

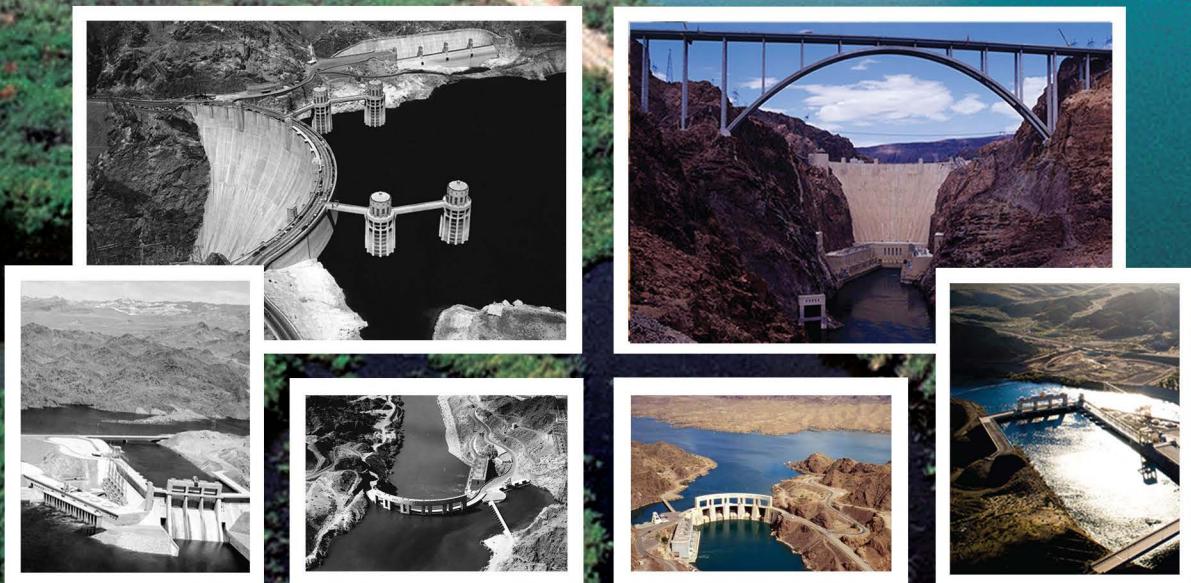


— BUREAU OF —
RECLAMATION

Calendar Year 2020

Colorado River Accounting and Water Use Report: Arizona, California, and Nevada

Interior Region 8: Lower Colorado Basin



Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Calendar Year 2020

Colorado River Accounting and

Water Use Report: Arizona,

California, and Nevada

Interior Region 8: Lower Colorado Basin

Report Revisions

Data related to the delivery of Colorado River water to Mexico are provided to the Bureau of Reclamation by the United States Section of the International Boundary and Water Commission and are reported annually in the *Colorado River Accounting and Water Use Report: Arizona, California, and Nevada* (Water Accounting Report). When the Calendar Year (CY) 2020 Water Accounting Report was originally published on May 14, 2021, data related to the delivery of Colorado River water to Mexico and Mexico's Binational Water Scarcity Contingency Plan Contribution were provisional pending finalization between the United States and Mexican Sections of the International Boundary and Water Commission. This revised CY 2020 Water Accounting Report presents the finalized Mexico data in accordance with the following documents:

- Final reports provided by the United States Section of the International Boundary and Water Commission to Reclamation.
- *Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323* dated December 16, 2021 (2021 Joint Report).
- An exchange of letters between the United States Section of the International Boundary and Water Commission and Reclamation regarding the accounting of the volumes of Colorado River water in Mexico's Water Reserve and Mexico's Recoverable Water Savings through CY 2020.

Tables 1, 9, and 24 of the CY 2020 Water Accounting Report were updated according to the above-mentioned documents and include any missing data as well as any corrections to previously published provisional data. The 2021 Joint Report and official correspondence between the United States Section of the International Boundary and Water Commission and Reclamation are included in the Significant Documents.

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**Boundary of Interior Region 8
Lower Colorado Basin**

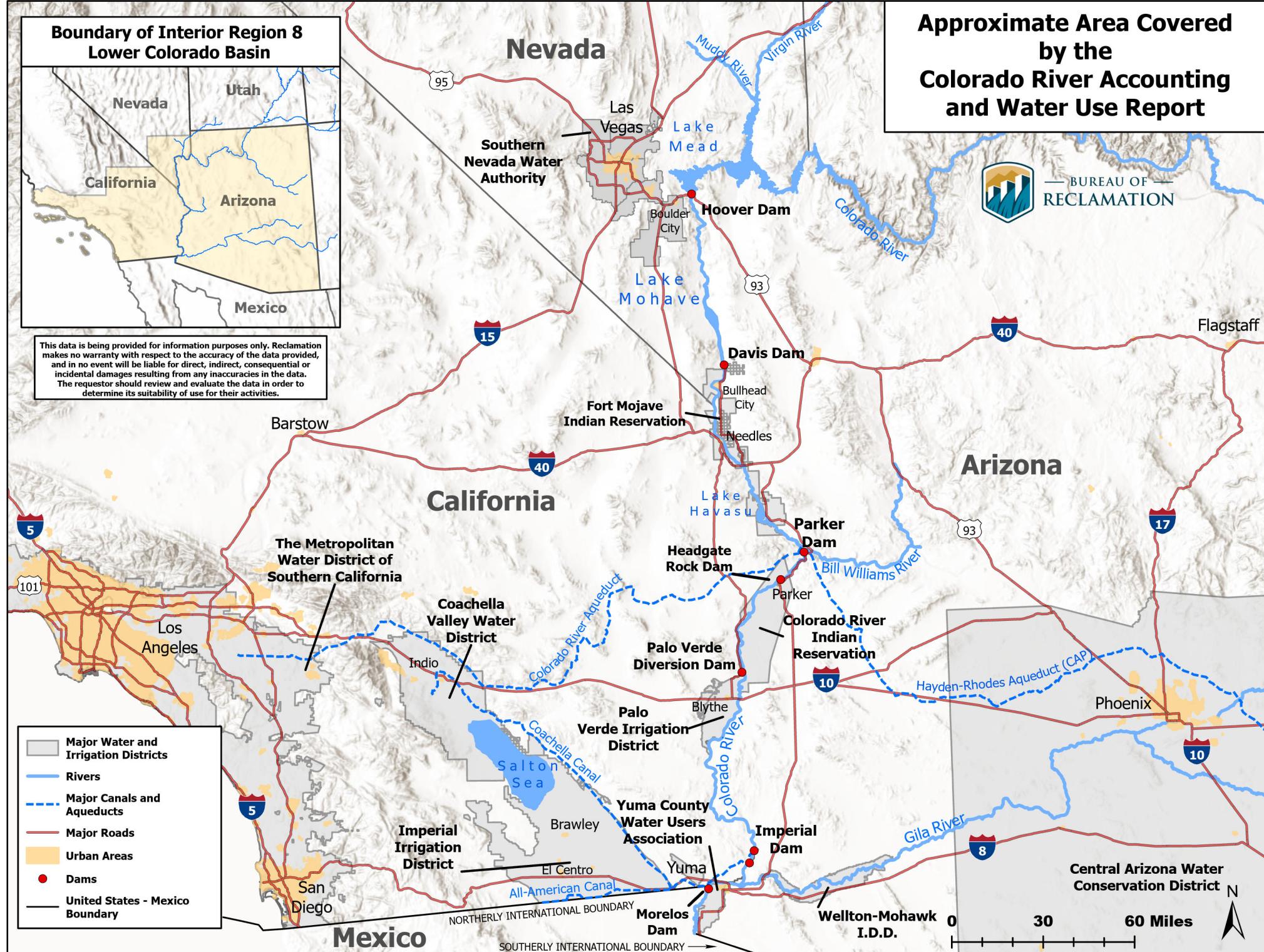


This data is being provided for information purposes only. Reclamation makes no warranty with respect to the accuracy of the data provided, and in no event will be liable for direct, indirect, consequential or incidental damages resulting from any inaccuracies in the data. The requestor should review and evaluate the data in order to determine its suitability of use for their activities.

**Approximate Area Covered
by the
Colorado River Accounting
and Water Use Report**



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RECLAMATION



Acronyms and Abbreviated Terms

These acronyms and abbreviations are found in the text, footnotes, and headings within this document.

AAC	All-American Canal	IID	Imperial Irrigation District
AACLP	All-American Canal Lining Project	IOPP	Inadvertent Overrun and Payback Policy
ADP	Arizona diesel pump	ISG	Colorado River Interim Surplus Guidelines
ADW	Arizona diesel well	IUS	Interstate Underground Storage credits
AEP	Arizona electric pump	KAF	Thousand acre-feet
AEW	Arizona electric well	LB DCP	Lower Basin Drought Contingency Plan
AF	acre-feet	LBOps	Lower Basin Drought Contingency Operations
ALTSC	Accumulated Long-Term Storage Credit	LCR	Lower Colorado River
AOP	Annual Operating Plan	LCWSP	Lower Colorado Water Supply Project
ASLD	Arizona State Land Department	LHFO	Lake Havasu Field Office (BLM)
AWBA	Arizona Water Banking Authority	LLC	Limited Liability Company
BLM	Bureau of Land Management	LTSC	Long-Term Storage Credit
BOY	beginning-of-year	MAF	Million acre-feet
BWSCP	Binational Water Scarcity Contingency Plan	MSCP	Multi-Species Conservation Program
CAP	Central Arizona Project	MWD	The Metropolitan Water District of Southern California
CAWCD	Central Arizona Water Conservation District	MOD	Main Outlet Drain
CCLP	Coachella Canal Lining Project	MODE	Main Outlet Drain Extension
CDP	California diesel pump	MVIDD	Mohave Valley I.D.D.
CDW	California diesel well	M&I	Municipal and Industrial
CDEW	California diesel electric well	NWR	National Wildlife Refuge
CEP	California electric pump	NIB	Northerly International Boundary
CEW	California electric well	PSCP	Pilot System Conservation Program
CFR	Code of Federal Regulations	PPR	Present Perfected Right
CRBC	Colorado River Board of California	PVER	Palo Verde Ecological Reserve
CRCN	Colorado River Commission of Nevada	PVID	Palo Verde Irrigation District
CRIT	Colorado River Indian Tribes	QSA	Quantification Settlement Agreement
CRWDA	Colorado River Water Delivery Agreement	SIB	Southerly International Boundary
CU	consumptive use	SIRA	Storage and Interstate Release Agreement
CVWD	Coachella Valley Water District	SDCWA	San Diego County Water Authority
CY	calendar year	SLRSP	San Luis Rey Settlement Parties
DCP	Drought Contingency Plan	SNWA	Southern Nevada Water Authority
DPOC	Drainage Pump Outlet Channel	SCIA	System Conservation Implementation Agreement
ET	evapotranspiration	TCM	Thousand Cubic Meters
EOY	end-of-year	USGS	United States Geological Survey
FEIS	Final Environmental Impact Statement	YAO	Yuma Area Office (Reclamation)
FMYN	Fort McDowell Yavapai Nation	YDP	Yuma Desalting Plant
FYIR	Fort Yuma Indian Reservation	YFO	Yuma Field Office (BLM)
GGMC	Gila Gravity Main Canal	YID	Yuma Irrigation District
ICUA	Intentionally Created Unused Apportionment	YMIDD	Yuma Mesa Irrigation and Drainage District
I.D.D.	Irrigation and Drainage District	YPRD	Yuma Project Reservation Division
IBWC	International Boundary and Water Commission		
ICS	Intentionally Created Surplus		

Glossary

Accumulated Long-Term Storage Credits (ALTSC): The cumulative amount of Long-Term Storage Credits in a storing entity's long-term storage account.

Bypass Drain: The 53-mile-long, concrete-lined drain, which extends from the end of the Main Outlet Drain Extension near Morelos Dam to the Ciénega de Santa Clara (Ciénega) in Mexico. The Bypass Drain, constructed to assist the United States in meeting its obligations under Minute No. 242 of the International Boundary and Water Commission, conveys pumped drainage from the Wellton-Mohawk Irrigation and Drainage District and the Yuma area to the Ciénega.

Colorado River Aquifer: The aquifer underlying the Colorado River mainstream consisting of permeable, partly saturated sediments and sedimentary rocks that are hydraulically connected to the Colorado River so that water can move between the Colorado River and the aquifer in response to withdrawal of water from the aquifer or differences in water-level elevations between the Colorado River and the aquifer.

Colorado River Basin: All of the drainage area of the Colorado River System and all other territory within the United States of America to which the waters of the Colorado River System shall be beneficially applied.

Colorado River System: That portion of the Colorado River and its tributaries within the United States.

Colorado River water: Water in or withdrawn from the mainstream.

Consuming State: The Lower Division State in which Intentionally Created Unused Apportionment will be used.

Consumptive use: Diversions from the mainstream of the Colorado River less such Return Flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican Treaty Obligation. Consumptive use from the mainstream within a Lower Division state includes water drawn from the mainstream by underground pumping.

Consolidated Decree: The Consolidated Decree of the Supreme Court of the United States in *Arizona v. California et al.* 547 U.S. 150 (2006), or as it may be further modified.

Domestic Use: The use of water for household, stock, municipal, mining, milling, industrial, and other like purposes, but excluding the use of water for irrigation of crops or for the generation of electric power.

Drainage Pump Outlet Channel (DPOC): The DPOC drainage system consists of 24 wells which provide groundwater drainage for the agricultural lands of the South Gila Valley. When this drainage water is returned to the Colorado River by DPOC Nos. 1, 2, 3, and 4, it is part of the water delivered to Mexico above Morelos Dam in accordance with the 1944 Mexican Water Treaty.

Drought Response Program Actions: The Bureau of Reclamation's Drought Response Program supports a proactive approach to drought assistance for water users through drought contingency planning, including consideration of climate change information and actions that will build long-term resiliency to drought.

Entitlement: An authorization to beneficially use Colorado River water pursuant to: (1) a right decreed by the Supreme Court, (2) a water delivery contract with the United States through the Secretary of the Interior, or (3) a Secretarial Reservation.

Intentionally Created Unused Apportionment (ICUA): Unused apportionment developed consistent with the laws of the Storing State which exists solely as a result of, and would not exist except for, implementing a Storage and Interstate Release Agreement.

Inadvertent Overrun: Colorado River water diverted, pumped or received by an entitlement holder within the Lower Division States that is in excess of the water user's entitlement or approved water order for that year.

Lee Ferry: The point in the mainstream of the Colorado River one mile below the mouth of the Paria River that divides the Upper and Lower Basins.

Live Storage: That part of the total reservoir capacity from which water can be withdrawn by gravity. This capacity is equal to the total capacity less the dead pool capacity and flood control space. Dead pool is the storage volume in a reservoir that cannot be drained by gravity through a dam's outlet works, spillway, or power plant intake structures and can only be pumped out.

Lower Basin: Those parts of the States of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River System below Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River System which are now or shall hereafter be beneficially served by waters diverted from the System below Lee Ferry.

Lower Division States: The States of Arizona, California, and Nevada.

Long-Term Storage Credits (LTSC): Colorado River water that has been stored offstream pursuant to a Storage and Interstate Release Agreement and credited to a storer's long-term storage account for use in future years.

Main Outlet Drain (MOD): A channel that conveys pumped groundwater drainage from the Wellton-Mohawk Valley to the Gila River near the confluence with the Colorado River.

Main Outlet Drain Extension (MODE): A 12-mile-long channel extending from the Main Outlet Drain that conveys drainage from the Wellton-Mohawk Irrigation and Drainage District and Yuma area to points above or below Morelos Dam. Under certain conditions it includes discharge from the DPOCs and Yuma Mesa Conduit.

Mainstream: Mainstream means the main channel of the Colorado River downstream from Lee Ferry within the United States, including the reservoirs behind dams on the main channel, and Senator Wash Reservoir off the main channel.

Mexican Treaty Obligation: The United States' obligation under the Treaty Between the United States of America and Mexico, "Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" (1944 Mexican Water Treaty), signed February 3, 1944, including supplements to and obligations associated with Minutes of the International Boundary and Water Commission adopted pursuant to the 1944 Mexican Water Treaty.

Offstream Storage: Storage in a surface reservoir off of the mainstream or in a groundwater aquifer. Offstream storage includes indirect recharge when Colorado River water is exchanged for groundwater that otherwise would have been pumped and consumed.

Pilot System Conservation Program: A pilot program for funding the creation of Colorado River system water through voluntary water conservation and reductions in use.

Protective and Regulatory Pumping Unit – 242 Wellfield (Unit): A wellfield and delivery system located within a 5-mile-wide strip of land north of the United States/Mexico boundary in southwestern Arizona. The Unit currently consists of 21 wells which intercept part of the groundwater underflow moving southward into Mexico from the Yuma Mesa in the United States. The groundwater recovered by the Unit is collected in a conveyance system (the 242 Lateral) and is delivered to Mexico by the United States at the Southerly International Boundary as a portion of the Mexican Treaty Obligation.

Regulatory Structures: Hoover Dam, Davis Dam, Parker Dam, Headgate Rock Dam, Palo Verde Dam, Imperial Dam, Laguna Dam and all other dams and works on the mainstream controlled or operated by the United States regulating the flow of water in the mainstream or the diversion of water from the mainstream.

Return Flow: Mainstream water that has been diverted and which flows back to the Colorado River or the Colorado River Aquifer as measured or unmeasured flow and is available for use in the United States or in satisfaction of the Mexican Treaty Obligation.

Storage and Interstate Release Agreement (SIRA): An agreement consistent with 43 CFR Part 414 between the Secretary and authorized entities in two or more Lower Division States that addresses the details of: (1) Offstream storage of Colorado River water by a storing entity for future use within the Storing State; (2) Subsequent development of ICUA by the storing entity, consistent with the laws of the Storing State; (3) A request by the storing entity to the Secretary to release ICUA to the consuming entity; (4) Release of ICUA by the Secretary to the consuming entity; and (5) The inclusion of other entities that are determined by the Secretary and the storing entity and the consuming entity to be appropriate to the performance and enforcement of the agreement.

Storing State: A Lower Division State in which water is stored off the mainstream in accordance with a Storage and Interstate Release Agreement for future use in that State.

Unused Apportionment: Colorado River water within a Lower Division State's basic or surplus apportionment, or both, which is not otherwise put to beneficial consumptive use during that year within that State.

Upper Basin: Those parts of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which waters naturally drain into the Colorado River System above Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River System which are now or shall hereafter be beneficially served by waters diverted from the System above Lee Ferry.

Yuma Mesa Conduit: A 14.6-mile long pipeline which collects water from multiple wellfields that are part of the overall groundwater recovery and river regulation program for the Yuma area. The groundwater recovered from these wellfields is collected into the conduit and discharged either to the Yuma Desalting Plant, the MODE, the Southerly International Boundary with Mexico via the Yuma Main Drain, or the Colorado River via the Yuma Mesa Conduit Outlet, a discharge point approximately 6 miles upstream of Morelos Dam.

DISCLAIMER:

Terms contained within this Glossary are defined to provide general information and are not intended to change, modify, or interpret the laws, rules, decrees, and treaties from which they are originally derived.

Table 1. Summary of Colorado River Accounting and Water Use Data, Calendar Year 2020. (All values are in acre-feet.)

Lower Division States Consumptive Use				TOTAL
Arizona				2,470,776
California				4,059,911
Nevada				255,568
Total Lower Division States Consumptive Use				6,786,255
Mexico				
Total Deliveries to Mexico in Satisfaction of Treaty Requirements				1,432,606
Creation of Mexico's Water Reserve				67,394
Delivery of Mexico's Water Reserve				0
Total to Mexico in Satisfaction of Treaty Requirements				1,500,000
To Mexico in Excess of Treaty Requirements ¹				52,177
Accountable Deliveries to Mexico ¹				1,552,178
Water Bypassed Pursuant to IBWC Minute 242				131,063
Water Provided to the United States Pursuant to Section IX.A of IBWC Minute 323				36,367
Mexico's Water Reserve ¹		BOY Balance	Creation	Reductions ²
		132,975	67,394	40,467
				159,903
Interstate Water Banking		BOY Balance	Storage ³	Recovered
Water Stored in Arizona by the AWBA for the Benefit of SNWA, NV		613,846	0	0
Water Stored in California by the MWD for the Benefit of SNWA, NV		330,225	0	0
Total Water Stored for the Benefit of SNWA, NV		944,071	0	0
Lower Colorado Water Supply Project Use ⁴			Non-Federal	Federal
			9,863	137
				10,000
Intentionally Created Surplus ⁵		BOY Balance ⁶	Creation ⁷	Reductions ⁸
Arizona		473,504	143,261	(18,023)
California		1,053,210	358,071	(35,410)
Nevada		785,366	88,295	(7,920)
Total - Lower Division States		2,312,080	589,627	(61,353)
Drought Contingency/Binational Water Scarcity Contingency Plan Contributions ¹⁰			Required Contribution	Total Contribution
Arizona			192,000	180,608
California			0	0
Nevada			8,000	8,000
Total - Lower Division States		200,000	188,608	11,392
Mexico's Binational Water Scarcity Contingency Plan Contribution ¹²		41,000	41,000	-

Note: A dash (-) indicates the column is not applicable.

Footnotes: See next page.

Table 1 Footnotes:

¹ Values shown have been updated from those in the original version of this report published on May 14, 2021 and reflect the final values reported by the United States Section of the International Boundary and Water Commission (IBWC). Total differs from sum of displayed values due to rounding and conversion from TCM to AF.

² Reductions include system assessment, delivery, and transfer of water to the United States.

³ The net volume of water stored by the storing entity during the reporting year and available for delivery to the storing entity in a future year. For additional information, see Table 12.

⁴ Pumpage of the Lower Colorado Water Supply Project wellfield to offset certain Colorado River water uses in California. For additional information, see Table 16.

⁵ Values shown include System Efficiency ICS, Extraordinary Conservation ICS, Binational ICS, Tributary Conservation ICS, and Imported ICS. For additional information, see Table 22.

⁶ BOY Balance reflects the amount shown as the "EOY Balance" in the 2019 *Colorado River Accounting and Water Use Report* as adjusted for any differences between provisional and verified 2019 ICS creation amounts.

⁷ ICS creation amounts are provisional until verified by Reclamation. The total annual Extraordinary Conservation ICS creation for 2020 remained within the 625,000 AF Extraordinary Conservation maximum limitation set forth in Section XI.G.3.B.4 of the [2007 Interim Guidelines](#). For additional information, see Table 22.

⁸ Reductions include system assessment, IOPP payback, delivery, and evaporation (as applicable). For additional information, see Table 22.

⁹ In 2020, each state remained within its maximum ICS accumulation limit as set forth in Section IV.C. of [Lower Basin Drought Contingency Operations](#) (LBOps). For additional information, see Table 22.

¹⁰ The DCP Contribution required during the reporting year in accordance with Section III.B of LBOps and as summarized in LBOps Table 1. In accordance with Section III.E.3 of LBOps, because the actual January 1, 2020 Lake Mead elevation was higher than 1,090 feet, any ICS created for the purpose of simultaneous creation and conversion to DCP ICS remained available as the type of ICS originally created. For additional information, see Table 23.

¹¹ In accordance with Section III.E.4 of LBOps, a state's DCP Contribution Deficiency will be added to the state's required DCP Contribution for 2021.

¹² The Binational Water Scarcity Contingency Plan Contribution required during the reporting year in accordance with Section IV of IBWC [Minute 323](#), Section II of the [Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin](#) dated July 11, 2019, and Section H of the [Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323](#) dated December 16, 2021. For additional information, see Table 24.

Table 2. Monthly Storage Contents of the Colorado River System Reservoirs, Calendar Year 2020. (Values in thousand acre-feet except as noted.)

	2019 EOY Balance	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CHANGE
End of Month Live Storage ¹														
Lake Powell	12,604	12,281	12,011	11,818	11,685	12,239	12,793	12,357	11,723	11,371	10,977	10,615	10,130	-2,474
Percentage of Lake Powell Live Storage ²	51.8%	50.5%	49.4%	48.6%	48.0%	50.3%	52.6%	50.8%	48.2%	46.8%	45.1%	43.6%	41.6%	-10.2%
Lake Mead	10,899	11,265	11,405	11,610	11,415	10,971	10,605	10,398	10,349	10,279	10,167	10,100	10,322	-577
Percentage of Lake Mead Live Storage ³	41.7%	43.1%	43.7%	44.4%	43.7%	42.0%	40.6%	39.8%	39.6%	39.4%	38.9%	38.7%	39.5%	-2.2%
Total Live Storage - Lake Powell and Lake Mead	23,503	23,546	23,416	23,428	23,100	23,210	23,398	22,755	22,072	21,650	21,144	20,715	20,452	-3,051
Total Percent of Live Storage - Lake Powell and Lake Mead	46.6%	46.7%	46.4%	46.4%	45.8%	46.0%	46.4%	45.1%	43.8%	42.9%	41.9%	41.1%	40.5%	-6.0%
Lake Mohave	1,638	1,653	1,674	1,708	1,696	1,703	1,708	1,696	1,688	1,525	1,503	1,613	1,586	-52
Lake Havasu	583	552	583	543	569	571	577	572	581	554	576	571	551	-32
Reservoir Storage in the Lower Basin ⁴	13,120	13,470	13,662	13,861	13,680	13,245	12,890	12,666	12,618	12,358	12,246	12,284	12,459	-661
Percentage of Live Storage in the Lower Basin ⁵	46.0%	47.2%	47.9%	48.6%	47.9%	46.4%	45.2%	44.4%	44.2%	43.3%	42.9%	43.0%	43.6%	-2.3%
Lower Basin Storage plus Lake Powell ⁶	25,724	25,751	25,673	25,679	25,365	25,484	25,683	25,023	24,341	23,729	23,223	22,899	22,589	-3,135
Percentage of Live Storage, Lower Basin plus Lake Powell ⁷	48.7%	48.7%	48.6%	48.6%	48.0%	48.2%	48.6%	47.3%	46.0%	44.9%	43.9%	43.3%	42.7%	-5.9%
Total System Live Storage ⁸	31,295	31,185	31,001	30,985	30,648	30,955	31,329	30,613	29,699	28,895	28,240	27,890	27,527	-3,768
Percentage of Total System Live Storage ⁹	52.5%	52.3%	52.0%	52.0%	51.4%	51.9%	52.5%	51.3%	49.8%	48.5%	47.4%	46.8%	46.2%	-6.3%

Footnotes:

¹ Actual values may differ from the displayed values due to rounding and being displayed to the nearest thousand acre-feet.

² Percentage of total live storage capacity available in Lake Powell. Based on total live storage capacity of 24,322,000 AF.

³ Percentage of total live storage capacity available in Lake Mead. Based on total live storage capacity of 26,120,000 AF.

⁴ The sum of end-of-month storage in reservoirs Mead, Mohave, and Havasu.

⁵ The percentage of available live storage capacity held in the Lower Basin (Lakes Mead, Mohave and Havasu). Based on total live storage capacity of 28,549,000 AF.

⁶ The sum of end-of-month storage in Lake Powell (Upper Basin) and Lakes Mead, Mohave and Havasu (Lower Basin).

⁷ The percentage of available total live storage capacity held in Lake Powell (Upper Basin) and Lakes Mead, Mohave, and Havasu (Lower Basin). Based on total live storage capacity of 52,871,000 AF.

⁸ Total end-of-month system storage; includes Reclamation reservoirs in the Upper and Lower Basins of the Colorado River system.

⁹ The percentage of total end-of-month system storage. This includes the Upper Basin Lakes Powell, Navajo, Crystal, Morrow Point, Blue Mesa, Flaming Gorge, Fontenelle, and Lower Basin Lakes Mead, Mohave, and Havasu. Based on total live system storage capacity of 59,626,000 AF.

COMPILATION OF RECORDS IN ACCORDANCE WITH ARTICLE V OF THE CONSOLIDATED DECREE OF THE UNITED STATES SUPREME COURT IN ARIZONA v. CALIFORNIA, 547 U.S. 150 (2006)

In accordance with Article V of the Consolidated Decree of the United States Supreme Court in *Arizona v. California*, 547 U.S. 150 (2006) (Consolidated Decree):

“The United States shall prepare and maintain, or provide for the preparation and maintenance of, and shall make available, annually and at such shorter intervals as the Secretary of the Interior shall deem necessary or advisable, for inspection by interested persons at all reasonable times and at a reasonable place or places, complete, detailed and accurate records of:

- (A) Releases of water through regulatory structures controlled by the United States;
- (B) Diversions of water from the mainstream, return flow of such water to the stream as is available for consumptive use in the United States or in satisfaction of the Mexican Treaty obligation, and consumptive use of such water. These quantities shall be stated separately as to each diverter from the mainstream, each point of diversion, and each of the States of Arizona, California and Nevada;

(C) Releases of mainstream water pursuant to orders therefor but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the Mexican Treaty or diverted by others in satisfaction of rights decreed herein. These quantities shall be stated separately as to each diverter from the mainstream, each point of diversion, and each of the States of Arizona, California and Nevada;

(D) Deliveries to Mexico of water in satisfaction of the obligations of Part III of the Treaty of February 3, 1944, and, separately stated, water passing to Mexico in excess of treaty requirements;

(E) Diversions of water from the mainstream of the Gila and San Francisco Rivers and the consumptive use of such water, for the benefit of the Gila National Forest.”

This *Colorado River Accounting and Water Use Report: Arizona, California, and Nevada* presents the records compiled pursuant to the Consolidated Decree for Calendar Year 2020. Copies of this and previous years' reports may be found on the Bureau of Reclamation's website at: <https://www.usbr.gov/lc/region/g4000/wtracct.html>.

ARTICLE V(A): RECORDS OF RELEASES OF WATER THROUGH REGULATORY STRUCTURES CONTROLLED BY THE UNITED STATES

In accordance with Article V(A) of the Consolidated Decree, Table 3 documents records of releases of Colorado River water through Glen Canyon, Hoover, Davis, Parker, Palo Verde, Imperial and Laguna Dams. Records of releases through Glen Canyon and Hoover Dams are provided by the Bureau of Reclamation. Records of releases through Davis, Parker, Palo Verde, Imperial and Laguna Dams are provided by the United States Geological Survey (USGS) and are based upon measurements at or downstream of the dams.

The record of river flow through Headgate Rock Dam is computed using the record of flow at USGS gaging station 09427520 "Colorado River below Parker Dam, AZ-CA" and deducting from it the record of flow at the USGS gaging station 09428500 "Colorado River Indian Reservation Main Canal near Parker, AZ" measured at Headgate Rock Dam.

The record of flow through Imperial Dam is computed as the sum of releases through the Dam, plus water delivered to Mittry Lake and the Laguna Division Conservation Area. Flow through the Dam does not include diversions into the All-American Canal and the Gila Gravity Main Canal.

Table 3. Releases of Water Through Regulatory Structures Controlled by the United States, Calendar Year 2020. (Values are in acre-feet.)

STRUCTURE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Glen Canyon Dam	759,865	675,271	699,880	630,108	628,666	649,886	749,930	833,112	602,031	640,194	640,161	718,830	8,227,934
Hoover Dam	404,941	556,863	593,005	861,780	1,056,924	973,266	901,802	847,125	645,852	729,810	714,409	497,023	8,782,800
Davis Dam	389,400	522,100	557,300	900,500	1,068,000	936,800	899,300	854,000	854,300	785,400	596,200	532,000	8,895,300
Parker Dam	355,600	410,800	450,500	627,500	818,700	735,800	727,800	676,200	551,900	445,000	331,100	268,300	6,399,200
Headgate Rock Dam	338,100	380,530	439,350	580,280	760,970	679,720	668,250	618,750	511,080	416,810	308,010	240,400	5,942,250
Palo Verde Diversion Dam	240,300	311,000	395,400	546,600	614,400	576,400	572,100	511,600	438,200	373,300	306,900	221,500	5,107,700
Imperial Dam	23,730	22,860	63,610	99,250	28,799	22,170	23,810	32,020	28,060	25,069	46,030	36,560	451,968
GGMC Diversion for Mittry Lake	761	637	701	796	810	800	821	801	789	776	704	697	9,093
GGMC Diversion for Laguna Division Conservation Area	5,002	4,631	4,850	4,887	5,184	4,927	4,958	4,777	4,504	1,796	4,006	4,913	54,435
Sum of Imperial Dam, Mittry, and Laguna	29,493	28,128	69,161	104,933	34,793	27,897	29,589	37,598	33,353	27,641	50,740	42,170	515,496
Laguna Dam	30,030	28,860	65,800	100,500	38,440	28,799	28,920	36,400	30,850	27,420	49,810	46,000	511,829

ARTICLE V(B): RECORDS OF DIVERSIONS, RETURN FLOWS, AND CONSUMPTIVE USE

In accordance with Article V(B) of the Consolidated Decree, Tables 4 through 6 document the final records of diversions of water from the mainstream of the Colorado River, return flow to the mainstream, and the consumptive use of such water within the Lower Division States of Arizona, California, and Nevada.

The tabulations, based upon records furnished by the Bureau of Reclamation, the United States Geological Survey (USGS), the International Boundary and Water Commission, water users, or other agencies, document quantities of water drawn by surface diversion from the mainstream of the Colorado River, pumped directly from the mainstream, or pumped from wells in the Colorado River aquifer.

There are a number of smaller entities for which diversions are reported annually by either the USGS or by the water user. For those diversions reported by the USGS, the USGS verifies the crops being grown and uses evapotranspiration methodologies to estimate the crop consumptive use; the USGS then applies irrigation efficiency coefficients to derive the estimated diversions.

For each water user, this tabulation reports the user's total diversion, measured return flow, estimated unmeasured return flow, and consumptive use. Unmeasured returns are generally computed by multiplying a water user's diversion by an unmeasured return flow factor. Reclamation continues to refine estimates of unmeasured returns.

No person or entity is entitled to divert or use Colorado River water without an entitlement. An entitlement is an authorization to beneficially use Colorado River water pursuant to:

(1) a right decreed by the Supreme Court, (2) a contract with the United States through the Secretary of the Interior, or (3) a Secretarial reservation of water. The listing of a use in this report should not be interpreted as an entitlement or an indication that the use is authorized.

For those water users whose diversions are made from the All-American Canal or the Gila Gravity Main Canal, diversions include each user's proportionate share of the total canal losses, which are added to the delivery taken by each user at its turnout from the canal. The portion of the canal loss which returns to the mainstream is provided to each water user as a return flow credit.

For the areas downstream of the Northerly International Boundary (NIB), Reclamation does not consider pumping of wells from the flood plain or the underlying aquifer to be a diversion of Colorado River water. This position¹ is based on the following: the groundwater can reasonably be assumed to be flowing towards Mexico and therefore, not to be flowing toward the Colorado River upstream of Mexico's point of diversion near NIB. As such, this water does not return to the River to be made available for consumptive use in the United States or in satisfaction of the Mexican Treaty Obligation. In accordance with this position, Reclamation discontinued reporting pumping from these wells beginning in 2004. If hydrologic conditions change, Reclamation will address the need to report pumping from these wells.

¹ Summary Description of Accounting for Water Use in the Yuma Area Beginning with Calendar Year 2003. Available on Reclamation's website at: <https://www.usbr.gov/lc/region/g4000/4200Rpts/YumaWtrAcct.pdf>.

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Marble Canyon Company														
Pumped from well	Diversion	0	0	1	1	1	1	1	1	1	1	1	1	10
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	1	1	1	1	0	0	4
	Consumptive Use	0	0	1	1	1	1	0	0	0	0	1	1	6
Lake Mead National Recreation Area														
National Park Service														
Pumped from well at Temple Bar	Diversion	1	1	1	3	1	7	9	9	10	7	4	3	56
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	1	1	1	3	1	7	9	9	10	7	4	3	56
Lake Mead National Recreation Area														
National Park Service														
Pumped from Lake Mohave - Katherine Landing	Diversion	15	16	12	12	13	16	19	22	17	14	11	11	178
Pumped from Lake Mohave - Willow Beach	Diversion	3	3	2	1	3	3	4	4	4	4	2	2	35
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	18	19	14	13	16	19	23	26	21	18	13	13	213
McAlister Family Trust														
Pumped from river and well	Diversion	0	0	1	1	1	1	1	1	1	1	1	1	10
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	1	0	0	0	0	0	0	0	1	1	3
	Consumptive Use	0	0	0	1	1	1	1	1	1	1	0	0	7
Bureau of Reclamation														
Davis Dam Diversion	Diversion	9	1	2	0	1	0	0	0	0	0	1	0	14
	Measured Returns	9	1	2	0	1	0	0	0	0	0	1	0	14
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Bullhead City														
Pumped from wells	Diversion	677	672	660	748	946	987	1,122	1,123	1,094	886	802	797	10,514
Mohave County Parks, Lake Mohave diversion	Diversion	1	1	1	1	1	2	2	2	2	1	1	1	16
	Measured Returns	24	31	32	31	29	29	29	35	34	27	27	21	349
	Unmeasured Returns	224	222	218	247	313	326	371	371	362	293	265	263	3,475
	Consumptive Use	430	420	411	471	605	634	724	719	700	567	511	514	6,706
Mohave Water Conservation District														
Pumped from wells	Diversion	74	71	75	78	96	95	104	110	105	104	90	88	1,090
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	24	24	25	26	32	31	34	36	35	34	30	29	360
	Consumptive Use	50	47	50	52	64	64	70	74	70	70	60	59	730
EPCOR Water Arizona, Inc.														
Pumped from wells	Diversion	54	56	55	59	66	66	75	85	82	79	71	69	817
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	19	19	19	21	23	23	26	30	29	28	25	24	286
	Consumptive Use	35	37	36	38	43	43	49	55	53	51	46	45	531
Mohave Valley I.D.D.														
Pumped from wells and Topock Marsh Inlet for agriculture use	Diversion	859	1,154	454	2,242	2,450	2,448	2,682	2,253	2,154	1,383	914	465	19,458
Pumped from wells for domestic use	Diversion	415	362	424	497	579	665	668	681	729	664	523	459	6,666
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	586	697	404	1,260	1,393	1,432	1,541	1,350	1,326	942	661	425	12,017
	Consumptive Use	688	819	474	1,479	1,636	1,681	1,809	1,584	1,557	1,105	776	499	14,107

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Fort Mojave Indian Reservation														
Pumped from river for agriculture use	Diversion	2,315	2,810	1,662	6,035	9,237	7,452	7,124	7,437	5,876	5,387	2,943	3,139	61,417
Pumped from river and wells for domestic use	Diversion	316	296	321	350	675	441	481	572	578	289	95	198	4,612
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1,210	1,429	912	2,937	4,560	3,631	3,498	3,684	2,969	2,611	1,397	1,535	30,373
	Consumptive Use	1,421	1,677	1,071	3,448	5,352	4,262	4,107	4,325	3,485	3,065	1,641	1,802	35,656
Golden Shores Water Conservation District														
Pumped from wells	Diversion	27	25	27	36	41	45	48	50	46	33	25	30	433
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	9	8	9	12	14	15	16	16	15	11	8	10	143
	Consumptive Use	18	17	18	24	27	30	32	34	31	22	17	20	290
Havasu National Wildlife Refuge														
Firebreak Inlet Canal	Diversion	0	281	815	3,171	5,083	4,093	2,963	2,711	2,532	1,697	546	0	23,892
Farm Ditch	Diversion ¹	-5	15	100	577	692	459	225	263	199	117	8	-10	2,640
Pumped from well	Diversion	10	11	15	17	20	25	27	26	20	17	12	12	212
	Measured Returns ²	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	4	270	819	3,313	5,100	4,028	2,829	2,640	2,421	1,611	498	2	23,535
	Consumptive Use	1	37	111	452	695	549	386	360	330	220	68	0	3,209
Crystal Beach Water Conservation District														
Pumped from wells	Diversion	7	7	8	9	11	11	11	11	10	10	9	8	112
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	4	4	4	4	3	4	3	3	39
	Consumptive Use	5	5	5	6	7	7	7	7	7	6	6	5	73
Lake Havasu City														
Pumped from wells	Diversion	784	758	784	898	1,182	1,103	1,127	1,167	1,100	1,315	1,259	993	12,470
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	298	288	298	341	449	419	428	444	418	500	478	377	4,738
	Consumptive Use	486	470	486	557	733	684	699	723	682	815	781	616	7,732
Arizona State Parks (Windsor Beach)														
Pumped from wells	Diversion	1	1	1	1	2	1	1	2	2	1	1	1	15
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	1	0	1	1	1	1	0	0	5
	Consumptive Use	1	1	1	1	1	1	0	1	1	0	1	1	10
Central Arizona Project														
Pumped from Lake Havasu	Diversion	75,318	74,716	94,056	148,297	179,746	103,316	69,322	61,464	164,300	163,523	123,148	145,331	1,402,537
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	75,318	74,716	94,056	148,297	179,746	103,316	69,322	61,464	164,300	163,523	123,148	145,331	1,402,537
Hillcrest Water Company														
Pumped from wells	Diversion	3	2	2	3	3	3	3	2	2	2	2	2	29
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	1	1	1	1	1	1	0	0	1	10
	Consumptive Use	2	1	1	2	2	2	2	1	1	2	2	1	19
Springs Del Sol Domestic Water Improvement District														
Pumped from wells	Diversion	1	0	0	1	1	1	0	0	0	0	0	0	4
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	1	0	0	0	0	0	0	0	1
	Consumptive Use	1	0	0	1	0	1	0	0	0	0	0	0	3
Brooke Water, LLC														
Pumped from river and wells	Diversion	32	33	34	41	46	47	52	47	68	40	36	36	512
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	11	11	11	14	15	15	17	16	22	13	12	12	169
	Consumptive Use	21	22	23	27	31	32	35	31	46	27	24	24	343

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Town of Parker														
Pumped from wells	Diversion	50	45	48	55	100	91	95	96	82	70	56	42	830
	Measured Returns	18	16	16	16	16	16	14	19	19	20	17	18	205
	Unmeasured Returns	14	13	14	15	29	26	27	27	23	20	16	12	236
	Consumptive Use	18	16	18	24	55	49	54	50	40	30	23	12	389
Colorado River Indian Reservation														
Diversion at Headgate Rock Dam	Diversion	17,500	30,270	11,150	47,220	57,730	56,080	59,550	57,450	40,820	28,190	23,090	27,900	456,950
Pumped from river and wells	Diversion	122	115	129	146	235	225	247	237	200	175	136	109	2,076
	Measured Returns	14,664	17,260	13,356	20,734	23,269	22,520	23,402	23,325	20,230	18,090	16,775	17,692	231,317
	Unmeasured Returns	969	1,671	620	2,605	3,188	3,097	3,289	3,173	2,256	1,560	1,277	1,541	25,246
	Consumptive Use	1,989	11,454	-2,697	24,027	31,508	30,688	33,106	31,189	18,534	8,715	5,174	8,776	202,463
GM Gabrych Family														
Pumped from river (AEP-9) and well (AEW-35)	Diversion	0	650	87	102	722	1,086	998	225	369	105	0	0	4,344
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	227	30	36	253	380	349	79	129	37	0	0	1,520
	Consumptive Use	0	423	57	66	469	706	649	146	240	68	0	0	2,824
Ehrenberg Improvement District														
Pumped from river	Diversion	74	18	25	33	34	34	36	37	33	31	22	21	398
	Measured Returns	3	2	2	2	2	2	2	2	2	2	2	2	25
	Unmeasured Returns	21	5	7	9	10	10	10	11	10	8	6	6	113
	Consumptive Use	50	11	16	22	22	22	24	24	21	21	14	13	260
B&F Investment, LLC														
Delivered by Ehrenberg Improvement District	Diversion	1	2	2	2	3	2	3	3	2	0	0	0	20
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	1	1	1	1	0	1	1	0	0	0	0	6
	Consumptive Use	1	1	1	1	2	2	2	2	0	0	0	0	14
North Baja Pipeline														
Pumped from wells	Diversion	46	21	44	46	46	1	51	4	16	20	29	28	352
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	16	7	16	16	16	0	18	1	6	7	10	10	123
	Consumptive Use	30	14	28	30	30	1	33	3	10	13	19	18	229
Cibola Valley I.D.D.														
Pumped from river for agriculture use	Diversion	110	541	543	441	1,081	1,533	1,504	1,045	576	426	339	283	8,422
Pumped from river for domestic use	Diversion	2	2	2	2	4	4	5	3	3	2	2	2	33
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	32	155	156	126	309	438	430	299	165	122	97	81	2,410
	Consumptive Use	80	388	389	317	776	1,099	1,079	749	414	306	244	204	6,045
Red River Land Company, LLC														
Pumped from river	Diversion	0	36	0	0	24	83	61	68	28	0	0	0	300
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	10	0	0	7	24	17	19	8	0	0	0	85
	Consumptive Use	0	26	0	0	17	59	44	49	20	0	0	0	215
Western Water, LLC														
Pumped from river	Diversion	2	4	6	8	10	11	11	9	5	3	3	3	83
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	2	3	3	3	3	3	1	1	1	23
	Consumptive Use	1	3	5	6	7	8	8	6	4	2	2	2	60
Hopi Tribe														
Pumped from river	Diversion	0	402	254	135	550	716	1,068	875	635	103	0	44	4,782
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	115	72	39	157	204	304	249	181	29	0	13	1,363
	Consumptive Use	0	287	182	96	393	512	764	626	454	74	0	31	3,419

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
GSC Farm, LLC														
Pumped from river	Diversion	106	216	12	297	393	390	504	446	406	49	90	0	2,909
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	30	61	4	85	112	111	143	127	116	14	26	0	829
	Consumptive Use	76	155	8	212	281	279	361	319	290	35	64	0	2,080
Arizona Game and Fish Commission														
Pumped from river	Diversion	0	445	0	431	649	271	137	328	270	286	0	0	2,817
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	127	0	123	185	77	39	93	77	82	0	0	803
	Consumptive Use	0	318	0	308	464	194	98	235	193	204	0	0	2,014
Cibola Island														
Pumped from river	Diversion	18	57	85	140	93	108	114	105	28	41	28	139	956
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	5	16	24	40	26	31	32	30	8	12	8	40	272
	Consumptive Use ³	13	41	61	100	67	77	82	75	20	29	20	99	684
Cibola National Wildlife Refuge														
Pumped from river	Diversion	293	1,191	1,057	1,334	1,284	1,364	1,142	1,669	1,313	1,100	742	546	13,035
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	111	453	402	507	488	518	434	634	499	418	282	207	4,953
	Consumptive Use	182	738	655	827	796	846	708	1,035	814	682	460	339	8,082
Imperial National Wildlife Refuge														
Pumped from river	Diversion	177	203	273	247	310	399	554	409	421	1,250	305	255	4,803
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	67	77	104	94	118	152	210	155	160	475	116	97	1,825
	Consumptive Use	110	126	169	153	192	247	344	254	261	775	189	158	2,978
Bureau of Land Management														
Pumped from river and wells (Permittees, LHFO and YFO)	Diversion	226	87	39	59	79	84	16	130	61	75	54	97	1,007
Pumped from river (ADW-01) (leased by L. Pratt)	Diversion ⁴	5	6	8	9	11	13	14	14	11	9	6	6	112
Pumped from river (ADP-1) and well (AEW-14) (leased by M. Lee)	Diversion ⁴	9	11	15	16	19	23	25	25	19	16	11	11	200
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	84	37	22	28	38	42	20	59	32	35	25	40	462
	Consumptive Use	156	67	40	56	71	78	35	110	59	65	46	74	857
Fisher's Landing Water and Sewer, LLC														
Pumped from well	Diversion	1	1	1	1	1	1	1	1	1	1	1	1	12
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	1	0	1	0	1	1	0	0	0	0	4
	Consumptive Use	1	1	0	1	0	1	0	0	1	1	1	1	8
Shepard Water Company														
Pumped from well	Diversion	3	3	1	2	2	4	2	2	3	2	2	3	29
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	0	0	1	1	1	1	1	1	1	1	10
	Consumptive Use	2	2	1	2	1	3	1	1	2	1	1	2	19
U.S. Army Yuma Proving Grounds														
Diversion at Imperial Dam	Diversion	0	0	0	3	2	2	0	1	0	1	0	0	9
Pumped from wells	Diversion	33	23	17	36	47	59	57	52	64	48	20	28	484
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	33	23	17	39	49	61	57	53	64	49	20	28	493

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
JRJ Partners, LLC														
Pumped from river (AEP-1) and well (AEW-3)	Diversion	45	31	93	115	112	75	117	100	21	106	112	98	1,025
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	16	11	33	40	39	26	41	35	8	37	39	34	359
	Consumptive Use	29	20	60	75	73	49	76	65	13	69	73	64	666
Cha Cha, LLC														
Pumped from river (AEP-2/3) and wells (AEW-4/5, ADW-3)	Diversion	73	74	39	110	165	114	70	118	92	84	68	59	1,066
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	26	26	14	38	58	40	24	41	32	29	24	21	373
	Consumptive Use	47	48	25	72	107	74	46	77	60	55	44	38	693
Beattie Farms Southwest (Russell Youmans)														
Pumped from well (ADW-2)	Diversion	62	46	13	152	213	165	0	0	121	72	84	36	964
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	22	16	5	53	74	58	0	0	42	25	29	13	337
	Consumptive Use	40	30	8	99	139	107	0	0	79	47	55	23	627
Gila Monster Farms														
Diversion at Imperial Dam	Diversion	491	253	744	865	920	795	320	300	572	814	754	724	7,552
	Measured Returns	23	12	56	32	32	31	18	14	27	40	34	58	377
	Unmeasured Returns	187	96	283	329	350	302	122	114	217	309	287	275	2,871
	Consumptive Use	281	145	405	504	538	462	180	172	328	465	433	391	4,304
Wellton-Mohawk I.D.D.														
Diversion at Imperial Dam	Diversion	19,015	18,986	20,354	41,425	47,282	40,260	41,713	33,936	41,427	38,071	22,625	21,927	387,021
	GGMC Return	1,006	966	1,698	1,737	1,833	1,778	2,552	1,731	2,202	2,086	1,139	1,953	20,681
	Dome Return	680	531	555	509	521	352	435	325	376	435	536	580	5,835
	MOD Return ⁵	8,819	7,940	8,194	7,720	7,877	7,400	7,952	7,687	8,289	8,981	8,801	8,817	98,477
	Total Returns	10,505	9,437	10,447	9,966	10,231	9,530	10,939	9,743	10,867	11,502	10,476	11,350	124,993
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	8,510	9,549	9,907	31,459	37,051	30,730	30,774	24,193	30,560	26,569	12,149	10,577	262,028
City of Yuma														
Diversion at Imperial Dam via AAC	Diversion	1,396	1,273	1,322	1,381	1,703	1,738	1,864	2,003	1,693	1,536	1,421	1,387	18,717
Diversion at Imperial Dam via GGMC	Diversion	751	651	715	703	490	287	335	375	317	387	751	732	6,494
Pumped from river for Yuma East Wetlands	Diversion	26	26	26	30	29	46	42	40	48	31	30	26	400
	Measured Returns	1,030	876	969	820	833	839	891	983	970	1,011	1,008	1,022	11,252
	Unmeasured Returns	3	3	4	4	4	6	6	5	6	4	4	3	52
	Consumptive Use	1,140	1,071	1,090	1,290	1,385	1,226	1,344	1,430	1,082	939	1,190	1,120	14,307
U.S. Marine Corps Air Station Yuma														
Diversion at Imperial Dam	Diversion	76	65	95	102	124	144	153	147	126	122	84	58	1,296
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	76	65	95	102	124	144	153	147	126	122	84	58	1,296
Union Pacific Railroad														
Diversion at Imperial Dam	Diversion	4	4	4	4	4	4	4	4	4	4	4	4	48
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	2	2	2	2	2	2	2	1	1	19
	Consumptive Use	3	3	3	2	2	2	2	2	2	2	3	3	29
University of Arizona														
Diversion at Imperial Dam	Diversion	64	57	13	105	79	82	64	110	90	54	72	12	802
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	64	57	13	105	79	82	64	110	90	54	72	12	802

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Yuma Union High School District														
Delivery at East Main Canal	Diversion	5	3	5	18	22	8	18	26	12	13	15	15	160
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	5	6	2	5	7	3	3	4	4	42
	Consumptive Use	4	2	4	13	16	6	13	19	9	10	11	11	118
Desert Lawn Memorial Park														
Delivered by the City of Yuma	Diversion	1	3	3	1	4	5	4	5	5	4	2	1	38
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	1	1	0	1	2	1	2	2	1	1	0	12
	Consumptive Use	1	2	2	1	3	3	3	3	3	3	1	1	26
North Gila Valley Irrigation District														
Diversion at Imperial Dam	Diversion	2,180	2,043	2,099	4,156	5,507	5,139	5,463	2,846	3,139	3,904	3,496	2,742	42,714
Pumped from river	Diversion	15	6	16	63	48	96	29	97	52	48	17	0	487
	Measured Returns	1,679	1,432	1,633	2,340	2,958	2,907	3,110	2,015	2,148	2,561	2,369	2,198	27,350
	Unmeasured Returns	304	282	293	591	771	738	758	424	448	552	485	376	6,022
	Consumptive Use	212	335	189	1,288	1,826	1,590	1,624	504	595	839	659	168	9,829
Yuma Irrigation District														
Diversion at Imperial Dam	Diversion ⁶	3,720	3,940	4,125	8,063	8,861	6,268	5,563	6,409	6,186	7,249	5,115	4,431	69,930
Pumped from wells	Diversion	10	71	130	163	93	93	89	26	51	50	68	65	909
	Measured Returns	981	1,021	1,287	1,820	1,974	1,483	1,468	1,653	1,568	1,852	1,316	1,329	17,752
	Unmeasured Returns	794	854	906	1,752	1,907	1,355	1,204	1,371	1,328	1,555	1,104	958	15,088
	Consumptive Use	1,955	2,136	2,062	4,654	5,073	3,523	2,980	3,411	3,341	3,892	2,763	2,209	37,999
Yuma Mesa I.D.D.														
Diversion at Imperial Dam	Diversion	10,883	10,106	10,520	18,391	23,545	27,053	30,601	28,775	24,877	17,918	14,217	9,851	226,737
	Measured Returns ⁷	1,228	1,785	2,929	1,193	3,034	3,917	4,892	3,290	3,179	2,167	2,128	4,170	33,912
	Unmeasured Returns	1,741	1,617	1,683	2,943	3,767	4,328	4,896	4,604	3,980	2,867	2,275	1,576	36,277
	Consumptive Use	7,914	6,704	5,908	14,255	16,744	18,808	20,813	20,881	17,718	12,884	9,814	4,105	156,548
Unit B I.D.D.														
Diversion at Imperial Dam	Diversion	917	986	1,188	1,675	2,648	3,229	3,304	3,380	3,458	2,761	2,018	1,236	26,800
	Measured Returns ⁷	145	260	443	121	456	599	691	464	494	353	342	676	5,044
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	772	726	745	1,554	2,192	2,630	2,613	2,916	2,964	2,408	1,676	560	21,756
Arizona State Land Department														
Pumped from river and wells for agriculture use	Diversion	668	652	792	1,075	1,323	1,218	1,218	1,311	1,142	1,037	743	800	11,979
Pumped from river and wells for domestic use	Diversion	3	3	3	5	7	6	8	20	36	29	19	5	144
	Measured Returns	8	4	19	11	11	10	6	5	9	13	11	19	126
	Unmeasured Returns	235	229	278	378	465	428	430	466	412	373	267	282	4,243
	Consumptive Use	428	422	498	691	854	786	790	860	757	680	484	504	7,754
Ott Family														
Delivered via GGM	Diversion	16	17	16	57	59	59	55	58	35	36	34	32	474
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	6	6	5	20	21	21	19	20	12	13	12	11	166
	Consumptive Use	10	11	11	37	38	38	36	38	23	23	22	21	308
Ogram Boys' Enterprises														
Delivered via GGM	Diversion	27	66	14	109	215	133	107	117	36	34	35	24	917
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	9	23	5	38	76	47	37	41	13	12	12	8	321
	Consumptive Use	18	43	9	71	139	86	70	76	23	22	23	16	596

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Fort Yuma Indian Reservation														
Pumped from river for Yuma East Wetlands	Diversion	17	17	101	19	89	92	60	147	190	138	128	17	1,015
Pumped from river for agriculture use (Cha Cha Farms)	Diversion	4	2	4	4	5	5	8	10	7	12	2	3	66
Surface delivery to Ranch 5	Diversion	30	5	10	93	207	133	126	93	80	141	58	42	1,018
Pumped from wells for domestic use	Diversion ⁸	3	2	2	3	3	3	4	2	2	2	2	2	30
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	17	7	29	39	95	70	62	71	74	86	51	21	622
	Consumptive Use	37	19	88	80	209	163	136	181	205	207	139	43	1,507
Armon Curtis														
Pumped from river (AEP-4)	Diversion ⁴	7	9	12	13	17	20	22	21	17	14	10	10	172
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	3	3	4	5	6	7	8	7	6	5	3	3	60
	Consumptive Use	4	6	8	8	11	13	14	14	11	9	7	7	112
Yuma County Water Users' Association														
Diversion at Imperial Dam	Diversion	22,367	21,481	21,824	43,413	41,471	29,095	33,006	22,569	22,986	35,357	28,645	22,182	344,396
Pumped from wells	Diversion	157	177	110	202	101	37	196	152	210	183	154	252	1,931
	Measured Returns	8,980	7,980	8,492	7,754	7,776	6,890	6,460	5,937	7,620	11,632	10,136	7,395	97,052
	Unmeasured Returns	473	455	461	916	873	612	697	477	487	746	605	471	7,273
	Consumptive Use	13,071	13,223	12,981	34,945	32,923	21,630	26,045	16,307	15,089	23,162	18,058	14,568	242,002
R. Griffin														
Pumped from river (ADP-3,4)	Diversion ⁴	3	4	6	6	8	9	10	10	8	7	5	5	81
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	2	2	3	3	4	3	3	2	2	2	28
	Consumptive Use	2	3	4	4	5	6	6	7	5	5	3	3	53
Power														
Pumped from river (ADP-3,4)	Diversion ⁴	2	2	3	4	5	6	6	6	5	4	3	3	49
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	1	2	2	2	2	2	1	1	1	17
	Consumptive Use	1	1	2	3	3	4	4	4	3	3	2	2	32
Cocopah Indian Tribe (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion ⁴	10	12	17	18	22	27	30	28	22	19	13	13	231
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	3	4	6	6	8	9	10	10	8	7	5	5	81
	Consumptive Use	7	8	11	12	14	18	20	18	14	12	8	8	150
Griffin Ranches (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion ⁴	5	6	9	10	12	14	15	15	12	10	7	7	122
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	4	5	6	5	4	3	4	2	43
	Consumptive Use	3	4	6	7	8	9	9	10	8	7	3	5	79
Milton Phillips (PPR No.7)														
Pumped from river (ADP-3,4)	Diversion ⁴	5	6	9	9	11	14	15	14	11	10	7	7	118
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	4	5	5	5	4	3	3	2	41
	Consumptive Use	3	4	6	6	7	9	10	9	7	7	4	5	77
Griffin Family Ltd. Partnership (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion ⁴	1	2	2	2	3	4	4	4	3	2	2	2	31
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	1	1	1	1	1	1	1	1	1	1	1	11
	Consumptive Use	1	1	1	1	2	3	3	3	2	1	1	1	20

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cocopah Indian Reservation														
Diversion at Imperial Dam	Diversion	18	86	21	89	79	32	53	82	47	59	20	28	614
Pumped from river and wells	Diversion ^{4,9}	66	83	113	122	149	181	197	190	149	126	88	87	1,551
	Measured Returns	1	4	1	2	1	1	2	3	2	4	1	1	23
	Unmeasured Returns	29	57	46	72	78	72	85	92	67	63	37	39	737
	Consumptive Use	54	108	87	137	149	140	163	177	127	118	70	75	1,405
Bureau of Reclamation's Yuma Area Office														
Pumped from wells	Diversion	6	0	0	0	6	0	17	18	11	0	35	8	101
	Measured Returns	1	0	0	0	1	0	4	3	2	0	8	2	21
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	5	0	0	0	5	0	13	15	9	0	27	6	80
Arizona Public Service Company														
Pumped from well	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Gary Pasquinelli														
Pumped from river (ADP-5)	Diversion	32	32	26	53	76	0	32	0	0	16	36	24	327
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	11	11	9	19	27	0	11	0	0	6	13	8	115
	Consumptive Use	21	21	17	34	49	0	21	0	0	10	23	16	212
Pumped from the South Gila Wells (DPOCs)														
	Measured Returns ¹⁰	0	0	0	1,065	4,725	5,062	5,295	3,316	31	0	3,093	3,149	25,736
	Unmeasured Returns	0	0	0	-1,065	-4,725	-5,062	-5,295	-3,316	-31	0	-3,093	-3,149	-25,736
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Totals														
	Diversion	162,876	176,929	177,909	336,672	400,043	300,561	277,208	244,843	331,602	318,044	236,440	248,112	3,211,239
	Measured Returns	39,299	40,121	39,684	44,842	50,624	48,774	51,928	47,491	47,171	49,274	44,651	45,953	549,812
	Unmeasured Returns	7,626	9,658	8,271	19,161	25,490	23,180	22,531	21,361	18,438	15,575	10,512	8,848	190,651
	Consumptive Use	115,951	127,150	129,954	272,669	323,929	228,607	202,749	175,991	265,993	253,195	181,277	193,311	2,470,776

Footnotes:

¹ Diversion values are normally positive. Should negative diversion values occur, water is flowing from the canal to the river.

² The South Dike is the point of measured return flow for the Refuge and meter readings will normally indicate a positive flow of water from the Refuge into the river. If the flow reverses and water flows into the Refuge instead, a negative value will be recorded; when this occurs, this is considered a diversion.

³ As was done in 2019, Cibola Island's 2020 diversion and consumptive use was estimated based on observed irrigated acreage, crop ET, and irrigation efficiency.

⁴ Calculated by the USGS using field crop verification and ET methodologies. A [description of this methodology](#) is included in the Significant Documents.

⁵ MOD return flow credit is the measured flow at Station 0+00. When comparing this return value to the "Water Bypassed Pursuant to IBWC Minute No. 242" value in Table 9, differences can result due to a combination of transmission loss, DPOC and Yuma Mesa Conduit discharge into the MODE, MODE water that has been desalinated, and MODE water discharged to the river. During periods of sustained flow in the Gila River this measurement may include both Colorado River and Gila River water. At such times Reclamation will determine how best to differentiate return flows from the two sources.

⁶ Diversion does not include water delivered to users (Ott Family, Ogram Boys' Enterprises, and some ASLD lands) located outside of District boundaries.

⁷ YMID receives 85 percent of the return flows from the Yuma Mesa Conduit Outlet and the Protective and Regulatory Pumping Unit; Unit B receives the remaining 15 percent.

Yuma Mesa Conduit Outlet Flows (AF) = 1,429

Protective and Regulatory Pumping Unit (AF) = 19,323

⁸ Diversion is an estimate of the amount of domestic water required by FYIR, AZ.

⁹ Diversion amounts include pumpage from wells (AEW-15, 16) and the Cocopah Bend R.V. Park well.

¹⁰ Until comprehensive modeling of the Yuma area to determine how unmeasured returns are affected by pumping of the DPOC wellfield is complete, this pumpage is added to Arizona's measured returns and subtracted from Arizona's unmeasured returns.

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Fort Mojave Indian Reservation														
Pumped from river and well for agriculture use	Diversion	203	854	403	1,236	1,893	1,919	1,840	1,670	1,344	1,151	416	146	13,075
Pumped from wells for domestic use	Diversion	2	2	2	1	3	5	3	7	5	4	3	2	39
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	95	395	187	572	876	889	851	775	623	534	194	68	6,059
	Consumptive Use	110	461	218	665	1,020	1,035	992	902	726	621	225	80	7,055
City of Needles														
Pumped from wells	Diversion	118	121	115	134	196	200	217	200	152	191	168	149	1,961
	Measured Returns	28	23	25	23	27	25	27	41	45	44	43	39	390
	Unmeasured Returns	42	49	40	52	83	56	58	48	44	68	51	38	629
	Consumptive Use ¹	48	49	50	59	86	119	132	111	63	79	74	72	942
Southern California Gas Company														
Pumped from wells	Diversion	0	0	0	0	0	2	7	5	5	2	0	1	22
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use ²	0	0	0	0	0	2	7	5	5	2	0	1	22
Pacific Gas and Electric Company														
Pumped from wells	Diversion	17	20	24	25	28	33	35	34	29	34	28	26	333
	Measured Returns	8	10	14	15	19	22	25	24	19	16	11	11	194
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use ²	9	10	10	10	9	11	10	10	10	18	17	15	139
Havasu Water Company														
Pumped from wells	Diversion	3	2	2	3	4	3	3	3	3	3	3	3	35
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	1	2	1	2	1	1	1	1	1	14
	Consumptive Use ²	2	1	1	2	2	2	1	2	2	2	2	2	21
Vista Del Lago														
Pumped from wells	Diversion	5	4	5	6	2	2	2	2	2	3	2	2	37
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	2	2	1	0	1	1	1	1	1	1	15
	Consumptive Use ²	3	2	3	4	1	2	1	1	1	2	1	1	22
Non-Federal Subcontractors to the LCWSP														
Pumped from wells	Diversion	13	16	22	23	28	35	37	36	28	24	17	17	296
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	5	6	9	9	11	14	15	14	11	10	7	7	118
	Consumptive Use ²	8	10	13	14	17	21	22	22	17	14	10	10	178
PPR No. 30 (Stephenson)														
Pumped from wells	Diversion ³	2	2	3	3	4	5	5	5	4	4	3	2	42
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	2	2	2	2	2	2	2	1	1	19
	Consumptive Use	1	1	2	1	2	3	3	3	2	2	2	1	23
PPR No. 38 (Andrade)														
Pumped from wells	Diversion ⁴	2	2	3	3	4	5	6	5	4	4	2	2	42
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	2	2	2	2	2	2	2	1	1	19
	Consumptive Use	1	1	2	1	2	3	4	3	2	2	1	1	23
Chemehuevi Indian Reservation														
Pumped from river for agricultural use	Diversion	10	9	10	13	22	21	23	24	19	18	14	0	183
Pumped from river and wells for domestic use	Diversion	14	9	11	7	13	17	22	23	17	15	13	11	172
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	11	8	10	9	16	18	21	22	17	15	12	5	164
	Consumptive Use	13	10	11	11	19	20	24	25	19	18	15	6	191

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
The Metropolitan Water District of Southern California														
Pumped from Lake Havasu	Diversion	16,841	3,351	42,623	55,422	61,481	93,553	95,238	78,050	91,361	93,756	91,498	95,046	818,220
	Measured Returns	236	212	224	197	218	219	239	193	202	203	210	249	2,602
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	16,605	3,139	42,399	55,225	61,263	93,334	94,999	77,857	91,159	93,553	91,288	94,797	815,618
Bureau of Reclamation - Parker Dam and Government Camp														
Diversion at Parker Dam	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use ²	0	0	0	0	0	0	0	0	0	0	0	0	0
Colorado River Indian Reservation														
Pumped from river and wells (agriculture)	Diversion	38	47	64	69	84	102	112	107	84	71	50	49	877
Pumped from wells for Big River Development	Diversion	26	28	29	33	41	43	61	62	48	39	34	28	472
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	27	31	39	43	52	60	72	70	55	46	35	32	562
	Consumptive Use	37	44	54	59	73	85	101	99	77	64	49	45	787
Palo Verde Irrigation District														
Diversion at Palo Verde Dam	Diversion	35,240	44,410	37,460	69,840	91,680	92,910	102,300	96,870	81,800	61,260	39,160	39,130	792,060
Pumped from river	Diversion ^{5,6}	81	102	139	150	183	222	243	233	183	154	109	107	1,906
	Measured Returns	26,815	27,098	28,533	28,760	33,629	33,423	35,360	36,741	36,162	36,116	32,101	31,371	386,109
	Unmeasured Returns ⁷	2,846	3,624	4,448	6,065	5,866	6,632	7,307	7,357	6,684	5,427	2,735	2,781	61,772
	Consumptive Use	5,660	13,790	4,618	35,165	52,368	53,077	59,876	53,005	39,137	19,871	4,433	5,085	346,085
Lake Enterprises														
Pumped from river	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau of Land Management														
Pumped from wells (Permittees, LHFO and YFO)	Diversion	17	13	18	14	18	4	4	49	4	31	14	2	188
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	4	3	5	4	5	1	1	13	2	8	4	1	51
	Consumptive Use ²	13	10	13	10	13	3	3	36	2	23	10	1	137
Yuma Project Reservation Division														
Indian Unit														
Diversion at Imperial Dam	Diversion	2,782	2,380	2,416	6,401	5,872	3,923	2,634	3,978	2,949	4,257	5,633	3,155	46,380
Pumped from wells for domestic use	Diversion	48	49	60	48	56	88	99	96	77	63	54	48	786
	Measured Returns	201	88	116	108	46	108	70	128	128	258	303	101	1,655
	Unmeasured Returns	473	406	413	1,077	990	670	456	680	505	721	950	535	7,876
Bard Unit														
Diversion at Imperial Dam	Diversion	2,282	1,532	2,495	3,393	3,599	3,277	2,774	3,325	3,291	3,886	3,559	2,430	35,843
	Measured Returns	91	32	63	29	14	49	41	60	80	122	98	47	726
	Unmeasured Returns	381	256	417	567	601	547	463	555	550	649	594	406	5,986
Unassigned Yuma Project Reservation Division Measured Returns ⁸		1,545	1,660	2,022	2,146	2,545	2,522	1,997	1,906	2,405	2,496	2,431	2,505	26,180
Total Yuma Project Reservation Division Consumptive Use ⁹		2,421	1,519	1,940	5,915	5,331	3,392	2,480	4,070	2,649	3,960	4,870	2,039	40,586

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	
Fort Yuma Indian Reservation															
Ranch 1	Pumped from well and river (CEW-2; CDP-3)	Diversion ⁶	24	30	41	44	54	65	71	69	54	45	32	32	561
Ranch 2 Parcel 3	Pumped from well and river (CEW-2; CDP-4)	Diversion ⁶	15	18	25	27	33	40	44	42	33	28	19	19	343
Ranch 3	Pumped from well and river (CEW-2; CDP-5)	Diversion ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0
Ranch 4	Pumped from well and river (CEW-1,15; CDP-1,2)	Diversion ⁶	5	7	9	10	12	15	16	16	13	11	7	7	128
Ranch 5	Diverted from the AAC	Diversion	68	10	24	165	369	236	224	166	142	251	103	74	1,832
Ranch 7	Pumped from well and river (CEW-1,15; CDP-1,2)	Diversion ⁶	6	8	10	11	13	16	18	17	13	11	8	8	139
Ranch 15	Pumped from well (CEW-14)	Diversion ⁶	24	31	42	45	55	67	73	70	55	46	33	32	573
Ranch 17	Pumped from river (CDP-6,7)	Diversion ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum of Diversions for the FYIR Ranches in California	Diversion	142	104	151	302	536	439	446	380	310	392	202	172	3,576	
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Unmeasured Returns	63	47	67	135	239	197	198	170	140	175	91	76	1,598	
	Consumptive Use	79	57	84	167	297	242	248	210	170	217	111	96	1,978	
Yuma Island California															
Arizona State Land Department Trust Lands	Diversion ⁶	135	174	238	262	321	381	412	393	314	259	187	185	3,261	
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Unmeasured Returns	60	78	108	116	142	171	183	174	140	117	85	83	1,457	
	Consumptive Use	75	96	130	146	179	210	229	219	174	142	102	102	1,804	
City of Winterhaven															
Pumped from well	Diversion	7	7	8	6	7	7	7	8	7	8	7	8	87	
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Unmeasured Returns	2	2	3	2	2	2	2	3	2	3	2	3	28	
	Consumptive Use	5	5	5	4	5	5	5	5	5	5	5	5	59	
Imperial Irrigation District															
Diversion at Imperial Dam	Diversion	110,253	133,835	147,400	236,304	327,819	288,291	277,937	244,294	216,451	220,493	158,613	125,686	2,487,376	
	Measured Returns	12,421	8,529	10,717	6,127	3,793	12,271	11,188	12,520	14,998	19,661	12,583	6,878	131,686	
Delivery from Warren H. Brock Reservoir	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0	
Consumptive Use ¹⁰	Total Consumptive Use	16,477	12,450	11,441	16,043	10,130	11,951	6,155	13,807	8,351	7,002	12,078	12,048	137,933	
Coachella Valley Water District															
Diversion at Imperial Dam	Diversion	20,363	24,409	21,640	26,953	36,433	38,499	40,826	39,668	36,345	34,467	27,425	24,560	371,588	
	Measured Returns	2,294	1,556	1,573	699	422	1,639	1,643	2,033	2,518	3,073	2,176	1,344	20,970	
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Consumptive Use	18,069	22,853	20,067	26,254	36,011	36,860	39,183	37,635	33,827	31,394	25,249	23,216	350,618	
California Totals															
	Diversion	188,644	211,482	255,341	400,651	530,327	523,986	525,293	469,527	434,836	420,589	327,214	290,967	4,578,857	
	Measured Returns	43,639	39,208	43,287	38,104	40,713	50,278	50,590	53,646	56,557	61,989	49,956	42,545	570,512	
	Unmeasured Returns	4,014	4,910	5,751	8,658	8,890	9,262	9,634	9,887	8,779	7,779	4,764	4,039	86,367	
	Consumptive Use	157,468	179,814	217,744	369,932	490,854	476,397	471,224	419,801	377,851	357,823	284,572	256,431	4,059,911	

Footnotes: See next page.

Table 5 Footnotes:

¹ In years when the City of Needles' consumptive use exceeds its 1,223 AF PPR entitlement, as adjusted for water conserved under the PSCP, such use is offset by pumping from the LCWSP. For additional details, see Table 16.

² Tabulated consumptive use is offset by pumping from the LCWSP. For additional details, see Table 16.

³ Includes diversion reported by Campbell, Terry E. and Carol J. (Contract No. 19-XX-30-W0650) and estimated diversions for all other landowners within the PPR.

⁴ Includes diversions reported by Carney, Jerome D. & Martha A. (Contract No. 7-07-30-W0176); Mr. Jerry O. Williams, Mrs. Deloris P. Williams, and Mr. Jerry D. Williams (Contract No. 6-07-30-W0136); Wetmore, Kenneth C. & Joan C. (Contract No. 6-07-30-W0143); Wetmore, Mark M. & Judith K. (Contract No. 6-07-30-W0145); and Williams, Jerry O. & Deloris P. (Contract No. 7-07-30-W0153); and estimated diversions for all other landowners within the PPR.

⁵ Water pumped from the river for delivery to non-canal lands served by PVID upstream of Palo Verde Diversion Dam.

⁶ Calculated by the USGS using field crop verification and ET methodologies. A [description of this methodology](#) is included in the Significant Documents. Points of diversion for the Yuma Island in CA are AEP-02, AEP-03, AEW-04, AEW-05, ADW-03, CEP-01, CEP-02, CDW-02, CDW-05, CDW-07, CDW-08, CEW-07, CEW-09, CEW-12, CEW-13. See the [maps showing the locations of the wells and river pumps reported by the USGS](#) in the Significant Documents.

⁷ The methodology used to calculate unmeasured returns from PVID was updated in 2020 to reflect changes in cropping and irrigation practices on the Palo Verde Ecological Reserve (PVER), Dennis Underwood Conservation Area (DUCA), and PVER South units of the Lower Colorado River Multi-Species Conservation Program. A [Technical Memorandum](#) providing a summary of the methodology for computing the total consumptive use at PVER, DUCA, and PVER South and the corresponding unmeasured returns for 2020 has been included in the Significant Documents.

⁸ Unassigned measured returns include drainage from the Indian Unit and the Bard Unit in the Reservation Division, but excludes seepage from the AAC.

⁹ Calculated as the sum of diversions (83,009 AF) minus the sum of measured returns (2,381 AF), unmeasured returns (13,862 AF) and unassigned measured returns (26,180 AF).

¹⁰ Colorado River water captured in the Warren H. Brock Reservoir and delivered to IID as consumptive use. Flow measurement is made at the Brock Reservoir outlet channel, Station 2100+36.

Table 6. State of Nevada - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Bureau of Reclamation														
Hoover Dam Diversion	Diversion	4	3	3	2	2	2	3	4	3	2	4	3	35
	Measured Returns	2	2	2	1	1	1	1	2	1	1	2	1	17
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	2	1	1	1	1	1	2	2	2	1	2	2	18
Robert B. Griffith Water Project														
Pumped from Lake Mead	Diversion	27,959	27,007	29,244	32,441	45,885	45,727	52,285	52,415	44,187	38,146	28,083	25,018	448,397
Lake Mead National Recreation Area														
National Park Service														
Pumped from Lake Mead	Diversion	19	18	25	21	31	36	43	43	40	37	28	24	365
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	19	18	25	21	31	36	43	43	40	37	28	24	365
Basic Water Company														
Pumped from Lake Mead	Diversion	384	316	306	342	351	322	365	441	372	398	373	347	4,317
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	384	316	306	342	351	322	365	441	372	398	373	347	4,317
City of Henderson														
Pumped from Lake Mead	Diversion	1,510	1,361	1,435	1,346	1,609	1,674	1,712	1,585	1,303	1,271	873	446	16,125
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	1,510	1,361	1,435	1,346	1,609	1,674	1,712	1,585	1,303	1,271	873	446	16,125
Nevada Department of Wildlife														
Pumped from Lake Mead	Diversion	69	65	71	81	93	160	118	124	112	108	75	88	1,164
	Measured Returns	68	64	70	80	92	159	117	123	111	107	74	87	1,152
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	1	1	1	1	1	1	1	1	1	1	1	1	12
Pacific Coast Building Products														
Pumped from Lake Mead	Diversion	74	70	77	77	86	80	84	88	86	76	59	68	925
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	74	70	77	77	86	80	84	88	86	76	59	68	925
Las Vegas Wash Return Flow	Returns ¹	20,634	20,164	18,976	16,284	16,487	17,183	18,119	18,375	17,871	18,577	18,238	18,291	219,199
Lake Mead National Recreation Area														
National Park Service														
Pumped from Lake Mohave - Cottonwood Cove	Diversion	12	10	12	15	17	13	15	16	19	14	14	17	174
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	12	10	12	15	17	13	15	16	19	14	14	17	174
Big Bend Water District														
Pumped from river	Diversion	248	238	226	226	293	361	392	388	354	316	237	229	3,508
	Measured Returns	159	148	125	109	161	162	161	165	152	147	122	115	1,726
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	89	90	101	117	132	199	231	223	202	169	115	114	1,782
SNWA - Big Bend Conservation Area														
Pumped from wells	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 6. State of Nevada - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Fort Mojave Indian Reservation														
Pumped from river for agriculture use	Diversion	0	118	0	247	614	472	294	396	466	96	51	8	2,762
Pumped from wells for domestic use	Diversion	26	27	28	67	113	129	145	144	220	132	95	71	1,197
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	9	48	9	104	240	199	145	178	226	75	48	26	1,307
	Consumptive Use	17	97	19	210	487	402	294	362	460	153	98	53	2,652
Nevada Totals														
	Diversion	30,305	29,233	31,427	34,865	49,094	48,976	55,456	55,644	47,162	40,596	29,892	26,319	478,969
	Measured Returns	20,863	20,378	19,173	16,474	16,741	17,505	18,398	18,665	18,135	18,832	18,436	18,494	222,094
	Unmeasured Returns	9	48	9	104	240	199	145	178	226	75	48	26	1,307
	Consumptive Use	9,433	8,807	12,245	18,287	32,113	31,272	36,913	36,801	28,801	21,689	11,408	7,799	255,568

Nevada Colorado River Storage in Local Aquifer ²		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Las Vegas Valley Water District	BOY Balance													346,472
	Injected	0	0	0	0	0	0	0	0	0	0	0	0	0
	Withdrawn	0	0	0	0	0	0	0	0	222	230	154	66	672
	EOY Balance													345,800
City of North Las Vegas	BOY Balance													11,843
	Injected	0	0	0	0	0	0	0	0	0	0	0	0	0
	Withdrawn	0	0	0	0	0	0	0	0	0	0	0	0	0
	EOY Balance													11,843
Total	BOY Cumulative Injected Storage													358,315
	Total Current Year Injection													0
	Total Current Year Withdrawals													672
	EOY Cumulative Injected Storage													357,643

Footnotes:

¹ Estimated return based on [historical use method](#) adopted by the Task Force on Unmeasured Return Flows on August 28, 1984, and revised as noted in the [Reclamation letter to SNWA and CRCN dated December 5, 2007](#).

² Colorado River water injected into groundwater storage is accounted for as a consumptive use in the year in which it is diverted from the Colorado River. Water withdrawn from storage is not accounted for as a consumptive use in the year in which it is withdrawn, but because it originated as Colorado River water it is credited as a return flow.

ARTICLE V(C): RECORDS FOR THE DISPOSITION OF WATER ORDERED BUT NOT DIVERTED

In accordance with Article V(C) of the Consolidated Decree, Tables 7 and 8 document records of releases of mainstream water pursuant to orders therefor but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the 1944 Mexican Water Treaty (Treaty) or diverted by others in satisfaction of decreed rights.

Tabulations provided herewith document quantities of water passing to Mexico in excess of Treaty requirements and quantities captured in storage.

Water ordered but not diverted is the difference between the approved daily order and the mean daily delivery on the day the diversion was made. Daily orders are provided to the Bureau of Reclamation in advance of the delivery date by the amount of time required for water to travel between the storage location and the user's point of diversion from the mainstream.

To the extent possible, water ordered but not diverted was delivered to other diverters in satisfaction of their water rights. Any remaining water ordered but not diverted was distributed between delivery to storage, delivery to Mexico in satisfaction of Treaty requirements, and to Mexico in excess of Treaty requirements.

The water users listed in this tabulation are major water users from whom Reclamation receives a daily water order and, with the exception of the Central Arizona Project and The Metropolitan Water District of Southern California, are those that divert their water downstream of Parker Dam. Currently, no daily orders are received from water users in Nevada, therefore Reclamation has not created a tabulation for Nevada water users. In addition, the storage capacity of Lake Mead is large enough relative to Nevada's daily diversions from the reservoir that any water ordered but not diverted would be retained for future use and would not pass to Mexico in excess of Treaty requirements.

The “Passing to Mexico in Excess of Treaty” values displayed in this section of the report reflect the sum of the daily amounts of water passing to Mexico in excess of the daily Treaty amount, according to the International Boundary and Water Commission’s (IBWC) schedule, resulting from water that had been ordered but not diverted. The “To Mexico in Excess of Treaty” values displayed in the Article V(D) section reflect all water under/over delivered to Mexico according to IBWC’s schedule. The information provided in Article V(C) is unrelated to information provided in Article V(D) and comparisons between the tabulations should not be made.

Table 7. State of Arizona - Disposition of Water Ordered but not Diverted, Calendar Year 2020. (Values are in acre-feet.)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Central Arizona Project - Diversion at Lake Havasu													
Ordered but not Diverted ¹	83	923	1,120	3,985	2,063	430	1,021	731	3,081	2,938	3,579	232	20,186
Delivered to Mexico in Satisfaction of Treaty													
Diverted by Others													
Delivered to Storage ²	83	923	1,120	3,985	2,063	430	1,021	731	3,081	2,938	3,579	232	20,186
Passing to Mexico in Excess of Treaty													
Colorado River Indian Reservation - Diversion at Headgate Rock Dam													
Ordered but not Diverted ¹	3,941	3,898	4,078	4,622	4,429	5,181	4,691	4,893	4,510	2,614	3,187	4,108	50,152
Delivered to Mexico in Satisfaction of Treaty	1,010	1,446	1,676	1,020	997	1,022	1,033	1,497	1,401	901	1,061	1,445	14,509
Diverted by Others	2,044	1,828	1,946	2,851	2,787	3,494	3,236	2,505	2,355	1,467	1,645	1,972	28,130
Delivered to Storage ³	814	346	145	351	391	733	414	324	573	331	530	608	5,561
Passing to Mexico in Excess of Treaty	72	277	311	399	245	93	64	225	129	27	51	52	1,945
North Gila Valley Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted ¹	153	143	512	280	131	530	591	293	418	142	253	231	3,677
Delivered to Mexico in Satisfaction of Treaty	51	60	88	49	29	183	117	147	154	97	80	74	1,129
Diverted by Others	53	17	148	134	86	270	425	107	216	31	117	89	1,693
Delivered to Storage ³	45	17	44	38	16	61	42	34	39	11	55	67	468
Passing to Mexico in Excess of Treaty	3	50	234	59	0	16	7	6	9	3	2	2	391
Gila Monster Farms - Diversion at Imperial Dam													
Ordered but not Diverted ¹	142	402	35	326	270	96	194	260	249	181	90	102	2,347
Delivered to Mexico in Satisfaction of Treaty	38	131	1	75	63	21	36	88	64	51	17	17	602
Diverted by Others	64	213	27	189	162	58	139	111	136	121	61	60	1,341
Delivered to Storage ³	34	27	0	19	35	16	15	45	45	8	12	24	279
Passing to Mexico in Excess of Treaty	5	32	7	43	9	1	4	16	6	1	1	1	126
Wellton-Mohawk I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted ¹	87	1,742	4,510	574	862	104	138	510	154	397	1,733	431	11,242
Delivered to Mexico in Satisfaction of Treaty	38	663	1,478	174	255	0	3	168	52	171	296	149	3,447
Diverted by Others	17	442	442	337	386	92	133	223	17	191	860	172	3,312
Delivered to Storage ³	32	109	386	41	50	11	0	22	86	31	567	109	1,444
Passing to Mexico in Excess of Treaty	0	529	2,203	22	171	0	1	98	0	5	11	1	3,041
Yuma Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted ¹	19	308	189	38	52	72	162	9	262	105	78	61	1,355
Delivered to Mexico in Satisfaction of Treaty	3	80	30	24	42	42	41	0	177	55	26	38	558
Diverted by Others	12	30	4	6	8	22	95	9	51	48	44	21	350
Delivered to Storage ³	4	61	4	3	0	8	23	0	30	2	7	0	142
Passing to Mexico in Excess of Treaty	0	137	151	5	1	0	4	0	4	0	1	2	305
Yuma Mesa I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted ¹	2,062	2,028	1,687	707	790	1,254	414	1,125	851	3,005	2,587	933	17,443
Delivered to Mexico in Satisfaction of Treaty	398	348	388	395	342	626	103	303	434	1,066	1,240	151	5,794
Diverted by Others	1,130	914	471	231	325	526	264	673	210	1,561	895	272	7,472
Delivered to Storage ³	517	344	132	18	49	89	45	127	195	334	395	503	2,747
Passing to Mexico in Excess of Treaty	18	423	696	62	74	13	2	23	13	44	57	7	1,432

Unit B I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted ¹	319	457	348	180	225	278	388	259	297	135	494	296	3,676
Delivered to Mexico in Satisfaction of Treaty	65	89	163	56	153	127	76	73	166	92	232	124	1,416
Diverted by Others	195	219	143	85	62	93	246	150	96	35	237	116	1,677
Delivered to Storage ³	59	53	19	15	9	57	62	28	28	8	14	52	403
Passing to Mexico in Excess of Treaty	1	97	23	24	1	1	5	7	8	1	11	3	182
Yuma County Water Users' Association - Diversion at Imperial Dam													
Ordered but not Diverted ¹	3,104	4,154	4,726	1,508	1,187	1,419	2,390	2,977	3,848	1,634	1,040	1,957	29,944
Delivered to Mexico in Satisfaction of Treaty	489	1,502	1,829	374	333	552	649	654	979	577	378	745	9,061
Diverted by Others	1,604	917	1,518	615	693	749	1,461	2,014	2,408	920	510	583	13,992
Delivered to Storage ³	840	554	337	127	131	111	174	235	403	125	127	604	3,769
Passing to Mexico in Excess of Treaty	171	1,181	1,042	392	30	7	106	73	58	12	25	25	3,122
Arizona Totals													
Ordered but not Diverted ¹	9,910	14,055	17,205	12,220	10,009	9,364	9,989	11,057	13,670	11,151	13,041	8,351	140,022
Delivered to Mexico in Satisfaction of Treaty	2,092	4,319	5,653	2,167	2,214	2,573	2,058	2,930	3,427	3,010	3,330	2,743	36,516
Diverted by Others	5,119	4,580	4,699	4,448	4,509	5,304	5,999	5,792	5,489	4,374	4,369	3,285	57,967
Delivered to Storage ^{2,3}	2,428	2,434	2,188	4,598	2,746	1,516	1,796	1,545	4,478	3,786	5,286	2,198	34,999
Passing to Mexico in Excess of Treaty	270	2,726	4,667	1,006	531	131	193	448	227	93	159	93	10,544

Footnotes:

¹ Due to converting daily cfs values to monthly AF totals and rounding to the nearest whole number, the sum of the disposition of water volumes may not equal the Ordered but not Diverted volume.

² Water not diverted by the Central Arizona Project remains in Lake Havasu.

³ Delivered to temporary storage in Senator Wash and Brock Reservoirs.

Table 8. State of California - Disposition of Water Ordered but not Diverted, Calendar Year 2020. (Values are in acre-feet.)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
The Metropolitan Water District of Southern California -													
Diversion at Lake Havasu													
Ordered but not Diverted ¹	961	337	3,965	202	1,975	4,353	3,314	9,022	3,816	2,993	3,033	4,652	38,623
Delivered to Mexico in Satisfaction of Treaty													
Diverted by Others													
Delivered to Storage ²	961	337	3,965	202	1,975	4,353	3,314	9,022	3,816	2,993	3,033	4,652	38,623
Passing to Mexico in Excess of Treaty													
Palo Verde Irrigation District - Diversion at Palo Verde Dam													
Ordered but not Diverted ¹	1,035	2,823	1,611	1,575	2,757	932	397	1,825	1,904	1,676	629	464	17,628
Delivered to Mexico in Satisfaction of Treaty	205	1,450	330	648	595	304	70	425	603	652	280	211	5,773
Diverted by Others	563	930	540	741	1,724	499	325	832	1,018	762	230	172	8,336
Delivered to Storage ³	242	192	138	42	254	125	1	421	248	209	103	80	2,056
Passing to Mexico in Excess of Treaty	25	251	602	144	184	4	0	146	36	53	15	1	1,461
Yuma Project Reservation Division - Diversion at Imperial Dam													
Ordered but not Diverted ¹	3,159	3,909	2,619	1,391	3,654	1,473	1,865	408	1,616	1,864	1,056	3,747	26,761
Delivered to Mexico in Satisfaction of Treaty	756	1,374	974	497	938	146	220	15	596	716	502	1,169	7,903
Diverted by Others	1,784	1,572	577	468	2,331	1,061	1,548	299	722	899	424	1,554	13,239
Delivered to Storage ³	537	384	152	159	306	253	87	94	255	228	124	986	3,565
Passing to Mexico in Excess of Treaty	82	578	916	268	79	13	11	0	44	22	6	37	2,056
Imperial Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted ¹	27,483	33,197	32,861	36,778	12,177	21,079	15,913	25,307	24,122	18,595	21,781	24,552	293,845
Delivered to Mexico in Satisfaction of Treaty	14,225	19,386	12,773	17,197	5,524	9,648	5,760	11,804	11,027	9,903	10,575	12,239	140,061
Diverted by Others	9,297	6,774	9,185	10,530	4,666	8,169	8,117	7,613	7,391	6,792	7,272	8,442	94,248
Delivered to Storage ³	3,354	2,688	1,603	3,354	760	2,774	1,603	4,408	4,881	1,690	3,444	3,440	33,999
Passing to Mexico in Excess of Treaty	607	4,349	9,299	5,698	1,227	488	433	1,483	823	209	489	431	25,536
Coachella Valley Water District - Diversion at Imperial Dam													
Ordered but not Diverted ¹	58	189	2,176	1,377	1,978	519	701	1,417	1,085	260	304	436	10,500
Delivered to Mexico in Satisfaction of Treaty	0	82	706	739	373	36	143	647	500	138	92	56	3,512
Diverted by Others	58	104	274	265	1,203	447	497	524	233	105	125	162	3,997
Delivered to Storage ³	0	0	134	99	192	32	52	71	326	17	83	217	1,223
Passing to Mexico in Excess of Treaty	0	2	1,061	273	210	5	9	175	26	1	4	1	1,767
California Totals													
Ordered but not Diverted ¹	32,697	40,453	43,229	41,324	22,542	28,357	22,190	37,979	32,545	25,389	26,800	33,850	387,357
Delivered to Mexico in Satisfaction of Treaty	15,186	22,292	14,783	19,081	7,430	10,134	6,193	12,891	12,726	11,409	11,449	13,675	157,249
Diverted by Others	11,702	9,380	10,576	12,004	9,924	10,176	10,487	9,268	9,364	8,558	8,051	10,330	119,820
Delivered to Storage ^{2,3}	5,095	3,601	5,992	3,856	3,488	7,537	5,057	14,016	9,526	5,137	6,786	9,375	79,466
Passing to Mexico in Excess of Treaty	714	5,180	11,878	6,383	1,700	510	453	1,804	929	285	514	470	30,820

Footnotes:

¹ Due to converting daily cfs values to monthly AF totals and rounding to the nearest whole number, the sum of the disposition of water volumes may not equal the Ordered but not Diverted volume.

² Water not diverted by The Metropolitan Water District of Southern California remains in Lake Havasu.

³ Delivered to temporary storage in Senator Wash and Brock Reservoirs.

ARTICLE V(D): RECORDS OF DELIVERIES TO MEXICO IN SATISFACTION OF PART III OF THE 1944 TREATY REQUIREMENTS AND WATER PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS

In accordance with Article V(D) of the Consolidated Decree, Table 9 documents the records of deliveries to Mexico of water in satisfaction of the obligations of Part III of the “Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande” (1944 Mexican Water Treaty (Treaty)), signed February 3, 1944 and water passing to Mexico in excess of Treaty requirements.

The tabulations, based upon records furnished by the U.S. Section of the International Boundary and Water Commission (IBWC), show the quantities of water delivered to Mexico at the Northerly International Boundary, the Southerly International Boundary, the Limitrophe, and emergency deliveries to the City of Tijuana (as applicable), pursuant to Articles 10 and 15 of the 1944 Mexican Water Treaty and related Minutes of the IBWC; and the quantities of water passing to Mexico in excess of Treaty requirements.

Minutes incorporated into the tabulations include:

- 1) Minute 242 – Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River, signed August 30, 1973.

- 2) Minute 318 – Adjustment of Delivery Schedules for Water Allotted to Mexico for the Years 2010 through 2013 as a Result of Infrastructure Damage in Irrigation District 014, Rio Colorado, Caused by the April 2010 Earthquake in the Mexicali Valley, Baja California, signed December 17, 2010.
- 3) Minute 319 – Interim International Cooperative Measures in the Colorado River Basin Through 2017 and Extension of Minute 318 Cooperative Measures to Address the Continued Effects of the April 2010 Earthquake in the Mexicali Valley, Baja California, signed November 20, 2012.
- 4) Minute 322 – Extension of the Temporary Emergency Delivery of Colorado River Water for Use in Tijuana, Baja California, signed January 19, 2017.
- 5) Minute 323 – Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin, signed September 21, 2017.

Table 9. Deliveries to Mexico in Satisfaction of Part III of the 1944 Mexican Water Treaty, and Water Passing to Mexico in Excess of Treaty Requirements, Calendar Year 2020.

(Values are in acre-feet).¹

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Colorado River at the Northerly International Boundary²	85,917	124,436	183,617	158,583	116,723	128,267	142,213	119,679	102,273	55,882	82,149	81,379	1,381,118
Deliveries to Mexico in Satisfaction of Treaty Requirements													
Delivery at the Limitrophe ³	285	263	306	174	172	136	128	154	196	457	348	461	3,082
Diversion for Delivery at Tijuana ⁴	0	0	0	0	0	0	0	468	687	234	113	0	1,502
Delivery at Southerly International Boundary	7,359	8,001	9,091	6,911	9,338	8,555	7,938	6,482	7,895	9,822	9,247	8,172	98,809
Diversion Channel Discharge ⁵	0	0	2	0	35	8	226	1	0	0	0	0	272
Delivery to Mexico at the Northerly International Boundary ⁶	85,586	117,677	159,543	144,569	114,225	127,889	141,535	117,968	102,174	55,715	81,701	80,359	1,328,941
Total Deliveries to Mexico in Satisfaction of Treaty Requirements	93,230	125,941	168,942	151,655	123,770	136,588	149,827	125,073	110,952	66,228	91,409	88,992	1,432,606
Creation of Mexico's Water Reserve ^{7,8}	12,106	5,099	5,452	5,276	5,452	5,276	5,452	4,583	5,096	4,583	4,435	4,583	67,394
Delivery of Mexico's Water Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0
Total to Mexico in Satisfaction of Treaty Requirements	105,337	131,041	174,394	156,931	129,222	141,864	155,279	129,656	116,048	70,811	95,844	93,575	1,500,000
To Mexico in Excess of Treaty⁹													
Accountable Deliveries to Mexico¹⁰	332	6,759	24,074	14,013	2,498	378	678	1,711	100	167	448	1,020	52,177
Water Bypassed Pursuant to IBWC Minute 242	105,668	137,799	198,468	170,944	131,720	142,241	155,957	131,367	116,148	70,978	96,292	94,595	1,552,178
Water Provided to the United States Pursuant to Section IX.A of IBWC Minute 323¹¹	15,847	14,234	13,685	12,310	8,351	6,972	7,599	9,234	12,589	12,707	8,859	8,677	131,064
Volumes of Water in Mexico's Water Reserve¹²	0	0	0	0	0	0	0	0	0	0	0	0	36,367
BOY Balance													132,975
Creation ^{7,8}													67,394
Water Provided to the United States Pursuant to Section IX.A of IBWC Minute 323 ¹¹													(36,367)
Delivery													0
System Assessment ¹³													(4,100)
EOY Balance (Available for Future Delivery)													159,903

Note: Annual totals may differ from the sum of the displayed monthly values due to rounding and conversion from TCM to AF.

Footnotes:¹ Values shown have been updated from those in the original version of this report published on May 14, 2021 and reflect the final values reported by the United States Section of the International Boundary and Water Commission (IBWC).² Total flow in the river at the NIB as reported by IBWC; includes water passing to Mexico in excess of Treaty requirements.³ Wasteway deliveries to the river Limitrophe via the Cooper, 11 Mile, and 21 Mile lateral wasteways in satisfaction of the Treaty requirements.⁴ Temporary emergency delivery of Colorado River water for the City of Tijuana is diverted at Lake Havasu by MWD and delivered via the Colorado River Aqueduct, MWD's, SDCWA's and Otay Water District's distribution systems pursuant to IBWC [Minute 322](#).⁵ The Diversion Channel delivers water from the SIB confluence structure to the river or to the Bypass Drain. Consistent with a [2001 Memorandum of Understanding](#) between Reclamation and the U.S. Section of the IBWC and Section VI.B of IBWC [Minute 323](#), during the months of September through December (Mexico's four critical months) water is discharged to the Bypass Drain and is not charged to the Treaty. During the months of January through August water is discharged to the Colorado River and is charged to the Treaty.⁶ That portion of the flows at NIB necessary to meet the 1.5 million AF Treaty obligation.⁷ Water deferred by Mexico pursuant to Section V of IBWC Minute 323. Mexico's Water Reserve includes Emergency Storage, Revolving Account, and Intentionally Created Mexican Allocation.**Footnotes: Continued on next page.**

Table 9 Footnotes: Continued from previous page.

⁸ As documented in the United States Section of the IBWC's [letter dated December 22, 2021](#), Mexico deferred delivery of 67,394 AF in 2020 for the purpose of creating water in Mexico's Water Reserve. Of this volume, 41,000 AF were applied towards Mexico's required 2020 Binational Water Scarcity Contingency Plan (BWSCP) Contribution pursuant to the [Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin](#) dated July 11, 2019 (2019 Joint Report). In accordance with Section IV.A.3 of the 2019 Joint Report, as modified by Section H.2 of the [Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323](#) dated December 16, 2021 (2021 Joint Report), because the actual January 1, 2020 Lake Mead elevation was greater than 1,090 feet, Mexico's 2020 BWSCP Contribution was accounted for and remained available as part of Mexico's Water Reserve for use in subsequent years. For additional information, see Table 24.

⁹ Water passing to Mexico in excess of Mexico's monthly schedule. Calculated as the sum of daily differences between actual flows to Mexico and Mexico's total schedule.

¹⁰ "Accountable Deliveries" are calculated as Colorado River at NIB + Delivery at the Limitrophe + Diversion for Delivery at Tijuana + Delivery at SIB + Diversion Channel Discharge + Creation of Mexico's Water Reserve - Delivery of Mexico's Water Reserve. It includes water passing to Mexico in excess of Mexico's daily schedule. It does not include water bypassed pursuant to IBWC Minute 242.

¹¹ As documented in the United States Section of the IBWC's [letter dated December 23, 2020](#), Mexico made a total quantity of 36,367 AF of water available for use in the United States in partial satisfaction of the terms of Section IX.A of IBWC Minute 323. As documented in the United States Section of the IBWC's letter dated December 22, 2021, the 36,367 AF of water provided to the United States by Mexico was comprised of 26,394 AF of water deferred by Mexico in 2020 (the remaining balance after accounting for the 41,000 AF used by Mexico to meet its 2020 BWSCP Contribution) plus 9,973 AF from the existing balance of Mexico's Water Reserve from previous years.

¹² The volume of water in Mexico's Recoverable Water Savings and Mexico's Water Reserve, as documented in [the exchange of letters](#) between the United States Section of the IBWC and Reclamation.

¹³ In accordance with Section IV.B.2 of the 2019 Joint Report and Section H.2 of the 2021 Joint Report, through December 31, 2026, a one-time 10 percent assessment on creation of water in Mexico's Water Reserve shall be applied at the end of the year on the net volume created in Mexico's Water Reserve instead of the annual 3 percent evaporation losses stipulated in Section V.E.5 of IBWC Minute 323. The assessment volume is calculated as: $0.10 * (67,394 \text{ AF} - 26,394 \text{ AF}) = 4,100 \text{ AF}$ where 26,394 AF is the amount of water deferred by Mexico in 2020 that was provided to the United States as referenced in footnote 11.

ARTICLE V(E): RECORDS OF DIVERSIONS AND CONSUMPTIVE USE OF WATER FROM THE MAINSTREAM OF THE GILA AND SAN FRANCISCO RIVERS FOR THE BENEFIT OF THE GILA NATIONAL FOREST

Table 10. Diversions and Consumptive Use for the Benefit of the Gila National Forest, Calendar Year 2020.¹ (Values are in acre-feet.)

WATER SOURCE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Gila River	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
San Francisco River	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	Total Diversion	0												
	Total Consumptive Use	0												

¹These data are provided annually by the New Mexico Interstate Stream Commission.

INFORMATION PROVIDED IN ADDITION TO THE REPORTING REQUIREMENTS OF THE CONSOLIDATED DECREE

The information contained in the following sections of this report is supplemental to the records required by Article V of the Consolidated Decree of the United States Supreme Court in *Arizona v. California*, 547 U.S. 150 (2006). This information provides a more extensive record of activities relating to federal management of the Colorado River. In concise tabulations specific to various agreements, policies, rules, or Records of Decision, this information is intended to help the reader correlate the records found in the Article V portion of this report with the various agreements. The penultimate section contains a list of documents significant to the actions taken by the Bureau of Reclamation, the Lower Division States, and the water user agencies for the calendar year documented in this report. The final section of this report contains a series of maps showing the general location of the water users tabulated in this report.

SUMMARY OF WATER AVAILABILITY AND USE BY STATE

The Secretary of the Interior (Secretary) makes Colorado River water available to the Lower Division States in accordance with Article II of the Consolidated Decree.

Under Article II, the Secretary apportions water to the states under shortage, normal, or surplus conditions, and, in accordance with Article II(B)(6), may release to a state water which was apportioned to but unused by another state.

The amount of Colorado River water available for use in a state is impacted by various agreements and policies. Examples of these agreements and policies include storage and interstate release agreements, the Colorado River Water Delivery Agreement, the Inadvertent Overrun and Payback Policy (IOPP), System Conservation Implementation Agreements (SCIAs), the Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead, and the Lower Basin Drought Contingency Plan Agreement, including the Lower Basin Drought Contingency Operations.

Table 11 documents the amount of Colorado River water made available to each Lower Division State under Article II of the Consolidated Decree – calculated as the state's basic apportionment, as adjusted for actions including, but not limited to, water released pursuant to Article II(B)(6) of the Consolidated Decree, paybacks made by users within the state in accordance with the IOPP, conservation created pursuant to executed SCIA, water left in Lake Mead to meet a required Drought Contingency Plan Contribution, and creation and/or delivery of Intentionally Created Surplus – and the total consumptive use within a state. In those years when a given program shows activity a line will be included within the table denoting the activity and the volume of water involved. Otherwise, the line is omitted.

The table demonstrates whether the consumptive use results in an underrun or overrun of the amount of Colorado River water available to each Lower Division State for the calendar year covered by this report.

Table 11. State Apportionments, Adjustments, and Total Consumptive Use, Calendar Year 2020. (Values are in acre-feet.)

STATE	ADJUSTMENTS	ACTUAL USE
Arizona		
	Basic Apportionment ¹	2,800,000
	System Conservation Water - Pilot System Conservation Program ²	(349)
	System Conservation Water - Created by CRIT ³	(50,000)
	System Conservation Water - Created by FMYN ⁴	(10,000)
	System Conservation Water - Created by MVIDD ⁵	(6,137)
	ICS Creation (CRIT) ⁶	(3,736)
	ICS Creation (GRIC) ⁶	(83,000)
	DCP Contribution (CAWCD) ⁷	(180,608)
	Delivery of ICS (CAWCD)	4,606
	<u>Total Available Colorado River Water</u> ⁸	<u>2,470,776</u>
	<u>Total Consumptive Use</u> ⁹	<u>2,470,776</u>
	State Underrun or (Overrun)	0
	Unused AZ Apportionment Left in Lake Mead	0
	<u>Net State Underrun or (Overrun)</u>	<u>0</u>
California		
	Basic Apportionment ¹	4,400,000
	System Conservation Water - Pilot System Conservation Program ²	(202)
	ICS Creation (MWD) ⁶	(338,308)
	ICS Creation (IID) ^{6,10}	(1,579)
	DCP Contribution ¹¹	0
	<u>Total Available Colorado River Water</u> ⁸	<u>4,059,911</u>
	<u>Total Consumptive Use</u> ⁹	<u>4,059,911</u>
	State Underrun or (Overrun)	0
	Unused CA Apportionment Left in Lake Mead	0
	<u>Net State Underrun or (Overrun)</u>	<u>0</u>
Nevada		
	Basic Apportionment ¹	300,000
	ICS Creation (SNWA) ⁶	(36,432)
	DCP Contribution (SNWA) ¹²	(8,000)
	<u>Total Available Colorado River Water</u> ⁸	<u>255,568</u>
	<u>Total Consumptive Use</u> ⁹	<u>255,568</u>
	State Underrun or (Overrun)	0
	Unused NV Apportionment Left in Lake Mead	0
	<u>Net State Underrun or (Overrun)</u>	<u>0</u>

Footnotes: See next page.

Table 11 Footnotes:

¹ The state basic apportionment as described in Article II(B)(1) of the Consolidated Decree.

² The aggregate amount of water conserved in each state, in 2020, pursuant to individual System Conservation Implementation Agreements (SCIA) between Reclamation and water users participating in the Pilot System Conservation Program. In accordance with the SCIA, this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage. For additional information, see Tables 17 and 18.

³ System Conservation Water created by CRIT pursuant to the [*Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, the State of Arizona, Through the Arizona Department of Water Resources, the Central Arizona Water Conservation District, and the Colorado River Indian Tribes to Fund the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in use During Calendar Years 2020-2022*](#) dated July 26, 2019. This System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

⁴ System Conservation Water created by FMYN pursuant to [*SCIA No. 19-XX-30-W0658*](#) dated October 17, 2019. In accordance with the SCIA, Section 3.b of the [*Lower Basin Drought Contingency Plan Agreement*](#) (LB DCP Agreement), and Section II.3.e of the [*Agreement Regarding Lower Basin Drought Contingency Plan Obligations*](#) this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage. For additional information, see Table 20.

⁵ System Conservation Water created by MVIDD pursuant to [*SCIA No. 20-XX-30-W0686*](#) dated December 17, 2020. In accordance with the SCIA, Section 3.b of the LB DCP Agreement, and Section II.3.e of the [*Agreement Regarding Lower Basin Drought Contingency Plan Obligations*](#), this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage. For additional information, see Table 20.

⁶ The amount of Extraordinary Conservation ICS created by the water user during the reporting year. Extraordinary Conservation ICS creation by CAWCD, CRIT, IID and SNWA has been verified by Reclamation. All other values displayed in this column are provisional until verified by Reclamation. For additional information, see Table 22.

⁷ In accordance with Section III.B.1.a of [*Lower Basin Drought Contingency Operations*](#) (LBOps) and as summarized in LBOps Table 1, the state of Arizona was required to make a DCP Contribution in the total amount of 192,000 AF in 2020. In accordance with the [*Agreement Regarding Lower Basin Drought Contingency Plan Obligations*](#), the DCP Contribution in the amount of 180,608 AF was made by CAWCD through the creation of Extraordinary Conservation ICS and through the creation of Non-ICS Water in 2020. In accordance with Section III.E.4 of LBOps, the DCP Contribution Deficiency in the amount of 11,392 AF will be added to the state of Arizona's required DCP Contribution for 2021. For additional information, see Table 23.

⁸ The total amount of Colorado River water available for use by the state during the reporting year.

⁹ The total consumptive use of Colorado River water within the state as tabulated in the Article V(B) section of this report.

¹⁰ For informational purposes: By [*letter*](#) dated May 5, 2021, IID notified Reclamation that, in 2020, IID provisionally created 51,023 AF of extraordinary conservation in excess of its CRWDA water transfer obligations that was left in Lake Mead. In accordance with the [*California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus*](#) dated December 13, 2007, 1,579 AF were stored by IID as Extraordinary Conservation ICS; the remaining 49,444 AF were diverted by MWD as unused water in accordance with the California Seven Party Agreement.

¹¹ In accordance with Section III.B.3 of LBOps and as summarized in LBOps Table 1, the state of California was not required to make a DCP Contribution in 2020.

¹² In accordance with Section III.B.2.a of LBOps and as summarized in LBOps Table 1, the state of Nevada was required to make a DCP Contribution in the total amount of 8,000 AF in 2020. The required DCP Contribution was made by SNWA through the creation of Extraordinary Conservation ICS in 2020. For additional information, see Table 23.

INTERSTATE WATER BANKING WITHIN THE STATES OF ARIZONA, CALIFORNIA, AND NEVADA

On November 1, 1999, the Secretary of the Interior (Secretary) adopted Federal regulations, codified at 43 CFR Part 414, establishing a procedural framework for carrying out an interstate water banking program. The rule provided for authorized parties to enter into agreements whereby Colorado River water may be stored off-stream in one state for future benefit of consuming entities in another state.

The primary mechanism through which these transactions may occur is a Storage and Interstate Release Agreement (SIRA), which permits authorized entities in the Lower Division States to store Colorado River water off-stream, develop intentionally created unused apportionment (ICUA) in a future year, and make the ICUA available to the Secretary for release for use in another Lower Division State. These SIRAs provide structure and guidance, in accordance with Article II(B)(6) of the Consolidated Decree, for the actions the Secretary will take in releasing Colorado River water to a specific entity in order to implement the interstate contractual distribution of water under the interstate water banking program.

Two SIRAs have been implemented under 43 CFR Part 414. The first SIRA was entered into on December 18, 2002, among the Bureau of Reclamation, on behalf of the Secretary, the Arizona Water Banking Authority (AWBA), the Southern Nevada Water Authority (SNWA), and the Colorado River Commission of Nevada (CRCN). This SIRA provides for the storage, by AWBA, of either the State of Arizona's basic or surplus apportionment or the State of Nevada's unused basic or surplus apportionment for the benefit of SNWA.

In 2001, AWBA, SNWA, and CRCN executed an Agreement for Interstate Water Banking, amended January 1, 2005, April 1, 2009, and May 20, 2013, specifying the interstate banking relationship among those parties. This agreement establishes the terms and conditions for the off-stream storage of Colorado River water in Arizona and the establishment of Long-Term Storage Credits (LTSC) for the benefit

of SNWA. Under the AWBA/SNWA/CRCN interstate banking agreement, Colorado River water diverted and banked in Arizona is accounted as consumptively used by Arizona in the year it is diverted and, as a result, LTSCs are created for SNWA. When LTSCs are recovered, SNWA will divert Colorado River water in exchange for the Central Arizona Water Conservation District's (CAWCD) use of the LTSCs pursuant to the SIRA. The Secretary will release ICUA created by AWBA, via CAWCD's forbearance to SNWA, in that same year pursuant to Article II(B)(6) of the Consolidated Decree. ICUA used by SNWA is in addition to Nevada's basic apportionment and is accounted as consumptive use of Colorado River water in Nevada for that year.

The second SIRA was entered into on October 27, 2004, among Reclamation, on behalf of the Secretary, The Metropolitan Water District of Southern California (MWD), SNWA, and CRCN. This SIRA provides for the storage, by MWD, of the State of Nevada's unused basic or surplus apportionment for the benefit of SNWA.

In 2004, MWD, SNWA, and CRCN, executed an Operational Agreement, amended August 2009, October 2012, and October 2015, specifying the interstate banking relationship among those parties, and providing the terms and conditions under which MWD will store Nevada unused basic apportionment for the benefit of SNWA. When SNWA requests delivery of this water, MWD will develop ICUA by reducing its diversion of Colorado River water. The ICUA developed by MWD through its reduced diversion of Colorado River water will be released by the Secretary for use by SNWA.

Table 12 documents the Accumulated Long-Term Storage Credits (ALTSC) verified by AWBA and MWD, provisional LTSC accrued during the past year, LTSCs recovered during the past year, and ALTSC held for an entity with a SIRA.

Table 12. Colorado River Water Stored in one State Under 43 CFR Part 414 for the Benefit of Specific Entities in Another State (Interstate Water Banking), Calendar Year 2020. (Values are in acre-feet.)

	BOY Balance	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
NEVADA														
Water diverted and stored in AZ by AWBA for the benefit of SNWA														
Verified ALTSC ¹														
	613,846													
Accrued LTSC in 2020 ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Verified LTSC in 2020 ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ICUA Developed in 2020 ⁴	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total ALTSC ⁵	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846	613,846
Water diverted and stored in CA by MWD for the benefit of SNWA														
Verified ALTSC ^{1,6}														
	330,225													
Diverted in 2020 ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Verified LTSC in 2020 ⁶	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ICUA Developed in 2020 ^{4,6}	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total ALTSC ⁶	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225	330,225
TOTAL														
Water stored for the benefit of SNWA during the calendar year	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Balance of Water Stored for SNWA within AZ and CA ⁷	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071	944,071

Footnotes:

¹ ALTSCs are LTSCs verified by the banking entity and available for recovery by a specific entity with a valid SIRA. The amount of ICUA developed cannot exceed verified LTSCs. "BOY Balance" values shown above may differ from the previous year's end-of-year "Total ALTSC" due to differences between provisional and verified accounting of LTSCs. For additional information see the "[Interstate Water Banking](#)" section in the Significant Documents.

² Provisional LTSCs accrued during the reporting year for the benefit of a specific consuming entity in Nevada with a valid SIRA. Provisional LTSCs represent the amount of water diverted from the river and transported to the storage facility. Provisional LTSCs that have not been verified by AWBA or MWD are not eligible for certification and recovery. Accruals of LTSCs in Arizona for the benefit of consuming entities in Nevada and California are limited to 200,000 AF annually.

³ The provisional amount of LTSC's credited to SNWA's Interstate Account during the reporting year after incorporating the estimated losses and mandatory cut to the aquifer. The values displayed are provisional until verified by AWBA.

⁴ ICUA developed by AWBA or MWD during the reporting year. AWBA or MWD have certified this amount to be available and the Secretary has released it to a specific entity with a valid SIRA. The ALTSCs are certified by AWBA or MWD when ICUA is requested, and prior to its release by the Secretary. Total recovery of ALTSCs from AWBA cannot exceed 100,000 AF annually, due to a limitation defined under Arizona state law. When water is released from storage, Arizona or MWD will be required to reduce its consumptive use through the development of ICUA in an amount equal to Nevada's requested release. Nevada will be allowed to utilize the unused apportionment in an amount equal to the ICUA made available.

⁵ ALTSCs are the cumulative monthly sum of verified or estimated LTSCs.

⁶ In 2004, MWD, SNWA, and the Secretary entered into a SIRA to allow MWD to divert and store water for the benefit of SNWA. When storage occurs, it must be Nevada unused apportionment, which will require Nevada to reduce its consumptive use by an amount equal to the total storage. When water is released from storage, MWD will be required to reduce its consumptive use through the development of ICUA in an amount equal to Nevada's requested release and Nevada will be allowed to utilize the unused apportionment in an amount equal to the ICUA made available by MWD.

⁷ This cumulative balance includes both the BOY ALTSC balance as verified by AWBA and MWD and the verified LTSCs placed into storage during the reporting year.

INADVERTENT OVERRUNS AND PAYBACKS WITHIN THE STATES OF ARIZONA, CALIFORNIA, AND NEVADA

On October 10, 2003, the Secretary of the Interior (Secretary) executed the Colorado River Water Delivery Agreement authorizing the Inadvertent Overrun and Payback Policy (IOPP). The policy is set forth in the *Record of Decision, Colorado River Water Delivery Agreement, Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions, Final Environmental Impact Statement*, published in the *Federal Register* at 69 Fed. Reg. 12202 (March 15, 2004). Effective January 1, 2004, the IOPP, which applies only to Colorado River water users in the Lower Division States, defines inadvertent overruns, establishes procedures to account for inadvertent overruns, and sets forth the requirements for payback of inadvertent overruns to the Colorado River system.

For various reasons, a user may inadvertently divert, pump or receive Colorado River water in an amount that exceeds that to which the user is entitled for that year pursuant to the user's water delivery contract, decreed water right, or Secretarial reservation (inadvertent overrun).

In accordance with the IOPP, paybacks are required to commence in the calendar year that immediately follows the release date of the final Water Accounting Report that reports the overrun. Section 2.6 of the IOPP sets forth the number of years within which an overrun must be paid back and the minimum payback required for each year. Overruns are not allowed in a year for which the Secretary has determined a Shortage Condition.

The tabulations in Tables 13 through 15 document information associated with inadvertent overruns and paybacks, as applicable, for each individual water user, including:

- 1) The beginning-of-year overrun account balance.
- 2) The amount of overrun incurred in the reporting year.
- 3) The amount of validated paybacks made to the Colorado River system in the reporting year.
- 4) The end-of-year overrun balance.

Table 13. State of Arizona - Overruns, Paybacks, and Overrun Account Balances, Calendar Year 2020. (Values are in acre-feet)

WATER USER	DETAILS	ANNUAL TOTALS		APPROVAL	ENTITLEMENT
		DIVERSION	CONSUMPTIVE USE		
No overruns or paybacks occurred within the State of Arizona in the reporting year.					

Table 14. State of California - Overruns, Paybacks, and Overrun Account Balances, Calendar Year 2020. (Values are in acre-feet.)

WATER USER	DETAILS	ANNUAL TOTALS		APPROVAL	ENTITLEMENT
		DIVERSION	CONSUMPTIVE USE		
No overruns or paybacks occurred within the State of California in the reporting year.					

Table 15. State of Nevada - Overruns, Paybacks, and Overrun Account Balances, Calendar Year 2020. (Values are in acre-feet.)

WATER USER	DETAILS	ANNUAL TOTALS		APPROVAL	ENTITLEMENT
		DIVERSION	CONSUMPTIVE USE		
No overruns or paybacks occurred within the State of Nevada in the reporting year.					

LOWER COLORADO WATER SUPPLY PROJECT

The Lower Colorado Water Supply Act (Act), Public Law 99-655, November 14, 1986, authorized the Secretary of the Interior (Secretary) to construct, operate, and maintain the Lower Colorado Water Supply Project (LCWSP). Pursuant to the Act, the Secretary is authorized to enter into exchange contracts and contracts for the care, operation, and maintenance of all or any part of the project works, subject to such rules and regulations as the Secretary may prescribe. Reclamation assumed the care, operation, and maintenance of the LCWSP in 2013.

Any contracts executed by the Secretary to recover the costs of the LCWSP must be with persons, or Federal or non-Federal governmental entities whose lands or interests in lands are located adjacent to the Colorado River in the State of California who do not hold rights to Colorado River water or whose rights are insufficient to meet their present or anticipated future domestic, municipal, industrial, and recreational needs, as determined by the Secretary. Water for agricultural use is not authorized under the Act.

The Act authorized construction of wells with a total annual capacity of 10,000 acre-feet. Stage I of the LCWSP has been completed and consists of two wells located south of the All-American Canal (AAC) in Imperial County having a total design capacity of 5,000 acre-feet. The wells, which became operational as of August 1, 2003, pump groundwater and discharge it into the AAC for use by the Imperial Irrigation District (IID). IID then forbears the use of an equal amount of Colorado River water.

In September 1992, the Bureau of Reclamation entered into a contract to supply LCWSP water to the City of Needles (Needles) in annual amounts up to 3,500 acre-feet of the initial capacity. Pursuant to that contract, Needles enters into subcontracts for delivery of LCWSP water to non-Federal water users in San Bernardino, Riverside, and Imperial Counties. The Colorado River Board of California (CRBC) receives and reviews applications for LCWSP

subcontracts and makes recommendations to Reclamation. Reclamation reviews CRBC's recommendations and refers approved applicants to Needles for execution of subcontracts.

In September 1998, the Bureau of Land Management (BLM) was allocated 1,150 acre-feet of Stage I capacity for consumptive use on BLM administered lands in California located adjacent to the Colorado River. In December 2004, a Reclamation determination reserved an additional 350 acre-feet of Stage I capacity of the LCWSP for use by Reclamation facilities in California on land adjacent to the Colorado River. With that determination, the estimated 5,000 acre-feet per year of Stage I capacity was completely allocated.

The Act, as amended in 2005 by Public Law 109-103, authorized the Secretary to enter into agreements for the design and construction of the remaining stages of the LCWSP. Additionally, it authorized contracts with persons or entities holding water delivery contracts under Section 5 of the Boulder Canyon Project Act of 1928 for municipal and industrial uses within the State of California. On March 26, 2007, Reclamation entered into a contract with Needles and The Metropolitan Water District of Southern California (MWD), allowing MWD to receive as much unused water as available. MWD is depositing certain monies in a Water Quality Maintenance Trust Fund (Trust Fund) to provide for the long-term viability of the LCWSP or its replacement.

In 2010, development began for Stage II of the LCWSP to provide the remaining authorized capacity of up to 5,000 acre-feet per year. In 2013, following the initial planning and environmental compliance phase, Needles and Reclamation entered into a design, acquisition, and construction agreement, funded by the Trust Fund. Two new wells were constructed in 2017. LCWSP-3 and LCWSP-4 began well-development pumping in December 2017 and November 2017, respectively. The LCWSP began producing the entire 10,000 acre-feet of LCWSP water in 2018.

Table 16. Summary of Uses Offset by Pumpage from the Lower Colorado Water Supply Project, Calendar Year 2020. (Values are in acre-feet.)

		TOTAL
LCWSP Wellfield Pumpage¹		10,000
Federal LCWSP Contractors²		
BLM	Consumptive Use	137
Bureau of Reclamation - Parker Dam and Government Camp	Consumptive Use	0
	Total Federal Contractors' Consumptive Use	137
Non-Federal LCWSP Contractors³		
City of Needles	Consumptive Use	0
Needles' Subcontractors		
Southern California Gas Company	Consumptive Use	22
Pacific Gas & Electric Company	Consumptive Use	139
Havasu Water Company	Consumptive Use	21
Vista del Lago	Consumptive Use	22
Needles' Other Subcontractors	Consumptive Use	178
	Needles' and Subcontractors' Consumptive Use	382
LCWSP Water Available to MWD⁴		9,481
	Total Non-Federal Contractors' Consumptive Use	9,863

Footnotes:

¹ Non-Colorado River water pumped from the LCWSP wellfield and discharged into the AAC for delivery to IID. In accordance with the *Contract Among the United States, Imperial Irrigation District, and Coachella Valley Water District for Exchange of Water from The Lower Colorado Water Supply Project Well Field for Colorado River Water*, as amended, IID forbears the consumptive use of an equivalent amount of Colorado River, up to a maximum of 10,000 AF per year, to make such water available, via exchange, to the LCWSP beneficiaries.

² Total LCWSP Federal contractors' consumptive use. Colorado River water used was exchanged for LCWSP water.

³ Total LCWSP Non-Federal consumptive use by the City of Needles and its subcontractors. Colorado River water used was exchanged for LCWSP water.

⁴ Total amount of water pumped from the wellfield, up to a maximum of 10,000 AF, less consumptive use of LCWSP water by Federal and Non-Federal LCWSP contractors.

TRANSFERS, EXCHANGES, AND WATER MADE AVAILABLE BY CONSERVATION

Colorado River water apportioned to the Lower Division States has been further apportioned among the states of Arizona, California, and Nevada and is generally committed to specific persons or entities on a permanent basis. Increasing water demands within the Lower Division States must be met through a combination of conservation, transfers, exchanges, or new water sources which augment the limited supply of Colorado River water.

On October 10, 2003, the Secretary of the Interior entered into the Colorado River Water Delivery Agreement (CRWDA) with Imperial Irrigation District, Coachella Valley Water District, The Metropolitan Water District of Southern California, and the San Diego County Water Authority to resolve longstanding disputes regarding the priority, use, and transfer of Colorado River water within California. The CRWDA recognizes a variety of water transfers, exchanges, and conservation programs which alter the delivery of certain Colorado River water for up to 75 years.

Concurrent with the CRWDA, the California agencies entered into the Quantification Settlement Agreement, including a series of supplemental agreements, which collectively implement many provisions of the CRWDA through water transfers, water exchanges, and water conservation measures. Data as a result of the implementation of these agreements are documented in this section.

Tables 17 through 19 entitled “State of [State] Transfers, Exchanges and Water Made Available by Extraordinary Conservation, Calendar Year 2020” tabulate these transactions reported within Arizona, California, and Nevada.

For California, the tabulation documents water conserved in accordance with the CRWDA and other water conserved pursuant to specified agreements.

For Arizona and California, the tabulation includes System Conservation Water created in 2020 under the Pilot System Conservation Program (PSCP). Under the PSCP, System Conservation Water, conserved through the voluntary implementation of extraordinary conservation pilot projects, remained in Lake Mead to benefit system storage.

Table 20 entitled “Bureau of Reclamation – Water Made Available by Conservation, Calendar Year 2020” documents water made available by the Bureau of Reclamation through various conservation efforts, including water discharged to the Colorado River as a result of the operation of the Yuma Desalting Plant, water conserved by Warren H. Brock Reservoir, and Colorado River System Water conserved from projects addressing Section 3.b of the *Lower Basin Drought Contingency Plan Agreement*.

Table 21 entitled “Exhibit B to the Colorado River Water Delivery Agreement” is reproduced from the CRWDA for convenient reference.

Table 17. State of Arizona - Transfers, Exchanges, and Water Made Available by Extraordinary Conservation, Calendar Year 2020. (Values are in acre-feet.)¹

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
Pilot System Conservation Program (PSCP) ²	349
City of Bullhead City ³	349
Arizona LB DCP Agreement - System Conservation	50,000
Colorado River Indian Tribes ⁴	50,000

Footnotes:

¹ Additional conservation activities implemented in the state of Arizona to create Colorado River System Water addressing Section 3.b of the [Lower Basin Drought Contingency Plan Agreement](#) during the reporting year may be found in Table 20.

² Water conserved from projects implemented pursuant to System Conservation Implementation Agreements (SCIA) executed in accordance with the July 30, 2014 [Agreement Among The United States of America, Through The Department of the Interior, Bureau of Reclamation, The Central Arizona Water Conservation District, The Metropolitan Water District of Southern California, Denver Water, and The Southern Nevada Water Authority, For A Pilot Program for Funding the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in Use](#), as amended. Water conserved from projects implemented under the PSCP is for the sole purpose of increasing storage levels in Lake Mead and Lake Powell and will not accrue to the benefit or use of any individual water user.

³ In 2015, Reclamation and the City of Bullhead City (City) entered into [SCIA No. 15-XX-30-W0587](#), as amended, under the PSCP in which the City agreed to construct wastewater injection wells to recover and inject into the Colorado River aquifer effluent that would otherwise be lost by evaporation and dedicate a portion of this water as System Conservation Water. In accordance with the SCIA and Letter Agreement No. 15-XX-30-W0588 between Reclamation and CAWCD, this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

⁴ System Conservation Water created by the Colorado River Indian Tribes pursuant to the [Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, the State of Arizona, Through the Arizona Department of Water Resources, the Central Arizona Water Conservation District, and the Colorado River Indian Tribes to Fund the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in use During Calendar Years 2020-2022](#) dated July 26, 2019 (Conservation Agreement). In accordance with the Conservation Agreement, this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

Table 18. State of California - Transfers, Exchanges, and Water Made Available by Extraordinary Conservation, Calendar Year 2020. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
IID Conservation	438,200
1988 IID/MWD Water Conservation Agreement/1989 Approval Agreement (105,000 AF Total Conservation) ¹	
MWD's Use of Conserved Water	90,000
CVWD's Use of Conserved Water ²	15,000
1998 IID/SDCWA Water Conservation Agreement (Transfer to SDCWA) ³	192,500
2003 IID/CVWD Conserved Water Agreement (Intra-Priority 3 Transfer to CVWD) ⁴	73,000
All-American Canal Lining Project (67,700 AF Total Conservation) ⁵	
SDCWA Exchange with MWD	56,200
Supplemental Water Delivered to the SLRSP	11,500
CVWD Conservation	30,850
Coachella Canal Lining Project (30,850 Total Conservation) ⁶	
SDCWA Exchange with MWD	21,500
Supplemental Water Delivered to the SLRSP	4,500
Used by CVWD for Environmental Mitigation ⁷	4,850
Total MWD Exchange with SDCWA⁸	270,200
PVID/MWD Forbearance and Fallowing Program⁹	43,858
MWD/Bard Water District Land Management and Seasonal Fallowing Program¹⁰	6,075
Pilot System Conservation Program (PSCP)¹¹	202
City of Needles ¹²	202

Note: Additional transfers and water exchange obligations may be found in Table 21, Exhibit B to the CRWDA.

Footnotes:

¹ Water conserved by IID and made available to MWD in accordance with the 1988 *Agreement for the Implementation of a Water Conservation Program and Use of Conserved Water* (1988 IID/MWD Water Conservation Agreement), as amended, the 1989 Approval Agreement, as amended, and the December 17, 2014 letter agreement between MWD and IID; reported as an annual total.

² The volume shown above represents the estimated annual amount delivered to CVWD by MWD in accordance with Section 13 of the [Second Amendment to Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 Acre-Feet](#) dated December 11, 2019 and Letter Agreement No. 21-XX-30-W0710 between Reclamation and CVWD.

³ Water conserved by IID for transfer to SDCWA in accordance with the 1998 IID/SDCWA Water Transfer Agreement, as amended, and as referenced in Column 5, Exhibit B the CRWDA.

⁴ Water conserved by IID and made available to CVWD in accordance with the 2003 IID/CVWD Acquisition Agreement to meet the IID/CVWD Intra-priority 3 Transfer obligation as referenced in Column 8, Exhibit B of the CRWDA.

⁵ The [Secretarial Determination](#) of water conserved by lining certain reaches of the AAC was issued in December 2009. Conserved water was distributed in accordance with the Allocation Agreement among the United States, MWD, CVWD, IID, SDCWA, and the SLRSP, dated October 10, 2003 and Public Law 100-675, as amended.

⁶ The [Secretarial Determination](#) of water conserved by the CCLP was issued in January 2008. Conserved water was distributed in accordance with the Allocation Agreement among the United States, MWD, CVWD, IID, SDCWA, and the SLRSP, dated October 10, 2003, Public Law 100-675, as amended, and Exhibit B to the Settlement Agreement between CVWD and SDCWA, dated October 30, 2007.

⁷ The final amount of environmental mitigation water used by CVWD as reported in CVWD's [letter dated January 20, 2021](#).

⁸ The amount shown represents water exchanged between MWD and SDCWA in the reporting year. This is the sum of: Transfer to SDCWA (192,500 AF), All-American Canal Lining Project - SDCWA Exchange with MWD (56,200 AF), and Coachella Canal Lining Project - SDCWA Exchange with MWD (21,500 AF).

Footnotes continued on next page.

Table 18 Footnotes: Continued from previous page.

⁹ PVID's annual reduction in agricultural consumptive use of Colorado River water through land fallowing, as reflected in Table 8 of the report titled [Calendar Year 2020 Fallowed Land Verification Report, PVID/MWD Forbearance and Fallowing Program](#) dated May 12, 2021. This value represents the estimated reduction in PVID's agricultural consumptive use as a result of fallowing 10,736 acres from January through December in the reporting year.

¹⁰ Bard Water District's seasonal reduction in consumptive use of Colorado River water through land fallowing. This value represents the estimated reduction in Bard Water District's consumptive use as a result of fallowing 2,748.8 acres from April 1 through July 31 in the reporting year.

¹¹ Water conserved from projects implemented pursuant to System Conservation Implementation Agreements (SCIA) executed in accordance with the July 30, 2014 [Agreement Among The United States of America, Through The Department of the Interior, Bureau of Reclamation, The Central Arizona Water Conservation District, The Metropolitan Water District of Southern California, Denver Water, and The Southern Nevada Water Authority, For A Pilot Program for Funding the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in Use](#), as amended. Water conserved from projects implemented under the PSCP is for the sole purpose of increasing storage levels in Lake Mead and Lake Powell and will not accrue to the benefit or use of any individual water user.

¹² In 2016, Reclamation and the City of Needles (Needles) entered into [SCIA No. 15-XX-30-W0596](#) under the PSCP in which Needles agreed to implement water conservation measures on the Rivers Edge Golf Course to create System Conservation Water. In accordance with the SCIA, this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

Table 19. State of Nevada - Transfers, Exchanges, and Water Made Available by Extraordinary Conservation, Calendar Year 2020. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
No transfers, exchanges, or water made available by extraordinary conservation were made by Nevada during the reporting year.	

Table 20. Bureau of Reclamation - Water Made Available by Conservation, Calendar Year 2020. (Values are in acre-feet.)

CONSERVATION PROGRAM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Warren H. Brock Reservoir Conservation ^{1,2}	6,088	4,367	10,269	15,848	529	450	2,584	6,183	3,752	1,397	120	2,286	53,873
Yuma Desalting Plant Discharge to the Colorado River ³	18	17	18	18	18	18	14	10	16	19	10	16	192
Pilot System Conservation Program (PSCP) ⁴													551
LB DCP Agreement - Development of Colorado River System Water ⁵													
Fort McDowell Yavapai Nation ⁶													10,000
Mohave Valley Irrigation and Drainage District ⁷													6,137

Footnotes:

¹ Colorado River water conserved by Warren H. Brock Reservoir in the reporting year, as documented in the [Memorandum: Brock Reservoir Conservation Estimation for Calendar Year 2020](#). Note: previous years' *Colorado River Accounting and Water Use Report: Arizona, California, and Nevada* (Water Accounting Report) published by Reclamation have reported annual volumes of water stored, not conserved, by Brock Reservoir. The volume of water stored by Brock Reservoir, as published in past Water Accounting Reports through 2019, reflects actual operations and includes water conserved as well as flows and deliveries made for non-conservation operational purposes. Additional information, including the annual conservation volumes for 2013-2019 and the methodology used to estimate the volume of water conserved, may be found in the [Warren H. Brock Reservoir Conservation Summary Report](#) dated December 2020.

² Funding and construction of Brock Reservoir was made in accordance with Contract No. 07-XX-30-W05165 among Reclamation, CRCN, SNWA, MWD, and CAWCD. In exchange for funding and based proportionally on the amount of funding provided, SNWA received 400,000 AF of System Efficiency ICS, and MWD and CAWCD each received 100,000 AF of System Efficiency ICS. Brock Reservoir System Efficiency ICS balances may be seen in Table 22.

³ Water created by operation of the Yuma Desalting Plant and discharged to the Colorado River.

⁴ Water conserved from projects implemented pursuant to System Conservation Implementation Agreements executed in accordance with the July 30, 2014 [Agreement Among The United States of America, Through The Department of the Interior, Bureau of Reclamation, The Central Arizona Water Conservation District, The Metropolitan Water District of Southern California, Denver Water, and The Southern Nevada Water Authority For A Pilot Program for Funding the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in Use](#), as amended. Water conserved from projects implemented under the PSCP is for the sole purpose of increasing storage levels in Lake Mead and Lake Powell and will not accrue to the benefit or use of any individual water user. (Volume shown is the total amount of System Conservation Water conserved in 2020 from projects implemented in Arizona and California. For additional information, see Tables 17 and 18.)

⁵ Colorado River System Water conserved from projects addressing Section 3.b of the [Lower Basin Drought Contingency Plan Agreement](#) (LB DCP Agreement). This water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

⁶ In 2019, Reclamation and FMYN entered into [SCIA No. 19-XX-30-W0658](#) in which FMYN agreed to forego delivery of 10,000 AF of its Central Arizona Project water entitlement in 2020 to create System Conservation Water. In accordance with the SCIA, Section 3.b of the LB DCP Agreement, and Section II.3.e of the [Agreement Regarding Lower Basin Drought Contingency Plan Obligations](#), this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

⁷ In 2020, Reclamation and the Mohave Valley Irrigation and Drainage District (MVIDD) entered into [SCIA No. 20-XX-30-W0686](#) in which MVIDD agreed to forego irrigation water deliveries and fallow 1,196 acres of land for the period January 1, 2020 through December 31, 2020 to create System Conservation Water. In accordance with the SCIA, Section 3.b of the LB DCP Agreement, and Section 3.e of the [Agreement Regarding Lower Basin Drought Contingency Plan Obligations](#), this System Conservation Water remained in Colorado River reservoirs in the Lower Basin to benefit system storage.

Table 21. Exhibit B to the Colorado River Water Delivery Agreement.

		EXHIBIT B QUANTIFICATION AND TRANSFERS ¹ In Thousands of Acre-feet																							
Column:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
		IID Priority 3a													CVWD Priority 3a										
		Reductions													Additions										
Calendar Year	2 ^{Priority 1, 2 and 3b}	IID Priority Quantified Amount	3 ^{IID Reduction: MWD 1988}	4 ^{IID Reduction: AAC Lining}	5 ^{IID Reduction: SDCWA & SLR}	6 ^{IID Reduction: SDCWA}	7 ^{IID Reduction: IID/CVWD Mitigation Transfer}	8 ^{IID Reduction: IID/CVWD Transfer with Salton Sea Restoration}	9 ^{IID Reduction: Conditional ISG Backfill}	10 ^{IID Reduction: Misc. PPRs}	11 ^{IID Reduction: Total Amount (sum of columns 4 through 11)}	12 ^{IID Net Consumptive Use Amount (difference between column 3 and column 12)}	13 ^{IID Net Consumptive Use Amount (difference between column 3 and column 12)}	CVWD Priority 3a Quantified Amount	4 ^{CVWD Reduction: CC Lining, SDCWA & SLR}	5 ^{CVWD Reduction: Misc. PPRs}	6 ^{CVWD Reduction: Total Amount (sum of columns 15 + 16)}	7 ^{Intra-Priority 3 Transfer IID/CVWD}	8 ^{Intra-Priority 3 Transfer IID/CVWD}	9 ^{Intra-Priority 3 Transfer MWD/CVWD}	10 ^{CVWD Net Consumptive Use Amount (sum of columns 14 - 17 plus columns 18 + 19)}	11 ^{Total Priority 1-3 Use Plus PPR Consumptive Use (sum of columns 2+13+20 plus 11+16)}	12 ^{ISG Benchmarks}	13 ^{Annual Targets}	
1	2003	420												330	0	3	3	0	20	347				3,745.0	3,740
2	2004	420												330	0	3	3	0	20	347				3,730.0	3,707
3	2005	420												330	0	3	3	0	20	347				3,715.0	3,674
4	2006	420												330	26	3	29	0	20	321				3,665.0	3,640
5	2007	420												330	26	3	29	0	20	321				3,659.0	3,603
6	2008	420												330	26	3	29	4	20	325				3,571.3	3,566
7	2009	420												330	26	3	29	8	20	329				3,536.3	3,530
8	2010	420												330	26	3	29	12	20	333				3,501.3	3,510
9	2011	420												330	26	3	29	16	20	337				3,466.3	3,490
10	2012	420												330	26	3	29	21	20	342				3,431.3	3,470
11	2013	420												330	26	3	29	26	20	347				3,396.3	3,462
12	2014	420												330	26	3	29	31	20	352				3,376.3	3,455
13	2015	420												330	26	3	29	36	20	357				3,356.3	3,448
14	2016	420												330	26	3	29	41	20	362				3,336.3	3,440
15	2017	420												330	26	3	29	45	20	366				3,325.3	
16	2018	420												330	26	3	29	63	20	384				3,536.3	
17	2019	420												330	26	3	29	68	20	389				3,506.3	
18	2020	420												330	26	3	29	73	20	394				3,473.8	
19	2021	420												330	26	3	29	78	20	399				3,461.3	
20	2022	420												330	26	3	29	83	20	404				3,463.8	
21	2023	420												330	26	3	29	88	20	409				3,466.3	
22	2024	420												330	26	3	29	93	20	414				3,466.3	
23	2025	420												330	26	3	29	98	20	419				3,466.3	
24	2026	420												330	26	3	29	103	20	424				3,466.3	
25	2027	420												330	26	3	29	103	20	424				3,466.3	
26	2028	420												330	26	3	29	103	20	424				3,466.3	
	2029-2037 ¹³	420												330	26	3	29	103	20	424				3,466.3	
	2038-2047 ¹⁴	420												330	26	3	29	103	20	424				3,466.3	
	2048-2077 ¹⁴	420												330	26	3	29	100	20	421				3,466.3	

1 Exhibit B is independent of increases and reductions as allowed under the Inadvertent Overrun and Payback Policy.

2 Any higher use covered by MWD, any lesser use will produce water for MWD and help satisfy ISG Benchmarks and Annual Targets.

3 IID/MWD 1988 Conservation Program conserves up to 110,000 AFY and the amount is based upon periodic verification. Of amount conserved, up to 20,000 AFY to CVWD (column 19), which does not count toward ISG Benchmarks and Annual Targets, and remainder to MWD.

4 Ramp-up amounts may vary based upon construction progress, and final amounts will be determined by the Secretary pursuant to the Allocation Agreement.

5 Any amount identified in Exhibit B for mitigation purposes will only be from non-Colorado River sources and these amounts may be provided by exchange for Colorado River water.

6 Water would be transferred to MWD subject to satisfaction of certain conditions and to appropriate federal approvals. For informational purposes only, these transfers may also be subject to state approvals. Schedules are subject to adjustments with mutual consent. After 2006, these quantities will count toward the ISG Benchmarks (column 22) and Annual Targets (column 23) only if and to the extent that water is transferred into the Colorado River Aqueduct for use by MWD and/or SDCWA.

7 MWD can acquire if CVWD declines the water. Any water obtained by MWD will be counted as additional agricultural reduction to help satisfy the ISG Benchmarks and Annual Targets. MWD will provide CVWD 50,000 AFY of the 100,000 AFY starting in year 46.

8 IID has agreed to provide transfer amounts to meet the minimum ISG benchmarks, not to exceed a cumulative total of 145,000 AF. Maximum transfer amounts are 25,000 AF in 2006, 50,000 AF plus the unused amount from 2006 in 2009, and 70,000 AF plus the unused amounts from 2006 and 2009 in 2012. In addition to the maximum transfer amounts IID has also committed that no more than 72,500 AF of reduced inflow to the Salton Sea would result from these additional transfers.

9 Up to the amount shown, as agreed upon reduction to IID or CVWD to cover collectively the sum of individual Miscellaneous PPRs, federal reserved rights and decreed rights. This is a reduction that counts towards ISG Benchmarks and Annual Targets.

10 For purposes of Subparagraph 8(b)(2)(i) and (ii) and 8(c)(1) and (4) the Secretary will take into account: (i) the satisfaction of necessary conditions to certain transfers (columns 7 and 9) not within IID's control; (ii) the amounts of conserved water as determined, where such amounts may vary (columns 4, 6, 9 and 10); and (iii) with respect to column 7, reductions by IID will be considered in determining IID's compliance regardless of whether the conserved water is diverted into the Colorado River Aqueduct.

11 For purposes of Subparagraph 8(c)(1) and (4) the Secretary will take into account: (i) the satisfaction of necessary conditions to certain transfers (columns 15 and 16) not within CVWD's control; and (ii) the amounts of conserved water as determined, where such amounts may vary (column 15).

12 All consumptive use of priorities 1 through 3 plus 14,500 AF of PPRs must be within 25,000 AF of the amount stated.

13 Assumes SDCWA does not elect termination in year 35.

14 Assumes SDCWA and IID mutually consent to renewal term of 30 years.

Notes:

Substitute transfers can be made provided the total volume of water to be transferred remains equal or greater than amounts shown consistent with applicable federal approvals.

The shaded columns represent amounts of water that may vary.

INTENTIONALLY CREATED SURPLUS

In 2006, the Bureau of Reclamation entered into letter agreements with the Imperial Irrigation District and The Metropolitan Water District of Southern California to implement a demonstration program for the development of Intentionally Created Surplus (ICS). In this program, ICS refers to a quantity of surplus water the Secretary may make available for release under Article II(B)(2) of the Consolidated Decree. The demonstration program covered calendars years 2006 – 2007 and required that ICS be created through extraordinary conservation measures.

On December 13, 2007, the Secretary of the Interior signed the *Record of Decision, Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead* (2007 Interim Guidelines). Beginning in 2008, the creation of ICS is governed by the 2007 Interim Guidelines. Section XI.G.3 of the 2007 Interim Guidelines sets forth the policies and guidelines concerning the implementation of ICS, including the categories, creation, delivery, and accounting of ICS.

On May 20, 2019, the *Lower Basin Drought Contingency Plan Agreement* (LB DCP Agreement) was executed. Exhibit 1 to the LB DCP Agreement, the *Lower Basin Drought Contingency Operations* (LBOps), supplemented the policies and guidelines that govern the implementation of ICS.

ICS may be created using a variety of approved measures within the four established ICS categories: Extraordinary Conservation ICS, Tributary Conservation ICS, System Efficiency ICS, and Imported ICS. Additionally, Binational ICS may be credited to a water user pursuant to agreements executed under Minutes 319 and 323. The 2007 Interim Guidelines and LBOps set forth limitations as to the maximum quantities of ICS that may be created during each year, delivered in a year, and accumulated in a water user's ICS account.

The following conditions apply to ICS:

- 1) During the year of creation, and with the exception of System Efficiency ICS, there is a one-time deduction of 10 percent from the amount of ICS created which is dedicated to system storage to provide a collective storage benefit for Colorado River water users. Through December 31, 2026, these volumes shall not be subject to any further assessments for system or evaporation losses.¹
- 2) If the Secretary releases Flood Control Surplus water, Extraordinary Conservation ICS accumulated in ICS accounts is reduced by the amount of the Flood Control Surplus on an acre-foot for acre-foot basis until no Extraordinary Conservation ICS remains.
- 3) If a water user has an overrun payback obligation, the water user must repay the obligation in full before it can request or receive delivery of ICS.

The Secretary is responsible for approving plans for the creation of ICS (including any modifications to such plans) and for verifying and accounting for ICS creation and delivery.

Table 22 documents information associated with ICS for each individual water user, including:

- 1) The beginning of year ICS account balance.
- 2) The amount of ICS created in the reporting year.
- 3) The amount of ICS delivered in the reporting year.
- 4) The end of year ICS account balance, after applying any applicable reductions.

¹ In accordance with Section I of LBOps, California contractors that are not parties to the LB DCP Agreement shall not be subject to the provisions of LBOps but shall instead remain subject to all of the applicable terms and conditions of the 2007 Interim Guidelines including, but not limited to, a one-time deduction of 5 percent from the amount of ICS created and an annual evaporation loss of 3 percent to the end-of-year balance of Extraordinary Conservation ICS beginning in the year after creation.

Table 22. Intentionally Created Surplus by State, Water User, and ICS Type, Calendar Year 2020. (Values are in acre-feet.)

State/ Water User	ICS Type	BOY Balance ¹	Creation ²	System Assessment ³	IOPP Payback ⁴	Delivery	Evaporation ³	EOY Balance
Arizona								
CAWCD	Extraordinary Conservation	235,757	47,434	(4,743)	0	(4,606)	-	273,842
	System Efficiency - Warren H. Brock	100,000	0	-	0	0	-	100,000
	System Efficiency - YDP Pilot Run	3,050	0	-	0	0	-	3,050
	Binational ICS ⁵	23,750	9,091	-	0	0	-	32,841
						Total CAWCD:		409,733
CRIT	Extraordinary Conservation	5,647	3,736	(374)	0	0	-	9,009
GRIC	Extraordinary Conservation ⁶	105,300	83,000	(8,300)	0	0	-	180,000
						Total Arizona ICS:		598,742
						Total Arizona ICS Subject to ICS Accumulation Limit: ⁷		495,692
California								
MWD	Extraordinary Conservation	866,313	338,308	(33,831)	0	0	-	1,170,790
	System Efficiency - Warren H. Brock	65,000	0	-	0	0	-	65,000
	System Efficiency - YDP Pilot Run	24,397	0	-	0	0	-	24,397
	Binational ICS ⁵	23,750	9,092	-	0	0	-	32,842
						Total MWD:		1,293,029
IID	Extraordinary Conservation	50,000	1,579	(79)	0	0	(1,500)	50,000
	Binational ICS ⁵	23,750	9,092	-	0	0	-	32,842
						Total IID:		82,842
						Total California ICS:		1,375,871
						Total California ICS Subject to ICS Accumulation Limit: ⁷		1,286,474
Nevada								
SNWA	Extraordinary Conservation	148,478	44,432	(4,443)	0	0	-	188,467
	Extraordinary Conservation converted from Tributary Conservation / Imported ⁸	210,088	-	-	0	0	-	210,088
	Tributary Conservation	-	34,771	(3,477)	0	0	-	31,294
	Imported - Coyote Spring Valley	-	0	0	0	0	-	0
	System Efficiency - Warren H. Brock	400,000	0	-	0	0	-	400,000
	System Efficiency - YDP Pilot Run	3,050	0	-	0	0	-	3,050
	Binational ICS ⁵	23,750	9,092	-	0	0	-	32,842
						Total Nevada ICS:		865,741
						Total Nevada ICS Subject to ICS Accumulation Limit: ⁷		431,397
						Total ICS stored in Lake Mead: EOY 2020		2,840,354

Note: A dash (-) indicates the column is not applicable.

Footnotes: See next page.

Table 22 Footnotes:

¹ Reflects the amount shown as the "EOY Balance" in the 2019 *Colorado River Accounting and Water Use Report* as adjusted for: (1) any differences between provisional and verified 2019 ICS creation amounts, and (2) the conversion of Tributary Conservation ICS to Extraordinary Conservation ICS on January 1, 2020 in accordance with Section XI.G.3.A.2 of the [2007 Interim Guidelines](#).

² The amount of ICS created by the water user during the reporting year. Extraordinary Conservation ICS creation by CAWCD, CRIT, IID, and SNWA has been verified by Reclamation. All other values displayed in this column are provisional until verified by Reclamation. In accordance with Section IV.B of [Lower Basin Drought Contingency Operations](#) (LBOps), the Secretary of the Interior [authorized](#) additional Extraordinary Conservation ICS creation capacity for the state of Arizona in 2020. The total annual Extraordinary Conservation ICS creation for 2020 remained within the 625,000 AF Extraordinary Conservation maximum limitation set forth in Section XI.G.3.B.4 of the 2007 Interim Guidelines. Tributary Conservation ICS, Imported ICS, System Efficiency ICS, and Binational ICS creation amounts are not subject to the 625,000 AF annual limitation. In 2020, Extraordinary Conservation ICS created by Nevada and Arizona was used to meet required DCP Contributions. For additional information see Table 23.

³ In accordance with Section IV.A.2 of LBOps, there shall be a one-time deduction of 10 percent of any Extraordinary Conservation, Tributary Conservation, or Imported ICS created. Through December 31, 2026, these volumes shall not be subject to any further assessments for system or evaporation losses. In accordance with Section I of LBOps, California contractors that are not parties to the [Lower Basin Drought Contingency Plan Agreement](#) shall not be subject to the provisions of LBOps but shall instead remain subject to all of the applicable terms and conditions of the 2007 Interim Guidelines. Therefore, in accordance with Section XI.G.3.B.2 and Section XI.G.3.B.7 of the 2007 Interim Guidelines, respectively, IID's ICS creation amount is subject to a 5 percent system assessment in the year of creation and a 3 percent evaporation loss, which is applied annually to IID's Extraordinary Conservation ICS EOY balance beginning in the year after the ICS is created and continuing until no Extraordinary Conservation ICS remains in Lake Mead.

⁴ In accordance with Section XI.G.3.C.7 of the 2007 Interim Guidelines, if a contractor has an overrun payback obligation, the contractor must repay the overrun payback obligation in full before requesting or receiving delivery of ICS. If a contractor requests to use its ICS credits to pay back an overrun, the contractor's ICS account(s) shall be reduced by the amount of the payback prior to calculating the evaporation loss and the remaining ICS credits available to the contractor.

⁵ The amount of Binational ICS in the water user's account pursuant to the 2012 Contributed Funds Agreement dated November 20, 2012 (Agreement No. 12-XX-30-W0565), as modified by Section 4.6 of the Interim Operating Agreement for Implementation of Minute 323 dated September 21, 2017 (2017 Interim Operating Agreement); and the 2017 Contributed Funds Agreement (Agreement No. 17-XX-30-W0625) dated September 21, 2017. In accordance with Section 7.3.2 of the 2017 Interim Operating Agreement, Reclamation notified each water user of the amount of Binational ICS added to its Binational ICS Account by [letter dated May 7, 2021](#).

⁶ In accordance with the [Agreement Between the United States of America and the Gila River Indian Community for the Creation of Intentionally Created Surplus for Firming](#) (Agreement No. 19-XX-30-W0657) dated May 20, 2019, GRIC agreed to conserve 100,000 AF in Lake Mead prior to December 31, 2020, through the creation of Extraordinary Conservation ICS, for the exclusive use of the United States to fulfill its firming obligation as required by the Arizona Water Settlements Act of 2004. After incorporating the 10 percent system assessment of 10,000 AF, 90,000 AF remains in GRIC's Extraordinary Conservation ICS EOY Balance for the United States' firming obligation. In accordance with Section 7.1, Reclamation shall not request, and GRIC shall not order, delivery of this Extraordinary Conservation ICS for firming any time before December 31, 2026.

⁷ In accordance with Section IV.C of LBOps, the maximum total amount of Extraordinary Conservation ICS, Binational ICS, and DCP ICS that may be accumulated in all ICS Accounts, at any time, is limited to the following: (1) 1,700,000 AF for California; (2) 500,000 AF for Nevada; and (3) 500,000 AF for Arizona, as may be modified by [agreements](#) to share ICS accumulation space. In 2020, sharing of ICS accumulation space did not occur.

⁸ The verified amount of Tributary Conservation ICS created by SNWA in 2019 is 34,321 AF. This is revised from the provisional amount of 34,929 AF shown in the 2019 *Colorado River Accounting and Water Use Report*. After applying the 10 percent reduction for system assessment to the verified amount, the 2019 EOY Tributary Conservation ICS balance is 30,889 AF. In accordance with Section XI.G.3.A.2 of the 2007 Interim Guidelines, this amount was converted to Extraordinary Conservation ICS at the beginning of 2020.

DROUGHT CONTINGENCY/BINATIONAL WATER SCARCITY CONTINGENCY PLAN CONTRIBUTIONS

On May 20, 2019, the *Lower Basin Drought Contingency Plan Agreement* (LB DCP Agreement) was executed pursuant to Public Law No. 116-14. The LB DCP Agreement was designed to further address the historic drought and dry conditions that have been observed in the Colorado River Basin since 2000.

Based on the actual operating experience gained after the adoption of the *Record of Decision, Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead* dated December 13, 2007 (2007 Interim Guidelines) and emerging scientific information regarding the increasing variability and anticipated decline in Colorado River reservoir levels, additional measures were needed to reduce the risk of Lakes Powell and Mead declining to critical elevations should drought and low runoff conditions continue.

Within the LB DCP Agreement, each of the Lower Basin states agreed to reduce their demand of mainstem Colorado River water through DCP Contributions which are in addition to the shortage reductions outlined in the 2007 Interim Guidelines. Section III and Table 1 of Exhibit 1 to the LB DCP Agreement, the *Lower Basin Drought Contingency Operations* (LBOps), contains the annual DCP Contributions that are to be made by each state at specified Lake Mead elevations. Section II of the LBOps, defines the following methods that may be used to meet a DCP Contribution:

- Conversion of existing Extraordinary Conservation Intentionally Created Surplus (ICS) to DCP ICS.
- Conversion of Extraordinary Conservation, System Efficiency, or Binational ICS created after the effective date of the LBOps to DCP ICS.
- Simultaneous creation and conversion of Extraordinary Conservation, System Efficiency, or Binational ICS to DCP ICS.
- Creation of Non-ICS Water (often commonly referred to as creation of “system water”).

Table 23 documents the annual DCP Contribution that was required for each Lower Basin state during 2020, the method(s) used to meet the DCP Contribution, and any DCP Contribution Deficiency.

Prior to adoption of the LB DCP Agreement, in September 2017, the United States and Mexico signed Minute 323¹ to extend continued cooperative efforts on the Colorado River. Sharing a common vision with the United States on the need for additional measures to avoid reaching critical reservoir elevations at Lake Mead, Mexico agreed to adopt a Binational Water Scarcity Contingency Plan (BWSCP); however the effectiveness of the BWSCP was contingent on adoption of the DCP in the United States. Similar to the LB DCP Agreement, the BWSCP provides for Mexico to make water savings contributions at specified Lake Mead elevations² which could be recovered at later when reservoir conditions improve. The implementing details of the BWSCP are contained in the *Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin* dated July 11, 2019 (2019 Joint Report).

Annual contributions by Mexico are made pursuant to Section IV of Minute 323 and Section II of the 2019 Joint Report consistent with Mexico’s BWSCP. Pursuant to Section IV.A.1 of the 2019 Joint Report, Mexico may make its BWSCP Contribution from the following methods:

- By means of a downward adjustment to the schedule for annual delivery of Mexico of its Article 10(a) allotment under the 1944 Mexican Water Treaty.
- By converting Mexico’s Water Reserve to Mexico’s Recoverable Water Savings.
- A combination of the above.

Table 24 documents Mexico’s annual BWSCP Contribution that was required during the reporting year and the method(s) used to meet the Contribution.

¹Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin.

²Referred to as “Mexico’s Recoverable Water Savings”.

Table 23. U.S. Drought Contingency Plan Contributions by State, Water User, and DCP Contribution Type, Calendar Year 2020.
 (Values are in acre-feet.)

State/ Water User	Required DCP Contribution ¹	Conversion of Existing ICS to DCP ICS	Creation/Simultaneous Conversion of ICS to DCP ICS ²	Creation of Non-ICS Water	Total DCP Contribution	DCP Contribution Deficiency ³
Arizona	192,000	0	47,434	133,174	180,608	11,392
CAWCD ⁴						
California	0	0	0	0	0	0
Nevada	8,000	0	8,000	0	8,000	0
SNWA						

Footnotes:

¹ The DCP Contribution required during the reporting year in accordance with Section III.B of [Lower Basin Drought Contingency Operations](#) (LBOps) and as summarized in LBOps Table 1.

² In accordance with Section III.E.3 of LBOps, because the actual January 1, 2020 Lake Mead elevation was higher than 1,090 feet, any ICS created for the purpose of simultaneous creation and conversion to DCP ICS remained available as the type of ICS originally created.

³ In accordance with Section III.E.4 of LBOps, a state's DCP Contribution Deficiency will be added to the state's required DCP Contribution for 2021.

⁴ On behalf of the state of Arizona, CAWCD's DCP contribution was made in accordance with the [Agreement Regarding Lower Basin Drought Contingency Plan Obligations](#).

Table 24. Mexico's Binational Water Scarcity Contingency Plan Contribution, Calendar Year 2020. (Values are in acre-feet.)

	Required BWSCP Contribution¹	Conversion of Mexico's Water Reserve to Mexico's Recoverable Water Savings	Downward Adjustment to Mexico's Colorado River Water Delivery Schedule²	Total BWSCP Contribution
Mexico	41,000			
		0	41,000	41,000

Footnotes:

¹ The Binational Water Scarcity Contingency Plan (BWSCP) contribution required during the reporting year in accordance with Section IV of IBWC [Minute 323](#), Section II of the [*Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin*](#) dated July 11, 2019 (2019 Joint Report), and Section H of the [*Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323*](#) dated December 16, 2021 (2021 Joint Report).

² As documented in Table 9 and [the exchange of letters](#) between United States Section of the IBWC and Reclamation, Mexico deferred delivery of 67,394 AF in 2020 for the purpose of creating water in Mexico's Water Reserve. Of this volume, 41,000 AF were applied towards Mexico's required 2020 BWSCP contribution pursuant to the 2019 Joint Report. In accordance with Section IV.A.3 of the 2019 Joint Report, as modified by Section H.2 of the 2021 Joint Report, because the actual January 1, 2020 Lake Mead elevation was greater than 1,090 feet, Mexico's 2020 BWSCP contribution was accounted for and remained available as part of Mexico's Water Reserve for use in subsequent years.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2020

The table below includes agreements, letters, regulations and operating plans that impacted Reclamation's delivery of Colorado River water during calendar year 2020. These documents may be retrieved by clicking on the item in the electronic version of the report which is available on Reclamation's website: <https://www.usbr.gov/lc/region/g4000/wtracct.html>. These documents are best accessed using Microsoft's Internet Explorer. Acronyms used below are defined on the page of this report entitled, "Acronyms and Abbreviated Terms."

RECORDS OF DECISION	
1.	The Record of Decision for Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead dated December 13, 2007. This document provides the framework used by the Secretary of the Interior for shortage, coordinated operation of Lake Powell and Lake Mead, and to encourage conservation, plan for shortages, implement closer coordination of operations of Lake Powell and Lake Mead, and preserve flexibility to deal with further challenges.
2.	The Record of Decision for the Colorado River Water Delivery Agreement: Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions Final Environmental Impact Statement dated October 10, 2003. The Water Delivery Agreement provides certainty regarding water entitlements that are necessary for continued effective implementation of the Secretary's responsibilities as Water Master on the lower Colorado River.

REPORTS	
3.	2020 Annual Operating Plan for Colorado River Reservoirs.

INTERIM DETERMINATIONS	
4.	The Secretary's Interim Determination for the amount of water conserved and the amount of water made available for allocation as a result of the Coachella Canal Lining Project, dated January 31, 2008.
5.	The Secretary's Interim Determination for the amount of water conserved and the amount of water made available for allocation as a result of the All-American Canal Lining Project, dated December 4, 2009.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2020

WATER ACCOUNTING	
6.	A description on how irrigation water is calculated by the USGS for areas where estimates of diversion are required.
7.	Maps showing the locations of the wells and river pumps reported by the USGS.
8.	Procedure for Determining Return Flow Credits to Nevada from Las Vegas Wash, adopted by the Task Force on Unmeasured Return Flows on August 28, 1984.
9.	Reclamation letter to SNWA and CRCN dated December 5, 2007 regarding Las Vegas Valley Return Flow Credit Methodology.
10.	Technical Memorandum providing a summary of the estimates of unmeasured return flow from the Palo Verde Ecological Reserve (PVER), Dennis Underwood Conservation Area, and PVER-South units of the Lower Colorado River Multi-Species Conservation Program.
11.	IID's letter to Reclamation dated May 5, 2021 regarding excess extraordinary conservation created by IID in Calendar Year 2020.

UNITED STATES-MEXICO 1944 WATER TREATY	
12.	Minute 242 – Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River.
13.	Minute 318 – Adjustment of Delivery Schedules for Water Allotted to Mexico for the Years 2010 Through 2013 as a Result of Infrastructure Damage in Irrigation District 014, Rio Colorado, Caused by the April 2010 Earthquake in the Mexicali Valley, Baja California.
14.	Minute 319 – Interim International Cooperative Measures in the Colorado River Basin Through 2017 and Extension of Minute 318 Cooperative Measures to Address the Continued Effects of the April 2010 Earthquake in the Mexicali Valley, Baja California.
15.	Minute 322 – Extension of the Temporary Emergency Delivery of Colorado River Water for use in Tijuana, Baja California
16.	Minute 323 – Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin
17.	2001 Memorandum of Understanding between Reclamation and the U.S. Section of the IBWC regarding deliveries at SIB.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2020

UNITED STATES-MEXICO 1944 WATER TREATY	
18.	Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin dated July 11, 2019.
19.	U.S. Section of the IBWC's letter to Reclamation dated December 23, 2020 regarding Water Provided to the United States Pursuant to Section IX.A of Minute 323.
20.	Reclamation's response letter to the U.S. Section of the IBWC dated December 28, 2020 regarding Water Provided to the United States Pursuant to Section IX.A of Minute 323.
21.	Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323 dated December 16, 2021.
22.	Letters exchanged between the U.S. Section of the IBWC and Reclamation regarding the accounting of the volumes of Colorado River water in Mexico's Water Reserve and Mexico's Recoverable Water Savings through calendar year 2020.

INTERSTATE WATER BANKING	
23.	43 CFR Part 414: Offstream Storage of Colorado River Water and Development and Release of Intentionally Created Unused Apportionment in the Lower Division States; Final Rule.
24.	Documents related to Colorado River water diverted and stored in Arizona by AWBA for the benefit of SNWA.
25.	Documents related to Colorado River water diverted and stored in California by MWD for the benefit of SNWA.

INADVERTENT OVERRUN AND PAYBACK POLICY	
26.	Inadvertent Overrun and Payback Policy dated October 10, 2003.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2020

SYSTEM CONSERVATION	
27.	Agreement (No. 14-XX-30-W0574) Among The United States of America, Through The Department of the Interior, Bureau of Reclamation, The Central Arizona Water Conservation District, The Metropolitan Water District of Southern California, Denver Water, and The Southern Nevada Water Authority, For A Pilot Program for Funding the Creation of Colorado River System Water through Voluntary Water Conservation and Reductions in Use dated July 30, 2014, including Amendment Nos. 1, 2 and 3.
28.	System Conservation Implementation Agreement No. 15-XX-30-W0587 Between Reclamation and City of Bullhead City, Arizona to Implement a Pilot System Conservation Program dated September 15, 2015.
29.	System Conservation Implementation Agreement No. 15-XX-30-W0596 Between Reclamation and the City of Needles to Implement a Pilot System Conservation Program dated April 15, 2016.
30.	Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, the State of Arizona, Through the Arizona Department of Water Resources, the Central Arizona Water Conservation District, and the Colorado River Indian Tribes to Fund the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in use During Calendar Years 2020-2022 dated July 26, 2019.
31.	System Conservation Implementation Agreement No. 19-XX-30-W0658 Between Reclamation and the Fort McDowell Yavapai Nation dated October 17, 2019.
32.	System Conservation Implementation Agreement No. 20-XX-30-W0686 Between Reclamation and the Mohave Valley Irrigation and Drainage District dated December 17, 2020.
33.	Warren H. Brock Reservoir Conservation Summary Report dated December 2020.
34.	Memorandum: Brock Reservoir Conservation Estimation for Calendar Year 2020.

COLORADO RIVER WATER DELIVERY AGREEMENT	
35.	CVWD's letter to Reclamation dated January 20, 2021 providing the final amount of environmental mitigation water used in Calendar Year 2020 for the CCLP.
36.	Second Amendment to Delivery and Exchange Agreement between MWD and CVWD for 35,000 Acre-Feet dated December 11, 2019.

**DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF
AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2020**

INTENTIONALLY CREATED SURPLUS	
37.	Joint Letter from ADWR, SNWA, and MWD dated October 15, 2019 regarding ICS Creation Sharing Capacity in Calendar Year 2020.
38.	Joint Letter from MWD, SNWA, ADWR, and CRCN dated March 11, 2021 regarding Additional ICS Creation Capacity and Use of Accumulation Capacity in Calendar Year 2020 for Arizona ICS Creators.
39.	2007 California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus (California ICS Agreement) dated December 13, 2007.
40.	Agreement between the United States of America and the Gila River Indian Community for the Creation of Intentionally Created Surplus for Firming (Agreement No. 19-XX-30-W0657) dated May 20, 2019.
41.	Reclamation's letters to CAWCD, IID, MWD, and SNWA dated May 7, 2021 regarding Binational ICS credited to each agency in Calendar Year 2020.
42.	Documents related to the creation, delivery, and accounting of the Central Arizona Water Conservation District's ICS.
43.	Documents related to the creation, delivery, and accounting of the Colorado River Indian Tribes' ICS.
44.	Documents related to the creation, delivery, and accounting of the Gila River Indian Community's ICS.
45.	Documents related to the creation, delivery, and accounting of the Imperial Irrigation District's ICS.
46.	Documents related to the creation, delivery, and accounting of The Metropolitan Water District of Southern California's ICS.
47.	Documents related to the creation, delivery, and accounting of the Southern Nevada Water Authority's ICS.

LOWER BASIN DROUGHT CONTINGENCY PLAN	
48.	Lower Basin Drought Contingency Plan Agreement dated May 20, 2019.
49.	Lower Basin Drought Contingency Operations.

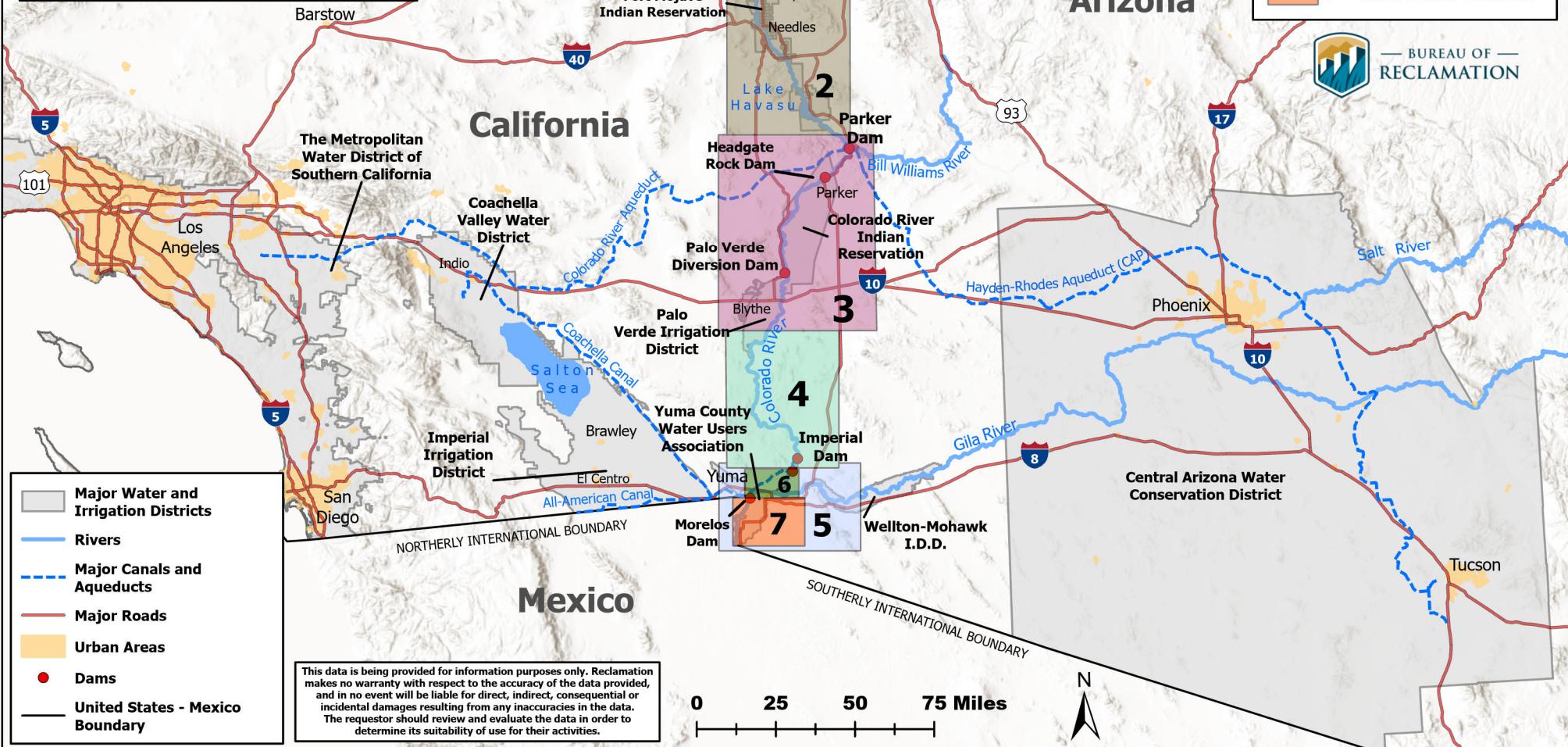
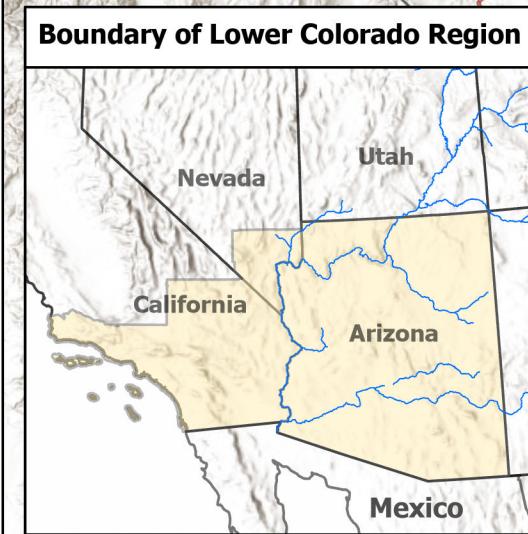
**DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF
AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2020**

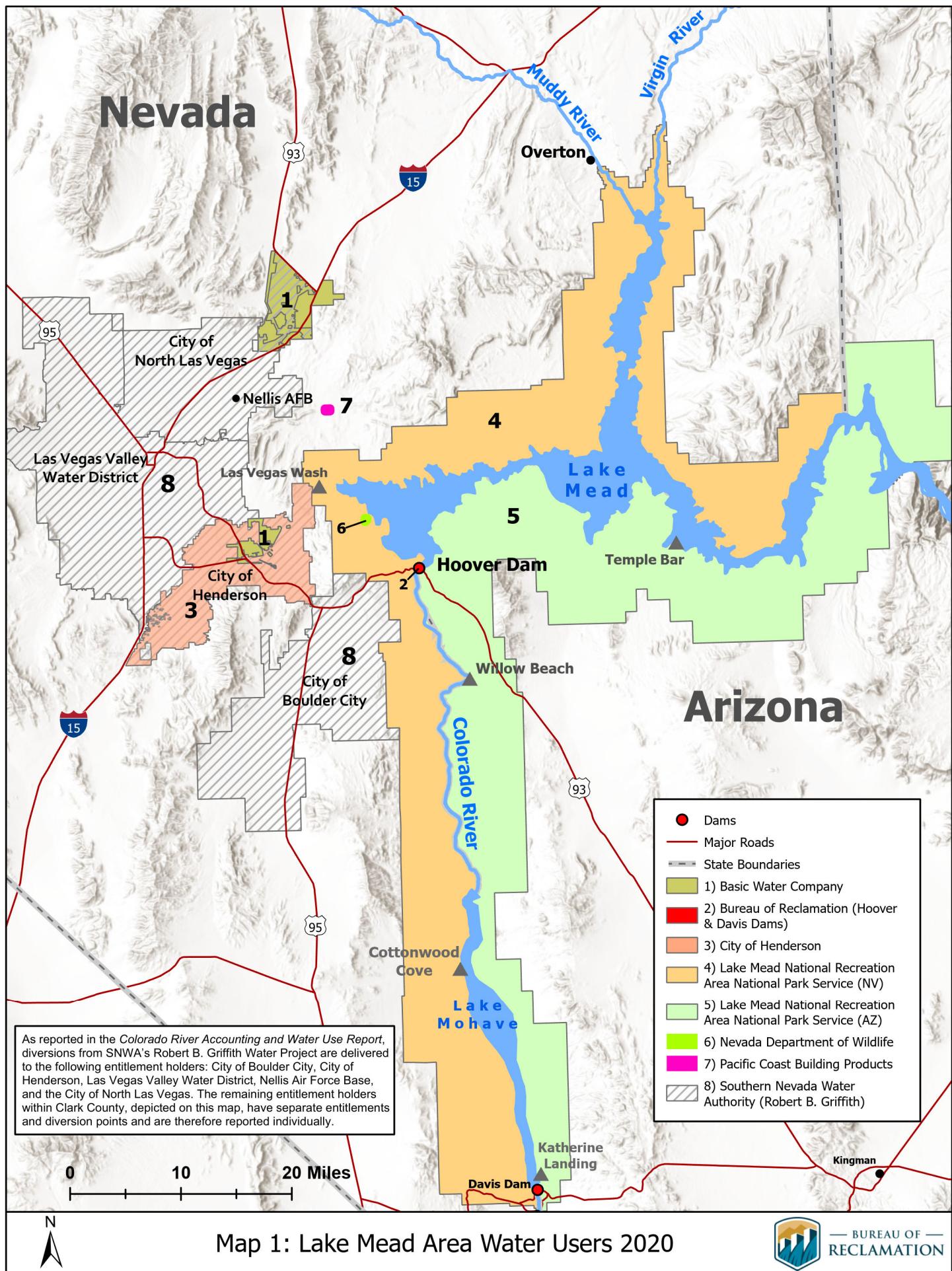
LOWER BASIN DROUGHT CONTINGENCY PLAN	
50.	Agreement Regarding Lower Basin Drought Contingency Obligations between Reclamation and CAWCD dated May 20, 2019.
51.	DCP Contributions and ICS Accumulation Limits Sharing Agreement dated September 12, 2019.
52.	CAWCD's letter to Reclamation dated March 30, 2021 regarding Drought Contingency Plan Contributions and Intentionally Created Surplus Accounting.

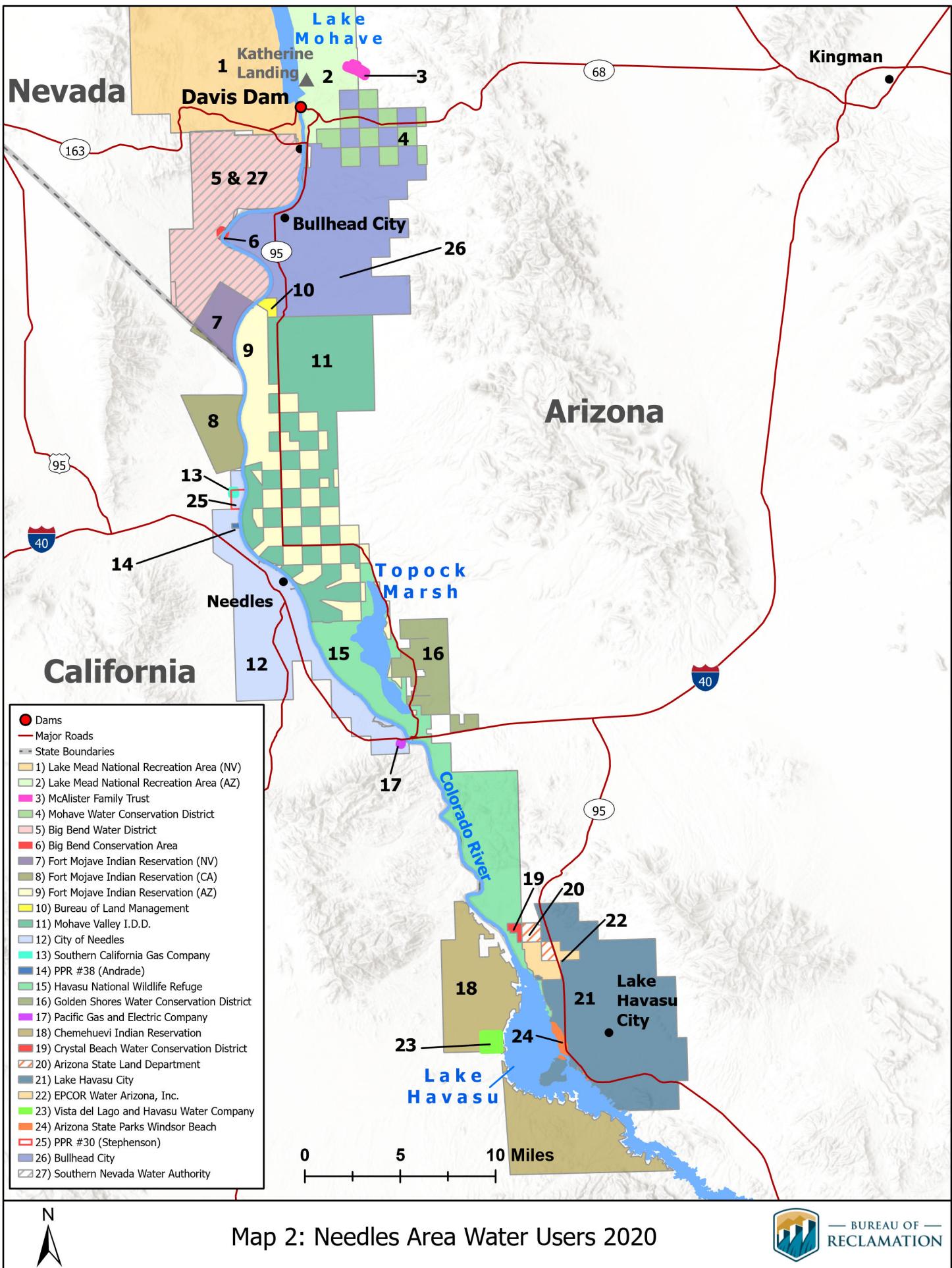
Maps Identifying the General Location of Lower Colorado River Water Users



Index of Detailed Maps Covering the Area of the Colorado River Accounting and Water Use Report







BUREAU OF
RECLAMATION

