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## **ATTACHMENT Q**

### **Ten Tribes Depletion Schedule**

This attachment contains a summary of Tribal water demands of the Ten Tribes Partnership used in FEIS modeling in the Colorado River Simulation System (CRSS). This listing has been updated from that presented in the DEIS.

## **Attachment Q Ten Tribes Depletion Schedules**

This attachment was derived from information sent to Reclamation from the Ten Tribes Partnership, as well as conversations held directly with representatives of the Jicarilla Tribe. As discussed in the DEIS, the CRSS model was altered to directly represent the scheduled diversions for the Ten Tribes.

### **Upper Basin Tribal Water Rights and Diversions**

Table Q-1 lists the water rights and diversion locations of the Ten Tribes members in the Upper Basin, whose diversions are part of the Upper Division states apportionments. For each tribe, the table lists the diversion points which are represented in the CRSS model, the current annual volumes of diverted water (estimated 2000 volumes), and the full Colorado River water right held by the Tribe. As discussed in Section 3.14, the water rights are usually based on the amounts of agricultural acreage cited. Table Q-2 lists, for each Tribe, the current and projected depletions at each model demand node (representing each diversion point) used in model analysis. The depletions for each diversion point consist of the withdrawal from the river system minus the return flow to the river system, both of which are cited on the table.

Because each Tribal diversion is attributed to one of the Upper Basin states, the state diversion and depletion schedules used in the model include the Tribal diversions and depletions. Interim surplus criteria had no effect on Upper Basin deliveries, as expected, including the Indian demands above Lake Powell. As noted in Section 3.4.4.4, the normal delivery schedules of all Upper Basin diversions would be met under most water supply conditions. An Upper Basin diversion would be shorted only under periods of low hydrologic conditions and inadequate regulating reservoir storage capacity upstream of the diversion points. The model is not presently configured to track the relative priorities under those conditions. However, such effects are identical under baseline conditions and all alternatives.

### **Lower Basin Tribal Water Rights and Diversions**

Table Q-3 lists the water rights and diversion locations of the Ten Tribes members in the Lower Basin, whose diversions are part of the Lower Division states normal apportionments. For each tribe, the table lists the diversion points which are represented in the CRSS model, the current annual volumes of diverted water (estimated 2000 volumes), and the full Colorado River water right held by the Tribe. As discussed in Section 3.14, the water rights are usually based on the amounts of agricultural acreage cited. Table Q-4 lists, for each Tribe, the current and projected depletions at each model demand node (representing each diversion point) used in model analysis. The depletions for each diversion point consist of the withdrawal from the river system minus the return flow to the river system, both of which are cited on the table.

Because each Tribal diversion is attributed to one of the Lower Basin states, the state diversion and depletion schedules used in the model include the Tribal diversions and depletions. Under normal conditions, deliveries to the Lower Basin are always equal to the normal depletion schedules, including those for the Indian tribes. Under shortage conditions, only CAP and SNWA share in the shortage until CAP goes to zero (which was not observed in any of the modeling runs done for this FEIS). Therefore, all tribes in the Ten Tribes Partnership in the Lower Basin receive their scheduled depletion amounts with the exception of the Cocopah Tribe, which has some Arizona Priority 4 water. However, the model is currently configured to assign all Priority 4 shortages to CAP, not other Priority 4 water users, as discussed in Section 3.4.4.4.

Table Q-1  
Summary of Ten Tribes Partnership Water Rights and Diversion Locations in the Upper Basin

Tribe	State	River Basin	Point Description	Current		Full Right	
				Withdrawal (kaf)	Irrigated Acres	Allocated (kaf)	Allocated Acres
Northern Ute	Utah	Green	Ute Indian Uses Since 1965	12	3000	12	3000
Northern Ute	Utah	White	Ute Indians Compact (White River)	0	0	63	13192
Northern Ute	Utah	Green	Ute Indians Compact (Green River)	20	4350	124	27280
Northern Ute	Utah	Duchesne	Ag Abv Randlett-PI-Ag - Ute	218	66074	218	66074
Northern Ute	Utah	Duchesne	New Indian Lands - Ute Indian Compact	0	0	54	8726
			<b>Northern Ute Tribal Totals</b>	250	73424	471	118272
Navajo	Arizona	San Juan	Gallup-Navajo Indian Water Supply-Tem	0	0	5	M&I
Navajo	New Mexico	San Juan	Navajo Indian Irrigation Project	183	63881	338	110630
Navajo	New Mexico	San Juan	Animas-LP New Mexico M&I - Navajo	0	0	5	M&I
Navajo	New Mexico	San Juan	Gallup Mun. Water Supply Proj.-Navajo	0	0	18	M&I
Navajo	New Mexico	San Juan	New Mexico Ag Hogback - Cudei	20	4348	42	9130
Navajo	New Mexico	San Juan	New Mexico Ag Fruitland - Misc	12	2609	32	6957
			<b>Navajo Tribal Totals</b>	215	70838	440	126717
Jicarilla Apache	New Mexico	San Juan	Jicarilla Apache	4	1000	32	9500
Jicarilla Apache	New Mexico	San Juan	San Juan Thermal-(PNM) - Jicarilla Lease	16	0	0	M&I
Jicarilla Apache	New Mexico	San Juan	San Juan-Chama Export (Jicarilla Portion)	7		7	Transbasin
Jicarilla Apache	New Mexico	San Juan	Future Off-Reservation M&I Leases	0		8	M&I
			<b>Jicarilla Apache Tribal Totals</b>	27	1000	46	9500
Southern Ute	Colorado	San Juan	P.L.-Ag Colorado - So. Utes	42	13815	49	16328
Southern Ute	Colorado	San Juan	Animas-La Plata M And I - So. Utes	0	0	40	M&I
			<b>Southern Ute Tribal Totals</b>	42	13815	89	16328
Ute Mountain Ute	Colorado	San Juan	Animas-La Plata M And I - Ute Mntr	0	0	40	M&I
Ute Mountain Ute	Colorado	San Juan	Colorado Ag - Ute Mntr	2	500	27	6750
Ute Mountain Ute	Colorado	San Juan	Dolores Import - Ag Use - Ute Mntr	17	5415	23	7500
Ute Mountain Ute	Colorado	San Juan	Dolores Import - M And I - Ute Mntr	2	0	2	M&I
			<b>Ute Mountain Ute Tribal Totals</b>	21	5915	92	14250
			<b>Upper Basin Totals</b>	555	164992	1137	285067
			<b>Ten Tribes Partnership Totals</b>	1310	265941	2063	424715

Table Q-2  
 Summary of Ten Tribes Partnership Development Schedules in the Upper Basin

Tribe	State	River Basin	Point Description	Development Schedule by Year (kaf)										
				Water Type	2000	2005	2010	2015	2020	2025	2030	2040	2050	2060
Northern Ute	Utah	Green	Ute Indian Uses Since 1965	Withdrawal	12	12	12	12	12	12	12	12	12	12
				Depletion	6	6	6	6	6	6	6	6	6	6
				Return Flow	6	6	6	6	6	6	6	6	6	6
Northern Ute	Utah	White	Ute Indians Compact (White River)	Withdrawal	0	8	16	24	32	40	56	63	63	63
				Depletion	0	4	8	12	16	20	28	31	31	31
				Return Flow	0	4	8	12	16	20	28	32	32	32
Northern Ute	Utah	Green	Ute Indians Compact (Green River)	Withdrawal	20	30	42	54	68	84	100	124	124	124
				Depletion	10	15	21	27	34	43	50	63	63	63
				Return Flow	10	15	21	27	34	41	50	61	61	61
Northern Ute	Utah	Duchesne	Ag Abv Randlett-Pl-Ag - Ute	Withdrawal	218	218	218	218	218	218	218	218	218	218
				Depletion	109	109	109	109	109	109	109	109	109	109
				Return Flow	109	109	109	109	109	109	109	109	109	109
Northern Ute	Utah	Duchesne	New Indian Lands - Ute Indian Compact	Withdrawal	0	6	12	18	24	30	36	54	54	54
				Depletion	0	4	9	13	18	22	27	40	40	40
				Return Flow	0	2	3	5	6	8	9	14	14	14
			<b>Northern Ute Tribal Totals</b>	Withdrawal	250	274	300	326	354	384	422	471	471	471
				Depletion	125	138	153	167	183	200	220	249	249	249
				Return Flow	125	136	147	159	171	184	202	222	222	222

Table Q-2  
Summary of Ten Tribes Partnership Development Schedules in the Upper Basin

Tribe	State	River Basin	Point Description	Development Schedule by Year (kaf)										
				Water Type	2000	2005	2010	2015	2020	2025	2030	2040	2050	2060
Navajo	Arizona	San Juan	Gallup-Navajo Indian Water Supply-Tem	Withdrawal	0	0	5	5	5	5	5	5	5	5
				Depletion	0	0	5	5	5	5	5	5	5	5
				Return Flow	0	0	0	0	0	0	0	0	0	0
Navajo	New Mexico	San Juan	Navajo Indian Irrigation Project	Withdrawal	183	269	313	325	330	333	336	338	338	338
				Depletion	146	215	250	260	264	266	269	270	270	270
				Return Flow	37	54	63	65	66	67	67	68	68	68
Navajo	New Mexico	San Juan	Animas-LP New Mexico M&I - Navajo	Withdrawal	0	4	5	5	5	5	5	5	5	5
				Depletion	0	2	3	3	3	3	3	3	3	3
				Return Flow	0	2	2	2	2	2	2	2	2	2
Navajo	New Mexico	San Juan	Gallup Mun. Water Supply Proj.-Navajo	Withdrawal	0	5	10	14	18	18	18	18	18	18
				Depletion	0	5	10	14	18	18	18	18	18	18
				Return Flow	0	0	0	0	0	0	0	0	0	0
Navajo	New Mexico	San Juan	New Mexico Ag Hogback - Cudei	Withdrawal	20	24	26	28	32	36	42	42	42	42
				Depletion	10	12	13	14	16	18	21	21	21	21
				Return Flow	10	12	13	14	16	18	21	21	21	21
Navajo	New Mexico	San Juan	New Mexico Ag Fruitland - Misc	Withdrawal	12	14	16	18	22	26	32	32	32	32
				Depletion	6	7	8	9	11	13	16	16	16	16
				Return Flow	6	7	8	9	11	13	16	16	16	16
<b>Navajo Tribal Totals</b>				Withdrawal	215	316	375	395	412	423	438	440	440	440
				Depletion	162	241	289	305	317	323	332	333	333	333
				Return Flow	53	75	86	90	95	100	106	107	107	107

Table Q-2  
Summary of Ten Tribes Partnership Development Schedules in the Upper Basin

Tribe	State	River Basin	Point Description	Development Schedule by Year (kaf)										
				Water Type	2000	2005	2010	2015	2020	2025	2030	2040	2050	2060
Jicarilla Apache	New Mexico	San Juan	Jicarilla Apache	Withdrawal	4	11	11	11	11	11	11	11	11	11
				Depletion	2	7	7	7	7	7	7	7	7	7
				Return Flow	2	4	4	4	4	4	4	4	4	4
Jicarilla Apache	New Mexico	San Juan	*San Juan Thermal-(PNM) - Jicarilla Lease	Withdrawal	0	16	16	16	16	16	16	16	16	16
				Depletion	0	16	16	16	16	16	16	16	16	16
				Return Flow	0	0	0	0	0	0	0	0	0	0
Jicarilla Apache	New Mexico	San Juan	San Juan-Chama Export (Jicarilla Portion)	Withdrawal	7	7	7	7	7	7	7	7	7	
				Depletion	7	7	7	7	7	7	7	7	7	
Jicarilla Apache	New Mexico	San Juan	Future Off-Reservation M&I Leases	Withdrawal	0	3	3	4	4	4	4	4	4	
				Depletion	0	3	3	4	4	4	4	4	4	
			<b>Jicarilla Apache Tribal Totals</b>	Withdrawal	11	37	37	38	38	38	38	38	38	
				Depletion	9	33	33	34	34	34	34	34	34	
				Return Flow	2	4	4	4	4	11	11	11	11	
*The PNM lease begins in 2006														
Southern Ute	Colorado	San Juan	P.L.-Ag Colorado - So. Utes	Withdrawal	42	44	45	46	48	49	49	49	49	49
				Depletion	22	23	23	24	25	26	26	26	26	26
				Return Flow	20	21	22	22	23	23	23	23	23	23
Southern Ute	Colorado	San Juan	Animas-La Plata M And I - So. Utes	Withdrawal	0	4	6	9	12	16	20	26	33	40
				Depletion	0	2	3	5	6	8	10	13	17	20
				Return Flow	0	2	3	4	6	8	10	13	16	20
			<b>Southern Ute Tribal Totals</b>	Withdrawal	42	48	51	55	60	65	69	75	82	89
				Depletion	22	25	26	29	31	34	36	39	43	46
				Return Flow	20	23	25	26	29	31	33	36	39	43

Table Q-2  
Summary of Ten Tribes Partnership Development Schedules in the Upper Basin

Tribe	State	River Basin	Point Description	Development Schedule by Year (kaf)										
				Water Type	2000	2005	2010	2015	2020	2025	2030	2040	2050	2060
Ute Mountain Ute	Colorado	San Juan	Animas-La Plata M And I - Ute Mntn	Withdrawal	0	4	6	9	12	16	20	26	33	40
				Depletion	0	2	3	5	6	8	10	13	17	20
				Return Flow	0	2	3	4	6	8	10	13	16	20
Ute Mountain Ute	Colorado	San Juan	Colorado Ag - Ute Mntn	Withdrawal	2	4	6	8	10	12	14	18	22	27
				Depletion	1	2	3	4	6	7	8	11	15	19
				Return Flow	1	2	3	4	4	5	6	7	7	8
Ute Mountain Ute	Colorado	San Juan	Dolores Import - Ag Use - Ute Mntn	Withdrawal	17	19	20	21	23	23	23	23	23	23
				Depletion	13	15	16	17	18	18	18	18	18	18
				Return Flow	4	4	4	4	5	5	5	5	5	5
Ute Mountain Ute	Colorado	San Juan	Dolores Import - M And I - Ute Mntn	Withdrawal	2	2	2	2	2	2	2	2	2	2
				Depletion	1	1	1	1	1	1	1	1	1	1
				Return Flow	1	1	1	1	1	1	1	1	1	1
<b>Ute Mountain Ute Tribal Totals</b>				Withdrawal	21	29	34	40	47	53	59	69	80	92
				Depletion	15	20	23	27	31	34	37	43	51	58
				Return Flow	6	9	11	13	16	19	22	26	29	34

<b>Upper Basin Totals</b>				Withdrawal	555	704	797	854	910	968	1033	1100	1118	1137
				Depletion	349	457	524	562	595	622	659	698	710	720
				Return Flow	206	247	273	292	315	346	374	402	408	417
<b>Ten Tribes Partnership Totals</b>				Withdrawal	1310	1509	1663	1780	1836	1894	1959	2026	2044	2063
				Depletion	763	952	1097	1214	1247	1274	1311	1350	1362	1372
				Return Flow	547	557	566	566	589	620	648	676	682	691



Table Q-3  
Summary of Ten Tribes Partnership Water Rights and Diversion Locations in the Lower Basin

Tribe	State	River Basin	Point Description	Current		Full Right	
				Withdrawal (kaf)	Irrigated Acres	Allocated (kaf)	Allocated Acres
Fort Mojave	Nevada	Colorado	Fort Mohave Indian Res.(Nevada)	5	716	13	1939
Fort Mojave	Arizona	Colorado	Fort Mohave Indian Res.(Arizona)	81	10925	104	16018
Fort Mojave	California	Colorado	Fort Mohave Indian Res.(Calif.)	27	3354	17	2586
Fort Mojave	California	Colorado	Fort Mohave Land Development	0	0	0	0
			<b>Fort Mojave Tribal Totals</b>	113	14995	134	20543
Chemehuevi	California	Colorado	Chemehuevi Ind Res.	2	100	11	1900
			<b>Chemehuevi Tribal Totals</b>	2	100	11	1900
Colorado River	California	Colorado	CRIR Calif	5	3165	55	8213
Colorado River	Arizona	Colorado	CRIR Arizona	591	76633	662	99375
Colorado River	Arizona	Colorado	CRIR Pumped	0	0	0	0
			<b>Colorado River Tribal Totals</b>	596	79798	717	107588
Quechan	California	Colorado	Yuma Proj. Reservation Unit	31	3656.4	52	7743
			<b>Quechan Tribal Totals</b>	31	3656.4	52	7743
Cocopah	Arizona	Colorado	Cocopah Indian Reservation	13	2400	12	1874
Cocopah	Arizona	Colorado	Cocopah Indian Reservation	0	0	0	0
			<b>Cocopah Tribal Totals</b>	13	2400	12	1874
<b>Lower Basin Totals</b>				755	100949	926	139648
<b>Ten Tribes Partnership Totals</b>				1310	265941	2063	424715

Table Q-4  
Summary of Ten Tribes Partnership Development Schedules in the Lower Basin

Tribe	State	River Basin	Point Description	Development Schedule by Year (kaf)										
				Water Type	2000	2005	2010	2015	2020	2025	2030	2040	2050	2060
Fort Mojave	Nevada	Colorado	Fort Mohave Indian Res.(Nevada)	Withdrawal	5	13	13	13	13	13	13	13	13	13
				Depletion	2	8	9	9	9	9	9	9	9	9
				Return Flow	3	5	4	4	4	4	4	4	4	4
Fort Mojave	Arizona	Colorado	Fort Mohave Indian Res.(Arizona)	Withdrawal	81	92	104	104	104	104	104	104	104	104
				Depletion	36	60	73	73	73	73	73	73	73	73
				Return Flow	45	32	31	31	31	31	31	31	31	31
Fort Mojave	California	Colorado	Fort Mohave Indian Res.(Calif.)	Withdrawal	27	17	17	17	17	17	17	17	17	17
				Depletion	15	12	12	12	12	12	12	12	12	12
				Return Flow	12	5	5	5	5	5	5	5	5	5
Fort Mojave	California	Colorado	Fort Mohave Land Development	Withdrawal	0	0	0	0	0	0	0	0	0	0
				Depletion	0	0	0	0	0	0	0	0	0	0
				Return Flow	0	0	0	0	0	0	0	0	0	0
<b>Fort Mojave Tribal Totals</b>				Withdrawal	113	122	134	134	134	134	134	134	134	134
				Depletion	53	80	94	94	94	94	94	94	94	94
				Return Flow	60	42	40	40	40	40	40	40	40	40
Chemehuevi	California	Colorado	Chemehuevi Ind Res.	Withdrawal	2	5	8	11	11	11	11	11	11	11
				Depletion	1	3	5	8	8	8	8	8	8	8
				Return Flow	1	2	3	3	3	3	3	3	3	3
<b>Chemehuevi Tribal Totals</b>				Withdrawal	2	5	8	11	11	11	11	11	11	
				Depletion	1	3	5	8	8	8	8	8	8	
				Return Flow	1	2	3	3	3	3	3	3	3	
Colorado River	California	Colorado	CRIR Calif	Withdrawal	5	15	30	55	55	55	55	55	55	55
				Depletion	3	9	19	39	39	39	39	39	39	39
				Return Flow	2	6	11	16	16	16	16	16	16	16
Colorado River	Arizona	Colorado	CRIR Arizona	Withdrawal	591	612	637	662	662	662	662	662	662	662
				Depletion	327	367	414	463	463	463	463	463	463	463
				Return Flow	264	245	223	199	199	199	199	199	199	199
Colorado River	Arizona	Colorado	CRIR Pumped	Withdrawal	0	0	0	0	0	0	0	0	0	0
				Depletion	0	0	0	0	0	0	0	0	0	0
				Return Flow	0	0	0	0	0	0	0	0	0	0
<b>Colorado River Tribal Totals</b>				Withdrawal	596	627	667	717	717	717	717	717	717	
				Depletion	330	376	433	502	502	502	502	502	502	
				Return Flow	266	251	234	215	215	215	215	215	215	

Table Q-4  
Summary of Ten Tribes Partnership Development Schedules in the Lower Basin

Tribe	State	River Basin	Point Description	Development Schedule by Year (kaf)										
				Water Type	2000	2005	2010	2015	2020	2025	2030	2040	2050	2060
Quechan	California	Colorado	Yuma Proj. Reservation Unit	Withdrawal	31	38	45	52	52	52	52	52	52	52
				Depletion	17	23	29	36	36	36	36	36	36	36
				Return Flow	14	15	16	16	16	16	16	16	16	16
<b>Quechan Tribal Totals</b>				Withdrawal	31	38	45	52	52	52	52	52	52	52
				Depletion	17	23	29	36	36	36	36	36	36	36
				Return Flow	14	15	16	16	16	16	16	16	16	16
Cocopah	Arizona	Colorado	Cocopah Indian Reservation	Withdrawal	13	13	12	12	12	12	12	12	12	12
				Depletion	13	13	12	12	12	12	12	12	12	12
				Return Flow	0	0	0	0	0	0	0	0	0	0
Cocopah	Arizona	Colorado	Cocopah Indian Reservation	Withdrawal	0	0	0	0	0	0	0	0	0	0
				Depletion	0	0	0	0	0	0	0	0	0	0
				Return Flow	0	0	0	0	0	0	0	0	0	0
<b>Cocopah Tribal Totals</b>				Withdrawal	13	13	12	12	12	12	12	12	12	
				Depletion	13	13	12	12	12	12	12	12	12	
				Return Flow	0	0	0	0	0	0	0	0	0	
<b>Lower Basin Totals</b>				Withdrawal	755	805	866	926	926	926	926	926	926	926
				Depletion	414	495	573	652	652	652	652	652	652	652
				Return Flow	341	310	293	274	274	274	274	274	274	
<b>Ten Tribes Partnership Totals</b>				Withdrawal	1310	1509	1663	1780	1836	1894	1959	2026	2044	2063
				Depletion	763	952	1097	1214	1247	1274	1311	1350	1362	1372
				Return Flow	547	557	566	566	589	620	648	676	682	691