BUREAU OF RECLAMATION

Calendar Year 2019

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

Interior Region 8: Lower Colorado Basin

U.S. Department of the Interior

May 2020

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 2019

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

Interior Region 8: Lower Colorado Basin

U.S. Department of the Interior **May 15, 2020**

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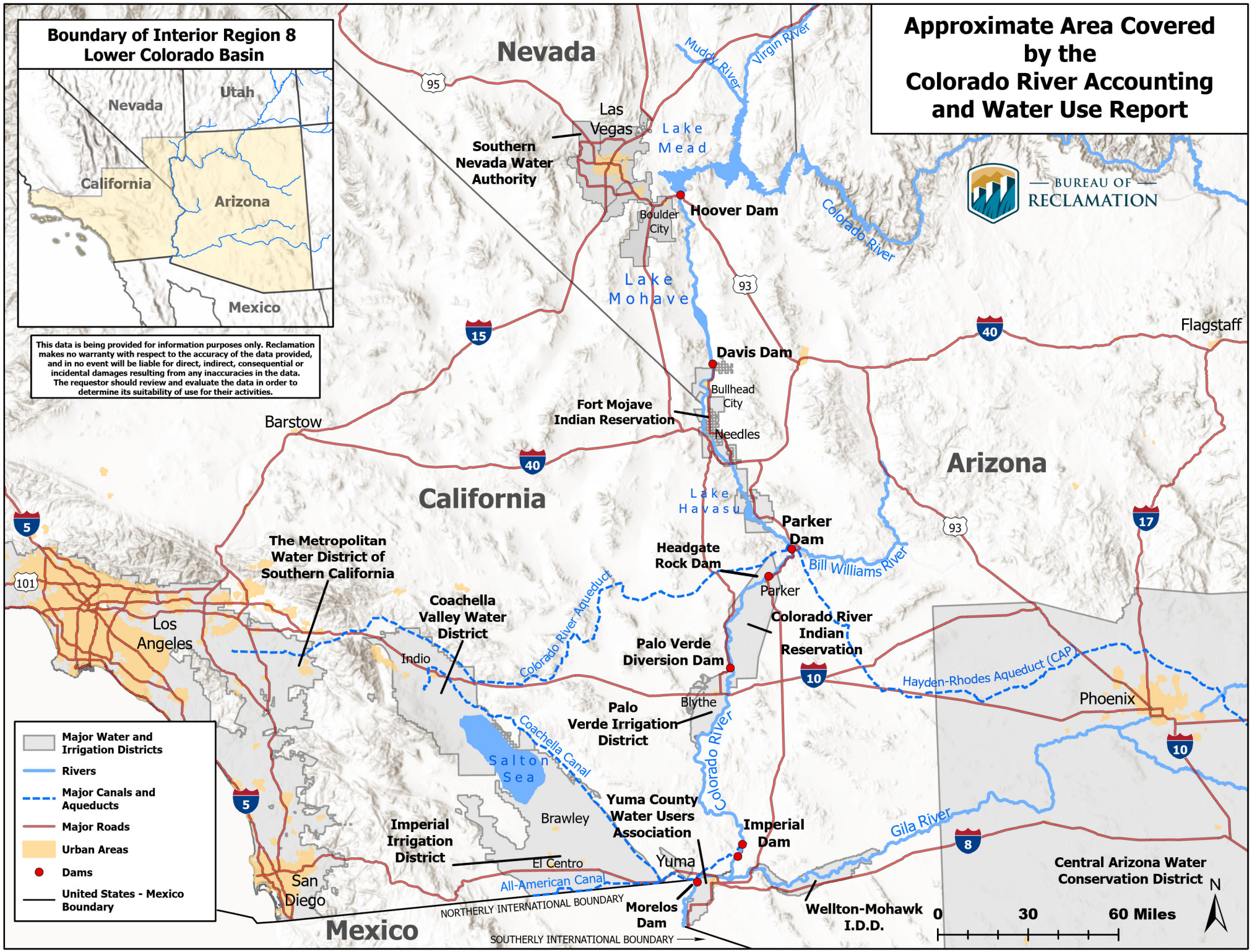

Approximate Area Covered by the Colorado River Accounting and Water Use Report
Boundary of Interior Region 8 Lower Colorado Basin
Nevada
Utah
California
Arizona
Mexico
This data is being provided for information purposes only. Reclamation makes no warranty with respect to the accuracy of the data provided, 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.
BUREAU OF RECLAMATION
Nevada
Las Vegas
Lake Mead
Muddy River
Virgin River
Southern Nevada Water Authority
Hoover Dam
Boulder City
Colorado River
Lake Mohave
Davis Dam
Bullhead City
Fort Mojave Indian Reservation
Needles
Flagstaff
Barstow
California
Arizona
Lake Havasu
Parker Dam
Headgate Rock Dam
Bill Williams River
Parker
The Metropolitan Water District of Southern California
Coachella Valley Water District
Colorado River Aqueduct
Colorado River Indian Reservation
Palo Verde Diversion Dam
Hayden-Rhodes Aqueduct (CAP)
Phoenix
Los Angeles
Indio
Blythe
Palo Verde Irrigation District
Coachella Canal
Salton Sea
Yuma County Water Users Association
Imperial Dam
Gila River
Imperial Irrigation District
Brawley
El Centro
Yuma
All-American Canal
Central Arizona Water Conservation District
San Diego
NORTHERLY INTERNATIONAL BOUNDARY
Morelos Dam
Wellton-Mohawk I.D.D.
SOUTHERLY INTERNATIONAL BOUNDARY
Mexico
Major Water and Irrigation Districts
Rivers
Major Canals and Aqueducts
Major Roads
Urban Areas
Dams
United States - Mexico Boundary
0
30
60 Miles
N

Acronyms and Abbreviated Terms

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

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

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 YMC.

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 2019. (All values are in acre-feet except as noted.)

Lower Division States Consumptive Use				**TOTAL**
Arizona				2,491,707
California				3,840,686
Nevada				233,996
Total Lower Division States Consumptive Use				**6,566,389**
Mexico				
Total Deliveries to Mexico in Satisfaction of Treaty Requirements				1,463,062
Creation of Mexico's Water Reserve				36,938
Delivery of Mexico's Water Reserve				0
To Mexico in Excess of Treaty Requirements				39,676
Accountable Deliveries to Mexico				**1,539,676**
Water Bypassed Pursuant to IBWC Minute No. 242				**143,007**
Reservoir Contents - At Year's End (Thousands of Acre-Feet)				
Live Storage in Lake Powell				12,604
Live Storage in Lake Mead				10,899
Live Storage - Lake Powell plus Lake Mead				**23,503**
Percentage of Live Storage - Lake Powell				51.8%
Percentage of Live Storage - Lake Mead				41.7%
Percentage of Live Storage - Lake Powell plus Lake Mead				**46.6%**
Total System Live Storage [1]				**31,295**
Percentage of Total System Live Storage				**52.5%**
Interstate Water Banking	**BOY Balance**	**Storage** [2]	**Recovered**	**EOY Balance**
Water Stored in Arizona by the AWBA for the Benefit of SNWA, NV	613,846	0	0	613,846
Water Stored in California by the MWD for the Benefit of SNWA, NV	330,225	0	0	330,225
Total Water Stored for the Benefit of SNWA, NV	**944,071**	**0**	**0**	**944,071**
Lower Colorado Water Supply Project Use [3]		**Non-Federal**	**Federal**	**Total**
		9,858	139	9,997
Intentionally Created Surplus [4]	**BOY Balance**	**Creation** [5]	**Reductions** [6]	**EOY Balance** [7]
Arizona	343,052	147,557	17,105	473,504
California	698,432	411,439	56,661	1,053,210
Nevada	700,722	100,933	15,742	785,913
Total - Lower Division States	**1,742,206**	**659,929**	**89,508**	**2,312,627**

Footnotes:

[1] Total EOY live system storage. This includes the Upper Basin reservoirs Powell, Navajo, Crystal, Morrow Point, Blue Mesa, Flaming Gorge, and Fontenelle, and Lower Basin reservoirs Mead, Mohave, and Havasu. Based on total live system storage capacity of 59,626,000 AF. For additional information, see Table 2.

[2] 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.

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

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

[5] ICS creation amounts are provisional until verified by Reclamation. The total annual Extraordinary Conservation ICS creation for 2019 remained within the 625,000 AF Extraordinary Conservation maximum limitation set forth in Section XI.G.3.B.4 of the 2007 Interim Guidelines (see Table 22).

[6] Reductions include system assessment, IOPP payback, delivery, evaporation (as applicable), and assessments applied pursuant to Section IV.B.2 of LBOps (see Table 22).

[7] In 2019, each state remained within its maximum accumulated ICS storage limit, set forth in Section IV.C. of LBOps (see Table 22).

Table 2. Monthly Storage Contents of the Colorado River System Reservoirs, Calendar Year 2019. (Values in thousand acre-feet except as noted.)

	2018 EOY Balance	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CHANGE
End of Month Live Storage [1]														
Lake Powell	10,099	9,629	9,261	9,049	9,198	10,343	12,914	13,933	13,610	13,277	13,034	12,855	12,604	2,505
Percentage of Lake Powell Live Storage [2]	41.5%	39.6%	38.1%	37.2%	37.8%	42.5%	53.1%	57.3%	56.0%	54.6%	53.6%	52.9%	51.8%	10%
Lake Mead	10,132	10,493	10,682	10,878	10,767	10,555	10,405	10,246	10,299	10,261	10,228	10,333	10,899	767
Percentage of Lake Mead Live Storage [3]	38.8%	40.2%	40.9%	41.6%	41.2%	40.4%	39.8%	39.2%	39.4%	39.3%	39.2%	39.6%	41.7%	2.9%
Total Live Storage - Lake Powell and Lake Mead	20,231	20,122	19,943	19,927	19,965	20,898	23,319	24,179	23,909	23,538	23,262	23,188	23,503	3,272
Total Percent of Live Storage - Lake Powell and Lake Mead	40.1%	39.9%	39.5%	39.5%	39.6%	41.4%	46.2%	47.9%	47.4%	46.7%	46.1%	46.0%	46.6%	6%
Lake Mohave	1,639	1,668	1,704	1,687	1,686	1,707	1,696	1,712	1,680	1,573	1,572	1,675	1,638	-1
Lake Havasu	552	553	571	577	567	592	589	582	565	600	576	601	583	31
Reservoir Storage in the Lower Basin [4]	12,323	12,714	12,957	13,142	13,020	12,854	12,690	12,540	12,544	12,434	12,376	12,609	13,120	797
Percentage of Live Storage in the Lower Basin [5]	43.2%	44.5%	45.4%	46.0%	45.6%	45.0%	44.4%	43.9%	43.9%	43.6%	43.4%	44.2%	46.0%	2.8%
Lower Basin Storage plus Lake Powell [6]	22,422	22,343	22,218	22,191	22,218	23,197	25,604	26,473	26,154	25,711	25,410	25,464	25,724	3,302
Percentage of Live Storage, Lower Basin plus Lake Powell [7]	42.4%	42.3%	42.0%	42.0%	42.0%	43.9%	48.4%	50.1%	49.5%	48.6%	48.1%	48.2%	48.7%	6%
Total System Live Storage [8]	27,109	26,933	26,722	26,800	27,239	28,635	31,640	32,773	32,277	31,643	31,223	31,201	31,295	4,186
Percentage of Total System Live Storage [9]	45.5%	45.2%	44.8%	44.9%	45.7%	48.0%	53.1%	55.0%	54.1%	53.1%	52.4%	52.3%	52.5%	7%

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 2019. Copies of this and previous years' reports may be found on the Bureau of Reclamation's website at: 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 2019. (Values are in acre-feet.)

STRUCTURE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Glen Canyon Dam	803,664	730,367	791,275	719,997	719,774	764,936	857,185	899,969	686,582	625,140	626,055	750,148	8,975,092
Hoover Dam	486,768	621,091	738,191	901,780	989,474	912,034	946,499	801,856	695,777	626,393	574,858	219,861	8,514,582
Davis Dam	406,800	512,399	652,200	797,600	921,900	888,600	916,200	841,200	816,500	624,100	477,300	269,700	8,124,499
Parker Dam	249,300	365,100	614,400	702,200	712,500	746,400	754,900	652,800	519,400	416,900	311,100	213,300	6,258,300
Headgate Rock Dam	240,049	340,910	570,520	647,631	644,510	674,610	675,900	579,450	481,090	389,700	295,890	208,058	5,748,318
Palo Verde Diversion Dam	212,500	290,400	482,800	546,400	515,200	529,400	535,100	457,800	377,100	336,200	257,600	118,000	4,658,500
Imperial Dam	19,990	29,390	22,490	24,190	26,810	27,139	25,940	23,880	32,479	16,980	32,070	17,290	298,648
GGMC Diversion for Mittry Lake	579	599	766	849	898	880	938	781	742	855	837	727	9,451
GGMC Diversion for Laguna Division Conservation Area	3,601	2,862	5,119	4,918	5,290	5,103	5,058	4,826	4,602	1,143	749	4,854	48,125
Sum of Imperial Dam, Mittry, and Laguna	24,170	32,851	28,375	29,957	32,998	33,122	31,936	29,487	37,823	18,978	33,656	22,871	356,224
Laguna Dam	28,599	36,660	29,459	29,900	29,730	32,910	33,420	27,200	33,120	19,810	28,470	24,520	353,798

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 position[1] 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: http://www.usbr.gov/lc/region/g4000/4200Rpts/YumaWtrAcct.pdf.

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (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	2	2	2	2	1	0	0	12
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	1	1	1	1	0	0	0	4
	Consumptive Use	0	0	1	1	1	1	1	1	1	1	0	0	8
Lake Mead National Recreation Area														
National Park Service														
Pumped from well at Temple Bar	Diversion	2	3	3	5	7	8	9	11	8	6	3	1	66
	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	3	3	5	7	8	9	11	8	6	3	1	66
Lake Mead National Recreation Area														
National Park Service														
Pumped from Lake Mohave - Katherine Landing	Diversion	8	10	12	13	14	13	17	21	25	14	19	19	185
Pumped from Lake Mohave - Willow Beach	Diversion	2	2	2	2	3	3	2	3	3	3	2	3	30
	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	10	12	14	15	17	16	19	24	28	17	21	22	215
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	1	0	1	0	0	0	0	0	1	1	14
	Measured Returns	9	1	1	0	1	0	0	0	0	0	1	1	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	675	567	693	735	889	1,213	1,091	1,059	1,000	905	732	610	10,169
Mohave County Parks, Lake Mohave diversion	Diversion	0	1	1	1	1	2	2	2	1	1	1	1	14
	Measured Returns	36	32	35	32	0	0	2	37	34	34	32	32	306
	Unmeasured Returns	223	187	229	243	294	401	361	350	330	299	242	202	3,361
	Consumptive Use	416	349	430	461	596	814	730	674	637	573	459	377	6,516
Mohave Water Conservation District														
Pumped from wells	Diversion	72	66	70	82	80	91	81	96	92	84	75	159	1,048
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	24	22	23	27	26	30	27	32	30	28	25	52	346
	Consumptive Use	48	44	47	55	54	61	54	64	62	56	50	107	702
EPCOR Water Arizona, Inc.														
Pumped from wells	Diversion	57	46	53	56	55	64	70	76	67	68	60	55	727
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	20	16	19	20	19	22	24	27	23	24	21	19	254
	Consumptive Use	37	30	34	36	36	42	46	49	44	44	39	36	473
Mohave Valley I.D.D.														
Pumped from wells and Topock Marsh Inlet for agriculture use	Diversion	854	676	1,630	3,112	3,412	4,320	4,168	3,635	2,897	2,060	526	38	27,328
Pumped from wells for domestic use	Diversion	394	331	456	467	565	591	604	636	602	534	407	373	5,960
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	574	463	960	1,646	1,829	2,259	2,195	1,965	1,610	1,193	429	189	15,312
	Consumptive Use	674	544	1,126	1,933	2,148	2,652	2,577	2,306	1,889	1,401	504	222	17,976

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (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	1,481	2,311	4,534	7,062	6,168	6,947	6,926	8,047	5,280	6,165	2,176	0	57,097
Pumped from river and wells for domestic use	Diversion	68	67	112	137	240	417	541	586	397	399	304	291	3,559
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	713	1,094	2,137	3,312	2,948	3,387	3,435	3,971	2,611	3,019	1,141	134	27,902
	Consumptive Use	836	1,284	2,509	3,887	3,460	3,977	4,032	4,662	3,066	3,545	1,339	157	32,754
Golden Shores Water Conservation District														
Pumped from wells	Diversion	28	25	28	35	40	45	48	49	45	32	26	29	430
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	9	8	9	12	13	15	16	16	15	11	9	9	142
	Consumptive Use	19	17	19	23	27	30	32	33	30	21	17	20	288
Havasu National Wildlife Refuge														
Firebreak Inlet Canal	Diversion	71	540	1,326	3,643	4,218	4,271	3,852	2,442	2,321	358	142	44	23,228
Farm Ditch	Diversion [1]	-6	82	238	814	985	856	750	482	500	55	1	-9	4,748
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	1	0	0	0	0	0	0	1
	Unmeasured Returns	66	557	1,390	3,937	4,596	4,533	4,074	2,596	2,500	379	136	41	24,805
	Consumptive Use	9	76	189	537	627	618	555	354	341	51	19	6	3,382
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	4	3	3	3	39
	Consumptive Use	5	5	5	6	7	7	7	7	6	7	6	5	73
Lake Havasu City														
Pumped from wells	Diversion	815	714	877	961	1,006	1,140	1,274	1,313	1,133	1,105	878	722	11,938
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	310	271	333	365	382	433	484	499	431	420	334	274	4,536
	Consumptive Use	505	443	544	596	624	707	790	814	702	685	544	448	7,402
Arizona State Parks (Windsor Beach)														
Pumped from wells	Diversion	2	3	2	2	2	2	2	3	2	1	1	1	23
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	0	1	1	1	1	1	1	0	0	0	8
	Consumptive Use	1	2	2	1	1	1	1	2	1	1	1	1	15
Central Arizona Project														
Pumped from Lake Havasu	Diversion	90,530	150,723	82,674	143,769	153,751	103,850	92,195	101,771	160,158	151,035	125,435	71,701	1,427,592
	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	90,530	150,723	82,674	143,769	153,751	103,850	92,195	101,771	160,158	151,035	125,435	71,701	1,427,592
Hillcrest Water Company														
Pumped from wells	Diversion	4	4	4	3	4	4	3	3	2	3	2	2	38
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	1	1	2	1	1	1	1	1	1	13
	Consumptive Use	3	3	3	2	3	2	2	2	1	2	1	1	25
Springs Del Sol Domestic Water Improvement District														
Pumped from wells	Diversion	0	0	0	0	0	0	1	1	0	1	0	1	4
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	1	0	0	0	0	0	1
	Consumptive Use	0	0	0	0	0	0	0	1	0	1	0	1	3

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Brooke Water, LLC														
Pumped from river and wells	Diversion	34	36	35	36	38	43	41	49	44	38	36	37	467
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	11	12	12	12	12	14	14	16	14	13	12	12	154
	Consumptive Use	23	24	23	24	26	29	27	33	30	25	24	25	313
Town of Parker														
Pumped from wells	Diversion	46	43	55	66	74	86	90	91	75	63	60	41	790
	Measured Returns	18	16	18	18	17	17	17	18	16	17	18	18	208
	Unmeasured Returns	13	12	16	19	21	24	26	26	21	18	17	12	225
	Consumptive Use	15	15	21	29	36	45	47	47	38	28	25	11	357
Colorado River Indian Reservation														
Diversion at Headgate Rock Dam	Diversion	9,251	24,190	43,880	54,569	67,990	71,790	79,000	73,350	38,310	27,200	15,210	5,242	509,982
Pumped from river and wells	Diversion	98	98	120	140	161	189	196	199	161	137	130	91	1,720
	Measured Returns	12,491	15,304	20,587	21,718	24,458	24,596	26,193	25,298	19,046	17,327	14,562	12,288	233,868
	Unmeasured Returns	514	1,336	2,420	3,009	3,748	3,959	4,356	4,045	2,116	1,504	844	293	28,144
	Consumptive Use	-3,656	7,648	20,993	29,982	39,945	43,424	48,647	44,206	17,309	8,506	-66	-7,248	249,690
GM Gabrych Family														
Pumped from river (AEP-9) and well (AEW-35)	Diversion	0	880	174	86	702	1,123	821	301	323	90	0	0	4,500
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	308	61	30	246	393	287	105	113	32	0	0	1,575
	Consumptive Use	0	572	113	56	456	730	534	196	210	58	0	0	2,925
Ehrenberg Improvement District														
Pumped from river	Diversion	22	16	19	21	28	28	36	37	28	24	22	69	350
	Measured Returns	2	2	2	1	5	3	4	3	3	2	2	2	31
	Unmeasured Returns	6	5	5	6	8	8	10	11	8	7	6	20	100
	Consumptive Use	14	9	12	14	15	17	22	23	17	15	14	47	219
North Baja Pipeline														
Pumped from wells	Diversion	0	0	35	22	23	43	42	68	38	0	0	0	271
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	12	8	8	15	15	24	13	0	0	0	95
	Consumptive Use	0	0	23	14	15	28	27	44	25	0	0	0	176
Cibola Valley I.D.D.														
Pumped from river for agriculture use	Diversion	0	432	895	679	983	1,123	1,171	1,337	756	382	262	170	8,190
Pumped from river for domestic use	Diversion	2	2	1	2	3	2	2	3	3	2	2	2	26
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	124	255	194	281	321	334	382	216	110	75	49	2,342
	Consumptive Use	1	310	641	487	705	804	839	958	543	274	189	123	5,874
Red River Land Company, LLC														
Pumped from river	Diversion	0	8	39	0	23	33	75	77	8	0	0	0	263
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	2	11	0	7	10	21	22	2	0	0	0	75
	Consumptive Use	0	6	28	0	16	23	54	55	6	0	0	0	188
Western Water, LLC														
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

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Hopi Tribe														
Pumped from river	Diversion	0	303	354	145	375	802	994	817	701	32	56	50	4,629
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	87	101	41	107	228	283	233	200	9	16	14	1,319
	Consumptive Use	0	216	253	104	268	574	711	584	501	23	40	36	3,310
GSC Farm, LLC														
Pumped from river	Diversion	0	68	283	117	246	402	524	466	431	0	34	185	2,756
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	19	81	33	70	114	149	133	123	0	10	53	785
	Consumptive Use	0	49	202	84	176	288	375	333	308	0	24	132	1,971
Arizona Game and Fish Commission														
Pumped from river	Diversion	0	639	354	655	533	657	144	160	75	371	0	0	3,588
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	182	101	187	152	187	41	46	21	106	0	0	1,023
	Consumptive Use	0	457	253	468	381	470	103	114	54	265	0	0	2,565
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	13	41	61	100	67	77	82	75	20	29	20	99	684
Cibola National Wildlife Refuge														
Pumped from river	Diversion	297	1,622	1,752	1,626	1,351	1,564	1,521	1,706	1,448	1,267	489	297	14,940
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	113	617	666	618	513	594	578	648	550	481	186	113	5,677
	Consumptive Use	184	1,005	1,086	1,008	838	970	943	1,058	898	786	303	184	9,263
Imperial National Wildlife Refuge														
Pumped from river	Diversion	37	63	101	326	453	337	459	452	548	328	248	245	3,597
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	14	24	38	124	172	128	174	172	208	125	95	93	1,367
	Consumptive Use	23	39	63	202	281	209	285	280	340	203	153	152	2,230
Bureau of Land Management														
Pumped from river and wells (Permittees, LHFO and YFO)	Diversion	255	87	105	75	91	93	28	144	143	154	102	104	1,381
Pumped from river (ADW-01) (leased by L. Pratt)	Diversion [3]	7	8	11	12	15	18	20	19	15	12	9	9	155
Pumped from river (ADP-1) and well (AEW-14) (leased by M. Lee)	Diversion [3]	8	10	13	14	18	22	24	23	18	15	11	10	186
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	94	37	45	35	43	46	25	66	62	64	42	43	602
	Consumptive Use	176	68	84	66	81	87	47	120	114	117	80	80	1,120
Fisher's Landing Water and Sewer, LLC														
Pumped from well	Diversion	0	0	0	1	1	1	1	2	1	1	1	0	9
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	1	0	1	0	1	0	0	3
	Consumptive Use	0	0	0	1	1	0	1	1	1	0	1	0	6
Shepard Water Company														
Pumped from well	Diversion	1	2	2	4	2	3	2	3	3	3	3	2	30
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	1	1	1	1	1	1	1	1	1	1	10
	Consumptive Use	1	2	1	3	1	2	1	2	2	2	2	1	20

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
U.S. Army Yuma Proving Grounds														
Diversion at Imperial Dam	Diversion	0	2	2	0	2	17	9	7	2	2	0	0	43
Pumped from wells	Diversion	16	13	17	35	72	54	97	74	67	32	17	43	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	16	15	19	35	74	71	106	81	69	34	17	43	580
JRJ Partners, LLC														
Pumped from river (AEP-1) and well (AEW-3)	Diversion	49	30	95	120	112	70	112	102	19	110	115	100	1,034
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	17	10	33	42	39	25	39	36	7	39	40	35	362
	Consumptive Use	32	20	62	78	73	45	73	66	12	71	75	65	672
Cha Cha, LLC														
Pumped from river (AEP-2/3) and wells (AEW-4/5, ADW-3)	Diversion	33	64	119	130	76	176	218	237	198	185	159	82	1,677
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	12	22	42	45	27	62	76	83	69	65	55	29	587
	Consumptive Use	21	42	77	85	49	114	142	154	129	120	104	53	1,090
Beattie Farms Southwest (Russell Youmans)														
Pumped from well (ADW-2)	Diversion	63	60	69	11	123	78	0	49	97	198	112	76	936
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	22	21	24	4	43	27	0	17	34	69	39	27	327
	Consumptive Use	41	39	45	7	80	51	0	32	63	129	73	49	609
Gila Monster Farms														
Diversion at Imperial Dam	Diversion	421	391	936	1,174	1,112	795	492	622	384	736	427	380	7,870
	Measured Returns	26	17	39	51	37	22	17	18	18	26	19	59	349
	Unmeasured Returns	160	149	356	446	423	302	187	236	146	280	162	144	2,991
	Consumptive Use	235	225	541	677	652	471	288	368	220	430	246	177	4,530
Wellton-Mohawk I.D.D.														
Diversion at Imperial Dam	Diversion	15,781	17,392	33,607	44,051	45,365	40,638	38,792	35,745	34,492	35,097	19,159	8,653	368,772
	GGMC Return	1,074	825	1,585	2,143	1,690	1,245	1,535	1,143	1,853	1,375	972	1,478	16,918
	Dome Return	413	502	506	591	783	672	488	381	372	756	371	563	6,398
	MOD Return [4]	7,812	5,793	8,658	7,947	8,364	8,200	8,166	8,241	8,701	8,654	8,642	9,027	98,205
	Total Returns	9,299	7,120	10,749	10,681	10,837	10,117	10,189	9,765	10,926	10,785	9,985	11,068	121,521
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	6,482	10,272	22,858	33,370	34,528	30,521	28,603	25,980	23,566	24,312	9,174	-2,415	247,251
City of Yuma														
Diversion at Imperial Dam via AAC	Diversion	1,195	1,042	1,295	1,441	1,555	1,769	1,939	1,918	1,750	1,570	1,455	1,336	18,265
Diversion at Imperial Dam via GGMC	Diversion	776	663	629	624	389	316	443	465	408	481	737	887	6,818
Pumped from river for Yuma East Wetlands	Diversion	26	26	29	30	27	26	38	35	37	33	26	26	359
	Measured Returns	923	797	876	833	859	809	854	900	913	893	919	1,197	10,773
	Unmeasured Returns	0	0	1	1	1	0	1	1	1	1	0	0	7
	Consumptive Use	1,074	934	1,076	1,261	1,111	1,302	1,565	1,517	1,281	1,190	1,299	1,052	14,662
U.S. Marine Corps Air Station Yuma														
Diversion at Imperial Dam	Diversion	73	57	76	127	122	134	148	149	126	94	83	71	1,260
	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	73	57	76	127	122	134	148	149	126	94	83	71	1,260
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

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
University of Arizona														
Diversion at Imperial Dam	Diversion	47	54	44	111	87	79	89	126	97	104	43	37	918
	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	47	54	44	111	87	79	89	126	97	104	43	37	918
Yuma Union High School District														
Delivery at East Main Canal	Diversion	6	4	6	15	22	23	19	21	22	11	17	5	171
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	1	2	4	6	6	5	5	6	3	4	1	45
	Consumptive Use	4	3	4	11	16	17	14	16	16	8	13	4	126
Desert Lawn Memorial Park														
Delivered by the City of Yuma	Diversion	1	2	4	4	4	4	4	4	5	4	4	1	41
	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	2	1	1	0	11
	Consumptive Use	1	1	3	3	3	3	3	3	3	3	3	1	30
North Gila Valley Irrigation District														
Diversion at Imperial Dam	Diversion	1,854	2,137	3,621	4,240	4,874	4,525	4,624	2,812	2,903	3,859	2,694	1,932	40,075
Pumped from river	Diversion	41	21	48	18	17	31	22	68	76	49	19	0	410
	Measured Returns	1,443	1,522	2,157	2,363	2,675	2,718	2,523	1,907	1,968	2,429	2,123	1,703	25,531
	Unmeasured Returns	268	300	513	587	674	631	641	409	425	546	376	265	5,635
	Consumptive Use	184	336	999	1,308	1,542	1,207	1,482	564	586	933	214	-36	9,319
Yuma Irrigation District														
Diversion at Imperial Dam	Diversion [5]	2,825	3,327	6,545	8,198	8,245	5,842	6,597	5,053	4,692	6,582	4,349	3,583	65,838
Pumped from wells	Diversion	160	74	217	247	130	106	86	191	128	59	111	82	1,591
	Measured Returns	846	867	1,573	1,911	1,825	1,230	1,409	1,177	1,265	1,584	1,164	1,477	16,328
	Unmeasured Returns	636	724	1,440	1,799	1,784	1,267	1,423	1,117	1,027	1,415	950	781	14,363
	Consumptive Use	1,503	1,810	3,749	4,735	4,766	3,451	3,851	2,950	2,528	3,642	2,346	1,407	36,738
Yuma Mesa I.D.D.														
Diversion at Imperial Dam	Diversion	10,195	11,322	13,720	19,385	24,250	25,161	30,023	29,026	22,754	18,241	12,325	8,078	224,480
	Measured Returns [6]	6,703	3,560	4,279	4,563	4,643	3,757	4,652	4,319	2,474	1,002	942	1,900	42,794
	Unmeasured Returns	1,631	1,812	2,195	3,102	3,880	4,026	4,804	4,644	3,641	2,919	1,972	1,292	35,918
	Consumptive Use	1,861	5,950	7,246	11,720	15,727	17,378	20,567	20,063	16,639	14,320	9,411	4,886	145,768
Unit B I.D.D.														
Diversion at Imperial Dam	Diversion	964	857	1,797	2,583	2,856	2,874	3,601	3,324	2,922	1,849	1,384	646	25,657
	Measured Returns [6]	1,107	555	715	750	747	598	730	684	357	104	112	163	6,622
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	-143	302	1,082	1,833	2,109	2,276	2,871	2,640	2,565	1,745	1,272	483	19,035
Arizona State Land Department														
Pumped from river and wells for agriculture use	Diversion	531	819	1,039	1,489	1,266	1,266	1,363	1,368	844	866	704	491	12,046
Pumped from river and wells for domestic use	Diversion	3	4	3	3	3	3	3	4	3	3	3	3	38
	Measured Returns	9	5	13	17	12	7	6	6	6	9	6	20	116
	Unmeasured Returns	187	288	365	522	444	444	478	480	297	304	247	173	4,229
	Consumptive Use	338	530	664	953	813	818	882	886	544	556	454	301	7,739
Ott Family														
Delivered via GGMC	Diversion	9	20	16	51	83	59	50	44	38	17	28	5	420
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	3	7	5	18	29	21	18	15	13	6	10	2	147
	Consumptive Use	6	13	11	33	54	38	32	29	25	11	18	3	273

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Ogram Boys' Enterprises														
Delivered via GGMC	Diversion	17	34	82	116	254	96	76	84	63	37	39	22	920
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	6	12	29	40	89	33	27	29	22	13	14	8	322
	Consumptive Use	11	22	53	76	165	63	49	55	41	24	25	14	598
Fort Yuma Indian Reservation														
Pumped from river for Yuma East Wetlands	Diversion	17	17	99	98	83	184	302	198	132	88	40	17	1,275
Pumped from river for agriculture use (Cha Cha Farms)	Diversion	2	5	3	6	6	7	10	8	5	3	1	1	57
Surface delivery to Ranch 5	Diversion	28	7	59	0	47	89	77	1	36	60	54	9	467
Pumped from wells for domestic use	Diversion [7]	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	18	10	61	41	53	107	151	82	67	58	36	11	695
	Consumptive Use	32	21	102	66	86	176	242	127	108	95	61	18	1,134
Armon Curtis														
Pumped from river (AEP-4)	Diversion [3]	7	9	12	13	16	20	22	21	16	14	10	10	170
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	3	4	5	6	7	8	7	6	5	3	3	59
	Consumptive Use	5	6	8	8	10	13	14	14	10	9	7	7	111
Yuma County Water Users' Association														
Diversion at Imperial Dam	Diversion	16,054	17,301	32,065	39,538	34,732	25,602	30,914	22,349	22,969	38,153	26,054	15,039	320,770
Pumped from wells	Diversion	92	90	142	162	206	201	103	147	0	134	140	125	1,542
	Measured Returns	6,759	7,587	8,104	7,969	8,824	7,611	7,022	7,506	7,375	10,145	9,556	8,585	97,043
	Unmeasured Returns	339	365	676	834	734	542	651	472	482	804	550	318	6,767
	Consumptive Use	9,048	9,439	23,427	30,897	25,380	17,650	23,344	14,518	15,112	27,338	16,088	6,261	218,502
R. Griffin														
Pumped from river (ADP-3,4)	Diversion [3]	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	1	1	1	0	0	0	0	3
	Consumptive Use	0	0	1	1	1	0	0	0	1	1	1	1	7
Power														
Pumped from river (ADP-3,4)	Diversion [3]	1	1	2	2	3	3	3	3	3	2	2	2	27
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	1	1	1	1	1	1	1	1	1	0	9
	Consumptive Use	1	1	1	1	2	2	2	2	2	1	1	2	18
Cocopah Indian Tribe (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion [3]	4	6	7	8	10	12	13	13	10	8	6	6	103
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	3	4	5	4	3	3	2	2	36
	Consumptive Use	2	4	4	5	7	8	8	9	7	5	4	4	67
Griffin Ranches (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion [3]	3	4	5	5	7	8	9	8	6	5	4	4	68
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	2	2	2	3	3	3	2	2	2	1	24
	Consumptive Use	2	3	3	3	5	5	6	5	4	3	2	3	44
Milton Phillips (PPR No.7)														
Pumped from river (ADP-3,4)	Diversion [3]	0	1	1	1	1	2	2	2	1	1	1	1	14
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	1	1	1	1	1	0	0	0	5
	Consumptive Use	0	1	1	1	0	1	1	1	0	1	1	1	9

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Griffin Family Ltd. Partnership (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion [3]	0	1	1	1	1	2	2	2	1	1	1	1	14
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	1	1	1	1	1	0	0	0	5
	Consumptive Use	0	1	1	1	0	1	1	1	0	1	1	1	9
Cocopah Indian Reservation														
Diversion at Imperial Dam	Diversion	25	74	39	0	73	106	104	117	88	18	28	0	672
Pumped from river and wells	Diversion [3,8]	71	89	122	132	160	197	213	206	162	134	96	94	1,676
	Measured Returns	1	1	0	0	1	1	0	4	4	1	1	0	14
	Unmeasured Returns	33	55	55	45	79	103	108	110	85	52	42	32	799
	Consumptive Use	62	107	106	87	153	199	209	209	161	99	81	62	1,535
Bureau of Reclamation's Yuma Area Office														
Pumped from wells	Diversion	31	50	17	62	45	0	0	0	5	89	85	12	396
	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	31	50	17	62	45	0	0	0	5	89	85	12	396
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	4	13	34	24	47	24	24	32	94	26	16	32	370
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	5	12	8	17	8	8	11	33	9	6	11	130
	Consumptive Use	2	8	22	16	30	16	16	21	61	17	10	21	240
Pumped from the South Gila Wells (DPOCs)	Measured Returns [9]	5,076	3,013	1,827	4,403	5,761	2,088	0	0	0	0	0	0	22,168
	Unmeasured Returns	-5,076	-3,013	-1,827	-4,403	-5,761	-2,088	0	0	0	0	0	0	-22,168
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Totals														
	Diversion	**156,591**	**240,843**	**237,685**	**343,926**	**371,168**	**312,950**	**317,634**	**304,327**	**313,385**	**301,980**	**218,071**	**122,655**	**3,241,215**
	Measured Returns	**44,748**	**40,399**	**50,975**	**55,310**	**60,702**	**53,575**	**53,618**	**51,642**	**44,405**	**44,358**	**39,442**	**38,513**	**577,687**
	Unmeasured Returns	**980**	**6,179**	**12,948**	**17,073**	**18,106**	**22,699**	**25,610**	**23,192**	**17,606**	**14,457**	**8,167**	**4,804**	**171,821**
	Consumptive Use	**110,863**	**194,265**	**173,762**	**271,543**	**292,360**	**236,676**	**238,406**	**229,493**	**251,374**	**243,165**	**170,462**	**79,338**	**2,491,707**

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

[4] 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.

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

[6] YMIDD 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) = 3,608

Protective and Regulatory Pumping Unit (AF) = 30,043

[7] Diversion is an estimate of the amount of domestic water required by FYIR, AZ.

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

[9] 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 2019. (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	22	240	865	1,141	1,156	1,268	1,265	1,303	803	823	553	0	9,439
Pumped from wells for domestic use	Diversion	3	3	1	4	5	5	6	6	5	3	2	2	45
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	12	112	400	529	536	588	587	605	373	382	257	1	4,382
	Consumptive Use	13	131	466	616	625	685	684	704	435	444	298	1	5,102
City of Needles														
Pumped from wells	Diversion	102	93	117	157	170	188	210	212	155	168	145	112	1,829
	Measured Returns	32	26	29	30	31	29	31	29	30	29	26	27	349
	Unmeasured Returns	20	29	44	66	53	19	68	70	20	37	53	47	526
	Consumptive Use [1]	50	38	44	61	86	140	111	113	105	102	66	38	954
Southern California Gas Company														
Pumped from wells	Diversion	3	0	0	0	0	1	0	1	0	2	0	0	7
	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]	3	0	0	0	0	1	0	1	0	2	0	0	7
Pacific Gas and Electric Company														
Pumped from wells	Diversion	12	14	19	20	25	30	29	33	29	26	20	20	277
	Measured Returns	9	11	15	16	19	23	26	25	19	16	11	11	201
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use [2]	3	3	4	4	6	7	3	8	10	10	9	9	76
Havasu Water Company														
Pumped from wells	Diversion	1	2	2	3	3	2	3	3	3	3	3	2	30
	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	1	1	1	12
	Consumptive Use [2]	0	1	1	2	2	1	2	2	2	2	2	1	18
Vista Del Lago														
Pumped from wells	Diversion	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	1	2	2	2	2	2	1	1	1	17
	Consumptive Use [2]	1	1	2	2	2	3	3	3	2	3	2	1	25
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
Wetmore, Kenneth C.														
Pumped from well	Diversion	0	0	0	0	1	1	1	1	1	0	0	0	5
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	1	0	1	0	0	0	2
	Consumptive Use	0	0	0	0	1	1	0	1	0	0	0	0	3
Williams, Jerry O. and Deloris P.														
Pumped from well	Diversion	0	0	0	0	0	0	0	1	0	0	0	0	1
	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	1	0	0	0	0	1

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Carney, Jerome D.														
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
Wetmore, Mark M.														
Pumped from well	Diversion	0	0	1	1	1	1	1	1	1	1	1	0	9
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	1	0	1	1	1	0	0	0	0	4
	Consumptive Use	0	0	1	0	1	0	0	0	1	1	1	0	5
Chemehuevi Indian Reservation														
Pumped from river and wells for agricultural use	Diversion	8	4	11	13	19	17	18	21	15	16	4	7	153
Pumped from river and wells for domestic use	Diversion	6	9	11	13	17	18	20	18	19	15	15	8	169
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	6	6	10	12	17	16	18	18	16	14	9	7	149
	Consumptive Use	8	7	12	14	19	19	20	21	18	17	10	8	173
The Metropolitan Water District of Southern California														
Pumped from Lake Havasu	Diversion	87,256	30,770	11,177	27,666	51,179	53,447	58,529	67,254	60,675	30,390	15,577	46,288	540,208
	Measured Returns	246	221	246	204	220	219	208	208	199	206	199	225	2,601
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	87,010	30,549	10,931	27,462	50,959	53,228	58,321	67,046	60,476	30,184	15,378	46,063	537,607
Bureau of Reclamation - Parker Dam and Government Camp														
Diversion at Parker Dam	Diversion	0	0	0	0	0	0	0	0	0	1	0	0	1
	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	1	0	0	1
Colorado River Indian Reservation														
Pumped from river and wells (agriculture)	Diversion	35	44	60	65	80	96	105	101	80	67	47	47	827
Pumped from wells for Big River Development	Diversion	20	18	24	32	35	40	43	44	36	33	28	27	380
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	23	26	35	40	48	57	62	60	48	42	31	31	503
	Consumptive Use	32	36	49	57	67	79	86	85	68	58	44	43	704
Palo Verde Irrigation District														
Diversion at Palo Verde Dam	Diversion	29,430	45,130	68,760	72,010	85,190	91,750	105,400	98,680	85,240	60,750	34,680	22,050	799,070
Pumped from river	Diversion [3,4]	77	96	131	142	173	210	229	220	173	145	103	101	1,800
	Measured Returns	28,527	24,809	28,904	29,316	32,597	33,268	36,622	37,846	38,580	38,301	31,734	29,783	390,287
	Unmeasured Returns [5]	2,175	3,504	4,676	4,639	5,401	6,203	7,440	7,388	7,070	6,759	2,806	2,165	60,226
	Consumptive Use	-1,195	16,913	35,311	38,197	47,365	52,489	61,567	53,666	39,763	15,835	243	-9,797	350,357
Lake Enterprises														
Pumped from river	Diversion	0	0	0	0	0	0	0	0	0	0	0	4	4
	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	2	2
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	2	2
Bureau of Land Management														
Pumped from wells (Permittees, LHFO and YFO)	Diversion	17	11	11	3	16	28	18	20	19	17	17	12	189
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	4	3	3	1	5	7	5	6	5	4	5	3	51
	Consumptive Use [2]	13	8	8	2	11	21	13	14	14	13	12	9	138

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Yuma Project Reservation Division														
Indian Unit														
Diversion at Imperial Dam	Diversion	2,000	2,129	4,051	6,453	6,459	4,058	3,485	3,331	2,375	4,373	3,334	1,970	44,018
Pumped from wells for domestic use	Diversion	47	40	62	46	58	86	98	96	72	57	54	44	760
	Measured Returns	47	25	17	29	105	41	12	98	96	178	146	212	1,006
	Unmeasured Returns	342	362	687	1,085	1,088	692	598	572	409	740	566	336	7,477
Bard Unit														
Diversion at Imperial Dam	Diversion	1,848	1,357	2,935	4,299	4,714	3,469	2,908	2,338	3,071	4,265	3,351	1,706	36,261
	Measured Returns	23	9	6	10	40	19	5	38	69	98	79	103	499
	Unmeasured Returns	309	227	490	718	787	579	486	390	513	712	560	285	6,056
Unassigned Yuma Project Reservation Division Measured Returns [6]		2,090	1,644	1,699	2,115	2,467	2,478	2,093	2,370	2,174	2,310	2,487	1,699	25,626
Total Yuma Project Reservation Division Consumptive Use [7]		1,084	1,259	4,149	6,841	6,744	3,804	3,297	2,297	2,257	4,657	2,901	1,085	40,375
Fort Yuma Indian Reservation														
Ranch 1														
Pumped from well and river (CEW-2; CDP-3)	Diversion [4]	10	12	17	18	23	27	30	29	23	19	13	13	234
Ranch 2 Parcel 3														
Pumped from well and river (CEW-2; CDP-4)	Diversion [4]	6	8	10	11	14	17	18	17	14	11	8	8	142
Ranch 3														
Pumped from well and river (CEW-2; CDP-5)	Diversion [4]	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 [4]	21	26	35	38	47	56	62	59	47	39	28	27	485
Ranch 5														
Diverted from the AAC	Diversion	64	14	130	0	105	198	173	2	80	133	122	20	1,041
Ranch 7														
Pumped from well and river (CEW-1,15; CDP-1,2)	Diversion [4]	9	12	16	17	21	25	28	26	21	17	12	12	216
Ranch 15														
Pumped from well (CEW-14)	Diversion [4]	12	16	21	23	28	34	37	36	28	24	17	16	292
Ranch 17														
Pumped from river (CDP-6,7)	Diversion [4]	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum of Diversions for the FYIR Ranches in California	Diversion	122	88	229	107	238	357	348	169	213	243	200	96	2,410
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	57	39	102	48	106	159	155	76	95	108	91	43	1,079
	Consumptive Use	65	49	127	59	132	198	193	93	118	135	109	53	1,331
Yuma Island California														
Arizona State Land Department Trust Lands	Diversion [4]	109	141	188	206	248	307	334	330	255	211	150	144	2,623
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	49	62	86	94	111	137	149	146	113	94	69	63	1,173
	Consumptive Use	60	79	102	112	137	170	185	184	142	117	81	81	1,450
City of Winterhaven														
Pumped from well	Diversion	7	6	7	7	7	8	8	7	6	6	7	7	83
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	2	2	3	3	2	2	2	2	2	27
	Consumptive Use	5	4	4	5	5	5	5	5	4	4	5	5	56

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Imperial Irrigation District														
Diversion at Imperial Dam	Diversion	89,225	120,375	225,344	273,787	312,564	289,701	293,201	275,510	227,562	220,660	123,027	78,841	2,529,797
	Measured Returns	3,241	2,211	1,529	1,996	8,064	4,705	1,489	13,221	14,943	14,204	8,364	12,921	86,888
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
Delivery from Warren H. Brock Reservoir	Consumptive Use [8]	13,113	6,270	9,997	13,510	10,493	9,505	5,958	11,651	9,142	8,438	8,212	8,938	115,227
Total IID Consumptive Use	Total Consumptive Use	99,097	124,434	233,812	285,301	314,993	294,501	297,670	273,940	221,761	214,894	122,875	74,858	2,558,136
Water Transferred to SDCWA for Mitigation	Diversion [9]	0	0	0	0	0	0	0	0	17	0	0	0	17
	Measured Returns	0	0	0	0	0	0	0	0	1	0	0	0	1
	Consumptive Use	0	0	0	0	0	0	0	0	16	0	0	0	16
Coachella Valley Water District														
Diversion at Imperial Dam	Diversion	17,331	15,255	24,920	31,996	35,781	36,286	39,085	43,223	35,643	32,383	25,888	20,884	358,675
	Measured Returns	629	280	169	233	923	589	199	2,074	2,341	2,084	1,760	3,423	14,704
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	16,702	14,975	24,751	31,763	34,858	35,697	38,886	41,149	33,302	30,299	24,128	17,461	343,971
California Totals														
	Diversion	**227,696**	**215,843**	**338,951**	**418,197**	**498,171**	**481,414**	**505,386**	**492,964**	**416,500**	**354,686**	**207,226**	**172,391**	**4,329,425**
	Measured Returns	**34,844**	**29,236**	**32,614**	**33,949**	**44,466**	**41,371**	**40,685**	**55,909**	**58,452**	**57,426**	**44,806**	**48,404**	**522,162**
	Unmeasured Returns	**3,006**	**4,380**	**6,547**	**7,246**	**8,168**	**8,478**	**9,591**	**9,351**	**8,679**	**8,906**	**4,458**	**2,994**	**81,804**
	Consumptive Use	**202,959**	**188,497**	**309,787**	**390,512**	**456,030**	**441,070**	**461,068**	**439,355**	**358,511**	**296,792**	**166,174**	**129,931**	**3,840,686**

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] Water pumped from the river for delivery to non-canal lands served by PVID upstream of Palo Verde Diversion Dam. The water reported in this line item represents a portion of the diversion previously reported within the item "Colorado River Indian Reservation: Pumped from river and wells (agriculture)".

[4] 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.

[5] In 2019, the methodology used to calculate unmeasured returns from PVID was modified to reflect irrigation practices on the Dennis Underwood Conservation Area (DUCA) of the Lower Colorado River Multi-Species Conservation Program. A Technical Memorandum describing the methodology for computing the total consumptive use at the DUCA and the corresponding unmeasured returns for 2019 has been included in the Significant Documents.

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

[7] Calculated as the sum of diversions (81,039 AF) minus the sum of measured returns (1,505 AF), unmeasured returns (13,533 AF) and unassigned measured returns (25,626 AF).

[8] 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.

[9] As referenced in Column 7, Exhibit B, of the CRWDA and the IID/SDCWA Water Transfer Agreement, as amended, for the years 2003 through 2017 IID was required to conserve water for transfer to SDCWA for delivery, by exchange from non-Colorado River sources, to the Salton Sea for mitigation purposes. In 2017, IID conserved the full amount required to meet its mitigation obligation but, due to measurement imprecision and operational/infrastructure limitations, under-delivered the required conservation volume by 156 AF. IID provided 149 AF of previously conserved water to the Salton Sea in 2018 toward this outstanding balance and provided the remaining 7 AF of previously conserved water in 2019, completing the residual balance. Due to measurement imprecision and operational/infrastructure limitations, IID provided an additional 9 AF to the Salton Sea (for a total of 16 AF, as shown above) in 2019. The 9 AF of additional water provided to the Salton Sea was deducted from excess extraordinary conservation created by IID in 2019.

Table 6. State of Nevada - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2019. (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	4	5	5	5	5	6	6	5	5	4	4	58
	Measured Returns	2	2	2	2	2	2	3	2	2	2	2	2	25
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	2	2	3	3	3	3	3	4	3	3	2	2	33
Robert B. Griffith Water Project														
Pumped from Lake Mead	Diversion	27,079	23,176	31,030	31,580	36,853	44,814	50,437	52,121	47,482	42,090	30,504	26,561	443,727
Lake Mead National Recreation Area National Park Service														
Pumped from Lake Mead	Diversion	15	17	16	24	24	29	32	34	24	28	22	17	282
	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	15	17	16	24	24	29	32	34	24	28	22	17	282
Basic Water Company														
Pumped from Lake Mead	Diversion	332	281	299	343	413	511	502	477	510	539	468	374	5,049
	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	332	281	299	343	413	511	502	477	510	539	468	374	5,049
City of Henderson														
Pumped from Lake Mead	Diversion	1,437	1,297	1,502	1,594	1,127	414	952	548	461	930	1,411	1,441	13,114
	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	1,437	1,297	1,502	1,594	1,127	414	952	548	461	930	1,411	1,441	13,114
Nevada Department of Wildlife														
Pumped from Lake Mead	Diversion	71	64	58	52	58	66	59	65	88	98	86	99	864
	Measured Returns	70	63	57	51	57	65	58	64	87	97	85	98	852
	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	80	68	82	85	84	86	79	71	60	73	66	78	912
	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	80	68	82	85	84	86	79	71	60	73	66	78	912
Las Vegas Wash Return Flow	Returns [1]	20,549	19,090	19,503	18,670	20,794	18,724	19,250	19,034	18,274	18,994	19,377	21,626	233,885
Lake Mead National Recreation Area National Park Service														
Pumped from Lake Mohave - Cottonwood Cove	Diversion	11	12	15	14	14	15	18	14	13	11	10	12	159
	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	11	12	15	14	14	15	18	14	13	11	10	12	159
Big Bend Water District														
Pumped from river	Diversion	237	217	269	293	318	356	400	378	343	311	272	245	3,639
	Measured Returns	152	146	165	168	173	185	216	189	182	171	160	161	2,068
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	85	71	104	125	145	171	184	189	161	140	112	84	1,571
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 2019. (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	50	49	158	350	469	467	226	475	389	92	0	0	2,725
Pumped from wells for domestic use	Diversion	80	80	143	156	209	174	232	309	155	160	60	27	1,785
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	43	43	99	167	223	212	151	259	179	83	20	9	1,488
	Consumptive Use	87	86	202	339	455	429	307	525	365	169	40	18	3,022
Nevada Totals														
	Diversion	**29,396**	**25,265**	**33,577**	**34,496**	**39,574**	**46,937**	**52,943**	**54,498**	**49,530**	**44,337**	**32,903**	**28,858**	**472,314**
	Measured Returns	**20,773**	**19,301**	**19,727**	**18,891**	**21,026**	**18,976**	**19,527**	**19,289**	**18,545**	**19,264**	**19,624**	**21,887**	**236,830**
	Unmeasured Returns	**43**	**43**	**99**	**167**	**223**	**212**	**151**	**259**	**179**	**83**	**20**	**9**	**1,488**
	Consumptive Use	**8,580**	**5,921**	**13,751**	**15,438**	**18,325**	**27,749**	**33,265**	**34,950**	**30,806**	**24,990**	**13,259**	**6,962**	**233,996**

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													346,794
	Injected	0	0	0	0	0	0	0	0	0	0	0	0	0
	Withdrawn	0	0	0	0	0	0	0	0	0	177	97	48	322
	EOY Balance													346,472
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**													**358,637**
	Total Current Year Injection													**0**
	Total Current Year Withdrawals													**322**
	EOY Cumulative Injected Storage													**358,315**

Footnotes:

[1] Estimated return based on historic 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 (included in the Significant Documents).

[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 2019. (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]	1,189	9,099	11,390	17,360	20,614	1,625	10,537	1,331	9,962	94	6,816	314	90,331
Delivered to Mexico in Satisfaction of Treaty													
Diverted by Others													
Delivered to Storage [2]	1,189	9,099	11,390	17,360	20,614	1,625	10,537	1,331	9,962	94	6,816	314	90,331
Passing to Mexico in Excess of Treaty													
Colorado River Indian Reservation - Diversion at Headgate Rock Dam													
Ordered but not Diverted [1]	2,295	2,043	3,632	4,066	4,748	3,685	3,673	3,927	3,409	3,507	3,558	4,752	43,295
Delivered to Mexico in Satisfaction of Treaty	431	649	815	694	744	473	407	746	763	878	1,533	2,008	10,141
Diverted by Others	593	731	2,302	2,996	3,594	2,937	2,980	2,330	2,034	1,318	743	1,704	24,262
Delivered to Storage [3]	1,271	651	320	328	370	257	259	798	481	231	615	461	6,042
Passing to Mexico in Excess of Treaty	0	12	195	49	41	19	27	54	131	1,079	666	579	2,852
North Gila Valley Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	318	175	457	391	316	459	591	412	353	227	460	299	4,458
Delivered to Mexico in Satisfaction of Treaty	80	60	159	57	69	109	44	54	93	71	126	143	1,065
Diverted by Others	130	70	225	320	189	290	525	250	192	125	72	102	2,490
Delivered to Storage [3]	104	41	62	4	50	54	16	104	42	14	99	20	609
Passing to Mexico in Excess of Treaty	4	4	10	9	8	6	6	5	27	17	163	35	294
Gila Monster Farms - Diversion at Imperial Dam													
Ordered but not Diverted [1]	289	226	160	155	1	192	312	231	303	146	242	218	2,475
Delivered to Mexico in Satisfaction of Treaty	104	103	25	0	0	25	50	62	71	46	85	84	655
Diverted by Others	92	79	117	111	1	152	247	116	169	67	34	58	1,243
Delivered to Storage [3]	90	39	19	43	0	14	10	48	37	14	44	20	378
Passing to Mexico in Excess of Treaty	3	5	0	1	0	1	6	6	26	20	79	55	202
Wellton-Mohawk I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted [1]	3,301	1,827	281	230	172	7	150	24	2,515	175	3,532	3,678	15,892
Delivered to Mexico in Satisfaction of Treaty	1,676	432	17	0	128	0	0	0	356	79	946	1,274	4,908
Diverted by Others	650	596	124	143	35	7	150	22	1,171	82	633	1,371	4,984
Delivered to Storage [3]	913	655	134	88	7	0	0	3	839	2	524	596	3,762
Passing to Mexico in Excess of Treaty	61	144	6	0	2	0	0	0	148	13	1,428	437	2,239
Yuma Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	267	170	12	245	186	152	196	10	10	38	317	104	1,707
Delivered to Mexico in Satisfaction of Treaty	57	85	0	44	31	22	32	7	2	21	76	57	434
Diverted by Others	83	23	12	57	100	127	146	3	8	9	22	39	629
Delivered to Storage [3]	125	62	0	142	49	0	17	0	0	8	44	8	455
Passing to Mexico in Excess of Treaty	3	0	0	3	6	3	0	0	0	0	175	0	190
Yuma Mesa I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted [1]	3,724	1,243	794	1,133	692	556	475	1,286	1,652	1,917	2,806	1,694	17,972
Delivered to Mexico in Satisfaction of Treaty	513	433	144	92	84	114	15	25	456	711	1,018	915	4,520
Diverted by Others	2,076	367	550	645	487	410	363	981	951	1,027	629	408	8,894
Delivered to Storage [3]	1,134	433	81	360	114	31	97	280	211	133	379	349	3,601
Passing to Mexico in Excess of Treaty	3	10	19	36	7	1	0	0	35	45	782	22	960

Table 7. State of Arizona - Disposition of Water Ordered but not Diverted, Calendar Year 2019. (Values are in acre-feet.)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Unit B I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted [1]	866	888	536	359	418	765	869	495	736	1,880	461	122	8,395
Delivered to Mexico in Satisfaction of Treaty	295	306	106	150	91	94	105	161	187	617	201	44	2,357
Diverted by Others	327	462	352	174	286	651	709	255	448	808	133	60	4,665
Delivered to Storage [3]	236	111	76	26	34	16	42	79	80	229	92	11	1,033
Passing to Mexico in Excess of Treaty	9	9	3	9	7	3	13	0	21	226	35	7	342
Yuma County Water Users' Association - Diversion at Imperial Dam													
Ordered but not Diverted [1]	2,701	1,603	2,235	1,762	3,566	859	639	5,310	2,801	226	6,121	5,198	33,021
Delivered to Mexico in Satisfaction of Treaty	790	610	682	412	929	93	80	1,058	395	104	1,757	2,281	9,191
Diverted by Others	828	494	1,507	1,055	2,334	719	556	2,896	2,341	71	473	1,123	14,397
Delivered to Storage [3]	1,067	429	14	285	275	47	3	1,196	56	51	995	423	4,842
Passing to Mexico in Excess of Treaty	16	70	32	9	28	1	0	160	9	0	2,897	1,371	4,593
Arizona Totals													
Ordered but not Diverted [1]	**14,950**	**17,274**	**19,497**	**25,701**	**30,713**	**8,300**	**17,442**	**13,026**	**21,741**	**8,210**	**24,313**	**16,379**	**217,546**
Delivered to Mexico in Satisfaction of Treaty	**3,946**	**2,678**	**1,948**	**1,449**	**2,076**	**930**	**733**	**2,113**	**2,323**	**2,527**	**5,742**	**6,806**	**33,271**
Diverted by Others	**4,779**	**2,822**	**5,189**	**5,501**	**7,026**	**5,293**	**5,676**	**6,853**	**7,314**	**3,507**	**2,739**	**4,865**	**61,564**
Delivered to Storage [2,3]	**6,128**	**11,520**	**12,095**	**18,637**	**21,513**	**2,043**	**10,982**	**3,839**	**11,709**	**776**	**9,609**	**2,202**	**111,054**
Passing to Mexico in Excess of Treaty	**99**	**254**	**265**	**116**	**99**	**34**	**52**	**225**	**397**	**1,400**	**6,225**	**2,506**	**11,672**

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 2019. (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]	1,552	5,951	457	3,021	6,125	1,015	1,144	1,004	864	1,714	185	2,793	25,825
Delivered to Mexico in Satisfaction of Treaty													
Diverted by Others													
Delivered to Storage [2]	1,552	5,951	457	3,021	6,125	1,015	1,144	1,004	864	1,714	185	2,793	25,825
Passing to Mexico in Excess of Treaty													
Palo Verde Irrigation District - Diversion at Palo Verde Dam													
Ordered but not Diverted [1]	446	877	1,176	2,723	1,369	2,400	2,519	2,618	2,797	2,065	1,002	305	20,297
Delivered to Mexico in Satisfaction of Treaty	217	326	141	929	208	422	453	674	768	687	490	32	5,347
Diverted by Others	177	369	844	1,554	944	1,755	1,818	1,446	1,591	869	187	171	11,725
Delivered to Storage [3]	45	169	159	211	207	208	247	456	201	323	228	22	2,477
Passing to Mexico in Excess of Treaty	8	14	32	30	9	15	1	42	236	186	96	81	750
Yuma Project Reservation Division - Diversion at Imperial Dam													
Ordered but not Diverted [1]	4,109	3,168	999	1,215	1,734	644	1,543	1,189	2,652	2,578	5,814	5,798	31,443
Delivered to Mexico in Satisfaction of Treaty	1,464	1,146	191	167	268	174	160	261	843	700	2,380	2,594	10,348
Diverted by Others	1,664	1,245	703	785	1,270	372	1,182	678	1,227	1,184	848	1,786	12,944
Delivered to Storage [3]	928	680	102	232	156	95	179	222	387	399	1,064	583	5,027
Passing to Mexico in Excess of Treaty	52	97	4	31	40	3	21	28	195	296	1,522	835	3,124
Imperial Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	29,779	25,213	27,113	17,168	13,820	13,703	9,518	15,802	24,096	28,412	41,949	17,108	263,681
Delivered to Mexico in Satisfaction of Treaty	15,061	14,264	11,320	8,053	6,462	3,500	2,407	7,924	11,973	13,528	23,915	9,079	127,486
Diverted by Others	9,674	4,397	11,082	7,485	6,609	8,441	5,644	6,121	6,205	10,814	4,891	5,838	87,201
Delivered to Storage [3]	4,469	4,829	3,216	1,271	542	1,687	1,404	1,689	2,943	2,874	5,026	1,172	31,124
Passing to Mexico in Excess of Treaty	575	1,722	1,496	358	207	75	63	68	2,975	1,195	8,117	1,018	17,869
Coachella Valley Water District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	1,083	693	811	658	2,328	1,918	3,755	834	926	391	1,627	1,085	16,109
Delivered to Mexico in Satisfaction of Treaty	427	331	281	165	444	442	561	185	302	246	388	140	3,912
Diverted by Others	150	135	456	386	1,676	1,288	2,916	486	396	108	312	757	9,066
Delivered to Storage [3]	506	225	66	92	188	182	204	145	110	23	45	167	1,952
Passing to Mexico in Excess of Treaty	0	2	9	16	20	6	74	17	118	13	882	22	1,179
California Totals													
Ordered but not Diverted [1]	**36,969**	**35,902**	**30,558**	**24,786**	**25,375**	**19,680**	**18,479**	**21,446**	**31,334**	**35,160**	**50,577**	**27,090**	**357,355**
Delivered to Mexico in Satisfaction of Treaty	**17,169**	**16,067**	**11,933**	**9,314**	**7,382**	**4,538**	**3,581**	**9,044**	**13,886**	**15,161**	**27,173**	**11,845**	**147,093**
Diverted by Others	**11,665**	**6,146**	**13,085**	**10,210**	**10,499**	**11,856**	**11,560**	**8,731**	**9,419**	**12,975**	**6,238**	**8,552**	**120,936**
Delivered to Storage [2,3]	**7,500**	**11,854**	**3,999**	**4,827**	**7,218**	**3,187**	**3,179**	**3,516**	**4,505**	**5,334**	**6,549**	**4,737**	**66,405**
Passing to Mexico in Excess of Treaty	**635**	**1,835**	**1,541**	**435**	**276**	**99**	**159**	**155**	**3,524**	**1,690**	**10,617**	**1,956**	**22,922**

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 No. 242 – Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River, signed August 30, 1973.
2) Minute No. 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 No. 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 No. 322 – Extension of the Temporary Emergency Delivery of Colorado River Water for Use in Tijuana, Baja California, signed January 19, 2017.
5) Minute No. 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 2019. (Values are in acre-feet.)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Colorado River at the Northerly International Boundary [1]	111,806	132,547	173,537	158,779	115,469	127,861	134,837	100,445	95,696	59,209	99,982	74,178	1,384,347
Deliveries to Mexico in Satisfaction of Treaty Requirements													
Delivery at the Limitrophe [2]	604	635	340	306	212	114	103	248	306	280	509	339	3,997
Diversion for Delivery at Tijuana [3]	0	0	0	0	0	0	234	234	237	0	0	0	705
Delivery at Southerly International Boundary	9,732	9,645	11,557	11,180	11,816	10,161	9,767	8,444	6,437	8,112	7,866	6,529	111,247
Diversion Channel Discharge [4]	5	0	0	0	18	167	620	1,631	502	0	0	0	2,441
Delivery to Mexico at the Northerly International Boundary [5]	111,258	131,912	172,672	157,674	114,981	127,616	134,759	100,184	90,330	54,579	79,126	69,581	1,344,672
Total Deliveries to Mexico in Satisfaction of Treaty Requirements	121,598	142,192	184,569	169,159	127,027	138,059	145,484	110,741	97,310	62,971	87,501	76,450	1,463,062
Creation of Mexico's Water Reserve [6]	0	0	0	0	0	0	0	0	0	0	9,161	27,777	36,938
Total to Mexico in Satisfaction of Treaty Requirements	121,598	142,192	184,569	169,159	127,027	138,059	145,484	110,741	97,310	62,971	96,662	104,227	1,500,000
Delivery of Mexico's Water Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0
To Mexico in Excess of Treaty [7]	549	635	865	1,105	489	245	78	262	5,366	4,630	20,856	4,597	39,676
Accountable Deliveries to Mexico [8]	122,147	142,827	185,434	170,264	127,516	138,304	145,562	111,003	102,676	67,601	117,519	108,824	1,539,676
Water Bypassed Pursuant to IBWC Minute No. 242 [9]	6,345	5,405	11,667	7,604	7,745	10,950	13,976	13,899	16,876	16,161	16,006	16,374	143,007

Mexico's Water Reserve	
BOY Balance	100,198
Creation	36,938
System Assessment [10]	(3,694)
Delivery	0
Assessment Applied Pursuant to Section IV.B.3. of the Joint Report [11]	(467)
EOY Cumulative Balance Available for Future Delivery [12]	132,975

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

Footnotes:

[1] Total flow in the river at the NIB as reported by IBWC; includes water passing to Mexico in excess of the Treaty requirements.

[2] Wasteway deliveries to the river Limitrophe via the Cooper, 11 Mile, and 21 Mile lateral wasteways in satisfaction of the Treaty requirements.

[3] 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 No. 322.

[4] 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 No. 323, during the months of September through December 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.

[5] That portion of the flows at NIB necessary to meet the 1.5 MAF Treaty obligation.

[6] Water deferred by Mexico pursuant to IBWC Minute No. 323. Mexico's Water Reserve includes Emergency Storage, Revolving Account, and Intentionally Created Mexican Allocation.

[7] 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.

[8] 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 monthly schedule. It does not include water bypassed pursuant to IBWC Minute No. 242.

Footnotes: Continued on next page.

Table 9 Footnotes: Continued from previous page.

[9] In coordination with Mexico through the United States and Mexican Sections of the IBWC, Reclamation conducted maintenance repairs on the Bypass Drain beginning on September 5, 2019 and continuing through January 5, 2020. During this period, flows in the Bypass Drain were temporarily diverted around the construction site and discharged into the Limitrophe below Morelos Dam at the MODE 3 diversion structure. The values reflected above include flows from the Bypass Drain that were conveyed to the Ciénega de Santa Clara in Mexico as well as flows that were discharged into the Limitrophe below Morelos Dam during the construction period.

[10] In accordance with Section IV.B.2 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 (Joint Report), Mexico's Water Reserve will be assessed 10 percent at the time of creation instead of the annual 3 percent evaporation losses stipulated in Section V.E.5 of IBWC Minute No. 323, through December 31, 2026.

[11] In accordance with Section IV.B.3 of the Joint Report, for any volume of water in Mexico's Water Reserve that had not yet had an evaporation assessment of 10 percent, a one-time assessment was applied until reaching 10 percent and no further assessments will be applied through December 31, 2026.

[12] The cumulative volume of water deferred by Mexico (Mexico's Water Reserve) pursuant to Minute Nos. 318, 319 and 323; includes water created during the reporting year and the prior year EOY balance, less deliveries made during the reporting year and the system assessments.

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 2019.[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**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total Consumptive Use	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

[1]These 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 conservation, transfer, and exchange 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 SCIAs, 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 by State, Calendar Year 2019. (Values are in acre-feet.)

STATE	ADJUSTMENTS	ACTUAL USE
Arizona	Basic Apportionment [1]	2,800,000
	System Conservation Water - Pilot System Conservation Program [2]	(40,794)
	ICS Creation (CAWCD) [3]	(24,283)
	ICS Creation (CRIT) [3]	(6,274)
	ICS Creation (GRIC) [3]	(117,000)
	Total Available Colorado River Water [4]	2,611,649
	Total Consumptive Use [5]	2,491,707
	State Underrun or (Overrun)	119,942
	Unused AZ Apportionment Left in Lake Mead [6]	(119,942)
	Net State Underrun or (Overrun)	0
California	Basic Apportionment [1]	4,400,000
	Salton Sea Mitigation - Delivery of Residual Balance [7]	7
	ICS Creation (MWD) [3]	(409,860)
	ICS Creation (IID) [3]	(1,579)
	System Conservation Water - Pilot System Conservation Program [2]	(3,892)
	Total Available Colorado River Water [4]	3,984,676
	Total Consumptive Use [5]	3,840,686
	State Underrun or (Overrun)	143,990
	IID Excess Extraordinary Conservation - Resolution of 2010 Salton Sea Pre-delivery [8]	(46,546)
	Unused CA Apportionment Left in Lake Mead [9]	(97,444)
	Net State Underrun or (Overrun)	0
Nevada	Basic Apportionment [1]	300,000
	ICS Creation (SNWA) [3]	(66,004)
	Total Available Colorado River Water [4]	233,996
	Total Consumptive Use [5]	233,996
	State Underrun or (Overrun)	0
	Unused NV Apportionment Left in Lake Mead	0
	Net State Underrun or (Overrun)	0

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 2019, pursuant to individual System Conservation Implementation Agreements (SCIA) between Reclamation and water users participating in the Pilot System Conservation Program. In accordance with the SCIAs, this System Conservation Water remained in Lake Mead to benefit system storage. For additional details, see Tables 17, 18, and 19.

Footnotes continued on next page.

Table 11 Footnotes: Continued from previous page.

[3] 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 details, see Table 22.

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

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

[6] By letter July 24, 2019, CAWCD notified Reclamation of its intent to adjust its diversions of unused Arizona basic apportionment in 2019 to effect a voluntarily contribution to Lake Mead. The volume of 119,942 AF remained in Lake Mead to benefit system storage.

[7] As referenced in Column 7, Exhibit B, of the CRWDA and the IID/SDCWA Water Transfer Agreement, as amended, for the years 2003 through 2017 IID was required to conserve water for transfer to SDCWA for delivery, by exchange from non-Colorado River sources, to the Salton Sea for mitigation purposes. In 2017, IID conserved the full amount required to meet its mitigation obligation but, due to measurement imprecision and operational/infrastructure limitations, under-delivered the required conservation volume by 156 AF. IID provided 149 AF of previously conserved water to the Salton Sea in 2018 toward this outstanding balance and provided the remaining 7 AF of previously conserved water in 2019, completing the residual balance. Due to measurement imprecision and operational/infrastructure limitations, IID provided an additional 9 AF to the Salton Sea (for a total of 16 AF) in 2019. The 9 AF of additional water provided to the Salton Sea was deducted from excess extraordinary conservation created by IID in 2019.

[8] As first reported in the 2010 *Colorado River Accounting and Water Use Report* (and subsequent reports), in 2010 IID delivered 46,546 AF of Colorado River water to the Salton Sea with a stated intention to store the water for use for Salton Sea mitigation requirements in 2011 and half of 2012. IID did not conserve an equivalent amount of water in 2011 and 2012 for delivery to the Salton Sea resulting in a Colorado River system storage depletion of 46,546 AF. In a modified water order letter dated December 19, 2019, IID notified Reclamation of its intent to resolve this outstanding issue by leaving in Lake Mead 46,546 AF of excess extraordinary conservation created by IID in 2019. Based on the conservation actions implemented by IID during 2019, and confirmed by Reclamation in a letter dated May 15, 2020, the Colorado River system storage depletion of 46,546 AF has been fully resolved to Reclamation's satisfaction.

[9] Colorado River water apportioned to, but not consumptively used by, California in 2019. By separate letters dated May 13, 2020, IID and MWD notified Reclamation that, due to current limitations regarding the creation and storage of Extraordinary Conservation ICS, each agency created, and left in Lake Mead, excess extraordinary conservation. IID and MWD propose that this excess extraordinary conservation remain in Lake Mead with the possibility of being credited as Extraordinary Conservation ICS (provisionally, 41,826 AF to IID and 40,140 AF to MWD) at a future date, subject to applicable conditions, including matters as outlined in their letters. Extraordinary Conservation ICS credited to IID and MWD under these proposals, if any, will be reflected in a future *Colorado River Accounting and Water Use Report* .

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 2019. (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 2019 [2]		0	0	0	0	0	0	0	0	0	0	0	0	0
Verified LTSC in 2019 [3]		0	0	0	0	0	0	0	0	0	0	0	0	0
ICUA Developed in 2019 [4]		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
Water diverted and stored in CA by MWD for the benefit of SNWA														
Verified ALTSC [1,6]	330,225													
Diverted in 2019 [6]		0	0	0	0	0	0	0	0	0	0	0	0	0
Verified LTSC in 2019 [6]		0	0	0	0	0	0	0	0	0	0	0	0	0
ICUA Developed in 2019 [4, 6]		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
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
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

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 2019. (Values are in acre-feet.)

WATER USER	DETAILS	ANNUAL TOTALS			
		DIVERSION	CONSUMPTIVE USE	APPROVAL	ENTITLEMENT
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 2019. (Values are in acre-feet.)

WATER USER	DETAILS	ANNUAL TOTALS DIVERSION	ANNUAL TOTALS CONSUMPTIVE USE	APPROVAL	ENTITLEMENT
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 2019. (Values are in acre-feet.)

WATER USER	DETAILS	ANNUAL TOTALS DIVERSION	ANNUAL TOTALS CONSUMPTIVE USE	APPROVAL	ENTITLEMENT
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 2019. (Values are in acre-feet.)

		TOTAL
LCWSP Wellfield Pumpage [1]		9,997
Federal LCWSP Contractors [2]		
BLM	Consumptive Use	138
Bureau of Reclamation - Parker Dam and Government Camp	Consumptive Use	1
	Total Federal Contractors' Consumptive Use	139
Non-Federal LCWSP Contractors [3]		
City of Needles	Consumptive Use	0
Needles' Subcontractors		
Southern California Gas Company	Consumptive Use	7
Pacific Gas & Electric Company	Consumptive Use	76
Havasu Water Company	Consumptive Use	18
Vista del Lago	Consumptive Use	25
Needles' Other Subcontractors	Consumptive Use	178
	Needles' and Subcontractors' Consumptive Use	304
LCWSP Water Available to MWD [4]		9,554
	Total Non-Federal Contractors' Consumptive Use	9,858

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.

CONSERVATION, TRANSFERS, AND EXCHANGES

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 2019" tabulate these transactions reported within Arizona, California, and Nevada.

For California, the tabulation documents, by agreement, conservation outside of the CRWDA or in amounts that differ from those displayed in Exhibit B of the CRWDA.

For Arizona, California, and Nevada the tabulation includes System Conservation Water created in 2019 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 2019" documents water made available by the Bureau of Reclamation through conservation efforts. These include:

1) Water stored in Warren H. Brock Reservoir.
2) Water discharged to the Colorado River as a result of the operation of the Yuma Desalting Plant.

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 2019. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
Pilot System Conservation Program (PSCP) [1]	**40,794**
City of Bullhead City [2]	306
Colorado River Indian Tribes [3]	26,805
Fort McDowell Yavapai Nation [4]	13,683

Footnotes:

[1] 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.

[2] 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 Lake Mead to benefit system storage.

[3] In 2018, Reclamation and the Colorado River Indian Tribes (Tribes) entered into SCIA No. 18-XX-30-W0634 under the PSCP in which the Tribes agreed to fallow 1,884.4 acres of farmland (known as MTA Farms) from October 1, 2018 through September 30, 2019 to create System Conservation Water. In 2019, Reclamation and the Tribes entered into SCIA No. 19-XX-30-W0647 under the PSCP in which the Tribes agreed to fallow 3,705.1 acres of farmland (known as Quail Mesa Farm) from January 1, 2019 through December 31, 2019 to create System Conservation Water. In accordance with the SCIAs and Letter Agreement Nos. 18-XX-30-W0636 and 19-XX-30-W0649 between Reclamation and CAWCD, the System Conservation Water generated under these SCIAs in 2019 (9,317 AF from MTA Farms and 17,488 AF from Quail Mesa Farm, for a total of 26,805 AF) remained in Lake Mead to benefit system storage.

[4] In 2018, Reclamation and the Fort McDowell Yavapai Nation (Nation) entered into SCIA No. 18-XX-30-W0642 under the PSCP in which the Nation agreed to forego delivery of 13,683 AF of its CAP water entitlement in 2019. In accordance with the SCIA and Letter Agreement No. 18-XX-30-W0644 between Reclamation and CAWCD, this System Conservation Water remained in Lake Mead to benefit system storage.

Table 18. State of California - Transfers, Exchanges, and Water Made Available by Extraordinary Conservation, Calendar Year 2019. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
IID Conservation	**400,700**
1988 IID/MWD Water Conservation Agreement (105,000 AF Total Conservation) [1]	
MWD's Use of Conserved Water	105,000
CVWD's Use of Conserved Water [2]	0
Transfer to SDCWA [3]	160,000
SDCWA Mitigation Transfer [4]	0
IID Intra-Priority 3 Transfer to CVWD [5]	68,000
All-American Canal Lining Project (67,700 AF Total Conservation) [6]	
SDCWA Exchange with MWD	56,200
Supplemental Water	11,500
CVWD Conservation	**30,850**
Coachella Canal Lining Project (30,850 Total Conservation) [7]	
SDCWA Exchange With MWD	21,511
Supplemental Water	4,500
Mitigation	4,839
Total MWD Exchange with SDCWA [8]	**237,711**
PVID/MWD Forbearance and Fallowing Program [9]	**44,477**
Pilot System Conservation Program (PSCP) [10]	**3,892**
Bard Water District [11]	3,571
City of Needles [12]	158
CVWD [13]	163

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] In accordance with the 1989 Approval Agreement, as amended, CVWD may request up to 20,000 AF of the water conserved by IID for MWD under the 1988 IID/MWD Water Conservation Agreement. MWD reduces its use by up to 20,000 AF of water conserved for use by CVWD, which is reflected in the displayed value above.

[3] As referenced in Column 5, Exhibit B, of the CRWDA and the IID/SDCWA Water Transfer Agreement, as amended, IID conserves water for transfer to SDCWA.

[4] As referenced in Column 7, Exhibit B, of the CRWDA and the IID/SDCWA Water Transfer Agreement, as amended, for the years 2003 through 2017 IID was required to conserve water for transfer to SDCWA for delivery, by exchange from non-Colorado River sources, to the Salton Sea for mitigation purposes. In 2017, IID conserved the full amount required to meet its mitigation obligation but, due to measurement imprecision and operational/infrastructure limitations, under-delivered the required conservation volume by 156 AF. IID provided 149 AF of previously conserved water to the Salton Sea in 2018 toward this outstanding balance and provided the remaining 7 AF of previously conserved water in 2019, completing the residual balance. Due to measurement imprecision and operational/infrastructure limitations, IID provided an additional 9 AF to the Salton Sea (for a total of 16 AF) in 2019. The 9 AF of additional water provided to the Salton Sea was deducted from excess extraordinary conservation created by IID in 2019. Also, as first reported in the 2010 *Colorado River Accounting and Water Use Report* (and subsequent reports), in 2010 IID delivered 46,546 AF of Colorado River water to the Salton Sea with a stated intention to store the water for use for Salton Sea mitigation requirements in 2011 and half of 2012. IID did not conserve an equivalent amount of water in 2011 and 2012 for delivery to the Salton Sea resulting in a Colorado River system storage depletion of 46,546 AF. In a modified water order letter dated December 19, 2019, IID notified Reclamation of its intent to resolve this outstanding issue by leaving in Lake Mead 46,546 AF of excess extraordinary conservation created by IID in 2019. Based on the conservation actions implemented by IID during 2019, and confirmed by Reclamation in a letter dated May 15, 2020, the Colorado River system storage depletion of 46,546 AF has been fully resolved to Reclamation's satisfaction.

Footnotes continued on next page.

Table 18 Footnotes: Continued from previous page.

[5] IID conserves water under an acquisition agreement with CVWD to meet the IID/CVWD Intra-priority 3 Transfer obligation as referenced in Column 8, Exhibit B of the CRWDA.

[6] The Secretarial Determination of water conserved by lining certain reaches of the AAC was issued in December 2009 (see Significant Documents). 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.

[7] The Secretarial Determination of water conserved by the CCLP was issued in January 2008 (see Significant Documents). 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.

[8] The amount shown represents water exchanged between MWD and SDCWA in the reporting year. This is the sum of: Transfer to SDCWA (160,000 AF), All-American Canal Lining Project - SDCWA Exchange with MWD (56,200 AF), and Coachella Canal Lining Project - SDCWA Exchange with MWD (21,511 AF).

[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 2019 Fallowed Land Verification Report, PVID/MWD Forbearance and Fallowing Program,* dated May 7, 2020. This value represents the estimated reduction in PVID's agricultural consumptive use as a result of fallowing 10,376 acres from January through December in the reporting year.

[10] 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.

[11] In 2018, Reclamation and Bard Water District (Bard) entered into SCIA No. 18-XX-30-W0637 under the PSCP in which Bard agreed to implement a Seasonal Agricultural Land Fallowing Program to create System Conservation Water. In accordance with the SCIA, this System Conservation Water remained in Lake Mead to benefit system storage.

[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 Lake Mead to benefit system storage.

[13] In 2016, Reclamation and CVWD entered into SCIA No. 15-XX-30-W0593 under the PSCP in which CVWD agreed to establish a Furrow/Flood to Drip Conversion Rebate Program to create System Conservation Water. In accordance with the SCIA, this System Conservation Water remained in Lake Mead to benefit system storage.

Table 19. State of Nevada - Transfers, Exchanges, and Water Made Available by Extraordinary Conservation, Calendar Year 2019. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
Pilot System Conservation Program (PSCP) [1]	**556**
SNWA [2]	556

Footnotes:

[1] 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.

[2] In 2016, Reclamation and SNWA entered into SCIA No. 16-XX-30-W0612 in which SNWA agreed to conserve up to 860 AF per year, from October 1, 2016 through September 30, 2019, of post-1929 Virgin River surface water rights to create System Conservation Water. In accordance with the SCIA, the portion of water conserved in 2019 (reflected above) remained in Lake Mead to benefit system storage. (Volume noted is provisional until verified by Reclamation.)

Table 20. Bureau of Reclamation - Water Made Available by Conservation, Calendar Year 2019. (Values are in acre-feet.)

CONSERVATION PROGRAM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Warren H. Brock Reservoir Storage [1]	12,224	10,782	13,389	9,921	10,626	9,017	8,769	11,526	11,806	7,805	9,336	7,422	122,623
Yuma Desalting Plant Discharge to the Colorado River [2]	15	17	18	18	18	6	0	0	0	0	0	16	108
Pilot System Conservation Program (PSCP) [3]													45,242

Footnotes:

[1] Colorado River water stored in Warren H. Brock Reservoir. This total does not necessarily represent all new conservation or system efficiency gains by the reservoir. The difference between the value shown here and the amount shown in the California Article V(B) section, IID tabulation, "Delivery From Warren H. Brock Reservoir", consists of changes in reservoir storage and losses from the reservoir.

[2] Water created by operation of the Yuma Desalting Plant and discharged to the Colorado River.

[3] 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 2019 from projects implemented in Arizona, California, and Nevada. See Tables 17, 18, and 19 for additional details.)

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											Reductions			Additions					
	Calendar Year	[2]Priority 1, 2 and 3b	IID Priority 3a Quantified Amount	[3]IID Reduction: MWD 1988 Agreement Transfer	IID Reduction: SDCWA Transfer	[4]IID Reduction: AAC Lining IID, SDCWA & SLR	[5,6]IID Reduction: SDCWA Mitigation Transfer	[7]Intra-Priority 3 Transfer IID/CVWD	[6]IID Reduction: MWD Transfer with Salton Sea Restoration	[8]IID Reduction: Conditional ISG Backfill	[9]IID Reduction: Misc. PPRs	IID Reductions: Total Amount *(sum of columns 4 through 11)*	[10]IID Net Consumptive Use Amount *(difference between column 3 and column 12)*	CVWD Priority 3a Quantified Amount	[4]CVWD Reduction: CC Lining, SDCWA & SLR	[9]CVWD Reduction: Misc. PPRs	[11]CVWD Reductions : Total Amount *(sum of columns 15 + 16)*	[7]Intra-Priority 3 Transfer IID/CVWD	[3]Intra-Priority 3 Transfer MWD/CVWD	CVWD Net Consumptive Use Amount *(columns 14 - 17 plus columns 18 + 19)*	Total Priority 1-3 Use Plus PPR Consumptive Use *(sum of columns 2+13+20 plus 11+16)*	[12]ISG Benchmarks	[12]Annual Targets
1	2003	420	3,100	110	10	0	5	0	0	0	11.5	136.5	2,963.5	330	0	3	3	0	20	347	3,745.0	3,740	3,740
2	2004	420	3,100	110	20	0	10	0	0	0	11.5	151.5	2,948.5	330	0	3	3	0	20	347	3,730.0		3,707
3	2005	420	3,100	110	30	0	15	0	0	0	11.5	166.5	2,933.5	330	0	3	3	0	20	347	3,715.0		3,674
4	2006	420	3,100	110	40	0	20	0	0	9	11.5	190.5	2,909.5	330	26	3	29	0	20	321	3,665.0	3,640	3,640
5	2007	420	3,100	110	50	0	25	0	0	0	11.5	196.5	2,903.5	330	26	3	29	0	20	321	3,659.0		3,603
6	2008	420	3,100	110	50	67.7	25	4	20	0	11.5	288.2	2,811.8	330	26	3	29	4	20	325	3,571.3		3,566
7	2009	420	3,100	110	60	67.7	30	8	40	0	11.5	327.2	2,772.8	330	26	3	29	8	20	329	3,536.3	3,530	3,530
8	2010	420	3,100	110	70	67.7	35	12	60	0	11.5	366.2	2,733.8	330	26	3	29	12	20	333	3,501.3		3,510
9	2011	420	3,100	110	80	67.7	40	16	80	0	11.5	405.2	2,694.8	330	26	3	29	16	20	337	3,466.3		3,490
10	2012	420	3,100	110	90	67.7	45	21	100	0	11.5	445.2	2,654.8	330	26	3	29	21	20	342	3,431.3	3,470	3,470
11	2013	420	3,100	110	100	67.7	70	26	100	0	11.5	485.2	2,614.8	330	26	3	29	26	20	347	3,396.3		3,462
12	2014	420	3,100	110	100	67.7	90	31	100	0	11.5	510.2	2,589.8	330	26	3	29	31	20	352	3,376.3		3,455
13	2015	420	3,100	110	100	67.7	110	36	100	0	11.5	535.2	2,564.8	330	26	3	29	36	20	357	3,356.3		3,448
14	2016	420	3,100	110	100	67.7	130	41	100	0	11.5	560.2	2,539.8	330	26	3	29	41	20	362	3,336.3		3,440
15	2017	420	3,100	110	100	67.7	150	45	91	0	11.5	575.2	2,524.8	330	26	3	29	45	20	366	3,325.3		
16	2018	420	3,100	110	130	67.7	0	63	0	0	11.5	382.2	2,717.8	330	26	3	29	63	20	384	3,536.3		
17	**2019**	**420**	**3,100**	**110**	**160**	**67.7**	**0**	**68**	**0**	**0**	**11.5**	**417.2**	**2,682.8**	**330**	**26**	**3**	**29**	**68**	**20**	**389**	**3,506.3**		
18	2020	420	3,100	110	193	67.7	0	73	0	0	11.5	454.7	2,645.3	330	26	3	29	73	20	394	3,473.8		
19	2021	420	3,100	110	205	67.7	0	78	0	0	11.5	472.2	2,627.8	330	26	3	29	78	20	399	3,461.3		
20	2022	420	3,100	110	203	67.7	0	83	0	0	11.5	474.7	2,625.3	330	26	3	29	83	20	404	3,463.8		
21	2023	420	3,100	110	200	67.7	0	88	0	0	11.5	477.2	2,622.8	330	26	3	29	88	20	409	3,466.3		
22	2024	420	3,100	110	200	67.7	0	93	0	0	11.5	482.2	2,617.8	330	26	3	29	93	20	414	3,466.3		
23	2025	420	3,100	110	200	67.7	0	98	0	0	11.5	487.2	2,612.8	330	26	3	29	98	20	419	3,466.3		
24	2026	420	3,100	110	200	67.7	0	103	0	0	11.5	492.2	2,607.8	330	26	3	29	103	20	424	3,466.3		
25	2027	420	3,100	110	200	67.7	0	103	0	0	11.5	492.2	2,607.8	330	26	3	29	103	20	424	3,466.3		
26	2028	420	3,100	110	200	67.7	0	103	0	0	11.5	492.2	2,607.8	330	26	3	29	103	20	424	3,466.3		
	2029-2037	420	3,100	110	200	67.7	0	103	0	0	11.5	492.2	2,607.8	330	26	3	29	103	20	424	3,466.3		
	2038-2047[13]	420	3,100	110	200	67.7	0	103	0	0	11.5	492.2	2,607.8	330	26	3	29	103	20	424	3,466.3		
	2048-2077[14]	420	3,100	110	200	67.7	0	100	0	0	11.5	489.2	2,610.8	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 Minute Nos. 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, modifications to those plans, and developing procedures to account for and verify 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 2019. (Values are in acre-feet.)

State/ Water User	ICS Type	BOY Balance [1]	Creation [2]	System Assessment [3]	IOPP Payback [4]	Delivery	Evaporation [5]	Assessment (LBOps Appendix 1) [6]	Additional Assessment (2018) [7]	EOY Balance [8]
Arizona										
CAWCD	Extraordinary Conservation	216,252	24,283	2,428	0	0	N/A	0	2,350	235,757
	System Efficiency - Warren H. Brock	100,000	0	N/A	0	0	N/A	N/A	N/A	100,000
	System Efficiency - YDP Pilot Run	3,050	0	N/A	0	0	N/A	N/A	N/A	3,050
	Binational ICS [9]	23,750	0	N/A	0	0	N/A	N/A	N/A	23,750
									Total CAWCD:	362,557
CRIT	Extraordinary Conservation	0	6,274	627	0	0	N/A	N/A	N/A	5,647
GRIC	Extraordinary Conservation [10]	0	117,000	11,700	0	0	N/A	N/A	N/A	105,300
									Total Arizona:	**473,504**
California										
MWD	Extraordinary Conservation	511,535	409,860	40,986	0	0	N/A	7,548	6,548	866,313
	System Efficiency - Warren H. Brock	65,000	0	N/A	0	0	N/A	N/A	N/A	65,000
	System Efficiency - YDP Pilot Run	24,397	0	N/A	0	0	N/A	N/A	N/A	24,397
	Binational ICS [9]	23,750	0	N/A	0	0	N/A	N/A	N/A	23,750
									Total MWD:	979,460
IID	Extraordinary Conservation	50,000	1,579	79	0	0	1,500	N/A	N/A	50,000
	Binational ICS [9,11]	23,750	0	N/A	0	0		N/A	N/A	23,750
									Total IID:	73,750
									Total California:	**1,053,210**
Nevada										
SNWA	Extraordinary Conservation	92,411	66,004	6,600	0	0	N/A	1,217	2,120	148,478
	Extraordinary Conservation converted from Tributary Conservation / Imported [12]	181,511		N/A	0	0	N/A		2,312	179,199
	Tributary Conservation	N/A	34,929	3,493	0	0	N/A	N/A	N/A	31,436
	Imported - Coyote Spring Valley	N/A	0	0	0	0	N/A	N/A	N/A	0
	System Efficiency - Warren H. Brock	400,000	0	N/A	0	0	N/A	N/A	N/A	400,000
	System Efficiency - YDP Pilot Run	3,050	0	N/A	0	0	N/A	N/A	N/A	3,050
	Binational ICS [9]	23,750	0	N/A	0	0	N/A	N/A	N/A	23,750
									Total Nevada:	**785,913**
									Total ICS stored in Lake Mead: EOY 2019	**2,312,627**

Footnotes:

[1] Reflects the amount shown as the "EOY Balance" in the 2018 *Colorado River Accounting and Water Use Report* as adjusted for: (1) any differences between provisional and verified 2018 ICS creation amounts, and (2) the conversion of Tributary Conservation ICS to Extraordinary Conservation ICS on January 1, 2019 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 LBOps, in 2019, the Secretary of the Interior authorized additional Extraordinary Conservation ICS creation capacity for the states of Arizona and California (see documents 17 and 18 in the Significant Documents); the total annual Extraordinary Conservation ICS creation for 2019 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.

[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, 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 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. Therefore, IID's ICS creation amount is subject to a 5 percent system assessment in accordance with Section XI.G.3.B of the 2007 Interim Guidelines. These system assessments shall result in additional system water in storage in Lake Mead.

Footnotes: Continued on next page.

Table 22 Footnotes: Continued from previous page.

[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] In accordance with Section IV.A.2 of LBOps, there shall be a one-time deduction of 10 percent of any Extraordinary Conservation, Tributary, 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 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. Therefore, in accordance with Section XI.G.3.B.7 of the 2007 Interim Guidelines, a 3 percent evaporation loss shall be 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.

[6] In accordance with Section IV.A.1 of LBOps, and as initially documented in Appendix 1 to LBOps, values in this column reflect the assessment that was applied on the Effective Date of the LB DCP Agreement (May 20, 2019) to Extraordinary Conservation ICS that was created through December 31, 2017, to bring the total assessed losses (including both system assessments and evaporation) to 10 percent. For additional information on how these values were calculated, see document 22 in the Significant Documents.

[7] In accordance with Section IV.A.1 of LBOps, values in this column reflect the additional assessment required to bring the total assessed losses (including both system assessments and evaporation) on Extraordinary Conservation ICS created from January 1, 2018 through December 31, 2018 to 10 percent. For additional information on how these values were calculated, see document 22 in the Significant Documents.

[8] In accordance with Section IV.C of LBOps, the sum of Extraordinary Conservation ICS and Binational ICS "EOY Balances" for each state do not exceed the maximum accumulated ICS storage limits set forth in Section IV.C, which are: (1) 1,700,000 AF for California; (2) 500,000 AF for Nevada; and (3) 500,000 AF for Arizona.

[9] The amount of Binational ICS credited pursuant to Agreement No. 12-XX-30-W0565, the *Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, The Metropolitan Water District of Southern California, the Colorado River Commission of Nevada, the Southern Nevada Water Authority, and the Central Arizona Water Conservation District, for a Pilot Program for the Conversion of Intentionally Created Mexican Allocation to Intentionally Created Surplus,* as modified by Section 4.6 of the *Interim Operating Agreement for Implementation of Minute No. 323*.

[10] 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*. Of the 117,000 AF of Extraordinary Conservation ICS created by GRIC in 2019, 100,000 AF has been dedicated for the exclusive use by the United States in fulfillment of GRIC's obligation under Agreement No. 19-XX-30-W0657. In accordance with Section 3 of Agreement No. 19-XX-30-W0657, the system assessment of 10,000 AF shall be borne by Reclamation. 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.

[11] Pursuant to the *Minute No. 319 Binational ICS Delivery Agreement between the United States and IID,* IID agreed to not request and Reclamation would not deliver to IID any Binational ICS available to IID under Minute No. 319 until the outstanding dispute regarding the 2010 Salton Sea pre-delivery for mitigation was resolved. As reported in Table 11, Footnote 8, this outstanding dispute has been fully resolved to Reclamation's satisfaction.

[12] The verified amount of Tributary Conservation ICS created by SNWA in 2018 is 32,288 AF. This is revised from the provisional amount of 32,000 AF shown in the 2018 *Colorado River Accounting and Water Use Report*. After applying the 5 percent reduction for system assessment to the verified amount, the 2018 EOY Tributary Conservation ICS balance is 30,674 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 2019.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2019

The table below includes agreements, letters, regulations and operating plans that impacted Reclamation's delivery of Colorado River water during calendar year 2019. These documents may be retrieved by clicking on the item in the electronic version of the report which is available on Reclamation's website: 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. 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.

LOWER BASIN DROUGHT CONTINGENCY PLAN	
3.	Lower Basin Drought Contingency Plan Agreement.
4.	Lower Basin Drought Contingency Operations.

REPORTS	
5.	2019 Annual Operating Plan for Colorado River Reservoirs.

INTERIM DETERMINATIONS	
6.	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.
7.	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 2019

PILOT SYSTEM CONSERVATION PROGRAM	
8.	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.
9.	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.
10.	System Conservation Implementation Agreement No. 18-XX-30-W0634 Between Reclamation and the Colorado River Indian Tribes to Implement a Pilot System Conservation Program, dated August 14, 2018 (MTA Farms).
11.	System Conservation Implementation Agreement No. 19-XX-30-W0647 Between Reclamation and the Colorado River Indian Tribes to Implement a Pilot System Conservation Program, dated February 25, 2019 (Quail Mesa Farm).
12.	System Conservation Implementation Agreement No. 18-XX-30-W0642 Between Reclamation and the Fort McDowell Yavapai Nation to Implement a Pilot System Conservation Program, dated November 14, 2018.
13.	System Conservation Implementation Agreement No. 18-XX-30-W0637 Between Reclamation and the Bard Water District to Implement a Pilot System Conservation Program, dated April 13, 2018.
14.	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.
15.	System Conservation Implementation Agreement No. 15-XX-30-W0593 Between Reclamation and the Coachella Valley Water District to Implement a Pilot System Conservation Program, dated January 11, 2016.
16.	System Conservation Implementation Agreement No. 16-XX-30-W0612 Between Reclamation and the Southern Nevada Water Authority to Implement a Pilot System Conservation Program, dated October 17, 2016.

INTENTIONALLY CREATED SURPLUS	
17.	Joint Letter from the Arizona Department of Water Resources, the Southern Nevada Water Authority, and The Metropolitan Water District of Southern California, dated June 17, 2019 regarding ICS Creation Sharing Capacity for the State of Arizona.
18.	Joint Letter from The Metropolitan Water District of Southern California (MWD), the Southern Nevada Water Authority, and the Arizona Department of Water Resources, dated April 28, 2020 regarding ICS Creation Sharing Capacity for MWD.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2019

INTENTIONALLY CREATED SURPLUS	
19.	2007 California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus (California ICS Agreement), dated December 13, 2007.
20.	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.
21.	Minute No. 319 Binational ICS Delivery Agreement between the United States and IID, dated September 21, 2017.
22.	Description of the assessment calculations required pursuant to Section IV.A.1 of Lower Basin Drought Contingency Operations.
23.	Documents related to the creation, delivery, and accounting of the Central Arizona Water Conservation District's ICS.
24.	Documents related to the creation, delivery, and accounting of the Colorado River Indian Tribes' ICS.
25.	Documents related to the creation, delivery, and accounting of the Gila River Indian Community's ICS.
26.	Documents related to the creation, delivery, and accounting of the Imperial Irrigation District's ICS.
27.	Documents related to the creation, delivery, and accounting of The Metropolitan Water District of Southern California's ICS.
28.	Documents related to the creation, delivery, and accounting of the Southern Nevada Water Authority's ICS.

INTERSTATE WATER BANKING	
29.	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.
30.	Documents related to Colorado River water diverted and stored in Arizona by AWBA for the benefit of SNWA.
31.	Documents related to Colorado River water diverted and stored in California by MWD for the benefit of SNWA.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2019

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

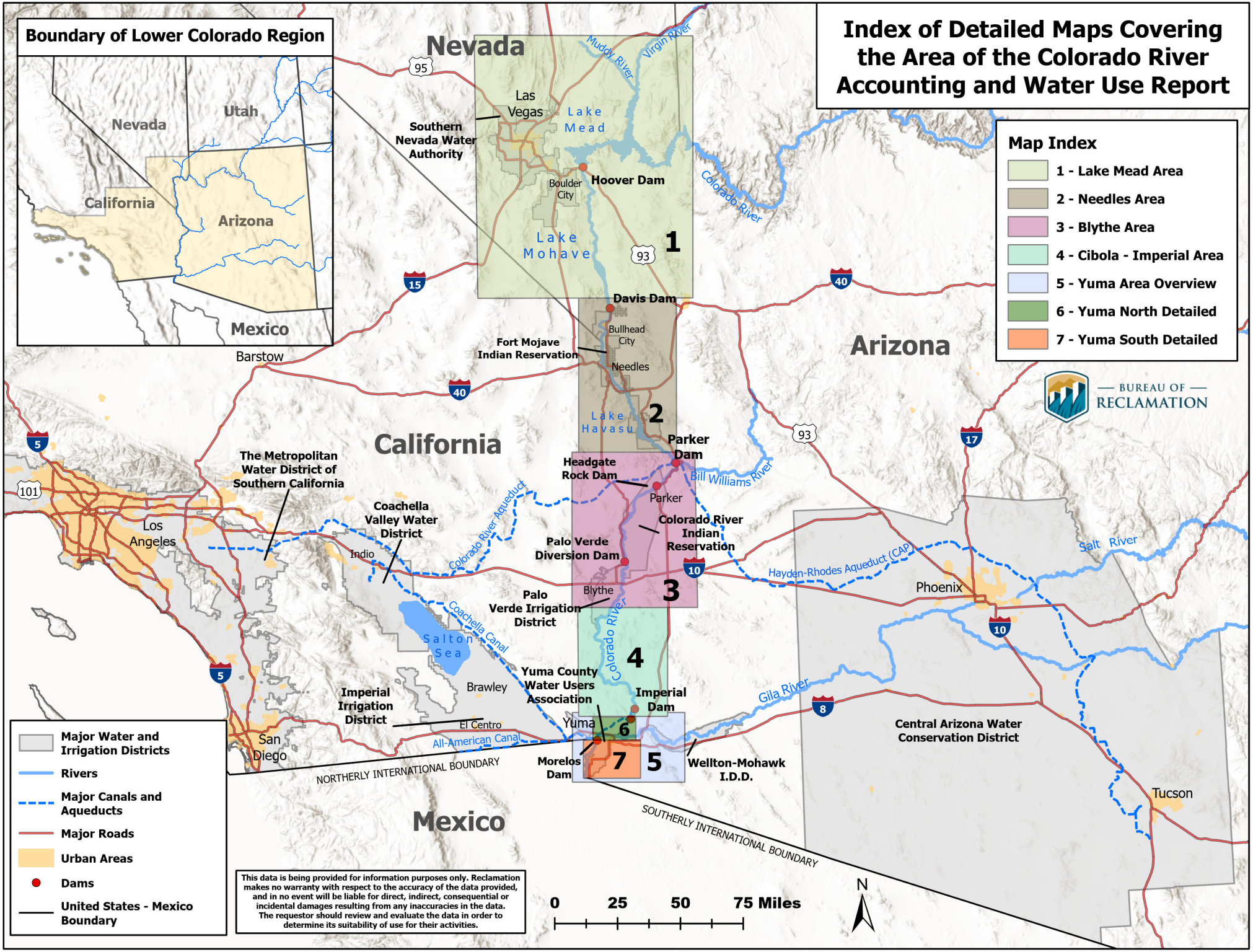
COLORADO RIVER WATER DELIVERY AGREEMENT	
33.	IID's letter to Reclamation dated December 19, 2019, notifying Reclamation of its intent to modify its 2019 water order to restore water to the Colorado River system (resolution of the 2010 Salton Sea pre-delivery).
34.	Reclamation's letter to IID dated May 15, 2020, regarding IID's commitment to restore water to the Colorado River system (resolution of the 2010 Salton Sea pre-delivery).
35.	CVWD's letter to Reclamation dated February 25, 2020, providing the final amount of environmental mitigation water used in Calendar Year 2019 for the CCLP and the remaining water available for transfer to the SDCWA.

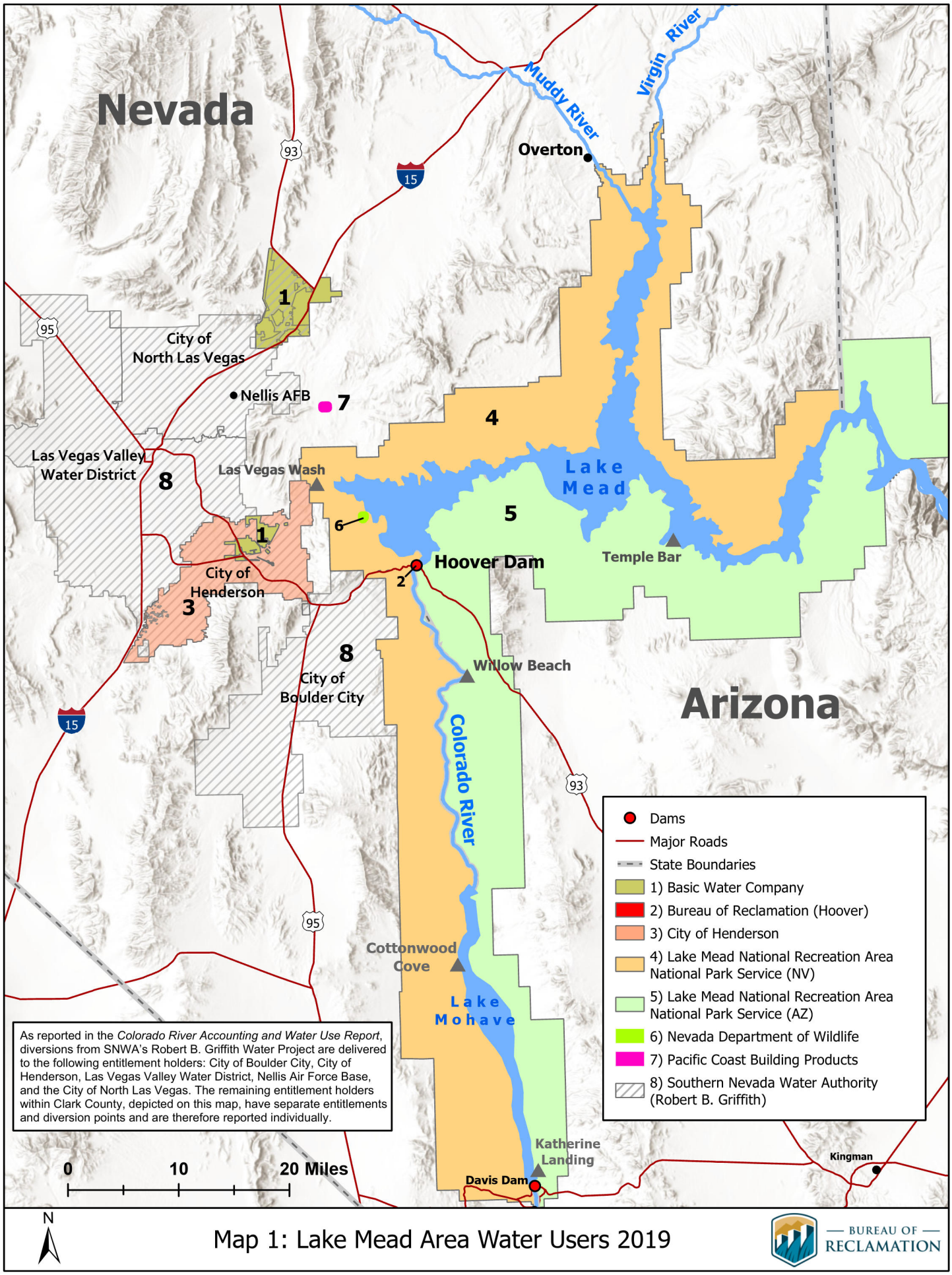
WATER ACCOUNTING	
36.	A description on how irrigation water is calculated by the USGS for areas where estimates of diversion are required.
37.	Maps showing the locations of the wells and river pumps reported by the USGS.
38.	Procedure for Determining Return Flow Credits to Nevada from Las Vegas Wash, adopted by the Task Force on Unmeasured Return Flows on August 28, 1984.
39.	Reclamation letter to SNWA and CRCN dated December 5, 2007 regarding Las Vegas Valley Return Flow Credit Methodology.
40.	Technical Memorandum describing the computation of 2019 consumptive use and unmeasured return flow from the Dennis Underwood Conservation Area.
41.	CAWCD's letter to Reclamation dated July 24, 2019, regarding its revised estimate of Colorado River water diversion for calendar year 2019, in which CAWCD notified Reclamation that it anticipated leaving unused Arizona basic apportionment in Lake Mead to effect a voluntary contribution to benefit system storage.
42.	IID's letter to Reclamation dated May 13, 2020, regarding its proposal to store IID's 2019 excess extraordinary conservation in Lake Mead for future ICS purposes.
43.	MWD's letter to Reclamation dated May 13, 2020, regarding its proposal to store MWD's 2019 excess extraordinary conservation in Lake Mead for future ICS purposes.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2019

UNITED STATES-MEXICO 1944 WATER TREATY	
44.	Minute No. 242 – Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River.
45.	Minute No. 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.
46.	Minute No. 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.
47.	Minute No. 322 – Extension of the Temporary Emergency Delivery of Colorado River Water for use in Tijuana, Baja California
48.	Minute No. 323 – Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin
49.	2001 Memorandum of Understanding between Reclamation and the U.S. Section of the IBWC regarding deliveries at SIB.
50.	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.
51.	USIBWC's letter to Reclamation dated April 22, 2020 advising Reclamation on the accounting of the volumes of Colorado River water deferred by Mexico in accordance with Minute No. 323.
52.	Reclamation's letter to USIBWC dated May 15, 2020, stating its concurrence with the accounting of the volumes of Colorado River in Mexico's Water Reserve.

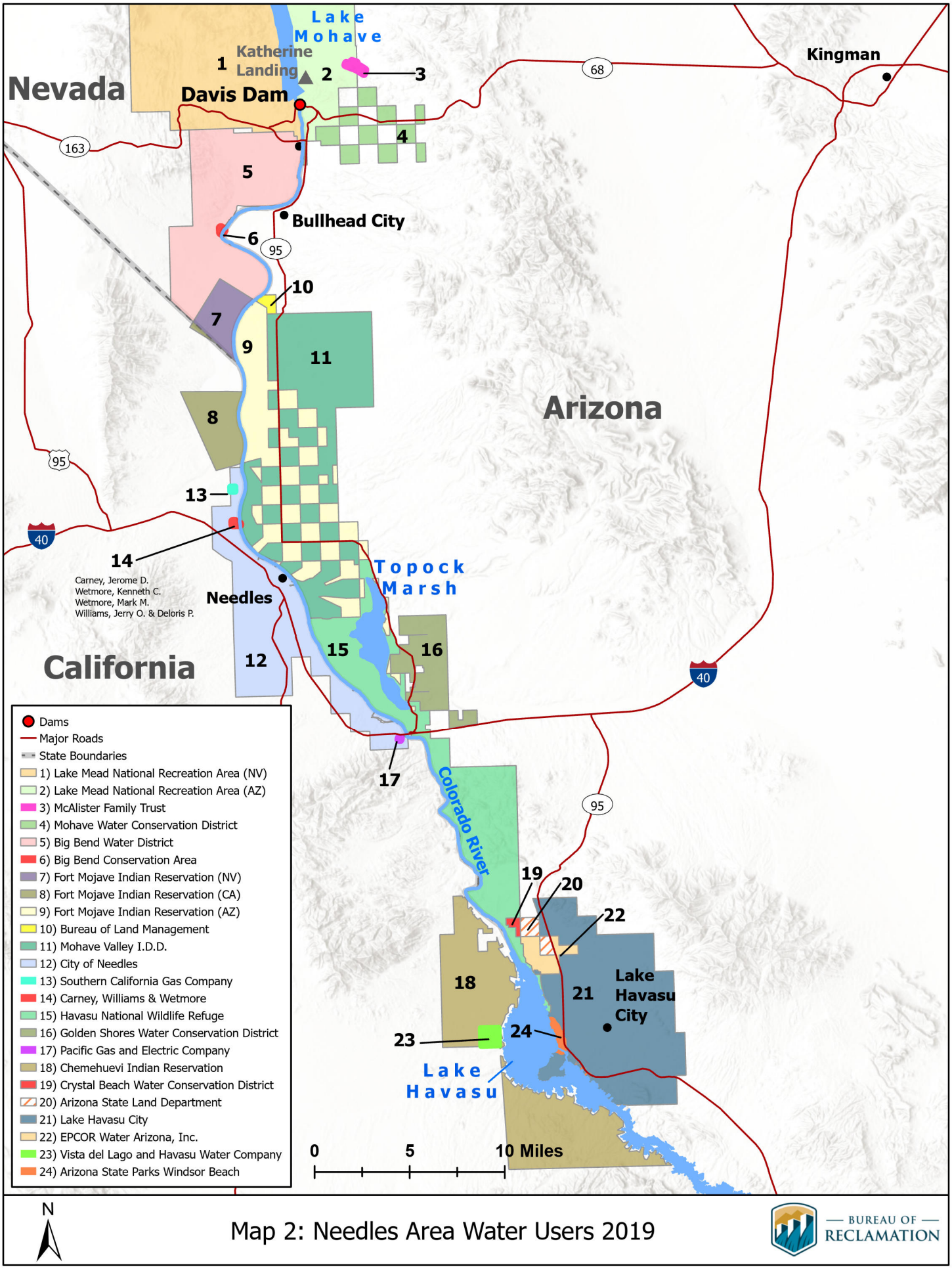
Maps Identifying the General Location of Lower Colorado River Water Users


Index of Detailed Maps Covering the Area of the Colorado River Accounting and Water Use Report
Boundary of Lower Colorado Region
Nevada
Utah
California
Arizona
Mexico
Map Index
1 - Lake Mead Area
2 - Needles Area
3 - Blythe Area
4 - Cibola - Imperial Area
5 - Yuma Area Overview
6 - Yuma North Detailed
7 - Yuma South Detailed
Nevada
Arizona
California
Mexico
Las Vegas
Lake Mead
Lake Mohave
Lake Havasu
Salton Sea
Muddy River
Virgin River
Colorado River
Southern Nevada Water Authority
Boulder City
Hoover Dam
Davis Dam
Bullhead City
Fort Mojave Indian Reservation
Needles
Barstow
Parker Dam
Headgate Rock Dam
Parker
Bill Williams River
Colorado River Indian Reservation
Palo Verde Diversion Dam
Blythe
Palo Verde Irrigation District
Coachella Canal
Colorado River Aqueduct
The Metropolitan Water District of Southern California
Coachella Valley Water District
Indio
Los Angeles
Hayden-Rhodes Aqueduct (CAP)
Salt River
Phoenix
Tucson
Gila River
Central Arizona Water Conservation District
Yuma County Water Users Association
Imperial Irrigation District
Brawley
El Centro
All-American Canal
Imperial Dam
Yuma
Morelos Dam
Wellton-Mohawk I.D.D.
San Diego
NORTHERLY INTERNATIONAL BOUNDARY
SOUTHERLY INTERNATIONAL BOUNDARY
Major Water and Irrigation Districts
Rivers
Major Canals and Aqueducts
Major Roads
Urban Areas
Dams
United States - Mexico Boundary
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.
0 25 50 75 Miles
N
BUREAU OF RECLAMATION



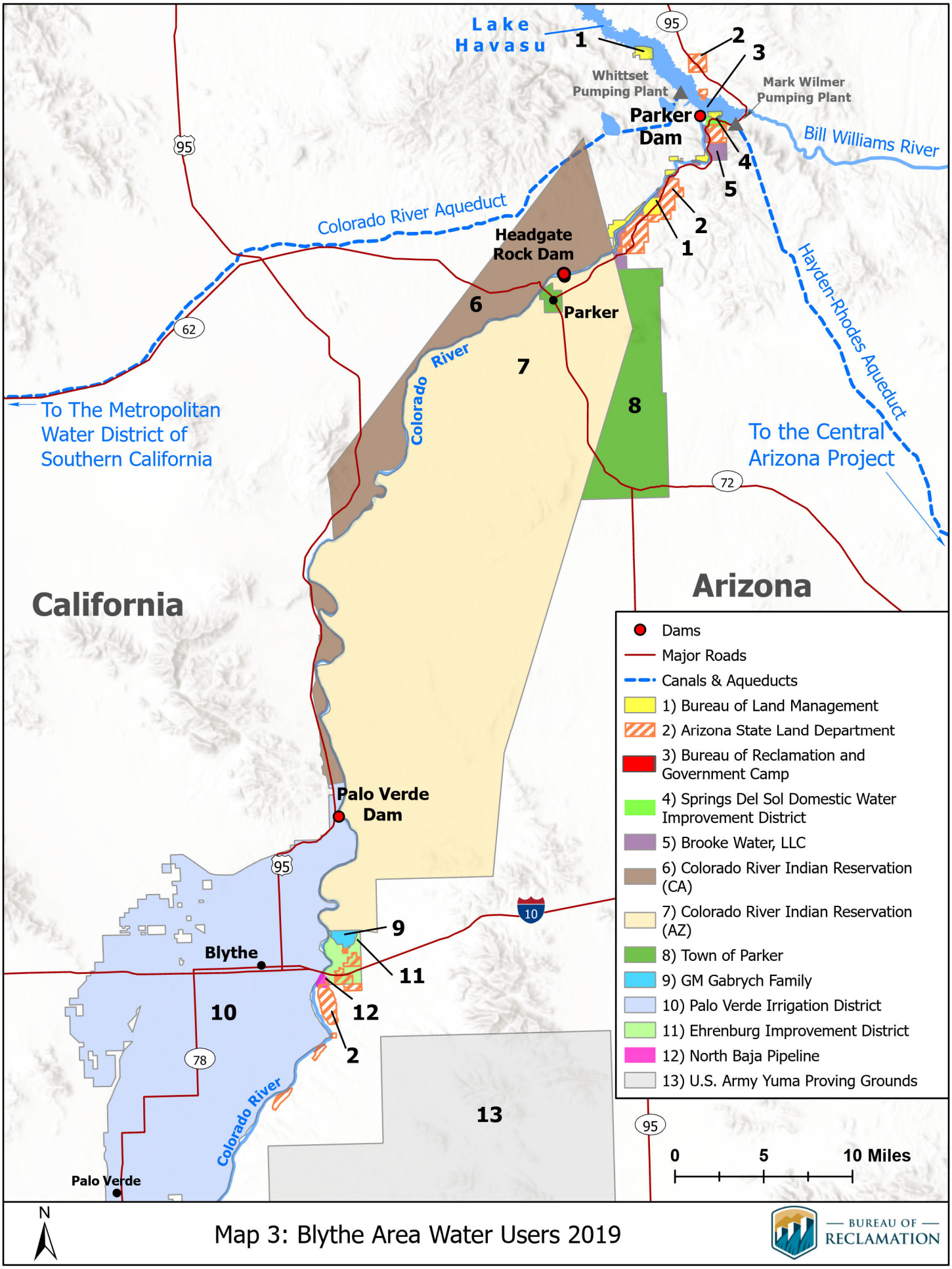
Map 1: Lake Mead Area Water Users 2019

BUREAU OF RECLAMATION



Map 2: Needles Area Water Users 2019

BUREAU OF RECLAMATION



Map 3: Blythe Area Water Users 2019

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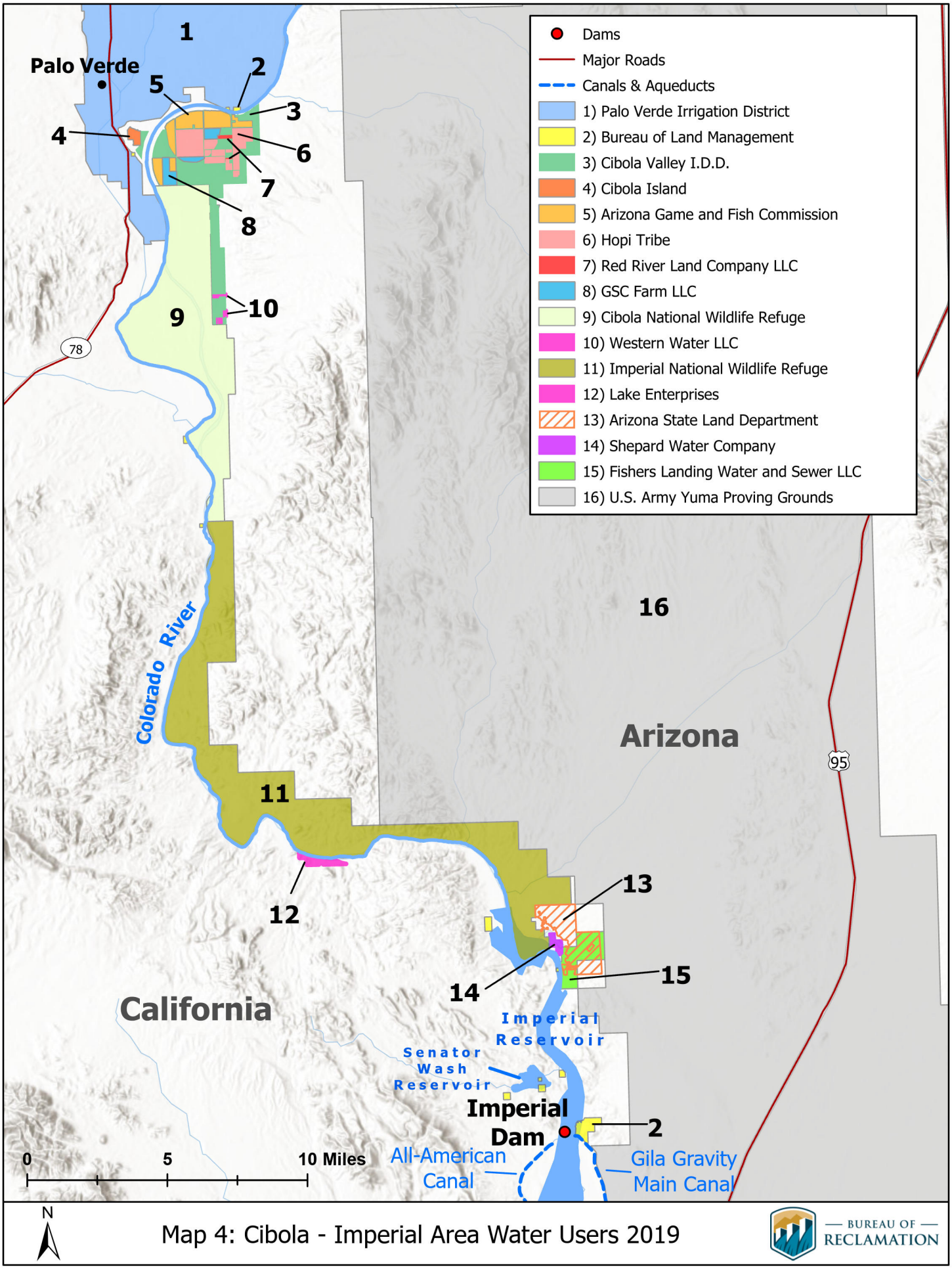
Dams
Major Roads
Canals & Aqueducts
1) Palo Verde Irrigation District
2) Bureau of Land Management
3) Cibola Valley I.D.D.
4) Cibola Island
5) Arizona Game and Fish Commission
6) Hopi Tribe
7) Red River Land Company LLC
8) GSC Farm LLC
9) Cibola National Wildlife Refuge
10) Western Water LLC
11) Imperial National Wildlife Refuge
12) Lake Enterprises
13) Arizona State Land Department
14) Shepard Water Company
15) Fishers Landing Water and Sewer LLC
16) U.S. Army Yuma Proving Grounds
Palo Verde
Colorado River
Arizona
California
Imperial Reservoir
Senator Wash Reservoir
Imperial Dam
All-American Canal
Gila Gravity Main Canal
78
95
0
5
10 Miles
N
Map 4: Cibola - Imperial Area Water Users 2019
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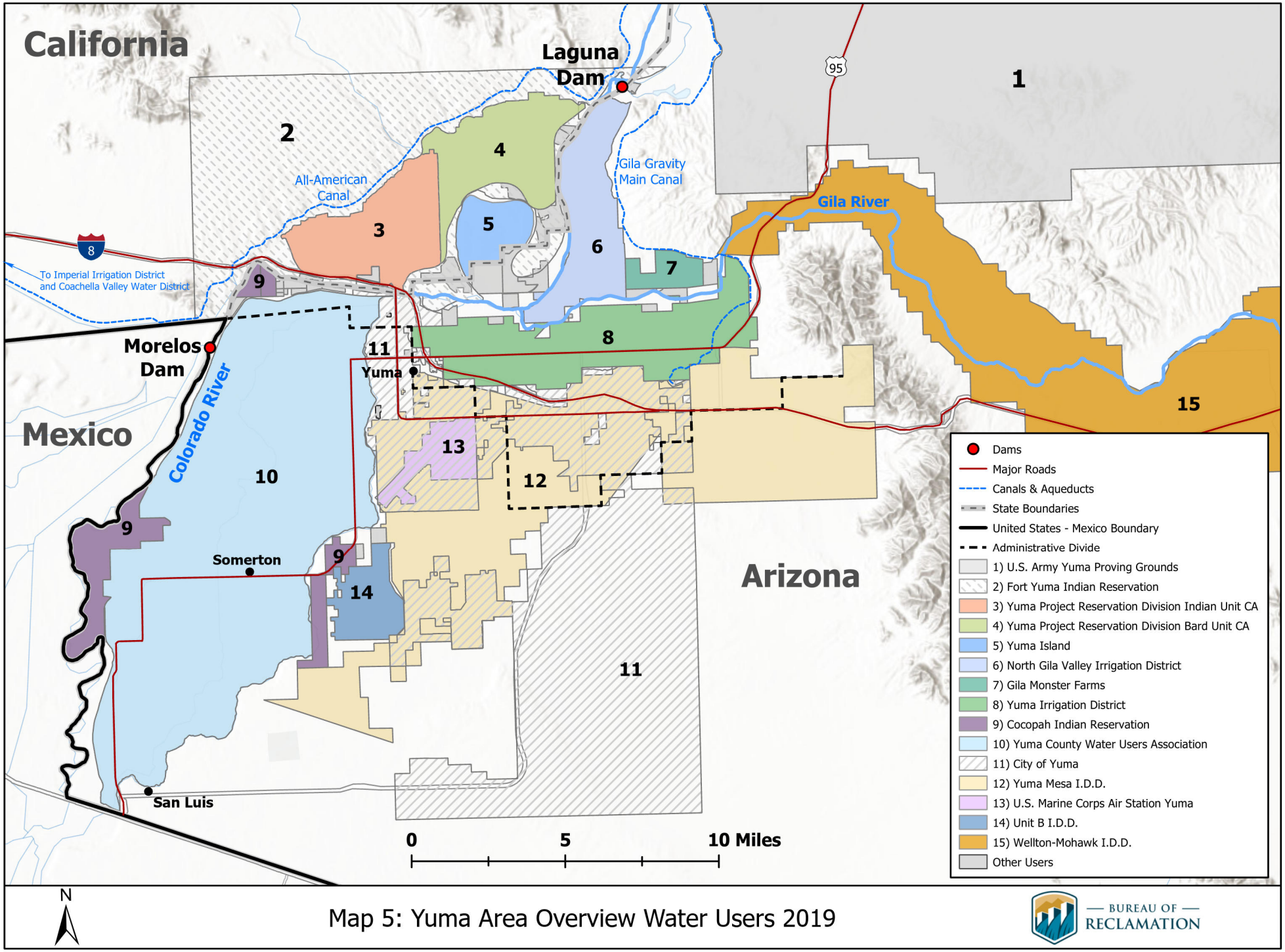

Map 5: Yuma Area Overview Water Users 2019

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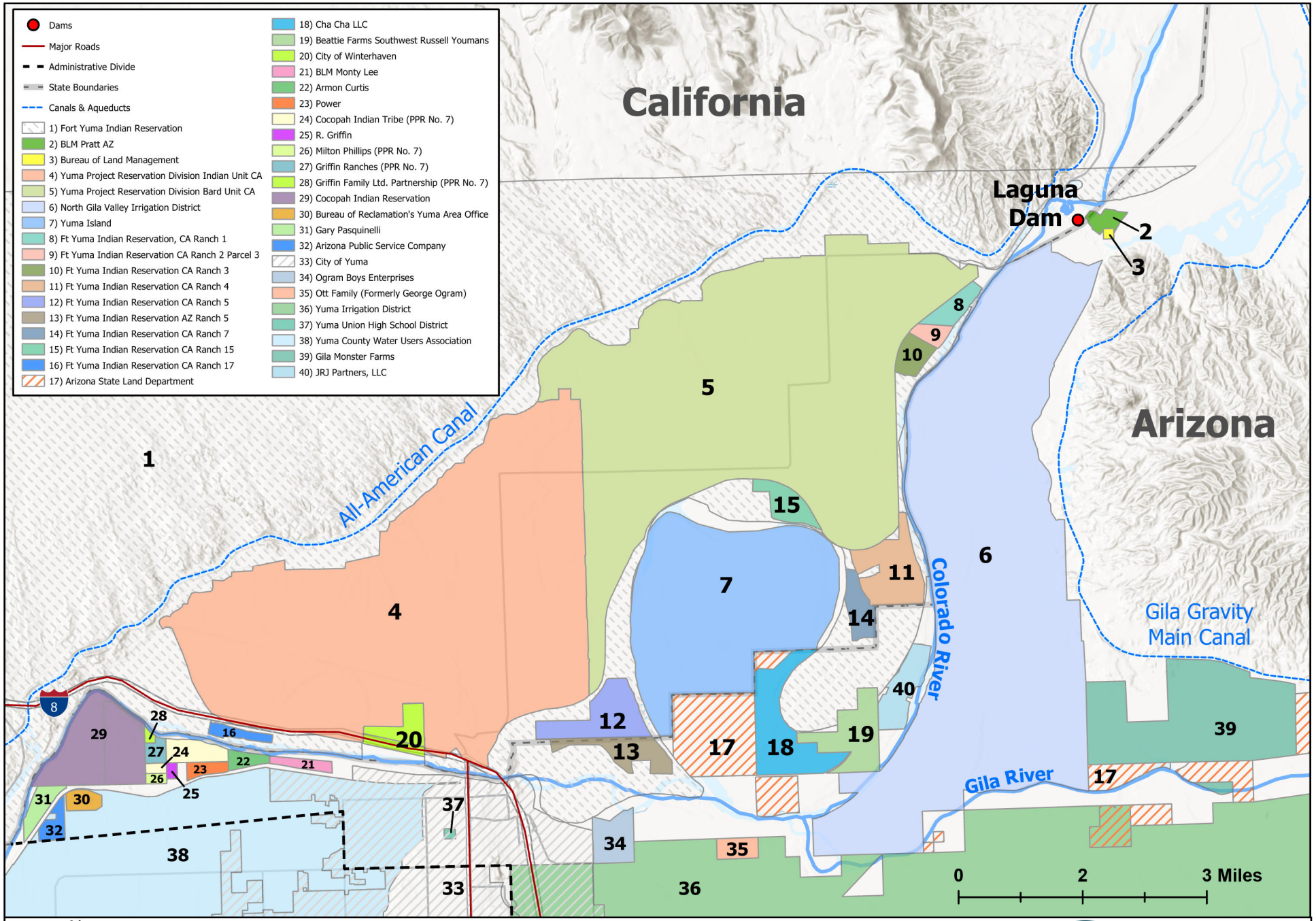
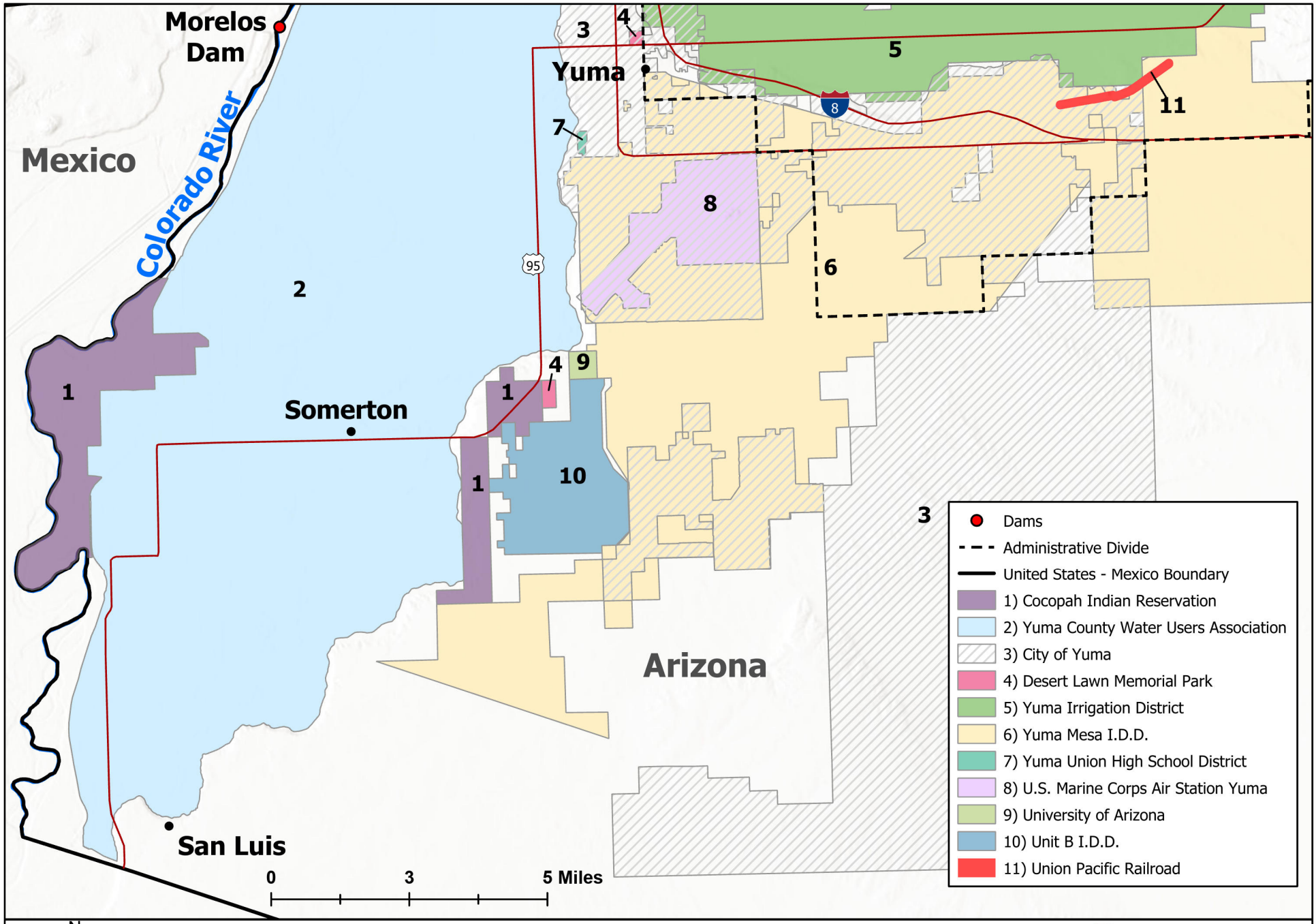


Map 6: Yuma Area North Water Users 2019

BUREAU OF RECLAMATION



Map 7: Yuma Area South Water Users 2019

BUREAU OF RECLAMATION