



# United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
WESTERN REGIONAL OFFICE  
2600 North Central Avenue  
Phoenix, Arizona 85004



IN REPLY REFER TO:  
Division of Natural Resources

DEC 02 2016

Honorable Dennis Patch  
Chairman, Colorado River Indian Tribal Council  
26600 Mohave Road  
Parker, Arizona 85344-7737

Dear Chairman Patch:

On October 4, 2016 representatives of the Bureau of Indian Affairs (BIA) and the Bureau of Reclamation met with representatives of the Colorado River Indian Tribes (Tribes) in order to engage in a 43 CFR, Part 417 (Part 417) consultation with the Tribes. Part 417 obligates the BIA to see that releases of Colorado River water to tribal entities do not exceed those reasonably required for beneficial use. During this consultation meeting the Tribes' 2017 Colorado River water usage requirements and plans were discussed.

With consideration given to discussion held at the aforementioned consultation meeting and in fulfillment of responsibilities described in Part 417, the Regional Director, Western Regional Office has formally determined the Tribes' 2017 Colorado River water order. This water order is provided in the table below and corresponds with the diversion schedule previously submitted by the Tribes to the BIA (except for rounding differences). The estimated quantities conserved through the Tribes' System Conservation Implementation Agreement with the Bureau of Reclamation have been incorporated. A copy of the diversion schedule submitted by the Tribes, along with the Tribes' completed Consultation Questionnaire, is enclosed.

The Tribes' 2017 water order is (all quantities in acre-feet):

Month	Arizona			California
	Diversion at Headgate Rock Dam	Other Diversions	AZ Totals	
JAN	26,011	276	26,287	233
FEB	42,100	429	42,529	281
MAR	56,706	405	57,111	379
APR	68,214	618	68,832	414
MAY	71,555	745	72,300	504
JUN	71,377	896	72,273	607
JUL	75,798	920	76,718	657
AUG	67,154	892	68,046	635
SEP	46,953	723	47,676	506
OCT	45,170	612	45,782	426
NOV	35,871	460	36,331	311
DEC	34,740	436	35,176	296
TOTAL	641,649	7,412	649,061	5,249
ENTITLEMENT		662,402		56,846

## Colorado River Indian Tribes **Part 417 Consultation Questionnaire**

The 43 Code of Federal Regulations, Part 417 (Part 417) obligates the Secretary of the Interior to see that releases of Colorado River water to Colorado River tribal entities will not exceed those reasonably required for beneficial use. Every year, the tribes of the Colorado River Indian Reservation (Tribes) are asked to submit an estimate of the Tribes' twelve month Colorado River diversion rate and anticipated monthly diversion schedules to the Bureau of Indian Affairs (BIA) for the following calendar year. The BIA is directed by Part 417 to consult with Colorado River tribal entities each year regarding water conservation measures, operating practices, and the beneficial use of Colorado River water.

For calendar year 2017, the Part 417 consultation is being supplemented with the collection of written information. This information, along with other relevant materials, will be examined by BIA Western Region staff. Following this examination, the Regional Director's determination of the approved diversion amount will be communicated in writing to the Tribes. Part 417 establishes procedures under which the Tribes may request modification of the determination or later appeal it to the Secretary of the Interior. Please review this Part 417 Consultation Questionnaire and reply to the listed topics.

**Diversion:** Provided in Table 1 is a historic review of the Tribes' demands for Colorado River water since calendar year 2011 based upon data acquired from the Bureau of Reclamation website on August 19, 2016 (<http://www.usbr.gov/lc/riverops.html>). Past water use is one factor that can be used in determining water requirements for the Tribes.

Table 1. Colorado River diversions for the Colorado River Indian Reservation.

Year	CA Diversion (Acre-feet)	AZ Diversion (Acre-feet)
2017 Projected	5,249	649,057
2016	5,265	568,567
2015	5,095	595,889
2014	5,385	623,185
2013	5,315	616,496
2012	5,443	644,012

**Part 417 Factors:** Part 417.3 prescribes a list of factors to be examined by the BIA in approving the Tribes' annual water order. BIA consults annually with the Tribes on the Part 417.3 factors. During the month of October 2015, BIA staff met with Tribal staff and discussed each factor. Tribal responses are noted on the Consultation Questionnaire. The BIA requests an update of this information, and any additional written information that the Tribes desire to include, in order to support the Tribes' request for 2017 diversions. Please note that the implementation of water conservation measures may also affect water requirements.

**Water Conservation Planning:** The Tribes annually implement measures to improve the management of their water supply and meet the water needs of water users. Water management activities planned for 2016 were noted in the 2016 Consultation Questionnaire. In addition to providing a reply to each factor listed, the Tribes should also describe those activities implemented in 2016 which may influence the Tribes' water order for 2017.

Please respond to each item in the Consultation Questionnaire and fill out the attached diversion estimate table with your Tribes' anticipated 2017 diversion quantities by month. The Tribe may return these completed forms to the BIA, or provide the requested information in a format of its choice, provided that the format addresses each factor. This written consultation, along with any other material considered to be relevant, will be used to determine the Tribes' approved diversion for calendar year 2017.

Part 417.3 Factors	2016 Reply	2017 Reply (Written)
Area to be Irrigated <sup>1</sup>	Approximately 70,037 acres	Approximately 70,037 acres are assessed for O&M. Actual irrigated acreage is less.
Climatic Conditions <sup>2</sup>	NOAA predicts big El Nino	AZMET Parker No. 1 Weather station—mean (1996-2015) annual max temp = 86.8 F; mean annual min temp = 54.1 F; mean annual precip = 3.12 inches; mean annual grass reference ETo = 81.9 inches
Location <sup>3</sup>	Same location	Same location
Land Classification <sup>4</sup>	Same	Same
Kinds of crops raised <sup>5</sup>	A little more alfalfa (see *5)	Low alfalfa prices may result in alfalfa fields to be taken out of production
Cropping Practices <sup>6</sup>	Same practices	Same practices

<sup>1</sup> Have the Tribes added or reduced the number of turnouts or cultivated acres in its service area?

<sup>2</sup> List weather stations used, annual mean temperature and rainfall, and reference evapotranspiration (ETo).

<sup>3</sup> Have there been any changes in the location of Tribes' facilities (e.g. canals, laterals, gates, etc.)?

<sup>4</sup> Quantify crop acres moved between soil classifications and projected impact on water use.

<sup>5</sup> List changes in crop types (e.g. more/less alfalfa than last year, etc...) and the projected impact on water use.

<sup>6</sup> Identify projected changes to cropping practices (e.g. sprinkle germination, etc..) and the expected impact on water use.

<b>Part 417.3 Factors</b>	<b>2016 Reply</b>	<b>2017 Reply (Written)</b>
Type of Irrigation System in Use <sup>7</sup>	No Change	No change
Condition of Water Carriage & Distribution Facilities <sup>8</sup>	Similar to 2015 (*8)	Similar to 2016 (*8)
Record of water orders <sup>9</sup>	Same (no foreseen problems)	Same (no foreseen problems)
Record of Rejections of Water Orders <sup>10</sup>	Same (no foreseen problems)	Same (no foreseen problems)
General Operating Practices/Policies <sup>11</sup>	No Change	No Change
Operating Efficiencies <sup>12</sup>	80%	Project Conveyance Efficiency estimated to be ~80%
Methods of Irrigation of the water users <sup>13</sup>	No Change, Minimal Slope Border Flood	No Change, Minimal Slope Border Flood
Amount and rate of return flow to the CO river <sup>14</sup>	372 cfs	396 cfs
Municipal Water Requirements <sup>15</sup>	10,000 ac-ft	10,000 ac-ft
Provisions of Users Water Delivery Contract <sup>16</sup>	N/A	N/A
Water Rates <sup>17</sup>	No change	No change
Number of Ditch Riders <sup>18</sup>	15 Ditch Riders, 3 Filling in from other positions, 6 Emergency Hire Ditch Riders, and 6 positions posted waiting to be filled	21 Ditch Riders
Water Conservation <sup>19</sup>	\$200,000	\$266,500

<sup>7</sup> Has there been a change in irrigation methods such as more/less drip acreage, level basin acreage, etc.?

<sup>8</sup> Amount of water delivered/sold to customers in acre feet.

<sup>9</sup> Do the Tribes amend daily water orders with the USBR more than three times a month?

<sup>10</sup> Have water orders from farmers been rejected by the Tribe (e.g. for non-payment, etc.), which would impact their water order?

<sup>11</sup> Have there been any changes to operating practices or policies? If so, describe the new operating practice or attach a description of the new policy.

<sup>12</sup> Total water consumed divided by total water diverted in percent.

<sup>13</sup> Types of irrigation management practices employed (e.g. surge, cutback, etc.). Describe any changes to the type of management practice utilized and provide the quantity of acres affected by these changes.

<sup>14</sup> Amount (cfs) and average rate (ft/sec) of return flow to the river.

<sup>15</sup> The amount of water going to non-agricultural uses (municipal, industrial, feedlots, other, etc...) in acre feet.

<sup>16</sup> Have there been any changes in the water service contract?

<sup>17</sup> Have there been any changes in water rates? If so, submit the changed rates.

<sup>18</sup> Number of ditch riders and areas/divisions each ditch rider works.

<sup>19</sup> How much money will be spent by the Tribes on water conservation for 2017?

Part 417.3 Factors	2016 Reply	2017 Reply (Written)
Other Relevant Factors <sup>20</sup>	No Change	see below

**WATER CONSERVATION PLAN IMPLEMENTATION<sup>21</sup>**

**2016 Activity**

1. NRCE completed the report: Agricultural Resource Management Plan: Phase I—Irrigated Agriculture Inventory and Issues. This report was reviewed and approved by CRIT Tribal Council. Various components of the report were presented and discussed at three meetings of the CRIT Project Irrigation Committee.
2. NRCE is currently completing Phase II of the ARMP which includes: 1) an inventory, assessment, and recommendations for improvement of water measurements (infrastructure, methods, data management, etc.) on the Colorado River Irrigation Project; and, 2) identification and evaluation of irrigation efficiencies (conveyance and on-farm) on the Project and opportunities for efficiency improvements and water conservation.
3. CRIT is continuing to plan and implement SCADA improvements on the Project.
- 4.

**OTHER<sup>22</sup>**

CRIT has entered into a SYSTEM CONSERVATION IMPLEMENTATION AGREEMENT (SCIA) with the US BUREAU OF RECLAMATION to implement a pilot system conservation program to create conserved water in Lake Mead. The Tribes will fallow 1,591 acres of the area known as Kudu Farms from October 1, 2016 to September 30, 2017 with options to extend the agreement for two more years. CRIT will reduce diversions at Headgate Rock Dam by 2,041 AF for the period October 1, 2016 through December 31, 2016; and by 13,345 AF for the period January 1, 2017 through September 30, 2017. Total diversion reduction for the one year period, October 1, 2016 to September 30, 2017 is 15,386 AF.

<sup>20</sup> Optional, please identify any other relevant factor/factors and explain why it would impact the water order.

<sup>21</sup> Water conservation activities/measures/practices the Tribes implemented in 2016.

<sup>22</sup> Other relevant materials to submit (e.g. new water conservation plan, transfers, water price sheet, etc.).

## Colorado River Indian Tribes Diversion Estimates by Month

Total Pumped & Surface Water Diversions

<b>2017 Diversion Estimates (ac-ft.)</b>					
	California	Arizona			
Month	River Pumps	Headgate Rock Dam	Diversion Reduction*	CRIT Other Diversions	Total Diversion
JAN	233	26,505	494	276	26,288
FEB	281	42,865	765	429	42,528
MAR	379	57,798	1092	405	57,110
APR	414	69,826	1612	618	68,832
MAY	504	73,479	1924	745	72,300
JUN	607	73,316	1939	896	72,274
JUL	657	77,722	1924	920	76,717
AUG	635	69,133	1979	892	68,045
SEP	506	48,567	1614	723	47,675
OCT	426	45,170		612	45,782
NOV	311	35,871		460	36,331
DEC	296	34,740		436	35,176
TOTAL	5,249	654,991	13,345	7,411	649,057
ENTITLEMENT	56,846				662,402

\* The Colorado River Indian Tribes entered a System Conservation Implementation Agreement with the Bureau of Reclamation to create conserved water in Lake Mead. The Tribes will fallow 1,591 acres of the area known as Kudu Farms from October 1, 2016 to September 30, 2017 with options to extend the agreement for two more years. The total required diversion reduction for the period January 1- September 30, 2017 is 13,345 AF. Monthly diversion reduction amounts for January through September are shown in the table. If the agreement is renewed for the period October 1, 2017-September 30, 2018 the diversion reductions required for October-December 2017 will be provided in September 2017.