RECLAMATION

Managing Water in the West

Calendar Year 2018

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

U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Boulder Canyon Operations Office

May 2019

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May 21, 2019

Mission Statements

Department of the Interior

The Department of the Interior 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.

Bureau of Reclamation

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.

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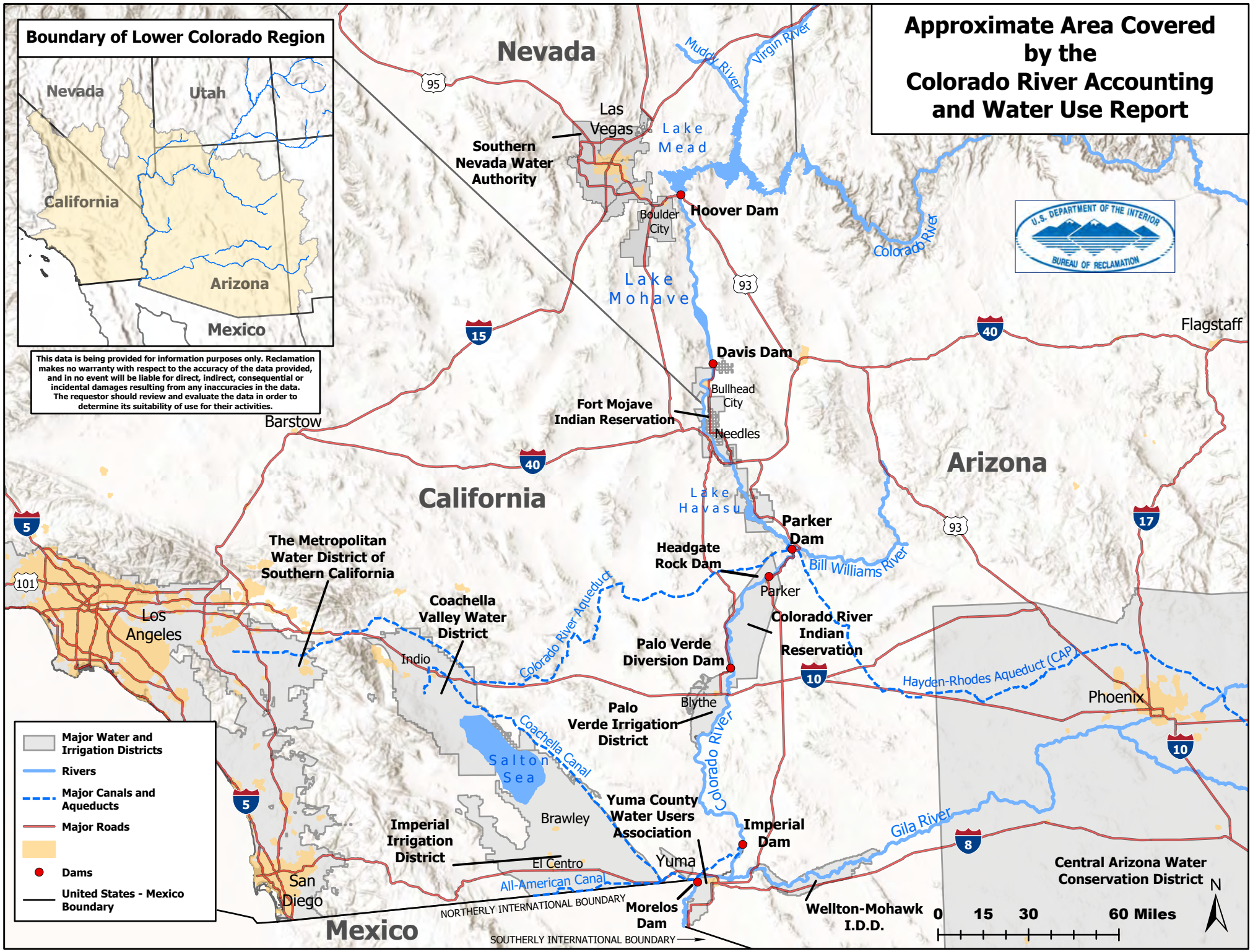

Approximate Area Covered by the Colorado River Accounting and Water Use Report
Boundary of Lower Colorado Region
Nevada
Utah
California
Arizona
Mexico
This data is being provided for information purposes only. Reclamation makes no warranty with respect to the accuracy of the data provided, and in no 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.
Nevada
Las Vegas
Southern Nevada Water Authority
Lake Mead
Muddy River
Virgin River
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
Parker
Bill Williams River
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
Colorado River
Yuma County Water Users Association
Imperial Irrigation District
Brawley
Imperial Dam
Gila River
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
Dams
United States - Mexico Boundary
0 15 30 60 Miles
N
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

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
AFY	acre-feet per year
ALTSC	Accumulated Long Term Storage Credit
AOP	Annual Operating Plan
ASLD	Arizona State Land Department
Assn.	Association
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
CFS	Cubic Feet per Second
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
LCR	Lower Colorado River
LCR MSCP	Lower Colorado River Multi-Species Conservation Program
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 Water Accounting and Use Data, Calendar Year 2018. (All values are in acre-feet except as noted.)

Lower Division States Consumptive Use				**TOTAL**
Arizona				2,632,260
California				4,265,525
Nevada				244,103
Total Lower Division States Consumptive Use				**7,141,888**
Mexico				
Total Deliveries to Mexico in Satisfaction of Treaty Requirements				1,493,327
Creation of Mexico's Water Reserve				6,673
Delivery of Mexico's Water Reserve				0
To Mexico in Excess of Treaty Requirements				7,416
Accountable Deliveries to Mexico				**1,507,416**
Water Bypassed Pursuant to IBWC Minute No. 242				**122,569**
Reservoir Contents - At Year's End (Thousands of Acre-Feet)				
Live Storage in Lake Powell				10,099
Live Storage in Lake Mead				10,132
Live Storage - Lake Powell plus Lake Mead				**20,231**
Percentage of Live Storage - Lake Powell				41.5%
Percentage of Live Storage - Lake Mead				38.8%
Percentage of Live Storage - Lake Powell plus Lake Mead				**40.1%**
Total System Live Storage [1]				**27,109**
Percentage of Total System Live Storage				**45.5%**
Interstate Water Banking	**BOY Balance**	**Storage** [2]	**Recovered**	**EOY Balance**
Water Stored in Arizona by the AWBA for the Benefit of SNWA, NV	601,041	12,555	0	613,596
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	**931,266**	**12,555**	**0**	**943,821**
Lower Colorado Water Supply Project Use [3]		**Non-Federal**	**Federal**	**Total**
		9,765	235	10,000
Intentionally Created Surplus [4]	**Adjusted BOY Balance** [5]	**Creation**	**Reductions**	**EOY Balance**
Arizona	303,697	47,013	7,658	343,052
California	586,006	132,525	20,099	698,432
Nevada	636,048	74,397	9,997	700,448
Total - Lower Division States	**1,525,751**	**253,935**	**37,754**	**1,741,932**

Footnotes: See following page.

Table 1 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 Lower Colorado Water Supply Project wellfield to offset certain Colorado River water uses in California. For additional information, see Table 16.

[4] ICS creation amounts are provisional until verified by Reclamation. Reductions include system assessment, IOPP payback, delivery, and evaporation. For additional information, see Table 22.

[5] 'Adjusted BOY Balance' reflects any differences between provisional and verified 2017 ICS creation amounts, and includes Extraordinary Conservation ICS credited to water users in each state in accordance with Public Law 116-14. For additional information, see Table 22.

Table 2. Monthly Storage Contents of the Colorado River System Reservoirs, Calendar Year 2018. (Values in thousand acre-feet except as noted.)

	2017 EOY Balance	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CHANGE
End of Month Live Storage [1]														
Lake Powell	14,068	13,672	13,346	12,956	12,669	12,886	12,728	12,116	11,477	11,028	10,862	10,507	10,099	-3,969
Percentage of Lake Powell Live Storage [2]	57.8%	56.2%	54.9%	53.3%	52.1%	53.0%	52.3%	49.8%	47.2%	45.3%	44.7%	43.2%	41.5%	-16%
Lake Mead	10,221	10,642	10,703	10,694	10,387	10,011	9,748	9,799	9,918	9,870	9,889	9,872	10,132	-89
Percentage of Lake Mead Live Storage [3]	39.1%	40.7%	41.0%	40.9%	39.8%	38.3%	37.3%	37.5%	38.0%	37.8%	37.9%	37.8%	38.8%	-0.3%
Total Live Storage - Lake Powell and Lake Mead	24,289	24,314	24,049	23,650	23,056	22,897	22,476	21,915	21,395	20,898	20,751	20,379	20,231	-4,058
Total Percent of Live Storage - Lake Powell and Lake Mead	48.2%	48.2%	47.7%	46.9%	45.7%	45.4%	44.6%	43.4%	42.4%	41.4%	41.1%	40.4%	40.1%	-8%
Lake Mohave	1,636	1,641	1,704	1,687	1,682	1,703	1,734	1,696	1,679	1,561	1,540	1,581	1,639	3
Lake Havasu	557	539	590	570	564	590	588	580	571	598	582	580	552	-5
Reservoir Storage in the Lower Basin [4]	12,414	12,822	12,997	12,951	12,633	12,304	12,070	12,075	12,168	12,029	12,011	12,033	12,323	-91
Percentage of Live Storage in the Lower Basin [5]	43.5%	44.9%	45.5%	45.4%	44.3%	43.1%	42.3%	42.3%	42.6%	42.1%	42.1%	42.1%	43.2%	-0.3%
Lower Basin Storage plus Lake Powell [6]	26,482	26,494	26,343	25,907	25,302	25,190	24,798	24,191	23,645	23,057	22,873	22,540	22,422	-4,060
Percentage of Live Storage, Lower Basin plus Lake Powell [7]	50.1%	50.1%	49.8%	49.0%	47.9%	47.6%	46.9%	45.8%	44.7%	43.6%	43.3%	42.6%	42.4%	-8%
Total System Live Storage [8]	32,017	31,853	31,585	31,098	30,467	30,608	30,399	29,647	28,850	28,010	27,720	27,328	27,109	-4,908
Percentage of Total System Live Storage [9]	53.7%	53.4%	53.0%	52.2%	51.1%	51.3%	51.0%	49.7%	48.4%	47.0%	46.5%	45.8%	45.5%	-8%

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 *Calendar Year 2018 Colorado River Accounting and Water Use Report: Arizona, California, and Nevada* (Water Accounting Report) presents the records compiled pursuant to the Consolidated Decree for Calendar Year 2018. 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 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 09247520 "Colorado River below Parker Dam, Arizona-California," and deducting from it the record of flow at the USGS gaging station 09428500 "Diversions for Colorado River Indian Reservation Main Canal near Parker, Arizona" 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 2018. (Values are in acre-feet.)

STRUCTURE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Glen Canyon Dam	860,328	729,769	799,985	704,833	704,682	759,959	860,160	899,988	670,423	625,308	662,272	740,067	9,017,774
Hoover Dam	449,337	686,851	833,062	1,015,339	1,054,503	985,796	820,079	748,653	724,598	640,722	689,657	467,783	9,116,380
Davis Dam	446,600	613,500	834,800	1,000,000	1,004,000	915,800	841,200	761,500	859,000	662,800	620,500	390,400	8,950,100
Parker Dam	342,200	444,300	615,200	729,700	700,500	740,900	676,100	651,300	595,400	414,900	360,300	243,200	6,514,000
Headgate Rock Dam	323,540	413,820	562,560	670,791	626,300	667,550	600,810	583,810	536,240	382,950	328,650	221,520	5,918,541
Palo Verde Diversion Dam	272,900	377,600	509,499	610,800	561,600	522,900	460,300	415,700	365,500	326,600	274,700	170,700	4,868,799
Imperial Dam	15,559	20,300	20,170	20,960	21,280	21,080	23,010	21,380	15,070	31,150	20,370	29,880	260,209
GGMC Diversion for Mittry Lake	602	569	710	764	829	794	687	682	703	690	652	669	8,351
GGMC Diversion for Laguna Division Conservation Area	4,951	4,462	4,743	2,704	4,400	4,944	4,983	4,543	4,492	2,637	2,290	4,614	49,763
Sum of Imperial Dam, Mittry, and Laguna	21,112	25,331	25,623	24,428	26,509	26,818	28,680	26,605	20,265	34,477	23,312	35,163	318,323
Laguna Dam	23,150	25,200	29,110	26,640	28,449	28,699	29,470	26,029	22,320	28,840	24,920	41,540	334,367

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 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 Topock Marsh Inlet Canal, 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 2018. (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	1	1	1	1	1	2	2	1	2	1	1	0	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	1	1	1	1	0	1	1	0	1	1	1	0	9
Lake Mead National Recreation Area														
National Park Service														
Pumped from well at Temple Bar	Diversion	1	2	2	5	4	8	11	10	8	5	4	4	64
	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	2	2	5	4	8	11	10	8	5	4	4	64
Lake Mead National Recreation Area														
National Park Service														
Pumped from Lake Mohave - Katherine Landing	Diversion	16	14	19	19	17	18	18	16	13	14	13	13	190
Pumped from Lake Mohave - Willow Beach	Diversion	1	1	2	2	2	3	4	4	3	1	2	2	27
	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	17	15	21	21	19	21	22	20	16	15	15	15	217
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	12	0	0	1	1	0	2	0	0	1	0	2	19
	Measured Returns	12	0	0	1	1	0	1	0	0	1	0	2	18
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	1	0	0	0	0	0	1
Bullhead City														
Pumped from wells	Diversion	752	663	720	781	932	950	1,022	1,026	1,001	847	775	696	10,165
Mohave County Parks, Lake Mohave diversion	Diversion	1	0	1	1	2	2	2	2	1	2	1	1	16
	Measured Returns	18	60	99	79	55	30	35	28	34	35	32	37	542
	Unmeasured Returns	249	219	238	258	308	314	338	339	331	280	256	230	3,360
	Consumptive Use	486	384	384	445	571	608	651	661	637	534	488	430	6,279
Mohave Water Conservation District														
Pumped from wells	Diversion	66	55	73	75	87	90	100	88	94	85	73	65	951
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	22	18	24	25	29	30	33	29	31	28	24	21	314
	Consumptive Use	44	37	49	50	58	60	67	59	63	57	49	44	637
EPCOR Water Arizona, Inc.														
Pumped from wells	Diversion	53	51	51	59	63	65	74	69	71	64	57	55	732
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	18	18	18	21	22	23	26	24	25	22	20	19	256
	Consumptive Use	35	33	33	38	41	42	48	45	46	42	37	36	476
Mohave Valley I.D.D.														
Pumped from wells and Topock Marsh Inlet for agriculture use	Diversion	303	1,395	2,284	3,479	3,500	3,849	3,941	5,011	3,134	2,010	2,148	373	31,427
Pumped from wells for domestic use	Diversion	358	373	410	455	547	574	613	638	622	495	449	394	5,928
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	304	813	1,239	1,810	1,862	2,034	2,095	2,598	1,728	1,152	1,195	353	17,183
	Consumptive Use	357	955	1,455	2,124	2,185	2,389	2,459	3,051	2,028	1,353	1,402	414	20,172
Fort Mojave Indian Reservation														
Pumped from river for agriculture use	Diversion	2,224	4,233	4,938	6,773	7,382	7,613	7,332	8,582	8,302	3,597	2,110	1,151	64,237
Pumped from river and wells for domestic use	Diversion	82	121	115	140	146	186	208	321	348	246	140	95	2,148
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1,061	2,003	2,324	3,180	3,463	3,588	3,468	4,095	3,979	1,768	1,035	573	30,537
	Consumptive Use	1,245	2,351	2,729	3,733	4,065	4,211	4,072	4,808	4,671	2,075	1,215	673	35,848

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Golden Shores Water Conservation District														
Pumped from wells	Diversion	24	23	28	29	36	64	41	43	38	41	36	25	428
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	8	8	9	10	12	21	14	14	12	13	12	8	141
	Consumptive Use	16	15	19	19	24	43	27	29	26	28	24	17	287
Havasu National Wildlife Refuge														
Firebreak Inlet Canal	Diversion	36	426	2,591	5,232	5,198	4,302	3,078	1,794	2,896	1,082	950	57	27,642
Farm Ditch	Diversion [1]	-2	65	621	1,583	1,177	828	456	274	620	123	104	-7	5,842
Pumped from well	Diversion	10	11	15	17	20	25	27	26	20	17	12	12	212
	Measured Returns [2]	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	39	441	2,840	6,012	5,628	4,536	3,134	1,843	3,112	1,075	938	55	29,653
	Consumptive Use	5	61	387	820	767	619	427	251	424	147	128	7	4,043
Crystal Beach Water Conservation District														
Pumped from wells	Diversion	7	7	8	9	11	11	11	11	10	10	9	8	112
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	4	4	4	4	3	4	3	3	39
	Consumptive Use	5	5	5	6	7	7	7	7	7	6	6	5	73
Lake Havasu City														
Pumped from wells	Diversion	859	803	922	1,008	1,138	1,205	1,263	1,327	1,220	1,040	921	837	12,543
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	326	305	351	383	432	458	480	504	464	395	350	318	4,766
	Consumptive Use	533	498	571	625	706	747	783	823	756	645	571	519	7,777
Arizona State Parks (Windsor Beach)														
Pumped from wells	Diversion	0	1	0	1	1	0	0	0	0	0	0	0	3
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	1	0	0	0	0	0	0	0	0	0	0	1
	Consumptive Use	0	0	0	1	1	0	0	0	0	0	0	0	2
Central Arizona Project														
Pumped from Lake Havasu	Diversion	90,163	109,197	138,939	168,400	178,154	87,984	71,609	21,609	164,209	175,602	173,266	143,241	1,522,373
	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	90,163	109,197	138,939	168,400	178,154	87,984	71,609	21,609	164,209	175,602	173,266	143,241	1,522,373
Hillcrest Water Company														
Pumped from wells	Diversion	3	3	3	2	2	3	3	4	4	4	4	4	39
	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	2	2	14
	Consumptive Use	2	2	2	1	1	2	2	3	3	3	2	2	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
Brooke Water, LLC														
Pumped from river and wells	Diversion	35	33	39	40	42	42	49	45	40	40	39	34	478
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	12	11	13	13	14	14	16	15	13	13	13	11	158
	Consumptive Use	23	22	26	27	28	28	33	30	27	27	26	23	320
Town of Parker														
Pumped from wells	Diversion	51	47	59	69	76	88	89	86	81	65	60	48	819
	Measured Returns	16	14	16	15	16	16	17	18	17	19	19	19	202
	Unmeasured Returns	15	13	17	19	22	25	26	24	23	19	17	14	234
	Consumptive Use	20	20	26	35	38	47	46	44	41	27	24	15	383

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Colorado River Indian Reservation														
Diversion at Headgate Rock Dam	Diversion	18,660	30,480	52,640	58,909	74,200	73,350	75,290	67,490	59,160	31,950	31,650	21,680	595,459
Pumped from river and wells	Diversion	208	220	282	320	368	439	473	452	389	316	253	224	3,944
	Measured Returns	16,569	19,974	21,180	24,609	27,075	22,175	27,220	33,170	27,370	24,803	19,557	19,749	283,451
	Unmeasured Returns	1,038	1,688	2,911	3,258	4,101	4,058	4,167	3,737	3,275	1,774	1,755	1,205	32,967
	Consumptive Use	1,261	9,038	28,831	31,362	43,392	47,556	44,376	31,035	28,904	5,689	10,591	950	282,985
GM Gabrych Family (Formerly Rayner Ranches)														
Pumped from river (AEP-9) and well (AEW-35)	Diversion	0	0	1,150	1,070	1,320	860	0	0	0	0	0	0	4,400
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	402	375	462	301	0	0	0	0	0	0	1,540
	Consumptive Use	0	0	748	695	858	559	0	0	0	0	0	0	2,860
Ehrenburg Improvement Association														
Pumped from river	Diversion	18	18	21	25	32	32	35	33	29	22	21	20	306
	Measured Returns	2	3	3	2	3	3	2	2	2	2	2	2	28
	Unmeasured Returns	5	5	6	7	9	9	10	10	8	6	6	7	88
	Consumptive Use	11	10	12	16	20	20	23	21	19	14	13	11	190
North Baja Pipeline														
Pumped from wells	Diversion	26	29	31	18	21	37	32	34	23	19	11	17	298
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	9	10	11	6	8	13	11	12	8	7	4	6	105
	Consumptive Use	17	19	20	12	13	24	21	22	15	12	7	11	193
Cibola Valley I.D.D.														
Pumped from river for agriculture use	Diversion	0	639	61	765	844	1,034	1,127	1,311	1,350	79	175	47	7,432
Pumped from river for domestic use	Diversion	25	25	25	25	25	25	25	25	25	25	25	25	300
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	7	189	24	225	248	302	328	381	392	30	57	21	2,204
	Consumptive Use	18	475	62	565	621	757	824	955	983	74	143	51	5,528
Red River Land Company, LLC														
Pumped from river	Diversion	0	0	0	0	0	0	0	47	5	0	0	0	52
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	13	2	0	0	0	15
	Consumptive Use	0	0	0	0	0	0	0	34	3	0	0	0	37
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
Hopi Tribe														
Pumped from river	Diversion	0	738	133	240	628	855	722	767	715	0	0	0	4,798
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	210	38	68	179	244	206	218	204	0	0	0	1,367
	Consumptive Use	0	528	95	172	449	611	516	549	511	0	0	0	3,431
GSC Farm, LLC														
Pumped from river	Diversion	0	263	267	102	205	481	420	518	390	0	49	28	2,723
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	75	76	29	59	137	120	147	111	0	14	8	776
	Consumptive Use	0	188	191	73	146	344	300	371	279	0	35	20	1,947
Arizona Game and Fish Commission														
Pumped from river	Diversion	311	0	416	532	385	463	361	431	315	0	0	0	3,214
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	89	0	119	151	110	132	102	123	90	0	0	0	916
	Consumptive Use	222	0	297	381	275	331	259	308	225	0	0	0	2,298
Cibola Island														
Pumped from river	Diversion	0	82	8	98	109	133	145	169	174	10	22	6	956
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	23	2	28	31	38	41	48	50	3	6	2	272
	Consumptive Use	0	59	6	70	78	95	104	121	124	7	16	4	684

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cibola National Wildlife Refuge														
Pumped from river	Diversion	1,683	769	1,590	1,560	1,864	1,840	1,553	1,908	2,180	771	694	522	16,934
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	640	292	604	593	708	699	590	725	829	293	264	198	6,435
	Consumptive Use	1,043	477	986	967	1,156	1,141	963	1,183	1,351	478	430	324	10,499
Imperial National Wildlife Refuge														
Pumped from river	Diversion	252	225	338	301	354	647	458	474	303	260	84	61	3,757
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	96	86	128	114	135	246	174	180	115	99	32	23	1,428
	Consumptive Use	156	139	210	187	219	401	284	294	188	161	52	38	2,329
Bureau of Land Management														
Pumped from river and wells (Permitees, LHFO and YFO)	Diversion	46	48	59	99	97	17	47	286	21	9	26	14	769
Pumped from river (ADW-01) (leased by L. Pratt)	Diversion [3]	6	7	10	11	13	16	17	16	13	11	8	7	135
Pumped from river (ADP-1) and well (AEW-14) (leased by M. Lee)	Diversion [3]	6	8	10	11	14	17	18	17	14	12	8	8	143
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	20	22	27	42	43	17	29	112	17	11	15	11	366
	Consumptive Use	38	41	52	79	81	33	53	207	31	21	27	18	681
Fisher's Landing Water and Sewer, LLC														
Pumped from well	Diversion	1	1	1	1	1	1	1	2	1	1	2	2	15
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	0	1	0	0	0	1	1	0	0	1	1	6
	Consumptive Use	0	1	0	1	1	1	0	1	1	1	1	1	9
Shepard Water Company														
Pumped from well	Diversion	3	3	4	4	4	3	2	3	2	2	2	2	34
	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	2	3	3	3	2	1	2	1	1	1	1	22
U.S. Army Yuma Proving Grounds														
Diversion at Imperial Dam	Diversion	0	1	1	1	1	1	0	0	0	0	0	0	5
Pumped from wells	Diversion	15	18	21	58	64	61	67	56	39	48	14	13	474
	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	19	22	59	65	62	67	56	39	48	14	13	479
JRJ Partners, LLC														
Pumped from river (AEP-1) and well (AEW-3)	Diversion	40	32	97	119	116	70	110	98	19	115	120	98	1,034
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	14	11	34	42	41	24	39	34	7	40	42	34	362
	Consumptive Use	26	21	63	77	75	46	71	64	12	75	78	64	672
Cha Cha, LLC														
Pumped from river (AEP-2/3) and wells (AEW-4/5, ADW-3)	Diversion	57	35	139	230	179	237	124	171	168	203	154	74	1,771
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	20	12	48	80	63	83	44	60	59	71	54	26	620
	Consumptive Use	37	23	91	150	116	154	80	111	109	132	100	48	1,151
Beattie Farms Southwest (Russell Youmans)														
Pumped from well (ADW-2)	Diversion	68	57	64	110	40	44	43	47	21	82	37	166	779
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	24	20	23	39	14	15	15	16	7	29	13	58	273
	Consumptive Use	44	37	41	71	26	29	28	31	14	53	24	108	506
Gila Monster Farms														
Diversion at Imperial Dam	Diversion	474	595	942	1,115	969	613	468	533	459	621	586	507	7,882
	Measured Returns	35	35	31	53	37	12	15	18	26	27	20	41	350
	Unmeasured Returns	180	226	358	424	368	233	178	203	174	236	223	193	2,996
	Consumptive Use	259	334	553	638	564	368	275	312	259	358	343	273	4,536

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Wellton-Mohawk I.D.D.														
Diversion at Imperial Dam	Diversion	21,112	24,969	36,738	46,677	46,185	37,217	28,501	31,850	38,445	23,386	23,753	14,248	373,081
	GGMC Return	1,743	1,656	1,334	2,457	1,969	807	1,054	1,220	2,420	1,150	896	1,276	17,982
	Dome Return	674	735	564	582	624	502	467	465	318	513	501	529	6,474
	MOD Return [4]	8,483	8,041	7,806	8,932	8,602	8,329	7,406	9,299	9,854	9,469	9,021	8,967	104,209
	Total Returns	10,900	10,432	9,704	11,971	11,195	9,638	8,927	10,984	12,592	11,132	10,418	10,772	128,665
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	10,212	14,537	27,034	34,706	34,990	27,579	19,574	20,866	25,853	12,254	13,335	3,476	244,416
City of Yuma														
Diversion at Imperial Dam via AAC	Diversion	1,149	1,072	1,304	1,379	1,526	1,630	1,828	1,801	1,605	1,359	1,443	1,313	17,409
Diversion at Imperial Dam via GGMC	Diversion	944	835	872	822	600	341	410	428	396	388	917	890	7,843
Pumped from river for Yuma East Wetlands	Diversion	35	26	26	34	36	35	28	38	30	26	26	26	366
	Measured Returns	937	822	852	810	804	760	841	860	854	883	929	1,016	10,368
	Unmeasured Returns	1	1	1	1	2	1	1	2	1	1	1	1	14
	Consumptive Use	1,190	1,110	1,349	1,424	1,356	1,245	1,424	1,405	1,176	889	1,456	1,212	15,236
U.S. Marine Corps Air Station Yuma														
Diversion at Imperial Dam	Diversion	87	69	104	113	146	148	151	151	124	91	86	72	1,342
	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	87	69	104	113	146	148	151	151	124	91	86	72	1,342
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	2	2	2	2	2	2	2	2	2	2	2	2	24
	Consumptive Use	2	2	2	2	2	2	2	2	2	2	2	2	24
University of Arizona														
Diversion at Imperial Dam	Diversion	46	55	66	74	69	78	135	87	87	40	66	36	839
	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	46	55	66	74	69	78	135	87	87	40	66	36	839
Yuma Union High School District														
Delivery at East Main Canal	Diversion	7	8	10	13	22	18	27	30	16	11	15	7	184
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	6	5	7	8	4	3	4	2	49
	Consumptive Use	5	6	7	10	16	13	20	22	12	8	11	5	135
Desert Lawn Memorial Park														
Delivered by the City of Yuma	Diversion	1	1	2	2	2	4	6	4	4	3	3	1	33
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	1	1	1	1	2	1	1	1	1	0	10
	Consumptive Use	1	1	1	1	1	3	4	3	3	2	2	1	23
North Gila Valley Irrigation District														
Diversion at Imperial Dam	Diversion	1,874	2,306	3,825	4,183	5,595	4,940	4,495	2,928	3,559	3,509	3,404	2,101	42,719
Pumped from river	Diversion	21	32	57	33	64	54	18	16	24	10	43	18	390
	Measured Returns	1,309	1,444	2,107	2,316	2,856	2,568	2,508	1,755	2,072	2,151	2,304	1,625	25,015
	Unmeasured Returns	264	327	544	585	789	696	622	407	497	485	481	294	5,991
	Consumptive Use	322	567	1,231	1,315	2,014	1,730	1,383	782	1,014	883	662	200	12,103
Yuma Irrigation District														
Diversion at Imperial Dam	Diversion [5]	3,915	4,235	6,803	8,312	8,393	5,435	4,248	5,286	5,892	5,017	4,954	2,850	65,340
Pumped from wells	Diversion	25	52	126	248	352	0	73	78	32	16	22	112	1,136
	Measured Returns	1,170	1,150	1,534	1,976	1,903	1,137	1,013	1,272	1,563	1,299	1,185	944	16,146
	Unmeasured Returns	839	913	1,476	1,823	1,863	1,158	920	1,143	1,262	1,072	1,060	631	14,160
	Consumptive Use	1,931	2,224	3,919	4,761	4,979	3,140	2,388	2,949	3,099	2,662	2,731	1,387	36,170

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Yuma Mesa I.D.D.														
Diversion at Imperial Dam	Diversion	12,535	12,073	14,622	19,943	24,323	26,504	29,728	29,435	23,291	15,184	11,062	11,552	230,252
	Measured Returns [6]	7,910	5,897	5,585	4,576	4,650	4,046	5,027	5,670	6,186	2,825	3,588	3,185	59,145
	Unmeasured Returns	2,006	1,932	2,340	3,191	3,892	4,241	4,756	4,710	3,727	2,429	1,770	1,848	36,842
	Consumptive Use	2,619	4,244	6,697	12,176	15,781	18,217	19,945	19,055	13,378	9,930	5,704	6,519	134,265
Unit "B" I.D.D.														
Diversion at Imperial Dam	Diversion	1,498	1,363	1,576	2,225	2,707	2,554	2,874	2,495	2,485	1,873	1,303	910	23,863
	Measured Returns [6]	1,317	972	936	716	729	651	768	860	954	445	600	428	9,376
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	181	391	640	1,509	1,978	1,903	2,106	1,635	1,531	1,428	703	482	14,487
Arizona State Land Department														
Pumped from river and wells for agriculture use	Diversion	580	636	1,074	1,185	1,249	1,167	1,294	1,264	929	900	746	631	11,655
Pumped from river and wells for domestic use	Diversion	3	3	3	4	4	3	3	3	4	3	3	2	38
	Measured Returns	12	12	10	18	12	4	5	6	9	9	6	14	117
	Unmeasured Returns	204	224	377	416	439	409	454	443	327	316	262	222	4,093
	Consumptive Use	367	403	690	755	802	757	838	818	597	578	481	397	7,483
Ott Family (Formerly George Ogram)														
Delivered via GGMC	Diversion	17	9	21	28	60	50	61	0	25	8	21	25	325
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	6	3	8	10	21	17	21	0	9	3	7	9	114
	Consumptive Use	11	6	13	18	39	33	40	0	16	5	14	16	211
Ogram Boys' Enterprises														
Delivered via GGMC	Diversion	32	31	99	103	172	129	63	20	101	72	56	40	918
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	11	11	35	36	60	45	22	7	35	25	20	14	321
	Consumptive Use	21	20	64	67	112	84	41	13	66	47	36	26	597
Fort Yuma Indian Reservation														
Pumped from river for Yuma East Wetlands	Diversion	21	18	145	165	95	191	144	197	183	17	27	18	1,221
Pumped from river for agriculture use (Cha Cha Farms)	Diversion	3	4	3	4	6	6	8	3	5	3	3	2	50
Surface delivery to Ranch "5"	Diversion	29	8	47	69	42	76	3	0	55	48	48	14	439
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	20	11	71	87	53	99	57	74	88	24	29	12	625
	Consumptive Use	36	21	126	154	93	177	102	128	157	46	51	24	1,115
Armon Curtis														
Pumped from river (AEP-4)	Diversion [3]	5	6	8	9	11	13	14	13	11	9	6	6	111
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	4	4	5	5	4	3	2	2	39
	Consumptive Use	3	4	5	6	7	9	9	8	7	6	4	4	72
Yuma County Water Users' Association														
Diversion at Imperial Dam	Diversion	21,638	23,728	36,936	46,279	36,313	24,231	28,392	23,712	25,388	32,587	29,084	15,207	343,495
Pumped from wells	Diversion	140	235	84	119	107	139	168	135	0	151	170	144	1,592
	Measured Returns	8,736	8,214	8,702	8,930	8,591	7,350	7,201	6,424	6,621	8,596	9,211	7,878	96,454
	Unmeasured Returns	457	503	777	974	765	512	600	501	533	687	614	322	7,245
	Consumptive Use	12,585	15,246	27,541	36,494	27,064	16,508	20,759	16,922	18,234	23,455	19,429	7,151	241,388
R. Griffin														
Pumped from river (ADP-3,4)	Diversion [3]	2	2	3	4	4	5	6	5	4	4	3	2	44
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	1	1	2	2	2	1	1	1	1	15
	Consumptive Use	1	1	2	3	3	3	4	3	3	3	2	1	29
Power														
Pumped from river (ADP-3,4)	Diversion [3]	11	13	18	19	24	29	31	30	24	20	14	14	247
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	4	5	6	7	8	10	11	10	8	7	5	5	86
	Consumptive Use	7	8	12	12	16	19	20	20	16	13	9	9	161

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cocopah Indian Tribe (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion [3]	23	28	38	41	51	61	67	64	51	42	30	30	526
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	8	10	13	14	18	21	23	23	18	15	11	10	184
	Consumptive Use	15	18	25	27	33	40	44	41	33	27	19	20	342
Griffin Ranches (PPR No. 7)														
Pumped from river (ADP-3,4)	Diversion [3]	6	7	9	10	12	15	16	16	12	10	7	7	127
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	3	4	5	6	5	4	4	3	3	44
	Consumptive Use	4	5	6	7	8	10	10	11	8	6	4	4	83
Milton Phillips (PPR No.7)														
Pumped from river (ADP-3,4)	Diversion [3]	3	3	5	5	6	7	8	8	6	5	4	4	64
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	2	2	2	2	3	3	2	2	1	1	22
	Consumptive Use	2	2	3	3	4	5	5	5	4	3	3	3	42
Griffin Family Ltd. Partnership (PPR No. 7) (formerly Victor 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 Reservation														
Diversion at Imperial Dam	Diversion	38	66	77	49	22	26	56	47	27	85	25	32	550
Pumped from river and wells	Diversion [3,8]	63	80	108	117	144	174	190	183	144	120	85	84	1,492
	Measured Returns	2	2	1	0	0	0	0	0	0	2	1	2	10
	Unmeasured Returns	34	50	63	56	56	68	84	78	58	70	37	39	693
	Consumptive Use	65	94	121	110	110	132	162	152	113	133	72	75	1,339
Bureau of Reclamation's Yuma Area Office														
Pumped from wells	Diversion	0	36	50	0	0	0	0	0	0	0	0	0	86
	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	36	50	0	0	0	0	0	0	0	0	0	86
Arizona Public Service Company														
Pumped from well	Diversion	0	0	0	0	9	0	0	0	0	36	0	0	45
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	4	0	0	0	0	16	0	0	20
	Consumptive Use	0	0	0	0	5	0	0	0	0	20	0	0	25
Gary Pasquinelli														
Pumped from river (ADP-5)	Diversion	16	24	48	71	0	0	22	0	0	48	32	40	301
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	5	8	17	25	0	0	8	0	0	17	11	14	105
	Consumptive Use	11	16	31	46	0	0	14	0	0	31	21	26	196
Pumped from the South Gila Wells (DPOCs)	Measured Returns [9]	6,603	5,589	4,840	3,782	49	2,161	2,546	3,712	3,631	375	0	568	33,856
	Unmeasured Returns	-6,603	-5,589	-4,840	-3,782	-49	-2,161	-2,546	-3,712	-3,631	-375	0	-568	-33,856
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona Totals														
	Diversion	**182,842**	**223,858**	**315,067**	**386,254**	**408,754**	**294,479**	**274,574**	**216,213**	**351,521**	**305,039**	**292,585**	**221,079**	**3,472,265**
	Measured Returns	**55,548**	**54,620**	**55,600**	**59,854**	**57,976**	**50,551**	**56,126**	**64,779**	**61,931**	**52,604**	**47,872**	**46,282**	**663,743**
	Unmeasured Returns	**1,467**	**5,142**	**12,795**	**20,676**	**26,320**	**22,739**	**20,754**	**19,225**	**18,023**	**12,179**	**10,676**	**6,266**	**176,262**
	Consumptive Use	**125,827**	**164,096**	**246,672**	**305,724**	**324,458**	**221,189**	**197,694**	**132,209**	**271,567**	**240,256**	**234,037**	**168,531**	**2,632,260**

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.

Footnotes continued on next page.

Table 4. State of Arizona - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL

Table 4 Footnotes: Continued from previous page.

[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) = 12,383

Protective and Regulatory Pumping Unit (AF) = 39,882

[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 2018. (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	227	638	1,412	1,661	2,178	1,694	1,301	2,080	1,467	705	771	66	14,200
Pumped from wells for domestic use	Diversion	2	2	2	3	6	5	6	6	7	4	3	3	49
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	106	296	653	769	1,009	785	604	964	681	327	357	32	6,583
	Consumptive Use	123	344	761	895	1,175	914	703	1,122	793	382	417	37	7,666
City of Needles														
Pumped from wells	Diversion	116	111	131	166	190	155	204	210	113	162	160	127	1,845
	Measured Returns	30	27	31	31	32	32	35	35	33	34	31	31	382
	Unmeasured Returns	21	19	33	73	73	11	63	62	9	58	63	55	540
	Consumptive Use [1]	65	65	67	62	85	112	106	113	71	70	66	41	923
Southern California Gas Company														
Pumped from wells	Diversion	1	3	3	4	3	2	1	1	1	0	0	5	24
	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]	1	3	3	4	3	2	1	1	1	0	0	5	24
Pacific Gas and Electric Company														
Pumped from wells	Diversion	11	14	19	21	25	31	33	32	25	21	15	15	262
	Measured Returns	9	11	15	16	20	24	26	26	20	17	12	12	208
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use [2]	2	3	4	5	5	7	7	6	5	4	3	3	54
Havasu Water Company														
Pumped from wells	Diversion	1	2	3	3	3	4	4	4	3	3	2	2	34
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	1	1	1	1	1	1	2	2	1	1	1	1	14
	Consumptive Use [2]	0	1	2	2	2	3	2	2	2	2	1	1	20
Vista Del Lago														
Pumped from wells	Diversion	5	2	2	2	2	2	2	3	3	3	3	4	33
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	1	1	0	1	1	1	1	1	1	1	2	13
	Consumptive Use [2]	3	1	1	2	1	1	1	2	2	2	2	2	20
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	1	0	0	0	0	1
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
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

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
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	33	4	9	4	14	16	18	56	14	11	8	1	188
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	18	6	9	8	14	16	18	34	15	12	11	4	165
	Consumptive Use	21	7	11	9	17	18	20	40	18	14	12	5	192
The Metropolitan Water District of Southern California														
Pumped from Lake Havasu	Diversion	29,412	12,386	60,965	75,328	86,502	90,959	101,030	99,448	94,717	86,296	85,170	69,631	891,844
	Measured Returns	226	235	249	217	235	204	200	246	217	228	227	252	2,736
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	29,186	12,151	60,716	75,111	86,267	90,755	100,830	99,202	94,500	86,068	84,943	69,379	889,108
Bureau of Reclamation - Parker Dam and Government Camp														
Diversion at Parker Dam	Diversion	0	0	0	0	0	0	0	0	1	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 [2]	0	0	0	0	0	0	0	0	1	0	0	0	1
Colorado River Indian Reservation														
Pumped from river and wells (agriculture)	Diversion	79	99	135	146	179	215	236	227	178	149	106	104	1,853
Pumped from wells for Big River Development	Diversion	26	24	32	35	40	55	52	49	43	40	34	29	459
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	44	51	70	76	91	113	120	115	92	79	58	55	964
	Consumptive Use	61	72	97	105	128	157	168	161	129	110	82	78	1,348
Palo Verde Irrigation District														
Diversion at Palo Verde Dam	Diversion	30,220	41,800	61,450	65,740	85,820	87,350	91,500	106,700	82,930	44,910	43,660	29,290	771,370
Pumped from river	Diversion [3,4]	71	88	121	130	159	194	211	203	160	134	95	93	1,659
	Measured Returns	24,231	24,634	27,572	25,832	30,447	32,650	32,807	35,078	34,813	34,067	30,906	29,685	362,722
	Unmeasured Returns	1,977	3,425	4,445	4,758	5,199	6,072	6,384	7,951	6,340	3,878	3,240	2,411	56,080
	Consumptive Use	4,083	13,829	29,554	35,280	50,333	48,822	52,520	63,874	41,937	7,099	9,609	-2,713	354,227
Lake Enterprises														
Pumped from river	Diversion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau of Land Management														
Pumped from wells (Permittees, LHFO and YFO)	Diversion	21	18	21	21	28	36	40	36	28	25	28	23	325
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	6	5	6	6	8	10	10	10	8	7	8	7	91
	Consumptive Use [2]	15	13	15	15	20	26	30	26	20	18	20	16	234
Yuma Project Reservation Division														
Indian Unit														
Diversion at Imperial Dam	Diversion	2,321	2,872	5,465	7,600	5,586	2,878	1,582	3,522	2,222	2,879	3,668	2,044	42,639
Pumped from wells for domestic use	Diversion [5]	50	57	70	63	84	93	103	89	79	56	49	45	838
	Measured Returns	116	75	58	19	17	8	10	12	14	57	146	116	648
	Unmeasured Returns	396	489	924	1,280	947	496	281	603	384	490	621	349	7,260
Bard Unit														
Diversion at Imperial Dam	Diversion	2,517	2,375	4,627	6,211	4,996	3,837	2,609	2,920	3,834	3,241	3,605	2,180	42,952
	Measured Returns	67	32	27	8	8	6	8	6	12	33	80	67	354
	Unmeasured Returns	420	397	773	1,037	834	641	436	488	640	541	602	364	7,173
Unassigned Yuma Project Reservation Division Measured Returns [6]		1,693	1,843	2,198	2,768	3,246	2,340	1,685	1,952	2,184	2,139	2,238	2,238	26,524
Total Yuma Project Reservation Division Consumptive Use [7]		2,196	2,468	6,182	8,762	5,614	3,317	1,874	3,470	2,901	2,916	3,635	1,135	44,470

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Fort Yuma Indian Reservation														
Ranch 1														
Pumped from well and river (CEW-2; CDP-3)	Diversion [4]	9	11	15	17	20	24	27	26	20	17	12	12	210
Ranch 2 Parcel 3														
Pumped from well and river (CEW-2; CDP-4)	Diversion [4]	6	7	10	11	13	16	17	16	13	11	8	7	135
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]	38	48	65	71	87	105	115	110	87	73	51	51	901
Ranch 5														
Diverted from the AAC	Diversion	64	19	106	153	92	168	6	0	122	106	107	30	973
Ranch 7														
Pumped from well and river (CEW-1,15; CDP-1,2)	Diversion [4]	12	14	20	21	26	32	35	33	26	22	16	15	272
Ranch 15														
Pumped from well (CEW-14)	Diversion [4]	29	36	50	54	65	79	86	83	66	55	39	38	680
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	158	135	266	327	303	424	286	268	334	284	233	153	3,171
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	71	60	118	146	136	190	129	120	150	128	102	68	1,418
	Consumptive Use	87	75	148	181	167	234	157	148	184	156	131	85	1,753
Yuma Island California														
Arizona State Land Department Trust Lands	Diversion [4]	123	159	214	231	280	347	373	366	285	240	173	163	2,954
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	56	71	94	105	125	155	166	164	128	107	78	73	1,322
	Consumptive Use	67	88	120	126	155	192	207	202	157	133	95	90	1,632
City of Winterhaven														
Pumped from well	Diversion	7	7	8	7	8	7	8	7	8	9	9	6	91
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	2	2	3	2	3	2	3	2	3	3	3	2	30
	Consumptive Use	5	5	5	5	5	5	5	5	5	6	6	4	61
Imperial Irrigation District														
Diversion at Imperial Dam	Diversion	123,031	165,030	222,166	281,155	298,009	279,935	258,328	242,009	205,137	210,785	150,338	79,292	2,515,215
	Measured Returns	9,271	6,669	3,789	1,114	1,430	1,376	2,392	1,371	2,029	6,537	9,576	6,900	52,454
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
Delivery from Warren H. Brock Reservoir	Consumptive Use [8]	12,647	9,114	14,190	11,026	13,248	13,865	13,319	18,657	13,577	13,349	20,741	8,928	162,661
Total IID Consumptive Use	Total Consumptive Use	126,407	167,475	232,567	291,067	309,827	292,424	269,255	259,295	216,685	217,597	161,503	81,320	2,625,422
Water Transferred to SDCWA for Mitigation	Diversion [9]	0	0	0	0	0	0	0	150	0	0	0	0	150
	Measured Returns	0	0	0	0	0	0	0	1	0	0	0	0	1
	Consumptive Use	0	0	0	0	0	0	0	149	0	0	0	0	149
Coachella Valley Water District														
Diversion at Imperial Dam	Diversion	16,302	21,572	25,067	30,350	35,198	35,410	38,698	37,185	31,594	25,539	27,291	22,161	346,367
	Measured Returns	1,228	872	428	120	169	174	358	211	313	792	1,738	1,929	8,332
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	15,074	20,700	24,639	30,230	35,029	35,236	38,340	36,974	31,281	24,747	25,553	20,232	338,035
California Totals														
	Diversion	**204,753**	**247,423**	**382,222**	**469,245**	**519,660**	**503,704**	**496,684**	**495,628**	**423,232**	**375,536**	**315,454**	**205,462**	**4,639,003**
	Measured Returns	**36,871**	**34,398**	**34,367**	**30,125**	**35,604**	**36,814**	**37,521**	**38,938**	**39,635**	**43,904**	**44,954**	**41,230**	**454,361**
	Unmeasured Returns	**3,125**	**4,829**	**7,139**	**8,271**	**8,452**	**8,508**	**8,234**	**10,532**	**8,464**	**5,642**	**5,152**	**3,430**	**81,778**
	Consumptive Use	**177,404**	**217,310**	**354,906**	**441,875**	**488,852**	**472,247**	**464,248**	**464,815**	**388,710**	**339,339**	**286,089**	**169,730**	**4,265,525**

Table 5. State of California - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL

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 USGS maps in the Significant Documents section.

[5] Diversion for domestic use is now reported to Reclamation by the Quechan Tribe.

[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 (86,429 AF) minus the sum of measured returns (1,002 AF), unmeasured returns (14,433 AF) and unassigned measured returns (26,524 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 delivered 149 AF of previously conserved water to the Salton Sea in 2018 toward this outstanding balance and intends to deliver the remaining 7 AF in 2019.

Table 6. State of Nevada - Records of Diversion, Returns, and Consumptive Use, Calendar Year 2018. (Values are in acre-feet.)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Bureau of Reclamation														
Hoover Dam Diversion	Diversion	4	3	5	5	6	7	6	7	6	5	6	4	64
	Measured Returns	2	2	2	2	2	2	2	3	2	2	2	2	25
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	2	1	3	3	4	5	4	4	4	3	4	2	39
Robert B. Griffith Water Project														
Pumped from Lake Mead	Diversion	28,110	26,703	32,705	37,387	45,536	44,467	46,911	46,816	41,978	40,851	32,363	28,537	452,364
Lake Mead National Recreation Area National Park Service														
Pumped from Lake Mead	Diversion	17	17	24	27	28	31	33	34	32	24	20	17	304
	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	17	17	24	27	28	31	33	34	32	24	20	17	304
Basic Water Company														
Pumped from Lake Mead	Diversion	329	303	339	328	409	501	452	462	496	443	453	362	4,877
	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	329	303	339	328	409	501	452	462	496	443	453	362	4,877
City of Henderson														
Pumped from Lake Mead	Diversion	708	516	381	1,230	708	427	513	1,124	781	1,259	1,623	1,609	10,879
	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	708	516	381	1,230	708	427	513	1,124	781	1,259	1,623	1,609	10,879
Nevada Department of Wildlife														
Pumped from Lake Mead	Diversion	35	38	90	54	55	70	56	70	70	70	73	77	758
	Measured Returns	34	37	89	54	54	70	55	69	69	69	72	76	748
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	1	1	1	0	1	0	1	1	1	1	1	1	10
Pacific Coast Building Products														
Pumped from Lake Mead	Diversion	60	61	66	63	65	78	83	81	82	91	91	79	900
	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	60	61	66	63	65	78	83	81	82	91	91	79	900
Las Vegas Wash Return Flow	Returns [1]	19,513	17,286	19,169	17,707	19,477	17,937	21,139	20,376	19,198	20,051	19,004	19,877	230,734
Lake Mead National Recreation Area National Park Service														
Pumped from Lake Mohave - Cottonwood Cove	Diversion	13	12	13	13	13	13	12	14	14	11	9	11	148
	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	13	12	13	13	13	13	12	14	14	11	9	11	148
Big Bend Water District														
Pumped from river	Diversion	249	233	270	310	329	372	473	390	367	354	287	252	3,886
	Measured Returns	142	144	170	171	165	169	209	185	166	170	153	142	1,986
	Unmeasured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Consumptive Use	107	89	100	139	164	203	264	205	201	184	134	110	1,900
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 2018. (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	95	188	252	242	435	442	212	525	336	166	138	0	3,031
Pumped from wells for domestic use	Diversion	90	147	135	167	158	217	239	229	184	214	173	115	2,068
	Measured Returns	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unmeasured Returns	61	110	128	135	196	217	149	249	172	125	103	38	1,683
	Consumptive Use	124	225	259	274	397	442	302	505	348	255	208	77	3,416
Nevada Totals														
	Diversion	**29,710**	**28,221**	**34,280**	**39,826**	**47,742**	**46,625**	**48,990**	**49,752**	**44,346**	**43,488**	**35,236**	**31,063**	**479,279**
	Measured Returns	**19,691**	**17,469**	**19,430**	**17,934**	**19,698**	**18,178**	**21,405**	**20,633**	**19,435**	**20,292**	**19,231**	**20,097**	**233,493**
	Unmeasured Returns	**61**	**110**	**128**	**135**	**196**	**217**	**149**	**249**	**172**	**125**	**103**	**38**	**1,683**
	Consumptive Use	**9,958**	**10,642**	**14,722**	**21,757**	**27,848**	**28,230**	**27,436**	**28,870**	**24,739**	**23,071**	**15,902**	**10,928**	**244,103**

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													347,202
	Injected	0	0	0	0	0	0	0	0	0	0	0	0	0
	Withdrawn	0	0	0	0	0	0	0	0	48	174	127	59	408
	EOY Balance													346,794
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**													**359,045**
	Total Current Year Injection													**0**
	Total Current Year Withdrawals													**408**
	EOY Cumulative Injected Storage													**358,637**

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 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 CAP and MWD, 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 IBWC's 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 2018. (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]	194	829	4,798	2,614	5,109	1,642	10,554	7,153	0	16,473	6,924	2,275	58,565
Delivered to Mexico in Satisfaction of Treaty													
Diverted by Others													
Delivered to Storage [2]	194	829	4,798	2,614	5,109	1,642	10,554	7,153	0	16,473	6,924	2,275	58,565
Passing to Mexico in Excess of Treaty													
Colorado River Indian Reservation - Diversion at Headgate Rock Dam													
Ordered but not Diverted [1]	6,809	1,154	3,358	4,195	4,352	4,384	6,089	4,564	6,823	1,567	2,198	1,369	46,862
Delivered to Mexico in Satisfaction of Treaty	2,750	162	967	1,365	933	1,516	1,749	1,882	2,518	672	897	458	15,869
Diverted by Others	2,582	671	1,856	2,310	2,438	1,842	3,160	2,236	3,288	691	889	584	22,547
Delivered to Storage [3]	1,431	319	514	509	896	1,006	1,122	399	854	134	386	319	7,890
Passing to Mexico in Excess of Treaty	46	2	22	11	84	19	59	47	164	70	26	7	557
North Gila Valley Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	339	361	179	295	595	394	518	360	253	348	273	403	4,318
Delivered to Mexico in Satisfaction of Treaty	158	121	62	91	135	121	208	157	68	151	107	234	1,613
Diverted by Others	117	132	81	119	321	237	184	181	159	160	102	73	1,866
Delivered to Storage [3]	60	107	36	85	134	34	124	19	22	18	58	55	752
Passing to Mexico in Excess of Treaty	3	2	0	0	4	2	2	3	3	19	7	40	85
Gila Monster Farms - Diversion at Imperial Dam													
Ordered but not Diverted [1]	314	172	83	130	163	178	104	222	438	365	342	424	2,935
Delivered to Mexico in Satisfaction of Treaty	139	65	32	36	51	76	44	85	113	154	120	225	1,140
Diverted by Others	131	80	48	64	78	51	46	106	280	133	144	112	1,273
Delivered to Storage [3]	42	26	3	31	31	50	13	27	40	68	72	66	467
Passing to Mexico in Excess of Treaty	3	1	1	0	3	1	1	4	5	10	5	20	54
Wellton-Mohawk I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted [1]	689	936	873	491	357	591	3,123	376	228	5,730	1,483	2,959	17,836
Delivered to Mexico in Satisfaction of Treaty	49	182	252	34	0	194	1,295	106	60	2,041	275	1,328	5,816
Diverted by Others	616	547	557	453	112	201	1,031	245	111	2,480	371	1,003	7,727
Delivered to Storage [3]	22	206	57	2	245	191	771	21	53	807	774	435	3,584
Passing to Mexico in Excess of Treaty	1	0	7	1	0	5	26	4	4	402	62	192	704
Yuma Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	161	506	199	230	184	253	531	270	87	659	136	306	3,522
Delivered to Mexico in Satisfaction of Treaty	52	214	65	83	99	83	167	26	43	287	29	174	1,322
Diverted by Others	87	196	86	95	61	73	264	165	35	292	99	31	1,484
Delivered to Storage [3]	22	93	47	52	23	95	90	78	7	68	7	81	662
Passing to Mexico in Excess of Treaty	1	3	0	0	1	2	10	1	2	11	0	21	52
Yuma Mesa I.D.D. - Diversion at Imperial Dam													
Ordered but not Diverted [1]	1,108	1,335	1,737	866	634	456	427	744	1,256	4,138	1,971	1,582	16,254
Delivered to Mexico in Satisfaction of Treaty	612	415	718	355	262	230	193	131	536	1,417	845	730	6,444
Diverted by Others	276	750	869	315	283	79	128	472	556	2,104	652	232	6,716
Delivered to Storage [3]	211	171	139	195	65	148	104	141	145	488	448	460	2,713
Passing to Mexico in Excess of Treaty	10	0	11	0	25	0	2	1	19	129	26	160	383

Table 7. State of Arizona - Disposition of Water Ordered but not Diverted, Calendar Year 2018. (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]	1,103	616	445	200	267	829	754	1,352	398	999	504	311	7,778
Delivered to Mexico in Satisfaction of Treaty	308	306	85	93	9	315	148	546	47	388	237	170	2,652
Diverted by Others	606	221	340	56	191	258	411	637	220	297	153	96	3,486
Delivered to Storage [3]	185	83	19	50	58	252	183	159	129	284	102	3	1,510
Passing to Mexico in Excess of Treaty	4	6	0	1	8	4	12	10	2	29	12	41	129
Yuma County Water Users' Association - Diversion at Imperial Dam													
Ordered but not Diverted [1]	2,991	5,249	3,004	2,053	2,603	1,744	1,535	3,904	2,095	3,302	262	3,276	32,018
Delivered to Mexico in Satisfaction of Treaty	1,664	1,033	1,060	435	542	577	532	1,156	462	1,742	6	1,964	11,173
Diverted by Others	893	2,943	1,380	1,344	1,521	676	613	2,081	1,198	748	134	505	14,036
Delivered to Storage [3]	405	1,264	527	267	503	487	365	645	407	328	120	544	5,862
Passing to Mexico in Excess of Treaty	29	10	38	7	36	4	25	22	29	485	2	262	949
Arizona Totals													
Ordered but not Diverted [1]	**13,708**	**11,158**	**14,676**	**11,074**	**14,264**	**10,471**	**23,635**	**18,945**	**11,578**	**33,581**	**14,093**	**12,905**	**190,088**
Delivered to Mexico in Satisfaction of Treaty	**5,732**	**2,498**	**3,241**	**2,492**	**2,031**	**3,112**	**4,336**	**4,089**	**3,847**	**6,852**	**2,516**	**5,283**	**46,029**
Diverted by Others	**5,308**	**5,540**	**5,217**	**4,756**	**5,005**	**3,417**	**5,837**	**6,123**	**5,847**	**6,905**	**2,544**	**2,636**	**59,135**
Delivered to Storage [2,3]	**2,572**	**3,099**	**6,140**	**3,805**	**7,064**	**3,905**	**13,326**	**8,642**	**1,656**	**18,668**	**8,891**	**4,238**	**82,005**
Passing to Mexico in Excess of Treaty	**97**	**24**	**79**	**20**	**161**	**37**	**137**	**92**	**228**	**1,155**	**140**	**743**	**2,913**

[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 2018. (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]	3,904	0	20,378	8,418	2,370	3,961	2,432	6,436	3,271	8,164	1,722	6,030	67,086
Delivered to Mexico in Satisfaction of Treaty													
Diverted by Others													
Delivered to Storage [2]	3,904	0	20,378	8,418	2,370	3,961	2,432	6,436	3,271	8,164	1,722	6,030	67,086
Passing to Mexico in Excess of Treaty													
Palo Verde Irrigation District - Diversion at Palo Verde Dam													
Ordered but not Diverted [1]	204	968	1,135	484	1,289	1,349	1,408	1,329	1,646	906	692	363	11,773
Delivered to Mexico in Satisfaction of Treaty	133	309	293	151	118	455	425	538	212	137	230	180	3,181
Diverted by Others	51	473	742	229	853	684	654	496	1,128	496	294	101	6,201
Delivered to Storage [3]	17	184	88	103	317	208	322	283	298	244	164	50	2,277
Passing to Mexico in Excess of Treaty	3	3	12	0	2	3	8	12	8	30	4	32	117
Yuma Project Reservation Division - Diversion at Imperial Dam													
Ordered but not Diverted [1]	4,004	1,701	1,476	941	1,702	1,361	946	532	1,172	3,487	4,207	5,605	27,134
Delivered to Mexico in Satisfaction of Treaty	1,791	563	426	271	272	299	371	138	387	1,171	1,618	2,878	10,185
Diverted by Others	1,549	755	667	471	1,006	839	447	342	495	1,593	1,714	1,659	11,537
Delivered to Storage [3]	629	371	367	197	385	221	119	45	260	572	803	793	4,762
Passing to Mexico in Excess of Treaty	35	11	15	2	38	2	9	7	30	151	73	275	648
Imperial Irrigation District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	28,202	17,641	30,425	34,743	25,720	25,235	15,780	26,745	19,871	31,845	37,094	21,955	315,256
Delivered to Mexico in Satisfaction of Treaty	20,218	9,541	18,840	15,589	11,221	15,037	9,813	18,127	11,508	21,154	22,325	10,641	184,014
Diverted by Others	5,877	5,546	8,108	13,406	10,568	6,690	4,014	6,399	5,978	4,160	10,898	6,788	88,432
Delivered to Storage [3]	1,617	2,414	3,242	5,609	3,449	3,292	1,685	1,836	2,018	2,291	3,193	3,685	34,330
Passing to Mexico in Excess of Treaty	490	140	235	139	483	216	267	383	368	4,240	677	841	8,479
Coachella Valley Water District - Diversion at Imperial Dam													
Ordered but not Diverted [1]	2,286	1,151	790	1,443	3,954	4,351	2,222	4,779	3,554	1,720	345	2,059	28,654
Delivered to Mexico in Satisfaction of Treaty	1,287	308	391	666	970	1,949	1,066	1,982	971	687	132	1,462	11,871
Diverted by Others	764	712	311	578	2,236	1,584	717	2,233	1,716	543	106	290	11,790
Delivered to Storage [3]	166	131	85	194	697	786	393	508	779	93	99	122	4,053
Passing to Mexico in Excess of Treaty	68	0	3	5	52	32	46	56	88	397	9	184	940
California Totals													
Ordered but not Diverted [1]	**38,599**	**21,462**	**54,203**	**46,028**	**35,037**	**36,257**	**22,788**	**39,821**	**29,514**	**46,123**	**44,060**	**36,012**	**449,903**
Delivered to Mexico in Satisfaction of Treaty	**23,429**	**10,721**	**19,950**	**16,677**	**12,581**	**17,740**	**11,675**	**20,785**	**13,078**	**23,149**	**24,305**	**15,161**	**209,251**
Diverted by Others	**8,241**	**7,486**	**9,828**	**14,684**	**14,663**	**9,797**	**5,832**	**9,470**	**9,317**	**6,792**	**13,012**	**8,838**	**117,960**
Delivered to Storage [2,3]	**6,333**	**3,101**	**24,160**	**14,521**	**7,218**	**8,467**	**4,951**	**9,108**	**6,625**	**11,364**	**5,980**	**10,681**	**112,508**
Passing to Mexico in Excess of Treaty	**596**	**154**	**265**	**146**	**575**	**253**	**330**	**458**	**494**	**4,818**	**763**	**1,332**	**10,184**

[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 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 2018. (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]	113,522	134,179	182,069	163,471	112,353	124,989	122,082	93,930	83,837	58,488	85,763	95,640	1,370,323
Deliveries to Mexico in Satisfaction of Treaty Requirements													
Delivery at the Limitrophe [2]	284	251	294	215	335	239	178	182	480	437	448	667	4,012
Diversion for Delivery at Tijuana [3]	0	0	0	0	0	0	0	0	222	94	0	0	316
Delivery at Southerly International Boundary	11,259	10,867	12,249	11,266	10,336	9,831	10,434	10,269	9,476	8,914	10,961	8,344	124,204
Diversion Channel Discharge [4]	1	28	74	316	944	503	22	0					1,888
Delivery to Mexico at the Northerly International Boundary [5]	113,312	134,179	181,941	163,379	112,155	124,964	121,821	93,776	83,331	53,526	85,253	95,270	1,362,907
Total Deliveries to Mexico in Satisfaction of Treaty Requirements	124,856	145,325	194,558	175,176	123,770	135,537	132,455	104,227	93,509	62,971	96,662	104,281	1,493,327
Creation of Mexico's Water Reserve [6]	0	6,673	0	0	0	0	0	0	0	0	0	0	6,673
Total to Mexico in Satisfaction of Treaty Requirements	124,856	151,998	194,558	175,176	123,770	135,537	132,455	104,227	93,509	62,971	96,662	104,281	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]	210	0	128	92	197	24	260	155	506	4,962	511	370	7,416
Accountable Deliveries to Mexico [8]	125,066	151,998	194,686	175,268	123,967	135,561	132,716	104,382	94,015	67,933	97,173	104,651	1,507,416
Water Bypassed Pursuant to IBWC Minute No. 242	8,405	7,183	5,895	9,209	12,438	9,115	7,057	10,202	11,145	13,570	13,851	14,500	122,569
Mexico's Water Reserve													
BOY Balance													96,624
Creation													6,673
Delivery													0
Evaporation [9]													(3,099)
EOY Cumulative Balance Available for Future Delivery [10]													100,198

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

Footnotes:

[1] Flow in the river at the NIB as reported by IBWC as delivery to Mexico.

[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 daily 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 daily schedule. It does not include water bypassed pursuant to IBWC Minute No. 242.

[9] In accordance with IBWC Minute No. 323, a 3 percent reduction for evaporation is applied annually on December 31 to Mexico's Water Reserve, beginning in the year of creation.

[10] 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 annual evaporation assessment.

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 2018.[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 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 (CRWDA), the Inadvertent Overrun and Payback Policy (IOPP), System Conservation Implementation Agreements (SCIAs) executed pursuant to the Pilot System Conservation Program, and the Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines), specifically, Intentionally Created Surplus (ICS).

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 water released pursuant to Article II(B)(6) of the Consolidated Decree, paybacks made by users within the state in accordance with IOPP, conservation required pursuant to executed SCIAs, and creation and/or delivery of ICS – 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 2018. (Values are in acre-feet.)

STATE	ADJUSTMENTS	ACTUAL USE
Arizona	Basic Apportionment [1]	2,800,000
	NV Unused Apportionment Released to AZ for Storage for SNWA [2]	13,500
	System Conservation Water - Pilot System Conservation Program [3]	(25,493)
	ICS Creation (CAWCD) [4]	(47,013)
	Total Available Colorado River Water [5]	2,740,994
	Total Consumptive Use [6]	2,632,260
	State Underrun or (Overrun)	108,734
	Unused AZ Apportionment Left in Lake Mead [7]	(108,734)
	Net State Underrun or (Overrun)	0
California	Basic Apportionment [1]	4,400,000
	Salton Sea Mitigation - Delivery of Residual Balance [8]	149
	ICS Creation (MWD) [4]	(130,946)
	ICS Creation (IID) [4]	(1,579)
	System Conservation Water - Pilot System Conservation Program [3]	(2,099)
	Total Available Colorado River Water [5]	4,265,525
	Total Consumptive Use [6]	4,265,525
	State Underrun or (Overrun)	0
	Unused CA Apportionment Left in Lake Mead	0
	Net State Underrun or (Overrun)	0
Nevada	Basic Apportionment [1]	300,000
	NV Unused Apportionment Released to AZ for Storage for SNWA [2]	(13,500)
	ICS Creation (SNWA) [4]	(42,397)
	Total Available Colorado River Water [5]	244,103
	Total Consumptive Use [6]	244,103
	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] Nevada unused apportionment made available to Arizona by the Secretary under Article II(B)(6) of the Consolidated Decree for storage in Arizona under the appropriate SIRA.

[3] The aggregate amount of water conserved in each state, in 2018, 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.

[4] The amount of ICS created by the water user during the reporting year. CAWCD's ICS creation amount has been verified by Reclamation. All other ICS creation values displayed are provisional until verified by Reclamation. For additional details, see Table 22.

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

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

[7] By letters dated August 2, 2018, October 2, 2018 and March 11, 2019, CAWCD notified Reclamation of its intent to adjust its diversions of unused Arizona basic apportionment in 2018 to effect a voluntarily contribution to Lake Mead. The volume of 108,734 AF remained in Lake Mead to benefit system storage.

[8] 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 delivered 149 AF of previously conserved water to the Salton Sea in 2018 toward this outstanding balance and intends to deliver the remaining 7 AF in 2019.

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 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 2018. (Values are in acre-feet.)

	BOY Balance	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
NEVADA														
Water diverted and stored in AZ by AWBA for the benefit of SNWA														
Verified 2017 EOY ALTSC [1]	601,041													
Accrued LTSC in 2018 [2]		0	0	0	0	0	0	1,271	2,319	6,983	949	1,674	304	13,500
Verified LTSC in 2018 [3]		0	0	0	0	0	0	1,182	2,157	6,494	882	1,557	283	12,555
ICUA Developed in 2018 [4]		0	0	0	0	0	0	0	0	0	0	0	0	0
Total ALTSC [5]		601,041	601,041	601,041	601,041	601,041	601,041	602,223	604,380	610,874	611,756	613,313	613,596	613,596
Water diverted and stored in CA by MWD for the benefit of SNWA														
Verified 2017 EOY ALTSC [1,6]	330,225													
Diverted in 2018 [6]		0	0	0	0	0	0	0	0	0	0	0	0	0
Verified LTSC in 2018 [6]		0	0	0	0	0	0	0	0	0	0	0	0	0
ICUA Developed in 2018 [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	1,182	2,157	6,494	882	1,557	283	12,555
Cumulative Balance of Water Stored for SNWA within AZ and CA [7]		931,266	931,266	931,266	931,266	931,266	931,266	932,448	934,605	941,099	941,981	943,538	943,821	943,821

Footnotes:

[1] ALTSCs are LTSCs verified by the banking entity before the beginning of the reporting year and available for recovery by a specific entity with a valid SIRA. The amount of ICUA developed cannot exceed verified LTSCs.

[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 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 2018. (Values are in acre-feet.)

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

Table 14. State of California - Overruns, Paybacks, and Overrun Account Balances, Calendar Year 2018. (Values are in acre-feet.)

WATER USER	DETAILS	ANNUAL TOTALS DIVERSION	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 2018. (Values are in acre-feet.)

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

LOWER COLORADO WATER SUPPLY PROJECT

The Lower Colorado Water Supply Act (Act), Public Law 99-655, Nov. 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, 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 LCWSP, Calendar Year 2018. (Values are in acre-feet.)

		TOTALS
LCWSP Wellfield Pumpage [1]		10,001
Federal LCWSP Contractors [2]		
BLM	Consumptive Use	234
Bureau of Reclamation - Parker Dam and Government Camp	Consumptive Use	1
	Total Federal Contractors' Consumptive Use	235
Non-Federal LCWSP Contractors [3]		
City of Needles	Consumptive Use	0
Needles' Subcontractors		
Southern California Gas Company	Consumptive Use	24
Pacific Gas & Electric Company	Consumptive Use	54
Havasu Water Company	Consumptive Use	20
Vista del Lago	Consumptive Use	20
Needles' Other Subcontractors	Consumptive Use	178
	Needles' and Subcontractors' Consumptive Use	296
LCWSP Water Available to MWD [4]		9,469
	Total Non-Federal Contractors' Consumptive Use	9,765

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. In 2018, due to measurement imprecision and operational limitations, the LCWSP wellfield pumped a total of 10,001 AF. Of this amount, 10,000 AF were made available to LCWSP beneficiaries; the remaining 1 AF was consumptively used by IID.

[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 2018" 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 2018 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 2018" documents water made available by 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 2018. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
Pilot System Conservation Program (PSCP) [1]	
Central Arizona Water Conservation District [2]	5,042
City of Bullhead City [3]	542
Colorado River Indian Tribes [4]	8,859
Tohono O'odham Nation [5]	11,050

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 2018, Reclamation and the Central Arizona Water Conservation District (CAWCD) entered into SCIA No. 18-XX-30-W0645 under the PSCP in which CAWCD agreed to reduce delivery of CAP excess Agricultural Pool water in 2018 to create System Conservation Water. In accordance with the SCIA, this System Conservation Water remained in Lake Mead to benefit system storage.

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

[4] In 2016, Reclamation and the Colorado River Indian Tribes (Tribes) entered into SCIA No. 16-XX-30-W0606 under the PSCP in which the Tribes agreed to fallow 1,591 acres of farmland (Kudu Farms) from October 1, 2016 through September 30, 2018 to create System Conservation Water. In 2018, Reclamation and the 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 (MTA Farms) from October 1, 2018 through September 30, 2019 to create System Conservation Water. In accordance with the SCIAs and Letter Agreement Nos. 16-XX-30-W0608 and 18-XX-30-W0636 between Reclamation and CAWCD, the portion of water conserved in 2018 (reflected above) remained in Lake Mead to benefit system storage.

[5] In 2018, Reclamation and the Tohono O'odham Nation (Nation) entered into SCIA No. 18-XX-30-W0631 under the PSCP in which the Nation agreed to reduce delivery of its CAP water entitlement by 11,050 AF in 2018 to create System Conservation Water. In accordance with the SCIA and Letter Agreement No. 18-XX-30-W0633 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 2018. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
IID Conservation	
1988 IID/MWD 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]	130,000
SDCWA Mitigation Transfer [4]	0
IID Intra-Priority 3 Transfer to CVWD [5]	63,000
All-American Canal Lining Project (67,700 AF Total Conservation) [6]	
SDCWA Exchange with MWD	56,200
Supplemental Water	11,500
Excess Extraordinary Conservation [7]	87,594
CVWD Conservation	
Coachella Canal Lining Project (30,850 Total Conservation) [8]	
SDCWA Exchange With MWD	21,546
Supplemental Water	4,500
Mitigation	4,804
Total MWD Exchange with SDCWA [9]	207,746
PVID/MWD Forbearance and Fallowing Program [10]	95,752
Pilot System Conservation Program (PSCP) [11]	
Bard Water District [12]	1,747
City of Needles [13]	156
CVWD [14]	196

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 amended 1989 Approval Agreement, 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, IID conserves water for transfer to SDCWA.

Footnotes continued on following page.

Table 18 Footnotes: Continued from previous page.

[4] As referenced in Column 7, Exhibit B, of the CRWDA and the IID/SDCWA Water Transfer Agreement, as amended, from 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 delivered 149 AF of previously conserved water to the Salton Sea in 2018 toward this outstanding balance and intends to deliver the remaining 7 AF 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. This matter is the subject of a series of letters between Reclamation and IID, including Reclamation's letter dated May 3, 2013; IID's letter dated June 28, 2013; and Reclamation's letter dated July 2, 2013, and currently remains under discussion between Reclamation and IID.

[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] For informational purposes: Provisional data indicate that, in 2018, IID conserved 130,197 AF of water in excess of its CRWDA water transfer agreement. Of this amount, IID has indicated that 1,579 AF were stored in Lake Mead by IID as Extraordinary Conservation ICS and 41,024 AF were delivered and used in IID's service area to avoid an overrun. By letter dated December 31, 2018, IID requested that MWD store IID's remaining balance of excess conservation, provisionally calculated at 87,594, in MWD's system. Storage of this water will require an executed Amendment to the 2007 *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus* , which has not occurred as of the date of this report. If MWD and IID execute an agreement related to the storage of this conserved water, such a notation will be added to a future report. This 87,594 AF was diverted by MWD.

[8] 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.

[9] The amount shown represents water exchanged between MWD and SDCWA in the reporting year. This is the sum of: Transfer to SDCWA (130,000 AF), All-American Canal Lining Project - SDCWA Exchange with MWD (56,200 AF), and Coachella Canal Lining Project - SDCWA Exchange with MWD (21,546 AF).

[10] 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 2018 Fallowed Land Verification Report, PVID/MWD Forbearance and Fallowing Program* . This value represents the estimated reduction in PVID's agricultural consumptive use as a result of fallowing 23,356 acres from January through July and 10,376 acres from August through December in the reporting year.

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

[12] In 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.

[13] 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.

[14] 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 2018. (Values are in acre-feet.)

PROGRAM OR PARTICIPATING AGENCIES	TOTAL
Pilot System Conservation Program (PSCP) [1]	
SNWA [2]	860

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 2018 (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 2018. (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]	11,776	10,292	14,136	10,312	11,383	14,626	12,780	22,991	13,567	15,896	16,223	6,175	160,157
Yuma Desalting Plant Discharge to the Colorado River [2]	18	17	16	18	18	18	18	17	18	18	17	18	211
Pilot System Conservation Program (PSCP) [3]													28,452

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 2018 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, 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 3, pages 38-43 of the 2007 Interim Guidelines contains the policies and guidelines concerning the categories of creation, delivery, and accounting for Intentionally Created Surplus.

Under the 2007 Interim Guidelines, ICS may be created by an approved water user using a variety of approved measures within the four established ICS categories: Extraordinary Conservation ICS, Tributary Conservation ICS, System Efficiency ICS, and Imported ICS. Also stipulated in the 2007 Interim Guidelines are the 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 5 percent from the amount of ICS created which is dedicated to system storage to provide a collective storage benefit for Colorado River water users.
2) Beginning in the year after its creation, and with the exception of System Efficiency ICS, an annual evaporation loss of 3 percent is applied to the quantity of ICS remaining in an ICS account at the end of each year. This assessment is not applied during a shortage year.
3) 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.
4) 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, as applicable, 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 reductions for system assessment, IOPP payback, and evaporation, as appropriate.

Table 22. Intentionally Created Surplus by State, Water User, and ICS Type, Calendar Year 2018. (Values are in acre-feet.)

State/Water User	ICS Type	BOY Balance [1]	EC ICS Credited Through CY 2017 [2]	Adjusted BOY Balance [3,4]	Creation [5]	System Assessment [6]	IOPP Payback [7]	Delivery	Evaporation Loss [8]	EOY Balance [9]
Arizona										
CAWCD	Extraordinary Conservation	0	176,897	176,897	47,013	2,351	0	0	5,307	216,252
	System Efficiency - Warren H. Brock	100,000		100,000	0	N/A	0	0	N/A	100,000
	System Efficiency - YDP Pilot Run	3,050		3,050	0	N/A	0	0	N/A	3,050
	Binational ICS [10]	23,750		23,750	0	N/A	0	0	N/A	23,750
									Total Arizona:	**343,052**
California										
MWD	Extraordinary Conservation	365,595	33,514	399,109	130,946	6,547	0	0	11,973	511,535
	System Efficiency - Warren H. Brock	65,000		65,000	0	N/A	0	0	N/A	65,000
	System Efficiency - YDP Pilot Run	24,397		24,397	0	N/A	0	0	N/A	24,397
	Binational ICS [10]	23,750		23,750	0	N/A	0	0	N/A	23,750
									Total MWD:	624,682
IID	Extraordinary Conservation	50,000		50,000	1,579	79	0	0	1,500	50,000
	Binational ICS [10,11]	23,750		23,750	0	N/A	0	0	N/A	23,750
									Total IID:	73,750
									Total California:	**698,432**
Nevada										
SNWA	Extraordinary Conservation	0	53,746	53,746	42,397	2,120	0	0	1,612	92,411
	Extraordinary Conservation converted from Tributary Conservation / Imported [12]	155,502		155,502	0	0	0	0	4,665	150,837
	Tributary Conservation	N/A		N/A	32,000	1,600	0	0	N/A	30,400
	Imported - Coyote Spring Valley	N/A		N/A	0	0	0	0	N/A	0
	System Efficiency - Warren H. Brock	400,000		400,000	0	N/A	0	0	N/A	400,000
	System Efficiency - YDP Pilot Run	3,050		3,050	0	N/A	0	0	N/A	3,050
	Binational ICS [10]	23,750		23,750	0	N/A	0	0	N/A	23,750
									Total Nevada:	**700,448**
									Total ICS stored in Lake Mead: EOY 2018	**1,741,932**

Footnotes:

[1] Reflects the amount shown as the 'EOY Balance' in the 2017 *Colorado River Accounting and Water Use Report* as adjusted for: (1) any differences between provisional and verified 2017 ICS creation amounts, and (2) the conversion of Tributary Conservation ICS to Extraordinary Conservation ICS on January 1, 2018 in accordance with Section XI.G.3.A.2 of the 2007 Interim Guidelines.

[2] Extraordinary Conservation ICS created and credited to the appropriate water user in accordance with Public Law 116-14. The amount shown reflects the net amount credited to the water user after applying the system assessment and evaporation loss in accordance with Sections XI.G.3.B.2 and XI.G.3.B.7, respectively, of the 2007 Interim Guidelines. Amounts credited reflect: (1) 95,922 AF created by CAWCD in 2015 and 98,922 created by CAWCD in 2016; (2) 35,278 AF of excess conservation created by IID in 2017 and credited to MWD's Extraordinary Conservation ICS account through application of Section XI.G.3.B.8 of the 2007 Interim Guidelines; and (3) 56,575 AF created by SNWA in 2017.

[3] The BOY ICS balance as adjusted for the crediting of Extraordinary Conservation ICS created during 2015, 2016, and 2017.

[4] Extraordinary Conservation ICS values shown in the 'Adjusted BOY Balance' column above and the values shown in the 'Amount of EC ICS Available As Of the Effective Date' column found in Appendix 1 to the Lower Basin Drought Contingency Operations are not easily comparable (Appendix 1). Appendix 1 reflects Extraordinary Conservation ICS created through the end of 2017 after system assessments and evaporation loss, in accordance with the 2007 Interim Guidelines, through 2018 have been applied. To duplicate the data shown in Appendix 1, Extraordinary Conservation ICS found in the 'Adjusted BOY Balance' column for CAWCD and MWD shown above must be reduced by the 3 percent evaporation assessment applied at the end of 2018 (CAWCD 'Adjusted BOY Balance' equals 176,897 - 3% = 171,590 AF as shown in Appendix 1; MWD 'Adjusted BOY Balance' equals 399,109 - 3% = 387,136 AF as shown in Appendix 1). To duplicate the data shown in Appendix 1 for SNWA, begin with the 'EOY Balance' for Extraordinary Conservation ICS (124,700 AF) reflected in Table 22 of the 2017 Colorado River Accounting and Water Use Report, add the 53,746 AF as shown in the above column 'EC ICS Credited Through CY 2017' and reduce by the 3 percent evaporation assessment applied at the end of 2018 ((124,700 + 53,746) - 3% = 173,093 AF as shown in Appendix 1).

[5] The amount of ICS created by the water user during the reporting year. CAWCD's 2018 creation amount of 47,013 AF has been verified by Reclamation. All other values displayed in this column are provisional until verified by Reclamation.

Footnotes continued of following page

Table 22 footnotes: Continued from previous page.

[6] In accordance with Section XI.G.3.B.2. of the 2007 Interim Guidelines, there shall be a one-time deduction of 5 percent from the amount of ICS in the year of creation. This system assessment shall result in additional system water in storage in Lake Mead.

[7] 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.

[8] In accordance with Section XI.G.3.B.7 of the 2007 Interim Guidelines, a 3 percent evaporation loss shall be applied annually to the EOY balance of Extraordinary Conservation ICS beginning in the year after the ICS is created and continuing until no Extraordinary Conservation ICS remains in Lake Mead.

[9] The EOY balance of ICS including creation, reductions, and delivery taking place in the reporting year.

[10] 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* .

[11] Pursuant to the *Minute No. 319 Binational ICS Delivery Agreement between the United States and IID* , IID agrees to not request and Reclamation will not deliver to IID any Binational ICS available to IID under Minute No. 319 until the outstanding dispute regarding Salton Sea conservation and mitigation has been resolved.

[12] The verified amount of Tributary Conservation ICS created by SNWA in 2017 is 32,423 AF. This is revised from the provisonal amount of 32,435 AF shown in the 2017 *Colorado River Accounting and Water Use Report* . After applying the 5 percent reduction for system assessment to the verified amount, the 2017 EOY Tributary Conservation ICS balance is 30,802 AF. In accordance with Section 3.A.2 of the 2007 Interim Guidelines, this amount was converted to Extraordinary Conservation ICS at the beginning of 2018.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2018

The table below includes agreements, letters, regulations and operating plans that impacted Reclamation's delivery of Colorado River water during calendar year 2018. 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.	2018 Annual Operating Plan Executive Summary that outlines the criteria under which the Colorado River was operated during Calendar Year 2018 considering current and anticipated hydrologic conditions.

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 2018

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. 18-XX-30-W0645 Between Reclamation and the Central Arizona Water Conservation District to Implement a Pilot System Conservation Project, dated September 19, 2018.
10.	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.
11.	System Conservation Implementation Agreement No. 16-XX-30-W0606 Between Reclamation and the Colorado River Indian Tribes to Implement a Pilot System Conservation Program, dated September 14, 2016.
12.	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.
13.	System Conservation Implementation Agreement No. 18-XX-30-W0631 Between Reclamation and the Tohono O'odham Nation to Implement a Pilot System Conservation Program, dated August 13, 2018.
14.	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.
15.	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.
16.	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.
17.	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	
18.	Documents related to the creation, delivery, and accounting of CAWCD's ICS.
19.	Documents related to the creation, delivery, and accounting of IID's ICS.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2018

INTENTIONALLY CREATED SURPLUS	
20.	Documents related to the creation, delivery, and accounting of MWD's ICS.
21.	Documents related to the creation, delivery, and accounting of SNWA's ICS.

INTERSTATE WATER BANKING	
22.	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.
23.	Documents related to Colorado River water diverted and stored in Arizona by AWBA for the benefit of SNWA.
24.	Documents related to Colorado River water diverted and stored in California by MWD for the benefit of SNWA.

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

COLORADO RIVER WATER DELIVERY AGREEMENT	
26.	Reclamation's letter to IID dated May 3, 2013, discussing transfer and payback issues due to the direct delivery of Colorado River water to the Salton Sea in 2010.
27.	IID's letter to Reclamation dated June 28, 2013, discussing its set of actions due to the direct delivery of Colorado River water to the Salton Sea in 2010.
28.	Reclamation's letter to IID dated July 2, 2013, discussing the transfer and payback issues due to the direct delivery of Colorado River water to the Salton Sea in 2010.
29.	CVWD's letter to Reclamation dated January 31, 2019, providing a final accounting for the amount of environmental mitigation water used in Calendar Year 2018 for the Coachella Canal Lining Project and the remaining water available for transfer to the SDCWA.

DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2018

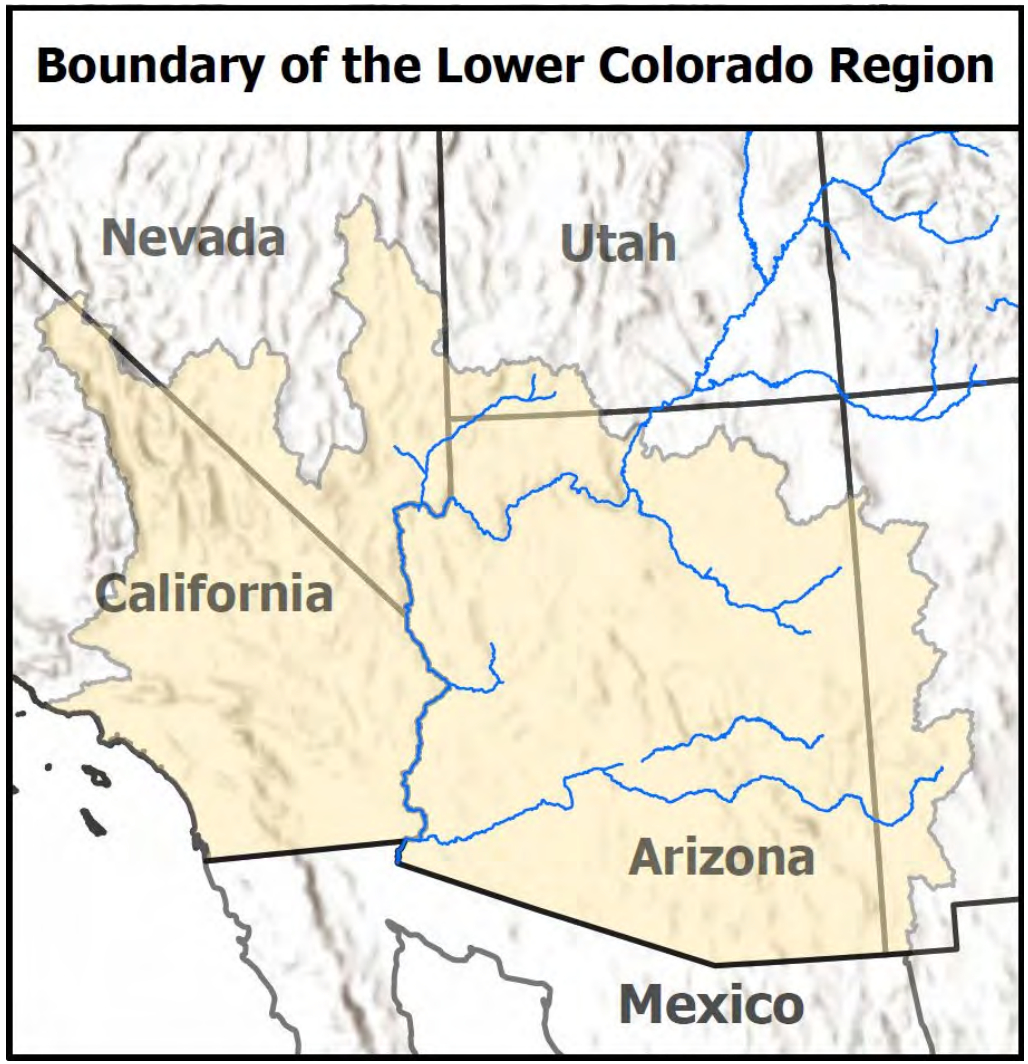
WATER ACCOUNTING	
30.	A description on how irrigation water is calculated by the USGS for areas where estimates of diversion are required.
31.	Maps showing the locations of the wells and river pumps reported by the USGS.
32.	CAWCD's letters to Reclamation dated August 2, 2018, October 2, 2018 and March 11, 2019, regarding its revised estimates of Colorado River water diversion for calendar year 2018, 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.
33.	2007 California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus (California ICS Agreement).
34.	IID's letter to MWD dated December 31, 2018, requesting to store up to 112,000 AF of IID's 2018 excess extraordinary conservation water in MWD's system.
35.	MWD/IID joint letter to Reclamation dated May 6, 2019, requesting Reclamation credit 35,278 AF of Extraordinary Conservation ICS created by IID in 2017 to MWD's ICS Account.
36.	Reclamation's letter to MWD/IID dated May 21, 2019, approving MWD/IID's joint request to credit 35,278 AF of Extraordinary Conservation ICS created by IID in 2017 to MWD's ICS Account.
37.	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.
38.	Reclamation letter to SNWA and CRCN dated December 5, 2007 regarding Las Vegas Valley Return Flow Credit Methodology.

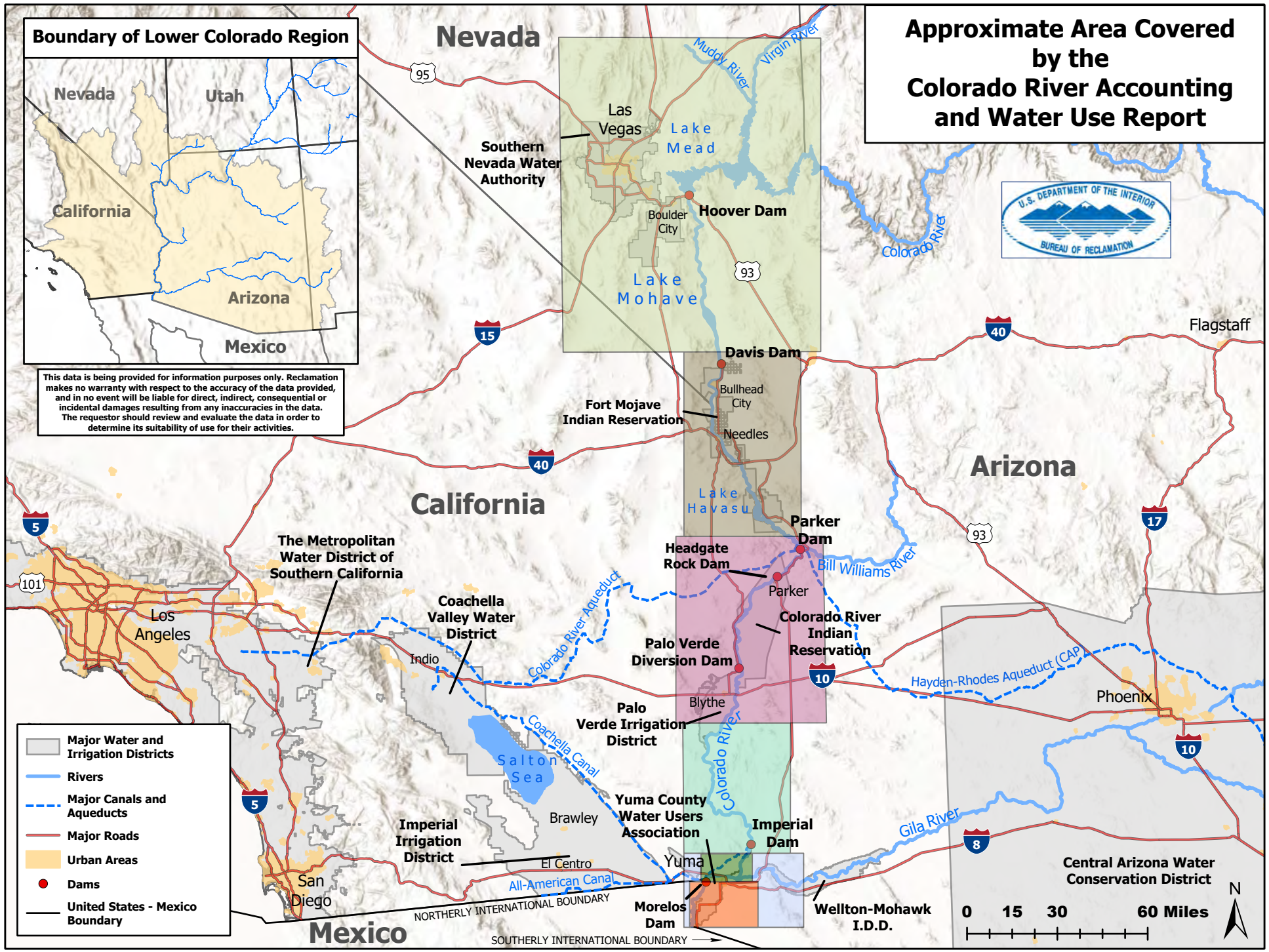
UNITED STATES-MEXICO 1944 WATER TREATY	
39.	Minute No. 242 – Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River.
40.	Minute No. 318 – Adjustment of Delivery Schedules for Water Allotted to Mexico for the Years 2010 Through 2013 as a Result of Infrastructure Damage in Irrigation District 014, Rio Colorado, Caused by the April 2010 Earthquake in the Mexicali Valley, Baja California.
41.	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.
42.	Minute No. 322 – Extension of the Temporary Emergency Delivery of Colorado River Water for use in Tijuana, Baja California

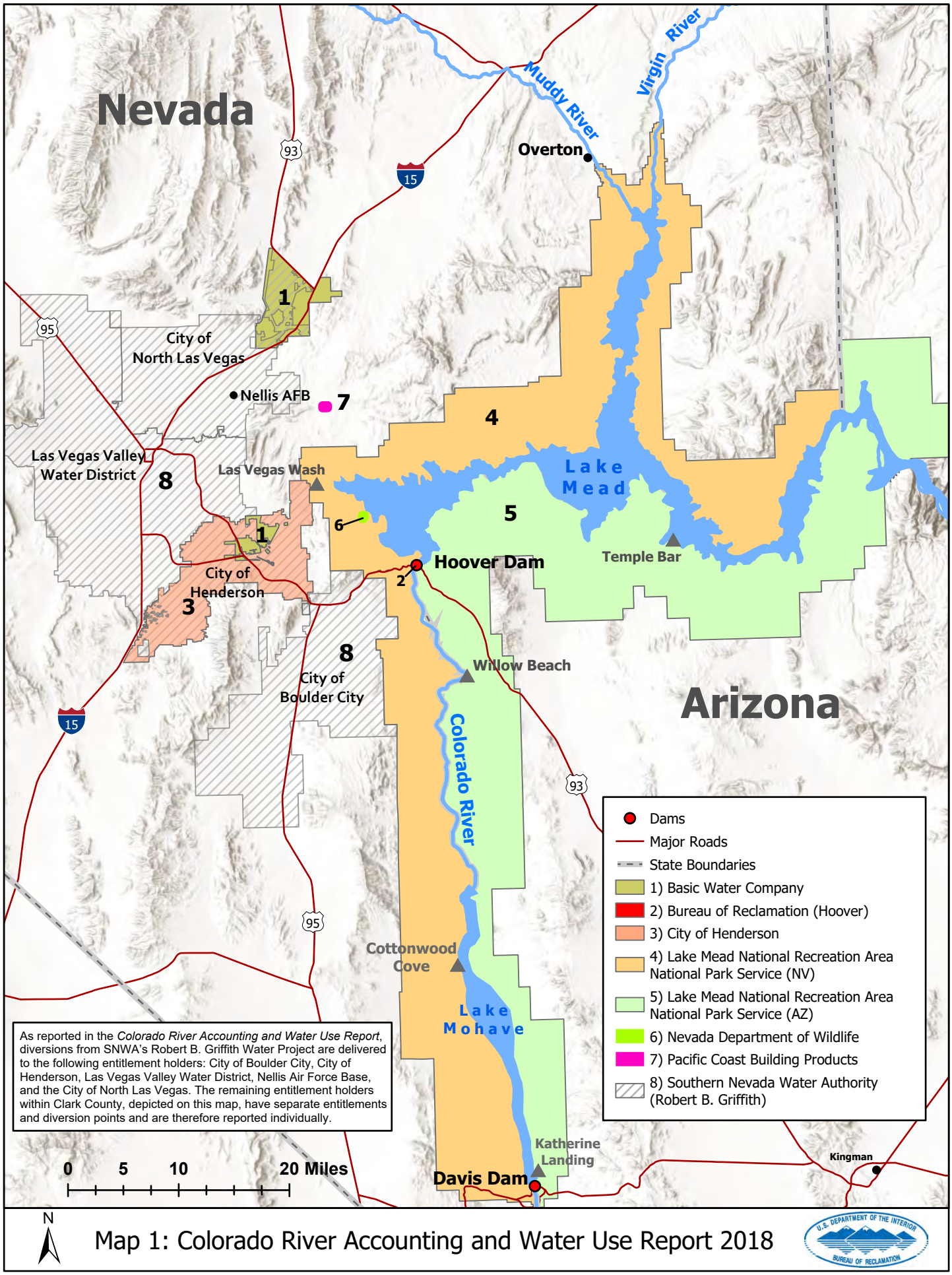
DOCUMENTS AND LETTERS SIGNIFICANT TO THE DELIVERY OF AND ACCOUNTING FOR THE USE OF COLORADO RIVER WATER IN CALENDAR YEAR 2018

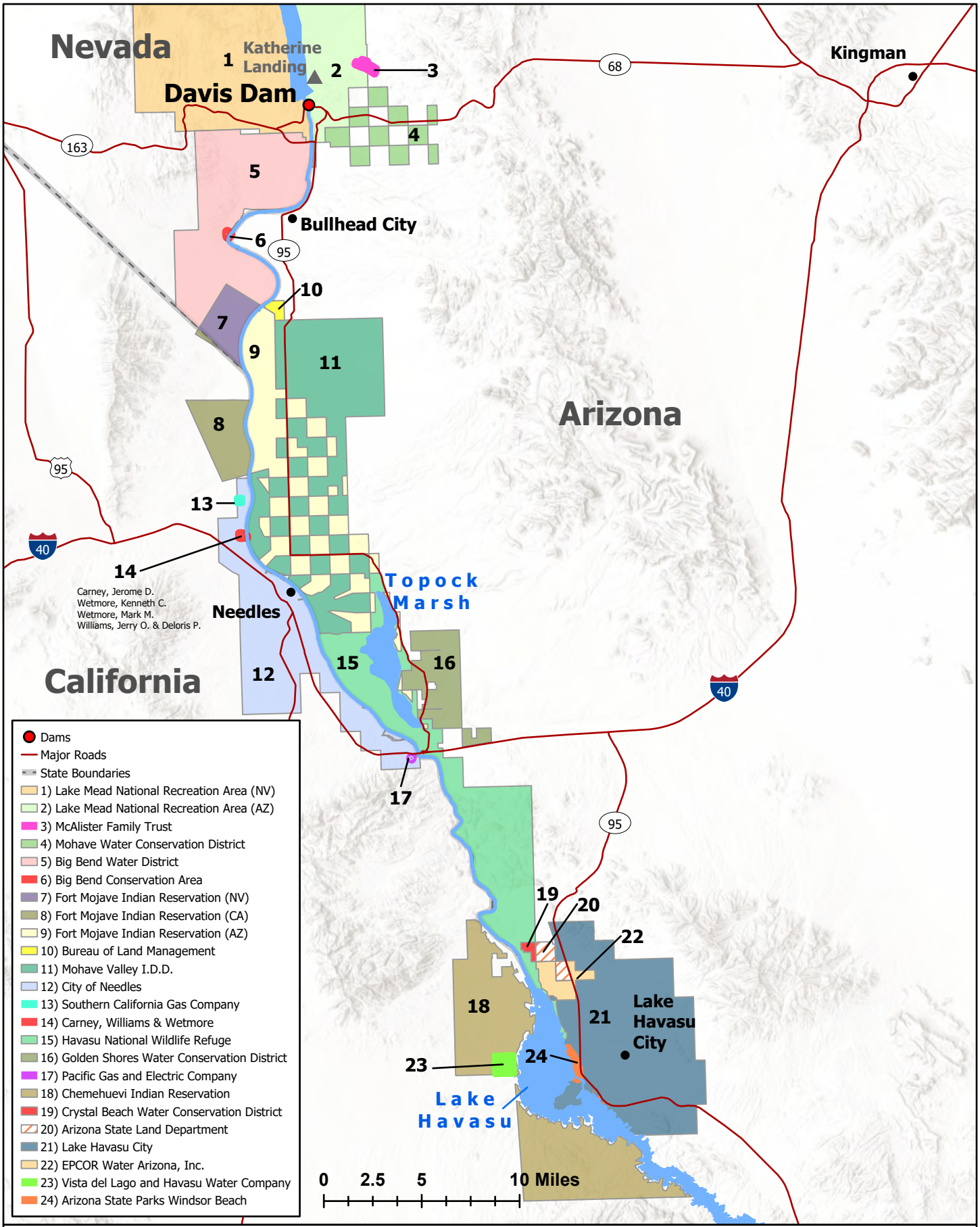
UNITED STATES-MEXICO 1944 WATER TREATY	
43.	Minute No. 323 – Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin
44.	2001 Memorandum of Understanding between Reclamation and the U.S. Section of the IBWC regarding deliveries at SIB.
45.	USIBWC's letter to Reclamation dated May 1, 2019, advising Reclamation on the accounting of the volumes of Colorado River water deferred by Mexico in accordance with Minute No. 323.
46.	Reclamation's letter to USIBWC dated May 10, 2019, 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

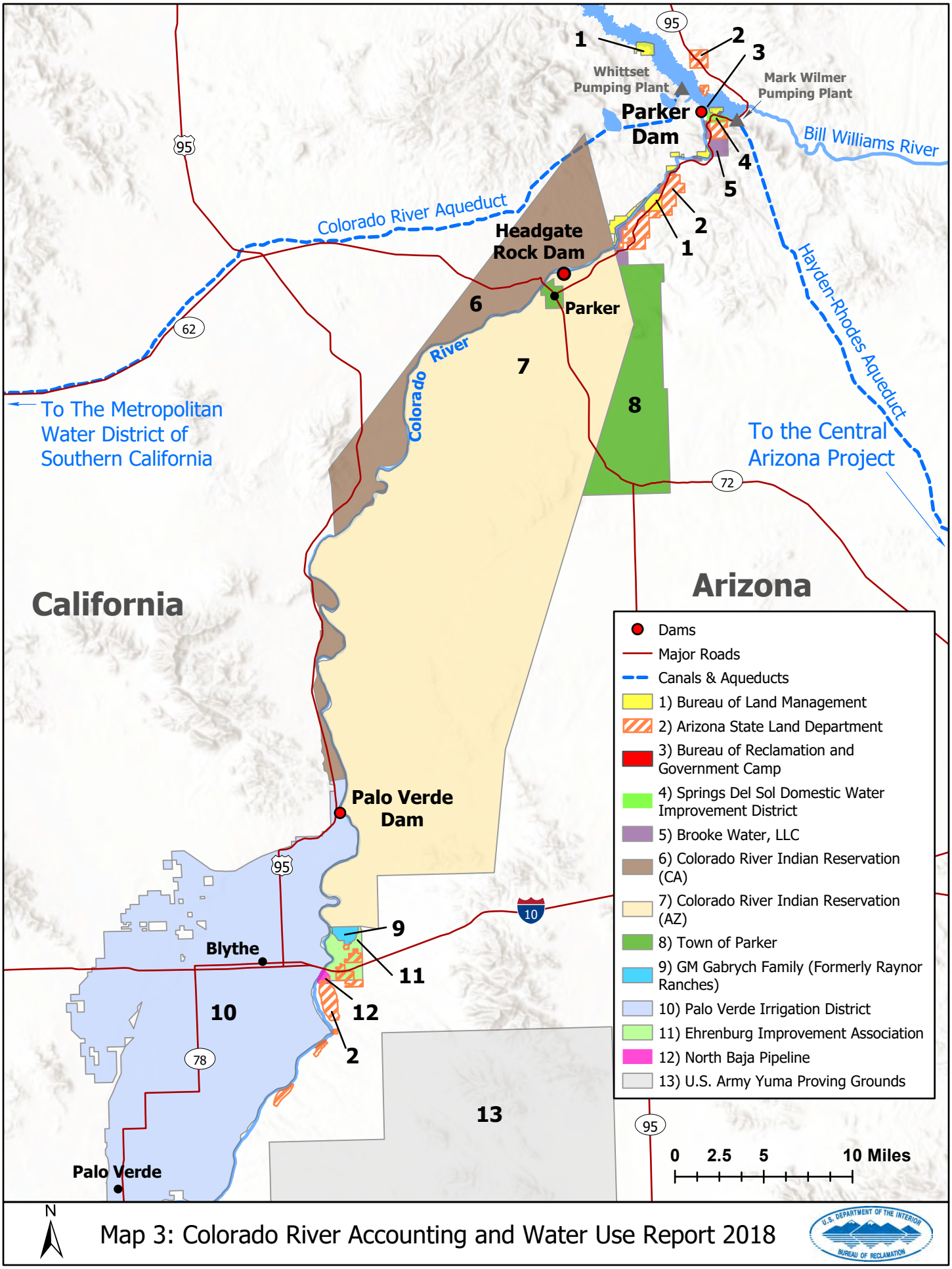



Approximate Area Covered by the Colorado River Accounting and Water Use Report
Boundary of Lower Colorado Region
Nevada
Utah
California
Arizona
Mexico
This data is being provided for information purposes only. Reclamation makes no warranty with respect to the accuracy of the data provided, and in no 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.
Nevada
California
Arizona
Mexico
Las Vegas
Lake Mead
Muddy River
Virgin River
Southern Nevada Water Authority
Boulder City
Hoover Dam
Colorado River
Lake Mohave
Davis Dam
Bullhead City
Fort Mojave Indian Reservation
Needles
Lake Havasu
Parker Dam
Headgate Rock Dam
Parker
Bill Williams River
Colorado River Indian Reservation
Palo Verde Diversion Dam
Blythe
Palo Verde Irrigation District
Hayden-Rhodes Aqueduct (CAP)
Phoenix
Flagstaff
Los Angeles
The Metropolitan Water District of Southern California
Coachella Valley Water District
Indio
Colorado River Aqueduct
Coachella Canal
Salton Sea
Brawley
Imperial Irrigation District
El Centro
All-American Canal
San Diego
Yuma County Water Users Association
Yuma
Imperial Dam
Gila River
Central Arizona Water Conservation District
Morelos Dam
Wellton-Mohawk I.D.D.
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
0 15 30 60 Miles
N
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

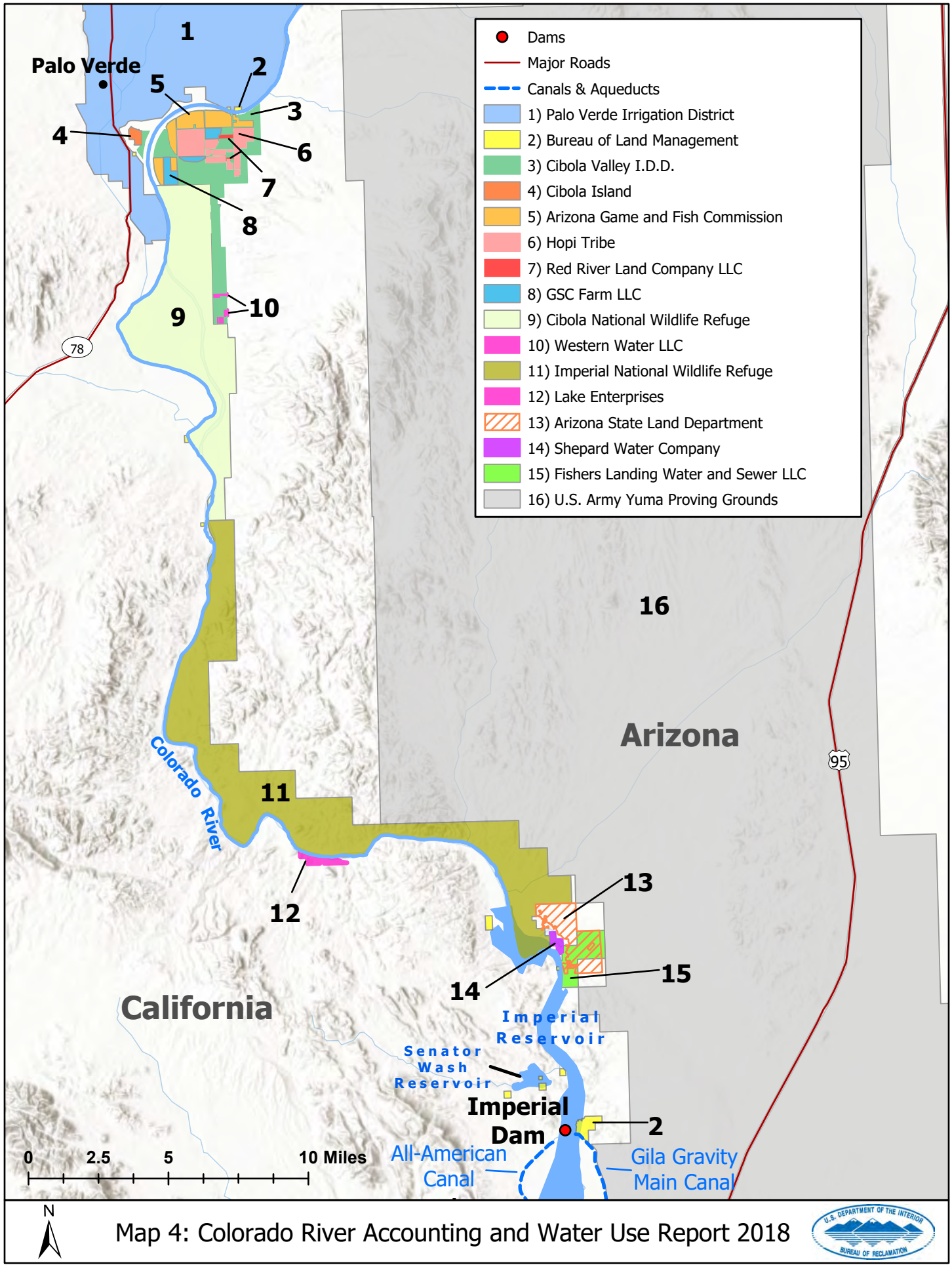

Nevada
Arizona
Virgin River
Muddy River
Overton
93
15
95
City of
North Las Vegas
1
Nellis AFB
7
4
Las Vegas Valley
Water District
8
Las Vegas Wash
Lake
Mead
5
6
1
Hoover Dam
2
Temple Bar
City of
Henderson
3
8
City of
Boulder City
Willow Beach
Colorado River
Cottonwood
Cove
Lake
Mohave
Katherine
Landing
Davis Dam
Kingman
Dams
Major Roads
State Boundaries
1) Basic Water Company
2) Bureau of Reclamation (Hoover)
3) City of Henderson
4) Lake Mead National Recreation Area
National Park Service (NV)
5) Lake Mead National Recreation Area
National Park Service (AZ)
6) Nevada Department of Wildlife
7) Pacific Coast Building Products
8) Southern Nevada Water Authority
(Robert B. Griffith)
As reported in the *Colorado River Accounting and Water Use Report*, diversions from SNWA's Robert B. Griffith Water Project are delivered to the following entitlement holders: City of Boulder City, City of Henderson, Las Vegas Valley Water District, Nellis Air Force Base, and the City of North Las Vegas. The remaining entitlement holders within Clark County, depicted on this map, have separate entitlements and diversion points and are therefore reported individually.
0 5 10 20 Miles
N
Map 1: Colorado River Accounting and Water Use Report 2018
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION



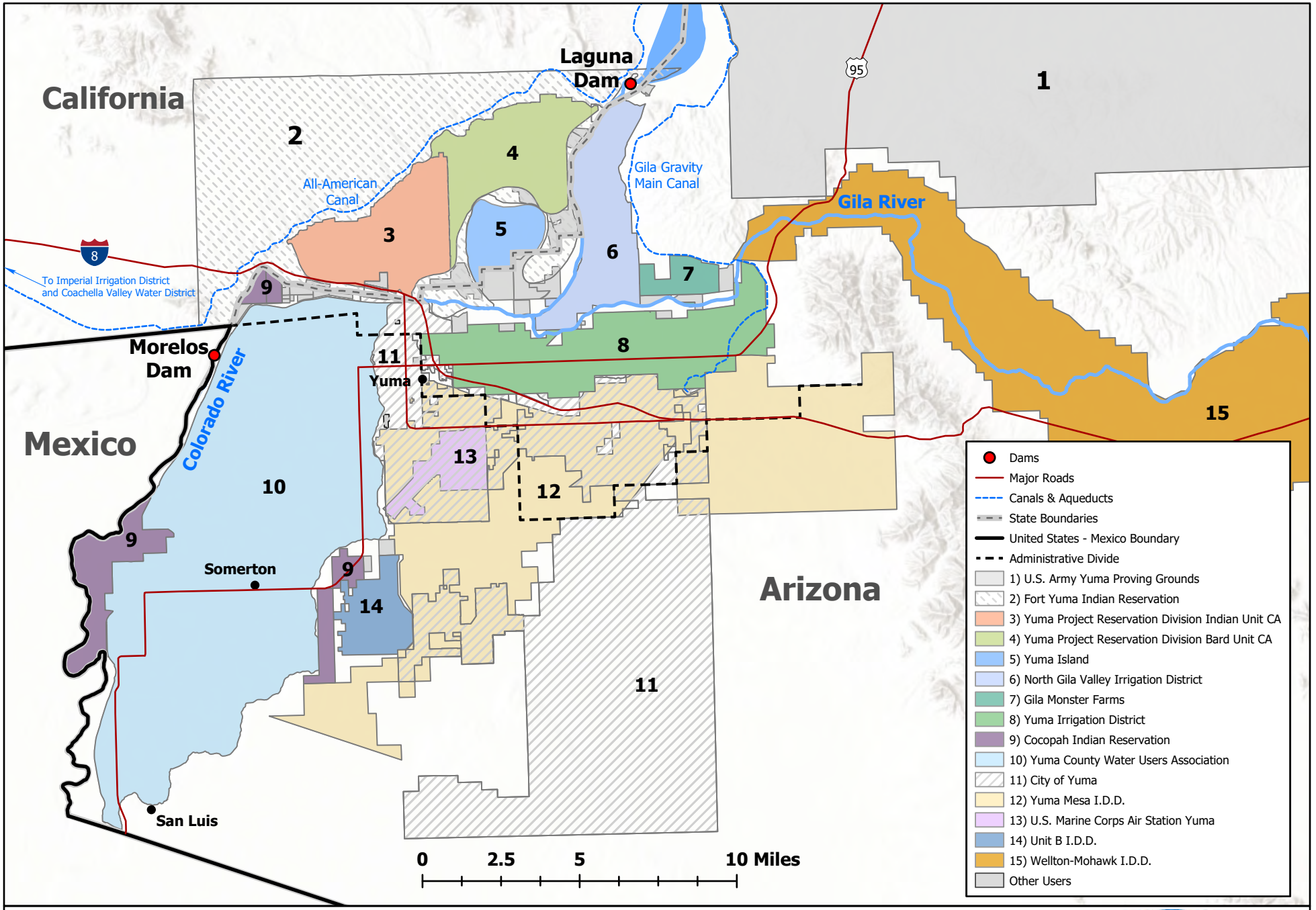
Map 2: Colorado River Accounting and Water Use Report 2018



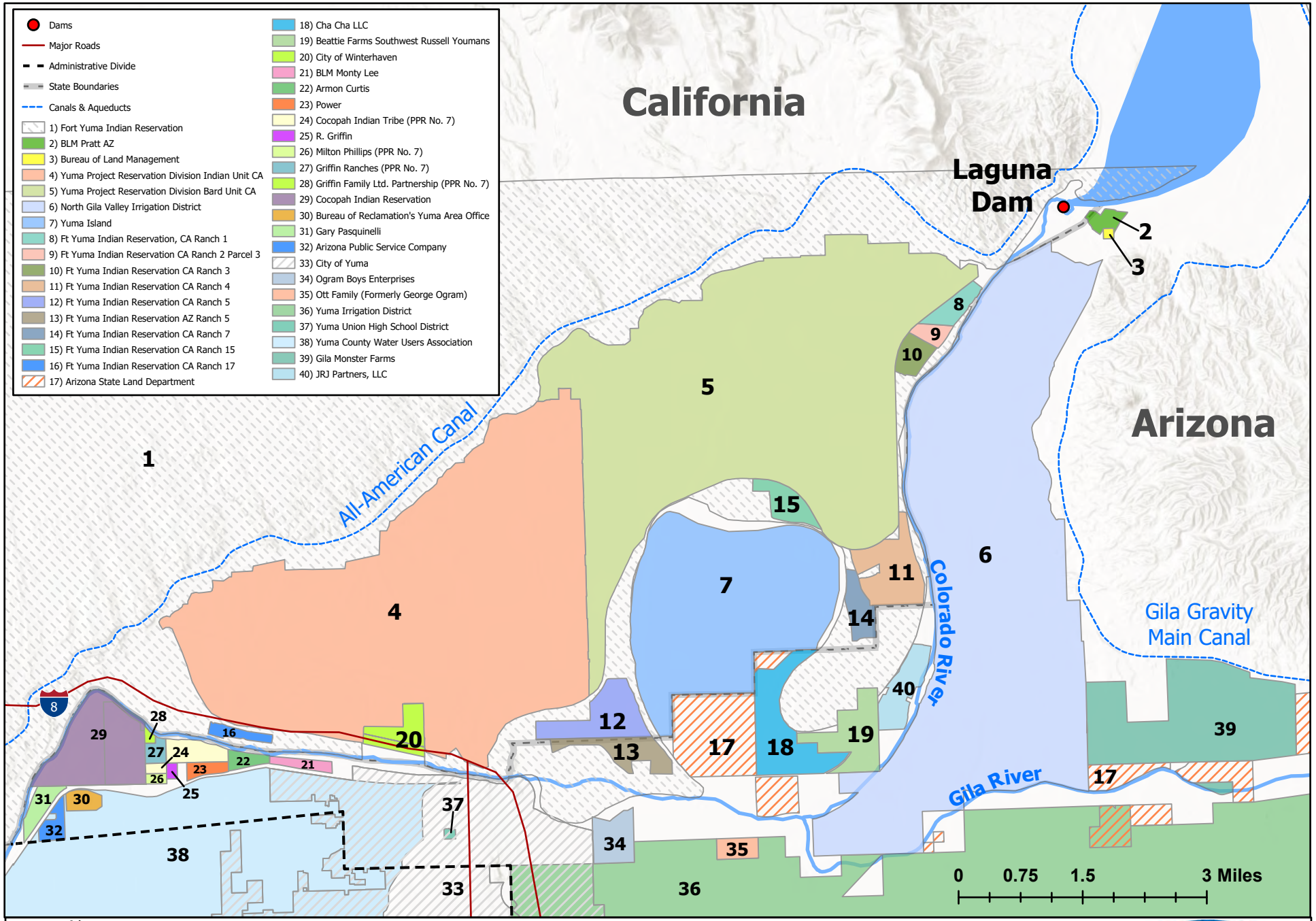
Map 3: Colorado River Accounting and Water Use Report 2018



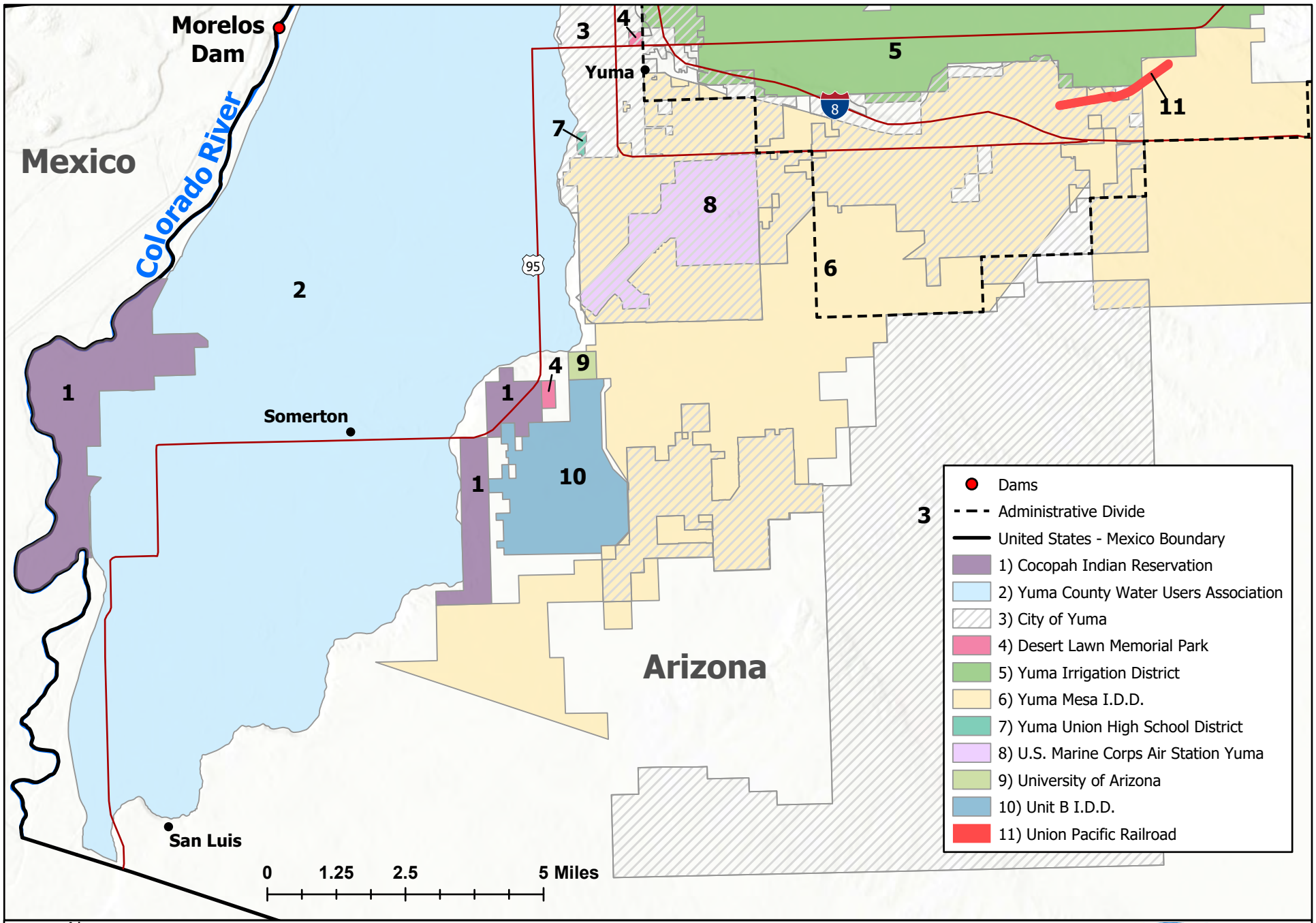
Map 4: Colorado River Accounting and Water Use Report 2018



Map 5: Colorado River Accounting and Water Use Report 2018



Map 6: Colorado River Accounting and Water Use Report 2018



Map 7: Colorado River Accounting and Water Use Report 2018