Chapter 5 – Assessment of Current Tribal Water Use and Projected Future Water Development

5.10 Cocopah Indian Tribe

5.10.1 Introduction
The Cocopah Indian Reservation (Reservation), which borders Mexico, Arizona and California, is comprised of approximately 6,500 acres in three noncontiguous bodies of land known as the North, West and East Reservations. The Reservation was originally established in 1917 by Executive Order No. 2711, and the 1985 Cocopah Land Acquisition Act (Public Law (P.L.) 99-23) expanded the acreage by an additional 4,200 acres. The Reservation is located in Yuma County along the Colorado River just 13 miles south of Yuma, AZ, and 15 miles north of San Luis, Mexico.

As recently as the 1960s, a number of tribal families lived in traditional arrow weed-thatched homes. In the late 1970s and 1980s, the Tribe began acquiring additional land, constructing homes, installing utilities, developing an infrastructure system and initiating economic development. Currently, there are about 1,000 enrolled Cocopah Indian Tribe (Cocopah or Tribe) members who live and work on or near the three Reservations.

The Cocopah Casino, Cocopah Resort & Conference Center, and Cocopah Korner are located on the East Reservation. The Cocopah Museum is located near the Tribal Headquarters on the West Reservation. The Cocopah RV & Golf Resort is located on the North Reservation. The Cocopah Rio Colorado Golf Course is located in Somerton, Arizona.

Figure 5.10-A presents a general location map with Reservation boundaries, communities, and other important features.

5.10.2 Physical Setting
The West and North Cocopah Reservations lie to the east of the Colorado River in the historic floodplain with the West Reservation bordering the Colorado River in the unchannelized portion of the river below Morelos Dam. The North Reservation abuts the Colorado River just above Morelos Dam. The East Reservation is across the Yuma valley, east of Somerton, primarily on the Yuma Mesa.

5.10.2.1 Watersheds
The Colorado River roughly parallels much of the western borders of the Cocopah North and West Reservations. Flows in this reach of the river are regulated mainly by Imperial Dam where Colorado River water is diverted to California through the All-American Canal. At Morelos Dam, the Canal Alimentador Central diverts most of the remaining River flow pursuant to the Mexican Water Treaty of 1944. The River below Morelos Dam, which constitutes the western boundary of the West Reservation, becomes a dry river bed except during flood events.
5.10.2.2 Hydrogeology

The Reservation is located on part of the floodplain of the Colorado River in an area of undifferentiated alluvial sediments and sedimentary rocks of Quaternary age that include flood plain deposits. Numerous domestic and irrigation wells can be found through the area, which for the most part are unaccounted for by Reclamation and do not contribute return flows to the Colorado River.

5.10.2.3 Climate

The climate on the Cocopah Reservation area is extreme in the summer and mild in the winter. Summer high average daily temperatures range from 104 to 108 °F. The area is almost entirely frost-free. The average annual precipitation in nearby Yuma is only 2.86 inches with the majority falling in the late summer and winter. Spring and early summer are generally dry with some months receiving almost no precipitation.

5.10.3 Historical Use and Cultural Importance of Water

The Cocopah (Kwapa), also known as the River People, have long lived along the lower Colorado River and delta. For centuries, the Cocopah people have maintained their traditional and cultural beliefs through various political environments and ever-changing landscapes.

The Cocopah Indian Tribe is one of seven descendant Tribes from the greater Yuman language-speaking people who occupied lands along the Colorado River. Cocopah Tribal ancestors also lived along the lower Colorado River region near the river delta and the Gulf of California. The Cocopah people had no written language.

Journals kept by travelers along the Colorado River and migrants into the West documented the Cocopah people. Spanish explorer Hernando de Alarcon, a member of Coronado's marine expedition, traveled the river in 1540 and described members of Cocopah as tall, well-built people who carried wooden maces and bows and arrows. The men wore loincloths and the women wore willow bark skirts. The explorer and his crew were offered gifts of shells, beads, well-tanned leathers and food.

Don Juan de Onate and Father Escobar sailed up the river, leading 30 soldiers on an expedition west to the Colorado River and south to the Gulf of California in 1604, where there were estimated to be about 6,000 to 7,000 Cocopah people living along the delta and the lower Colorado River. Fellow travelers, such as Father Kino, Father Garces, fur trapper James O'Patte, military men and ethnographers, kept colorful records from 1540 to 1917.

Westward expansion in the 1840s and the discovery of gold in California in 1849 brought many migrants through the area near the mouth of the Colorado River and the Grand Canyon region. The strategic importance of the Yuma river crossing was recognized by the U.S. government, and the U.S. Army established Camp Independence in 1850 to protect the entry route through the Tribe's territories. The following year the camp was moved to the site of an old Spanish Mission later named Fort Yuma, which still stands today.

Throughout the mid-1800s and early 1900s, the Tribe effectively resisted assimilation to an established reservation and maintained its social, religious and cultural identities.
In the last half of the nineteenth century, the steamboat business became important to the Cocopah people. Cocopah men, known for their skillful river navigating, were valued riverboat pilots.

Historical records show that the Cocopah domain once included portions of Arizona, southern California and Baja, and Sonora, Mexico. In 1848, the Treaty of Guadalupe Hidalgo divided the U.S. and the Republic of Mexico (Mexico) as well as the Cocopah lands between the two countries.

President Woodrow Wilson signed Executive Order No. 2711 in 1917 which established the initial Cocopah Reservation. In 1985, the Cocopah Tribe gained an additional 4,200 acres, including the North Reservation, through the Cocopah Land Acquisition Bill signed by President Ronald Reagan (P.L. 99-23).

Historically, the Cocopah was a flood way, agricultural society. They lived on the delta and meandered with the river planting panic grass and squash and gathering, hunting and fishing. The Colorado River delta was the most prolific and diverse region in the world for flora and fauna. This all changed with the coming of the European settlers. First, the political geography changed and the Tribe was divided between the U.S. and Mexico, and the Tribe could no longer meander with the river. Then, the river changed. It was dammed and the water slowly taken until the river no longer traveled to the Sea of Cortez. The Colorado River became essentially a dry river bed from Morelos Dam to the Sea, some 69 miles, right through the heart of the Cocopah territory. In the meantime, the Tribe had been placed on a few hundred acres of ground on the West Reservation, next to the river. The River was eventually taken from them and the Tribe was left with dirt. What to do? Create another homeland? Become farmers? The river and the water, the life of the Tribe was gone. Only the federal Indian reserved rights to a little water to farm their land is left. Cocopah (Kwapa) are known as the river people, but there is no river left. They have had a centuries old way of life taken from them.

### 5.10.4 Cocopah Indian Tribe Water Supply

As shown in Table 5.10-A, Cocopah possesses present perfected federal Indian reserved water rights from the Colorado River mainstream pursuant to the decree in *Arizona v. California* and supplemental decrees (1979 and 1984).

The priority 4 decreed right for the Cocopah Indian Reservation is unique along the lower Colorado River because of its fairly recent priority date (1974). The 1984 Supplemental Decree in *Arizona v. California* recognized the decreed right for the Cocopah Reservation dated June 24, 1974, and amended paragraph two of Article II (D) of the 1964 Decree to reflect this 1974 water right.
In addition, Cocopah has an unresolved claim to federal Indian reserved water rights from the Colorado River mainstream pursuant to the *Winters Doctrine* for approximately 3,600 additional acres of land transferred in Trust to the Tribe on April 15, 1985.

“That, subject to all valid existing rights, all right, title and interest of the United States in the following described tracts of land shall be held by the United States in trust for the Cocopah Indian Tribe of Arizona and shall be part of the Reservation of such Tribe”¹

There was no mention of water by Congress. Yet the land is practically useless without it. The *Winters Doctrine* reserves federal reserved water rights for Indian tribes by necessary implication. That is, when creating reservations through treaties, executive order, or statutes, the U.S. would not have reserved land for the tribes without the water right necessary to make the land suitable as a homeland.² The priority date is based on the establishment of a reservation, (or the date of land acquisition for after acquired land).³

Thus, the Tribe has an unresolved claim to federal Indian reserved water rights for all the land that was conveyed to the Tribe on April 15, 1985. This is in addition to the 10,847 acre-feet per year (AFY) which is set forth in the Consolidated Decree of March 27, 2006. These reserved water rights entitle the Tribe to the amount of water necessary for the primary purpose of the Reservation as a homeland. This is usually measured by that water which would irrigate all “practicably irrigable acreage” of the reservations. This amounts to unresolved claim of an additional approximate 22,928 AFY with a priority date of April 15, 1985 as seen below in Table 5.10-B.

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¹ Public Law 99-23 99 Stat. 47.
TABLE 5.10-B
Cocopah Indian Tribe Colorado River Unresolved Diversion Claim Pursuant to the Winters Doctrine

<table>
<thead>
<tr>
<th>Reservation</th>
<th>State</th>
<th>Unresolved Diversion Claim (AFY)</th>
<th>Net Acres</th>
<th>Priority Within State</th>
<th>Priority Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocopah Indian Reservation</td>
<td>Arizona</td>
<td>22,928</td>
<td>3,623</td>
<td>3-4</td>
<td>April 15, 1985</td>
</tr>
</tbody>
</table>

5.10.5 Current Water Use and Operations

Current water use (essentially all for agricultural purposes) on the Reservations is approximately 6,500 AFY. Cocopah uses groundwater which is of questionable potability and is unaccounted for by Reclamation. Until infrastructure is developed to transport river water throughout the Reservation, the Tribe is limited to its current development level.

The Tribe receives some of its irrigation water from canals which are part of the Yuma County Water Users system. This system, which was built prior to Cocopah’s first reserved water right priority date of 1915, irrigates a portion of the West Cocopah Reservation. The Tribe also has several wells on the west side of the West Reservation that irrigate property along the River that is between the River and the levee (inside the levee), adjacent to the Colorado River. The water pumped from these wells is not included in the annual Colorado River accounting process, as these wells are located south of the Yuma administrative divide, which extends east from the Northerly International Boundary (NIB) with Mexico. The section of the lower Colorado River which forms the international boundary between the United States and Mexico from the NIB to the Southerly International Boundary (Limotrophe section), is outside Reclamation’s water accounting area (Fed. Reg., 2008).

The North Reservation, north of the NIB, is located inside the levee, and is irrigated solely with wells as the Reservation has no infrastructure for water deliveries. Because the North Reservation is north and east of the NIB, the water pumped from these wells is included in Reclamation’s annual Water Accounting Report. The Tribe has approximately 140 acres of prime farmland on the east edge of the Reservation with a separate reserved water right established by the Powers Settlement in 1954 which is not included in this summary.

The East Reservation, which was enlarged in 1985 by 4,200 acres, has no infrastructure for irrigation. Housing has been developed along the Yuma Project’s East Main Canal, and a casino, bowling alley and service station/food mart have been developed on the far-east side of the Reservation. Between the housing and the casino are approximately 2,000 acres of undeveloped ground.
Chapter 5 – Assessment of Current Tribal Water Use and Projected Future Water Development

5.10.5.1 Irrigated Agriculture and Livestock Water Use Category

Agriculture is a major economic resource for Cocopah. The Tribe, which leases its farmland to other farmers, keeps about 2,400 acres of land under irrigation. Approximately 600 acres of the North Cocopah Reservation along the Colorado River north of Morelos Dam includes water for the Tribe from wells located next to the river.

The Tribe has not developed most of the land on the East Reservation because of lack of infrastructure (canals) to transport the water. All of the land is outside of irrigation districts and associations, which provide the necessary infrastructure. See photographs in this section, which demonstrate this condition.

5.10.5.2 Domestic, Commercial, Municipal, and Industrial Water Use Category

With the acquisition in 1985 of an additional 4,200 acres of land, Cocopah established several businesses including a convenience store, gas station, smoke shop, R.V. Park, two golf courses, and the Cocopah Speedway.

The Tribe also operates the Cocopah Casino on Highway 95 on the East Cocopah Reservation. The water supply for this business comes from the ground water wells on the East Reservation. The well water has total dissolved solids concentrations of approximately 2,500 parts per million.
5.10.5.3 Summary of Current Water Use

Cocopah’s average annual water use for the period from 2009 through 2013 in Arizona is presented in Figure 5.10-B and Table 5.10-C. The average annual water use for the 2009 through 2013 period is consistent with Reclamation’s Colorado River Accounting and Water Use Reports: Arizona, California, and Nevada (Water Accounting Report) (Reclamation, 2017) and was supplemented with water use information provided by the Tribe for the purpose of the Tribal Water Study. Consumptive use amounts were estimated using either efficiency factors in the Water Accounting Report or standard engineering efficiencies.

![Figure 5.10-B](image)

**Figure 5.10-B**
Cocopah Indian Tribe Current Average Annual Water Use in California (2009 – 2013)

<table>
<thead>
<tr>
<th>Water Use Category</th>
<th>Diversion (AFY)</th>
<th>Estimated Current Consumptive Use (AFY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG</td>
<td>6,973</td>
<td>3,835</td>
</tr>
<tr>
<td>Total</td>
<td>6,973</td>
<td>3,835</td>
</tr>
</tbody>
</table>

AG – Irrigated Agriculture and Livestock

1 Source: Consolidated Decree of March 27, 2006. The quantity of water is measured by (i) annual diversions not to exceed 10,847 acre-feet or (ii) the quantity of mainstream Colorado River water necessary to supply the consumptive use required for the irrigation of 1,714 acres and for the satisfaction of related uses, whichever of (i) or (ii) is less.

2 Includes Cocopah Indian Tribe’s unresolved diversion claim of 22,928 AFY in Arizona.

5.10.6 Tribal Water Use Challenges

The biggest challenge to fully using Tribal water resources is unbuilt infrastructure. With access only to existing delivery systems, the Tribe is left with a partially developed homeland. Only with further development of the resources of their homeland can the Tribe realize increased incomes, productivity, and economic status.
The lack of a policy to confirm that Cocopah’s federal Indian reserved water right is not subject to limitation on use is also a continuing challenge. The Tribe believes the water should be able to be used for multiple purposes ranging from agriculture and domestic uses to commercial and industrial uses. Additionally, the water should be able to be leased, banked, subject to a forbearance agreement, or sold. With no policies that would enable these activities to be implemented through extended use of existing reserved water rights, the Tribe faces a bleak future.

5.10.7 Projected Future Water Development

Cocopah’s future water development was assessed by first examining the location, quantity and type of current water use and then, by applying the Tribal Water Study’s scenario planning process, envisioning a range of future water development.

The Tribal Water Study’s scenarios and associated themes are listed below. Detailed descriptions of these scenarios (storylines) were created to consider a wide range of possible water development outcomes. For additional information, including the scenario storylines, see Chapter 4 – Methodology for Assessing Current Tribal Water Use and Projected Future Water Development.

- **Current Water Development Trends (Scenario A):** Current trends in on-reservation water development, governance, funding, and resolution of tribal claims remain the same.

- **Slow Water Development Trends (Scenario B):** Decreases flexibility in governance of tribal water, levels of funding, and resolution of tribal claims slow tribal economic development. This results in a decline in the standard of living and delays resolution of tribal claims.

- **Rapid Water Development Trends (Scenarios C1 and C2):** Increased flexibility in governance of tribal water allows innovative water development opportunities and increased funding availability leads to tribal economic development. This results in an increase in the standard of living, thereby contributing to the fulfilment of the purpose of the reservation as a homeland and supporting the future needs of tribal communities. Scenario C1 considers partial resolution of claims and/or implementation of decreed or settled rights; and Scenario C2 considers complete resolution of claims and implementation of decreed or settled rights.

Cocopah contemplated its future water development through 2060 by reviewing its current water use estimates and reflecting upon how these might change under the four scenarios. During this process, the Tribe considered such elements as the scenario conditions described in the storylines, current or future planned projects, anticipated changes in water use by category, and the extent and condition of existing water infrastructure and the need, as well as the cost, for new infrastructure to support water development. Cocopah contemplated future development in the four water use categories: Irrigated Agriculture and Livestock Water Use (AG); Domestic, Commercial, Municipal, and Industrial Water Use (DCMI); Environmental, Cultural, and Recreational Water Use (ENV); and Transfers, Leases, and Exchanges (TRAN).

From this examination, the Tribe extrapolated likely future use if current trends (Scenario A) continued through 2060 and prepared a quantified water development schedules for its reserved water rights in Arizona. Subsequently, Cocopah used this same approach to prepare future water
development schedules reflective of how the other scenario storylines (Scenarios B, C1, and C2) could affect its future water development. The documentation for each development schedule is presented in the following sections.

5.10.7.1 Future Water Development Schedules

Future water development schedules were developed by Cocopah for each scenario. The assumptions for each schedule are described below and the schedules presented graphically in Figure 5.10-C and numerically in Table 5.10-D.

Current Water Development Trends (Scenario A)

If current trends in on-reservation water development, governance, funding, and resolution of tribal claims remain the same, by 2060 the total water diversions on the Cocopah Reservation could increase by approximately 55 percent to the full reserved diversion water right. The diversion increase would be mainly due to increased AG water use in the North Reservation where irrigation infrastructure currently exists and a 10 percent increase in DCMI use. Increase efficiencies in AG and DCMI water use would increase consumptive use by approximately 30 percent. The water development schedules assumes that two percent of the water right would be used for ENV purposes by 2060 and that there would be no TRAN water use.

Slow Water Development Trends (Scenario B)

Decreases in flexibility in governance of tribal water, levels of funding, and the resolution of tribal claims could slow tribal economic development in Scenario B. Under this scenario, the Cocopah Tribe prepared a water development schedule that shows full diversion of the Tribe’s reserved water right by 2060 due to increases in AG water use. Agricultural efficiencies remain constant at 55 percent. No DCMI development or transfers were assumed. It was assumed that two percent of the water right was used for ENV purposes by 2060.

Rapid Water Development Trends, Partial Settlement Resolution/Implementation (Scenario C1)

Under Scenario C1, a partial resolution of the claims and/or implementation of decreed or settled rights leads to increased flexibility in governance of tribal water allowing innovative water development opportunities and increased funding availability leads to tribal economic development. Under this scenario, diversion of the Tribe’s full reserved water right occurs by 2022 due to the ability to transfer water. It was assumed that water transfers can begin by 2021 and are maximized to the full water right by 2022. The amount of water transferred decreases as Tribal AG and DCMI water use increases to full water right by 2040 (approximately 20 percent increase). In addition, both AG and DCMI efficiencies increase (AG to 70 percent; DCMI to 80 percent), so total consumptive use increases nearly 25 percent by 2040. ENV purposes continue to use two percent of the water right.

Rapid Water Development Trends, Complete Settlement Resolution/Implementation (Scenario C2)

Scenario C2 builds on scenario C1 by considering a complete resolution of claims and implementation of decreed or settled rights, which further increases water development opportunities. Under this scenario, TRAN use begins in 2019 to allow the Tribe to reach full diversion of its water right by 2020. The amount of water transferred decreases until 2030, when
the Tribe uses its full water right for mostly AG and DCMI purposes. As DCMI water use increases through 2060, AG water use decreases. Both AG and DCMI efficiencies increase (AG to 75 percent; DCMI to 80 percent), so total consumptive use increases nearly 43 percent by 2060. ENV purposes continue to use two percent of the water right.
Cocopah Indian Tribe's reserved diversion water right in Arizona is 10,847 AFY.

Cocopah Indian Tribe's diversion unresolved claim of 22,928 AFY in Arizona was not included in the modeling for the Tribal Water Study.
5.10.7.2 Summary of Projected Future Water Development

Cocopah’s current water use and projected future water development under the Tribal Water Study’s water development scenarios, and modeled for analysis purposes, is presented in Table 5.10-D.

<table>
<thead>
<tr>
<th>Water Use Timeframe and Category</th>
<th>Scenario A (AFY)</th>
<th>Scenario B (AFY)</th>
<th>Scenario C1 (AFY)</th>
<th>Scenario C2 (AFY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diversion</td>
<td>Consumptive Use</td>
<td>Diversion</td>
<td>Consumptive Use</td>
</tr>
<tr>
<td>Current Use</td>
<td>AG</td>
<td>6,973</td>
<td>3,835</td>
<td>6,973</td>
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<tr>
<td></td>
<td>DCMI</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ENV</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td></td>
<td>TRAN</td>
<td>0</td>
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<tr>
<td>Total</td>
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<td>6,973</td>
<td>3,835</td>
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<tr>
<td>Use at 2040</td>
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<td></td>
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<td>ENV</td>
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<td>TRAN</td>
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<td>Use at 2060</td>
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</tr>
<tr>
<td></td>
<td>TRAN</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
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<td>7,354</td>
<td>10,847</td>
<td>7,777</td>
</tr>
</tbody>
</table>

1 Cocopah Indian Tribe’s reserved diversion water right in Arizona is 10,847 AFY.
2 Cocopah Indian Tribe’s diversion unresolved claim of 22,928 AFY in Arizona was not included in the modeling for the Tribal Water Study.