

Appendix F13
Options Submitted by the Ten Tribes Partnership
and the Inter Tribal Council of Arizona

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Options pertaining to water development and use were submitted by tribes for consideration in the Colorado River Basin Water Supply and Demand Study (Study). In particular, this appendix includes the original options that were submitted by the Ten Tribes Partnership and the Inter Tribal Council of Arizona. See attachment A for the original option submitted by the Ten Tribes Partnership and see attachment B for the original option submitted by the Tribal Council of Arizona.

Appendix F13
Attachment A
Option Submitted by the
Ten Tribes Partnership

Attachment A — Option Submitted by the Ten Tribes Partnership

TEN TRIBES PARTNERSHIP'S PROPOSED OPTION: VOLUNTARY TRIBAL WATER TRANSFERS

In past work with the Bureau of Reclamation (“BOR”), the Ten Tribes Partnership has emphasized the BOR’s trust responsibility to protect and to develop for the benefit of member Tribes the water rights reserved for the benefit of the Tribes under federal law (“reserved rights”). *See, e.g.* Letter from Jessica R. Aberly to David J. Hayes, Deputy Secretary of the Interior (Jan. 8, 2001). The Ten Tribes Partnership reiterates BOR’s trust responsibility here and asserts that the BOR, in carrying out a study of the supply and demand of the Colorado River Basin water (“Basin Study”), is legally required to ensure that the reserved rights of each of the member Tribes are recognized and protected in the BOR’s representation of the current use and future imbalances in the water supply and demand in the Basin.

The Ten Tribes Partnership asserts here that the Basin Study must recognize that the member Tribes are the rightful owners of their full water entitlements (both the developed and undeveloped portions, and both the quantified and unquantified entitlements) to yield greater predictability to models of future imbalances in the Basin. At the February 8, 2012 meeting between the Ten Tribes Partnership and the BOR in Parker, Arizona, BOR representatives stated that the modeling work for options to resolve future supply and demand imbalances would assume that any undeveloped portions of reserved rights are not available to resolve any future imbalances in the Basin. The member Tribes appreciate this BOR action to ensure that the future options modeling work does not contemplate the use of undeveloped tribal water entitlements without the consent of the appropriate Tribe. The member Tribes look forward to working individually with the BOR to ensure that the BOR model properly represents and protects the full water entitlement of each member Tribe. The Ten Tribes Partnership asserts that the BOR modeling work and storylines for the water supply assessment (identifying the supply and demand imbalances) must also reflect the extent to which the demands of other water users cannot be met without utilizing any undeveloped portions of tribal water entitlements. We would like to schedule a meeting between BOR and the Ten Tribes Partnership technical group as soon as possible to determine the most feasible way to accomplish such analysis.

Assuming that BOR has adequately modeled or otherwise accounted for full tribal ownership of each water entitlement and has identified the potential use of any undeveloped tribal water by others, the Ten Tribes Partnership proposes that BOR assess how voluntary transfers of tribal water might be used to assist in meeting future imbalances. This

assessment should not be constrained by any particular interpretation of existing law and policy in the Colorado River Basin.

Each member Tribe has the sovereign right and authority to regulate the use of its water resources, and currently each Tribe has committed a portion of its water rights to uses within its Reservation boundaries. Each Tribe will have a different policy and different issues with respect to the various options for use of its waters. There are a number of voluntary tribal transfers which one or more of the Tribes are exploring, or may wish to explore, to utilize their water entitlements for the ultimate benefit of their members. The voluntary tribal transfers will likely include, but are not limited to, water banking, water marketing, leasing and forbearance agreements. These transfers could be to any existing user of Colorado River water without regard to geographic limits. The analysis should include the extent to which each Tribe's ability to use its water rights on any of its lands without regard to State boundaries would assist in meeting demands in the Basin as a whole.

These proposed tribal water transfers are largely conceptual at this time. However, States and other entities have implemented a variety of programs to improve the efficiency of water use in ways that previously would have been considered unacceptable under the Law of the River. There are also successful water transfer arrangements in place in the Colorado River Basin involving tribal water and non-Indian communities. For example, the litigation between the United States and the Quechan Indian Tribe, on the one hand, and the states of California and Arizona and the Metropolitan Water District (MWD), *et al.* on the other, illuminated the fact that the Tribe was entitled to water beyond its current needs while at the same time providing water to agencies, such as MWD, which was in dire need of water given drought conditions and increasing water needs. Thus, as part of the overall settlement of Quechan's entitlement, an agreement was achieved between Quechan and MWD to allow MWD to receive the benefit of unutilized water allocation in any given year. In a unique action, the United States concurred in this agreement which allows tribal water to be exchanged and utilized by nontribal users for a cash payment. The Agreement, approved by the United States Supreme Court in the 2006 decree, provides essentially that the Tribe may, at its sole option, choose to forebear (*i.e.*, not use) its allocation and assign that allocation to MWD for an "add on" to MWD's allocation. This option is solely at the Tribe's discretion and may be utilized on a year-to-year basis. The initial quantity of water available under the Agreement is 13,000 acre feet a year with an additional 7,000 acre feet available in 2035.

Also, the Jicarilla Apache Nation has settlement water that it leases to a number of different entities for off reservation use subject to the approval authority of the Secretary of the Interior, and the Nation exports for depletion out of the Colorado River Basin 6,500 acre feet for use in the Rio Grande Basin. In addition to leasing settlement water, the Nation, through its Water Administration Office, permits bulk sale of decreed water. This water is available to users in and outside of the Colorado River Basin. Using this approach eliminates the necessity of having to obtain Secretary of the Interior approval, which is required for leases of water for

off reservation use, because no interest in the Nation's water rights is being conveyed. This approach increases the efficient use of water by those in need. This procedure will continue to be used by the Nation in the future.

These examples demonstrate that voluntary tribal water transfers can be used to meet the needs of Colorado River Basin users as well as out of basin users. Voluntary tribal water transfers could occur to the benefit of existing Colorado River Basin users if the proper agreements are put into place. The Ten Tribes Partnership is now asking BOR to help assess how voluntary tribal water transfers could be used to improve the reliability of the water supply in the Basin.

As a final note, the Ten Tribes Partnership emphasizes that these options are designed for voluntary tribal transfers only. In no case should the development of these options mandate transfers of any particular tribal resource from any of the member Tribes. The Ten Tribes Partnership invites BOR to enter into long-term discussions with the Ten Tribe Partnership to work through these various options. As an interim step, we would like to schedule a meeting as soon as possible between BOR and the Ten Tribes Partnership technical group to determine how best to analyze and pursue these options.

Appendix F13
Attachment B
Options Submitted by the
Inter Tribal Council of Arizona

Attachment B — Options Submitted by the Inter Tribal Council of Arizona

The Future of the Colorado River System: A Tribal Perspective from Arizona

Introduction

The water of the Colorado River and its tributaries is the lifeblood of tribal people and tribal communities and has been for millennia. Tribal people have lived along the banks of the River system, managing its flow and withstanding its vagaries, while building thriving civilizations in these arid lands.

To every tribe, water is life. It has a sacred value. It is not simply a commodity to be measured, modeled, apportioned, bought and sold, argued about in the courts. Water is embedded in tribal culture. In many ways it is who tribal people are as human beings.

The tribal governments of Indian nations are sovereign governments. The United States has a government-to-government relationship with tribal governments. Tribes are not "stakeholders" with respect to the waters of the Colorado; they are governments with a right to participate on an equal basis with the federal government in establishing policy for the management of the River.

Today there are 30 federally-recognized Indian tribes within the boundaries of the Colorado River Basin. Twenty-two of these are located or have land in Arizona. Although the tribes differ in many ways, they are all united in a respect for water in all its forms.

Tribal water management occurs within a unique legal and institutional framework and is very closely linked to water rights. First in time, first in right -- the cornerstone of water law in Arizona and other Western states -- makes the aboriginal rights of tribes to water senior to those of users that arrived much later.

A century-old United States Supreme Court ruling forms an important legal basis for Indian water rights. In a 1908 decision in the case of *Winters v. U.S.*, 207 U.S. 564 (1908), the Court held that when the federal government creates an Indian reservation it implicitly reserves the right to use a sufficient amount of water to fulfill the purposes of the reservation.

This doctrine of federal reserved water rights for reservation areas was reaffirmed in a number of subsequent court decrees. For the tribes with land in Arizona, the 1963 decision of the United States Supreme Court in the case of *Arizona v. California*, 373 U.S. 546 (1963), is particularly important.

In its decision in that case, the high court said:

"It is impossible to believe that when Congress created the great Colorado River Indian Reservation and when the Executive Department of this

Inter Tribal Council of Arizona, Tribal Leaders Water Policy Council, March 1, 2012

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Nation created the other reservations they were unaware that most of the lands were of the desert kind - hot, scorching sands - and that water from the river would be essential to the life of the Indian people and to the animals they hunted and the crops they raised." *Id.* at 598-599.

The Court went on to assert that it would follow the decision in the *Winters* case, saying "We follow it now and agree that the United States did reserve the water rights for the Indians effective as of the time the Indian Reservations were created." *Id.* at 600.

The water rights of the five tribes along the mainstem of the Colorado River below Hoover Dam are quantified in the Court's rulings in the *Arizona v. California* case.

Over the last four decades, a number of tribes located off the mainstem of the Colorado River in central and southern Arizona have settled their claims for water rights through a negotiated process, affirmed in legislation passed by the United States Congress. In every case, Colorado River water supplied through the Central Arizona Project (CAP) canal has been part of the settlement.

A number of other tribes in Arizona have yet to obtain a quantification of their water rights, but do have allocations of CAP water. Most of the water involved cannot be used effectively by the tribes due to the restrictions on the use of CAP water and to the lack of tribal water distribution infrastructure. Still other tribes with land in Arizona have no quantification of their water rights and no allocation of CAP water, more than 100 years after the *Winters* decision.

There are eleven federally recognized tribal governments with trust land in Arizona whose water rights have yet to be completely adjudicated or quantified through litigation or settlements.

- The Havasupai Tribe
- The Hopi Tribe
- The Hualapai Tribe
- The Kaibab Band of Paiute Indians
- The Navajo Nation
- The Pascua Yaqui Tribe
- The San Carlos Apache Tribe
- The Tohono O'odham Nation
- The Tonto Apache Tribe
- The Yavapai-Apache Nation
- The White Mountain Apache Tribe, which has negotiated a settlement that is pending final approval by the adjudication court

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The Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Band of Paiute Indians and Navajo Nation are along or near the mainstem of the Colorado River as it flows through northern Arizona. The yet to be quantified claims of these tribes are sizeable.

In the case of the Navajo Nation, the claims affect not just rights to water apportioned to Arizona, but the Upper Basin states of Utah, Colorado and New Mexico as well. All of the reservation's 25,000 square miles are located within the Basin. Flowing through the northern portion of the reservation, the mainstem of the Colorado forms its western boundary. Major tributaries, the San Juan and Little Colorado Rivers, flow through Navajo tribal land.

Five tribes in Arizona have either Central Arizona Project (CAP) entitlements, but no settlements, or settlements for only part of their tribal lands:

- The Pascua Yaqui Tribe (CAP entitlement only, no settlement)
- The San Carlos Apache Tribe (CAP entitlement, partial settlement only)
- The Tohono O'odham Nation (CAP entitlement, partial settlement only)
- The Tonto Apache Tribe (CAP entitlement only, no settlement)
- The Yavapai-Apache Nation (CAP entitlement only, no settlement)

The Arizona Water Settlements Act of 2004 (AWSA) specifically reserves CAP water for use in future settlements. However, the amount reserved is not sufficient to meet the water rights claims of all the tribes involved. A very small quantity of mainstem water has also been reserved for a future settlement of tribal claims in Arizona.

It is essential that all tribal rights to the water of the Colorado River be included in full in the Basin Study, including the unquantified rights of tribes without settlements. The final report of the Study must reflect the fact that this water is tribal water and must be considered as such, whether currently quantified or not, whether currently used or not, whether currently leased or otherwise provided to others or not. It is not to be considered as water available to other users without tribal consent.

Appendix A lists the currently quantified rights of tribes with land in Arizona to Lower Basin mainstem and CAP water.

The Tribal Role in Charting the River's Future

Tribes must be full partners in any attempt to chart the future of the River.

Tribes hold rights to nearly three-quarters of the water covered by Arizona Priority 1 rights. Tribes hold entitlements to almost half of the water covered by long term CAP entitlements. Tribes in other states hold equally important and substantial rights to the water of the River and its tributaries.

Strategizing the future of the River is simply not meaningful without tribes at the table. A very substantial portion of the water involved is tribal water, no one else's.

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The history of the neglect of tribes and tribal rights in determining the future of the Colorado River has a long and sorry past. In some respects, it started in the negotiations that led to the 1922 Colorado River Compact, the cornerstone for the "Law of the River." Though the decision in the *Winters* case was issued by the United States Supreme Court a decade-and-a-half earlier, tribes were not invited to those negotiations. The federal government and the Basin states signed the Compact. Tribes were not parties to it.

Article VII of the Compact states: "Nothing in this compact shall be construed as affecting the obligations of the United States of America to Indian tribes." Notwithstanding this language, in the years that followed the adoption of the Compact the settlement of tribal claims to the River's water -- fundamental to any allocation of that water -- languished as the federal government and the states went about deciding how to apportion the River's water.

The federal government and all its agencies, including the Department of the Interior and its Bureau of Reclamation, are responsible for upholding the trust responsibility of the federal government to tribal governments.

The Bureau of Reclamation needs to adopt a comprehensive policy addressing how it will fulfill its trust responsibilities. That policy should incorporate the fundamental principles of the government-to-government relationship and a consultation process which involves the resolution of policy issues, not merely conducting listening sessions.

The policy should speak to the protection of trust assets, the resolution and protection of tribal water rights, the full use of the Bureau's authority to delegate functions and provide financing to tribes under all provisions of the Indian Self-Determination Act, respect for sacred sites and tribal religious practices and culture, the full implementation of federal policies with respect to human remains and the return of cultural items, the implementation of environmental programs including those under the Endangered Species Act, along with the opportunity to participate fully in Reclamation programs and activities.

The Colorado River Basin Study was created without tribes involved. That must be corrected and not repeated in any future discussions involving the management of the River.

Further, tribes must be involved as sovereign nations, not as "stakeholders." They have a right to this status on an equal basis with the federal government.

The Basin Study provides an occasion to move toward the full integration of tribal governments in the governance of the River. The agreement of the US Bureau of Reclamation (BOR) to meet with the major River tribes on an ongoing basis during the final phase of the Study, along with its participation in other meetings, such as those held by Inter Tribal Council of Arizona, are important first steps in this direction.

An inter-governmental forum to discuss and resolve current and future issues affecting the management of the River should be established that includes tribes as equal partners with the federal and state governments.

Strategies for a Way Forward

There are a number of strategies that address tribal issues in the future of the River, issues that should be included in the final report of the Basin Study. These strategies include, but are not limited to the ones discussed below.

Resolution of Tribal Claims

All discussion of water on the River must take into account the fact that tribes have claims to the River's water that have yet to be quantified. Future tribal demand, and therefore total demand, cannot be accurately modeled while these claims remain outstanding.

The Court system of the state of Arizona has failed tribes in its duties with regard to the adjudication of federal reserved water rights. The Gila River and Little Colorado River general stream adjudications have been pending for more than 30 years. Not one decreed Indian water right has been issued, other than the ones brought to the adjudication court as a result of negotiated settlements. With the surge in the growth of the non-Indian population, the demands on the water to which tribes have rights intensifies. The tribes are entitled to have their water rights quantified and protected. It is the solemn obligation of the government of the United States to insure that this happens.

Expediting the resolution of tribal claims must be a major priority. The Interior Department must take all necessary steps to facilitate this process.

A number of settlement negotiations are or have been underway. However, there are barriers to the conclusion of those negotiations, at least some of which can be removed.

A major barrier involves the acquisition of water needed to settle tribal claims.

In Arizona discussions are ongoing to identify sources of water and to develop appropriate institutional arrangements and secure funding to acquire and transport water to meet future non-Indian municipal and industrial needs. The Central Arizona Water Conservation District has done this, both to satisfy its existing legal obligations and to supplement CAP project water. The Arizona Water Resources Development Commission is doing this, in part to deal with current and future needs of communities in the more rural parts of the state.

Yet there appears to be no effort to identify and acquire sources of water to satisfy tribal claims.

The US Bureau of Reclamation and the affected tribes should work together to develop a water acquisition strategy and implementation plan to provide water to satisfy all currently unquantified tribal rights. This might involve the creation of an entity to pursue this goal. The affected tribes should have majority representation on the governing body of such an entity. It should have the legal power to acquire water rights, and, as appropriate, develop the infrastructure to make it available for tribal use.

A second issue in the resolution of pending tribal claims involves the limitation on the amount of CAP water reserved for future settlements.

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When Congress passed the Arizona Water Settlements Act (AWSA), it attempted to resolve this issue. Section 104(a)(1)(A)(iii) of the Act provides that 67,300 acre-feet of the non-Indian agricultural (NIA) priority water available to CAP is to be available for reallocation to Indian tribes. Of that amount, 23,782 acre-feet was allocated to the White Mountain Apache Tribe in its recently concluded negotiations, now pending final settlement in the adjudication court. A major portion of the remaining 43,518 acre-feet would have been used in a proposed but not concluded Navajo-Hopi settlement.

The limitation on the amount of CAP NIA water available for future settlements has the effect of constraining negotiations to resolve pending claims and should be increased.

Moreover, simply awarding CAP NIA water under the current priority system is not a guarantee that tribes will have access to "wet" water in the future. With the very real risk of a shortage of water on the River in future years, the supply available to CAP may be curtailed. NIA water, with its lower priority, may cease to be available. Even NIA water "firmed" to Municipal and Industrial (M&I) priority status will retain that status for just 100 years. Tribes have been here for millennia, and will continue to be here for long after any firming agreement ends.

Current law provides that the US Secretary of the Interior, in consultation with Arizona Indian tribes and the state, prepare a report to Congress by December 31, 2016. That report is to contain, among other things, an assessment of critical water needs on reservations without settlements. Interior and tribes need to start preparations to meet this reporting requirement and use it as an opportunity to examine an increase in the ceiling set in Section 104(a)(1)(A)(iii) of AWSA.

Enabling Tribes to Use All the Water to Which They Have Rights

Tribes with adjudicated water rights, including the mainstem tribes, are not always in a position to divert all the water to which they have rights. In recent years, mainstem tribes with rights to the Arizona apportionment of Colorado River water have diverted nearly all of the water to which they have rights. The small remainder is not credited to those tribes in any way.

When the Interim Shortage Guidelines were finalized in 2007, states were provided with a mechanism -- Intentionally Created Surplus (ICS) -- that encouraged them to conserve water which they are able to draw down in future years. The ICS idea started as a demonstration project that was then incorporated into the Interim Shortage Guidelines.

The ICS mechanism has proven to be popular with the states. According to the 2010 Colorado River Accounting and Water Use Report for the Lower Basin states, there was an end of year balance in in the various ICS accounts totaling 815,341 acre-feet.

Tribes have been given no comparable incentive to conserve water. Their only option is to draw down as much water as they can within the caps in their settlements. All the water to which tribes have rights that is not drawn down is lost to the tribe.

There should be an incentive for tribes to conserve water to which they have rights.

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That incentive might be created as a demonstration program for a Tribal Conservation Reserve (TCR). The details of such a plan should be worked out by interested tribes and BOR.

For purposes only of illustrating the concept, such details might include the following:

- In accordance with a plan, developed voluntarily by a tribe, a portion of the water that the tribe is eligible to divert in a given year would be held in Lake Mead in the form of TCR credits. The tribe could then divert that water in a future year by calling on its credits.
- A tribe with TCR credits could use its credits for the diversion of water to its own reservation. In addition, by mutual consent with another tribe with mainstem rights, a tribe with storage credits could elect to exchange its credits with another tribe for that tribe's use.
- Such exchanges would be permitted only among tribes, and only involving water accounted for in the same state's apportionment.
- The release of water reducing TCR credits would not be considered as "surplus" water as its withdrawal in the future year would be in lieu of its withdrawal in the year in which the credits were accrued.

Such a TCR demonstration program would have a number of benefits. The water conserved would be available to support the elevation of Lake Mead. No water rights would be exceeded. Only water to which tribes have rights would be affected. The demonstration would provide a cost-efficient, non-structural alternative to on-reservation underground storage.

There is an additional aspect of this issue. That involves the reuse of agricultural water.

Tribes currently return very significant amounts of irrigation water to the River. This is water that the tribes have a right to divert and put to their own use for agricultural or non-agricultural purposes, but instead is considered as non-tribal water as soon as it flows into the River.

In non-Indian communities, agricultural water reuse is regarded as one of a variety of options for obtaining additional water to support future community needs. This is not currently the case with respect to tribal communities.

Creating a Tribal Agricultural Water Reuse demonstration project would address this issue. The details of such a plan should be worked out by interested tribes and BOR.

For purposes only of illustrating the concept, such details might include the following:

- In accordance with a plan, developed voluntarily by the tribe, the amount of agricultural drainage water produced in any given year would be given storage credits in an on-River reservoir. The tribe could redeem those credits in a future year for community and economic development purposes within the reservation's borders.

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- Storage credits for agricultural reuse water would be accrued year by year based on the calculated volume of such water.
- The tribe could redeem its credits in any future year in accordance with its plan, for purposes described in that plan. Eligible purposes might include:
 - Municipal needs in communities within the exterior boundaries of the reservation.
 - On-reservation economic development, including power generation.
 - On-reservation development of additional agricultural land.
 - Transfer of the use of credits to other tribes with the consent of all the tribes involved.

Such a demonstration program would have a number of benefits. Tribes would be able to make full use of their existing water rights. The demonstration project would provide water for future reservation development without any increase in existing tribal water rights. The demonstration would provide a cost-efficient, non-structural alternative to on-reservation underground storage of agricultural drainage water.

Colorado River Water and Tribes with CAP Entitlements

Eleven of the tribes in Arizona currently have entitlements to Colorado River water delivered through the Central Arizona Project canal. They include tribes whose lands are within the 3-county CAP service area, as well as tribes in other areas of the state that are not able to take direct delivery of water from the canal.

Since the first of the recent tribal settlements -- that of the Ak-Chin Indian Community in 1978 -- CAP water has consistently been awarded in lieu of water that once flowed across or under tribal lands. The promise to tribes has been: surrender your claims to the water that was yours and the federal government will insure that you have water to meet your needs, water provided through the CAP canal.

This promise continues into the present. The White Mountain Apache Tribe's water settlement, ratified by Congress in December 2010 and currently pending final approval, involves CAP water. A potential settlement of the claims of the Navajo Nation and the Hopi Tribe would have drawn on CAP water.

That promise -- to supply CAP water in lieu of other surface water and groundwater in satisfaction of tribal claims -- is now in danger.

Tribes with CAP entitlements may have rights to the water, but are responsible for costs related to delivering that water.

CAP water rates have escalated sharply in recent years. From 2000 to 2012, the posted CAP rates for the delivery of Indian water have increased 126%. In just the last five years, the rates have jumped 34%.

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The steady and substantial increase in the cost of CAP water to which tribes have rights -- rights won after years of negotiation and struggle in the courts -- is a serious issue. Future federal policy on Colorado River water must insure that CAP water in all tribal settlements is affordable in order to insure the viability of tribal agriculture and the water security of tribal homelands into the future.

Power costs are the matter of most immediate concern. The power to move Colorado River water far inland through the CAP canal is produced by the Navajo Generating Station (NGS). The owners of the NGS, including BOR, face potentially substantial upgrades of the air pollution control equipment at the plant's coal-fired units. Such upgrades could be required by the US Environmental Protection Agency to deal with Clean Air Act issues. A decision on this matter is expected in the near future.

A study commissioned by the US Department of the Interior and currently under review projects that the cost to tribes that receive CAP water could jump by as much as 32% above current rates if NGS is required to install high end pollution control equipment.

This one-third increase assumes that the plant stays in operation.

Should the owners of NGS conclude that their economic interests are better served by closing the plant instead of installing EPA-required high end pollution control equipment, then the increased cost to tribes of CAP water could be in the vicinity of 66%.

Tribes are not in a position to afford such increases. As the officials of the Gila River Indian Community have pointed out, "This is like losing our water all over again."

Environmental requirements, imposed through no fault of the tribes, must not be allowed to deprive tribes of the water to which they have rights. The federal government must not permit such requirements to go forward or, alternatively, provide a funding stream or other arrangement that insures that tribes can afford to use all the water to which they have rights.

Support for Tribal Water Management Functions

Water conservation and increases in the efficiency of agricultural, municipal and other water use in reservation areas are high priority issues for all tribes. Making the water that is available go further enhances tribal rights.

Robust tribal water management capability is essential to serve all these purposes. In turn, this requires appropriate institutional structures, technical expertise and access to funding.

With a limited tax base, funding is a serious obstacle for tribes. Tribal governments need to draw on a variety of federal programs to provide that funding. However, federal and state programs that could provide the necessary resources impose requirements that make them hard to access or put them completely out of the reach of tribes.

Barriers to tribal participation include:

- Requirements for explicit waivers of sovereign immunity.

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- Cost sharing requirements with limited or no possibility of exceptions for needy communities.
- Inability to support preliminary engineering and environmental review reports required to apply for construction financing.
- Lack of preference for communities with the most severe need and least ability to pay.

In addition, there currently is no specific program to provide flexible funding for tribal capacity building in the water management field.

BOR should support a technical study of barriers to tribal participation in federal programs that support water resource management and the development of water infrastructure.

Addressing Colorado River Water Supply-Demand Imbalances

Work done during earlier phases of the Colorado River Basin Study has projected that the supply of water in the River will not meet the demand for that water in the years ahead. The most recent estimates indicate a shortfall in the vicinity of 2.0 million acre-feet in 2035 and 3.6 million acre-feet or more in 2060. Though these numerical estimates are recent, it has been known for years that the water in the River is over allocated.

The first principle in addressing any projected imbalance is that tribal rights to water must be recognized and respected. No option or strategy which would diminish tribal water rights, quantified or not, is acceptable, nor is any option or strategy which would reduce any tribe's right to make full use of the water to which the tribe has rights.

Tribes are sovereign nations. Under the *Winters* doctrine, tribes are to have complete control of all beneficial uses of their land and water without the interference of the states in which their reservations are located. Tribal rights must be fully accounted for in the Basin Study.

Options and strategies to address future imbalances generally fall into two categories: demand management and supply augmentation.

Demand management requires a recognition of limits.

Over the millennia of their life in what is now the American Southwest, tribal people have dealt with the limits of a highly variable water supply. The vagaries of the natural supply led to a variety of forms of adaptation. Tribes survived by understanding limits. The more recently settled non-Indian communities must likewise understand and deal with these limits.

Limits on tribal water have been imposed by nature and by man. The latter include ceilings on rights to water that are a universal feature of tribal water settlements. The

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terms of tribal settlements do not support unlimited expansion in water use based on on-reservation population growth resulting from in-migration or on any other factors.

Future population growth and economic development in the non-Indian communities of the Colorado River Basin must be conditioned by the federal, state and local governments on the availability and sustainability of the water resources necessary to support such growth and development.

Supply augmentation involves a number of options. This paper will address just one, one which has a direct relationship to several tribes in the Basin.

Much of the runoff into the Colorado River originates as snowmelt in the Colorado Rockies. The ability of the snow pack to generate ample runoff and at the appropriate times in the spring is, in turn, affected by how pristine the surface of the snow cover is.

Windborne dust has a substantial effect on runoff. The darker the snow surface, the more it absorbs sunlight, heating the surface and producing an earlier runoff. Evapotranspiration from plants increases, reducing runoff.

The source of much of the dust causing this chain reaction is soil from the Colorado Plateau.

For example, as the climate has changed, sand dunes on the Navajo reservation have grown rapidly and are becoming mobile. The ongoing studies of US Geological Survey geologist Dr. Margaret Hiza Redsteer provide dramatic evidence of how climate change impacts the land and its inhabitants. Her work sheds light not only on soil-precipitation interactions, but on how those dynamics can impact cultural ways.

An article published in 2010 in the *Proceedings of the National Academy of Sciences* underscored the potential for increasing runoff into the River by reducing the dust reaching the snowpack, much of which originates on the Colorado Plateau. The team of scientists performing the research estimated that over half of the overdraft from Lake Mead that occurred during the 2000 to 2009 time frame resulted from a shortfall in runoff that could be attributed to dust deposition on the Rockies snowpack.

The abstract of that article, "Response of Colorado River runoff to dust radiative forcing in snow," concluded:

"The potential to reduce dust loading through surface stabilization in the deserts and restore more persistent snow cover, slow runoff, and increase water resources in the Upper Colorado River Basin may represent an important mitigation opportunity to reduce system management tensions and regional impacts of climate change."

Stabilization of the soil on portions of the Navajo reservation and nearby lands at Hopi shows promise of significantly increasing the runoff in the Colorado River system and should be supported in the report of the Basin Study.

Conclusion

Tribes are essential parties to any discussions of the future of the Colorado River system. Tribal people used its flow to thrive in an arid environment long before others did. Tribes hold a major portion of the rights to the River's flow in Arizona, as well as other states.

Tribes must be made a full partner in such discussions. They were not when the Colorado River Basin Study originated. That must be corrected as it concludes and not repeated in the future.

A full government-to-government partnership should be formed to discuss and resolve future issues, a partnership among tribal governments, the federal government and the state governments.

In analyzing the future health of the Colorado River system, all tribal rights to the water of the system must be respected. This includes rights that are currently quantified and rights that are not; rights to water that is currently used and water that is not currently used; rights to water that is leased or otherwise made available to others and water that is not. **Tribal water is tribal water and must not be assumed to be available to others without tribal consent.**

This report has suggested a variety of ways to accomplish these objectives:

- Insure that the resolution of all tribal claims proceed expeditiously and that there is water available to satisfy these claims.
- Insure that tribes with rights to water be able to beneficially use all the water to which they have rights.
- Insure that the water from the River delivered through the CAP canal incorporated in tribal water settlements remains available and affordable.
- Remove barriers to tribal access to federal and other programs that can strengthen tribal water management capability.
- All communities must respect limits to the quantity of water in the system, not just tribal communities.
- Augment the streamflow in the River through a soil stabilization program on the Colorado Plateau, including tribal lands.

The future of the Colorado River system is what we make it. Tribes have much they can and will contribute to this process.

Revision date: March 1, 2012

The Future of the Colorado River System:
A Tribal Perspective from Arizona

Appendix A

**Colorado River Currently Quantified Tribal Water Rights/Entitlements - Tribes with Land in Arizona
Lower Basin - Mainstem and CAP Water Only**

Tribes	Mainstem & CAP Grand Total	Arizona Apportionment	California Apportionment	Nevada Apportionment	Central Arizona Project (CAP)
Ak-Chin Indian Community	85,000	50,000			35,000
Cocopah Tribe	10,847	10,847			
Colorado River Indian Tribes	719,248	662,402	56,846		
Fort McDowell Yavapai Nation	18,233				18,233
Fort Mojave Indian Tribe	132,789	103,535	16,720	12,534	
Gila River Indian Community	328,800				328,800
Havasupai Tribe		Amount currently unquantified			
Hopi Tribe	6,028	6,028	Contract amount only, no settlement		
Hualapai Tribe		Amount currently unquantified			
Kaibab Band of Paiute Indians		Amount currently unquantified			
Navajo Nation		Amount currently unquantified			
Pascua Yaqui Tribe	500	CAP entitlement only, no settlement			500
Quechan Indian Tribe	77,966	6,350	71,616		
Salt River Pima-Maricopa Indian Community	35,300	22,000			13,300
San Carlos Apache Tribe	64,145				64,145
Tohono O'odham Nation	74,000				74,000
Tonto Apache Tribe	128	CAP entitlement only, no settlement			128
White Mountain Apache Tribe	25,000	Amount in settlement, pending final approval			25,000
Yavapai-Apache Nation	1,200	CAP entitlement only, no settlement			1,200
Yavapai-Prescott Tribe	500				500
Reserved for Future Settlements	47,018	3,500			43,518
Totals	1,626,702	864,662	145,182	12,534	604,324

Notes: All water in acre-feet, measured in diversion amounts. See text for list of tribes with no settlements or only partial settlements. Table provided only to indicate scope of currently quantified rights/entitlements. See individual decrees/settlements for complete terms. Ak-Chin amount is as specified for a year in which surplus water is available and excludes amount of water transfer to San Carlos.