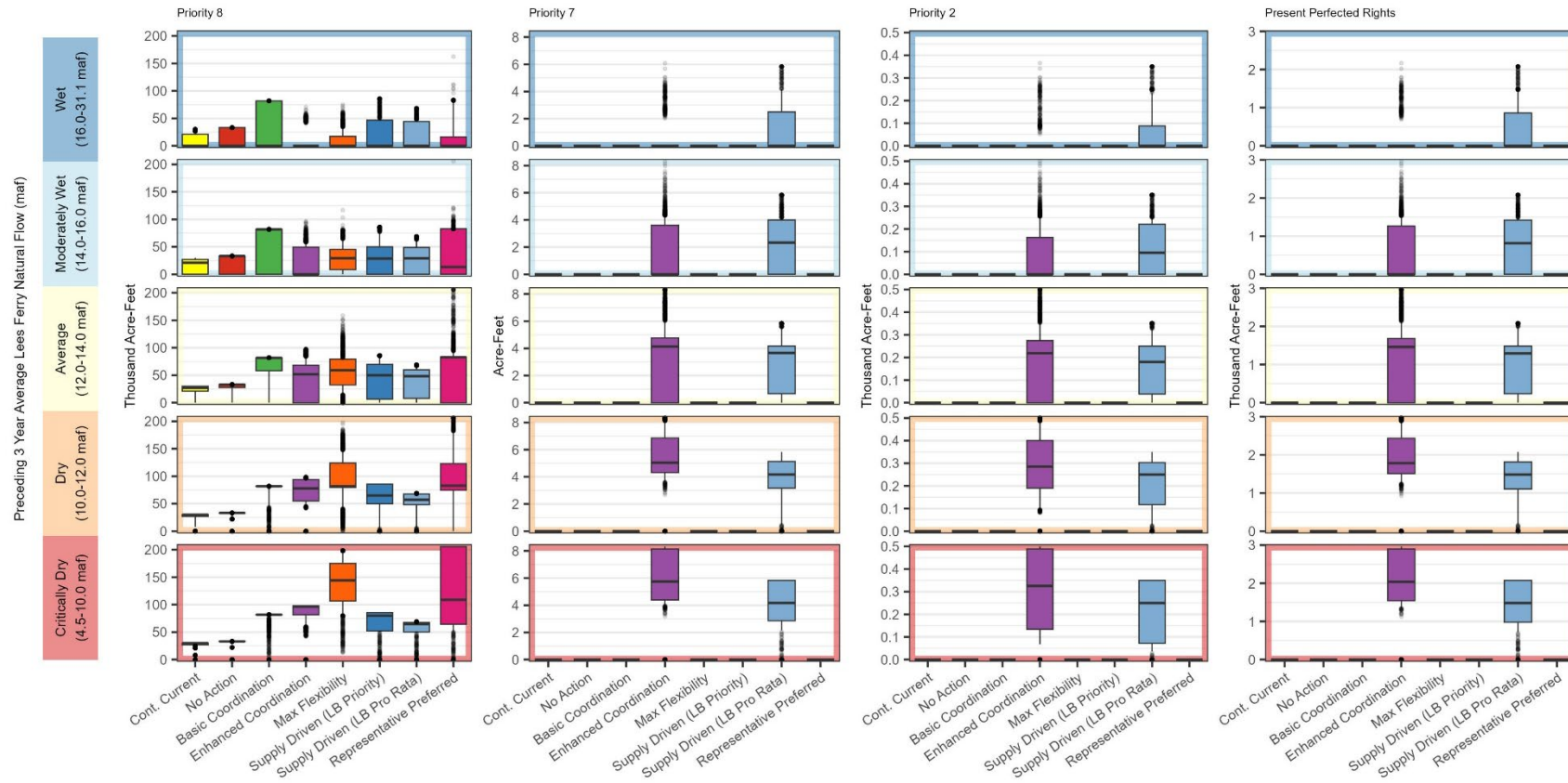
In the Average Flow Category, median shortage volumes are clustered in three groups: the Basic Coordination and Representative Preferred Alternatives impose 81.7 and 82.8 kaf, respectively; the Maximum Operational Flexibility, Enhanced Coordination, Supply Driven (LB Priority approach) and Supply Driven (LB Pro Rata approach) Alternatives impose 58.9, 51.9, 50.0, and 48.3 kaf, respectively; the CCS Comparative Baseline and the No Action Alternative impose 27.0 and 33.1 kaf, respectively. The action alternatives besides the Basic Coordination Alternative show similar variability based on the differences between their respective 25th and 75th percentile shortages; the Basic Coordination Alternative has less variability.

As conditions get drier, median shortages for the action alternatives generally increase. Compared with the Average Flow Category, variability in the Critically Dry Flow Category increases for the Maximum Operational Flexibility and Representative Preferred Alternatives, while it decreases for the other alternatives. In the Critically Dry Flow Category, the Basic Coordination Alternative has the same median shortage of 81.7 kaf because the maximum shortage is low enough that it was being applied even in Average flow conditions. The Enhanced Coordination, Maximum Operational Flexibility, Supply Driven (LB Priority approach), and Supply Driven (LB Pro Rata approach) Alternatives have median shortages of 96.5, 144.1, 79.8, and 64.6 kaf, respectively.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: For Priority 8 users, the median state shortage is 82.8 kaf, and the 25th to 75th percentiles range from 74.7 to 122.9 kaf. No other priority groups take shortage under this alternative.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: For Priority 8 users, the median state shortage is 108.9 kaf, and the 25th to 75th percentiles range from 64.2 to 205.6 kaf. No other priority groups take shortage under this alternative.

Figure TA 4-13
Annual Shortage for Nevada



Annual Depletions

This section compares the annual depletions to the Lower Division States and Mexico across all alternatives and the CCS Comparative Baseline. Depletion (sometimes referred to as “total consumptive use”) is the net amount of water used. It is calculated as the amount of water diverted from the river minus the return flow. Return flow is the portion of diverted water that is not consumed and returns to the river for subsequent downstream use. Depletions depend both on the total shortage volume as well as the approach used to distribute shortages among states, and also account for modeling assumptions related to voluntary conservation mechanisms.

In this section, dead pool-related reduction impacts are included in the figures and discussion.

Arizona

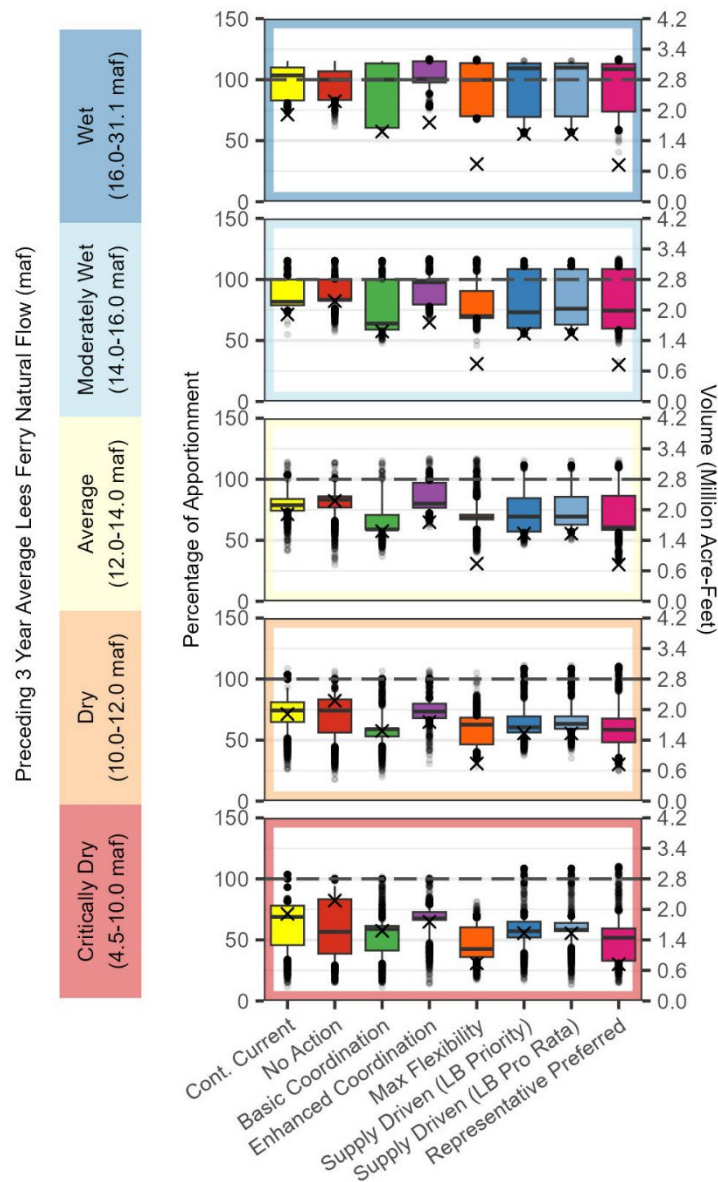
Figure TA 4-14 shows Arizona’s depletions under each alternative using conditional boxplots. The results are plotted in terms of their percentage of the state’s 2.8-maf apportionment (units shown on the left side of panels) and the volume of shortage (units shown on the right side of panels). A dashed line is included on each panel at 100 percent of apportionment. Results will be described using percent of apportionment. Each alternative includes an “X” marker indicating the smallest depletion volume that was *not* affected by dead pool–related reductions from Lake Mead; any data points below the marker were affected by infrastructure constraints at Lake Mead elevations near dead pool. The volume associated with the marker differs by alternative because shortage volumes vary among alternatives, which affects the occurrence and magnitude of dead pool-related reductions. A statistical summary of the data shown in **Figure TA 4-14** is provided in **Table TA 4-34** at the end of this technical appendix.

In the Average Flow Category, across the alternatives, Arizona’s median depletions range from 83.3 percent of apportionment (No Action Alternative) to 58.9 percent (Basic Coordination Alternative). Generally, in this flow category, Arizona gets 100 percent of apportionment in only about 10 percent of years because the alternatives apply shortages in most of the years in this flow category (and conservation activity does not fully offset the shortages). The Enhanced Coordination Alternative has moderate variability and the highest 75th percentile of depletions due to the pro rata-based shortage distribution. In the No Action and Basic Coordination Alternatives, nearly 50 percent of years have depletions affected by dead pool-related reductions, while there are few or no years impacted by these reductions in the other alternatives. The Representative Preferred Alternative has similar variability to the Supply Driven Alternative (LB Priority approach) in the interquartile range because they distribute the use the same for the first 1.5 maf of shortage, but lower median depletions than that alternative due to having a larger maximum shortage volume.

Median depletions do not go down significantly from the Average Flow Category to the Dry Flow Category, but percentages of years affected by dead pool-related reductions increase. In the Critically Dry Flow Category, median and 25th percentiles of depletions decrease significantly compared to the Average Flow Category in most alternatives due to large shortage volumes and limited availability of or access to conserved water to offset them. Across alternatives, the median depletions range from 67.5 percent of apportionment (Enhanced Coordination Alternative) to 42.5 percent of apportionment (Maximum Operational Flexibility Alternative). The CCS Comparative Baseline and the No Action, Basic Coordination, and Maximum Operational Flexibility Alternatives

show the largest decreases in their median and 25th percentile depletions. Near or above 50 percent of years under the CCS Comparative Baseline and the Basic Coordination and Supply Driven (LB Priority approach) Alternatives are affected by dead pool-related reductions, and approximately 75 percent of years are affected by these reductions under the No Action Alternative.

Figure TA 4-14
Annual Depletions in Arizona



Note: Depletion volumes below the "X" marker were affected by infrastructure constraints at Lake Mead elevations near dead pool.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median depletion by Arizona is 58.5 percent of apportionment, and the 25th to 75th percentiles range from 48.2 to 67.7 percent. Depletions in some outlier years (below the 10th percentile) are affected by dead pool at Lake Mead.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median depletion by Arizona is 51.8 percent of apportionment, and the 25th to 75th percentiles range from 32.9 to 59.3 percent. Depletions in approximately 10 percent of years are affected by dead pool at Lake Mead.

California

Figure TA 4-15 shows California's depletions under each alternative using conditional boxplots. The results are plotted in terms of their percentage of the state's 4.4-maf apportionment (units shown on the left side of panels) and the volume of shortage (units shown on the right side of panels). A dashed line is included on each panel at 100 percent of apportionment. Each alternative includes an "X" marker indicating the smallest depletion volume that was *not* affected by dead pool-related reductions from Lake Mead; any data points below the marker were affected by infrastructure constraints at Lake Mead elevations near dead pool. The volume associated with the marker differs by alternative because shortage volumes vary among alternatives, which affects the occurrence and magnitude of dead pool-related reductions. A statistical summary of the data shown in **Figure TA 4-15** is provided in **Table TA 4-35** at the end of this technical appendix.

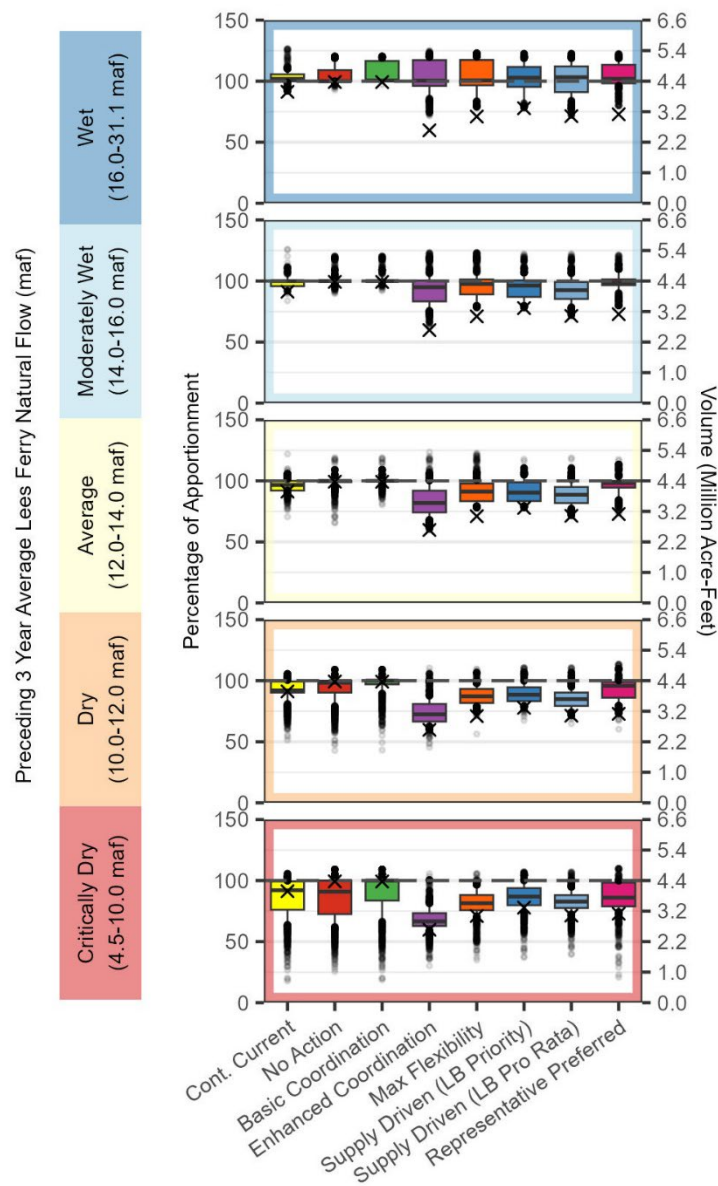
In the Average Flow Category, across the alternatives, California's median depletions range from 100.0 percent of apportionment (No Action and Basic Coordination Alternative) to 81.9 percent (Enhanced Coordination Alternative). In the No Action and Basic Coordination Alternatives, any depletions below 100 percent are associated with dead pool-related reductions. For the other alternatives, in this flow category, California gets at least 100 percent of apportionment in approximately 10 to 25 percent of years because the alternatives apply shortages in most of the years in this flow category (and conservation activity does not fully offset the shortages). The Enhanced Coordination Alternative has the highest variability and lowest median depletions due to the pro rata-based shortage distribution.

Except for the Enhanced Coordination Alternative, median depletions do not go down significantly from the Average Flow Category to the Critically Dry Flow Category because California takes a lower percentage of shortage than other entities, but percentages of years affected by dead pool-related reductions increase. Across alternatives, the median depletions in the Critically Dry Flow Category range from 100.0 percent of apportionment (Basic Coordination Alternative) to 66.6 percent of apportionment (Enhanced Coordination Alternative). Near or above 50 percent of years under the CCS Comparative Baseline and the Basic Coordination Alternative are affected by dead pool-related reductions, and approximately 75 percent of years are affected by these reductions under the No Action Alternative. Approximately 10 percent of years or fewer are affected by dead pool in the other alternatives.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median depletion by California is 95.8 percent of apportionment, and the 25th to

75th percentiles range from 86.1 to 98.9 percent. Depletions in some outlier years (below the 10th percentile) are affected by dead pool at Lake Mead.

Figure TA 4-15
Annual Depletions in California



Note: Depletion volumes below the "X" marker were affected by infrastructure constraints at Lake Mead elevations near dead pool.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median depletion by California is 86.0 percent of apportionment, and the 25th to 75th percentiles range from 78.9 to 98.3 percent. Depletions in fewer than 10 percent of years are affected by dead pool at Lake Mead.

Nevada

Figure TA 4-16 shows Nevada’s depletions under each alternative using conditional boxplots. The results are plotted in terms of their percentage of the state’s 300-kaf apportionment (units shown on the left side of panels) and the volume of shortage (units shown on the right side of panels). A dashed line is included on each panel at 100 percent of apportionment. Each alternative includes an “X” marker indicating the smallest depletion volume that was *not* affected by dead pool–related reductions from Lake Mead; any data points below the marker were affected by infrastructure constraints at Lake Mead elevations near dead pool. The volume associated with the marker differs by alternative because shortage volumes vary among alternatives, which affects the occurrence and magnitude of dead pool-related reductions. A statistical summary of the data shown in **Figure TA 4-16** is provided in **Table TA 4-36** at the end of this technical appendix.

In the Average Flow Category, across the alternatives, Nevada’s median depletions range from 105.8 percent of apportionment (CCS Comparative Baseline) to 83.3 percent (Basic Coordination Alternative). Except for the Basic Coordination Alternative, in this flow category, Nevada gets at least 100 percent of apportionment in approximately 40 to 50 percent of years. This is a higher percent of years than either Arizona or California because of modeling assumptions about conservation activity. The Basic Coordination Alternative shows the lowest median depletions because it distributed shortage to Arizona and Nevada only. Except for CCS Comparative Baseline, the alternatives have similar variability.

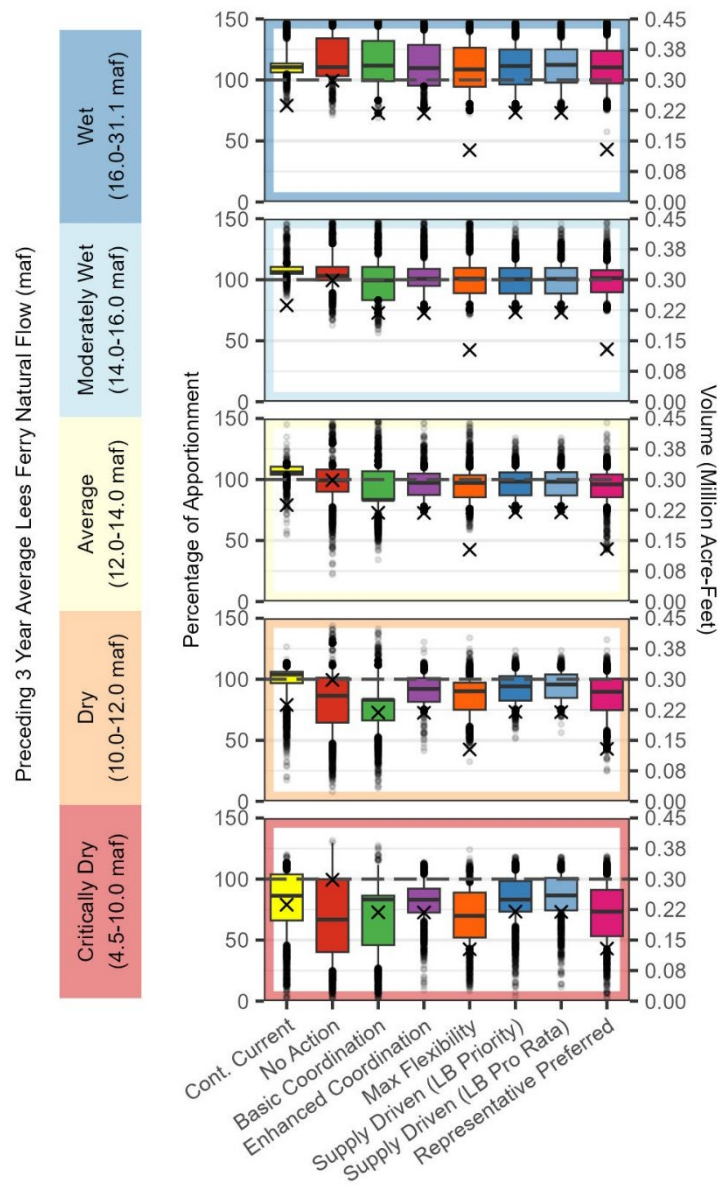
Median depletions do not go down significantly from the Average Flow Category to the Dry Flow Category, but percentages of years affected by dead pool-related reductions increase. In the Critically Dry Flow Category, median and 25th percentiles of depletions decrease significantly compared to the Average Flow Category in most alternatives due to large shortage volumes and limited availability of or access to conserved water to offset them. The CCS Comparative Baseline and the Basic Coordination, Enhanced Coordination, and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives have similar median depletions around 85 percent of apportionment. The No Action, Maximum Operational Flexibility, and Representative Preferred Alternatives have similar median depletions, around 70 percent of apportionment. Near or above 50 percent of years under the CCS Comparative Baseline and the Basic Coordination Alternative are impacted by dead pool-related reductions, and 75 percent of years in the No Action Alternative are impacted by these reductions. The Enhanced Coordination and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives are impacted by dead pool in approximately 25 percent of years, and the Maximum Operational Flexibility Alternative is impacted by these reductions in approximately 10 percent of years.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median depletion by Nevada is 89.7 percent of apportionment, and the 25th to 75th percentiles range from 74.7 to 100.5 percent. Depletions in some outlier years (below the 10th percentile) are affected by dead pool at Lake Mead.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median depletion by Nevada is 73.3 percent of apportionment,

and the 25th to 75th percentiles range from 53.1 to 91.2 percent. Depletions in approximately 10 percent of years are affected by dead pool at Lake Mead.

Figure TA 4-16
Annual Depletions in Nevada



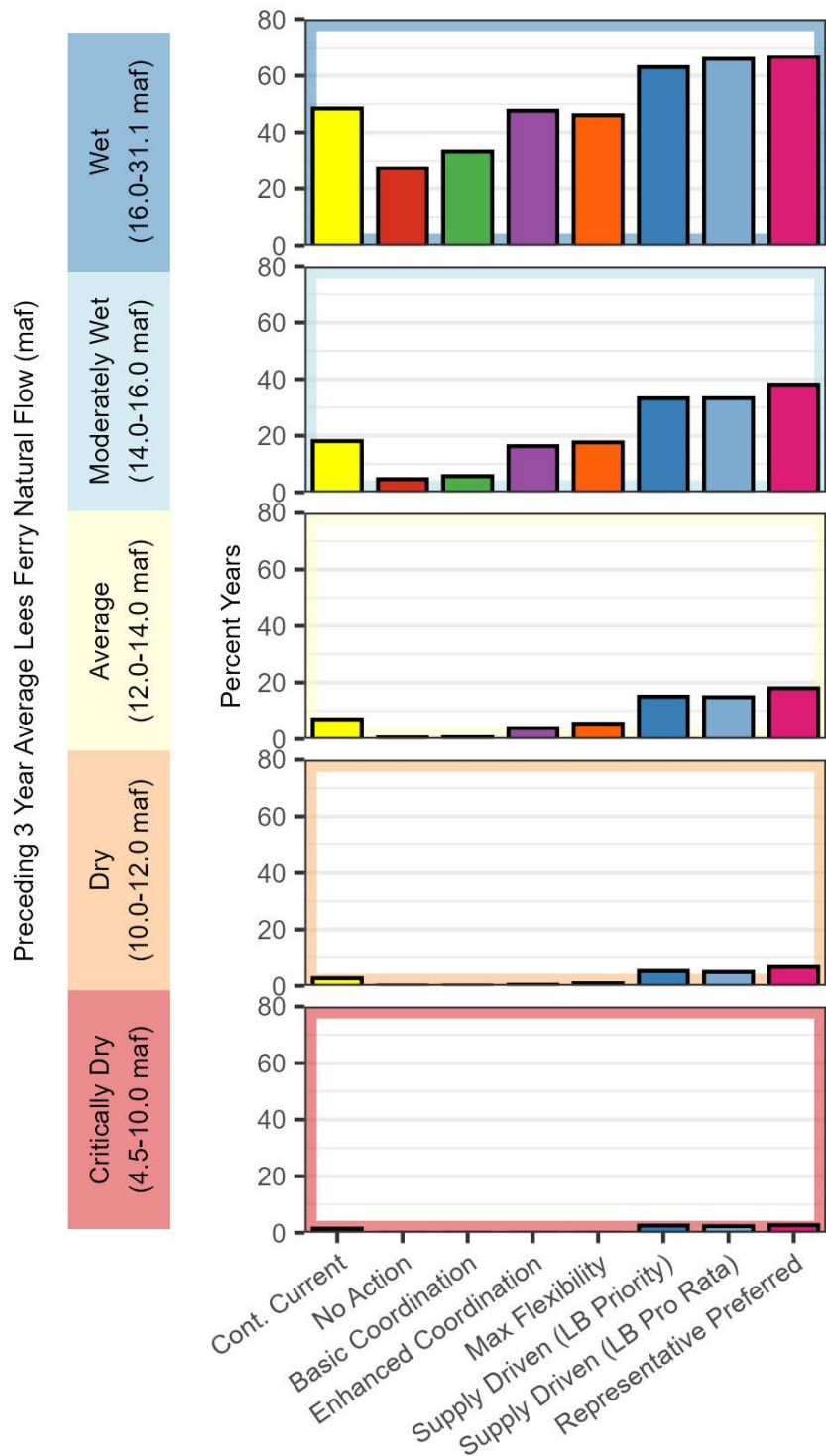
Note: Depletion volumes below the "X" marker were affected by infrastructure constraints at Lake Mead elevations near dead pool.

Surplus

Figure TA 4-17 below compares the alternatives with respect to frequency of surplus deliveries. Percents of years with surplus deliveries are broken out by different hydrologic conditions, categorized by preceding three-year average Lees Ferry natural flows. Because the frequency of surplus deliveries occurring in each flow category is shown and not the volume of surplus water

delivered, bars are used instead of boxplots. The height of the bar shows the percent of years when surplus deliveries occurred.

Figure TA 4-17
Percent of Years with Delivery Surplus



In the Average Flow Category, the Representative Preferred Alternative has the highest frequency of surplus deliveries at 18.0 percent of years, followed closely by the Supply Driven Alternative (both LB Priority and LB Pro Rata approaches), which resulted in surplus deliveries in about 15 percent of years. The CCS Comparative Baseline and the Enhanced Coordination and Maximum Operational Flexibility Alternatives resulted in surplus deliveries in fewer than 10 percent of years.

All alternatives resulted in surplus deliveries in fewer than 10 percent of the years in the Dry Flow Category, and only the CCS Comparative Baseline, Supply Driven Alternative (both LB Priority and LB Pro Rata approaches) and the Representative Preferred Alternative had any incidence of surplus deliveries in the Critically Dry Flow Category (fewer than 3 percent of years).

TA 4.2.5 Issue 4: Deliveries to Mexico

Issue 4 addresses how operational activities affect deliveries to Mexico. This will be achieved by comparison of the various action alternatives to the No Action Alternative and CCS Comparative Baseline for the following metrics:

- Annual water delivery reductions to Mexico
- Annual depletions in Mexico

Refer to **Appendix N**, International Border Region of the Colorado River, for additional information regarding water deliveries to the International Border Region.

Deliveries to Mexico under the CCS Comparative Baseline are established in Minute 319 and Minute 323, Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin in 2017 (International Boundary and Water Commission 2017), which identify maximum reductions to Mexico's delivery to 275 kaf, including volumes of Mexico's recoverable water savings. All alternatives assume a 1.5 maf annual allotment to Mexico but differ in how reductions and surplus are determined. Under the No Action Alternative, determination of deliveries to Mexico is made in accordance with the 1944 Mexican Water Treaty.

Water delivery reductions to Mexico under all the alternatives, except for the CCS Comparative Baseline, are modeled in proportion to Lower Division States shortage. All alternatives assume that a consistent 16.67 percent of all Lower Basin shortages are applied to water deliveries to Mexico on an annual basis. Refer to **Appendix C**, Shortage Allocation Model and Alternative Distribution Model Documentation, and **Appendix N**, International Border Region of the Colorado River, for specifics.

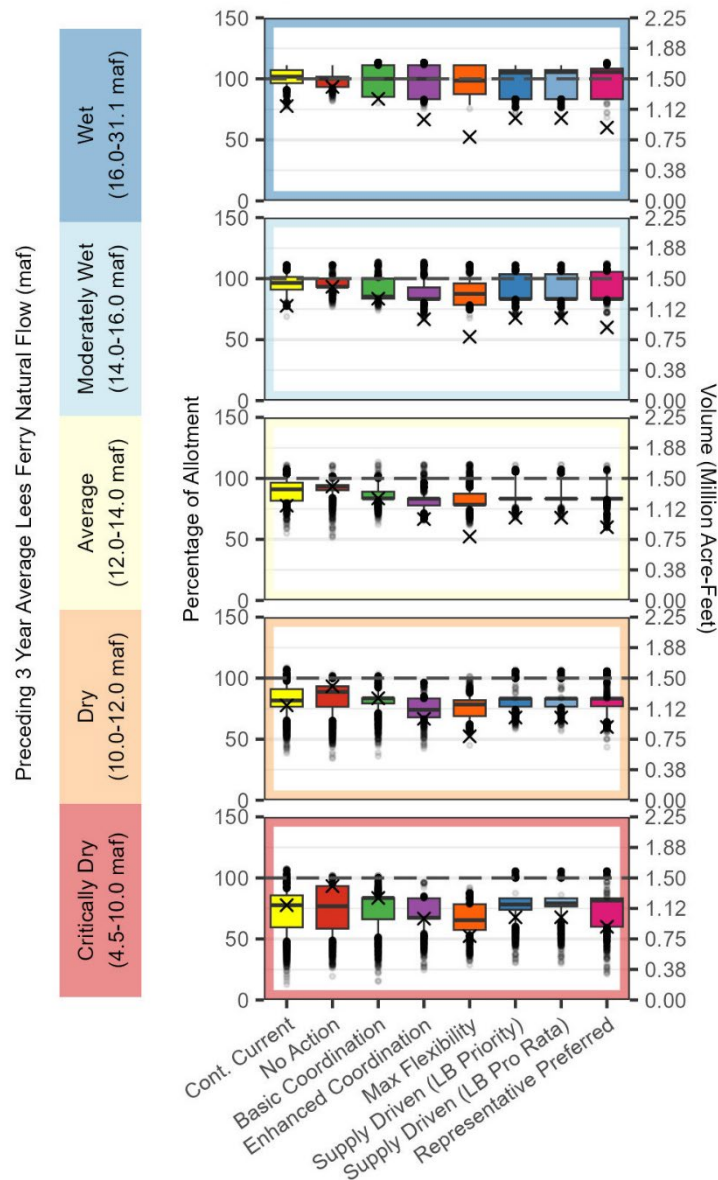
Annual Water Delivery Reductions

Refer to **Figure TA 4-10** for the conditional boxplots showing reductions to Mexico. A statistical summary of the data shown in **Figure TA 4-10** is provided in **Table TA 4-37** at the end of this technical appendix.

Annual Depletions

Figure TA 4-18 shows Mexico's depletions under each alternative using conditional boxplots. The results are plotted in terms of their percentage of the 1.5-maf allotment (units shown on the left side of panels) and the volume of shortage (units shown on the right side of panels). A dashed line is included on each panel at 100 percent of allotment. Each alternative includes an "X" marker

Figure TA 4-18
Annual Depletions in Mexico



Note: The modeled annual depletions in Mexico include modeling assumptions for reductions in water deliveries to Mexico and storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Note: Depletion volumes below the "X" marker were affected by infrastructure constraints at Lake Mead elevations near dead pool.

indicating the smallest depletion volume that was *not* affected by dead pool–related reductions from Lake Mead; any data points below the marker were affected by infrastructure constraints at Lake Mead elevations near dead pool. The volume associated with the marker differs by alternative because shortage volumes vary among alternatives, which affects the occurrence and magnitude of dead pool-related reductions. A statistical summary of the data shown in **Figure TA 4-18** is provided in **Table TA 4-38** at the end of this technical appendix.

In the Average Flow Category, across the alternatives, Mexico’s median depletions range from 93.3 percent of allotment (No Action Alternative) to 78.5 percent (Maximum Operational Flexibility Alternative). Generally, in this flow category, Mexico gets at least 100 percent of allotment in only about 10 percent of years or fewer because the alternatives apply delivery reductions in most of the years in this flow category (and conservation activity does not fully offset the reductions). In the No Action and Basic Coordination Alternatives, nearly 50 percent of years have depletions affected by dead pool-related reductions, while there are few or no years impacted by these reductions in the other alternatives.

Median depletions do not go down significantly from the Average Flow Category to the Dry Flow Category, but percentages of years affected by dead pool-related reductions increase. In the Critically Dry Flow Category, median and 25th percentiles of depletions decrease significantly compared to the Average Flow Category in most alternatives due to large shortage volumes and limited availability of or access to conserved water to offset them. The CCS Comparative Baseline, the No Action and Basic Coordination Alternatives, Supply Driven Alternative (both LB Priority and LB Pro Rata approaches), and the Representative Preferred Alternative have similar median depletions around 80 percent of allotment. The Enhanced Coordination and Maximum Operational Flexibility Alternatives have similar median depletions, around 66 percent of allotment. Near or above 50 percent of years under the CCS Comparative Baseline and the Basic Coordination Alternative are impacted by dead pool-related reductions, and 75 percent of years in the No Action Alternative are impacted by these reductions. The Enhanced Coordination and Representative Preferred Alternatives are impacted by dead pool in approximately 25 percent of years, and the Maximum Operational Flexibility and Supply Driven Alternative (both LB Priority and LB Pro Rata approaches) are impacted by these reductions in approximately 10 percent of years.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Dry Flow Category: the median depletion by Mexico is 83.3 percent of allotment, and the 25th to 75th percentiles range from 76.9 to 83.3 percent. Depletions in some outlier years (below the 10th percentile) are affected by dead pool at Lake Mead.

The Representative Preferred Alternative exhibits the following outcomes with respect to the Critically Dry Flow Category: the median depletion by Mexico is 81.5 percent of allotment, and the 25th to 75th percentiles range from 60.0 to 83.3 percent. Depletions in approximately 25 percent of years are affected by dead pool at Lake Mead.

TA 4.2.6 Issue 5: Lower Division States Combined Shortages

Issue 5 addresses how operational activities affect modeled distribution of combined shortages for the Lower Division States. This will be achieved through the comparison of the various action alternatives to the No Action Alternative and CCS Comparative Baseline for the following metrics:

- Volumes of Shortage by Water User Type (tribal, domestic, irrigation)

As discussed in **Chapter 2**, the alternatives considered evaluate a distribution of shortages via priority and pro rata. Lower Division States' shortage distributions discussed under this issue were modeled with the SAM and ADM to estimate the volume of available water to entitlement holders or water users under Shortage Conditions over a specified range of shortage volumes. There are three unique SAMs and five ADMs to capture the nuances of the alternatives and sensitivity analyses, which are further explained in **Appendix C**, Shortage Allocation Model and Alternative Distribution Model Documentation. The following analysis describes the distribution of shortages expected for a specified shortage volume.

Tribal Shortage Impacts

The following **Table TA 4-39** describes shortage impacts on tribal entitlements, broken out by SAM and ADM modeling approach and aligned by alternative. Each row corresponds to a modeling approach and EIS alternative or the CCS Comparative Baseline. Within the row, the color gradient is representative of conditional formatting for values ranging from zero to 1,103 kaf, the total of the entitlements modeled in the tribal category. The color gradient indicates the percentage reduction, with the darkest orange representing 100 percent reduction. The maximum values are a total of the Consumptive Use or equivalent entitlements modeled for tribal users. Each column of modeled total shortage was chosen based on points of interest in one or more models, or to provide granularity in the results over a range of volumes of interest. Total shortage volumes include an assumed component for Mexico, as described in the sections of this appendix pertaining to each model, and will not sum across panels.

As shown in the table, the shortage impacts of priority-based alternatives range from 209-582 kaf. The shortage impacts of pro rata-based alternatives range from 76-378 kaf. The pro rata-based alternatives display smaller shortage impacts compared to the priority-based alternatives at the same total shortage volume considered. For example, under a total shortage volume of 2,100 kaf, the Maximum Operational Flexibility and Supply Driven (LB Priority approach) Alternatives estimate a shortage impact of 510 kaf. The Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives estimate a shortage impact of 264 and 357 kaf, respectively. Overall, for tribal users, priority-based alternatives result in greater shortage impacts compared to pro rata-based alternatives. These tradeoffs are further discussed in **TA 18**, Indian Trust Assets.

Assuming a maximum shortage volume of 1.5 maf distributed based on the Lower Division States' May 1, 2026 proposal, the Representative Preferred Alternative would impose a maximum shortage of 346 kaf to tribal users in 2027 and 2028,⁴ Modeling assumptions for 2029-2060 show a maximum

⁴ While the Representative Preferred Alternative models shortages above 1.5 maf in 2028, consistent with the sideboards, under the Preferred Alternative, Reclamation would consult with stakeholders if Lake Mead elevation is projected below 1,000 feet. (See **Chapter 2** for more details on the sideboards under the Preferred Alternative).

potential impact to tribal users of over 574 kaf, but as demonstrated by the 2027-2028 Operating Guidelines, the distribution of shortage under any specific operating guidelines adopted under the Preferred Alternative decision framework may differ from the priority distribution method reflected here for the Representative Preferred Alternative.

Domestic Shortage Impacts

The following **Table TA 4-39** describes shortage impacts on Domestic users, broken out by SAM and ADM modeling approach and aligned by alternative. Each row corresponds to a modeling approach and EIS alternative or the CCS Comparative Baseline. Within the row, the color gradient is representative of conditional formatting for values ranging from zero to 1,606 kaf, the total of the entitlements modeled in the domestic category. The color gradient indicates the percentage reduction, with the darkest orange representing 100 percent reduction. The maximum values are a total of the Consumptive Use or equivalent entitlements modeled for domestic users. Each column of modeled total shortage was chosen based on points of interest in one or more models, or to provide granularity in the results over a range of volumes of interest. Total shortage volumes include an assumed component for Mexico, as described in the sections of this appendix pertaining to each model, and will not sum across panels.

As shown in the table, the shortage impacts of priority-based alternatives range from 277-1,501 kaf. The shortage impacts of pro rata-based alternatives range from 109-546 kaf. The pro rata-based alternatives display smaller shortage impacts compared to the priority-based alternatives at the same total shortage volume considered. For example, under a total shortage volume of 2,100 kaf, the Maximum Operational Flexibility and Supply Driven (LB Priority approach) Alternatives estimate a shortage impact of 1,179 kaf. The Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives estimate a shortage impact of 382 and 449 kaf, respectively. Overall, for domestic users, priority-based alternatives result in greater shortage impacts compared to pro rata-based alternatives. These tradeoffs are further discussed in **TA 17**, Population and Land Use.

Assuming a maximum shortage volume of 1.5 maf distributed based on the Lower Division States' May 1, 2026 proposal, the Representative Preferred Alternative would impose a maximum shortage of 858 kaf to domestic users in 2027 and 2028⁵. Modeling assumptions for 2029-2060 show a maximum potential impact to domestic users of over 1,472 kaf, but as demonstrated by the 2027-2028 Operating Guidelines, the distribution of shortage under any specific operating guidelines adopted under the Preferred Alternative decision framework may differ from the priority distribution method reflected here for the Representative Preferred Alternative.

Irrigation Shortage Impacts

The following **Table TA 4-39** describes shortage impacts on non-tribal irrigation users, broken out by SAM and ADM modeling approach and aligned by alternative. Each row corresponds to a modeling approach and EIS alternative or the CCS Comparative Baseline. Within the row, the color gradient is representative of conditional formatting for values ranging from zero to 4,749 kaf, the total of the entitlements modeled in the irrigation category. The color gradient indicates the

⁵ While the Representative Preferred Alternative models shortages above 1.5 maf in 2028, consistent with the sideboards, under the Preferred Alternative, Reclamation would consult with stakeholders if Lake Mead elevation is projected below 1,000 feet. (See **Chapter 2** for more details on the sideboards under the Preferred Alternative).

Table TA 4-39
Total Shortage Impact Volumes (kaf)

Tribal Shortage Impacts

Modeling Approach	EIS Alternatives and Comparative Baseline	600	1,000	1,500	1,800	2,000	2,100	2,300	3,000	3,500	4,000
Priority	No Action	241									
Priority	Basic Coordination	241	351	489							
Priority	Representative Preferred Alternative (2029-2060)	241	351	489	550	551	552	555	567	576	
Continuing Current Strategies*	CCS Comparative Baseline	261	305								
LB Priority	Supply Driven (LB Priority approach)	209	269	346	431	483	510				
LB Priority	Maximum Operational Flexibility	209	269	346	431	483	510	550	561	571	582
LB Priority	Representative Preferred Alternative (2027-2028)	209	269	346							
Pro Rata	Enhanced Coordination	76	126	189	227	252	264	289	378		
LB Pro Rata	Supply Driven (LB Pro Rata Approach)	139	207	291	324	346	357				

Domestic Shortage Impacts

Modeling Approach	EIS Alternatives and Comparative Baseline	600	1,000	1,500	1,800	2,000	2,100	2,300	3,000	3,500	4,000
Priority	No Action	277									
Priority	Basic Coordination	277	488	752							
Priority	Representative Preferred Alternative (2029-2060)	277	488	752	876	1,032	1,102	1,224	1,425	1,472	
Continuing Current Strategies*	CCS Comparative Baseline	297	563								
LB Priority	Supply Driven (LB Priority approach)	313	579	858	1,024	1,125	1,179				

Domestic Shortage Impacts

Modeling Approach	EIS Alternatives and Comparative Baseline	600	1,000	1,500	1,800	2,000	2,100	2,300	3,000	3,500	4,000
LB Priority	Maximum Operational Flexibility	313	579	858	1,024	1,125	1,179	1,263	1,390	1,446	1,501
LB Priority	Representative Preferred Alternative (2027-2028)	313	579	858							
Pro Rata	Enhanced Coordination	109	182	273	327	364	382	418	546		
LB Pro Rata	Supply Driven (LB Pro Rata approach)	155	240	346	397	432	449				

Irrigation Shortage Impacts

Modeling Approach	EIS Alternatives and Comparative Baseline	600	1,000	1,500	1,800	2,000	2,100	2,300	3,000	3,500	4,000
Priority	No Action	6									
Priority	Basic Coordination	6	19	34							
Priority	Representative Preferred Alternative (2029 -2060)	6	19	34	44	44	56	98	467	829	
Continuing Current Strategies*	CCS Comparative Baseline	8	27								
LB Priority	Supply Driven (LB Priority approach)	2	9	70	79	85	88				
LB Priority	Maximum Operational Flexibility	2	9	70	79	85	88	95	509	860	1,211
LB Priority	Representative Preferred Alternative (2027-2028)	2	9	70							
Pro Rata	Enhanced Coordination	316	526	789	947	1,052	1,105	1,210	1,578		
LB Pro Rata	Supply Driven (LB Pro Rata approach)	206	387	613	778	889	944				

Note:

Totals include Mexico and will not sum across panels.

*CCS Comparative Baseline strategies results are of limited comparability due to their fixed shortage volumes; shortages shown for 600 kafy and 1.0 maf per year in total shortage are associated with 613 kafy and 1,013 kafy of total shortage in the CCS Comparative Baseline SAM.

percentage reduction, with the darkest orange representing 100 percent reduction. The maximum values are a total of the Consumptive Use or equivalent entitlements assigned to irrigation users. Each column of total modeled shortage was chosen based on points of interest in one or more models, or to provide granularity in the results over a range of volumes of interest. Total shortage volumes include an assumed component for Mexico, as described in the sections of this appendix pertaining to each model, and will not sum across panels.

As shown in the table, the shortage impacts of priority-based alternatives range from 2-1,211 kaf. The shortage impacts of pro rata-based alternatives range from 206 to 1,578 kaf. The pro rata-based alternatives display larger shortage impacts compared to the priority-based alternatives at the same total shortage volume considered. For example, under a total shortage volume of 2,100 kaf, the Maximum Operational Flexibility and Supply Driven (LB Priority approach) Alternatives estimate a shortage impact of 88 kaf. The Enhanced Coordination and Supply Driven (LB Pro Rata approach) Alternatives estimate a shortage impact of 1,105 and 944 kaf, respectively. Overall, for non-tribal irrigation users, pro rata-based alternatives result in greater shortage impacts compared to priority-based alternatives. These tradeoffs are further discussed in **TA 17**, Population and Land Use.

Assuming a maximum shortage volume of 1.5 maf distributed based on the Lower Division States' May 1, 2026 proposal, the Representative Preferred Alternative would impose a maximum shortage of 70 kaf to non-tribal irrigation users in 2027 and 2028⁶. Modeling assumptions for 2029-2060 show a maximum potential impact to non-tribal irrigation users of over 829 kaf, but as demonstrated by the 2027-2028 Operating Guidelines, the distribution of shortage under any specific operating guidelines adopted under the Preferred Alternative decision framework may differ from the priority distribution method reflected here for the Representative Preferred Alternative.

Volumes of Shortage by State (Arizona, California, Nevada)

State specific distribution of shortages can be viewed in **Appendix C**, Shortage Allocation Model and Alternative Distribution Model Documentation.

TA 4.2.7 Issue 6: Upper Basin Conservation

Figure TA 4-19 shows three components of Upper Basin Conservation activity.⁷ The first column shows the annual, total volume of conserved water accumulated by the Upper Basin. The second column reports the annual volume of conserved water that is created. The third column reports the annual volume that is converted to system water. Statistical summaries of the data shown in **Figure TA 4-19** are provided in **Table TA 4-40** through **Table TA 4-42** at the end of this technical appendix.

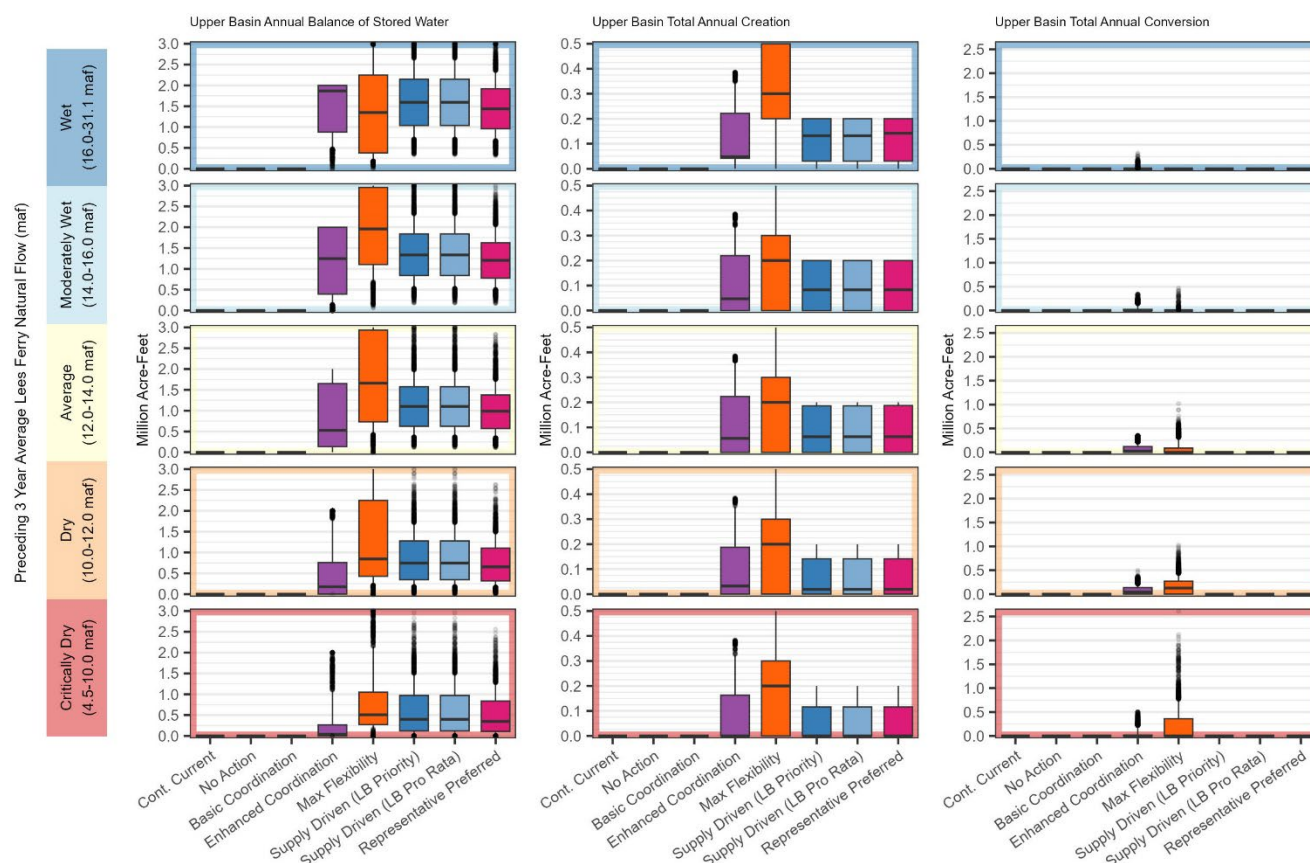
There is zero accumulation, creation, or conversion under the CCS Comparative Baseline and the No Action and Basic Coordination Alternatives, so the remainder of the discussion on **Figure TA**

⁶ While the Representative Preferred Alternative models shortages above 1.5 maf in 2028, consistent with the sideboards, under the Preferred Alternative, Reclamation would consult with stakeholders if Lake Mead elevation is projected below 1,000 feet. (See **Chapter 2** for more details on the sideboards under the Preferred Alternative).

⁷ For all alternatives except Maximum Operational Flexibility, Lower Basin conserved water is stored in Lake Powell. For Maximum Operational Flexibility, this water can be stored in Lake Mead, Lake Powell, or both.

4-19 focuses on Enhanced Coordination, Maximum Operational Flexibility, Representative Preferred, and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives.⁸

Figure TA 4-19
Annual Upper Basin Conservation Activity



Note: In addition to the conservation volumes, the Supply Driven alternative also includes “gap water” (see EIS **Appendix S**, Additional Description of Alternatives, and **Appendix A**, CRSS Model Documentation). The modeled gap water volume increases with higher natural flow release percentages and drier hydrologic conditions. The median is 0.0 maf for the 60 and 65 percent natural flow release scenarios in the Average and Critically Dry flow categories, and increases to slightly over 0.1 maf and 0.8 maf, respectively, for the 70 percent scenario; the maximum gap water volume across all flow categories is approximately 1.1 maf. **Appendix D**, Sensitivity Analysis – Effects of Natural Flow Percentage Used for the Supply Driven Alternative, includes additional information on the modeled volumes of gap water.

Considering total annual accumulation (first column), in the Average Flow Category, the Maximum Operational Flexibility Alternative has the highest median (1.7 maf), followed by the Supply Driven Alternative (both LB Priority and LB Pro Rata approaches; 1.1 maf) and the Representative Preferred and the Enhanced Coordination Alternatives (1.0 maf and 0.5 maf, respectively). The relative ranking is the same under the Critically Dry Flow Category, with medians of 0.5 maf

⁸ UB conservation activity is the same for both the LB Priority and LB Pro Rata approaches under the Supply Driven Alternative.

(Maximum Operational Flexibility Alternative), 0.4 maf (Supply Driven Alternative [both LB Priority and LB Pro Rata approaches]), 0.3 maf (Representative Preferred Alternative), and 0.0 maf (Enhanced Coordination Alternative).

Considering total annual creation (second column), under the Average Flow Category, the Maximum Operational Flexibility Alternative has the largest median (0.2 maf), followed by the Representative Preferred, Supply Driven (both LB Priority and LB Pro Rata approaches), and Enhanced Coordination Alternatives at around 0.1 maf. Under the Critically Dry Flow Category, the median for the Maximum Operational Flexibility Alternative remains at 0.2 maf, but the median is 0.0 maf for the Enhanced Coordination, Representative Preferred, and Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives. However, the 75th percentiles are 0.3 maf (Maximum Operational Flexibility Alternative), 0.2 maf (Enhanced Coordination Alternative), and 0.1 maf (Representative Preferred and Supply Driven [both LB Priority and LB Pro Rata approaches] Alternatives).

Considering total annual conversion (third column), the Supply Driven Alternative (both LB Priority and LB Pro Rata approaches) does not convert any conserved water since conservation is created as system water (i.e., values of 0.0 maf for all flow categories and all percentiles). For the Maximum Operational Flexibility and Enhanced Coordination Alternatives, the largest conversion volumes occur in Dry to Critically Dry Flow Categories. Because conversion happens relatively infrequently and at small volumes, it is useful to compare the 75th percentile values. In the Dry Flow Category, 75th percentile conversion volumes are 0.3 maf (Maximum Operational Flexibility Alternative) and 0.1 maf (Enhanced Coordination Alternative). Under the Critically Dry Flow Category, the 75th percentile values are 0.4 maf (Maximum Operational Flexibility Alternative) and approximately 0.0 maf (Enhanced Coordination Alternative).

TA 4.2.8 Issue 7: Lower Division States' 2027-2028 Water Supply Determinations in the Representative Preferred Alternative

The Preferred Alternative is a decision framework under which specific operating guidelines will be periodically reviewed, developed, and updated. Within the framework, the specific shortage volumes and distributions within the operational sideboards will be determined for each set of guidelines. As described in **Chapter 2**, the Representative Preferred Alternative was designed to capture these operational sideboards, but the volume and distribution of shortage under any specific operating guidelines adopted under the Preferred Alternative decision framework may differ.

As of the date of this Final EIS, the first set of operating guidelines are anticipated to cover 2027-2028. To reflect the May 1, 2026 proposal by the Lower Division States, the Representative Preferred Alternative used the LB Priority distribution method for 2027 and 2028, up to 1.5 maf of shortage, as noted in the description of the alternative. The figures below show impacts in 2027 and 2028 of the Representative Preferred Alternative modeling.

While the Representative Preferred Alternative models shortages above 1.5 maf in 2028, consistent with the sideboards, under the Preferred Alternative Reclamation would consult with stakeholders if Lake Mead elevation is projected below 1,000 feet to determine potential additional reductions to Lower Basin water deliveries.

Figure TA 4-20, shows the occurrences of different volumes of total annual Lower Basin shortage volumes modeled in the Representative Preferred Alternative in the years 2027 and 2028 across the 400 modeled traces. In 2027, all 400 traces resulted in a 1.5-maf shortage. In 2028, only 148 traces resulted in a 1.5 maf shortage, while 252 traces resulted in larger shortage volumes, up to 3 maf occurring in 3 traces. Because shortages greater than 1.5 maf are subject to consultation, as is their distribution should they be deemed necessary, they will not be further analyzed.

Figure TA 4-20
Distribution of 2027-2028 Total Annual Lower Basin Shortage Volumes in the Representative Preferred Alternative

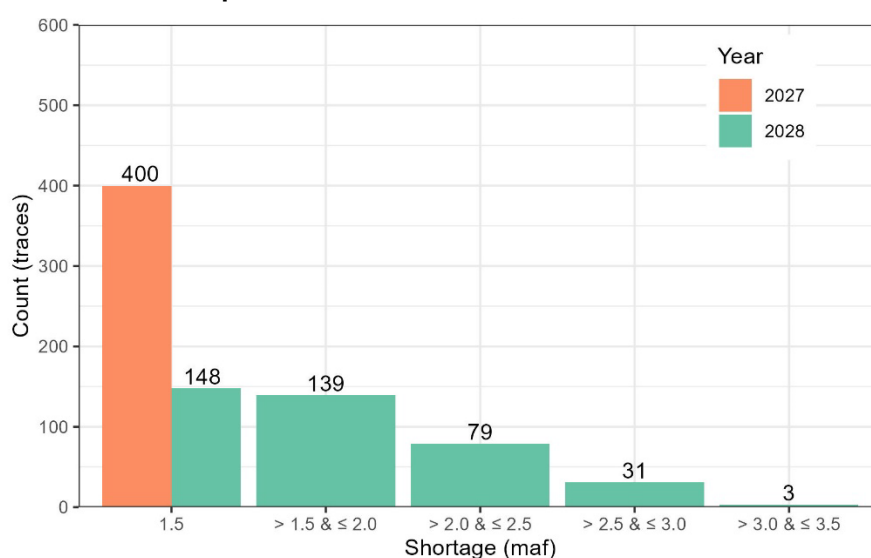


Figure TA 4-21, shows the distribution of annual depletions for each state in 2027 and 2028 in the Representative Preferred Alternative. The panel for each state is scaled by its apportionment; the left vertical axis for each panel shows depletions by percent of apportionment, and the right vertical axis shows absolute volumes of depletions. Arizona's median 2027-2028 depletion is 58.5 percent of apportionment, or 1.6 maf, with maximum and minimum depletions of 75.3 percent and 56.6 percent. California's median 2027-2028 depletion is 89.2 percent of apportionment, or 3.9 maf, with maximum and minimum depletions of 99.8 percent and 78.9 percent. Nevada's median 2027-2028 depletion is 73.3 percent of apportionment, or 0.2 maf, with maximum and minimum depletions of 86.0 percent and 73.3 percent. These modeled depletions reflect the assumed shortage distribution method, as well as the assumptions for the storage and delivery of conserved water (see **Appendix B**, Modeling Assumptions: Lake Powell and Lake Mead Storage and Delivery of Conserved Water, for detailed assumptions). **Table TA 4-43** provides the statistical summary of data in **Figure TA 4-21**.

Figure TA 4-21
Distribution of 2027-2028 Annual Depletions by State in the Representative Preferred Alternative

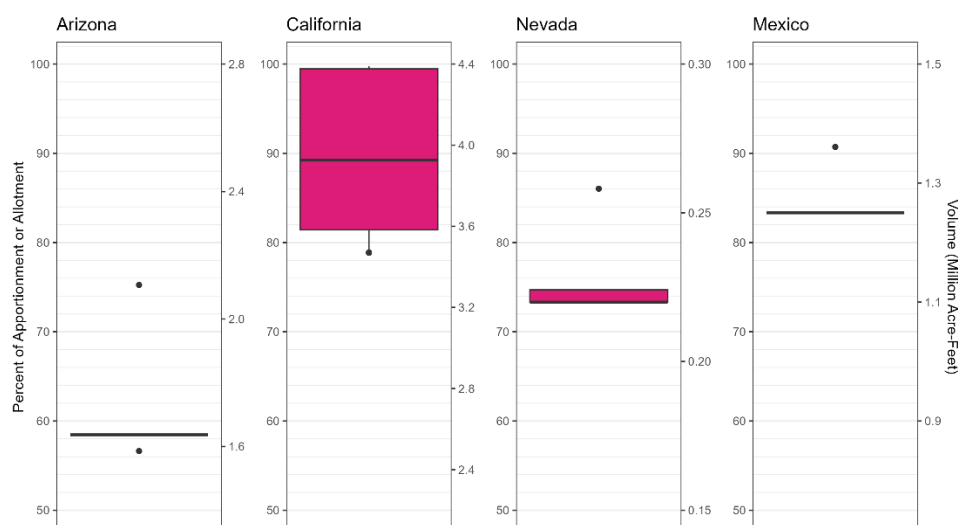


Table TA 4-43
Distribution of 2027-2028 Annual Depletions by State in the Representative Preferred Alternative

State	Max		90th Percentile		75th Percentile		50th Percentile		25th Percentile		10th Percentile		Min	
	%	maf	%	maf	%	maf	%	maf	%	maf	%	maf	%	maf
Arizona	75.3	2.1	58.5	1.6	58.5	1.6	58.5	1.6	58.5	1.6	58.5	1.6	56.6	1.6
California	99.8	4.4	99.8	4.4	99.5	4.4	89.2	3.9	81.4	3.6	78.9	3.5	78.9	3.5
Nevada	86.0	0.3	74.7	0.2	74.7	0.2	73.3	0.2	73.3	0.2	73.3	0.2	73.3	0.2
Mexico	90.7	1.4	83.3	1.3	83.3	1.3	83.3	1.3	83.3	1.3	83.3	1.3	83.3	1.3

TA 4.2.9 Summary Comparison of Alternatives

Summary of Issue 1: Apportionments to the Upper Division States

Issue 1 considered whether the alternatives could affect apportionments to the Upper Division States. Because no changes to those apportionments are expected, no further impact analysis was needed.

Summary of Issue 2: Lower Division States' Apportionments and Water Entitlements

Issue 2 considered whether the alternatives could affect the Lower Division States' apportionments or water entitlements. The shortage distribution approaches were evaluated to explore potential concepts and impacts and not to change existing apportionments or entitlements. Related delivery effects are addressed under Issues 3, 5 and 7, and further summarized below.

Summary of Issue 3: Lower Division States Water Supply Determinations

Issue 3 evaluates how the operational alternatives would affect water supplies for the Lower Division States and Mexico, including shortages, dead pool-related reductions, conservation activity, depletions, delivery reductions, and surplus deliveries. The results show a recurring tradeoff where alternatives with lower planned shortages tend to leave Lake Mead more vulnerable, increasing the risk of dead pool-related reductions. Alternatives with larger or more responsive shortages tend to provide stronger protection against dead pool-related reductions by increasing reservoir elevations and reducing the frequency and magnitude of unplanned cuts. This pattern is most apparent in the No Action and Basic Coordination Alternatives, which have lower planned shortages but show greater dead pool risk than the other action alternatives.

Differences among the operational alternatives become more pronounced as hydrology becomes drier. Most action alternatives include mechanisms for storing and delivering conserved water in Lake Powell and Lake Mead, with the Basic Coordination Alternative as the exception. Modeled conservation activity generally does not substantially change median Lower Basin shortages, dead pool-related reductions, or depletions in most cases, but it can significantly affect the ranges of these outcomes, especially in the Average Flow Category. As conditions become drier, annual conservation creation decreases, causing stored-water balances to decline. In Critically Dry conditions, delivery and conversion can also be limited by lower available stored water or low Lake Mead elevations.

Impacts also vary by how shortages are distributed. Arizona, Nevada, and Mexico tend to see median shortages increase as conditions become drier. California's outcomes depend more on how shortages are distributed, with priority-based approaches limiting or avoiding reductions and pro rata approaches spreading reductions to a broader set of users, including senior priority groups. Depletions reflect the combined effects of shortage volume, shortage distribution, conservation assumptions, and dead pool-related constraints. In the driest conditions, depletions tend to decline as shortages increase and access to conserved water becomes more limited. Overall, surplus deliveries occur infrequently and are concentrated in less severe hydrologic categories.

The Representative Preferred Alternative uses planned shortages to provide stronger protection against dead pool-related reductions. Under both Dry and Critically Dry conditions, the median Lower Basin shortage increases from 1.5 maf in Dry conditions to 2.1 maf in Critically Dry conditions, while median dead pool-related reductions remain 0.0 maf. Dead pool-related reductions are limited to outlier years in the Dry Flow Category, with a maximum of 1.4 maf, whereas in the Critically Dry category they occur in about 10 percent of years and reach a maximum of 3.8 maf. The vulnerability analysis shows that the Representative Preferred Alternative would likely become vulnerable to at least one dead pool-related reduction only under a 10-year average Lees Ferry annual flow of 8.0 maf, a condition much drier than the observed record and present in fewer than 10 percent of Drying with Variability traces. At the state and Mexico level, shortages and delivery reductions under the Representative Preferred Alternative increase for Arizona, Nevada, and Mexico as conditions become Dry and Critically Dry, while California has a median shortage of 0.0 percent in Dry conditions and 10.0 percent in Critically Dry conditions. Depletions under the Representative Preferred Alternative generally decline in Critically Dry conditions as shortage volumes increase and dead pool-related reductions are implemented in some years.

Summary of Issue 4: Deliveries to Mexico

Issue 4 evaluates how the alternatives would affect Colorado River deliveries to Mexico, using two metrics: annual water delivery reductions to Mexico and annual depletions in Mexico. In the Average Flow Category, Mexico's median depletions range from 93.3 percent of allotment under the No Action Alternative to 78.5 percent under the Maximum Operational Flexibility Alternative, and Mexico generally receives its full allotment in about 10 percent of years or fewer. In this same flow category, dead pool-related reductions at Lake Mead occur frequently under the No Action and Basic Coordination Alternatives, but are limited or absent under several other alternatives.

For the Representative Preferred Alternative, Mexico's median depletions are relatively similar between the Dry and Critically Dry flow categories, but variability and dead pool effects increase under the driest conditions. In the Dry Flow Category, Mexico's median depletion is 83.3 percent of allotment, while the median depletion is 81.5 percent in the Critically Dry Flow Category. Under this alternative, dead pool-related reductions affect approximately 25 percent of Critically Dry years, which is less frequent than under No Action but more common than under Maximum Operational Flexibility and the Supply Driven (both LB Priority and LB Pro Rata approaches) Alternatives.

Summary of Issue 5: Lower Division States' Combined Shortages

Issue 5 evaluates how operational activities under the action alternatives would affect the modeled distribution of combined shortages among Lower Division States water users, compared to the No Action Alternative and CCS Comparative Baseline. The analysis focuses on shortage volumes by water user type (tribal, domestic, and non-tribal irrigation) and uses the SAM and ADM to estimate how available water could be reduced under a range of shortage conditions. Across the alternatives, shortage outcomes vary depending on whether reductions are distributed primarily by priority or on a pro rata basis, with the modeling results illustrating how these different distribution approaches shift impacts among user groups.

In general, priority-based approaches tend to result in greater modeled shortages for tribal and domestic users, while pro rata-based approaches tend to distribute larger shortage impacts to non-tribal irrigation users. This reflects a tradeoff among alternatives, where approaches that protect certain users based on priority may concentrate shortages among other entitlement holders, while broader pro rata approaches spread reductions more evenly but can increase impacts to irrigation users. Under the Representative Preferred Alternative, maximum modeled shortages in 2027 and 2028 would be 346 kaf for tribal users, 858 kaf for domestic users, and 70 kaf for non-tribal irrigation users, unless critical Lake Mead elevations prompt consultation and consideration of additional volumes. For 2029 through 2060, modeling shows the potential for larger impacts, but the actual distribution of shortages would depend on the specific operating guidelines adopted under the Preferred Alternative decision framework.

Summary of Issue 6: Upper Basin Conservation

Upper Basin conservation activity occurs only under the Enhanced Coordination, Maximum Operational Flexibility, Supply Driven (both LB Priority and LB Pro Rata approaches), and Representative Preferred Alternatives. There is no accumulation, creation, or conversion under the CCS Comparative Baseline and the No Action and Basic Coordination Alternatives. In general, annual accumulation is highest under Maximum Operational Flexibility, followed by the Supply

Driven (both LB Priority and LB Pro Rata approaches) and Representative Preferred Alternatives. Annual creation is also highest under Maximum Operational Flexibility, while the other alternatives generally create smaller volumes and show more limited creation, particularly in the Critically Dry Flow Category. Conversion of conserved water is more limited overall, and the Supply Driven (both LB Priority and LB Pro Rata approaches) and Representative Preferred Alternatives do not show conversion because, for the former, conserved water is created directly as system water, and for the latter, there is no conversion mechanism assumed in the modeling.

Summary of Issue 7: Lower Division States' 2027-2028 Water Supply Determinations in the Representative Preferred Alternative

The Preferred Alternative establishes a decision framework rather than a single fixed set of operating rules. Under that framework, specific operating guidelines will be developed and adopted periodically, and the actual shortage volumes and distributions may differ from those modeled in the Representative Preferred Alternative. The Lower Division States' proposal for distributing shortages up to 1.5 maf on May 1, 2026 was incorporated in the Representative Preferred Alternative for 2027 and 2028.

In the Representative Preferred Alternative modeling, all 400 traces show a 1.5-maf Lower Basin shortage in 2027. In 2028, 148 traces remain at 1.5 maf, while 252 traces show larger shortages, with up to 3.0 maf in 3 traces. It is anticipated that volumes and distribution of shortages above 1.5 maf, should they be deemed necessary, would be developed based on consultation and are not analyzed in this Issue. Modeled 2027-2028 depletions reflect the assumed shortage distribution method and conserved-water assumptions, with median depletions of about 1.6 maf for Arizona, 3.9 maf for California, 0.2 maf for Nevada, and 1.3 maf for Mexico.

TA 4.3 Statistical Summary Tables

Table TA 4-10
Lower Basin Shortage (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	1.4	0.7	0.6	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	1.4	1.4	1.0	0.6	0.0	0.0	0.0
CCS Comparative Baseline	12-14	1.4	1.4	1.4	1.1	0.6	0.0	0.0
CCS Comparative Baseline	10-12	1.4	1.4	1.4	1.4	1.1	0.2	0.0
CCS Comparative Baseline	< 10	1.4	1.4	1.4	1.4	1.1	1.0	0.0
No Action	> 16	0.6	0.6	0.6	0.0	0.0	0.0	0.0
No Action	14-16	0.6	0.6	0.6	0.6	0.0	0.0	0.0
No Action	12-14	0.6	0.6	0.6	0.6	0.5	0.0	0.0
No Action	10-12	0.6	0.6	0.6	0.6	0.6	0.4	0.0
No Action	< 10	0.6	0.6	0.6	0.6	0.6	0.5	0.0
Basic Coordination	> 16	1.5	1.5	1.5	0.0	0.0	0.0	0.0
Basic Coordination	14-16	1.5	1.5	1.5	1.5	0.0	0.0	0.0
Basic Coordination	12-14	1.5	1.5	1.5	1.5	1.1	0.0	0.0
Basic Coordination	10-12	1.5	1.5	1.5	1.5	1.5	0.8	0.0
Basic Coordination	< 10	1.5	1.5	1.5	1.5	1.5	1.4	0.0
Enhanced Coordination	> 16	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	3.0	1.8	1.5	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	3.0	2.6	2.1	1.6	0.0	0.0	0.0
Enhanced Coordination	10-12	3.0	3.0	2.9	2.4	1.7	1.4	0.0
Enhanced Coordination	< 10	3.0	3.0	3.0	3.0	2.5	1.9	0.0
Max. Operational Flexibility	> 16	1.9	1.0	0.5	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	2.6	1.7	1.4	0.9	0.3	0.0	0.0
Max. Operational Flexibility	12-14	3.3	2.0	2.0	1.7	1.0	0.4	0.0
Max. Operational Flexibility	10-12	4.0	3.1	2.7	2.0	2.0	1.2	0.0
Max. Operational Flexibility	< 10	4.0	4.0	3.6	3.1	2.5	2.0	0.4
Supply Driven (LB Priority)	> 16	2.1	1.5	1.4	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	2.1	1.9	1.5	0.9	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	2.1	2.1	1.8	1.5	0.2	0.0	0.0
Supply Driven (LB Priority)	10-12	2.1	2.1	2.1	1.8	1.5	0.2	0.0
Supply Driven (LB Priority)	< 10	2.1	2.1	2.1	2.0	1.5	1.5	0.0
Supply Driven (LB Pro Rata)	> 16	2.1	1.5	1.4	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	2.1	1.9	1.5	0.9	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	2.1	2.1	1.8	1.5	0.2	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	2.1	2.1	2.1	1.8	1.5	0.2	0.0
Supply Driven (LB Pro Rata)	< 10	2.1	2.1	2.1	2.0	1.6	1.5	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Representative Preferred	> 16	2.9	1.5	0.3	0.0	0.0	0.0	0.0
Representative Preferred	14-16	3.6	1.5	1.5	0.2	0.0	0.0	0.0
Representative Preferred	12-14	3.6	1.7	1.5	1.5	0.0	0.0	0.0
Representative Preferred	10-12	3.6	3.2	2.2	1.5	1.5	0.0	0.0
Representative Preferred	< 10	3.6	3.6	3.6	2.1	1.5	1.3	0.0

Note: Shortage volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-11
Lower Basin Dead Pool–Related Reductions (maf)⁹

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	1.1	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	2.4	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	4.0	1.4	0.4	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	6.2	3.0	2.0	0.2	0.0	0.0	0.0
No Action	> 16	1.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	1.5	0.3	0.0	0.0	0.0	0.0	0.0
No Action	12-14	3.8	0.8	0.3	0.0	0.0	0.0	0.0
No Action	10-12	5.5	2.5	1.5	0.4	0.0	0.0	0.0
No Action	< 10	6.5	4.0	3.1	1.5	0.0	0.0	0.0
Basic Coordination	> 16	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	1.9	0.1	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	4.4	1.1	0.4	0.0	0.0	0.0	0.0
Basic Coordination	< 10	6.1	2.9	1.6	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	10-12	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	< 10	3.9	1.1	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	3.4	0.0	0.0	0.0	0.0	0.0	0.0

⁹ Dead pool–related reductions are in addition to shortages specified in each alternative. Shortages are shown in Table TA 4-10.

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	1.7	0.2	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	4.3	1.5	0.2	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	4.3	1.2	0.0	0.0	0.0	0.0	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	3.8	0.0	0.0	0.0	0.0	0.0	0.0

Note: Dead pool-related delivery reduction volumes include modeling assumptions for reductions in water deliveries to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-13
Annual Lower Basin Conservation Activity: Lower Basin Annual Balance of Stored Water (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	4.2	4.2	3.9	3.3	2.5	1.1	0.5
CCS Comparative Baseline	14-16	4.2	4.2	4.2	3.8	3.2	2.5	0.6
CCS Comparative Baseline	12-14	4.2	4.2	4.2	4.1	3.5	3.0	0.7
CCS Comparative Baseline	10-12	4.2	4.2	4.2	4.2	3.6	3.1	1.0
CCS Comparative Baseline	< 10	4.2	4.2	4.2	4.2	3.3	3.1	0.9
No Action	> 16	2.7	1.9	0.3	0.3	0.0	0.0	0.0
No Action	14-16	2.7	2.2	0.3	0.3	0.2	0.0	0.0
No Action	12-14	2.7	2.4	1.1	0.3	0.3	0.1	0.0
No Action	10-12	2.7	2.4	1.9	0.3	0.3	0.2	0.0
No Action	< 10	2.7	2.7	2.5	0.3	0.3	0.2	0.0
Basic Coordination	> 16	2.7	1.6	0.3	0.2	0.0	0.0	0.0
Basic Coordination	14-16	2.7	1.9	0.3	0.3	0.1	0.0	0.0
Basic Coordination	12-14	2.7	2.4	0.4	0.3	0.2	0.0	0.0
Basic Coordination	10-12	2.7	2.5	1.4	0.3	0.2	0.1	0.0
Basic Coordination	< 10	2.7	2.7	2.5	0.3	0.3	0.1	0.0
Enhanced Coordination	> 16	7.0	6.0	4.9	3.2	0.2	0.0	0.0
Enhanced Coordination	14-16	7.0	6.5	5.7	4.1	2.5	1.5	0.0
Enhanced Coordination	12-14	7.0	6.4	5.4	3.3	2.3	1.7	0.0
Enhanced Coordination	10-12	7.0	6.0	4.5	2.8	2.1	1.5	0.0
Enhanced Coordination	< 10	7.0	5.2	3.3	2.6	2.1	1.6	0.1
Max. Operational Flexibility	> 16	5.0	5.0	4.3	2.5	0.4	0.2	0.0
Max. Operational Flexibility	14-16	5.0	5.0	5.0	3.3	1.7	0.9	0.0
Max. Operational Flexibility	12-14	5.0	5.0	4.6	2.7	1.4	0.8	0.0
Max. Operational Flexibility	10-12	5.0	5.0	3.6	2.3	1.2	0.7	0.1
Max. Operational Flexibility	< 10	5.4	4.0	3.3	2.7	1.4	0.7	0.0
Supply Driven (LB Priority)	> 16	7.9	5.6	4.3	2.4	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	7.6	6.1	4.9	3.6	2.0	0.8	0.0
Supply Driven (LB Priority)	12-14	7.9	6.2	4.8	3.5	2.2	1.3	0.0
Supply Driven (LB Priority)	10-12	7.9	5.9	4.4	3.0	2.0	1.3	0.0
Supply Driven (LB Priority)	< 10	7.8	5.0	3.7	2.8	1.9	1.2	0.0
Supply Driven (LB Pro Rata)	> 16	7.9	6.4	5.6	4.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	7.7	6.7	6.3	5.3	3.9	1.0	0.0
Supply Driven (LB Pro Rata)	12-14	7.9	6.8	6.3	5.5	4.4	3.2	0.0
Supply Driven (LB Pro Rata)	10-12	7.9	6.7	6.2	5.3	4.1	3.4	0.0
Supply Driven (LB Pro Rata)	< 10	7.8	6.4	5.8	4.6	3.6	3.0	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Representative Preferred	> 16	8.0	5.3	4.5	3.5	0.0	0.0	0.0
Representative Preferred	14-16	8.0	6.3	4.9	4.1	3.3	1.3	0.0
Representative Preferred	12-14	8.0	6.3	4.8	4.0	3.4	2.7	0.0
Representative Preferred	10-12	8.0	6.1	4.5	3.8	3.3	2.8	0.0
Representative Preferred	< 10	8.0	4.9	4.3	3.7	3.3	2.9	0.2

Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-14

Annual Lower Basin Conservation Activity: Lower Basin Total Annual Creation (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	0.6	0.3	0.1	0.1	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.6	0.4	0.3	0.1	0.1	0.0	0.0
CCS Comparative Baseline	12-14	0.6	0.4	0.4	0.3	0.1	0.1	0.0
CCS Comparative Baseline	10-12	0.7	0.4	0.4	0.4	0.2	0.1	0.0
CCS Comparative Baseline	< 10	0.7	0.5	0.4	0.4	0.2	0.2	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	1.7	0.9	0.9	0.5	0.2	0.2	0.1
Enhanced Coordination	14-16	1.7	1.0	0.7	0.5	0.3	0.2	0.1
Enhanced Coordination	12-14	1.7	0.8	0.5	0.4	0.2	0.1	0.0
Enhanced Coordination	10-12	1.7	0.6	0.4	0.3	0.1	0.1	0.0
Enhanced Coordination	< 10	1.5	0.4	0.3	0.1	0.1	0.0	0.0
Max. Operational Flexibility	> 16	2.1	1.3	0.9	0.5	0.1	0.1	0.0
Max. Operational Flexibility	14-16	2.1	1.2	0.9	0.5	0.2	0.1	0.0
Max. Operational Flexibility	12-14	2.1	1.0	0.8	0.4	0.1	0.1	0.0
Max. Operational Flexibility	10-12	1.9	0.9	0.7	0.2	0.1	0.0	0.0
Max. Operational Flexibility	< 10	1.7	0.7	0.4	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Supply Driven (LB Priority)	> 16	2.2	1.0	0.9	0.5	0.1	0.1	0.0
Supply Driven (LB Priority)	14-16	2.0	0.9	0.7	0.5	0.1	0.1	0.0
Supply Driven (LB Priority)	12-14	2.0	0.9	0.6	0.4	0.1	0.0	0.0
Supply Driven (LB Priority)	10-12	2.0	0.7	0.5	0.3	0.1	0.0	0.0
Supply Driven (LB Priority)	< 10	2.0	0.7	0.5	0.2	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	2.2	0.9	0.8	0.5	0.1	0.1	0.0
Supply Driven (LB Pro Rata)	14-16	1.7	0.9	0.7	0.4	0.1	0.1	0.0
Supply Driven (LB Pro Rata)	12-14	2.0	0.9	0.6	0.3	0.2	0.1	0.0
Supply Driven (LB Pro Rata)	10-12	1.9	0.8	0.6	0.3	0.2	0.1	0.0
Supply Driven (LB Pro Rata)	< 10	1.9	0.8	0.6	0.3	0.1	0.0	0.0
Representative Preferred	> 16	2.1	1.1	0.8	0.2	0.2	0.1	0.1
Representative Preferred	14-16	1.8	1.1	0.6	0.2	0.1	0.1	0.1
Representative Preferred	12-14	1.9	1.0	0.6	0.2	0.1	0.1	0.0
Representative Preferred	10-12	2.1	0.9	0.5	0.2	0.1	0.1	0.0
Representative Preferred	< 10	2.0	0.9	0.5	0.2	0.1	0.1	0.0

Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-15
Annual Lower Basin Conservation Activity: Lower Basin Total Annual Delivery and Conversion (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	0.5	0.2	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.4	0.1	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.3	0.1	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.3	0.1	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.3	0.1	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.7	0.1	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.6	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.6	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.6	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.6	0.3	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.6	0.2	0.1	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.6	0.2	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.7	0.1	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.6	0.3	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Enhanced Coordination	> 16	0.6	0.1	0.1	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	0.8	0.3	0.2	0.1	0.0	0.0	0.0
Enhanced Coordination	12-14	0.8	0.4	0.3	0.1	0.0	0.0	0.0
Enhanced Coordination	10-12	1.0	0.4	0.3	0.1	0.0	0.0	0.0
Enhanced Coordination	< 10	0.9	0.5	0.4	0.0	0.0	0.0	0.0
Max. Operational Flexibility	> 16	0.7	0.3	0.1	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.7	0.4	0.3	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	1.0	0.5	0.3	0.1	0.0	0.0	0.0
Max. Operational Flexibility	10-12	1.2	0.6	0.4	0.2	0.0	0.0	0.0
Max. Operational Flexibility	< 10	1.9	0.7	0.4	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	1.0	0.3	0.1	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	1.3	0.4	0.3	0.1	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	1.3	0.6	0.3	0.1	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	1.3	0.5	0.3	0.1	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	1.3	0.5	0.3	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	0.6	0.2	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	0.7	0.3	0.2	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	0.7	0.3	0.2	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	0.7	0.3	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	0.7	0.3	0.2	0.1	0.0	0.0	0.0
Representative Preferred	> 16	1.2	0.3	0.1	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.8	0.4	0.1	0.1	0.0	0.0	0.0
Representative Preferred	12-14	1.3	0.5	0.2	0.1	0.0	0.0	0.0
Representative Preferred	10-12	0.9	0.5	0.3	0.1	0.0	0.0	0.0
Representative Preferred	< 10	0.8	0.5	0.1	0.0	0.0	0.0	0.0

Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-16
Effects of Conservation Activity Modeling Assumptions on Lower Basin Shortage
(maf)

Alternative	Conservation Activity	Flow Category	Max	90%	75%	50%	25%	10%	Min
CCS Comparative Baseline	On	> 16	1.4	0.7	0.6	0.0	0.0	0.0	0.0
CCS Comparative Baseline	Off	> 16	1.4	0.6	0.6	0.0	0.0	0.0	0.0
CCS Comparative Baseline	On	14-16	1.4	1.4	1.0	0.6	0.0	0.0	0.0
CCS Comparative Baseline	Off	14-16	1.4	1.2	1.0	0.6	0.0	0.0	0.0
CCS Comparative Baseline	On	12-14	1.4	1.4	1.4	1.1	0.6	0.0	0.0
CCS Comparative Baseline	Off	12-14	1.4	1.4	1.4	1.0	0.5	0.0	0.0
CCS Comparative Baseline	On	10-12	1.4	1.4	1.4	1.4	1.1	0.2	0.0
CCS Comparative Baseline	Off	10-12	1.4	1.4	1.4	1.4	1.0	0.2	0.0
CCS Comparative Baseline	On	< 10	1.4	1.4	1.4	1.4	1.1	1.0	0.0
CCS Comparative Baseline	Off	< 10	1.4	1.4	1.4	1.4	1.1	0.7	0.0
No Action	On	> 16	0.6	0.6	0.6	0.0	0.0	0.0	0.0
No Action	Off	> 16	0.6	0.6	0.5	0.0	0.0	0.0	0.0
No Action	On	14-16	0.6	0.6	0.6	0.6	0.0	0.0	0.0
No Action	Off	14-16	0.6	0.6	0.6	0.6	0.0	0.0	0.0
No Action	On	12-14	0.6	0.6	0.6	0.6	0.5	0.0	0.0
No Action	Off	12-14	0.6	0.6	0.6	0.6	0.5	0.0	0.0
No Action	On	10-12	0.6	0.6	0.6	0.6	0.6	0.4	0.0
No Action	Off	10-12	0.6	0.6	0.6	0.6	0.6	0.4	0.0
No Action	On	< 10	0.6	0.6	0.6	0.6	0.6	0.5	0.0
No Action	Off	< 10	0.6	0.6	0.6	0.6	0.6	0.5	0.0
Basic Coordination	On	> 16	1.5	1.5	1.5	0.0	0.0	0.0	0.0
Basic Coordination	Off	> 16	1.5	1.5	1.5	0.0	0.0	0.0	0.0
Basic Coordination	On	14-16	1.5	1.5	1.5	1.5	0.0	0.0	0.0
Basic Coordination	Off	14-16	1.5	1.5	1.5	1.3	0.0	0.0	0.0
Basic Coordination	On	12-14	1.5	1.5	1.5	1.5	1.1	0.0	0.0
Basic Coordination	Off	12-14	1.5	1.5	1.5	1.5	1.0	0.0	0.0
Basic Coordination	On	10-12	1.5	1.5	1.5	1.5	1.5	0.8	0.0
Basic Coordination	Off	10-12	1.5	1.5	1.5	1.5	1.5	0.7	0.0
Basic Coordination	On	< 10	1.5	1.5	1.5	1.5	1.5	1.4	0.0
Basic Coordination	Off	< 10	1.5	1.5	1.5	1.5	1.5	1.3	0.0
Enhanced Coordination	On	> 16	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	> 16	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	On	14-16	3.0	1.8	1.5	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	14-16	3.0	2.1	1.7	0.0	0.0	0.0	0.0
Enhanced Coordination	On	12-14	3.0	2.6	2.1	1.6	0.0	0.0	0.0
Enhanced Coordination	Off	12-14	3.0	2.8	2.4	1.8	1.4	0.0	0.0
Enhanced Coordination	On	10-12	3.0	3.0	2.9	2.4	1.7	1.4	0.0

Alternative	Conservation Activity	Flow Category	Max	90%	75%	50%	25%	10%	Min
Enhanced Coordination	Off	10-12	3.0	3.0	3.0	2.6	2.0	1.6	0.0
Enhanced Coordination	On	< 10	3.0	3.0	3.0	3.0	2.5	1.9	0.0
Enhanced Coordination	Off	< 10	3.0	3.0	3.0	3.0	2.8	2.2	0.0
Max. Operational Flexibility	On	> 16	1.9	1.0	0.5	0.0	0.0	0.0	0.0
Max. Operational Flexibility	Off	> 16	1.8	0.9	0.4	0.0	0.0	0.0	0.0
Max. Operational Flexibility	On	14-16	2.6	1.7	1.4	0.9	0.3	0.0	0.0
Max. Operational Flexibility	Off	14-16	2.5	1.6	1.3	0.8	0.1	0.0	0.0
Max. Operational Flexibility	On	12-14	3.3	2.0	2.0	1.7	1.0	0.4	0.0
Max. Operational Flexibility	Off	12-14	3.2	2.3	2.0	1.6	0.9	0.3	0.0
Max. Operational Flexibility	On	10-12	4.0	3.1	2.7	2.0	2.0	1.2	0.0
Max. Operational Flexibility	Off	10-12	3.8	3.1	2.8	2.4	1.9	1.1	0.0
Max. Operational Flexibility	On	< 10	4.0	4.0	3.6	3.1	2.5	2.0	0.4
Max. Operational Flexibility	Off	< 10	4.0	3.9	3.6	3.1	2.6	2.3	0.3
Supply Driven (LB Priority)	On	> 16	2.1	1.5	1.4	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	> 16	2.1	1.5	0.9	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	On	14-16	2.1	1.9	1.5	0.9	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	14-16	2.1	1.7	1.5	0.5	0.0	0.0	0.0
Supply Driven (LB Priority)	On	12-14	2.1	2.1	1.8	1.5	0.2	0.0	0.0
Supply Driven (LB Priority)	Off	12-14	2.1	2.1	1.7	1.5	0.0	0.0	0.0
Supply Driven (LB Priority)	On	10-12	2.1	2.1	2.1	1.8	1.5	0.2	0.0
Supply Driven (LB Priority)	Off	10-12	2.1	2.1	2.1	1.6	1.5	0.0	0.0
Supply Driven (LB Priority)	On	< 10	2.1	2.1	2.1	2.0	1.5	1.5	0.0
Supply Driven (LB Priority)	Off	< 10	2.1	2.1	2.1	1.9	1.5	1.5	0.0
Supply Driven (LB Pro Rata)	On	> 16	2.1	1.5	1.4	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	> 16	2.1	1.5	0.9	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	14-16	2.1	1.9	1.5	0.9	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	14-16	2.1	1.7	1.5	0.5	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	12-14	2.1	2.1	1.8	1.5	0.2	0.0	0.0
Supply Driven (LB Pro Rata)	Off	12-14	2.1	2.1	1.7	1.5	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	10-12	2.1	2.1	2.1	1.8	1.5	0.2	0.0
Supply Driven (LB Pro Rata)	Off	10-12	2.1	2.1	2.1	1.6	1.5	0.0	0.0
Supply Driven (LB Pro Rata)	On	< 10	2.1	2.1	2.1	2.0	1.6	1.5	0.0
Supply Driven (LB Pro Rata)	Off	< 10	2.1	2.1	2.1	1.9	1.5	1.5	0.0
Representative Preferred	On	> 16	2.9	1.5	0.3	0.0	0.0	0.0	0.0
Representative Preferred	Off	> 16	3.3	1.5	1.4	0.0	0.0	0.0	0.0
Representative Preferred	On	14-16	3.6	1.5	1.5	0.2	0.0	0.0	0.0
Representative Preferred	Off	14-16	3.6	1.5	1.5	1.2	0.0	0.0	0.0
Representative Preferred	On	12-14	3.6	1.7	1.5	1.5	0.0	0.0	0.0
Representative Preferred	Off	12-14	3.6	1.9	1.5	1.5	0.9	0.0	0.0
Representative Preferred	On	10-12	3.6	3.2	2.2	1.5	1.5	0.0	0.0
Representative Preferred	Off	10-12	3.6	3.3	2.5	1.5	1.5	0.8	0.0

Alternative	Conservation Activity	Flow Category	Max	90%	75%	50%	25%	10%	Min
Representative Preferred	On	< 10	3.6	3.6	3.6	2.1	1.5	1.3	0.0
Representative Preferred	Off	< 10	3.6	3.6	3.6	2.5	1.5	1.5	0.0

Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico.

Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-17
Effects of Conservation Activity Modeling Assumptions on Lake Mead Dead Pool-Related Reductions (maf)

Alternative	Conservation Activity	Flow Category	Max	90%	75%	50%	25%	10%	Min
CCS Comparative Baseline	On	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	Off	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	On	14-16	1.1	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	Off	14-16	1.1	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	On	12-14	2.4	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	Off	12-14	2.4	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	On	10-12	4.0	1.4	0.4	0.0	0.0	0.0	0.0
CCS Comparative Baseline	Off	10-12	4.0	1.4	0.4	0.0	0.0	0.0	0.0
CCS Comparative Baseline	On	< 10	6.2	3.0	2.0	0.2	0.0	0.0	0.0
CCS Comparative Baseline	Off	< 10	6.3	3.0	1.9	0.1	0.0	0.0	0.0
No Action	On	> 16	1.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	Off	> 16	1.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	On	14-16	1.5	0.3	0.0	0.0	0.0	0.0	0.0
No Action	Off	14-16	1.5	0.3	0.0	0.0	0.0	0.0	0.0
No Action	On	12-14	3.8	0.8	0.3	0.0	0.0	0.0	0.0
No Action	Off	12-14	3.8	0.8	0.3	0.0	0.0	0.0	0.0
No Action	On	10-12	5.5	2.5	1.5	0.4	0.0	0.0	0.0
No Action	Off	10-12	5.5	2.5	1.5	0.4	0.0	0.0	0.0
No Action	On	< 10	6.5	4.0	3.1	1.5	0.0	0.0	0.0
No Action	Off	< 10	6.6	4.0	3.2	1.5	0.0	0.0	0.0
Basic Coordination	On	> 16	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	Off	> 16	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	On	14-16	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	Off	14-16	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	On	12-14	1.9	0.1	0.0	0.0	0.0	0.0	0.0
Basic Coordination	Off	12-14	1.9	0.1	0.0	0.0	0.0	0.0	0.0
Basic Coordination	On	10-12	4.4	1.1	0.4	0.0	0.0	0.0	0.0
Basic Coordination	Off	10-12	4.4	1.1	0.4	0.0	0.0	0.0	0.0

Alternative	Conservation Activity	Flow Category	Max	90%	75%	50%	25%	10%	Min
Basic Coordination	On	< 10	6.1	2.9	1.6	0.0	0.0	0.0	0.0
Basic Coordination	Off	< 10	6.1	2.9	1.5	0.0	0.0	0.0	0.0
Enhanced Coordination	On	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	On	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	On	12-14	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	12-14	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	On	10-12	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	10-12	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	On	< 10	3.9	1.1	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	Off	< 10	3.8	1.3	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	On	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	Off	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	On	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	Off	14-16	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	On	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	Off	12-14	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	On	10-12	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	Off	10-12	2.1	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	On	< 10	3.4	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	Off	< 10	2.8	0.3	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	On	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	On	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	On	12-14	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	12-14	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	On	10-12	1.7	0.2	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	10-12	1.7	0.3	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	On	< 10	4.3	1.5	0.2	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	Off	< 10	4.3	1.5	0.4	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	14-16	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	12-14	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	12-14	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	On	10-12	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	10-12	1.9	0.3	0.0	0.0	0.0	0.0	0.0

Alternative	Conservation Activity	Flow Category	Max	90%	75%	50%	25%	10%	Min
Supply Driven (LB Pro Rata)	On	< 10	4.3	1.2	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	Off	< 10	4.3	1.5	0.3	0.0	0.0	0.0	0.0
Representative Preferred	On	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	Off	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	On	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	Off	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	On	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	Off	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	On	10-12	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	Off	10-12	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	On	< 10	3.8	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	Off	< 10	3.8	0.1	0.0	0.0	0.0	0.0	0.0

Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico.

Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-18
Effects of Conservation Activity Modeling Assumptions on Lower Basin Depletions
(Percent of Apportionment)

Alternative	Conservation Activity	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	On	> 16	119.6	112.6	106.2	102.9	94.1	92.8	84.5
CCS Comparative Baseline	Off	> 16	119.3	113.1	107.9	100.0	93.2	93.2	84.7
CCS Comparative Baseline	On	14-16	118.1	104.6	100.6	94.1	90.0	87.2	72.5
CCS Comparative Baseline	Off	14-16	118.3	104.6	100.0	93.2	88.7	86.8	72.1
CCS Comparative Baseline	On	12-14	115.8	100.9	94.9	89.9	85.2	85.1	58.5
CCS Comparative Baseline	Off	12-14	117.4	100.0	95.4	88.7	84.7	84.7	57.8
CCS Comparative Baseline	On	10-12	106.8	97.1	92.3	85.2	80.5	69.2	40.3
CCS Comparative Baseline	Off	10-12	107.6	97.3	88.7	84.7	80.7	69.3	40.2
CCS Comparative Baseline	On	< 10	105.6	92.9	91.2	83.4	63.1	52.1	15.8
CCS Comparative Baseline	Off	< 10	104.9	92.0	88.1	83.9	63.5	51.5	14.9
No Action	On	> 16	118.0	116.8	107.9	100.3	93.7	93.7	81.8
No Action	Off	> 16	118.0	116.8	108.9	100.0	94.4	93.3	81.8
No Action	On	14-16	118.0	100.6	100.3	93.7	93.7	90.1	76.8
No Action	Off	14-16	118.0	100.0	100.0	93.3	93.3	90.1	76.4
No Action	On	12-14	116.2	100.3	94.8	93.7	90.4	84.3	51.6
No Action	Off	12-14	116.2	100.0	94.4	93.3	90.2	84.1	51.4
No Action	On	10-12	107.3	98.7	93.7	88.7	76.5	65.4	32.5
No Action	Off	10-12	107.3	95.6	93.3	89.4	76.4	65.1	32.1

Alternative	Conservation Activity	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
No Action	On	< 10	104.1	100.0	93.7	76.8	58.3	49.0	20.6
No Action	Off	< 10	100.0	94.4	93.3	76.9	58.2	49.1	20.2
Basic Coordination	On	> 16	118.0	117.1	115.1	100.3	87.3	83.9	80.2
Basic Coordination	Off	> 16	118.0	117.0	115.5	100.0	83.6	83.6	79.9
Basic Coordination	On	14-16	118.0	100.4	100.0	87.8	83.9	83.9	74.0
Basic Coordination	Off	14-16	118.0	100.0	100.0	85.7	83.6	83.6	73.7
Basic Coordination	On	12-14	116.5	100.3	89.9	83.9	83.9	82.0	62.3
Basic Coordination	Off	12-14	116.5	100.0	89.4	83.6	83.6	82.4	62.4
Basic Coordination	On	10-12	107.3	91.9	84.9	83.9	79.3	71.9	34.5
Basic Coordination	Off	10-12	107.3	92.3	83.6	83.6	79.6	71.6	34.2
Basic Coordination	On	< 10	104.3	89.9	86.2	83.9	66.1	51.7	15.9
Basic Coordination	Off	< 10	100.0	85.9	83.6	83.6	66.7	51.6	15.5
Enhanced Coordination	On	> 16	121.3	117.4	115.8	99.9	94.6	87.6	74.9
Enhanced Coordination	Off	> 16	119.6	117.2	115.5	100.4	100.4	100.4	72.1
Enhanced Coordination	On	14-16	119.4	103.5	98.7	94.2	82.2	78.1	65.3
Enhanced Coordination	Off	14-16	119.0	100.4	100.4	100.4	81.8	76.7	67.1
Enhanced Coordination	On	12-14	120.1	98.3	92.9	81.6	76.5	71.1	64.0
Enhanced Coordination	Off	12-14	116.4	100.4	85.4	80.4	73.6	68.9	63.7
Enhanced Coordination	On	10-12	106.1	86.0	81.3	74.3	67.6	65.7	44.0
Enhanced Coordination	Off	10-12	107.5	82.4	78.0	70.9	67.1	67.1	41.3
Enhanced Coordination	On	< 10	100.5	81.1	75.4	67.1	64.9	55.2	23.9
Enhanced Coordination	Off	< 10	100.4	75.5	68.8	67.1	67.1	52.7	25.1
Max. Operational Flexibility	On	> 16	119.6	117.5	115.6	99.5	88.4	80.3	75.3
Max. Operational Flexibility	Off	> 16	119.7	117.0	109.2	100.0	95.5	90.1	79.9
Max. Operational Flexibility	On	14-16	119.6	104.8	96.2	88.1	81.7	77.7	70.4
Max. Operational Flexibility	Off	14-16	119.3	100.0	99.0	91.4	86.0	82.4	70.1
Max. Operational Flexibility	On	12-14	118.8	93.4	87.9	82.8	77.9	75.3	63.4
Max. Operational Flexibility	Off	12-14	117.0	97.3	90.1	82.7	77.8	74.3	64.5
Max. Operational Flexibility	On	10-12	105.6	86.5	82.6	77.7	71.0	64.8	45.0
Max. Operational Flexibility	Off	10-12	106.5	88.2	78.4	73.2	69.2	65.8	38.8
Max. Operational Flexibility	On	< 10	90.6	83.0	77.9	66.5	59.6	55.2	27.5
Max. Operational Flexibility	Off	< 10	96.4	74.0	70.8	65.5	60.1	54.9	26.4
Supply Driven (LB Priority)	On	> 16	119.1	116.8	111.5	104.4	85.9	77.5	71.4
Supply Driven (LB Priority)	Off	> 16	119.4	116.5	110.3	104.8	91.2	83.7	77.1
Supply Driven (LB Priority)	On	14-16	118.7	105.8	101.2	87.3	79.8	75.7	71.4
Supply Driven (LB Priority)	Off	14-16	119.0	105.9	104.8	94.6	83.7	81.3	77.1
Supply Driven (LB Priority)	On	12-14	116.4	101.0	90.8	82.4	77.5	74.0	68.6
Supply Driven (LB Priority)	Off	12-14	111.6	105.9	100.4	83.7	81.7	77.1	68.3
Supply Driven (LB Priority)	On	10-12	109.2	91.0	84.5	79.4	75.3	71.9	58.1
Supply Driven (LB Priority)	Off	10-12	106.9	100.4	83.7	82.5	77.1	73.7	57.9

Alternative	Conservation Activity	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Supply Driven (LB Priority)	On	< 10	107.4	86.0	82.2	77.2	72.1	60.7	29.2
Supply Driven (LB Priority)	Off	< 10	105.9	83.7	83.7	79.5	72.5	59.9	29.1
Supply Driven (LB Pro Rata)	On	> 16	119.1	116.8	111.8	105.0	84.4	77.2	70.6
Supply Driven (LB Pro Rata)	Off	> 16	119.4	116.5	110.3	104.8	91.2	83.7	77.1
Supply Driven (LB Pro Rata)	On	14-16	118.7	105.9	101.1	85.7	78.7	74.8	68.5
Supply Driven (LB Pro Rata)	Off	14-16	119.0	105.9	104.8	94.5	83.7	81.4	76.3
Supply Driven (LB Pro Rata)	On	12-14	116.5	100.8	91.4	81.6	76.7	72.5	68.5
Supply Driven (LB Pro Rata)	Off	12-14	111.6	105.9	100.4	83.7	81.7	77.1	69.1
Supply Driven (LB Pro Rata)	On	10-12	109.2	91.2	82.9	77.7	73.8	71.2	56.5
Supply Driven (LB Pro Rata)	Off	10-12	106.9	100.4	83.7	82.4	77.1	74.2	56.5
Supply Driven (LB Pro Rata)	On	< 10	107.4	83.4	79.9	75.2	71.7	63.8	28.7
Supply Driven (LB Pro Rata)	Off	< 10	105.9	83.7	83.7	79.6	73.2	60.2	29.0
Representative Preferred	On	> 16	119.4	116.8	111.9	104.8	88.5	83.5	68.9
Representative Preferred	Off	> 16	119.3	116.9	110.4	105.9	84.6	83.7	63.4
Representative Preferred	On	14-16	118.8	106.8	103.0	89.0	83.5	82.0	60.0
Representative Preferred	Off	14-16	118.5	105.9	102.6	86.6	83.7	83.7	60.4
Representative Preferred	On	12-14	116.0	102.9	93.1	84.0	82.5	78.3	57.5
Representative Preferred	Off	12-14	111.6	102.6	90.9	83.7	83.7	78.9	60.4
Representative Preferred	On	10-12	111.0	93.7	85.0	82.6	74.4	63.8	45.2
Representative Preferred	Off	10-12	105.9	91.9	83.7	83.7	72.2	63.5	46.1
Representative Preferred	On	< 10	108.6	87.7	83.3	73.1	60.4	57.9	18.7
Representative Preferred	Off	< 10	105.9	83.7	83.7	72.5	60.4	59.1	18.1

Note: Lower Basin conservation activity includes assumptions related to the storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-19
Total State Shortage for Arizona (Percent of Apportionment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	25.7	21.1	18.3	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	25.7	25.7	22.9	18.3	0.0	0.0	0.0
CCS Comparative Baseline	12-14	25.7	25.7	25.7	22.9	18.3	0.0	0.0
CCS Comparative Baseline	10-12	25.7	25.7	25.7	25.7	22.9	6.9	0.0
CCS Comparative Baseline	< 10	25.7	25.7	25.7	25.7	22.9	22.9	0.0
No Action	> 16	16.7	16.7	16.7	0.0	0.0	0.0	0.0
No Action	14-16	16.7	16.7	16.7	16.7	0.0	0.0	0.0
No Action	12-14	16.7	16.7	16.7	16.7	13.9	0.0	0.0
No Action	10-12	16.7	16.7	16.7	16.7	16.7	11.1	0.0
No Action	< 10	16.7	16.7	16.7	16.7	16.7	13.9	0.0
Basic Coordination	> 16	41.1	41.1	41.1	0.0	0.0	0.0	0.0
Basic Coordination	14-16	41.1	41.1	41.1	41.1	0.0	0.0	0.0
Basic Coordination	12-14	41.1	41.1	41.1	41.1	29.2	0.0	0.0
Basic Coordination	10-12	41.1	41.1	41.1	41.1	41.1	21.9	0.0
Basic Coordination	< 10	41.1	41.1	41.1	41.1	41.1	38.8	0.0
Enhanced Coordination	> 16	24.4	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	33.3	19.9	17.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	33.3	28.7	23.3	17.9	0.0	0.0	0.0
Enhanced Coordination	10-12	33.3	33.3	32.0	26.8	18.9	15.6	0.0
Enhanced Coordination	< 10	33.3	33.3	33.3	33.3	28.1	20.7	0.0
Max. Operational Flexibility	> 16	38.8	19.8	11.9	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	53.8	33.9	25.0	17.5	7.3	0.0	0.0
Max. Operational Flexibility	12-14	60.3	41.9	41.0	31.3	19.0	10.6	0.0
Max. Operational Flexibility	10-12	66.3	59.6	56.0	41.9	41.0	23.1	0.0
Max. Operational Flexibility	< 10	69.0	66.4	63.6	58.7	52.2	41.0	9.7
Supply Driven (LB Priority)	> 16	43.7	27.1	25.7	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	43.7	39.5	27.1	17.2	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	43.7	43.7	36.4	27.1	5.5	0.0	0.0
Supply Driven (LB Priority)	10-12	43.7	43.7	43.7	34.1	27.1	4.3	0.0
Supply Driven (LB Priority)	< 10	43.7	43.7	43.7	41.2	28.0	27.1	0.0
Supply Driven (LB Pro Rata)	> 16	33.0	27.1	25.1	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	33.0	31.4	27.1	17.8	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	33.0	33.0	30.4	27.1	7.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	33.0	33.0	33.0	29.8	27.1	5.7	0.0
Supply Driven (LB Pro Rata)	< 10	33.0	33.0	33.0	31.8	27.7	27.1	0.0

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Representative Preferred	> 16	60.9	41.7	8.2	0.0	0.0	0.0	0.0
Representative Preferred	14-16	67.6	41.7	41.7	6.7	0.0	0.0	0.0
Representative Preferred	12-14	68.3	47.3	41.7	41.7	0.0	0.0	0.0
Representative Preferred	10-12	70.2	64.5	55.6	41.7	38.0	0.0	0.0
Representative Preferred	< 10	70.2	67.6	67.6	53.1	33.1	27.1	0.0

Table TA 4-20
State Shortage for Arizona Priority 4 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	720.0	592.0	512.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	720.0	720.0	640.0	512.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	720.0	720.0	720.0	640.0	512.0	0.0	0.0
CCS Comparative Baseline	10-12	720.0	720.0	720.0	720.0	640.0	192.0	0.0
CCS Comparative Baseline	< 10	720.0	720.0	720.0	720.0	640.0	640.0	0.0
No Action	> 16	466.9	466.9	466.8	0.0	0.0	0.0	0.0
No Action	14-16	466.9	466.9	466.9	466.8	0.0	0.0	0.0
No Action	12-14	466.9	466.9	466.9	466.8	389.0	0.0	0.0
No Action	10-12	466.9	466.9	466.9	466.9	466.8	311.2	0.0
No Action	< 10	466.9	466.9	466.9	466.9	466.8	389.0	0.0
Basic Coordination	> 16	1,151.6	1,151.6	1,151.5	0.0	0.0	0.0	0.0
Basic Coordination	14-16	1,151.6	1,151.6	1,151.6	1,151.5	0.0	0.0	0.0
Basic Coordination	12-14	1,151.6	1,151.6	1,151.6	1,151.6	818.3	0.0	0.0
Basic Coordination	10-12	1,151.6	1,151.6	1,151.6	1,151.6	1,151.5	612.4	0.0
Basic Coordination	< 10	1,151.6	1,151.6	1,151.6	1,151.6	1,151.6	1,085.0	0.0
Enhanced Coordination	> 16	351.5	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	486.4	297.8	249.7	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	509.0	428.2	346.0	259.5	0.0	0.0	0.0
Enhanced Coordination	10-12	516.8	495.9	478.6	391.6	273.9	227.0	0.0
Enhanced Coordination	< 10	523.8	523.8	512.9	480.9	407.7	299.1	0.0
Max. Operational Flexibility	> 16	1,087.7	554.5	334.1	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	1,456.7	948.1	700.3	489.7	204.4	0.0	0.0
Max. Operational Flexibility	12-14	1,539.7	1,174.1	1,147.0	876.5	533.3	295.9	0.0
Max. Operational Flexibility	10-12	1,560.8	1,520.3	1,442.6	1,174.3	1,147.0	647.8	0.0
Max. Operational Flexibility	< 10	1,571.4	1,571.4	1,539.7	1,442.6	1,442.6	1,147.0	271.6
Supply Driven (LB Priority)	> 16	1,224.6	760.0	719.3	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	1,224.7	1,107.0	760.0	481.5	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	1,224.7	1,224.4	1,019.9	760.0	154.6	0.0	0.0
Supply Driven (LB Priority)	10-12	1,224.7	1,224.6	1,224.4	955.3	760.0	120.1	0.0
Supply Driven (LB Priority)	< 10	1,224.7	1,224.6	1,224.4	1,153.0	784.8	760.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Supply Driven (LB Pro Rata)	> 16	504.5	415.3	370.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	514.6	473.7	407.4	259.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	511.2	485.3	459.1	391.6	101.5	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	514.6	499.7	475.6	440.8	391.6	81.5	0.0
Supply Driven (LB Pro Rata)	< 10	514.6	501.3	478.8	475.6	407.4	391.6	0.0
Representative Preferred	> 16	1510.6	1167.1	229.9	0.0	0.0	0.0	0.0
Representative Preferred	14-16	1539.7	1167.1	1167.1	186.4	0.0	0.0	0.0
Representative Preferred	12-14	1550.3	1325.2	1167.1	1167.1	0.0	0.0	0.0
Representative Preferred	10-12	1560.8	1471.7	1442.6	1167.1	1063.6	0.0	0.0
Representative Preferred	< 10	1560.8	1520.3	1442.6	1442.6	926.3	760.0	0.0

Table TA 4-21
State Shortage for Arizona Priorities 2 & 3 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	185.1	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	253.2	143.6	126.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	253.2	207.4	168.3	134.8	0.0	0.0	0.0
Enhanced Coordination	10-12	253.2	247.5	227.2	196.1	143.1	116.9	0.0
Enhanced Coordination	< 10	253.2	253.2	250.2	224.6	210.1	156.5	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	62.6	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	244.7	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	414.7	187.5	80.3	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	417.0	394.5	305.2	161.3	11.9	0.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	250.5	206.2	182.9	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	250.5	223.1	206.2	133.6	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	250.5	245.3	216.7	206.2	53.5	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	250.5	250.5	240.2	208.4	204.1	41.8	0.0
Supply Driven (LB Pro Rata)	< 10	250.5	250.5	250.5	222.2	204.1	185.6	0.0
Representative Preferred	> 16	261.3	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	450.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	450.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	450.0	336.8	82.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	450.0	450.0	427.5	12.0	0.0	0.0	0.0

Table TA 4-22
State Shortage for Arizona Priority 1 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	145.6	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	199.2	117.2	101.2	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	199.2	169.2	137.1	106.7	0.0	0.0	0.0
Enhanced Coordination	10-12	199.2	196.7	187.3	158.8	112.8	92.7	0.0
Enhanced Coordination	< 10	199.2	199.2	198.0	191.0	166.8	123.7	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	197.1	162.2	147.9	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	197.1	183.8	162.2	105.6	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	197.1	195.8	177.7	162.2	42.1	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	197.1	197.1	193.9	174.3	162.2	33.8	0.0
Supply Driven (LB Pro Rata)	< 10	197.1	197.1	197.1	185.5	162.0	160.9	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-23
Total State Shortage for California (Percent of Apportionment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	8.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	8.0	8.0	4.5	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	8.0	8.0	8.0	5.7	0.0	0.0	0.0
CCS Comparative Baseline	10-12	8.0	8.0	8.0	8.0	5.7	0.0	0.0
CCS Comparative Baseline	< 10	8.0	8.0	8.0	8.0	5.7	4.5	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Enhanced Coordination	> 16	24.4	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	33.3	19.9	17.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	33.3	28.7	23.3	17.9	0.0	0.0	0.0
Enhanced Coordination	10-12	33.3	33.3	32.0	26.8	18.9	15.6	0.0
Enhanced Coordination	< 10	33.3	33.3	33.3	33.3	28.1	20.7	0.0
Max. Operational Flexibility	> 16	10.0	6.0	1.8	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	12.9	10.0	8.9	4.8	0.0	0.0	0.0
Max. Operational Flexibility	12-14	21.1	10.0	10.0	10.0	5.6	1.1	0.0
Max. Operational Flexibility	10-12	28.9	18.5	13.7	10.0	10.0	7.8	0.0
Max. Operational Flexibility	< 10	29.0	28.0	23.9	17.3	10.5	10.0	0.6
Supply Driven (LB Priority)	> 16	10.0	10.0	9.2	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	10.0	10.0	10.0	4.6	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	10.0	10.0	10.0	10.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	10.0	10.0	10.0	10.0	10.0	0.0	0.0
Supply Driven (LB Priority)	< 10	10.0	10.0	10.0	10.0	10.0	10.0	0.0
Supply Driven (LB Pro Rata)	> 16	17.2	10.0	8.9	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	17.2	15.2	10.0	5.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	17.2	17.2	14.0	10.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	17.2	17.2	17.2	13.2	10.0	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	17.2	17.2	17.2	15.8	10.7	10.0	0.0
Representative Preferred	> 16	11.9	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	20.5	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	20.5	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	20.5	15.3	8.9	0.0	0.0	0.0	0.0
Representative Preferred	< 10	20.5	20.5	19.5	10.0	0.0	0.0	0.0

Table TA 4-24
State Shortage for California Priority 4 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	325.5	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	325.5	325.5	186.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	325.5	325.5	325.5	232.5	0.0	0.0	0.0
CCS Comparative Baseline	10-12	325.5	325.5	325.5	325.5	232.5	0.0	0.0
CCS Comparative Baseline	< 10	325.5	325.5	325.5	325.5	232.5	186.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	73.8	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	103.9	62.7	50.4	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	109.2	88.8	70.6	50.8	0.0	0.0	0.0
Enhanced Coordination	10-12	111.3	106.5	98.3	76.5	52.4	41.7	0.0
Enhanced Coordination	< 10	113.2	113.2	110.3	100.0	77.7	55.6	0.0
Max. Operational Flexibility	> 16	333.9	255.7	79.6	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	336.8	325.4	302.7	211.3	0.0	0.0	0.0
Max. Operational Flexibility	12-14	336.8	328.2	311.2	255.7	248.1	47.3	0.0
Max. Operational Flexibility	10-12	336.8	333.9	316.9	302.7	255.7	255.7	0.0
Max. Operational Flexibility	< 10	339.6	339.6	331.1	302.7	255.7	255.7	26.7
Supply Driven (LB Priority)	> 16	336.8	322.6	255.7	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	336.8	325.4	302.7	204.4	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	336.8	328.2	311.2	255.7	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	336.8	333.9	316.9	302.7	255.7	0.0	0.0
Supply Driven (LB Priority)	< 10	339.6	339.6	331.1	302.7	255.7	255.7	0.0
Supply Driven (LB Pro Rata)	> 16	56.5	32.8	25.6	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	57.9	44.6	32.0	13.9	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	57.4	53.0	44.0	30.3	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	57.9	55.5	52.1	40.1	25.6	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	57.9	56.0	52.1	44.0	31.7	25.6	0.0
Representative Preferred	> 16	336.8	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	336.8	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	336.8	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	336.8	319.7	255.7	0.0	0.0	0.0	0.0
Representative Preferred	< 10	339.6	339.6	328.2	255.7	0.0	0.0	0.0

Table TA 4-25
State Shortage for California Priorities 3a & 3b (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	24.5	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	24.5	24.5	14.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	24.5	24.5	24.5	17.5	0.0	0.0	0.0
CCS Comparative Baseline	10-12	24.5	24.5	24.5	24.5	17.5	0.0	0.0
CCS Comparative Baseline	< 10	24.5	24.5	24.5	24.5	17.5	14.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	228.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	327.5	188.3	162.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	327.5	271.3	221.3	172.3	0.0	0.0	0.0
Enhanced Coordination	10-12	327.5	311.8	301.7	254.1	182.2	148.9	0.0
Enhanced Coordination	< 10	327.5	327.5	311.8	311.8	269.1	199.2	0.0
Max. Operational Flexibility	> 16	184.3	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	309.7	125.9	96.1	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	674.4	184.3	137.3	114.6	0.0	0.0	0.0
Max. Operational Flexibility	10-12	982.5	517.8	300.3	184.3	125.9	62.5	0.0
Max. Operational Flexibility	< 10	982.5	931.0	749.7	448.7	168.7	137.3	0.0
Supply Driven (LB Priority)	> 16	184.3	131.6	103.9	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	184.3	184.3	128.8	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	184.3	184.3	137.3	117.4	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	184.3	184.3	184.3	131.6	106.1	0.0	0.0
Supply Driven (LB Priority)	< 10	184.3	184.3	184.3	131.6	103.2	100.4	0.0
Supply Driven (LB Pro Rata)	> 16	169.0	98.3	85.6	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	169.0	143.1	98.3	48.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	169.0	160.9	132.5	93.6	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	169.0	169.0	160.9	125.9	93.6	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	169.0	169.0	160.9	149.3	101.8	93.6	0.0
Representative Preferred	> 16	267.7	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	645.6	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	645.6	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	645.6	377.7	89.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	645.6	645.6	542.9	100.4	0.0	0.0	0.0

Table TA 4-26
State Shortage for California Priority 2 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	0.8	0.5	0.4	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	0.8	0.7	0.5	0.4	0.0	0.0	0.0
Enhanced Coordination	10-12	0.8	0.8	0.7	0.6	0.4	0.4	0.0
Enhanced Coordination	< 10	0.8	0.8	0.8	0.8	0.6	0.5	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	0.4	0.2	0.2	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	0.4	0.3	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	0.4	0.4	0.3	0.2	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	0.4	0.4	0.4	0.3	0.2	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	0.4	0.4	0.4	0.4	0.2	0.2	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-27
State Shortage for California Priority 1 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	89.8	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	122.8	73.4	62.7	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	122.8	105.8	85.9	66.0	0.0	0.0	0.0
Enhanced Coordination	10-12	122.8	122.8	118.1	98.6	69.7	57.4	0.0
Enhanced Coordination	< 10	122.8	122.8	122.8	122.8	103.4	76.3	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	34.8	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Supply Driven (LB Pro Rata)	> 16	63.4	36.8	32.8	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	63.4	56.1	36.8	18.3	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	63.4	63.4	51.6	36.8	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	63.4	63.4	63.4	48.8	36.8	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	63.4	63.4	63.4	58.2	39.5	36.8	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-28
State Shortage for California Present Perfected Rights (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	680.1	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	930.4	554.8	473.7	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	930.4	798.9	647.6	499.2	0.0	0.0	0.0
Enhanced Coordination	10-12	930.4	924.7	888.4	746.4	527.4	434.4	0.0
Enhanced Coordination	< 10	930.4	930.4	927.5	918.1	782.4	578.1	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	480.1	279.1	247.5	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	480.1	422.6	279.1	137.9	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	480.1	479.1	388.6	279.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	480.1	480.1	477.6	367.2	279.1	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	480.1	480.1	480.1	439.1	299.0	278.8	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-29
Total State Shortage for Nevada (Percent of Apportionment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	10.0	8.3	7.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	10.0	10.0	9.0	7.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	10.0	10.0	10.0	9.0	7.0	0.0	0.0
CCS Comparative Baseline	10-12	10.0	10.0	10.0	10.0	9.0	2.7	0.0
CCS Comparative Baseline	< 10	10.0	10.0	10.0	10.0	9.0	9.0	0.0
No Action	> 16	11.0	11.0	11.0	0.0	0.0	0.0	0.0
No Action	14-16	11.0	11.0	11.0	11.0	0.0	0.0	0.0
No Action	12-14	11.0	11.0	11.0	11.0	9.2	0.0	0.0
No Action	10-12	11.0	11.0	11.0	11.0	11.0	7.4	0.0
No Action	< 10	11.0	11.0	11.0	11.0	11.0	9.2	0.0
Basic Coordination	> 16	27.2	27.2	27.2	0.0	0.0	0.0	0.0
Basic Coordination	14-16	27.2	27.2	27.2	27.2	0.0	0.0	0.0
Basic Coordination	12-14	27.2	27.2	27.2	27.2	19.4	0.0	0.0
Basic Coordination	10-12	27.2	27.2	27.2	27.2	27.2	14.5	0.0
Basic Coordination	< 10	27.2	27.2	27.2	27.2	27.2	25.7	0.0
Enhanced Coordination	> 16	24.4	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	33.3	19.9	17.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	33.3	28.7	23.3	17.9	0.0	0.0	0.0
Enhanced Coordination	10-12	33.3	33.3	32.0	26.8	18.9	15.6	0.0
Enhanced Coordination	< 10	33.3	33.3	33.3	33.3	28.1	20.7	0.0

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Max. Operational Flexibility	> 16	25.0	11.4	5.7	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	38.9	21.4	15.1	9.7	2.8	0.0	0.0
Max. Operational Flexibility	12-14	52.9	27.2	26.5	19.6	10.9	4.8	0.0
Max. Operational Flexibility	10-12	65.9	49.2	41.3	27.2	26.5	13.8	0.0
Max. Operational Flexibility	< 10	66.1	65.9	58.4	48.0	35.5	26.6	4.1
Supply Driven (LB Priority)	> 16	28.5	16.7	15.6	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	28.5	25.5	16.7	9.5	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	28.5	28.5	23.3	16.7	2.1	0.0	0.0
Supply Driven (LB Priority)	10-12	28.5	28.5	28.5	21.7	16.7	1.7	0.0
Supply Driven (LB Priority)	< 10	28.5	28.5	28.5	26.6	17.3	16.7	0.0
Supply Driven (LB Pro Rata)	> 16	23.3	16.7	15.2	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	23.3	21.5	16.7	10.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	23.3	23.3	20.4	16.7	2.7	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	23.3	23.3	23.3	19.7	16.7	2.2	0.0
Supply Driven (LB Pro Rata)	< 10	23.3	23.3	23.3	22.0	17.3	16.7	0.0
Representative Preferred	> 16	54.2	27.6	5.4	0.0	0.0	0.0	0.0
Representative Preferred	14-16	68.7	27.6	27.6	4.4	0.0	0.0	0.0
Representative Preferred	12-14	68.7	31.3	27.6	27.6	0.0	0.0	0.0
Representative Preferred	10-12	68.7	60.6	41.0	27.6	24.9	0.0	0.0
Representative Preferred	< 10	68.7	68.7	68.5	36.3	21.4	16.7	0.0

Table TA 4-30
State Shortage for Nevada Priority 8 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	30.0	25.0	21.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	30.0	30.0	27.0	21.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	30.0	30.0	30.0	27.0	21.0	0.0	0.0
CCS Comparative Baseline	10-12	30.0	30.0	30.0	30.0	27.0	8.0	0.0
CCS Comparative Baseline	< 10	30.0	30.0	30.0	30.0	27.0	27.0	0.0
No Action	> 16	33.1	33.1	33.1	0.0	0.0	0.0	0.0
No Action	14-16	33.1	33.1	33.1	33.1	0.0	0.0	0.0
No Action	12-14	33.1	33.1	33.1	33.1	27.6	0.0	0.0
No Action	10-12	33.1	33.1	33.1	33.1	33.1	22.1	0.0
No Action	< 10	33.1	33.1	33.1	33.1	33.1	27.6	0.0
Basic Coordination	> 16	81.7	81.7	81.7	0.0	0.0	0.0	0.0
Basic Coordination	14-16	81.7	81.7	81.7	81.7	0.0	0.0	0.0
Basic Coordination	12-14	81.7	81.7	81.7	81.7	58.1	0.0	0.0
Basic Coordination	10-12	81.7	81.7	81.7	81.7	81.7	43.5	0.0
Basic Coordination	< 10	81.7	81.7	81.7	81.7	81.7	77.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Enhanced Coordination	> 16	70.6	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	96.5	58.4	49.5	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	97.8	83.9	68.1	51.9	0.0	0.0	0.0
Enhanced Coordination	10-12	98.3	96.5	93.8	77.9	54.8	45.3	0.0
Enhanced Coordination	< 10	98.6	98.6	97.9	96.5	81.6	60.0	0.0
Max. Operational Flexibility	> 16	75.1	34.2	17.2	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	116.8	64.3	45.4	29.2	8.5	0.0	0.0
Max. Operational Flexibility	12-14	158.7	81.7	79.5	58.9	32.6	14.3	0.0
Max. Operational Flexibility	10-12	197.8	147.5	123.9	81.7	79.5	41.4	0.0
Max. Operational Flexibility	< 10	198.4	197.7	175.2	144.1	106.6	79.7	12.4
Supply Driven (LB Priority)	> 16	85.6	50.0	46.9	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	85.6	76.5	50.0	28.6	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	85.6	85.5	69.8	50.0	6.4	0.0	0.0
Supply Driven (LB Priority)	10-12	85.6	85.6	85.4	65.0	50.0	5.0	0.0
Supply Driven (LB Priority)	< 10	85.6	85.6	85.6	79.8	51.9	50.0	0.0
Supply Driven (LB Pro Rata)	> 16	68.6	49.0	44.4	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	68.9	63.2	48.7	29.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	68.8	67.6	59.8	48.3	7.9	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	68.9	68.3	67.6	57.3	48.3	6.4	0.0
Supply Driven (LB Pro Rata)	< 10	68.9	68.5	67.6	64.6	50.2	48.3	0.0
Representative Preferred	> 16	162.5	82.8	16.3	0.0	0.0	0.0	0.0
Representative Preferred	14-16	206.0	82.8	82.8	13.2	0.0	0.0	0.0
Representative Preferred	12-14	206.0	94.0	82.8	82.8	0.0	0.0	0.0
Representative Preferred	10-12	206.0	181.8	122.9	82.8	74.7	0.0	0.0
Representative Preferred	< 10	206.0	206.0	205.6	108.9	64.2	50.0	0.0

Table TA 4-31
State Shortage for Nevada Priority 7 (Acre-Feet)

Alternative	Flow Category	Max (af)	90% (af)	75% (af)	50% (af)	25% (af)	10% (af)	Min (af)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (af)	90% (af)	75% (af)	50% (af)	25% (af)	10% (af)	Min (af)
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	6.1	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	8.3	4.3	3.6	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	8.3	6.0	4.8	4.1	0.0	0.0	0.0
Enhanced Coordination	10-12	8.3	8.1	6.9	5.0	4.3	3.6	0.0
Enhanced Coordination	< 10	8.3	8.3	8.1	5.8	4.4	4.0	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	5.8	4.2	2.5	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	5.8	4.2	4.0	2.3	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	5.8	5.6	4.2	3.7	0.7	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	5.8	5.8	5.1	4.2	3.2	0.5	0.0
Supply Driven (LB Pro Rata)	< 10	5.8	5.8	5.8	4.2	2.9	2.2	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-32
State Shortage for Nevada Priority 2 (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	0.5	0.3	0.2	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	0.5	0.4	0.3	0.2	0.0	0.0	0.0
Enhanced Coordination	10-12	0.5	0.5	0.4	0.3	0.2	0.1	0.0
Enhanced Coordination	< 10	0.5	0.5	0.5	0.3	0.1	0.1	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	0.4	0.2	0.1	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	0.4	0.3	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	0.4	0.3	0.3	0.2	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	0.4	0.4	0.3	0.3	0.1	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	0.4	0.4	0.4	0.3	0.1	0.0	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-33
State Shortage for Nevada Presented Perfected Rights (kaf)

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	3.0	1.5	1.3	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	3.0	2.1	1.7	1.5	0.0	0.0	0.0
Enhanced Coordination	10-12	3.0	2.9	2.4	1.8	1.5	1.2	0.0
Enhanced Coordination	< 10	3.0	3.0	2.9	2.0	1.5	1.3	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	2.1	1.5	0.9	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	2.1	1.5	1.4	0.8	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	2.1	2.0	1.5	1.3	0.2	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	2.1	2.1	1.8	1.5	1.1	0.2	0.0
Supply Driven (LB Pro Rata)	< 10	2.1	2.1	2.1	1.5	1.0	0.7	0.0

Alternative	Flow Category	Max (kaf)	90% (kaf)	75% (kaf)	50% (kaf)	25% (kaf)	10% (kaf)	Min (kaf)
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table TA 4-34
State Depletions Arizona (Percent of Apportionment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	115.3	115.3	110.0	103.5	83.0	81.1	73.3
CCS Comparative Baseline	14-16	115.3	103.5	100.0	81.7	78.8	74.3	55.0
CCS Comparative Baseline	12-14	113.9	100.0	83.9	78.7	74.3	73.7	41.3
CCS Comparative Baseline	10-12	108.6	93.1	81.1	74.3	64.8	51.9	26.2
CCS Comparative Baseline	< 10	103.5	81.6	78.0	68.8	45.7	34.4	11.4
No Action	> 16	115.3	115.3	106.8	100.0	83.3	82.9	61.7
No Action	14-16	115.3	100.0	100.0	83.3	82.8	76.7	56.9
No Action	12-14	113.7	100.0	86.0	83.3	76.9	66.3	29.9
No Action	10-12	106.6	91.9	83.3	74.2	56.2	45.0	17.9
No Action	< 10	101.6	94.2	83.3	56.7	38.7	29.6	15.3
Basic Coordination	> 16	115.3	115.3	113.4	100.0	60.6	58.9	54.9
Basic Coordination	14-16	115.3	100.0	100.0	63.8	58.9	58.9	47.7
Basic Coordination	12-14	115.3	100.0	70.8	58.9	58.9	56.5	36.7
Basic Coordination	10-12	106.6	78.1	59.4	58.9	53.1	45.4	20.1
Basic Coordination	< 10	102.0	66.9	61.5	58.9	41.3	30.8	11.2
Enhanced Coordination	> 16	116.8	115.3	115.0	100.6	97.7	88.7	75.1
Enhanced Coordination	14-16	116.7	105.8	99.8	97.7	79.5	77.7	66.5
Enhanced Coordination	12-14	116.7	99.3	97.1	80.1	76.7	72.4	60.6
Enhanced Coordination	10-12	107.1	83.9	79.8	73.4	68.0	66.5	30.6
Enhanced Coordination	< 10	100.6	78.8	72.9	67.5	66.4	48.0	13.9
Max. Operational Flexibility	> 16	116.7	115.3	113.5	99.9	70.0	68.4	67.4
Max. Operational Flexibility	14-16	116.7	106.5	90.5	70.0	68.4	68.4	46.1
Max. Operational Flexibility	12-14	116.6	85.4	71.0	68.4	67.1	58.9	39.7
Max. Operational Flexibility	10-12	105.1	70.0	68.4	62.6	46.4	40.6	28.5
Max. Operational Flexibility	< 10	81.3	68.4	60.3	42.5	36.0	32.9	16.9
Supply Driven (LB Priority)	> 16	115.3	115.3	113.4	109.2	69.5	57.1	55.5
Supply Driven (LB Priority)	14-16	115.3	110.7	108.6	73.2	60.2	57.1	55.5
Supply Driven (LB Priority)	12-14	115.3	108.6	84.5	69.4	57.1	56.3	46.1
Supply Driven (LB Priority)	10-12	111.1	83.8	69.5	60.6	56.3	52.6	37.3
Supply Driven (LB Priority)	< 10	108.6	69.5	64.9	57.1	52.0	39.6	16.4

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Supply Driven (LB Pro Rata)	> 16	115.3	115.3	113.4	109.9	69.9	57.3	56.5
Supply Driven (LB Pro Rata)	14-16	115.3	110.7	108.5	76.0	63.0	57.6	56.5
Supply Driven (LB Pro Rata)	12-14	115.3	108.6	85.6	69.5	62.8	57.2	49.9
Supply Driven (LB Pro Rata)	10-12	111.1	85.2	69.5	63.3	59.3	57.1	35.1
Supply Driven (LB Pro Rata)	< 10	108.6	69.5	63.9	58.2	57.1	44.5	13.0
Representative Preferred	> 16	116.8	115.3	112.9	108.6	73.8	59.5	40.6
Representative Preferred	14-16	116.7	110.0	108.6	74.4	59.8	58.5	32.4
Representative Preferred	12-14	115.9	108.6	86.4	60.4	58.5	56.7	31.7
Representative Preferred	10-12	111.3	89.9	67.7	58.5	48.2	35.9	24.5
Representative Preferred	< 10	110.0	73.0	59.3	51.8	32.9	31.0	14.9

Table TA 4-35
State Depletions California (Percent of Apportionments)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	126.3	110.0	105.6	101.9	100.0	99.2	91.9
CCS Comparative Baseline	14-16	125.8	105.6	100.3	100.0	95.8	92.0	83.8
CCS Comparative Baseline	12-14	122.0	101.1	100.0	96.6	92.0	92.0	70.6
CCS Comparative Baseline	10-12	105.6	100.0	99.4	92.0	90.3	81.3	51.4
CCS Comparative Baseline	< 10	105.6	100.0	99.4	92.0	76.1	64.2	17.8
No Action	> 16	120.2	118.8	109.1	100.0	100.0	100.0	92.8
No Action	14-16	120.2	100.6	100.0	100.0	100.0	98.8	89.8
No Action	12-14	118.7	100.0	100.0	100.0	99.0	96.0	65.7
No Action	10-12	109.1	100.0	100.0	98.4	90.3	79.5	42.9
No Action	< 10	109.1	100.6	100.0	90.9	72.5	62.3	25.5
Basic Coordination	> 16	120.2	118.9	116.5	100.6	100.0	100.0	97.1
Basic Coordination	14-16	120.2	105.1	100.0	100.0	100.0	100.0	92.0
Basic Coordination	12-14	118.7	100.6	100.0	100.0	100.0	99.0	80.4
Basic Coordination	10-12	109.1	100.0	100.0	100.0	97.1	90.0	43.2
Basic Coordination	< 10	109.1	100.6	100.0	100.0	83.6	66.6	18.7
Enhanced Coordination	> 16	124.6	119.5	117.2	100.5	96.1	86.0	71.5
Enhanced Coordination	14-16	123.4	105.7	100.4	94.9	83.3	75.9	61.9
Enhanced Coordination	12-14	123.5	100.1	92.0	81.9	74.2	68.3	60.2
Enhanced Coordination	10-12	110.4	87.4	81.0	72.5	66.5	62.7	45.5
Enhanced Coordination	< 10	105.6	81.0	73.3	66.6	62.8	59.5	30.2
Max. Operational Flexibility	> 16	123.5	119.8	117.3	100.6	96.6	83.8	78.2
Max. Operational Flexibility	14-16	123.4	106.8	101.3	97.6	89.1	79.7	77.9
Max. Operational Flexibility	12-14	122.8	100.5	97.8	91.2	83.4	79.3	77.1
Max. Operational Flexibility	10-12	109.3	97.7	93.3	87.3	81.8	79.0	56.4
Max. Operational Flexibility	< 10	105.8	96.2	88.2	81.4	75.7	71.0	35.1

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Supply Driven (LB Priority)	> 16	123.1	118.7	111.6	102.8	95.3	82.5	78.4
Supply Driven (LB Priority)	14-16	122.3	106.8	100.6	96.3	87.0	79.7	77.8
Supply Driven (LB Priority)	12-14	117.7	104.9	98.8	90.3	83.5	79.4	78.3
Supply Driven (LB Priority)	10-12	110.5	99.4	94.6	88.5	83.3	79.3	67.5
Supply Driven (LB Priority)	< 10	107.0	99.5	93.8	86.9	79.8	74.5	37.0
Supply Driven (LB Pro Rata)	> 16	122.9	118.8	112.1	103.2	91.0	84.2	72.0
Supply Driven (LB Pro Rata)	14-16	122.3	106.0	99.2	92.5	85.3	78.7	71.4
Supply Driven (LB Pro Rata)	12-14	118.9	100.6	95.0	88.6	81.8	77.5	71.4
Supply Driven (LB Pro Rata)	10-12	110.5	95.0	90.3	84.9	79.3	74.2	64.9
Supply Driven (LB Pro Rata)	< 10	107.0	94.6	88.1	82.8	77.5	72.3	39.5
Representative Preferred	> 16	122.7	118.6	113.4	101.9	98.3	96.6	80.0
Representative Preferred	14-16	121.5	109.7	101.4	98.9	96.6	90.3	78.8
Representative Preferred	12-14	117.5	103.0	100.0	98.3	94.5	84.8	73.5
Representative Preferred	10-12	113.4	100.0	98.9	95.8	86.1	79.9	60.3
Representative Preferred	< 10	109.8	99.8	98.3	86.0	78.9	74.7	20.8

Table TA 4-36
State Depletions Nevada (Percent of Apportionment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	146.8	133.3	113.5	110.5	106.2	104.8	79.0
CCS Comparative Baseline	14-16	145.9	112.6	110.5	106.2	104.8	103.8	85.8
CCS Comparative Baseline	12-14	145.0	110.7	110.5	105.8	103.8	103.8	54.7
CCS Comparative Baseline	10-12	126.7	110.5	106.2	103.8	96.8	76.9	17.4
CCS Comparative Baseline	< 10	120.2	106.8	103.8	86.3	66.1	46.0	2.8
No Action	> 16	210.5	143.8	134.1	110.5	103.1	99.5	71.3
No Action	14-16	186.6	129.7	110.5	103.1	99.5	89.5	62.8
No Action	12-14	201.3	110.5	108.3	99.5	90.0	77.8	22.2
No Action	10-12	172.9	110.5	101.3	86.5	64.5	47.7	7.9
No Action	< 10	131.6	129.7	99.9	66.8	40.2	24.9	2.7
Basic Coordination	> 16	183.3	143.8	132.0	111.7	98.9	83.3	68.9
Basic Coordination	14-16	183.3	120.6	110.5	99.5	83.3	83.3	56.4
Basic Coordination	12-14	183.3	111.7	106.8	83.3	83.3	72.4	34.3
Basic Coordination	10-12	183.3	110.5	83.3	83.3	66.3	53.1	10.8
Basic Coordination	< 10	127.4	111.7	86.5	83.3	45.9	27.3	2.8
Enhanced Coordination	> 16	160.3	140.1	128.7	109.7	95.3	94.9	76.9
Enhanced Coordination	14-16	150.9	117.8	108.9	100.8	94.9	80.0	74.2
Enhanced Coordination	12-14	145.9	109.8	104.9	97.2	87.3	78.1	74.0
Enhanced Coordination	10-12	130.5	106.8	101.0	92.1	81.5	75.3	41.4
Enhanced Coordination	< 10	113.5	103.8	92.1	83.1	72.6	65.8	9.2

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Max. Operational Flexibility	> 16	146.8	139.2	126.4	108.6	94.4	80.6	72.3
Max. Operational Flexibility	14-16	146.8	122.0	109.7	100.9	89.0	79.8	70.5
Max. Operational Flexibility	12-14	145.9	110.0	103.6	97.2	85.4	76.4	58.8
Max. Operational Flexibility	10-12	133.9	102.1	97.2	90.2	75.0	61.5	32.5
Max. Operational Flexibility	< 10	124.1	97.2	88.9	69.8	52.0	43.5	8.4
Supply Driven (LB Priority)	> 16	146.8	134.1	124.9	111.4	96.2	80.7	74.6
Supply Driven (LB Priority)	14-16	145.9	116.2	109.6	100.4	88.7	80.5	74.6
Supply Driven (LB Priority)	12-14	134.1	111.2	105.8	98.2	87.0	78.7	74.6
Supply Driven (LB Priority)	10-12	123.6	109.4	102.6	94.2	82.5	76.0	51.4
Supply Driven (LB Priority)	< 10	118.1	107.3	98.4	83.1	73.3	61.8	4.0
Supply Driven (LB Pro Rata)	> 16	146.8	134.7	125.0	112.3	97.8	81.8	74.3
Supply Driven (LB Pro Rata)	14-16	145.9	116.2	109.7	100.6	88.7	80.1	74.3
Supply Driven (LB Pro Rata)	12-14	134.1	111.2	106.0	98.2	86.9	78.4	74.3
Supply Driven (LB Pro Rata)	10-12	123.6	108.9	104.0	95.7	84.7	75.6	56.2
Supply Driven (LB Pro Rata)	< 10	118.1	107.2	101.0	86.6	74.3	73.1	11.3
Representative Preferred	> 16	158.5	136.2	123.9	110.4	97.2	83.7	57.5
Representative Preferred	14-16	150.2	115.3	107.8	101.4	89.7	80.4	43.0
Representative Preferred	12-14	146.5	110.2	104.2	96.1	85.5	77.3	43.0
Representative Preferred	10-12	132.4	106.6	100.5	89.7	74.7	58.3	24.8
Representative Preferred	< 10	119.0	103.3	91.2	73.3	53.1	43.0	2.8

Table TA 4-37
Water Delivery Reductions to Mexico (Percent of Allotment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	18.3	6.9	5.3	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	18.3	18.3	9.7	5.3	0.0	0.0	0.0
CCS Comparative Baseline	12-14	18.3	18.3	18.3	10.3	5.3	0.0	0.0
CCS Comparative Baseline	10-12	18.3	18.3	18.3	18.3	10.3	2.7	0.0
CCS Comparative Baseline	< 10	18.3	18.3	18.3	18.3	10.3	9.7	0.0
No Action	> 16	6.7	6.7	6.7	0.0	0.0	0.0	0.0
No Action	14-16	6.7	6.7	6.7	6.7	0.0	0.0	0.0
No Action	12-14	6.7	6.7	6.7	6.7	5.6	0.0	0.0
No Action	10-12	6.7	6.7	6.7	6.7	6.7	4.4	0.0
No Action	< 10	6.7	6.7	6.7	6.7	6.7	5.6	0.0
Basic Coordination	> 16	16.4	16.4	16.4	0.0	0.0	0.0	0.0
Basic Coordination	14-16	16.4	16.4	16.4	16.4	0.0	0.0	0.0
Basic Coordination	12-14	16.4	16.4	16.4	16.4	11.7	0.0	0.0
Basic Coordination	10-12	16.4	16.4	16.4	16.4	16.4	8.7	0.0
Basic Coordination	< 10	16.4	16.4	16.4	16.4	16.4	15.5	0.0

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
Enhanced Coordination	> 16	24.4	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	33.3	19.9	17.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	33.3	28.7	23.3	17.9	0.0	0.0	0.0
Enhanced Coordination	10-12	33.3	33.3	32.0	26.8	18.9	15.6	0.0
Enhanced Coordination	< 10	33.3	33.3	33.3	33.3	28.1	20.7	0.0
Max. Operational Flexibility	> 16	21.4	11.4	5.7	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	29.2	19.4	15.1	9.7	2.8	0.0	0.0
Max. Operational Flexibility	12-14	37.0	22.6	22.2	18.3	10.9	4.8	0.0
Max. Operational Flexibility	10-12	44.3	35.0	30.5	22.6	22.2	13.8	0.0
Max. Operational Flexibility	< 10	44.5	44.3	40.2	34.3	27.3	22.2	4.1
Supply Driven (LB Priority)	> 16	23.3	16.7	15.6	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	23.3	21.6	16.7	9.5	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	23.3	23.3	20.4	16.7	2.1	0.0	0.0
Supply Driven (LB Priority)	10-12	23.3	23.3	23.3	19.5	16.7	1.7	0.0
Supply Driven (LB Priority)	< 10	23.3	23.3	23.3	22.3	17.0	16.7	0.0
Supply Driven (LB Pro Rata)	> 16	23.3	16.7	15.2	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	23.3	21.5	16.7	10.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	23.3	23.3	20.4	16.7	2.7	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	23.3	23.3	23.3	19.7	16.7	2.2	0.0
Supply Driven (LB Pro Rata)	< 10	23.3	23.3	23.3	22.0	17.3	16.7	0.0
Representative Preferred	> 16	31.9	16.7	3.3	0.0	0.0	0.0	0.0
Representative Preferred	14-16	40.0	16.7	16.7	2.7	0.0	0.0	0.0
Representative Preferred	12-14	40.0	18.9	16.7	16.7	0.0	0.0	0.0
Representative Preferred	10-12	40.0	35.6	24.6	16.7	16.7	0.0	0.0
Representative Preferred	< 10	40.0	40.0	40.0	23.6	16.7	14.3	0.0

Note: The modeled annual delivery reductions in Mexico include modeling assumptions for reductions in water deliveries to Mexico and storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-38
Annual Depletions in Mexico (Percent of Allotment)

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
CCS Comparative Baseline	> 16	111.2	111.2	107.1	101.8	96.5	91.5	77.7
CCS Comparative Baseline	14-16	111.2	106.1	101.3	96.5	91.0	81.7	68.9
CCS Comparative Baseline	12-14	111.2	101.8	96.5	91.0	81.7	80.2	55.0
CCS Comparative Baseline	10-12	108.8	96.5	91.0	81.7	76.6	65.8	38.4
CCS Comparative Baseline	< 10	107.1	91.0	85.7	77.7	59.5	48.6	12.7

Alternative	Flow Category	Max (%)	90% (%)	75% (%)	50% (%)	25% (%)	10% (%)	Min (%)
No Action	> 16	111.2	111.2	101.7	100.0	93.3	93.3	81.8
No Action	14-16	111.2	101.7	100.0	93.3	93.3	90.0	76.7
No Action	12-14	111.2	100.0	94.4	93.3	90.3	84.3	51.6
No Action	10-12	103.6	95.6	93.3	88.7	76.5	65.5	34.2
No Action	< 10	101.7	94.4	93.3	76.8	58.4	49.1	19.4
Basic Coordination	> 16	113.3	111.2	111.2	100.0	85.2	83.6	80.1
Basic Coordination	14-16	113.3	100.5	100.0	85.2	83.6	83.6	74.0
Basic Coordination	12-14	113.3	100.0	89.1	83.6	83.6	81.9	62.2
Basic Coordination	10-12	103.6	91.8	83.6	83.6	79.3	71.8	36.2
Basic Coordination	< 10	101.7	85.2	83.6	83.6	66.1	51.8	15.2
Enhanced Coordination	> 16	113.3	111.3	111.2	100.0	83.3	83.3	75.6
Enhanced Coordination	14-16	113.3	101.3	92.8	83.3	83.3	80.6	66.7
Enhanced Coordination	12-14	111.2	87.7	83.3	83.3	77.8	71.7	65.3
Enhanced Coordination	10-12	96.6	83.3	83.3	74.0	67.9	66.7	42.4
Enhanced Coordination	< 10	96.3	83.3	83.3	67.4	66.7	54.9	24.6
Max. Operational Flexibility	> 16	111.2	111.2	111.2	98.5	87.5	78.5	75.4
Max. Operational Flexibility	14-16	111.2	104.4	96.1	87.5	78.5	78.5	67.6
Max. Operational Flexibility	12-14	111.2	92.3	87.5	78.5	78.5	74.6	61.4
Max. Operational Flexibility	10-12	101.5	87.5	81.9	78.5	68.9	62.5	44.9
Max. Operational Flexibility	< 10	92.1	78.5	78.5	65.4	57.4	53.2	28.6
Supply Driven (LB Priority)	> 16	111.2	111.2	107.2	105.0	83.3	83.3	72.2
Supply Driven (LB Priority)	14-16	111.2	105.8	103.6	83.3	83.3	83.2	70.0
Supply Driven (LB Priority)	12-14	111.2	104.4	83.3	83.3	83.3	76.7	67.8
Supply Driven (LB Priority)	10-12	107.2	83.3	83.3	83.3	76.7	74.5	58.3
Supply Driven (LB Priority)	< 10	105.6	83.3	83.3	78.3	73.9	60.5	30.5
Supply Driven (LB Pro Rata)	> 16	111.2	111.2	107.2	105.6	83.3	83.3	76.2
Supply Driven (LB Pro Rata)	14-16	111.2	105.8	103.6	83.3	83.3	82.1	68.9
Supply Driven (LB Pro Rata)	12-14	111.2	103.6	83.3	83.3	83.3	76.7	67.8
Supply Driven (LB Pro Rata)	10-12	107.2	83.3	83.3	83.3	76.7	76.7	56.7
Supply Driven (LB Pro Rata)	< 10	105.6	83.3	83.3	79.2	76.7	63.9	29.7
Representative Preferred	> 16	113.3	111.2	108.3	105.6	83.3	83.3	68.1
Representative Preferred	14-16	112.3	105.6	105.6	83.3	83.3	83.3	60.0
Representative Preferred	12-14	110.6	105.6	83.3	83.3	83.3	82.7	60.0
Representative Preferred	10-12	106.5	83.3	83.3	83.3	76.9	64.4	43.5
Representative Preferred	< 10	105.6	83.3	83.3	81.5	60.0	59.5	21.3

Note: The modeled annual depletions in Mexico include modeling assumptions for reductions in water deliveries to Mexico and storage available to Mexico. Reclamation's modeling assumptions are not intended to constitute an interpretation or application of the 1944 Water Treaty or to represent current U.S. policy or a determination of future U.S. policy regarding deliveries to Mexico. The U.S. will conduct all necessary and appropriate discussions regarding the proposed federal action and implementation of the 1944 Water Treaty with Mexico through the IBWC in consultation with the Department of State.

Table TA 4-40
Annual Upper Basin Conservation Activity: Upper Basin Total Accumulated Stored Water (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	2.0	2.0	2.0	1.9	0.9	0.5	0.0
Enhanced Coordination	14-16	2.0	2.0	2.0	1.2	0.4	0.1	0.0
Enhanced Coordination	12-14	2.0	2.0	1.7	0.5	0.1	0.0	0.0
Enhanced Coordination	10-12	2.0	1.8	0.8	0.2	0.0	0.0	0.0
Enhanced Coordination	< 10	2.0	1.1	0.3	0.0	0.0	0.0	0.0
Max. Operational Flexibility	> 16	3.0	3.0	2.2	1.4	0.4	0.2	0.0
Max. Operational Flexibility	14-16	3.0	3.0	3.0	2.0	1.1	0.7	0.1
Max. Operational Flexibility	12-14	3.0	3.0	2.9	1.7	0.7	0.4	0.0
Max. Operational Flexibility	10-12	3.0	3.0	2.2	0.8	0.4	0.2	0.0
Max. Operational Flexibility	< 10	3.0	2.2	1.1	0.5	0.3	0.2	0.0
Supply Driven (LB Priority)	> 16	3.0	2.7	2.1	1.6	1.0	0.7	0.3
Supply Driven (LB Priority)	14-16	3.0	2.3	1.8	1.3	0.8	0.5	0.2
Supply Driven (LB Priority)	12-14	3.0	2.0	1.6	1.1	0.6	0.4	0.1
Supply Driven (LB Priority)	10-12	3.0	1.7	1.3	0.7	0.3	0.2	0.0
Supply Driven (LB Priority)	< 10	3.0	1.5	1.0	0.4	0.1	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	3.0	2.7	2.1	1.6	1.0	0.7	0.3
Supply Driven (LB Pro Rata)	14-16	3.0	2.3	1.8	1.3	0.8	0.5	0.2
Supply Driven (LB Pro Rata)	12-14	3.0	2.0	1.6	1.1	0.6	0.4	0.1
Supply Driven (LB Pro Rata)	10-12	3.0	1.7	1.3	0.7	0.3	0.2	0.0
Supply Driven (LB Pro Rata)	< 10	3.0	1.5	1.0	0.4	0.1	0.0	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Representative Preferred	> 16	3.0	2.4	1.9	1.4	1.0	0.7	0.3
Representative Preferred	14-16	3.0	2.1	1.6	1.2	0.8	0.5	0.2
Representative Preferred	12-14	2.8	1.7	1.4	1.0	0.6	0.3	0.1
Representative Preferred	10-12	2.6	1.5	1.1	0.7	0.3	0.2	0.0
Representative Preferred	< 10	2.6	1.3	0.8	0.3	0.1	0.0	0.0

Table TA 4-41

Annual Upper Basin Conservation Activity: Upper Basin Total Annual Creation (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	0.4	0.3	0.2	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	0.4	0.3	0.2	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	0.4	0.4	0.2	0.1	0.0	0.0	0.0
Enhanced Coordination	10-12	0.4	0.4	0.2	0.0	0.0	0.0	0.0
Enhanced Coordination	< 10	0.4	0.3	0.2	0.0	0.0	0.0	0.0
Max. Operational Flexibility	> 16	0.5	0.5	0.5	0.3	0.2	0.0	0.0
Max. Operational Flexibility	14-16	0.5	0.5	0.3	0.2	0.0	0.0	0.0
Max. Operational Flexibility	12-14	0.5	0.5	0.3	0.2	0.0	0.0	0.0
Max. Operational Flexibility	10-12	0.5	0.5	0.3	0.2	0.0	0.0	0.0
Max. Operational Flexibility	< 10	0.5	0.5	0.3	0.2	0.0	0.0	0.0
Supply Driven (LB Priority)	> 16	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.2	0.2	0.1	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.2	0.2	0.1	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Supply Driven (LB Pro Rata)	> 16	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	0.2	0.2	0.1	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	0.2	0.2	0.1	0.0	0.0	0.0	0.0
Representative Preferred	> 16	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Representative Preferred	14-16	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Representative Preferred	12-14	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Representative Preferred	10-12	0.2	0.2	0.1	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.2	0.2	0.1	0.0	0.0	0.0	0.0

Table TA 4-42

Annual Upper Basin Conservation Activity: Upper Basin Total Annual Conversion (maf)

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
CCS Comparative Baseline	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CCS Comparative Baseline	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No Action	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Basic Coordination	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	> 16	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	14-16	0.3	0.1	0.0	0.0	0.0	0.0	0.0
Enhanced Coordination	12-14	0.3	0.2	0.1	0.0	0.0	0.0	0.0
Enhanced Coordination	10-12	0.5	0.2	0.1	0.0	0.0	0.0	0.0
Enhanced Coordination	< 10	0.5	0.2	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	14-16	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Max. Operational Flexibility	12-14	1.0	0.3	0.1	0.0	0.0	0.0	0.0
Max. Operational Flexibility	10-12	1.0	0.4	0.3	0.1	0.0	0.0	0.0
Max. Operational Flexibility	< 10	2.6	0.8	0.4	0.0	0.0	0.0	0.0

Alternative	Flow Category	Max (maf)	90% (maf)	75% (maf)	50% (maf)	25% (maf)	10% (maf)	Min (maf)
Supply Driven (LB Priority)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Priority)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supply Driven (LB Pro Rata)	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	> 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	14-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	12-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	10-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Representative Preferred	< 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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