

ACRONYMS AND ABBREVIATIONS

AAWS	Analysis of Adequate Water Supply
ACC	Arizona Corporation Commission
ADWR	Arizona Department of Water Resources
ADEQ	Arizona Department of Environmental Quality
ADOC	Arizona Department of Commerce
AFA	Acre-feet per year (annum)
ALERT	Automated Local Evaluation in Real Time
ALRIS	Arizona Land Resource Information System
AMA	Active Management Area
APS	Arizona Public Service
ARS	Arizona Revised Statute
ASDM	Arizona-Sonora Desert Museum
ASLD	Arizona State Land Department
AWBA	Arizona Water Banking Authority
AWPF	Arizona Water Protection Fund
AZDA	Arizona Department of Agriculture
AZGF	Arizona Game and Fish Department
AZMET	Arizona Meteorological Network
BCPA	Boulder Canyon Project Act
BECC	Border Environment Cooperation Commission
BLM	United States Bureau of Land Management
bls	below land surface
CAP	Central Arizona Project
CFR	Code of Federal Regulations
CLIMAS	Climate Assessment for the Southwest
CNWR	Cibola National Wildlife Refuge
CRIT	Colorado River Indian Tribes
CVCA	Cibola Valley Conservation Area
CVIDD	Cibola Valley Irrigation and Drainage District
CWR	Certificate of Water Right
DES	Arizona Department of Economic Security
DOD	United States Department of Defense
DWID	Domestic Water Improvement District
EIS	Environmental Impact Statement
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Endangered Species Act
GIS	Geographic Information System
gpm	Gallons per minute
GSF	Groundwater Savings Facility
GWSI	Groundwater Site Inventory System
HSR	Hydrographic Survey Report
HUC	Hydrologic Unit Code

HVID	Harquahala Valley Irrigation District
ID	Irrigation District
IDD	Irrigation and Drainage District
IGA	Intergovernmental Agreement
INA	Irrigation Non-Expansion Area
INWR	Imperial National Wildlife Refuge
IOPP	Inadvertent Overrun and Payback Policy
ITCA	Intertribal Council of Arizona
LCR MSCP	Lower Colorado River Multi-Species Conservation Program
LDIG	Local Drought Impact Group
LUST	Leaking Underground Storage Tank
MCWA	Mohave County Water Authority
maf	million acre-feet
mg/L	milligrams per liter
M&I	Municipal and Industrial
MOD	Main Outlet Drain
MODE	Main Outlet Drain Extension
NHD	National Hydrography Dataset
NIB	Northerly International Boundary
NOAA	National Oceanic and Atmospheric Administration
NPL	National Priorities List (Superfund)
NPS	United States National Park Service
NWIS	National Water Information System
NWR	National Wildlife Refuge
NWS	National Weather Service
Pan ET	Pan Evapotranspiration
PCE	Tetrachloroethene
PG&E	Pacific Gas and Electric Company
P.L.	public law
POD	point of diversion
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SB	Senate Bill
SIB	Southerly International Boundary
SNOTEL	SNOpack TELelemetry
SOC	Statement of Claimant
sq. mi.	square mile
TCE	Trichloroethylene
TDS	Total Dissolved Solids
TON	Tohono O'odham Nation
TOUA	Tohono O'odham Utility Authority
USBOR	United States Bureau of Reclamation
USDOI	United States Department of Interior
USF	Underground Storage Facility

USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRP	Voluntary Remediation Program
WDA	Water Delivery Agreement
WMIDD	Wellton-Mohawk Irrigation and Drainage District
WQARF	Water Quality Assurance Revolving Fund
WRCC	Western Regional Climate Center
WWTF	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant
YCWUA	Yuma County Water Users Association
YDP	Yuma Desalting Plant
YMCAS	Yuma Marine Corps Air Station

APPENDIX A

APPENDIX A
Arizona Water Protection Fund Projects
In the Lower Colorado River Planning Area through Fiscal Year 2008

LOWER COLORADO RIVER PLANNING AREA				
Groundwater Basin	Map Number	AWPF Grant #	Project Title	Project Category
Parker	92	96-0016	‘Ahakhav Tribal Preserve	Habitat Restoration & Revegetation
Parker	162	97-032	‘Ahakhav Tribal Preserve – Deer Island Revegetation	Exotic Species Control & Revegetation
Yuma	109	96-0011	Lower Colorado River – Imperial Division Restoration	Wetland Restoration
Yuma	115	96-0023	Watershed Restoration at the Yuma Conservation Gardens	Watershed Restoration
Yuma	301	04-124	Yuma East Wetlands Riparian Revegetation Project	Exotic Species Control & Revegetation
Yuma	317	05-134	Quechan Indian Nation Yuma East Wetlands Restoration Project – Phase I	Exotic Species Control & Revegetation
Yuma	327	06-140	Yuma Crossing National Heritage Area Yuma East Wetlands Restoration Project – Phase I	Wetland Restoration
Yuma	340	07-147	The Effects of Restoration on Wildlife Recovery at the Yuma East Wetlands Restoration Project	Research
Yuma	341	07-148	South Channel Phase II Restoration Project	Wetland Restoration
Yuma	350	08-152	AWPF Yuma East Wetlands 68-Acre Riparian Revegetation	Wetland Restoration
Yuma	351	08-153	The Effects of Restoration on Herpetofaunal and Mammalian Community Recovery Project	Research
Yuma	354	08-156	Cocopah Colorado River Restoration	Habitat & Stream Restoration

APPENDIX B

APPENDIX B: Community Water System Annual Report Data 2006-2007 and Submitted Plans

PCC	FACILITY	Basin	2006 Withdrawn	2006 Diverted	2006 Received	2006 Total Demand	2006 Delivered	2006 Delivered to	2007 Withdrawn	2007 Diverted	2007 Received	2007 Total Demand	2007 Delivered	2007 Delivered to	
91-000207.0000	GILA BEND, TOWN OF	GIL	NR							557			557	557	CUSTOMER
91-000262.0000	PALOMA RANCH	GIL	359			359	359	CUSTOMER	359			359	359	CUSTOMER	
91-000193.0000	EAGLETAIL WATER CO, L.C.	HAR	26			26	18	CUSTOMER	24			24	10	CUSTOMER	
91-000456.0000	AJO DWID	LGB			4	4	4	CUSTOMER			4	4	4	CUSTOMER	
91-000707.0000	ANTELOPE WATER CO	LGB			46	46	46	CUSTOMER		54		54	54	CUSTOMER	
91-000412.0000	AZ WATER CO - AJO WATER SYSTEM	LGB			182	182	157	CUSTOMER			177	177	159	CUSTOMER	
91-000708.0000	DATELAND PUBLIC SERVICE	LGB	NR							33			33	33	CUSTOMER
91-000718.0000	DATELAND WATER L.L.C.	LGB	3			3	3	CUSTOMER	4			4	4	CUSTOMER	
91-000720.0000	FISHERS LANDING INC	LGB					61	CUSTOMER	NR						
91-000717.0000	MOHAWK UTILITY CO	LGB			63	63	61/2	CUSTOMER/ OTHER		64		64	64	CUSTOMER	
91-000410.0000	PHELPS DODGE - AJO IMPROVEMENT CO	LGB	NR							517			517	291/226	CUSTOMER/ SYSTEM
91-000712.0000	SHEPARD WATER CO INC	LGB	NR							NR					
91-000714.0000	TACNA WATER CO	LGB	NR							NR					
91-000715.0000	WELLTON, TOWN OF	LGB	1	314		315	311	CUSTOMER		345		345	345	CUSTOMER	
91-000733.0000	WELLTON-MOHAWK IRRIGATIO	LGB		97		97	13	CUSTOMER		87		87	87	CUSTOMER	
91-000441.0000	WHY UTILITY CORPORATION	LGB	50			50	41	CUSTOMER	5			5	4	CUSTOMER	
91-000749.0000	KEATON DEVELOPMENT CO	MMU	89			89	89	CUSTOMER	83			83	83	CUSTOMER	
91-000745.0000	SALOME WATER COMPANY	MMU	NR							NR					
91-000746.0000	WENDEN, TOWN OF	MMU	NR							NR					
91-000750.0000	BOUSE WORLEY WATER SYSTEM	PKB	16			16	16	CUSTOMER	16			16	16	CUSTOMER	
91-000740.0000	CIENEGA WATER COMPANY, INC.	PKB	NR							8			8	8	CUSTOMER
91-000752.0000	HOLIDAY HARBOR	PKB		84		84	59	CUSTOMER	NR						
91-000742.0000	LAKESIDE	PKB		163		163	137	CUSTOMER	NR						
91-000743.0000	MARINA VILLAGE	PKB		50		50	43	CUSTOMER	NR						
91-000741.0000	MOOVALYA KEYS	PKB		107		107	80	CUSTOMER	NR						
91-000748.0000	PARKER DAM	PKB		47		47	40	CUSTOMER	NR						
91-000744.0000	PARKER, TOWN OF	PKB		988		988	844	CUSTOMER		936		936	859	CUSTOMER	
91-000756.0000	Q MOUNTAIN HOA	PKB	2,517			2,517	2,517	CUSTOMER	2,517			2,517	2,517	CUSTOMER	
91-000753.0000	Q-MOUNTAIN WATER COMPANY	PKB	57			57	51	CUSTOMER	NR						

APPENDIX B: Community Water System Annual Report Data 2006-2007 and Submitted Plans (Cont)

PCC	FACILITY	Basin	2006 Withdrawn	2006 Diverted	2006 Received	2006 Total Demand	2006 Delivered	2006 Delivered to	2007 Withdrawn	2007 Diverted	2007 Received	2007 Total Demand	2007 Delivered	2007 Delivered to	
91-000754.0000	QUARTZSITE, TOWN OF	PKB	NR							NR					
91-000751.0000	RIO LINDO	PKB		7		7	6	CUSTOMER	NR						
91-000036.0000	DRAGOON WATER CO	SSW	37			37	35	CUSTOMER	44			44	32	CUSTOMER	
91-000728.0000	ASPC YUMA	YUM	NR							NR					
91-000755.0000	EHRENBERG IMPROVEMENT ASSN	YUM		476		476	382	CUSTOMER		461		461	360	CUSTOMER	
91-000737.0000	EL PRADO WATER COMPANY	YUM	NR						6			6	38	CUSTOMER	
91-000709.0000	FAR WEST WATER CO	YUM	1,654		5,006	6,660	4776/446	CUSTOMER/ OTHER	2,195		3,736	5,931	5576/517	CUSTOMER/ OTHER	
91-000739.0000	G & L MOBILE PARK	YUM	78			78	78	CUSTOMER	78			78	78	CUSTOMER	
91-000719.0000	GADSDEN WC	YUM	591			591	590	CUSTOMER	598			598	598	CUSTOMER	
91-000721.0000	GREEN ACRES WATER CO	YUM	NR							NR					
91-000730.0000	HIDDEN SHORES RV VILLAGE	YUM		396	39	435	39	CUSTOMER	NR						
91-000722.0000	JONES COOP WATER ASSOC	YUM	NR						9			9	9	CUSTOMER	
91-000729.0000	LAGUNA MHP	YUM	NR						NR						
91-000731.0000	LEMON TREE TRAILER PARK	YUM	4			4	4	CUSTOMER	NR						
91-000736.0000	LUCKY PARK DEL S	YUM	NR						NR						
91-000732.0000	ORANGE GROVE WATER CO INC	YUM	803			803	803	CUSTOMER	102			102	102	CUSTOMER	
91-000723.0000	RANCHEROS BONITOS	YUM	NR						NR						
91-000710.0000	SAN LUIS, CITY OF	YUM	3,366			3,366	2,027	CUSTOMER	3,195			3,195	3280	CUSTOMER	
91-000727.0000	SIERRA PACIFIC MOBILE MAN	YUM	8			8	8	CUSTOMER	NR						
91-000713.0000	SOMERTON, CITY OF	YUM	1,403			1,403	588	CUSTOMER	1,359			1,359	1203	CUSTOMER	
91-000724.0000	SUN LEISURE EST UTIL CO	YUM	11			11	11	CUSTOMER	14			14	13	CUSTOMER	
91-000738.0000	SUN-SET MOBILE TRAILER P	YUM	NR						1			1	1	CUSTOMER	
91-000725.0000	TIERRA MESA ESTATES WTR	YUM	NR						NR						
91-000735.0000	US ARMY YPG - MAIN ADMINISTRATIVE AREA	YUM	NR						673			673	106	CUSTOMER	
91-000726.0000	USMC-AIR STATION-MAIN	YUM	168		1,612	1,780	1,780	CUSTOMER	83			83	83	CUSTOMER	
91-000711.0000	VALLEY VISTA WATER CO	YUM	62			62	26/21	CUSTOMER/ OTHER	NR						
91-000734.0000	YUMA WEST MHP	YUM	NR						2			2	2	CUSTOMER	
91-000716.0000	YUMA, CITY OF	YUM	4,241	16,180		20,421	16,116/64	CUSTOMER/ SYSTEM	4,390	14,429		18,819	18,814/64	CUSTOMER/ SYSTEM	

**Community Water Systems that have submitted a plan to the
Department as of 12/2008**

PCC	NAME	Basin
91-000207	GILA BEND, TOWN OF	Gila Bend
91-000262	PALOMA RANCH	Gila Bend
91-000193	EAGLETAIL WATER CO, L.C.	Harquahala
91-000410	PHELPS DODGE - AJO IMPROVEMENT CO	Lower Gila
91-000412	AZ WATER CO - AJO WATER SYSTEM	Lower Gila
91-000441	WHY UTILITY CORPORATION	Lower Gila
91-000707	ANTELOPE WATER CO	Lower Gila
91-000708	DATELAND PUBLIC SERVICE	Lower Gila
91-000715	WELLTON, TOWN OF	Lower Gila
91-000718	DATELAND WATER L.L.C.	Lower Gila
91-000720	FISHERS LANDING INC	Lower Gila
91-000733	WELLTON-MOHAWK IRRIGATION	Lower Gila
91-000749	KEATON DEVELOPMENT CO	McMullen Valley
91-000741	MOOVALYA KEYS	Parker
91-000742	LAKESIDE	Parker
91-000743	MARINA VILLAGE	Parker
91-000744	PARKER, TOWN OF	Parker
91-000747	HILLCREST WATER COMPANY	Parker
91-000748	PARKER DAM	Parker
91-000750	BOUSE WORLEY WATER SYSTEM	Parker
91-000751	RIO LINDO	Parker
91-000752	HOLIDAY HARBOR	Parker
91-000754	QUARTZSITE, TOWN OF	Parker
91-000756	Q MOUNTAIN HOA	Parker
91-000036	DRAGOON WATER CO	San Simon Wash
91-000709	FAR WEST WATER CO	Yuma
91-000711	VALLEY VISTA WATER CO	Yuma
91-000713	SOMERTON, CITY OF	Yuma
91-000716	YUMA, CITY OF	Yuma
91-000719	GADSDEN WC	Yuma
91-000726	USMC-AIR STATION-MAIN	Yuma
91-000727	SIERRA PACIFIC MOBILE MANOR	Yuma
91-000728	ASPC YUMA	Yuma
91-000731	LEMON TREE TRAILER PARK	Yuma
91-000735	US ARMY YPG - MAIN ADMINISTRATIVE AREA	Yuma
91-000739	G & L MOBILE PARK	Yuma
91-000755	EHRENBERG IMPROVEMENT ASSN	Yuma

APPENDIX C

Appendix C: Arizona Colorado River Water Use: Present Perfected Right Holders and Priority 1-6 Contractors in the Lower Colorado River Planning Area

Entity	Type of Entitlement	Priority Date	Annual Diversion Entitlement (Acre-Feet) ¹	Annual Consumptive Use Entitlement (Acre-Feet) ¹
PRIORITY 1				
Satisfaction of Present Perfected Rights (PPRs) as defined and provided for in the <i>Arizona v. California</i> Decree (2006 Consolidated).				
Federal				
Cocopah Indian Reservation	PPR No. 1	9/27/1917	7,681	
	PPR No. 8	1915	1,140	
	Total		8,821	
Colorado River Indian Tribes Reservation	PPR No. 2	3/3/1865	358,400	
		11/22/1873	252,016	
		11/16/1874	51,986	
	Total		662,402	
Fort Yuma Indian Reservation	PPR No. 3a	1/9/1884	6,350	
Total			677,573	
Water Projects				
Yuma County Water Users' Association (<i>also has unquantified water right certificates</i>)	PPR No. 4	1901	254,200	
Unit "B" Irrigation and Drainage District (<i>also has unquantified water right certificates</i>)	PPR No. 5	7/8/1905	6,800	
North Gila Valley Irrigation District (<i>also has 3rd Priority consumptive use entitlement of 41,203 AF</i>)	PPR No. 6	7/8/1905	24,500	
Total			285,500	
Miscellaneous PPRs				
Powers	PPR No. 7	1915	960	
Molina	PPR No. 15	1928	318	
Gila Monster Farms, Inc. (<i>also has 6,285 AF of 3rd priority, 1,435 AF of 4th priority, 656 AF of 5th priority and an undetermined amount of 6th priority water - Contract No. 6-07-30-W0337</i>)	PPR No. 16	1925	780	
Phillips, Milton and Jean	PPR No. 19	1900	42	
Parker, Town of (<i>also has 1,030 AF of 4th priority and 2,000 AF of 5th and/or 6th priority water</i>)	PPR No. 20	1905	630	400
Yuma, City of (<i>also has a 3rd Priority consumptive use entitlement 48,522 AF</i>)	PPR No. 21	1893	2,333	1,478
Total			5,063	1,878
PRIORITIES 2 and 3				
Second and third priorities are coequal.				
Priority 2 - Satisfaction of Federal Reservations and Perfected Rights established or effective prior to September 30, 1968				
Priority 3 - Satisfaction of Entitlements pursuant to contracts between the United States and water users in Arizona executed on or before September 30, 1968				
Federal				
Ak-Chin Indian Community	AK-CHIN121180A	1/1/1956	50,000	
Cibola National Wildlife Refuge	Secretarial Reservation	8/21/1964	34,500	16,793
Department of the Navy - Marine Corps Air Station - Yuma	Contract No. 14-06-300-937	1/1/1959	3,000	
Department of the Army - Yuma Proving Grounds	Contract No. I76r-696	6/12/1951	1,129	
Imperial National Wildlife Refuge	1964 Supreme Court Decree	2/14/1941	28,000	23,000
Salt River Pima Maricopa Indian Community	SRPMIC021288N	3/4/1952	22,000	
Total			160,629	39,793

¹ For Priorities 1 through 3 and Priorities 5 and 6, the totals for diversion and consumptive use entitlements **are not** additive.

Appendix C: Arizona Colorado River Water Use: Present Perfected Right Holders and Priority 1-6 Contractors in the Lower Colorado River Planning Area (Cont)

Entity	Type of Entitlement	Priority Date	Annual Diversion Entitlement (Acre-Feet) ¹	Annual Consumptive Use Entitlement (Acre-Feet) ¹
PRIORITIES 2 and 3 (Continued)				
Water Projects				
Unit "B" Irrigation and Drainage District (<i>also has PPR for 6,800 AF</i>)	Water right certificates Contract No. 14-06-300-44	12/22/1952	Unquantified water right certificates	
North Gila Valley Irrigation District (<i>also has a PPR for 24,500 AF</i>)	Contract Nos. 14-06-W-54 14-06-W-102 14-06-300-1270 (<i>These 3 Districts share a consumptive use entitlement of 250,000 AF, which</i>)	1/1/1956		41,203
Yuma Irrigation District				67,278
Yuma Mesa Irrigation and Drainage District				141,519
Wellton-Mohawk Irrigation and Drainage District	Contract No. 1-07-30-W0021	3/4/1952		278,000
Yuma County Water Users' Association (<i>also has a PPR for 254,200 AF</i>)	Water right certificates Contract No. 14-06-300-621	4/1/1957	Unquantified water right certificates	
Total				528,000
Others				
Arizona, University of	Contract No. 14-06-300-144	1/1/1954	1,088	
C. Allec Company, Inc. (formerly Allec, Camille)	Contract No. 14-06-303-528	12/23/1953	120	
Desert Lawn Memorial Park Association (Cemetery in Yuma) (<i>also has 360 AF of 4th priority water for undeveloped land near Unit B</i>)	Contract No. 14-06-303-1079	5/1/1956	200	
Gila Monster Farms, Inc. (<i>also has 780 AF of 1st priority, 1,435 AF of 4th priority and 656 AF of 5th priority and an undetermined amount of 6th priority water</i>)	Contract No. 6-07-30-W0337	1/1/1952	6,285	
Kaman, Inc.	Contract No. 14-06-303-1555	12/2/1959	2	
Union Pacific Railroad Company (<i>formerly Southern Pacific Railroad Company</i>)	Contract No. 14-06-303-1524	12/21/1959	48	
Yuma, City of (<i>also has a PPR for 1,478 AF consumptive use</i>)	Contract No. 14-06-W-106	11/12/1959		48,522
Yuma, City of (Cemetery)	Contract No. 14-06-303-1078	5/1/1956	60	
Yuma Mesa Fruit Growers Association	Contract No. 14-06-303-1196	1/1/1956	15	
Yuma Union High School	Contract No. 14-06-303-179	5/3/1960	200	
Total			8,018	48,522
PRIORITY 4				
Satisfaction of Entitlements pursuant to: (i) contracts, Secretarial Reservations, and other arrangements between the United States and water users in the State of Arizona entered into or established subsequent to September 30, 1968, for use on Federal, State, or privately owned lands in the State of Arizona (for a total quantity of not to exceed 164,652 acre-feet of diversions annually); and (ii) Contract No. 14-06-W-245 dated December 15, 1972, as amended, between the United States and the Central Arizona Water Conservation District for the delivery of Mainstream Water for the Central Arizona Project, including use of Mainstream Water on Indian lands.				
Municipal and Industrial				
Arizona Game and Fish Commission (<i>entitlement is available for domestic & irrigation use. Also has 750 AF of fifth priority and 1,000 AF of sixth priority water</i>)	Contract No. 07-XX-30-W0509	9/25/2007	1,419	
Arizona State Land Department	Contract No. 7-07-30-W0358	2/2/2004	1,534	
B & F Investments, LLC	Contract No. 06-XX-30-W0453	10/25/2006	60	
Bureau of Land Management	Secretarial Reservations and IGA No. 8-07-30-W0373	8/30/1973		800
		9/29/1981		1,280
		4/27/1987		1,930
		6/13/2000		
		Total		4,010
Central Arizona Water Conservation District (CAP) (<i>Balance of Arizona Colorado River allocation, approximately 1.5 MAF/Year, Desert Lawn Memorial Park Association (Cemetery in Yuma) (also has 200 AF of 3rd priority water)</i>)	Contract No. 14-06-W-245	12/01/1988		
	Contract No. 14-06-300-2587	5/30/1975	360	
Ehrenberg Improvement Association	Contract No. 8-07-30-W0006	10/14/1977	500	
Fisher Landing Water and Sewer	Contract No. 06-XX-30-W0450	12/21/2006	53	
Gold Dome Mining Company	Contract No. 0-07-30-W0250	6/6/1990	7	
Gold Standard Mines Corporation	Contract No. 3-07-30-W0038	8/25/1983	75	

For Priorities 1 through 3 and Priorities 5 and 6, the totals for diversion and consumptive use entitlements **are not** additive.

Appendix C: Arizona Colorado River Water Use: Present Perfected Right Holders and Priority 1-6 Contractors in the Lower Colorado River Planning Area (Cont)

Entity	Type of Entitlement	Priority Date	Annual Diversion Entitlement (Acre-Feet) ¹	Annual Consumptive Use Entitlement (Acre-Feet) ¹
PRIORITY 4 (Continued)				
Municipal and Industrial (Continued)				
Parker, Town of (also has a PPR for 630 acre-feet, and 2,000 acre-feet of Priority 5 and/or Priority 6 water)	Contract No. 2-07-30-W0025	1/6/1998	1,030	
Quartzsite, Town of	Contract No. 7-07-30-W0353	1/28/1999	1,070	
Roy, Edward P.	Contract No. 9-07-30-W0124	2/24/1986	1	
Smucker Park	Contract No. 14-06-303-2702	11/12/1969	33	
Somerton, City of	Contract No. 3-XX-30-W0419	2/8/2006	750	
Verizon California, Inc. (formerly Continental Telephone of California)	Contract No. 14-06-300-2506	2/5/1974	1	
Water reserved by the Secretary for use in Indian settlements			3,500	
Total			10,393	4,010
Municipal and Industrial Recommendations				
Martinez Lake cabin sites - (had 87 AF of which 53 AF was allocated to Fisher Water and Sewer; 8 AF to Shepard Water; and 3 AF to ASLD)			23	
Shepard Water Company			50	
Total			73	
Agricultural				
Arizona State Land Department (also has 9,097 AF of 5th and/or 6th priority water)	Contract No. 4-07-30-W0317	6/28/1999	6,607	
Beattie Farms Southwest	Contract No. 5-XX-30-W0446	2/17/2006	1,110	
Cibola Valley Irrigation and Drainage District (includes 300 AF for M&I use and also has 1,500 AF of 5th priority and 2,000 AF of 6th priority water)	Contract No. 2-07-30-W0028	1/31/1983	12,066	
Cocophah Indian Reservation (lands south of Morelos Dam)	Contract No. 6-07-30-W0346 Supreme Court Decree	6/24/1974	2,026	
Curtis, Armon	Contract No. 3-07-30-W0037	8/29/1983	300	
Gila Monster Farms, Inc. (also has a PPR for 780 AF, 6,285 AF of 3rd priority, 656 AF of 5th priority and an undetermined amount of 6th priority water)	Contract No. 6-07-30-W0337 PPR No. 16	7/28/1997	1,435	
Hopi Tribe (also has 750 AF of 5th priority and 1,000 AF of 6th priority water)	Contract No. 4-XX-30-W0432	1/31/1983	5,997	
JRJ Partners LLC (formerly part of Dulin Farms)	Contract No. 06-XX-30-W0448	9/25/2007	1,080	
North Baja, LLC (formerly Jamar Produce) (408 AF for agricultural use; 72 AF for M&I use)	Contract No. 5-07-30-W0066	12/3/1984	480	
George Ogram, Ogram Farms	Contract No. 1-XX-30-W0398	9/4/2003	480	
Ogram Boys Enterprises (formerly known as GOBO Farms)	Contract No. 4-XX-30-W0402	7/1/2005	924	
Pasquinelli, Gary J. (Hall contract assigned and amended from 510 to 486 AF)	Contract No. 5-07-30-W0065	3/27/2003	486	
Rayner Ranches	Contract No. 5-07-30-W0064	10/29/1984	4,500	
Total			37,491	
Agricultural Recommendations				
CHA CHA, LLC (Amended contract includes: Auza Farms - 960 AF, Dulin Farms-West portion - 936 AF, and Youmans - 204 AF)			2,100	
Peach, John (formerly Bruce Church)			456	
Phillips, Milton and Jean			18	
Total			2,574	

¹ For Priorities 1 through 3 and Priorities 5 and 6, the totals for diversion and consumptive use entitlements **are not** additive.

Appendix C: Arizona Colorado River Water Use: Present Perfected Right Holders and Priority 1-6 Contractors in the Lower Colorado River Planning Area (Cont)

Entity	Type of Entitlement	Priority Date	Annual Diversion Entitlement (Acre-Feet) ¹	Annual Consumptive Use Entitlement (Acre-Feet) ¹
PRIORITY 5 AND 6				
Priority 5 - Satisfaction of Entitlements to any Unused Arizona Entitlement				
Priority 6 - Satisfaction of Entitlements to Surplus Apportionment Water				
Priority 5				
Arizona Game and Fish Commission (also has 1,419 AF of fourth priority and 1,000 AF of sixth priority water)	Contract No. 07-XX-30-W0509	9/25/2007	750	
Cibola Valley Irrigation and Drainage District (also has 12,066 acre-feet of 4th priority water and 2,000 AF of 6th Priority water)	Contract No. 2-07-30-W0028	1/31/1983	1,500	
Hopi Tribe (also has 5,997 AF of 4th Priority water and 1,000 AF of 6th Priority water)	Contract No. 04-XX-30-W0432	1/31/1983	750	
Gila Monster Farms, Inc. - 5th priority (also has a PPR for 780 AF, 6,285 AF of 3rd priority, 1,435 AF of 4th priority water)	Contract No. 6-07-30-W0337	7/28/1997	656	
Priority 5 and/or 6				
Arizona Public Service (Yucca Power Plant)	Contract No. 6-07-30-W0336	10/3/2000	1,500	
Arizona State Land Department (also has 6,607 acre-feet of 4th priority water)	Contract No. 4-07-30-W0317	6/28/1999	9,067	
Parker, Town of (also has PPR for 630 AF and 1,030 AF of 4th priority)	Contract No. 2-07-30-W0025	1/6/1998	2,000	
Priority 6				
Arizona Game and Fish Commission (also has 1,419 AF of fourth priority and 750 AF of fifth priority water)	Contract No. 07-XX-30-W0509	9/25/2007	1,000	
Cibola Valley Irrigation and Drainage District (also has 12,066 AF of 4th Priority water and 1,500 AF of 5th priority water)	Contract No. 2-07-30-W0028	1/31/1983	2,000	
Gila Monster Farms, Inc. - 6th priority (also has a PPR for 780 AF, 6,285 AF of 3rd priority, 1,435 AF of 4th priority)	Contract No. 6-07-30-W0337	7/28/1997	unspecified	
Hopi Tribe (also has 5,997 AF of 4th Priority water and 750 AF of 5th Priority water)	Contract No. 04-XX-30-W0432	1/31/1983	1,000	
Total			20,223	

COLOR KEY

A portion of the contractor lands are located in the Upper Colorado River Planning Area

¹ For Priorities 1 through 3 and Priorities 5 and 6, the totals for diversion and consumptive use entitlements **are not** additive.

APPENDIX D

APPENDIX D Colorado River Management

The “Law of the River” as described briefly below, is a collection of federal and state laws, interstate compacts, Supreme Court decisions and international treaties that govern the operation and use of the Colorado River. In the Lower Colorado River Basin, the United States Secretary of the Interior (Secretary) is the Watermaster. Acting through the Bureau of Reclamation, the Secretary operates Colorado River dams and accounts for water use on an annual basis. Pursuant to Section V of the Boulder Canyon Project Act, the Secretary contracts with water users in the Lower Basin for water up to the total amount of each state’s apportionment.

Colorado River Compact – 1922

In 1921, the seven Colorado River Basin states authorized the appointment of commissioners to negotiate a compact for the apportionment of the water supply of the Colorado River. Although the states were unable to negotiate an allocation of water for each state, an agreement was signed in November 1922, the Colorado River Compact (Compact) that divided the Colorado River Basin into the Upper Basin and the Lower Basin.

The Compact apportioned to the Upper Basin (Colorado, New Mexico, Utah, and a portion of Arizona) and to the Lower Basin (Arizona, California, and Nevada) the exclusive beneficial consumptive use of 7.5 million acre-feet of water to each basin annually. Because the Colorado River Basin includes a portion of Mexico, the Compact recognized Mexico’s right to use River water. Water for this purpose was to be met from surplus water supplies in excess of the amounts apportioned to the Upper and Lower Basins. Any burden that might arise because of a water treaty with Mexico was to be shared equally by the two basins. The Compact recognized that the ability of the Upper Basin to meet the requirement to deliver 7.5 million acre-feet to the Lower Basin could be impacted by climatic factors, therefore the Compact only required the Upper Basin to restrict its use so that delivery to the Lower Basin would not be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years.

Boulder Canyon Project Act - 1928

The Boulder Canyon Project Act (Project Act) authorized construction of the Hoover Dam and Power Plant and the All-American Canal. It also authorized Arizona, California and Nevada to enter into an agreement whereby the 7.5 million acre-feet of water apportioned to the Lower Basin by the Colorado River Compact would be apportioned as follows: to California, 4.4 million acre-feet per year; to Arizona, 2.8 million acre-feet per year; and to Nevada, 0.3 million acre-feet per year.

Treaty between the U.S. and Mexico – 1944

The water treaty between the United States and Mexico involving waters of the Colorado River (and the Rio Grande and Tijuana Rivers) was signed in 1944 and became effective November 8, 1945. The Treaty allocated to Mexico 1.5 million acre-feet of Colorado River system waters annually. The Treaty also provided an additional 200,000 acre-feet in years of supply surplus. In years of extraordinary drought, Mexico’s entitlement is to be reduced in the same proportion as consumptive uses in the U.S. are reduced.

Minute 242 was adopted and executed in 1973 in response to Mexico's concerns regarding the quality of Colorado River water being delivered to the Mexicali Valley. Minute 242 obligates the United States to implement measures that will maintain the salinity of the Colorado River waters delivered to Mexico at nearly the same quality as that diverted at Imperial Dam for use within the United States. The Colorado River Basin Salinity Control Act was signed into law on June 24, 1974, providing for the physical works necessary to implement Minute 242 without permanent loss of water to the Colorado River Basin states.

Upper Colorado River Basin Compact - 1948

This Compact divided the water apportioned to the Upper Basin by the Colorado River Compact between the five states with territory in the Upper Basin. Arizona was allocated 50,000 acre-feet per year with the remainder of the Upper Basin entitlement divided according to the following percentages: Colorado, 51.75; New Mexico, 11.25; Utah, 23.00; and Wyoming, 14.00.

Arizona v. California - 1964, U.S. Supreme Court Decree (Consolidated 2006)

On August 13, 1952, the State of Arizona filed a complaint with the U.S. Supreme Court against California and seven agencies within that state to resolve the contention by California that the Central Arizona Project should not be authorized. At California's insistence, the U.S. Congress would not authorize the Central Arizona Project until Arizona's right to the necessary Colorado River entitlement was clarified.

The Decree, handed down in 1964, confirmed that Congress had already apportioned, through the Boulder Canyon Project Act, the entitlement of water to the three Lower Basin states as follows: Arizona, 2.8 million acre-feet; California, 4.4 million acre-feet; and Nevada, 300,000 acre-feet. Any surplus above 7.5 million acre-feet was apportioned 50 percent to California and 50 percent to Arizona, except that Nevada was given the right to contract for 4 percent of the excess, which would come out of Arizona's share. The Decree also confirmed each of the Lower Basin state's entitlements to the flow of the tributaries within their boundaries, supporting Arizona's utilization of water from its in-state rivers, separate from its entitlement to its full 2.8 million acre-feet of Colorado River water.

The Decree left shortage allocation to the discretion of the Secretary after providing for satisfaction of present perfected rights in the order of their priority dates. These rights were defined as rights existing and used prior to the effective date of the Boulder Canyon Project Act. The allocation of shortages was later determined by Congress in the Colorado River Basin Project Act (1968).

Colorado River Basin Project Act - 1968

The Colorado River Basin Project Act on September 30, 1968 authorized construction of the Central Arizona Project and other water development projects in the Upper Basin. A significant concession was a provision that allowed existing California, Arizona, and Nevada Colorado River contractors to receive a priority over the Central Arizona project in times when the useable supply from the River was inadequate to provide 7.5 million acre-feet to the Lower Basin states, with California's priority limited to its 4.4 million acre-foot entitlement.

The Act directed the Secretary to propose criteria for the “coordinated long-range operation of the reservoirs” in the Upper Basin with the operation of the reservoirs in the Lower Basin. To accomplish this, the Act required the development of an Annual Operating Plan, in consultation with representatives of the seven Basin states.

Current Colorado River Issues

Shortage Criteria

In December 2007, the Secretary of the Interior signed the Record of Decision (ROD) on interim operating criteria (2008-2026) including the coordinated operation of Lakes Powell and Mead and criteria for implementing shortage reductions in the Lower Basin. At this time Lake Powell and Lake Mead are operated independently; annual Lake Powell water releases are determined based on applicable law and relevant factors contained in the Long-Range Operating Criteria. Proposed coordinated operation of the reservoirs would address two goals: avoid Lower Basin shortages and avoid curtailment of Upper Basin water use. If regional drought conditions continue shortage operations could begin as early as 2011.

In May 2005, Arizona water users asked ADWR to convene a stakeholder technical workgroup to develop a recommendation regarding appropriate Lower Basin shortage criteria and a strategy for apportioning shortage reductions between the Central Arizona Project (CAP) and equivalent priority mainstream Colorado River water users. In October, 2006 the Workgroup forwarded their recommendation to the Director, and with minor modifications it has been incorporated into the Reclamation Environmental Impact Study as part of the Basin States Alternative.

The modified shortage recommendation implements shortage reductions when Lake Mead water storage is depleted to key elevation triggers: In years when Lake Mead content is projected on January 1 to be at or below elevation 1075 ft and at or above 1050 ft, Arizona’s share of shortage reductions would be 320,000 acre-feet, below 1050 ft and at or above 1025 ft, 400,000 acre-feet and below 1025 feet elevation, 480,000 acre-feet. Reclamation will reconconsult with the states if conditions continue to worsen necessitating additional water supply reductions. The available shortage water supply would be apportioned within Arizona between the fourth priority mainstream water users and the CAP by first determining the mainstream available supply, based upon entitlement.

(Total fourth priority mainstream diversion entitlement = total fourth priority water supply before shortage reduction) X (total fourth priority water supply – shortage reduction volume)

The remaining fourth priority water supply after deducting the mainstream supply would be available for diversion by the CAP.

Entitlement Transfers

Arizona communities along the Colorado River have experienced explosive growth over the last decade. These Arizona communities are unique because groundwater is not readily available as a supplementary water supply to meet this growing demand. Regardless of whether Colorado River

water is diverted from the mainstream or pumped from wells that are hydraulically connected to the river, the water is legally Colorado River water, and annual use is limited to a defined, maximum amount.

The Boulder Canyon Project Act requires U.S. Colorado River water users in the Lower Basin to have a contract for such water with the Secretary of the Interior. The Regional Director of Reclamation contracts with Lower Basin water users on behalf of the Secretary. The Supreme Court Decree in *Arizona v. California* requires Reclamation to account annually for all diversions and use of Colorado River water against the total Arizona allocation of 2.8 million acre-feet.

To meet this growing domestic demand, some Colorado River communities have acquired, transferred and changed the type of use of existing agricultural water entitlements. For non-federal Arizona contractors of mainstream Colorado River entitlements, these transfer actions are subject to review by the ADWR and consultation with ADWR and Reclamation. The Department has developed a substantive policy statement titled *Policy and Procedures for Transferring an Entitlement of Colorado River Water* that provides information regarding the Department's review of a proposed transfer action. This policy is available on the Department's website at www.azwater.gov. To date, using its substantive policy statement, the Department has made three assignment and two conveyance recommendations involving agricultural water entitlements. The Department is currently experiencing increasing contact from entities that are interested in the acquisition and conversion of agricultural entitlements to municipal and industrial uses and it expects to process additional contract transfer requests in the future.

A separate substantive policy statement governs the transfer of CAP subcontract entitlements within the three county CAP service area. The Revised Policy Regarding Transfer of Central Arizona Project Municipal and Industrial Water Subcontract Entitlements describes the criteria the Department evaluates and the priority of proposed transfer actions. This policy is also available on the Department's website at www.azwater.gov. Growth in the CAP service area has resulted in increased use of existing CAP subcontract water, and the Department expects few future transfer action proposals.

Lower Colorado River Planning Area Entitlement Transfer Actions

The following are a list of assignment and conveyances that have been conducted in accordance with the Department's Colorado River transfer policy that affects entities in the Lower Colorado River Planning Area. All involve a series of assignments and conveyances that began with the initial partial assignment of Cibola Valley Irrigation and Drainage District's entitlement in 2004. Since that time, two assignment and seven conveyance actions have been completed in the planning area. See Appendix B for a complete list of Colorado River entitlements within the planning area.

1. Through several assignment actions, Cibola Valley Irrigation and Drainage District (CVIDD) has reduced its entitlement from 24,120 acre-feet of 4th priority, 3,000 acre-feet of 5th priority and 4,000 acre-feet of 6th priority to its current entitlement of 9,366 acre-feet of 4th priority, 1,500 acre-feet of 5th priority and 2,000 acre-feet of 6th priority. In December 2004, CVIDD assigned 5,997 acre-feet of 4th priority each to The Hopi Tribe and to Mohave County Water Authority (MCWA). Both entities also acquired 750 acre-feet of 5th priority and 1,000 acre-feet of 6th priority

entitlement. In 2006, CVIDD assigned 60 acre-feet of 4th priority entitlement to Cibola Resources and in 2008 assigned another 2,700 acre-feet of 4th priority to Arizona Recreational Facilities, Inc. CVIDD's 4th priority entitlement includes 300 acre-feet for domestic water uses.

2. In December 2004, the Mohave County Water Authority (MCWA) was assigned 5,997 acre-feet of 4th priority, 750 acre-feet of 5th priority and 1,000 acre-feet of 6th priority irrigation entitlement from CVIDD. On July 6, 2007, MCWA conveyed its 4th priority entitlement for M&I use in its Mohave County contract service area, but retained its ability to use the entitlement for irrigation use on its Cibola Valley farmland until it was needed for use in Mohave County. On September 25, 2007 the MCWA conveyed 1,419 acre-feet of 4th priority, 750 acre-feet of fifth priority and 1,000 acre-feet of sixth priority entitlement to the Arizona Game and Fish Commission (AGFC) to use for Multi-Species Conservation Program (MSCP) purposes on the associated Cibola Valley land that it acquired simultaneously from MCWA. In June 2008, MCWA conveyed a total of 300 acre-feet of 4th priority entitlement. The first 50 acre-feet were conveyed to Springs del Sol Water Improvement District, while 250 acre-feet were conveyed to La Paz County.

3. In December 2004, The Hopi Tribe was assigned 5,997 acre-feet of 4th priority, 750 acre-feet of 5th priority and 1,000 acre-feet of 6th priority irrigation entitlement from CVIDD. On October 9, 2008, The Hopi Tribe conveyed 1,419 acre-feet of its 5,997 acre-feet 4th priority entitlement to the AGFC. In June 2008, it conveyed 50 acre-feet to Springs del Sol Water Improvement District, while 250 acre-feet were conveyed to La Paz County.

4. On October 25, 2006, 60 acre-feet of 4th priority entitlement was conveyed to B&F Investment LLC from Cibola Resources, Inc. Cibola Resources had initially acquired the 60 acre-feet from CVIDD and immediately transferred the entitlement to B&F for domestic use in the Ehrenberg area.

Note:

Assignments: Entitlement is assigned to a new entity, the type and place of use remain the same.

Conveyances: Entitlement may or may not be transferred to a new entity, but the place of use and/or the type of use is changed.

Inadvertent Overrun and Payback Policy

In October 2003, the Secretary of the Interior signed the Record of Decision to implement the Colorado River Water Delivery Agreement (WDA). The WDA includes the Inadvertent Overrun and Payback Policy (IOPP) to identify inadvertent overruns and to establish procedures to account for overruns and define subsequent payback requirements for Colorado River water users in the Lower Basin.

Inadvertent overruns occur when Colorado River water is diverted, pumped or received by an entitlement holder in excess of the water user's entitlement for that year. The IOPP creates a process and criteria to structure payback of the amount of water received in excess of the entitlement for that year.

Federal Rulemaking to Establish the Accounting Surface

In August 2006, Reclamation initiated a rulemaking process to regulate the non-contract use of Colorado River water in the Lower Basin. The Boulder Canyon Project Act requires U.S. Colorado River water users in the Lower Basin to have a contract for such water with the Secretary of the Interior. The Regional Director of Reclamation contracts with Lower Basin water users on behalf of the Secretary. The Supreme Court Decree in *Arizona v. California* requires Reclamation to account annually for all diversions and use of Colorado River water against the total Arizona allocation of 2.8 million acre-feet.

The rulemaking is intended to ensure that all Colorado River water use is covered by an entitlement and correctly accounted for within the state's apportionment. Reclamation has contracted with the U.S. Geological Survey, to document non-contract water uses in the Lower Basin. The rule will establish the methodology that Reclamation will use to determine if a well is pumping Colorado River water and will also establish an appeal process. At this time, approximately 11,500 acre-feet of unallocated fourth-priority Colorado River water is available for allocation. Some of this water will be allocated to existing uses, after currently uncontracted uses have been quantified. The inventory is expected to provide comprehensive information about existing water uses that need an entitlement. The Department will use this information to allocate the remaining supply for domestic purposes.

Yuma Desalination Plant

One unintended consequence of utilizing Colorado River water for domestic and agricultural purposes has been the steady increase in the salinity of its waters. The salinity problem created international discord in the 1960's when crops in the Mexicali Valley were damaged by the high salinity of the Colorado River water used for irrigation. An amendment to the 1944 treaty with Mexico guaranteed that the treaty water delivery would be no more than 115 ppm (+/- 30 ppm) more saline than the water diverted at Imperial Dam.

To comply with this requirement, the U.S. implemented a number of measures including re-routing drainage water from the Wellton-Mohawk Irrigation and Drainage District (WMIDD), to the Cienega de Santa Clara in Mexico. The U.S. also built a \$250 million desalinization plant in Yuma to treat WMIDD drainage water, before returning it to the mainstream. The Yuma Desalinization Plant (YDP) was completed in 1992, operated briefly in 1993 and then put on standby status until a recent "demonstration run" in 2007.

Wellton-Mohawk drainage water that is bypassed each year to the Cienega, is not counted against the total amount of Colorado River water that must be delivered to Mexico under the terms of the Treaty. In dry years, this results in Lake Mead storage decreasing by approximately 100,000 acre-feet annually since the bypassed water must be "made-up" from storage in Lake Mead. Recently, the decrease in Lake Mead storage after more than a decade of drought has increased the risk of shortage to Arizona Colorado River water users.

Operation of the YDP and the subsequent discharge of treated water to the Colorado River to meet U.S. Treaty obligations with Mexico would significantly reduce water flow to the Cienega. In 2004, the Yuma Desalination Plant/Cienega de Santa Clara Workgroup was formed to identify

and develop potential strategies to maintain the Cienega while making the treated irrigation return flows available for delivery as part of Mexico's allocation. Workgroup recommendations, which were released in April, 2005, identify a combination of various methods for bypass recovery or replacement that could meet these objectives.

In 2007, Reclamation conducted a demonstration run of the YDP by operating it at about ten percent capacity for three months. The purposes of the run were to test new equipment, acquire current operational data, and identify design deficiencies to better determine whether the facility could reliably and efficiently be operated on a long-term basis. Although the study results were favorable, it was determined that to obtain more conclusive information, the plant needed to be operated at a scale and for a duration which covers seasonal variations associated with chemical use and power consumption. As a result, Reclamation plans to conduct a second pilot run of the facility. During this pilot run, which is scheduled to be initiated in May 2010, the plant will operate at up to one-third capacity for 365 operating days during a 12- to 18-month period.

During this demonstration run, flows bypassed to the Cienega will be reduced by up to 29,000 acre-feet, while salinity levels will increase by about 540 parts per million. Reclamation, through the International Boundary and Water Commission, initiated consultation with Mexico regarding the proposed pilot project.

As a result this consultation, a Joint Report dated July 17, 2009 was drafted. The U.S., Mexico, and other non-governmental parties have committed to offsetting the reduced bypass flows with up to 30,000 acre-feet of water and to participate in the Colorado River Joint Cooperative Process to further identify and develop potential long-term strategies for maintaining environmental values associated with the Cienega.

Salinity

Increased salinity levels in the Colorado River affect agricultural, municipal and industrial users. Agricultural water users suffer economic damage due to reduced crop yields, added labor costs for irrigation management and added drainage requirements. Urban users must replace plumbing and water-using appliances more often, or spend money on water softeners or bottled water. Industrial users and water and wastewater treatment facilities incur reductions in the useful life of system infrastructure. Damages in the United States are estimated at \$330 million per year, and while economic damage in Mexico is not quantified it is also a significant concern.

In 1972, EPA required development of water quality standards for salinity in the Colorado River in accordance with Clean Water Act Section 303. The seven Colorado River Basin States formed the Colorado River Basin Salinity Control Forum (the Forum) in 1973. The Forum has developed numeric salinity standards for three locations in the Lower Basin as well as a basin-wide plan of implementation. The EPA has approved the standards and the plan of implementation adopted by the Colorado River Basin States. The water quality standards establish a flow-weighted average annual salinity standard that must be maintained on the lower Colorado River at the following locations:

Below Hoover Dam (to Parker Dam) - 723 mg/L

Below Parker Dam (to Imperial Dam) - 747 mg/L

At Imperial Dam - 879 mg/L

Implementation of the salinity control plan has ensured compliance with the numeric criteria while the Basin States continue to develop the water allocated to them by the Colorado River Compact. Millions of dollars have been spent to prevent 1.9 million tons of salt from entering the river.

Other Water Quality Issues

In 2005, the Governor of Arizona appointed The Clean Colorado River Alliance (Alliance) stakeholder group to address water quality issues for the Colorado River. In addition to salinity, the Alliance identified several other water quality concerns including nutrients, metals, endocrine disrupting compounds, perchlorate, bacteria and pathogens, and sediment. The Alliance issued a report titled Clean Colorado River Alliance Recommendations to Address Colorado River Water Quality, January 2006. The report includes a number of recommendations to monitor and mitigate the impacts of these pollutants.

APPENDIX E

APPENDIX E

SURFACE WATER RIGHT AND ADJUDICATION FILINGS

Surface water is defined in Arizona as “waters of all sources, flowing in streams, canyons, ravines or other natural channels, or in definite underground channels, whether perennial or intermittent, floodwaters, wastewaters, or surplus water, and of lakes, ponds and springs on the surface” (A.R.S. § 45-101).

In 1864, the first territorial legislature of Arizona adopted the doctrine of prior appropriation to govern the use of surface water. The doctrine is based on the tenet of “first in time, first in right” which means that the person who first puts the water to beneficial use acquires a right that is superior to later appropriators of the water. Since the population and water use were both relatively small at that time, no method was initially specified by the legislature for filing surface water right claims or granting rights. By the late 1800s, rapid development of irrigated agriculture combined with drought years had resulted in severe water shortages along the Salt and Gila Rivers. The territorial legislature responded in 1893 with a requirement that new water appropriations be posted at the point of diversion. However, until 1919, a person could acquire a surface water right simply by applying the water to beneficial use and recording a notice of appropriation at the state and country recorder’s office. There still was not a mechanism for granting surface water rights (ADWR, 1992).

On June 12, 1919, the state legislature enacted a surface water code. Now known as the Public Water Code, the law generally requires that a person apply for and obtain a permit in order to appropriate surface water. There is an exception for water use from the mainstem of the Colorado River, which requires a contract with the Secretary of the Interior. In addition, most persons claiming surface water rights prior to the code have been required to file a statement of claim under the Water Rights Registration Act of 1974, although the act did not provide a process for determining the validity of these claims. The legislature also enacted the Stockpond Registration Act in 1977 to recognize certain unpermitted stockponds constructed after 1919 that had not gone through the application process.

The Public Water Code provides that beneficial use shall be the basis, measure and limit to the use of water within the state. Beneficial uses are domestic (which includes the watering of gardens and lawns not exceeding one-half acre), municipal, irrigation, stockwatering, water power, recreation, wildlife including fish, nonrecoverable water storage, and mining uses (A.R.S. § 45-151(A)). The quantity of water that is reasonable for a particular beneficial use depends on a number of factors, including the location of the use.

The Department maintains a registry of surface water right applications and claims filed in Arizona since the Public Water Code was enacted. Each filing is assigned a unique number with one of the following prefixes

- “3R” – application to construct a reservoir filed before 1972;
- “4A” – application to appropriate surface water filed before 1972;
- “33” – application for permit to appropriate public water or construct a reservoir filed after 1972. In addition to surface water diversions and reservoirs, instream flow maintenance

can be applied for and is defined as a surface water right that remains in-situ or “in-stream”, is not physically diverted or consumptively used, and is for maintaining the flow of water necessary to preserve wildlife, including fish, and/or recreation;

- “36” – statement of claim of rights to use public waters of the state. To make this claim, an applicant or predecessor-in-interest must have initiated a water use based on state law before March 17, 1995;
- “38” – claim of water right for a stockpond and application for certification filed for stockponds constructed after June 12, 1919 and before August 27, 1977. To file this claim and application, the stockpond should have been used exclusively for watering of livestock and/or wildlife, have a maximum capacity of 15 acre-feet, and not be subject to water rights litigation or protests prior to August 27, 1977;
- “39” – statement of claimant filed in *The General Adjudication of the Gila River System and Source* (Gila Adjudication) and *The General Adjudication of the Little Colorado River System and Source* (LCR Adjudication). As explained further below, the Department maintains a separate registry of these filings on behalf of the Superior Court of Arizona; and,
- “BB” – decreed water rights determined through judicial action in state or federal court.

These filings specify the source of water, its point of diversion (POD) and place of use (POU), the type and quantity of water use, and date of first use or priority.

If, after moving through a number of administrative steps, an application to appropriate surface water or construct a reservoir (3R, 4A, or 33) is determined to be for beneficial use and not conflict with vested rights or be a menace to public safety or against the interests and welfare of the public, it may be approved and the applicant issued a permit to appropriate. The permit allows the permit holder to construct diversion works, as needed, and put the water to beneficial use. If the terms of the permit are met, the applicant can submit proof of appropriation through an application of certification and may be issued a Certificate of Water Right (CWR). The CWR has a priority date that relates back to the date of application and is evidence of a perfected surface water right that is superior to all other surface water rights with a later priority date, but junior to all rights with an earlier (older) priority date. The CWR also specifies the extent and purpose of the right and may be subject to abandonment and forfeiture if not beneficially used. There are currently approximately 850 applications to appropriate pending with ADWR, and approximately 420 permits and over 7,000 certificates have been issued by ADWR or its predecessors.

A CWR may also be issued based on a stockpond claim (38) if it is found that the facts stated in the claim are true and entitle the claimant to a water right for the stockpond. The priority date depends on the date that the owner of the stockpond filed the claim. If filed prior to March 17, 1996, the priority date is the date of construction. Otherwise, the priority date is the date of filing the claim. Regardless of the date, the CWR for a stockpond claim is junior to (a) Colorado River and other court decreed rights; (b) other rights acquired prior to June 12, 1919 and registered as a statement of claim; and (c) any other CWR issued pursuant to an application filed before August 27, 1977. To date, nearly 20,000 stockpond claims have been filed of which over 3,000 stockpond certificates have been issued by ADWR or its predecessors.

Unlike a CWR, the act of filing a statement of claim (36) does not in itself create a water right, nor does it constitute a judicial determination of the claim. Statements of claim are subject to

challenge, but can be admitted “in evidence as a rebuttal presumption of the truth and accuracy of the information contained in the claim” (A.R.S. § 45-185). To date, nearly 30,000 statements of claim have been filed in Arizona.

In addition to the applications and claims described above, ADWR’s registry of surface water right filings includes several rights determined through judicial action in state or federal court. These ‘adjudications’, in which a water right is determined by court action, may be initiated when one or more water users seek to know how their rights compare to the rights of other water users and/or seek judicial relief from alleged interference with their rights by other water users. The court process establishes or confirms the validity of surface water rights and claims, determines whether these have been properly maintained over the years, and ranks them according to their priority. The result is a decree that may, in addition to establishing and confirming rights, specifies terms under which the decreed rights may be exercised if water shortages occur. Court decreed rights are considered the most valued or certain surface water rights because in the absence of abandonment or forfeiture, they are normally accepted as to their validity. More than 1,000 court-decreed rights are listed in ADWR’s registry and given the prefix “BB”. Further discussion of the major court decrees is provided in Volume 1.

Although several surface water uses have been decreed, many claims and rights established before and after statehood have still not been examined to see if they remain valid. In addition, many water rights established under federal law and claimed by Indian tribes and the United States have not been quantified or prioritized. To better manage water resources in the state, these diverse rights and claims have been joined into large, comprehensive determinations.

Arizona currently has two general stream adjudications – the Gila Adjudication and the LCR Adjudication. The purpose of these judicial proceedings is to determine the nature, extent, and priority of water rights across the entire river systems. In addition to confirming existing state-based surface water rights, the adjudications will quantify and prioritize reserved water rights for Indian and non-Indian federal lands. The latter include military bases, national parks and monuments, and national forests. The adjudications will also determine which wells are pumping appropriable underground water (subflow) and therefore are subject to the jurisdiction of the court. The Gila and LCR Adjudications are being conducted in the Superior Court of Arizona in Maricopa and Apache Counties, respectively. ADWR provides technical, legal and administrative support to the adjudication court, as described in A.R.S. § 45-256.

The Gila Adjudication was initiated in 1974 when SRP filed a petition to determine the water rights in the Salt River Watershed above the Granite Reef Diversion. Since that time, the adjudication area has grown and now covers over 53,000 square miles. It is divided into 7 watersheds and includes 12 Indian reservations and over 24,000 parties. The LCR Adjudication was initiated by a petition filed by Phelps Dodge in 1978. This adjudication now covers 27,000 square miles and includes 3 watersheds, 5 Indian reservations, and over 3,000 parties. A party is a person or entity that has filed one or more statement of claimant (SOC) in the adjudication.

All parties who claim to have a water right within the river systems are required to file an SOC or risk the loss of their right. Well owners are also encouraged to file an SOC since the adjudication process may include water use from a well depending on the well’s location relative to streams and

other factors. However, a person does not obtain a right to use water by filing an SOC nor is an SOC a legal permit to use water. Rights to use water must be acquired in accordance with state or federal law.

Each year, ADWR sends summons to new surface water appropriators and well owners in the adjudication areas that direct them to file an SOC. In response, the number of SOCs filed in the adjudications continues to increase as new water uses are initiated. To date, nearly 81,000 SOCs have been filed in the Gila Adjudication and over 14,000 SOCs have been filed in the LCR Adjudication. ADWR maintains a separate registry of these adjudication filings on behalf of the Superior Court and assigns each a unique number with the prefix “39”.

Figure E-1 General Stream Adjudications in Arizona

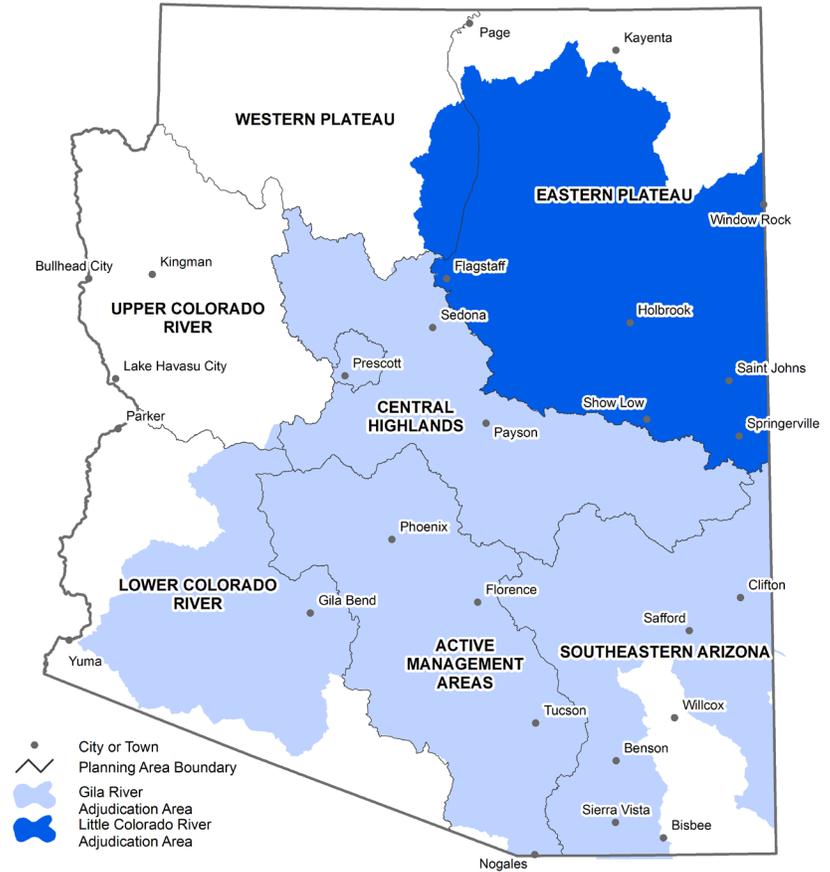


Table C-1 summarizes the number of surface water right and adjudication filings for each planning area. The table was generated by querying ADWR’s surface water right and SOC registries in February 2009. Files are only counted in the table if they include sufficient locational information (Township, Range, and Section) to allow a POD and/or POU to be mapped within the planning area. If a file lists more than one POD or POU in a planning area, it is only counted once in the table for that planning area. However, no attempt was made to avoid counting multiple filings for the same POD/POU which can result if a landowner or lessee has two or more filings or if different applicants each have at least one filing. Since many SOCs list surface water right filings as their basis of claim, multiple filings are common and account, in part, for the large number of filings. Sorting through multiple filings is one of the challenges facing the Department and the adjudication courts. Results from the Department’s investigation of surface water right and adjudication filings are presented in Hydrographic Survey Reports (HSRs).

Figure C-2 shows the location of surface water diversion points listed in the Department’s surface water rights registry. The numerous points mapped reflect the relatively large number of stockpounds and reservoirs that have been constructed across the state as well as diversions from streams and springs. Locations for registered wells, many of which are referenced as the basis of claim in SOCs, are also shown in Figure C-2. Instream flow filings are not shown as these filings do not have points of diversion.

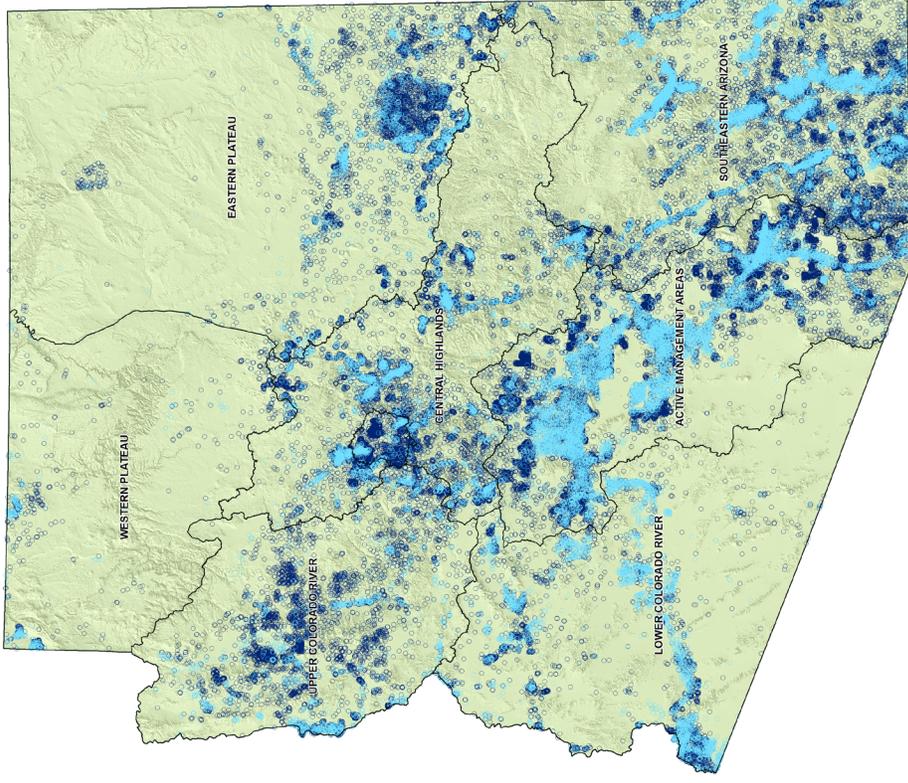
Table E-1 Count of Surface Water Right and Adjudication Filings by Planning Area¹

PLANNING AREA	TYPE OF FILING						TOTAL	
	BB ²	3R ³	4A ³	33 ³	36 ⁴	38 ⁵		39 ⁶
Eastern Plateau	134	163	196	373	3,289	3,275	12,099	19,529
Southeastern	483	395	716	898	8,288	6,415	19,288	36,483
Upper Colorado River	0	224	329	469	2,858	2,084	0	5,964
Central Highlands	1	287	625	897	8,517	3,928	25,443	39,698
Western Plateau	0	415	207	554	1,177	1,270	324	3,947
Lower Colorado River	0	26	48	86	355	304	2,323	3,142
Active Management Areas	1	269	341	687	4,072	2,913	27,134	35,417
Total	619	1,779	2,462	3,964	28,556	20,189	86,611	144,180

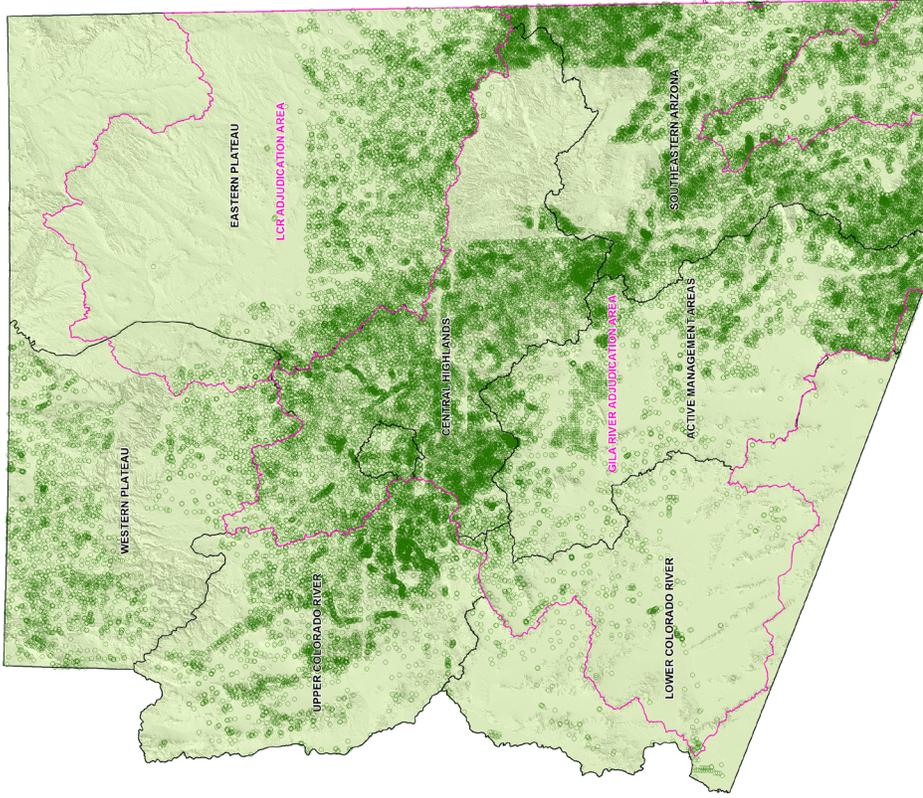
Notes:

- ¹ Based on a query of ADWR's surface water right and adjudication registries in February 2009. A file is only counted in this table if it provides sufficient information to allow a Point of Diversion (POD) and/or Place of Use (POU) to be mapped within the planning area. If a file lists more than one POD or POU in a given planning area, it is only counted once in the table for that planning area. Several surface water right and adjudication filings are not counted here due to insufficient locational information. However, multiple filings for the same POD/POU are counted.
- ² Court decreed rights; not all of these rights have been identified and/or entered into ADWR's surface water rights registry.
- ³ Application to construct a reservoir, filed before 1972 (3R); application to appropriate surface water, filed before 1972 (4A); and application for permit to appropriate public water or construct a reservoir, filed after 1972 (33).
- ⁴ Statement of claimant of rights to use public waters of the state, filed pursuant to the Water Rights Registration Act of 1974.
- ⁵ Claim of water right for a stockpond and application for certification, filed pursuant to the Stockpond Registration Act of 1977.
- ⁶ Statement of claimant, filed in the Gila or LCR General Stream Adjudications.

Wells



Surface Water Points of Diversion



- Planning Area Boundary
- Wells**
- Non-Exempt Well
- Exempt Well
- Surface Water POD
- Adjudication Watershed Boundary

**Figure E-2
Registered Wells and Surface
Water Diversion Points in Arizona**

