3.14 INDIAN TRUST ASSETS

3.14.1 INTRODUCTION

Indian Trust Assets (ITAs) are legal assets associated with rights or property held in trust by the US for the benefit of federally recognized Indian tribes or individuals. The US, as trustee, is responsible for protecting and maintaining rights reserved by, or granted to, Indian tribes or individuals by treaties, statutes and executive orders. All Federal bureaus and agencies share a duty to act responsibly to protect and maintain ITAs. Reclamation policy, established by Interior's Departmental Manual at 512 DM 2, is to protect ITAs from adverse impacts resulting from its programs and activities whenever possible. Reclamation, in cooperation with tribe(s) potentially impacted by a given project, must inventory and evaluate assets, and then mitigate, or compensate, for adverse impacts to the asset.

While most ITAs are located on a reservation, they can also be located off-reservation. Examples of ITAs include lands, minerals, water rights, and hunting and fishing rights. ITAs include property in which a tribe has legal interest. For example, tribal entitlements to water rights established in each of the Basin States pursuant to water rights settlements are considered trust assets, and the reservations of these tribes may or may not be located along the river. However, tribal entitlements to present perfected federal reserved rights are not ITAs. The present perfected federal reserved rights are rights held directly by the tribal entities for the reservations in whose name the rights are listed in the Decree. A tribe may also have off-reservation interests and concerns that must be taken into account; however, these interests are not trust assets and are dealt with in other sections (e.g. cultural resources).

Reclamation has entered into government-to-government consultations with potentially affected tribes to identify and address concerns for Indian trust assets. The tribes include those in the Ten Tribes Partnership whose landholdings are situated along the Colorado River and various tributaries in the Upper and Lower Basins. Additionally, meetings have been held with the Central Arizona Project Tribes and other interested tribes within the Lower Colorado Region. Through meetings and discussions with the tribes, Bureau of Indian Affairs and Reclamation staff, the following sections describe ITAs that have been identified to have the potential to be impacted by interim surplus criteria.

3.14.2 TEN TRIBES PARTNERSHIP

The tribes comprising the Ten Tribes Partnership are listed below together with the states in which their reservations are located.

Northern Ute	Utah
Jicarilla Apache	New Mexico
Navajo	Arizona, New Mexico and Utah
Southern Ute	Colorado
Ute Mountain Ute	Colorado and New Mexico
Fort Mojave	Arizona, Nevada and California
Chemehuevi	California
Colorado River	Arizona and California
Quechan	Arizona and California
Cocopah	Arizona

The Ten Tribes have a significant amount of undeveloped water rights. The availability of surplus water on the Colorado River is primarily a direct result of unused existing entitlements, including those of the tribes. The interim surplus criteria could make other entitlement holders develop a reliance on surplus water, provide a disincentive for those entitlement holders to support future development, and have the practical effect of diminishing the tribes' ability to utilize their entitlements.

The interim surplus criteria will not alter the quantity or priority of tribal entitlements. In fact, as noted by the description of the tribes' water rights below, the tribes have the highest priority water rights on the Colorado River. Interim surplus criteria is intended to assist in efforts to reduce the overreliance by California on surplus water.

In the CRSS demand database, many of the tribal uses are combined with other tribal or non-tribal uses at modeling demand points (US DOI, 1988). Reclamation will update the CRSS model demand points to include discrete representation of the Ten Tribes' updated use schedules and their full quantified entitlements for the Final EIS (as shown in Attachment O). The following discussion describes the Ten Tribes' water rights by tribe.

3.14.2.1 NORTHERN UTE INDIAN TRIBE – UINTAH AND OURAY RESERVATION

The Northern Ute Tribe is located in northeastern Utah in the Green River watershed. Quantification of the Tribe's water rights began in 1923 with two federal court Decrees that quantified the water rights for the Uintah Indian Irrigation Project (UIIP). A 1960 report, commonly referred to as the "Decker Report", divided lands on the Reservation into seven groups. Those land groups have served as the basis for discussions of settlement of the Tribe's water right claims over the subsequent 40 years. Congress ratified a 1990 tabulation of the Tribe's water rights in 1992 subject to re-ratification by the Tribe and State of Utah. That tabulation utilizes the Decker Report's land groups as follows:

1. UIIP lands with water rights decreed by the federal court in 1923, and certified by the State of Utah on the Lakefork, Yellowstone, Uinta and Whiterock rivers. Priority date - October 3, 1861.

2. UIIP lands with water rights certificated by the State of Utah served from the Duchesne River including the towns of Duchesne, Randlett and Myton. Priority date - October 3, 1861.

3. Lands that are or can be served from the Duchesne River through UIIP which are not certificated by the state. Priority date would be October 3, 1861.

4. Lands found to be productive and economically feasible to be irrigated from privately constructed ditch systems on the Duchesne River or its tributaries above Pahcease Canal. Priority date would be October 3, 1861.

5. Lands susceptible to irrigation and proposed to be developed within the Central Utah Project. Priority date would be October 3, 1861.

6. Lands east of the Green River served from the White River for which Applications to Appropriate Water were once filed with the State of Utah.

7. Lands east of the Green River found to be productive and economically feasible to be irrigated from privately constructed ditch systems now in operation or to be constructed along the Green River, White River, Willow Creek, Bitter Creek, Sweet Water Creek, and Hill Creek.

Tables quantifying the Tribe's diversion and depletion rights as tabulated in the 1990 Tabulation (but not yet ratified by the Tribe or State) are included in the Demand Point spreadsheet (Attachment O). The diversion rights total approximately 480,000 acre-feet with depletions of 248,943 acre-feet. The water rights appurtenant to the Group 5 Duchesne Basin lands are proposed to be transferred to the Green River with a 7 percent reduction explaining the difference in the table totals. Current water diversions by the Northern Ute Tribe are approximately 250,000 acre-feet per year for irrigation applications and a small amount of M&I use for oil and gas and a small culinary water system.

Three CRSS demand points already exist for the Northern Ute Tribe. The Green River has two existing points at Reach 411 Demand Point 4 Sub-point 3 (node 411 43) and 600-12. The Duchesne River has one existing Demand Point at 610-35. The existing point at 610-21 on the Duchesne will be split to separate tribal and non-tribal uses with the Tribe’s water use included at 610-22. A new point will be added on the White River at 510-52 to more accurately reflect the Tribe’s water rights and uses.

3.14.2.2 JICARILLA APACHE INDIAN RESERVATION

The Jicarilla Apache Indian Reservation is located in the upper reaches of the San Juan River Basin and the Rio Chama Basin in northwestern New Mexico. The reservation straddles the Continental Divide.

Pursuant to the Jicarilla Apache Tribe Water Rights Settlement Act ("Settlement Act"), the Tribe is authorized to divert 40,000 acre-feet per year (afy) from the San Juan River Basin, 32,000 afy of which may be depleted. The Settlement Act provides the Tribe the right to divert 33,500 afy or deplete 25,500 afy from either the Navajo Reservoir supply or directly from the Navajo River as it crosses the Jicarilla Apache Indian Reservation. The Settlement Act also authorizes the Tribe to divert and deplete 6,500 afy from the San Juan River Basin through the transmountain San Juan-Chama Project. The Jicarilla Apache Tribe agreed to subordinate its 1880 priority date for the 40,000 afy (diversion) of "future use" federal reserved water rights in exchange for the 1955 priority date associated with the two federal projects. The Tribe's agreement to subordinate its 1880 priority date for the 1955 date is discussed in a settlement contract between the Jicarilla Apache Tribe and the Secretary. The settlement contract is ratified by the Settlement Act. These are fully adjudicated rights, which, by virtue of the Settlement Act, the Tribe may market to the full extent that the law allows. The Tribe's long-term plans for this water include both off-reservation leasing and on-reservation development.

In addition to these "future use" water rights adjudicated in accordance with the Settlement Act, the Jicarilla Apache Tribe also has adjudicated rights to divert 5,683.92 afy or to deplete 2,195 afy, whichever is less, for historic and existing water uses. Thus, the Jicarilla Apache Tribe's total water diversion rights from the San Juan River Basin amount to 45,683 afy and the Tribe's overall depletion rights from the San Juan Basin total 34,195 afy.

Currently in the CRSS model, the Jicarilla Apache Tribe is represented by a single node on the Upper San Juan River reach number 801, Demand Point 1, sub-point 3 (point 801-13). This node shows the on-reservation uses of the Tribe now and those Reclamation assumed were planned for the future. The Tribe's portion of the San Juan – Chama export diversion is included in Demand Point 801-21 and, for the purposes of this modeling exercise, does not need to be separated. During 2000 the Jicarilla Apache Tribe anticipates entering into a lease of 16,200 afy through 2025 to Public Service Company of New Mexico for depletion at the San Juan Generating Station power plant at Demand Point 802-12. In addition, the Tribe anticipates entering into other short-term off-reservation water leases, ultimately preserving some off-reservation leases in 2060 while allowing the Tribe to use the majority of its San Juan River Basin depletions on-reservation. In order to show the change in water leases, a new demand point is needed at 802-16 to show the Jicarilla water going to the power station and future changes in deliveries. The Tribe is

investigating the feasibility of leasing 7,500 afy of water to the City of Gallup via the Gallup-Navajo municipal water supply project. The Jicarilla lease portion of the Gallup-Navajo project should be shown as a new demand point in the CRSS model at 802-17.

3.14.2.3 NAVAJO INDIAN RESERVATION

The Navajo Nation is located in northeastern Arizona, southeastern Utah, and northwestern New Mexico. Navajo reserved water rights to the mainstream Colorado River, the Little Colorado River and the San Juan River basins are not adjudicated. The Navajo Indian Irrigation Project was authorized by P.L. 87-483. When authorized, the project was envisioned as a gravity irrigated system with an average annual diversion of 508,000 afy, and a resulting depletion of 254,000 afy. Since authorization in 1962, the project has been re-designed as a pressurized sprinkler system with an anticipated average annual diversion of 337,500 afy, and a resulting depletion of 270,500 afy. The priority date for this diversion and depletion is not later than October 16, 1957. The CRSS model includes a demand point for NIIP at Reach 801, Demand Point 3 and Sub-point 1 (801-31) on the San Juan River upper reach. Current use and development data listed for the NIIP demand point are from the development schedule in the NIIP Biological Assessment dated June 11, 1999.

The Navajo Nation also has a small share in the Animas-La Plata Project (ALP) of 4,680 acre-feet of withdrawal and 2,340 af of depletion annually. This future withdrawal and use will be accounted for in the CRSS model by splitting the existing ALP M&I node for New Mexico uses at 801-78 and adding a separate point at 801-79 on the Upper San Juan Reach for the Tribe's ALP water.

Present uses in the San Juan River Basin for project areas other than the NIIP have been quantified in the hydrology models of the basin in the formulation of the Animas-La Plata Project Draft EIS. CRSS demand points exist at 802-14 and 700-35 for the future Gallup-Navajo Project showing 5,000 acre-feet of depletion in Arizona and 17,500 acre-feet of depletion in New Mexico. The existing point at 802-21 will be updated to include the Cudei Irrigation Project with the Hogback node, as these projects will soon be combined into a single diversion. A demand point will be added to the CRSS at 802-22 to include the existing Fruitland, New Mexico project in the model for a total of 6 demand points for the Tribe. Other minor uses on the Navajo Reservation have been included in natural flow calculations and are not included as consumptive demands in the CRSS model.

The Navajo Nation currently operates a marina at Antelope Point on Lake Powell. The boat ramp is not operational when the lake level is below elevation 3,677 ft. msl. See Section 3.9.2.3.1, Lake Powell, regarding impacts to Lake Powell elevations.

3.14.2.4 SOUTHERN UTE RESERVATION

The Southern Ute Indian Tribe is located in southwestern Colorado just west of Navajo Reservoir. The Tribe has settled its water rights pursuant to agreement with the State of Colorado and pursuant to 1988 federal legislation effective December 19, 1991. The settlement requires the construction of the Animas-La Plata Project. The Tribe has the right to reopen the adjudication of their water rights on the Animas and La Plata Rivers if certain agreed upon dates are not met regarding project implementation. The agreement provides the Tribe with a variety of direct flow rights with priorities ranging from 1868 to 1976 in streams and rivers passing through the Southern Ute Reservation. The locations, amounts and priority dates for these rights are shown in the attached table. Currently, the CRSS model includes a Present Level - Colorado Agriculture demand point on the San Juan River Reach 801, Demand Point 4 and Sub-point 1 (801-41). This point will be split to separate Southern Ute Tribal uses from non-reservation uses with the new demand point numbered as 801-43 for the Tribe's present water use.

The Tribe also has a right to 39,525 acre-feet of water with 19,762 acre-feet of depletion from the future ALP with a project priority of not later than 1966 for M&I use. The ALP as currently modeled is not shown in the CRSS model. To account for the Southern Ute portion of the water use, the Demand Point at 801-55 in Colorado will be split into three to separate Southern Ute, other tribes and non-tribal uses. The new CRSS demand point for the Tribe's ALP water would be 801-57.

3.14.2.5 UTE MOUNTAIN UTE INDIAN RESERVATION

The Ute Mountain Ute Tribe is located in the southwestern corner of Colorado with a small part in northwestern New Mexico. The Tribe has settled its water rights pursuant to agreement with the State of Colorado and pursuant to 1988 federal legislation effective December 19, 1991. The settlement requires the construction of the Animas-La Plata Project. If it should prove impossible to construct this project, the Tribe has the right to reopen the adjudication of their water rights on the Animas and La Plata Rivers. The agreement provides the Tribe with a variety of direct flow rights with priorities ranging from 1868 to 1985 in three streams, the Mancos River, San Juan River and Navajo Wash, which pass through the Ute Mountain Ute Reservation. The locations, amounts and priority dates for these rights are shown in the attached table. Currently, the CRSS model includes a Present Level - Colorado Agriculture demand point on the Lower San Juan River Reach 802, Demand Point 3 and Sub-point 1 (802-31). This point will be split in two to separate Ute Tribal uses from non-reservation uses with the new Tribal demand point numbered as 802-37.

The Tribe also possesses 25,180 acre-feet of storage with 19,260 acre-feet of depletion per year from the Dolores Project for agricultural and other uses with a project priority of not later than 1963. The Dolores Project is accounted for in the CRSS model at Demand Points 802-35 and 802-41. Both of these points should be

split to separate the Ute Mountain Tribal water use from other uses. The new points would be numbered as 802-36 and 802-42.

The Ute Mountain Ute Reservation has a share of the water in the future ALP. The Tribe will receive 39,525 acre-feet of withdrawal and 19,762 acre-feet of depletion rights from the ALP as it is now formulated. This water is intended for M&I use on the reservation. To account for the Ute Mountain Ute portion of the water use, the Demand Point at 801-55 in Colorado will be split into three to separate Ute Mountain, other tribes and non-tribal uses. The new point for the Tribe's ALP water is 801-58.

3.14.2.6 FORT MOJAVE INDIAN RESERVATION

The Fort Mojave Indian Reservation is located in the Lower Colorado River Basin where Nevada, Arizona and California meet. The Tribe possesses present perfected federal reserved water rights from the main stem of the Colorado River in all three of the states that contain reservation land, pursuant to the Decree in *Arizona v. California* and supplemental Decrees (1979 and 1984). Since the original Decree was entered, 1,102 acres of land have been added to the reservation along with rights to 6.464 acre-feet per acre of water as specified in the 1979 Decree. The amounts, including added lands, priority dates, and state where the water rights are perfected, are as follows:

Amount (af/yr)	Acreage	Priority Date	State
27,969	4,327	September 18, 1890	Arizona
75,566	11,691	February 2, 1911	Arizona
103,535	16,018		Arizona subtotal
13,698	2,119	September 18, 1890	California
12,534	1,939	September 18, 1890	Nevada
129,767	**20,076**		**Total**

As indicated in the attached tables, the Fort Mojave Indian Tribe has exercised its water rights in California in excess of the amounts currently decreed. The Tribe maintains a claim to additional lands and reserved water rights in California, which will likely be settled soon recognizing the Tribe's right to additional reserved water rights from the Colorado River in the amount of 3,022 acre-feet. The Tribe and State of California have agreed upon a settlement of that claim which is presently before the US Supreme Court for settlement. The attached tables incorporate the proposed settlement amounts within the total amount of water and land available to the Tribe in California.

Current use for the Fort Mojave Reservation in each state is shown in the attached table including information on type of use and irrigated acreage. These figures are estimates of use based upon calculations derived from records of electrical consumption at the various pump stations and are not from measured flows. The CRSS model contains four demand sub points for the Tribe's water diversions. The nodes are on the Lake Mohave reach of the model (number 920), Demand Node 5, and are further divided into sub points 1, 2 and 3 by state (Nevada is node 920-51, Arizona is 920-522 and California is 920-53). A separate sub point (920-54) is included for Reservation Land development, but it is not modeled at this time. Current depletion amounts for the CRSS model nodes have been updated to reflect the most recent consumptive use numbers provided by the Lower Colorado River Accounting System (LCRAS) report for calendar year 1998. Future depletions at full development are calculated as the greater of 70 percent of diversion rights and the per acre rate of consumptive use from the LCRAS report multiplied by the full right acreage of the Tribe.

3.14.2.7 CHEMEHUEVI INDIAN RESERVATION

The Chemehuevi Indian Reservation is located in southern California near Lake Havasu. The Tribe possesses present perfected federal reserved water rights from the main stem of the Colorado River pursuant to the Decree in *Arizona v. California* and supplemental Decrees (1979 and 1984). The amounts, priority dates, and state where the rights are perfected, are as follows:

Amount (AF/yr)	Acreage	Priority Date	State
11,340	1900	February 2, 1907	California

The lands of the Chemehuevi Tribe are mostly on the plateau above the shoreline of Lake Havasu. Present agricultural water use is limited. Currently, the CRSS model includes a demand point for the Chemehuevi Reservation on the Lake Havasu reach of the model, number 930, Demand Point number 1, sub-point number 2 (930-12). Current depletion amounts for the CRSS model nodes have been updated to reflect the most recent consumptive use numbers provided by the LCRAS report for calendar year 1998. Future depletions at full development are calculated as the greater of 70 percent of diversion rights and the per acre rate of consumptive use from the LCRAS report multiplied by the full right acreage of the Tribe.

3.14.2.8 COLORADO RIVER INDIAN RESERVATION

The Colorado River Indian Reservation is located in southwestern Arizona and southern California south of Parker, Arizona. The Tribe possesses present perfected federal reserved water rights from the main stem of the Colorado River pursuant to the Decree in *Arizona v. California* and supplemental Decrees (1979 and 1984). The amounts, priority dates, and state where the rights are perfected, are as follows:

Amount (AF/yr)	Acreage	Priority Date	State
358,400	53,768	March 3, 1865	Arizona
252,016	37,808	November 22, 1873	Arizona
51,986	7,799	November 16, 1874	Arizona
662,402	99,375		Arizona subtotal
10,745	1,612	November 22, 1873	California
40,241	6,037	November 16, 1874	California
3,760	564	May 15, 1876	California
54,746	8,213		California subtotal
717,148	**107,588**		**Total**

The CRSS Model presently has three demand sub-nodes listed for the Colorado River Tribe on the reach above Imperial Dam number 940, Demand Point number 2. The water diversions are split between sub-points 1,2 and 3 for California demands (940-21), Arizona demands (940-22) and a separate sub-node for future pumped diversions in Arizona (940-23). Current depletion amounts for the CRSS model nodes have been updated to reflect the most recent consumptive use numbers provided by the LCRAS report for calendar year 1998. Future depletions at full development are calculated as the greater of 70 percent of diversion rights and the per acre rate of consumptive use from the LCRAS report multiplied by the full right acreage of the Tribe.

3.14.2.9 QUECHAN INDIAN RESERVATION (FORT YUMA)

The Fort Yuma Indian Reservation (Quechan Tribe) is located in southwestern Arizona and southern California near of Yuma, Arizona. The Tribe possesses present perfected federal reserved water rights from the main stem of the Colorado River pursuant to the Decree in *Arizona v. California* and supplemental Decrees (1979 and 1984). The amounts, priority dates, and state where the rights are perfected, are as follows:

Amount (AF/yr)	Acreage	Priority Date	State
51,616	7,743	January 9, 1884	California

A recent Supreme Court decision issued on June 19, 2000 allows the Tribe to proceed with litigation to claim rights to an additional 9,000 acres of irrigable lands. Proving this claim would increase the water rights for the reservation.

Water for the Quechan Tribe is diverted from the Colorado River at Imperial Dam and delivered through the Yuma Project Reservation Division-Indian Unit. The

Tribe has other small uses at homestead sites south of Yuma, Arizona. The current water uses shown in the following tables include only Quechan Indian Tribe uses within the Fort Yuma Reservation. These uses are accounted for in the CRSS model at Demand Point number 2, sub-point 1 on the Imperial Dam Diversions Reach Number 945 (nodes 945-21). The current withdrawal and depletion values for node 945-21 will be updated to reflect the most recent consumptive use numbers provided by the LCRAS report for calendar year 1998. Future depletions at full development are calculated as the greater of 70 percent of diversion rights and the per acre rate of consumptive use from the LCRAS report multiplied by the full right acreage of the Tribe.

3.14.2.10 COCOPAH INDIAN TRIBE

The Cocopah Indian Reservation is located in southwestern Arizona near Yuma, Arizona. The Tribe possesses present perfected federal reserved water rights from the main stem of the Colorado River pursuant to the Decree in *Arizona v. California* and supplemental Decrees (1979 and 1984). The amounts, priority dates, and state where the rights are perfected, are as follows:

Amount (AF/yr)	Acreage	Priority Date	State
7,681	1,206	September 27, 1917	Arizona
2,026	318	June 24, 1974	Arizona
1,140	190	1915	Arizona
10,847	**1,714**		**Total**

The rights listed above and in the attached tables include only that water diverted directly from the Colorado River at Imperial Dam. In addition to these rights, the Tribe has numerous well permits that divert groundwater that may be connected to the Colorado River within the boundaries of the United States (studies are ongoing).

The 1974 present perfected federal reserved right for the Cocopah Indian Reservation is unique because of its more recent priority date. The 1979 supplemental Decree in *Arizona v. California* specifies that in the event of a determination of insufficient mainstream water to satisfy present perfected rights pursuant to Article II (B) (3) of the 1964 Decree, the present perfected rights set forth in paragraphs (1) through (5) of Article II (D) of the Decree must be satisfied first. The 1984 supplemental Decree in *Arizona v. California* recognized the present perfected federal reserved right for the Cocopah Indian Reservation dated June 24, 1974, and amended paragraph (5) of Article II (D) of the Decree to reflect this 1974 right.

The Tribe is involved in litigation to claim rights to a total of 2,400 acres of irrigable lands. Proving this claim would further increase the water rights for the reservation.

Water diversions for the Cocopah Indian Tribe are listed at two demand nodes in the CRSS model on two of the model reaches. Demand Point 4, sub-point 1 on the Imperial Dam Diversions, Reach Number 945 (node 945-41) accounts for all of the Tribe's rights and current uses in Arizona. Node 950-12 is provided for future pumped diversions below Imperial Dam, but it is not presently used in the modeling. Current depletion amounts for the CRSS model nodes have been updated to reflect the most recent consumptive use numbers provided by the LCRAS report for calendar year 1998. Future depletions at full development are assumed to be 100 percent as the location of the reservation prevents a return flow within Arizona.

3.14.3 TRIBES SERVED BY CENTRAL ARIZONA PROJECT

Various Indian tribes and communities in central Arizona have been provided water pursuant to CAP contracts by either direct Secretarial actions or through negotiated water rights settlements (CAP Tribes). CAP water has played a primary role in facilitating water rights settlements in Arizona; it is expected to play such a role in the future. In fulfillment of the trust responsibility the impact of shortages upon the water supplies provided to the CAP Tribes is a primary concern.

3.14.3.1 WATER RIGHTS SETTING

3.14.3.1.1 CAP Priority Scheme

An understanding of the CAP priority scheme is vital in order to understand how shortages could potentially impact the different priorities of CAP water and CAP water users, including Indians. Traditionally Reclamation's view is that the CAP has five priorities of water rights. The first priority is known as Colorado River water. Colorado River water was secured by the United States for settlement of certain Indian water claims. The second priority includes M&I water and Indian Homeland water. The third priority is Indian agricultural water that was allocated to tribes by the Secretary but was not classed as Homeland water. The fourth priority is M&I water above the first 510,000 acre-feet of the M&I allocation (equal to 128,823 acre-feet). The fifth priority is non-Indian agricultural water. The fifth priority is available to several users besides non-Indian agriculture. For example, 312,898 acre-feet of fifth priority CAP water, called Excess water, is available to the Central Arizona Groundwater Recharge District (CAGRD) for groundwater recharge, non-Indian agriculture, and the Arizona Water Banking Authority (AWBA) for in-lieu recharge and direct groundwater recharge. The remaining portion of fifth priority CAP water, 51,800 acre-feet, is non-Indian agricultural water that has been allocated to Indian users. The priorities discussed in this section are internal to the CAP and must not be confused with priorities of water entitlements along the mainstream of the Colorado River.

Table 3.14-1
Central Arizona Project Indian Water Allocations
Unit: Acre-Feet Annually

Indian Tribe and Allocation	Likely Future without GRIC (acre-feet per year)	With GRIC Settlement (acre-feet per year)
Gila River Indian Community		
Indian Allocation	173,100	173,100
Indian Priority - HVID	17,800	17,800
Settlement Water		
M & I -- ASARCO	17,000	17,000
Non-Indian Agric.-RWCD	18,600	18,600
Other		102,000
Total	226,500	328,500
San Carlos Apache		
Indian Allocation	12,700	12,700
M & I Priority (should be 18,135)	18,145	18,145
Indian Reallocation (Ak Chin)(minus losses)	30,800	1`
Total	61,645	61,645
Tohono O'Odham (San Xavier, Schuk Toak, Chui-Chu)		
Indian Allocation	45,800	45,800
Non-Indian Agric.	28,200	28,200
Total	74,000	74,000
Tonto Apache		
Indian Allocation	128	128
Total	128	128
Yavapai Apache		
Indian Allocation	1,200	1,200
Total	1,200	1,200
Fort McDowell Indian Community		
Indian Allocation	4,300	4,300
Indian Priority-HVID	13,933	13,933
Total	18,233	18,233
Salt River Pima Maricopa		
Indian Allocation	13,300	13,300
Colorado River (net of losses)	20,900	20,900
Non-Indian Agric.	5,000	5,000
Total	39,200	39,200
Ak Chin Indian Community		
Indian Allocation	25,000	25,000
Colorado River	50,000	50,000
Total	75,000	75,000
Pascua Yaqui Tribe		
Indian Allocation	500	500
Total	500	500

Table 3.14-1
Central Arizona Project Indian Water Allocations
Unit: Acre-Feet Annually

Indian Tribe and Allocation	Likely Future without GRIC (acre-feet per year)	With GRIC Settlement (acre-feet per year)
Yavapai-Prescott (assigned to Scottsdale)		
Indian Allocation	500	500
Total	500	500
Total Indian Allocations		
Indian Allocation	309,828	309,828
Homeland	54,428	54,428
Agricultural	255,400	255,400
Colorado River	70,900	70,900
Indian Priority-HVID	31,733	31,733
M & I Priority	35,145	35,145
Non-Indian Agric.	51,800	153,800
Unassigned HVID	1,518	1,518
Future Settlements (agric. priority)		69,800
Total	498,424	670,224
Municipal and Industrial Water Supply	603,678	603,678
Non-Indian Agricultural Water Supply	312,898	141,098
Total Normal Water Supply	1,415,000	1,415,000

Source: Central Arizona Project 1996 Water Supply Study for Stage II Cost Allocation
Draft EIS for allocation of CAP water supply -- April, 2000

The future allocation of CAP water to some CAP priorities is not definitive because of the dual possibility of finalizing or not finalizing two settlements. One settlement is among the Gila River Indian Community (GRIC), certain Arizona entities, and the United States (GRIC Settlement) and the second settlement is the CAP Settlement between the United States and the Central Arizona Water Conservation District (CAWCD). Under shortage, potential impacts to Indian CAP water users differ depending upon whether CAP water is allocated under settlement or without settlement.

Table 3.14.3.1 provides, in units of acre-feet per year, allocations of CAP water to CAP priorities for certain Indian tribes or communities under two scenarios. The first scenario, Likely Future Without, reflects assignment of water rights absent final GRIC and CAP settlements. The second scenario, With Settlement, assumes final GRIC and CAP settlements. The primary difference between the two scenarios is that with final settlements, GRIC is assigned an additional 102,000 acre-feet of non-Indian agricultural water and the United States reserves 69,800 acre-feet of other non-Indian water for future water rights settlements.

Table 3.14-2 reflects the CAP priority scheme under the two scenarios and identifies the points at which shortages on the Colorado River begin to impact different priorities of CAP water. Normal year diversions of CAP water are assumed to be 1.5 maf. Reductions for system losses result in deliverable water of 1,415,000 acre-feet. The effects of shortages on CAP water associated with various priorities is as follows:

Fifth Priority. In the event of a shortage on the river restricting deliveries of CAP water to 925,000 acre-feet, the fifth priority water rights would go unfulfilled.

Fourth Priority. Subsequent reductions would impact M&I water amounts in excess of 510,000 acre-feet. Consequently, any M&I priority water which has been reallocated for Indian use would also be affected.

Third Priority. The next block of water to be impacted by shortages is a portion of the Indian agricultural water. The deliveries to GRIC would be reduced by 25 percent of its agricultural allocation; all other tribes having Indian agricultural water would be reduced by 10 percent of their respective agricultural allocations.

Second Priority. The remaining M&I and Indian priority water would be reduced on a pro rata basis as water deliveries decrease.

First Priority. Colorado River water would be unavailable only if a shortage were severe enough that no diversion could be made into central Arizona.

3.14.3.1.2 Examples of Reductions of CAP Water Deliveries

Table 3.14-3 demonstrates the incidence of reductions to the CAP Indian supplies during shortage on the Colorado River under the Likely Future Without scenario. Various quantities of CAP water deliveries have been assumed in order to show the varying impacts between Indian tribes. The amount of CAP water that represents a division between one priority and the next higher priority is referred to here as a “break point”. For example, the estimated break point between the fifth and fourth priorities is 1,050,302 acre-feet. A total available CAP water supply of 1,050,302 acre-feet means that no deliveries of fifth priority CAP water would be made. If the shortage decreases the available total CAP water supply below 1,050,302 acre-feet, deliveries of fourth priority CAP water would be impacted. Similarly between the fourth and third priorities the break point is 921,479 acre-feet. The division between the third and second priority is 869,974 acre-feet. Finally, the last break point is at 68,400 acre-feet.

Table 3.14-2
Traditional Reclamation Priorities for Central Arizona Project Water
(acre-feet per year)

		Likely Future without GRIC	Total Water		With GRIC Settlement	Total Water
First:	Colorado River Water -- Yuma Mesa and Wellton Mohawk	68,400	68,400	[1]	68,400[1]	64,800
Second:	Pro rata reduction of Indian and M & I water	801,574	869,974	[2]	801,574	869,974
Third:	Indian agricultural water (reduce 25 % of GRIC ag. water, and 10 % of other Indian ag.) (Indian agric. water is that portion of original allocation which is not "Homeland")	51,505	921,479	[3]	51,505	921,479
Fourth:	M & I water above 510,000 acre feet, including M&I reallocations to Indians	128,823	1,050,302	[4]	128,823	1,050,302
Fifth:	Non-Indian agricultural water reallocated to Indians	51,800	1,102,102	[5]	223,600	1,273,902
Fifth:	Excess water (priority = 1, GAGRD, 2, Agric., 3 AWBA)	312,898	1,415,000	[6]	141,098	1,415,000

Note 1. The total represents the Yuma Mesa water (50,000 af) plus Wellton-Mohawk water (22,000 af) minus estimated transmission losses.

Note 2. Total is composed of 510,000 af of M&I water plus 33,251 af of HVID water plus 258,323 af of Indian water after reductions in third priority and losses

Note 3. Amount is made up of 43,275 af of GRIC water and 8,230 af of other Indian agricultural water

Note 4. Amount is the difference between 638,823 af and 510,000 af of M&I priority water

Note 5. Likely Future" amount is 51,800 af of reallocated agricultural water

"GRIC Settlement" amount is the sum of 153,800 af of reallocated agricultural water and 69,800 af of reallocated agricultural water held by U. S. for future Indian water settlements

Note 6. The amount is an estimate of the excess water pool, with and without settlement between the U.S. and CAWCD

Reductions in Indian water supplies in the fifth priority are estimated to be 51,800 acre-feet. The affected amount of Indian water supply in the fourth priority is 7,087 acre-feet. The third priority Indian agricultural water affected totals 51,505 acre-feet. Indian priority water in the second priority totals 317,132 acre-feet. Finally, the Colorado River priority water held by Indians totals 68,400 acre-feet.

Table 3.14-4 shows the same information as Table 3.14-3, but assumes a final GRIC and CAP settlement. The same priority scheme is applied as used in the without settlement scenario. In this instance, GRIC is allocated an additional 102,000 acre-feet of non-Indian agricultural water. The amount of 69,800 acre-feet of non-Indian agricultural water is held by the United States for future Indian water rights settlements. As a result, the potential Indian/Federal loss in the fifth priority increases to 223,600 acre-feet, as compared with 51,800 acre-feet without settlement. Impacts to the other priorities remain the same.

Losses of fifth priority water impacts only GRIC, Tohono O'Odham, Salt River Pima Maricopa Indian Community (SRPMIC), and the United States. Fourth priority losses impact only GRIC and the San Carlos Apache Tribe (San Carlos). Third priority Indian agricultural water losses impact GRIC, San Carlos, Tohono O'Odham, and SRPMIC. If Colorado River shortages reduce CAP deliveries below 869,974 acre-feet, thereafter all Indian tribes are affected on a proportional basis, except for SRPMIC and Ak Chin, who have rights to Colorado River water. Tables 3.14-3 and 3.14-4 show reductions within each priority as water supplies diminish for selected delivery and supply scenarios.

3.14.3.1.3 Estimated Impacts Associated with Alternatives

Under the current CAP operational assumptions regarding shortage on the Colorado River, diversions to the CAP are estimated to be restricted to 1 mafy with deliveries of about 925,000 acre-feet.

Assumptions and estimated shortages in this EIS result in the following amounts of CAP water becoming unavailable to Indian tribes for the various alternatives.

Baseline (No Action). Reclamation estimates of baseline conditions show a zero percent chance of shortage for the period 2000 through 2014. For the period 2000 through 2050, the average chance of shortage is about 20.2 percent. Thus, over the next 51 years, it is expected that 10.3 of those years will be shortage and 40.7 will be either normal or surplus. This scenario would result in a loss of about 72,996 acre-feet of M&I priority water out of a total of 1,586,650 acre-feet over a 51-year period for Indian tribes.

Table 3.14-3
Reductions in Indian CAP Water Supplies During Times of Shortage on Colorado River
(Likely Future Without GRIC Settlement)

	CAP Water Supply	Reduction	GRIC	San Carlos	Tohono O'Odham	Tonto Apache	Yavapai Apache	FMIC	SRPMIC	Ak Chin	Pascua Yaqui	Yavapai Prescott	Total Unassigned HVID	Accumulated Reductions per Priority	Reductions
Fifth Priority	1,415,000		none	none	none	none	none	none	none	none	none	none			
		115,000													
	1,300,000		5,865		8,892				1,577					16,334	
Agricultural		215,000													
	1,200,000		10,965		16,625				2,948					30,538	
		315,000													
	1,100,000		16,065		24,357				4,319					44,741	
		364,698													
	1,050,302		18,600		28,200				5,000					51,800	51,800
		50,302													
Fourth Priority	1,000,000		1,339	1,429										2,767	
		125,302													
	925,000		3,334	3,559										6,894	
M & I		128,823													
	921,479		3,428	3,659										7,087	58,887
		21,479													
Third Priority	900,000		18,047	1,501	334				555	1,043				21,479	
		51,505													
Indian Ag.	869,974		43,275	3,600	800				1,330	2,500				51,505	110,392
		69,974													
Second Priority	800,000		14,072	4,748	3,928	11	105	1,592	1,045	1,964	44	44	133	27,684	
		169,974													
	700,000		34,182	11,533	9,542	27	254	3,866	2,538	4,771	106	106	322	67,248	
M & I		269,974													
and	600,000		54,292	18,317	15,156	43	404	6,141	4,032	7,578	168	168	511	106,812	
Indian		369,974													
	500,000		74,402	25,102	20,770	59	554	8,416	5,525	10,385	231	231	701	146,375	
		469,974													
	400,000		94,512	31,887	26,384	75	704	10,690	7,018	13,192	293	293	890	185,939	
		569,974													
	300,000		114,622	38,672	31,998	91	853	12,965	8,511	15,999	356	356	1,079	225,502	
		669,974													
	200,000		134,732	45,457	37,612	107	1,003	15,240	10,005	18,806	418	418	1,269	265,066	
		769,974													
	100,000		154,842	52,242	43,226	123	1,153	17,514	11,498	21,613	480	480	1,458	304,630	
		799,074													
	68,400		161,197	54,386	45,000	128	1,200	18,233	11,970	22,500	500	500	1,518	317,132	427,524
First Priority	0	70,900							20,900	47,500				68,400	
Colo. River															
6Total Reductions			226,500	61,645	74,000	128	1,200	18,233	39,200	75,000[1]	500	500	1,518		

[1] Ak-Chin values are not additive because system losses on the 50,000 af of Colorado River Priority water are borne by San Carlos Tribe, except in the instance of CAP deliveries restricted to Colorado River rights only [first priority]. In this case system losses are borne by Ak-Chin.

Table 3.14-4
Reductions in Indian CAP Water Supplies During Times of Shortage on Colorado River
(Likely Future Without GRIC Settlement)

	CAP Water Supply	Reduction	GRIC	San Carlos	Tohono O'Odham	Tonto Apache	Yavapai Apache	FMIC	SRPMIC	Ak Chin	Pascua Yaqui	Yavapai Prescott	Unassigned HVID	Total Reserved Federal	Accumulated Reductions per Priority	Reductions
Fifth Priority	1,415,000		none	none	none	none	none	none	none	none	none	none	none	none		
		115,000														
	1,300,000		38,029		8,892				1,577					22,010	70,508	
Agricultural		215,000														
	1,200,000		71,097		16,625				2,948					41,149	131,819	
		315,000														
	1,100,000		104,166		24,357				4,319					60,288	193,130	
		364,698														
	1,050,302		120,600		28,200				5,000					69,800	223,600	223,600
		50,302														
Fourth Priority	1,000,000		1,339	1,429											2,767	
		125,302														
	925,000		3,334	3,559											6,894	
M & I		128,823														
	921,479		3,428	3,659											7,087	230,687
		21,479														
Third Priority	900,000		18,047	1,501	334				555	1,043					21,479	
		51,505														
Indian Ag.	869,974		43,275	3,600	800				1,330	2,500					51,505	282,192
		69,974														
Second Priority	800,000		14,072	4,748	3,928	11	105	1,592	1,045	1,964	44	44	133		27,684	
		169,974														
	700,000		34,182	11,533	9,542	27	254	3,866	2,538	4,771	106	106	322		67,248	
M & I		269,974														
and	600,000		54,292	18,317	15,156	43	404	6,141	4,032	7,578	168	168	511		106,812	
Indian		369,974														
	500,000		74,402	25,102	20,770	59	554	8,416	5,525	10,385	231	231	701		146,375	
		469,974														
	400,000		94,512	31,887	26,384	75	704	10,690	7,018	13,192	293	293	890		185,939	
		569,974														
	300,000		114,622	38,672	31,998	91	853	12,965	8,511	15,999	356	356	1,079		225,502	
		669,974														
	200,000		134,732	45,457	37,612	107	1,003	15,240	10,005	18,806	418	418	1,269		265,066	
		769,974														
	100,000		154,842	52,242	43,226	123	1,153	17,514	11,498	21,613	480	480	1,458		304,630	
		799,074														
	70,900		161,197	54,386	45,000	128	1,200	18,233	11,970	22,500	500	500	1,518		317,132	599,324
First Priority		70,900														
	0								20,900	47,500					68,400	
Colo. River																
Total Reductions			328,500	61,645	74,000	128	1,200	18,233	39,200	75,000	500	500	1,518	69,800		

[1] Ak-Chin values are not additive because system losses on the 50,000 af of Colorado River Priority water are borne by San Carlos Tribe, except in the instance of CAP deliveries restricted to Colorado River rights only [first priority]. In this case system losses are borne by Ak-Chin.

Under the current definition of shortage impacts to CAP, a shortage year would necessarily eliminate delivery of any non-Indian agricultural priority water. In the Likely Future Without scenario, Indian tribes would lose 51,800 acre-feet of non-Indian agricultural priority water in each shortage year, or a total of about 533,540 acre-feet out of a total of 2,590,000 acre-feet over a 51-year period. Under the With Settlement scenario, the annual loss would be 223,600 acre-feet of non-Indian agricultural water, or a total of 2,303,080 acre-feet out of a total of 11,180,000 acre-feet over the 51-year period.

Six States Alternative. Employing the assumptions of the Six State Plan, the period of a zero percent chance of shortage would be 2000 through 2011, a slightly shorter period compared to baseline conditions. For the period 2000 through 2050, the average chance of shortage would be about 22 percent. This results in 11.2 years of shortage and 39.8 years of normal or surplus years. About 79,374 acre-feet of M&I water out of a total of 1,586,650 acre-feet would be lost to the Indian tribes during the next 51 years.

Applying the current shortage criteria would mean that all non-Indian agricultural priority water would not be delivered in a water short year. In the Future Without Settlement scenario, Indian tribes would lose a total of about 580,160 acre-feet out of a total of 2,590,000 acre-feet. In the With Settlement scenario, the total loss to Indians would increase to about 2,504,320 acre-feet of a total of 11,180,000 acre-feet.

California Alternative. The California Alternative is more restrictive in that the period of zero percent chance of shortage would last only 11 years between 2000 through 2010. An average 23.7 percent chance of shortage would prevail through the study period. Hence, the total years of shortage would increase to 12.1. The loss of M&I priority water for Indian tribes would total to about 85,753 acre-feet of a total of about 1.5 maf during the next 51 years.

As in the previous two scenarios, a Colorado River shortage would eliminate any deliveries of non-Indian agricultural priority water. For the Likely Future Without Settlement scenario, the total water not delivered to Indians would be about 626,780 acre-feet out of a total of about 2.6 maf. With Settlement, the total water lost by Indians would be about 2,705,560 acre-feet out of a total of about 11.2 maf.

Shortage Protection Alternative. Estimates by the USBR show a 24.2 percent chance of shortage over the next 51 years. Therefore, the total number of years of shortage would increase to 12.3. The expected loss of M&I priority water for Indian tribes would total about 87,170 acre-feet over the study period.

For the Likely Future Without Settlement, the total water not available for delivery to Indians would be about 637,140 acre-feet. With Settlement, the total water lost would be about 2,750,280 acre-feet.

Flood Control Alternative. The number of years of zero percent shortage are 16 years, 2000-2015. The chance of shortage is 19.5 percent over the 51-year period. The years of shortage are 9.9 years. M&I water loss to Indians is 70,161 acre-feet. Under the Likely Future Without, total loss of non-Indian agricultural priority water is 512,820 acre-feet. With Settlement, 2,213,640 acre-feet non-Indian agricultural priority water would be lost.

3.14.3.2 ENVIRONMENTAL CONSEQUENCES

3.14.3.2.1 Impacts Resulting from Baseline Conditions and Alternatives

Under the current CAP operational assumptions regarding shortage on the Colorado River, diversions to the CAP are estimated to be restricted to 1 mafy with deliveries of about 925,000 acre-feet.

Assumptions and estimated shortages in this EIS result in the following amounts of CAP water becoming unavailable to Indian tribes for the various alternatives.

Baseline (No Action). Reclamation estimates of baseline conditions show a zero percent chance of shortage for the period 2000 through 2014. For the period 2000 through 2050, the average chance of shortage is about 20.2 percent. Thus, over the next 51 years, it is expected that 10.3 of those years will be shortage and 40.7 will be either normal or surplus. This scenario would result in a loss of about 72,996 acre-feet of M&I priority water out of a total of 1,586,650 acre-feet over a 51-year period for Indian tribes.

Under the current definition of shortage impacts to CAP, a shortage year would necessarily eliminate delivery of any non-Indian agricultural priority water. In the Likely Future Without scenario, Indian tribes would lose 51,800 acre-feet of non-Indian agricultural priority water in each shortage year, or a total of about 533,540 acre-feet out of a total of 2,590,000 acre-feet over a 51-year period. Under the With Settlement scenario, the annual loss would be 223,600 acre-feet of non-Indian agricultural water, or a total of 2,303,080 acre-feet out of a total of 11,180,000 acre-feet over the 51-year period.

Six States Alternative. Employing the assumptions of the Six State Plan, the period of a zero percent chance of shortage would be 2000 through 2011, a slightly shorter period compared to baseline conditions. For the period 2000 through 2050, the average chance of shortage would be about 22 percent. This results in 11.2 years of shortage and 39.8 years of normal or surplus years. About 79,374 acre-feet of M&I water out of a total of 1,586,650 acre-feet would be lost to the Indian tribes during the next 51 years.

Applying the current shortage criteria would mean that all non-Indian agricultural priority water would not be delivered in a water short year. In the future without

settlement scenario, Indian tribes would lose a total of about 580,160 acre-feet out of a total of 2,590,000 acre-feet. In the With Settlement scenario, the total loss to Indians would increase to about 2,504,320 acre-feet of a total of 11,180,000 acre-feet.

California Alternative. The California Alternative is more restrictive in that the period of zero percent chance of shortage would last only 11 years between 2000 through 2010. An average 23.7 percent chance of shortage would prevail through the study period. Hence, the total years of shortage would increase to 12.1. The loss of M&I priority water for Indian tribes would total to about 85,753 acre-feet of a total of about 1.5 maf during the next 51 years.

As in the previous two scenarios, a Colorado River shortage would eliminate any deliveries of non-Indian agricultural priority water. For the Likely Future Without Settlement scenario, the total water not delivered to Indians would be about 626,780 acre-feet out of a total of about 2.6 maf. With Settlement, the total water lost by Indians would be about 2,705,560 acre-feet out of a total of about 11.2 maf.

Shortage Protection Alternative. Estimates by the USBR show a 24.2 percent chance of shortage over the next 51 years. Therefore, the total number of years of shortage would increase to 12.3. The expected loss of M&I priority water for Indian tribes would total about 87,170 acre-feet over the study period.

For the Likely Future Without Settlement, the total water not available for delivery to Indians would be about 637,140 acre-feet. With Settlement, the total water lost would be about 2,750,280 acre-feet.

Flood Control Alternative. The number of years of zero percent shortage are 16 years, 2000-2015. The chance of shortage is 19.5 percent over the 51-year period. The years of shortage are 9.9 years. M&I water loss to Indians is 70,161 acre-feet. Under the Likely Future Without, total loss of non-Indian agricultural priority water is 512,820 acre-feet. With Settlement, 2,213,640 acre-feet non-Indian agricultural priority water would be lost.

3.14.3.2.2 Summary of Impacts

While shortages on the Colorado River and the resulting impact upon the CAP are impossible to eliminate, the selection of interim surplus criteria does affect the magnitude of impacts. The most severe impact upon water resources of central Arizona Indian tribes and communities is projected to occur under the Shortage Protection Alternative. Conversely, the least impact upon Indian CAP water supplies is projected to occur under the Flood Control Alternative.

Compared with the Baseline projections, given the Likely Future Without Settlement scenario, the implementation of the Six States Alternative would increase total

shortages to Indians in the CAP service area by 6,378 acre-feet of M&I water and 46,620 acre-feet of non-Indian agricultural priority water. In the With Settlement scenario, the loss of non-Indian agricultural priority water would increase to 201,240 acre-feet.

Making similar comparisons between the Baseline and the California Alternative, the M&I impact would be 12,757 acre-feet and the non-Indian agricultural priority water impact would be 93,240 acre-feet. Under the With Settlement scenario the impact upon non-Indian agricultural priority water would increase to 402,480 acre-feet.

Comparison of the Flood Control Alternative to Baseline projections results in gains to Indian CAP water users of 2,835 acre-feet of M&I water. Under the Likely Future Without scenario, Indians would gain 20,720 acre-feet of non-Indian priority water. Under the With Settlement

Scenario, Indians would gain 89,440 acre-feet of non-Indian agricultural water. This alternative is the best alternative for Indian CAP water users and Indian trust asset protection.

Finally, comparing the Shortage Protection Alternative with the Baseline, the M&I impact would be 14,174 acre-feet. The non-Indian agricultural priority water impact would be 103,600 acre-feet and with settlement the impact would be 447,200 acre-feet.