

# **Environmental Assessment for CAP Water Allocation Transfer**

Prepared for

**Cave Creek Water Co.**

For submission to

**U.S. Bureau of Reclamation**

Prepared by

**SWCA Environmental Consultants**

March 2006

**ENVIRONMENTAL ASSESSMENT FOR CAP WATER ALLOCATION TRANSFER**

Prepared for

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## ENGLISH TO METRIC CONVERSION TABLE

1	Acre-foot	equals	1,212	Cubic meters
1	Mile	equals	1,600	Meters
264	Gallons	equals	1	Cubic meter
1	Pound	equals	454	Grams
3.785	Gallon	equals	1	Liter
1	Acre	equals	4,047	Square meters

## **I. PURPOSE AND NEED**

This Environmental Assessment (EA) has been prepared to describe and assess the environmental consequences that may result from the Bureau of Reclamation (Reclamation) executing a water service subcontract amendment to assign the remaining portion of Berneil Water Company's (Berneil) Central Arizona Project (CAP) contract allocation to the Cave Creek Water Company (CCWC). Berneil intends to transfer 200 acre-feet (af), all of its remaining CAP water allocation, to CCWC and terminate its water service subcontract. As discussed below, transfers of other portions of Berneil's 432 af CAP allocation have already been approved and executed for the City of Scottsdale (200 af) and the City of Phoenix (32 af). CCWC's existing CAP water service subcontract for 1,600 af per year would be amended to increase its annual CAP water allocation by 200 af, for a total of 1,800 af of CAP water annually.

The EA has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), and Reclamation's NEPA Handbook.

CCWC plans to contractually assign the 200 af of water as a dedicated supply to the Rancho Mañana Golf Course (formerly known as the Eagle Creek Golf Course), for the foreseeable future. CCWC's use of this additional water, so long as it is consistent with its CAP water service subcontract, would not be subject to future federal approvals or environmental reviews.

### **A. Background**

#### **1. CAP Water Allocation**

The CAP was authorized as part of the Colorado River Basin Project Act of 1968 (Public Law 90-537). The primary purpose of the CAP is to provide water for irrigation, and municipal and industrial (M&I) uses, in central and southern Arizona and western New Mexico, through importation of Colorado River water and conservation of local surface waters. The CAP delivers Colorado River water to Arizona water users through a system of pumping plants, aqueducts, dams, and reservoirs. The CAP aqueduct system is operated and maintained by the Central Arizona Water Conservation District (CAWCD) under an agreement with Reclamation.

In 1982, Reclamation prepared an Environmental Impact Statement (EIS) to address the potential environmental impacts associated with the Secretary of Interior's (Secretary) proposed allocation of CAP water to M&I water users, non-Native American agricultural users and Native American Tribes (Reclamation 1982). The EIS included a description of each water user's preliminary plans for delivery and use of CAP water along with a general description of the resulting environmental impacts.

Based upon that EIS, the Secretary's Record of Decision dated February 10, 1983, established initial allocations of CAP water to various Native American and non-Native American water users within the State of Arizona. In order to contract for CAP water, each non-Native American water user given

a CAP allocation was required to enter into a three-party water service subcontract with both Reclamation and CAWCD, and each Native American water user was required to enter into a two-party water service contract with the United States. Reclamation, as part of its procedures for approving these water service contracts and subcontracts, included a second level of environmental review for each CAP water user.

For this second level environmental review, Reclamation required each water user to provide specific plans for taking and using its CAP water allocation. These plans were compared against the scenarios described in the 1982 EIS to determine whether or not the plans were consistent with their original proposals. Depending upon the degree of change in either existing conditions or the proposed plans from what was originally evaluated, additional environmental review and documentation were conducted as appropriate. Water service subcontracts have been executed with both Berneil and CCWC.

In 2000, Reclamation produced a draft EIS entitled “Allocation of Water Supply and Long Term Contract Execution” (CAP Water Reallocation EIS) (Reclamation 2000). Among other things, that EIS, which has not been finalized, evaluated the reallocation and use of 65,647 af of remaining unallocated M&I CAP water. Under the proposed action in that EIS, CCWC would receive an additional 806 af per year of CAP water. Allocation of this water to CCWC is specified by the Arizona Water Settlements Act (Public Law 108-451) (AWSA). This separate allocation of additional CAP water to CCWC is described in more detail under the No Action Alternative in Section II. A.

## 2. Berneil’s Water Service Subcontract

On March 21, 1985, a water service subcontract was entered into among Reclamation, CAWCD, and Berneil for 432 af of CAP water. At that time, Berneil anticipated entering into an agreement with the City of Phoenix for delivery of treated CAP water. An environmental review was carried out by Reclamation for a pipeline that was to be constructed by Berneil, based upon those preliminary plans. The agreement with Phoenix was never consummated and, to date, Berneil has never taken delivery of any CAP water. In 1998, Berneil transferred 200 af and 32 af of its CAP water allocation to the cities of Scottsdale and Phoenix, respectively. Berneil's water exchange agreement with the City of Scottsdale for the 200 af of CAP water included a provision that Scottsdale would provide emergency water supplies to Berneil in the event that Berneil is unable to provide water to meet customer demand due to failure of equipment or loss of system pressure (Reclamation 1998).

## 3. CCWC Water Service Subcontract

On October 24, 1985, a water service subcontract was entered into among Reclamation, CAWCD, and CCWC for 1,600 af of CAP water. At that time, CCWC anticipated it would pump its CAP water through a pipeline commencing at Deer Valley Road continuing north along Cave Creek Road to a water treatment plant with at least 1,600 af of capacity and a large (at least 1,000,000 gallon) storage

tank that was to be constructed in the northwest quarter of Section 28, of Township 6N, Range 4E. An environmental review of submitted plans was carried out by Reclamation prior to execution of the water service subcontract. Between 1987 and 1992, CCWC finalized engineering designs and constructed a 16” pipeline along Cave Creek Road. Because the Town of Cave Creek would not issue the necessary permits to construct the plant in the northwest quarter of Section 28, the plant’s location was shifted to the southwest quarter of Section 28 on Lots 26 and 27 of Moon Ridge Estates, County Parcel Numbers: 211-08-0031, 211-08-032A, and 211-08-930. The address is 38235 N. Basin Road in the Town of Cave Creek, Arizona. The first 1,100 af phase of the water treatment plant (expandable to 3,300 af) was constructed by a third-party corporation. In March 2005, Global Water Resources acquired all stock of both CCWC and the third-party corporation. Both are now wholly owned subsidiaries of Global Water Resources, Inc. The treated CAP water is delivered into pre-existing storage tanks (converted to a clear well and temporary storage) before being transported throughout the CCWC service area.

From 1990 through the mid 1990s, additional 8-, 12-, and 18-inch water lines were installed through the middle of CCWC’s water service area extending to the boundary of the property known as Spur Cross Ranch. The treatment facility’s capacity was recently expanded by 1,100 af and is currently able to handle a total of 2,200 af of CAP water annually. The expansion of the treatment facility was necessary whether or not Berneil’s CAP allocation would be transferred to CCWC.

## **B. Purpose and Need**

According to Berneil, its service area has adequate groundwater resources to meet its projected needs, and has an adequate emergency back-up water supply via its agreement with the City of Scottsdale (Appendix B). Berneil has never developed, nor does it plan to develop, the means to take, treat, and deliver CAP water to its service area. Therefore, Berneil has no further need for its remaining 200 af CAP water allocation.

The Arizona Department of Water Resources’ (ADWR) 1997 assured water supply analysis indicated CCWC had 2,230 af per year available to satisfy its current and committed water demand.<sup>1</sup> This 2,230 af consists of 630 af per year of groundwater plus 1,600 af per year of CAP water. In order to preserve groundwater for the area and to make as much use of its CAP water as economically possible, in 1990 CCWC began reselling and transporting a portion of its untreated and unused CAP water to the Rancho Mañana Golf Course on a “when and if available” basis. In return, the golf course abandoned its groundwater wells and industrial use permits. Even though the golf course is contractually entitled to request no more than 350 af of CAP water from CCWC on an annual basis, from time to time it has requested, and CCWC has been able to deliver, more than 350 acre feet of untreated CAP water. Recent

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<sup>1</sup> Current demand is the demand of the past year reported to ADWR or the Arizona Corporation Commission in an annual report; committed demand is the demand of all recorded, but not yet served, lots in an area designated to be served by a given water provider (also referred to as a “certificate of convenience and necessity” [CC&N] area) (ADWR 2001). CCWC’s CC&N is much larger (21.2 square miles) than its current water service area (11.1 square miles).

water demands for Rancho Mañana Golf Course have been met by a combination of effluent (from the Town of Cave Creek) and CAP water delivered by CCWC. Approximately 120 acre-feet of effluent are currently delivered to the golf course. The purpose of the proposed transfer is to increase the CAP water available to CCWC, thereby maximizing the utilization of the CAP infrastructure already constructed and providing a renewable source of water for CCWC. CCWC intends to dedicate the 200 af of CAP water as a permanent non-potable supply to the existing Rancho Mañana Golf Course, to fulfill the golf course's turf irrigation demands not met by treated effluent.

### **C. Project Location**

There are two distinct project areas: the Berneil and CCWC service areas (Figure 1). The Berneil service area is located within the Town of Paradise Valley, bound by Scottsdale Road on the east, Northern Avenue on the south, Invergordon Road on the west, and the Berneil Dike on the north (Figure 2). The Berneil service area is also identical to its certificate of convenience and necessity" [CC&N] area. The Berneil project area encompasses a water service area of approximately 1½ square miles within the corporate limits of the town of Paradise Valley.

The CCWC service area is located north of Route 74 in the northeast Salt River valley, in the Towns of Cave Creek and Carefree (Figure 3). The area covered by CCWC's CC&N is considerably larger than the Berneil service area, encompassing approximately 21.2 square miles.

### **D. Summary of Scoping Issues**

On May 2, 2003, a scoping mailer was sent to interested agencies, organizations and persons, as determined by Reclamation, and they were asked to submit any issues or concerns that should be addressed in the EA to Reclamation by May 30, 2003. Comment letters were received from the Town of Paradise Valley, ADWR, and the Flood Control District of Maricopa County. Issues raised during scoping that were determined by Reclamation to be within the scope of the EA relate to Berneil's existing water supply and use, and its decision to not use its CAP water allocation. Copies of all scoping comments received are available for review at Reclamation's Phoenix Area Office, 2222 W. Dunlap Avenue, Phoenix, Arizona 85021.

## **II. PROPOSED ACTION AND ALTERNATIVES**

This chapter describes the Proposed Action, a No Action alternative, and other alternatives that have been considered by the parties, but were eliminated as not practical. The No Action alternative describes the conditions that are assumed to exist into the future in the absence of the Proposed Action and provides a basis for comparison with the Proposed Action.

### **A. No Action Alternative**

Under the No Action alternative, Reclamation would not approve the proposed assignment of CAP water from Berneil to CCWC. If no transfer occurs, Berneil would likely relinquish its subcontract or stop making payments to CAWCD (personal communication, Neil Folkman to Barbara Goldberg, November 12, 1997). Berneil has no means of treating or delivering CAP water to its customers, nor would it be economically feasible to develop such facilities to utilize its remaining 200 af of CAP water. Under this scenario, it is assumed Berneil would continue to pursue transfer of its remaining 200 af of CAP water and terminate its CAP water service subcontract. Until that occurs, Berneil would continue to be responsible for its allocation payments for this water to CAWCD, which amounts to approximately \$43 per af per year. Berneil would continue to utilize groundwater for its service area's needs.

The most likely scenario for CCWC would be continued and increased reliance on groundwater pumping using its existing service area rights, together with the use of its existing CAP supply. As part of the AWSA, CCWC will receive an additional 806 af of CAP water upon the effective date of Title I of the AWSA (generally, not later than December 31, 2007). Under the No Action alternative, it is anticipated CCWC would provide some portion of this water (up to 200 af annually) to the Rancho Mañana Golf Course, if a sufficient amount of effluent is not yet available to satisfy the golf course's entire turf irrigation needs. CAP water delivered to the golf course would not need to be treated. The remainder of the additional CAP water to be received by CCWC pursuant to the AWSA would likely be treated and used to meet the water supply needs beyond CCWC's current and committed demand, as established by ADWR (1997 and 2003). With this addition, CCWC's allocation of CAP water would come to 2,406 af annually. If the entire allocation were to be used to provide a potable water supply, the water treatment plant would need to be expanded. As noted in Section I, the existing plant was designed to be expandable to 3,300 af. Reclamation's original environmental clearances were conducted for the entire water treatment plant site; no additional on-the-ground clearances at the treatment site would be required.

### **B. Proposed Action (Preferred Alternative)**

Under the Proposed Action, the following would occur:

1. Termination of Berneil's CAP Water Service Subcontract.

Berneil does not anticipate any significant growth in its water demand and has determined it will not utilize the remaining 200 af of CAP water allotted to it under its current contract with CAP. It has neither constructed the necessary infrastructure to receive, nor taken and used any of its CAP water

allocation since its CAP water service subcontract was executed in 1985. In 1998, Berneil entered into, and still participates in, a water exchange agreement with the City of Scottsdale under which Scottsdale agreed to provide Berneil with an emergency back-up supply of water to be used during times when Berneil experiences equipment breakdowns or insufficient water pressure. Berneil would continue to pump groundwater to meet its water service needs.

## 2. Additional CAP Water to CCWC.

For the foreseeable future, CCWC intends to use the additional 200 af of CAP water by dedicating it as a permanent supply to the existing Ranch Mañana Golf Course. As noted in Section I, presently the golf course water demands are partially met through the use of treated effluent supplied by the Town of Cave Creek; approximately 120 af of effluent is delivered annually to the golf course. CCWC supplies 200 af of untreated CAP water annually to satisfy the remaining turf irrigation requirement. Infrastructure is already in place to deliver raw CAP water to the Ranch Mañana Golf Course. In the future, there may be sufficient effluent available to completely meet the water demands of the golf course. If this occurs, the 200 af of CAP water that would be transferred to CCWC under the proposed action would be available for potable uses by CCWC. Pursuant to water supply availability analyses conducted by ADWR (1997, 2003) for CCWC, the 200 af of CAP water, if transferred to CCWC, could only be used to serve CCWC's "current and committed demand." Therefore, unless or until ADWR revises its analysis, the use of the 200 af of CAP water as a potable supply would be used to replace groundwater currently being pumped to serve CCWC's customers, and could not be used to satisfy future urban development. This is discussed in more detail in Section III. A, Water Resources.

CCWC has the capacity to treat and distribute up to 2,200 af of CAP water annually through the existing pipe system and the water treatment plant. Therefore, no additional construction would be required to take, treat, or deliver the additional 200 af of CAP water that would be transferred under this action, should treatment be needed. This should not be construed to preclude CCWC from making additional improvements to its system, as it may deem necessary and appropriate to serve its customers. For example, CCWC still plans to add approximately 3,000,000 gallons of storage, but the exact location(s) and timing have not yet been determined. No federal approval would be needed prior to constructing this additional storage; therefore, NEPA would not apply.

With or without the proposed transfer, CCWC is expected to receive 806 af of CAP water pursuant to Title I of the AWSA. With this and the 200 af of CAP water transferred under the proposed action, CCWC would have a total annual CAP water allocation of 2,606 af. If the entire allotment needs to be treated prior to use, the capacity of the existing water treatment plant would need to be expanded. As noted in the No Action alternative description, expansion of the treatment plant's capacity up to 3,300 af was anticipated in the initial design of the plant, and environmental clearances associated with NEPA already have been conducted.

CAP water allocations specified in Title I of the AWSA are not discretionary federal actions subject to compliance with NEPA. As mentioned in Section I. A. 1, Reclamation issued a draft EIS in June 2000, which evaluated the impacts of the reallocation and use of 65,647 af of CAP M&I water, including the 806 af of CAP water to be allocated to CCWC. With passage of the AWSA, which legislated these allocations, it was determined that completion of a final EIS is not appropriate.

### **C. Alternatives Considered and Eliminated**

No other alternatives were considered in depth for Berneil. Berneil has no means of treating or delivering CAP water to its customers. An alternative initially considered was to build the infrastructure to accept the CAP water; however, this would not be economically feasible for Berneil. Another alternative considered was to utilize another water service provider's water facilities to treat and then transport the 200 af to the Berneil service area. Berneil was not able to reach agreements with adjacent water systems, the City of Scottsdale and the City of Phoenix, to provide for treatment and delivery of its current CAP allotment (Appendix B).

CCWC has also pursued other sources such as appropriating water from Cave Creek Wash; however, the water flow is not regular, is already subject to prior appropriations, and would require a different type of treatment than is currently performed by the CAP treatment plant. CCWC has also inquired about other CAP water transfers from Sunrise Water Company and other J.D. Campbell water companies that are currently not utilizing all of their water allocation, and looked into CAP leases with Native American communities. CCWC has found that the foregoing sources are likely not available to CCWC because it would not have sufficient priority under the transfer guidelines promulgated by ADWR and CAWCD, and/or the amount of water that CCWC is requesting is relatively small and other parties are not interested in making such a small purchase/transfer, and/or the cost of leases from Native American communities are not economically desirable. Since these alternative water sources are all non-viable at this time, they were not further considered as individual alternatives to this action. While they remain potential actions that could occur under the No Action alternative, they are not considered likely to occur.

### III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the existing affected environment and likely environmental consequences of Reclamation's approval of the assignment of Berneil's remaining CAP allocation to CCWC. A No Action scenario is also evaluated for both the Berneil and CCWC service areas, to provide a basis for comparison with the Proposed Action. Due to the proposed activity, the following resource areas are not anticipated to be affected to any measurable degree, and are therefore not included in the analysis: air resources, recreational resources, geology, and soils. The analysis is focused on the resource areas that may be impacted.

#### A. Water Resources

##### 1. Affected Environment

a. Berneil. The Berneil service area encompasses approximately 1½ square miles. It is located within the East Salt River Valley groundwater basin. Berneil serves groundwater from two wells to 480 households for domestic uses. Since its service area is nearly built out, Berneil does not anticipate a substantial increase in its groundwater use in the future. Depth to water in the vicinity of the Berneil service area is approximately 400 feet below ground surface (bgs) (ADWR 2002). Groundwater quality is quite good, with total dissolved solids (TDS) concentrations generally less than 300 milligrams per liter (mg/L) (ADWR 2002). Berneil's reported annual water use to ADWR in 2002 was approximately 1,299 af (ADWR 2003). Berneil currently does not utilize any of its 200-af CAP allocation. As stated in Chapter 2, and detailed in Appendix B, Berneil is unable to use this allocation due to its inability to receive that water.

ADWR sets conservation requirements for large municipal water providers. Berneil currently annually uses more water than that specified under the conservation requirements upon which ADWR has traditionally relied. However, a recent Court of Appeals ruling invalidated the conservation requirement, and it remains largely unenforceable (*Arizona Water Company v. Arizona Department of Water Resources*, CV 02-0276 (2003)).

There are few natural surface water drainages in the Berneil water service area. Stormwater is primarily conveyed through the service area by engineered storm sewers and ditches.

b. CCWC. The CCWC CC&N area encompasses approximately 21.2 square miles. It is located within both the Carefree and East Salt River Valley groundwater subbasins. Historically, water supply needs of the CCWC water service area have been met by pumping groundwater, primarily from the Carefree groundwater subbasin. In more recent years, CAP water has been used to meet a portion of CCWC's water supply needs. In 2002, a total of 1,487 af of water were used by CCWC, according to its ADWR Annual Water Withdrawal and Use Report. Of this total, 189 af were from pumped groundwater, and 1,298 af consisted of CAP water. Of the 1,298 af of CAP water, 474 af were delivered to other municipal and individual users outside the CCWC service area, resulting in 824 af delivered within the CCWC water service area (ADWR 2003).

Groundwater levels within the Carefree and East Salt River Valley groundwater subbasins are declining. Records indicate that depth to groundwater in 2001 was 136 feet bgs, and has been declining since approximately 1981 at a rate of approximately 6 feet per year (ADWR 2002). Depth to water varies widely within CCWC's CC&N area, ranging from 20 feet bgs to as deep as 200 feet bgs (ADWR 2002). CCWC currently has 13 registered wells within the service area. The reported pumping capacity for each well is up to 200 gallons per minute. Other privately-owned wells are also operated within the water service area. The overall quality of the ground water is considered fair, having concentrations of total dissolved solids (TDS) between 200 and 700 mg/L. However, 10 of the 13 CCWC wells exceed the new water quality standard for arsenic of 10 micrograms per liter (ug/L) (USEPA 2003). To compensate for this, current treatment consists of chlorination and use of ferric chloride to remove arsenic. In addition, groundwater is blended with CAP water supplies in accordance with a blending plan that has been approved by the Maricopa County Department of Environmental Quality.

CCWC recently expanded the capacity of the CAP water treatment facilities, from 1,100 af per year to 2,200 af per year. The plant is designed to be expandable to an ultimate capacity of 3,300 af per year (it is yet to be determined when that would occur). CAP water typically has a TDS concentration levels above 500 mg/L.

Surface water in the CCWC water service area primarily consists of ephemeral streams that flow only during storm events. As it flows through the New River Mountains north of the CCWC CC&N area, Cave Creek is an intermittent stream that flows in response to both groundwater inflow and precipitation events. Once Cave Creek enters the CC&N area, it becomes an ephemeral wash, and flows only in response to precipitation events. CCWC has no rights to divert or utilize this surface water.

## 2. Environmental Consequences

### a. No Action Alternative

- (1) Berneil. Under the No Action alternative, the transfer would not occur. Berneil would continue to utilize its two groundwater wells and water demand would not be expected to increase significantly above current levels. In 1997, ADWR analyzed the effect of Berneil's transfer of its entire 432 acre-foot allocation of CAP water to other entities and concluded its continued use of groundwater would result in an annual loss of groundwater to Phoenix of 32 af per year, and an annual loss to Scottsdale of 24 af per year (ADWR March 1997). Based upon this analysis, ADWR recommended that 32 af of Berneil's CAP water allocation be transferred to Phoenix, and 200 af each be transferred to Scottsdale and CCWC. Two of the three transfers have already occurred. Under the No Action alternative, Berneil would continue pumping and delivering groundwater to its customers. This would likely have no impact on the water resources in the vicinity. Water levels, as with much of the Paradise Valley area, have been increasing since approximately 1980, largely due to the overall move

from groundwater resources to surface water resources by municipalities, and thus are not adversely impacted by the current rate of groundwater use (ADWR 2002). Water quality in the area is not known to change significantly with depth, and is not expected to be impacted by changing water levels. Land surface subsidence up to 5 feet has occurred in the area, but is likely a result of past water use, as water levels are currently increasing. As described in “Alternatives Considered but Eliminated”, it is not cost efficient for Berneil to utilize its allocation and if CCWC does not receive the transfer, Berneil would not utilize the allocation.

- (2) CCWC. In the absence of the proposed transfer of 200 af to CCWC, in the immediate future it is anticipated CCWC would maximize use of its current allotment of CAP water, and continue to pump groundwater to the extent necessary to meet current and future demands.

New subdivision development and overall population growth in the CCWC CC&N area would occur consistent with ADWR’s 1997 and 2003 determinations of the amount of water available to CCWC for new subdivisions (Appendices C and D). Water quality issues, particularly arsenic, would continue to be appropriately dealt with under the no action alternative, and could change as aquifer levels decline. ADWR previously identified the Carefree subbasin as a critical groundwater subbasin due to its limited storage capability and the current and projected level of groundwater use (ADWR 1999). Since Cave Creek is an ephemeral wash within the CC&N area, there would be no impacts to surface flows or riparian vegetation due to groundwater pumping.

As part of the AWSA, CCWC will receive an additional 806 af of CAP water upon the effective date of Title I of the AWSA (generally, not later than December 31, 2007). Under the No Action alternative, it is anticipated CCWC would provide some portion of this water (up to 200 af annually) to the golf course if a sufficient amount of effluent is not yet available to satisfy the golf course’s entire turf irrigation needs. This water would not need to be treated. The remainder of this additional CAP water would likely be used to meet the water supply needs beyond CCWC’s current and committed demand that was calculated by ADWR (1997 and 2003).

b. Proposed Action (Preferred Alternative)

- (1) Berneil. No adverse impacts are anticipated to occur as a result of Berneil's transfer of its remaining 200 af of CAP water, termination of its CAP water service subcontract, and continued use of groundwater. The Proposed Action would result in Berneil continuing to rely on groundwater for 100 percent of its water supply needs--the same result that would occur under the No Action alternative.

The conservation requirement set on Berneil, though it currently is unenforceable by ADWR, would not be affected by the proposed action. The water conservation requirement

as it has traditionally been used is based on gallons per capita per day (GPCD). GPCD is calculated based on the total water use and population of the service area. It is calculated without respect for the source of water being used; thus, even if Berneil was able to use the 200 af of CAP water, its total water use would remain identical, and it still would not meet the conservation requirement. The proposed action would have no effect on the state of compliance of Berneil with conservation requirements set forth by ADWR.

It is anticipated water levels would continue to increase, as is occurring presently under existing groundwater use conditions. Water quality would likely not change under the proposed action.

- (2) CCWC. Under the Proposed Action, CCWC would receive an additional 200 af allocation of CAP water annually. This allocation is intended to be dedicated as a supply for the Rancho Mañana Golf Course.

Acquisition of this supply would not change the total water designated by ADWR for subdivisions within the CCWC CC&N area. CCWC pumped groundwater would be used in accordance with ADWR requirements (Appendix D).

Because less groundwater would be withdrawn, it is anticipated the Proposed Action would result in a decrease in the rate of groundwater decline, thus having a positive effect on water levels within the aquifer. The magnitude of this reduction, however, cannot be quantified with the data available. Changes in water quality are anticipated to continue as under the No Action alternative, and are expected to be handled by CCWC as they are under present conditions.

CCWC is slated to receive an additional 806 af of CAP water annually pursuant to Title I of the AWSA. It is anticipated this water would be utilized to meet water supply needs beyond those associated with CCWC's current and committed demands established by ADWR in its water supply analyses (ADWR 1997 and 2003).

## **B. Land Use**

### **1. Affected Environment**

Table 1 shows the land ownership distribution, by percentage, in both water service areas:

	<i>Berneil</i>	<i>CCWC</i>
Private Land	100%	85%
BLM	-	1%
City, County, and State Park	-	5%
State	-	9%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*Source: Arizona State Land Department, Arizona Land Resources Information System. Publication Date, 1988. Updated by BLM data, 2002.*

a. Berneil. As stated previously, the Berneil service area is in a developed urban setting, consisting of homes, estates, and a golf course. The service area is approximately 1.5 square miles (approximately 930 acres) in size. Housing density within the area is high and the area contains very little native desert and no agricultural land. Almost 100 percent of the area has been developed, with only a few vacant lots remaining. Land ownership is primarily private, with a handful of lots, amounting to less than 1%, owned by the Town of Paradise Valley and City of Scottsdale (Table 1).

b. CCWC. The CCWC CC&N area is approximately 21.2 square miles (13,600 acres) in size and consists of private, state, federal, city, and county land. CCWC provides potable water to the majority of the Town of Cave Creek, and portion(s) of the Town of Carefree, most of which consists of residential customers. CCWC's CC&N area also contains a portion of the Cave Creek Recreation Area (300 acres) and a portion of the Spur Cross Ranch Conservation Area; Maricopa County Parks and Recreation Department maintains both the Recreation and Conservation areas. Another public open space area is the Gateway Desert Awareness Park, operated by the Desert Foothills Land Trust, which is located within the Town of Cave Creek.

Approximately 72 percent of CCWC's CC&N area lies within the Town of Cave Creek planning area. The Town's General Plan (prepared in draft 2002, currently being revised) states when areas that are not topographically appropriate for development and public open spaces are considered, only approximately 51% of the total area in the Town could be developed (a total of roughly 9,140 acres). As of 2002, approximately 23 percent (less than 6.4 square miles or about 4,096 acres) of the Town was developed (Town of Cave Creek 2002).

The majority of the Town of Cave Creek is zoned for residential use with small commercial zones; no industrial-zoned areas occur within the Town. The Town of Cave Creek's land use plan is aimed toward limiting high-density residential development and encouraging desert rural residential development (Cave Creek 1994). According to the land use plan, areas designated "desert country" and "desert rural residential," and the core commercial areas, are intended to stay in their current locations with little expansion throughout the Town. This is also demonstrated in the Town's trail and road objectives; one goal of its circulation system is to

reinforce a very low-density population pattern. These goals are expected to evolve as demographic characteristics of the area change.

Using the Town’s general land use plan and zoning requirements as references, Table 2 provides a rough estimate of the number of lots that could be developed at total build-out within the CCWC CC&N area, without regard to any other restrictions. It should be noted the following acreages and lot values are approximate only, having been digitized from figures included in the Town’s General Plan.

**Table 2. Estimation of Build-out Demand within Cave Creek Water Company  
CC&N Area**

<b>Town of Cave Creek Land Use Designation</b>	<b>Acreage</b>	<b>Lots/Acre</b>	<b>Number of Lots (at Buildout)</b>
Mountain View 36	819	0.03	23
Mountain View 20	287	0.05	14
Mountain View 10	1,293	0.1	129
Desert Country	1,912	0.23	438
Desert Rural	2,651	0.62	1,650
Low Density Residential (LDR)	553	2.5	1,383
High Density Residential	29	8	232
Open Space	1,895	0	0
LDR (R18)	23	2.42	56
LDR (R35)	160	1.24	199
CCWC CC&N Area outside of Town of Cave Creek planning area*	3,783	0.23	867
<b>Total</b>	<b>13,405</b>		<b>4,991</b>

\* For purposes of estimating lots, assumes a lot density identical to Desert Country land use designation.

In 1997, ADWR estimated CCWC’s 2,230-af available water supply would satisfy the then identified current and committed water supply needs of an estimated 2,049 residential lots. In May 2003, ADWR determined an additional 170 af of water were available to CCWC for water supply purposes, due to upgrades made in the capacity of the water treatment plant. At that same time, approximately 506 additional lots had been issued Certificates of Assured Water Supply (CAWS), and from May 2003 to present an additional 129 lots have been issued CAWS, using a portion of the water available to CCWC. At present, approximately 2,684 lots have existing or pending certificates with CCWC as the water provider.

According to ADWR, approximately 329<sup>1</sup> af of water remain available to CCWC against which new CAWS may be issued (ADWR 2005, Appendix G)<sup>2</sup>. This would allow for development of

<sup>1</sup> This number assumed the Cahava Springs development would proceed at 947 lots. In actuality the approved lot number was 230, resulting in a decrease in expected water use of 263 ac-ft/yr. This extra water would increase the water availability for assignment to certificates to 592 ac-ft/year.

about 821 additional lots. Assuming there is a total estimated maximum of 4,991 lots that could be built out within the CCWC CC&N (Table 2), this would mean there would be about 1,486 lots remaining to be developed after all CAWS have been issued using CCWC's available water supply.

## 2. Environmental Consequences

### a. No Action Alternative

(1) Berneil. Under the No Action alternative, the CAP water allocation transfer would not occur. Almost all of Berneil's service area has already been developed; the only land use changes that would be likely to occur, if any, would be development of any remaining vacant lots. Therefore, Berneil's land use is not expected to change under the No Action alternative. The 200 af, if not transferred, would still not be utilized by the Berneil Water Company for any purpose.

(2) CCWC. If the transfer is not approved, CCWC would continue to use its current groundwater supply and CAP allocation to serve any new development consistent with the 1997 and 2003 ADWR determinations of the amount of water available to CCWC for subdivisions. As noted above, approximately 821 additional lots within the CCWC CC&N area could be issued CAWS. CCWC will receive an additional 806 af of CAP water under the recently passed AWSA. Assuming ADWR adds this amount to CCWC's available water supply, it is roughly estimated an additional 1,559 lots could be developed. Based on this rough analysis of current and expected future water supplies available to CCWC and expected number of lots at build-out, there likely is enough water available to provide for most, if not all, of the planned development within the CCWC CC&N area. Current land uses under the No Action would not be impacted. Development would occur according to the area's General Land Use Plan. Land uses would remain as stated in the General Land Use Plan.

### b. Proposed Action (Preferred Alternative)

(1) Berneil. There would be no impact to current or future land use as a direct result of implementing the Proposed Action that would be different from what is anticipated to occur under the No Action alternative.

(2) CCWC. The Proposed Action would provide 200 af per year of CAP water to replace groundwater use. No changes in the pattern of development, from what would occur under No Action, are anticipated to result from the acquisition and use of this additional CAP water. As noted above, under the No Action alternative there likely is enough water currently or

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<sup>2</sup> Given the margin of error in the estimates and other factors involved, this estimate is quite rough and may be increased by ADWR with proper documentation in the future.

committed to be available to provide for most or all of the planned development within the CCWC CC&N area. (Appendices C and D).

## C. Socioeconomic Resources

### 1. Affected Environment

a. Berneil. The Berneil service area consists primarily of residential units with some incidental municipal and commercial development. In fact, a substantial portion of the service area (approximately 25-30%) consists of a golf course. The Town of Paradise Valley, within which the Berneil Water Company service area is located, had a recorded population size of 13,664 in 2000; the population density of the area was 882 people per square mile. According to the 2000 Census, the area's median house value was \$722,700 and the 1999 median household income was \$150,228 (U.S. Bureau of the Census 2000).

b. CCWC. The Town of Cave Creek, a large portion of which falls within the CCWC CC&N area, had a population of 3,728 in 2000 (U.S. Bureau of the Census 2000). The small remaining portions of the CC&N area are in Carefree and unincorporated Maricopa County. Based on the U.S. Bureau of the Census estimates, the population density in 2000 was 132 people per square mile, significantly less dense than the Town of Paradise Valley. The 2000 Census indicates the median house value in the Town of Cave Creek was \$270,500 and the 1999 median household income was \$59,937 (U.S. Bureau of the Census 2000).

Table 3 provides a comparison of selected socioeconomic characteristics for the two towns, Maricopa County, and the State of Arizona.

**Table 3. Socioeconomic Characteristics for the Towns of Paradise Valley and Cave Creek, Maricopa County, and Arizona in 2000**

<i>Characteristic</i>	<i>Town of Paradise Valley</i>	<i>Town of Cave Creek</i>	<i>Maricopa County</i>	<i>Arizona</i>
Population	13,664	3,728	3,072,149	5,130,632
Population Density (people/sq. mile)	882	132	334	45
Non-white percentage	4.4	5.0	22.6	24.5
Hispanic percentage (any race)	2.7%	7.1%	24.8%	25.3%
Median 1999 Household Income	\$150,228	\$59,937	\$45,358	\$40,558
Housing Units	5,549	1,779	1,250,231	2,189,189
Median house value	\$722,700	\$270,500	\$129,200	\$121,300

*Source: U.S. Bureau of the Census 2000.*

### 2. Environmental Consequences

#### a. No Action Alternative

(1) Berneil. The Berneil Water Company would continue its current operation utilizing groundwater. Water demand would not be expected to increase above current levels due to the low potential for new development within Berneil's service area. Likely there would be no measurable change in the lifestyle or social well-being of the population served by the Berneil Water Company as a result of its continued reliance on pumped groundwater.

(2) CCWC. Under the No Action alternative, CCWC would continue to pump up to the maximum amount of groundwater allotted to it and utilize its current CAP allocation consistent with the 1997 ADWR determination (as updated by the 2003 revision) of the amount of water available to CCWC for subdivisions. The CCWC CC&N area would continue to develop and grow; new subdivision development would be dependent upon issuance of a CAWS. As explained in Section III. B., Land Use, with receipt of 806 af of CAP water that is anticipated to occur pursuant to the implementation of Title I of the AWSA, it is likely that CCWC would obtain sufficient water supplies to serve the remaining estimated residential lots that could be developed within the CCWC CC&N area.

CCWC would continue to rely on CAP and ground water. Untreated CAP water costs \$101 per af delivered at the CAP turnout. Treated CAP water costs in 2000 were estimated to be \$154 per af. At this time it cannot be estimated what, if any, cost increases would occur as a result of continued operation and/or expansion of the existing water treatment plant; any rate increase would need to be reviewed and judged to be fair and reasonable by the Arizona Corporation Commission (ACC). CCWC's cost of pumping groundwater is \$92.15 per acre-foot (CCWC 2004). Energy cost could potentially increase with increasing depth to groundwater. This change cannot be quantified at this time. Given the relatively limited aquifer thickness in the Cave Creek area, it is more likely that physical aquifer constraints will be met before energy costs become prohibitive. There would be no measurable change in the lifestyle or social well-being of the population served by CCWC as a result of its continued reliance on these sources.

b. Proposed Action (Preferred Alternative)

(1) Berneil. There would be no change from what is anticipated to occur under the No Action alternative. Berneil would transfer its unused CAP water allocation and would no longer be responsible for its allocation payments. Since Berneil has never utilized this water, there would be no change in the water service provided or cost to the residents utilizing Berneil's water services associated with treatment and delivery of CAP water.

(2) CCWC. Untreated CAP water costs \$101 per af delivered at the CAP turnout. If the 200 af of transferred CAP water is dedicated to the Golf Course, no treatment would be required. Rancho Mañana is already purchasing untreated CAP water. There would be no change in the socioeconomic conditions of the service area as a result of the proposed action. Furthermore, CCWC's rates and charges may only be increased if approved by the ACC.

Under the proposed action there would be no substantial change in socioeconomic conditions of the service area from what is anticipated to occur under the No Action alternative.

### 3. Environmental Justice

“Title VI, of the Civil Rights Act of 1964” and related statutes were created to ensure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of Race, Color, National Origin, Age, Sex, or Disability. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations," states, in part:

“...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.”

Guidance provided by the Council on Environmental Quality (CEQ) recommends federal agencies investigate the demographic composition of the affected area; consider relevant public health and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards; consider the interrelated cultural, social, occupational, historical, or economic factors that could amplify the natural and physical environmental effects of the Proposed Action; develop effective public participation strategies that lead to meaningful community representation in the decision-making process; and finally, seek tribal representation in the process in a manner that is consistent with the government-to-government relationship between the US and tribal governments, the federal government's trust responsibility to federally recognized tribes, and any treaty rights.

As shown in Table 3, the 1999 median household incomes for the Town of Paradise Valley and Town of Cave Creek are above that of Maricopa County and the State of Arizona. The percentage of the population that is non-white in both towns is well below that of either Maricopa County or the State (Table 4). The percentage of the population in either of these two towns that is of Hispanic ethnicity is also well below that of either Maricopa County or the entire State (7.1% and 2.7% of total populations in the Towns of Cave Creek and Paradise Valley, respectively, as compared with 24.8% and 25.3% of the total populations in Maricopa County and the State of Arizona, respectively) (Bureau of the Census 2000). These data are measured by the Bureau of the Census separate from other population characteristics, presumably due to overlapping and, therefore, were not included in Table 4. There are no concentrations of minority or low-income groups in either of the two service areas (represented by the towns of Cave Creek and Paradise Valley) that would be disproportionately affected by the proposed action.

**Table 4. Population Characteristics of Selected Areas within, and including, Arizona**

	<i>Town of Cave Creek Population</i>	<i>Town of Paradise Valley Population</i>	<i>Maricopa County Population</i>	<i>Arizona Population</i>
One Race				
White	3,541 (95%)	13,063 (96%)	2,376,359 (77%)	3,873,611 (75%)
African American	11 (<1%)	100 (<1%)	114,551 (4%)	158,873 (3%)
American Indian	7 (<1%)	27 (<1%)	56,706 (2%)	255,879 (5%)
Asian	16 (<1%)	276 (2%)	66,445 (2%)	92,236 (2%)
Native Hawaiian/ Pacific Islander	2 (<1%)	5 (<1%)	4,406 (<1%)	6,733 (<1%)
Other	97 (3%)	54 (<1%)	364,213 (12%)	596,774 (12%)
More than One Race	54 (1%)	139 (1%)	89,469 (3%)	146,526 (3%)
<b>Total Population</b>	<b>3,728</b>	<b>13,664</b>	<b>3,072,149</b>	<b>5,130,632</b>

#### **D. Biological Resources**

##### 1. Affected Environment

Table 5 lists the federally listed and proposed threatened and endangered species, identified by the United States Fish and Wildlife Service (FWS), that may be found within Maricopa County, Arizona.

**Table 5. Summary of Federally Listed, and Proposed Endangered Species within Maricopa County and Their Known Distribution and Habitat Needs**

<i>Species</i>	<i>Status</i>	<i>Known Distribution and Habitat Needs</i>
Arizona agave <i>Agave arizonica</i>	E	Transition zone of oak-juniper woodland and mountain mahogany-oak scrub, usually steep rocky slopes from 3,000 to 6,000 feet (AGFD 1997)
Arizona cliffrose <i>Purshia subintegra</i>	E	Rolling limestone hills within Sonoran desertscrub from 2,500 to 4,000 feet (AGFD 2001a)
Bald eagle <i>Haliaeetus leucocephalus</i>	T	Large trees or cliffs near creeks, lakes, and rivers with abundant prey, i.e., fish (AGFD 1996)
California brown pelican <i>Pelecanus occidentalis californicus</i>	E	Shore bird usually found near sandy beaches and lagoons. Nests along coastal islands with shrubby vegetation and small trees. In AZ, this species can be found at large inland lakes (Monson and Phillips 1981)
Cactus ferruginous pygmy-owl <i>Glaucidium brasilianum cactorum</i>	E	Mature cottonwood/willow riparian forest, mesquite bosques, and dense desert scrub with saguaros at 4,000 feet or less in elevation (AGFD 1996)
Desert pupfish <i>Cyprinodon macularius macularius</i> and <i>eremus</i>	E	Permanent water in shallow springs, streams, and marshes (AGFD 2001b)

**Table 5. Summary of Federally Listed, and Proposed Endangered Species within Maricopa County and Their Known Distribution and Habitat Needs**

<i>Species</i>	<i>Status</i>	<i>Known Distribution and Habitat Needs</i>
Gila topminnow <i>Poeciliopsis occidentalis occidentalis</i>	E	Permanent water in small streams, springs, and cienegas (AGFD 2001c)
Lesser long-nosed bat <i>Leptonycteris curasoae yerbabuena</i>	E	Desert scrub with agave and columnar cacti. Caves or abandoned tunnels for roosts at 6,000 feet or less (AGFD 1998b)
Mexican spotted owl <i>Strix occidentalis lucida</i>	T	Canyons and dense forests above 4,100 feet (USFWS 1995)
Razorback sucker <i>Xyrauchen texanus</i>	E	Slow backwaters of medium and large streams and rivers (AGFD 2001d)
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	E	Dense cottonwood/willow & tamarisk vegetation communities along rivers & streams (AGFD 1996)
Sonoran pronghorn <i>Antilocapra americana sonoriensis</i>	E	Sonoran desert plains with wide alluvial basins and desert grassland (AGFD 1996)
Yuma clapper rail <i>Rallus longirostris yumanensis</i>	E	Freshwater or brackish stream-sides and marshes with dense cattail-bulrush vegetation (AGFD 2001e)
Gila chub <i>Gila intermedia</i>	PE	Small headwater streams, springs, cienegas, and marshes of the Gila River basin (AGFD 2001f)

USFWS categories: **Endangered** (E) – Taxa in danger of extinction throughout all or a significant portion of its range; **Threatened** (T) - Taxa likely to become endangered within the foreseeable future throughout all or a significant portion of its range; **Proposed Endangered** (PE) - Taxa whose protection under the Endangered Species Act has been proposed as endangered., due to the likelihood of it becoming endangered within the foreseeable future throughout all or a significant portion of its range.

a. Berneil. Historically, the Berneil service area supported wildlife and native habitats typical of the Sonoran Desertscrub plant communities (Brown 1994). With urbanization, however, most of the native wildlife has been displaced, and their habitat within the area has been destroyed or highly modified. Common species, which may now utilize the mostly urbanized landscape, include desert cottontail, whiptail lizard, mourning dove, European starling, great-tailed grackle, Gila woodpecker, and house sparrow. Additional information and the methodology used to obtain the biological information for these project areas can be found in Reclamation’s 2000 Draft EIS (Reclamation, 2000).

Threatened and Endangered Species. All of the species listed in Table 5 require permanent water sources or habitat types that are not found within the Berneil water service area. No potentially

suitable habitat exists for any federally listed or proposed threatened or endangered species within the Berneil project area.

The Arizona Game and Fish Department (AGFD) also maintains a statewide database, known as the Heritage Data Management System (HDMS), which tracks records for federally listed species or other species of special concern. This database was searched for occurrence records of special status species within a three-mile radius of the Berneil service area. The AGFD's response letter did not indicate the presence of any federally listed or proposed threatened or endangered species records within the project vicinity. A copy of the request letter and the AGFD response letter is included in Appendix E.

b. CCWC. The majority of the CCWC CC&N area consists of bursage/foothills paloverde vegetation (mostly below an elevation of 2,500 feet) and this area consists of more native desert than the Berneil service area. The northern portion of the CCWC CC&N area is interspersed with low mountains under an elevation of 4,500 feet. The steeper, mainly north- and east-facing slopes support a jojoba/mixed scrub association, where co-dominants include barrel cactus, brittlebush, teddy bear cholla, whitethorn acacia, wild-buckwheat, and turpentine-bush. Foothill paloverde, allthorn, and desert ironwood are common trees. Saguaros are also present, mostly moderate, but sometimes high, in density (Reclamation 2000). Relatively small areas of the creosote-bush association occur on interspersed silty plains to the south. Cover is low, and trees are widely spaced. Blue paloverde/desert ironwood association habitat occurs along major washes.

Threatened and Endangered Species. The CCWC CC&N area is located within Maricopa County. Potentially suitable habitat exists within the project area for the federally listed cactus ferruginous pygmy-owl. Two other species that were considered further for potentially suitable habitat were the southwestern willow flycatcher and the Arizona agave. The habitat present within the CCWC CC&N area is not dense or extensive enough to be considered suitable habitat for the southwestern willow flycatcher. Although the elevation in portions of the project area is suitable for the Arizona agave, they are not known to exist in this area and the vegetation is not similar to habitats where this species occurs. The remaining species listed in Table 5 require permanent water sources or habitat types that are not found within the CC&N area.

At the request of SWCA, AGFD's HDMS database was searched for occurrence records of special status species within a three-mile radius of the CCWC CC&N area. The AGFD's response letter did not indicate the presence of any federally listed or proposed threatened or endangered species records within the project vicinity. A copy of SWCA's request letter and the AGFD response letter is included in Appendix E.

## 2. Environmental Consequences

### a. No Action Alternative

(1) Berneil. Continued groundwater pumping in the Berneil service area is not anticipated to affect local biological resources. There are no perennial streams, wetlands, riparian areas, or other special aquatic habitats in the service area that provide wildlife values that could be impacted by a continued use of groundwater. In addition, due to the small amount of developable land available in the Berneil service area, native vegetation removal activities would be minimal in the Berneil service area. Also, under the No Action alternative, no federally listed or proposed threatened or endangered species would be adversely affected.

(2) CCWC. Without the proposed water transfer, CCWC would continue to pump groundwater and use its CAP allocation consistent with the 1997 ADWR determination of the amount of water available to CCWC for subdivisions and the 2003 revisions. Future groundwater level declines are not quantifiable at this time with the data available.<sup>3</sup> With receipt of an additional 806 af of CAP water, development of much, if not, all of the remaining developable land within CCWC's CC&N area could occur. It is anticipated existing desert land currently zoned for residential or commercial development would be developed with or without approval of the proposed transfer. This development would be required to be consistent with the zoning and land use allowances of the Town's General Land Use Plan. According to this Plan, a majority of this area would be low-density rural development where it would be highly unlikely that entire lots would be graded for residential use. Although vegetation removal activities would occur as development in the CC&N area occurs, under the No Action alternative, no federally listed or species proposed for listing would be adversely affected due to the absence of those species and/or their habitat in the project area.

### b. Proposed Action (Preferred Alternative)

(1) Berneil. As with the No Action alternative, no impacts to local biological resources would be anticipated as a result from implementation of the Proposed Action. No adverse impacts to listed threatened or endangered species are anticipated to occur with implementation of the Proposed Action. Habitat for listed species is absent in the project area. This determination is the same as what is anticipated to occur under the No Action alternative.

(2) CCWC. Impacts to local biological resources or their water resources from implementation of the Proposed Action would be the same as what is anticipated to occur under

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<sup>3</sup> Although water modeling related to CAP allocation in this region was completed for use in Reclamation's draft CAP Water Reallocation EIS, this model evaluated water supplies on a regional level and would not be accurate to use for this small CC&N area (Reclamation 2000).

the No Action alternative. CAP water from the proposed transfer would be delivered via existing facilities; therefore, the proposed water transfer would not result in any additional, transfer-related land disturbing activities.

## **E. Cultural Resources**

### **1. Affected Environment**

a. Berneil. The Berneil service area is located within and at the eastern boundary of Paradise Valley. Indian Bend Wash crosses the service area from the west-central border to the southeast corner. A pedestrian survey designed specifically to cover the Berneil Service Area was not conducted as part of this analysis. There is little known about the archaeology of Paradise Valley because of the small amount of survey and excavation that has occurred. However, the limited amount of work that has occurred indicates a dispersed prehistoric occupation. Archaeological features include small camps, agricultural fields, collecting areas, small villages, and rock art locales. It is likely that Indian Bend Wash was the site of the most intensive occupation of the area. A small portion of Indian Bend Wash is located within the service area.

The Berneil service area is in a developed urban setting consisting of homes, estates, and a golf course. No National Register listed or eligible properties are known in the service area.

b. CCWC. Surveys for cultural resources have been documented within the CCWC municipal planning area (e.g., DeMaagd and Punzmann 1996; Holliday 1974; Madsen 1981; Wright 1993). A pedestrian survey designed specifically to cover the CCWC CC&N area was not conducted as part of this analysis. Within the CCWC CC&N area, numerous sites have been documented, especially along the banks of Cave Creek and adjacent terraces. These sites range from compound villages with multiple structures to small, isolated field houses and limited-activity artifact scatters. Features include burials, middens, roasting pits, check dams, rock piles and alignments, "waffle gardens," petroglyphs, and shrines (Reclamation 2000).

The Spur Cross Ranch Conservation Area, which is no longer subject to being developed for residential or commercial purposes, is located within the northern portion of the CC&N area. When compared, the Spur Cross Ranch legal description in 1996 appears to be consistent with the current conservation area location. The entire conservation area is located within the CCWC CC&N area but not entirely located within the Town of Cave Creek. A complete archaeological inventory was conducted for the entire 2,180-acre Spur Cross Ranch site in 1996 prior to its designation as a conservation area. Within the Spur Cross Ranch area, the 1996 survey identified prehistoric and historic sites, with the majority of the sites and loci related to habitation and resource procurement. Other resources found were related to agriculture (field systems), communication (rock art), and one refugia site. Historic sites were also identified throughout the area, mainly associated with mining activities, ranching, agriculture, transportation, and military uses.

Specifically, the inventory recorded 98 sites; 66 were considered National Register-Eligible Sites. These sites were recorded as occurring within the eastern and central portions of the Spur Cross parcel. Isolated occurrences were also identified; the majority of those occurrences were also located within the eastern and central portion of the Spur Cross parcel. There were four notably large sites, AZ U:1:44, U:1:45, U:1:49, and U:1:213[ASM]; these sites were all used for habitation and consisted of substantial numbers of surface features and/or multiple loci. Due to the nature of the known archaeological work conducted for this parcel, which was focused solely on listing documented sites, existing literature does not discuss the presence of Traditional Cultural Properties (TCPs) within the Spur Cross parcel. On May 2, 2003, Reclamation sent a letter requesting consultation on the presence of Traditional Cultural Properties (TCPs) within the CCWC service area, to the following tribes: Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Salt River Pima-Maricopa Indian Community, Tohono O'odham Nation, Tonto Apache Tribe, and Yavapai-Prescott Indian Tribe, in Arizona; and Pueblo of Zuni, in New Mexico. There was no tribal correspondence received during Reclamation's notice period that would indicate or suggest the presence of known TCPs.

CCWC has not been requested to provide water service to the Spur Cross Ranch Area, though water may be provided to park facilities at some point in the future.

## 2. Environmental Consequences

### a. No Action Alternative

(1) Berneil. Under the No Action alternative, there would be no direct impacts to cultural resources. No new wells or additional facilities must be constructed to satisfy Berneil water service area's current or future water supply needs. Berneil would continue to utilize its existing wells; therefore, no ground disturbance related to groundwater use would occur that could potentially affect cultural resources of the area.

It is likely that the few remaining lots within the service area would eventually be developed. Due to the lack of survey data, there is a possibility that the undeveloped areas in Berneil may consist of significant cultural resources due to their proximity to Indian Bend Wash and other significant sites in the east valley of the Phoenix metropolitan area. If sites do exist, there is a potential, under the No Action, that these sites may be impacted by future development. Mitigation of cultural resource impacts due to urban expansion would be determined by local jurisdictions, and development of applicable permit requirements.

(2) CCWC. In absence of the transfer, CCWC would continue to pump groundwater and utilize its current CAP allocation in accordance with the 1997 letter, as updated by the 2003 revision.

Under the No Action alternative, the Town of Cave Creek would continue to grow in population according to its General Plan. With receipt of an additional 806 af of CAP water, development of much, if not, all of the remaining developable land within CCWC's CC&N area could occur. Ground disturbance related to this development would occur regardless of the allocation decision. Any mitigation of cultural resource impacts due to urban expansion would be determined by State and/or local jurisdictions.

b. Proposed Action (Preferred Alternative)

(1) Berneil. No land disturbing activities would result from implementation of the Proposed Action to take and use the transferred CAP water. Undeveloped properties would be developed consistent with what is expected to occur under the No Action alternative. There would be no effect to archaeological sites or historic properties directly attributable to implementation of the Proposed Action.

(2) CCWC. Implementation of the Proposed Action would not require any land disturbing activities. Undeveloped properties would be developed consistent with what is expected to occur under the No Action alternative and impacts to cultural resources would be the same as described under the No Action alternative.

**F. Indian Trust Assets**

1. Affected Environment/Existing Conditions

Indian Trust Assets (ITAs) are legal assets associated with rights or property held in trust by the United States for the benefit of federally recognized Indian Tribes or individuals. The United States is responsible for protecting and maintaining rights reserved by, or granted to, Indian Tribes or individuals by treaties, statutes, and executive orders. ITAs include property in which a Tribe has legal interest. While most ITAs are located on a reservation, they can also be located off-reservation. Examples of ITAs include lands, minerals, water rights, hunting, and fishing rights. Tribal lands within the general project area include the Salt River Pima Maricopa Indian Community, the Fort McDowell Yavapai Nation, and the Gila River Indian Community.

a. Berneil. The Salt River Pima Maricopa Indian Community is the closest reservation; it is located approximately 2 miles east of Berneil's eastern service area boundary. The Fort McDowell Yavapai Nation and Gila River Indian Community are located approximately 12.5 miles northeast and 18 miles south of the Berneil service area, respectively. No ITAs have been identified as being located within the Berneil service area.

b. CCWC. The reservations that are closest in proximity to the CCWC CC&N area are the Fort McDowell Yavapai Nation and Salt River Pima Maricopa Indian Community, which are located approximately 16 and 32 miles southeast of the CCWC CC&N area, respectively. No known ITAs have been identified as being located within the CCWC CC&N area.

## 2. Environmental Consequences

### a. No Action Alternative

(1) Berneil. Under the No Action alternative, Berneil would continue to utilize its two groundwater wells. Ground-disturbing activities would occur within the service area with development of the few remaining lots within the service area. ITAs have not been identified and the three tribes closest to the site have not raised any ITA issues.

(2) CCWC. The transfer would not occur; CCWC would continue to pump groundwater and use its current allocation in accordance with the 1997 letter, as updated by the 2003 revision. Future development and ground disturbing activities would occur within the CCWC CC&N area as the remaining developable land is converted to urban uses. ITAs have not been identified and the two tribes closest to the site have not raised any ITA issues.

### b. Proposed Action (Preferred Alternative)

(1) Berneil. No land disturbing activities would result from implementation of the Proposed Action. Undeveloped properties would be developed consistent with what is expected to occur under the No Action alternative for Berneil and impacts to ITAs would be the same as described under the No Action alternative.

(2) CCWC. Implementation of the Proposed Action would not require any land disturbing activities. Use of CAP water to irrigate an existing golf course would not result in any impacts to ITAs. Undeveloped properties would be developed consistent with what is expected to occur under the No Action alternative for CCWC and impacts to ITAs would be the same as described under the No Action alternative.

## IV. CUMULATIVE IMPACTS

A cumulative impact is defined by the CEQ regulations as, “The impact on the environment which results from the incremental impact of the action, when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions” (40 CFR 1508.7).

### A. Affected Environment/Existing Conditions

There are several other water service providers adjacent to the Berneil and CCWC service areas; these are the City of Phoenix, Town of Carefree, and the City of Scottsdale. Due to the proximity of all five of these service areas to each other, it is appropriate to analyze the cumulative effects these water providers would have on the local environment and/or water sources located within and surrounding the project area.

The City of Scottsdale (COS) and the City of Phoenix (COP) get their groundwater from the East Salt River Valley subbasin, the same subbasin from which the Berneil Water Company draws its groundwater. The Town of Carefree (TOC) draws water from the Carefree subbasin, the same subbasin from which CCWC draws the majority of its groundwater.

1. East Salt River Valley Subbasin.

Berneil does not have, and is not in need of, an Assured Water Supply (AWS). Berneil is unaware of any land within its service area that could be subdivided; therefore, no purpose would be served for it seeking a designation of AWS (Appendix B). Modeling of expected future aquifer conditions was analyzed as part of Reclamation's Draft EIS (2000). According to Reclamation's modeling, the water levels in the aquifer below the City of Scottsdale (located east of Berneil) are estimated to rise approximately 60 ft in the next 50 years as a result of aquifer recovery due to reduced use of groundwater in the East Salt River Valley. By the same modeling, the water levels in the aquifer below the City of Phoenix, located farther west from the Berneil service area, will continue to decrease approximately 300 feet in the next 50 years. These changes will have impacts on pumping costs, but these costs could not be quantified at this time due to unknown characteristics of the aquifer and the configuration of the Phoenix and Scottsdale distribution systems.

2. Carefree Subbasin.

According to the water modeling completed for Reclamation's Draft EIS, water levels in the aquifer affected by Town of Carefree's pumping are estimated to decline by approximately 150 feet in the next 50 years. The effect of this change on pumping costs could not be quantified at this time due to unknown characteristics of the aquifer and the configuration of the Town of Carefree's distribution system.

## **B. Environmental Consequences**

Based on Reclamation's Draft EIS water modeling, changes in groundwater quality are not anticipated to occur within the next 50 years based on modeled changes in groundwater levels. The North Scottsdale/Carefree area could experience ground surface subsidence due to these predicted declines in groundwater levels; however, ground surface subsidence has not been historically documented in this area.

For both the No Action and Proposed Action, overall, groundwater in both the Carefree Subbasin and City of Phoenix area would decrease due to continued groundwater pumping, while groundwater levels in the Scottsdale area, including the Berneil service area would continue to recover. Due to the unknown characteristics of the aquifer and municipal water distribution systems, however, it is unknown as to how this groundwater decrease would affect the communities or surrounding environment. Under the Proposed Action, however, less groundwater would be pumped by CCWC due to the use of the currently unused

200 af allocation of CAP water; therefore groundwater levels would likely decrease at a slightly slower rate than under the No Action alternative.

## **V. COMPLIANCE WITH ENVIRONMENTAL STATUTES**

The following is a summary of selected statutes, regulations and Executive Orders pertaining to the preparation of NEPA documents, including information relevant to this EA.

### **A. National Environmental Policy Act**

In compliance with NEPA, this EA has been prepared to provide decision-makers and the public with information regarding the environmental effects associated with transferring 200 af per year of CAP water to CCWC, and Berneil terminating its CAP water service subcontract. Public scoping was conducted from May 2 to May 30, 2003. This draft EA is being distributed for a 30-day public review and comment period.

### **B. Clean Water Act, as amended**

Section 404 of this Act identifies conditions under which a permit is required for construction projects that result in the discharge of fill or dredged material into waters of the United States. Neither an Individual 404 permit nor a Nationwide Permit would be needed for the proposed allocation and contract execution. Since no proposed construction of any delivery and/or treatment facilities would result as part of this project, no discharge of dredged or fill material would occur and therefore a Section 404 permit is not needed under either alternative.

### **C. Clean Air Act, as amended**

This Act requires that any federal entity engaged in an activity that may result in the discharge of air pollutants must comply with all applicable air pollution control laws and regulations (federal, state, or local). Air quality in either service area would not be impacted under either alternative due to the lack of activities that would contribute to the air emissions or other activities resulting in air pollution. Therefore, no air quality permitting is required and the Proposed Action complies with the Clean Air Act.

### **D. Endangered Species Act of 1973, as amended**

Section 7 of the Act requires federal agencies to consult with the USFWS to ensure that undertaking, funding, permitting or authorizing an action is not likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Reclamation has determined there would be no impacts to federally listed species or designated critical habitat from implementation of the Proposed Action.

#### **E. Fish and Wildlife Coordination Act**

This Act requires coordination with federal and state wildlife agencies (USFWS and Arizona Game and Fish Department [AGFD]) for the purpose of mitigating project-caused losses to wildlife resources for federal water resource development projects. The proposed project will not impound or divert surface waters in the CCWC CC&N area. Reclamation believes the consultation requirements of NEPA and the Endangered Species Act are sufficient to also meet any requirements for consultation under the Fish and Wildlife Coordination Act for this proposed action. The FWS will receive a copy of the draft EA for review and comment.

#### **F. National Historic Preservation Act of 1966, as amended**

This Act provides for the protection of historic and prehistoric sites that are eligible for listing on the National Register of Historic Places (NRHP). It requires federal agencies to identify potential impacts to cultural resources and conduct mitigation to protect or record resources as determined appropriate in consultation with the State Historic Preservation Office or Tribal Historic Preservation Office prior to initiating a federal project. This EA provides an overview of the types of cultural resources present in the areas for each service area. The proposed allocation is not considered to be an “undertaking” which would require Section 106 consultation with the SHPO; however, a copy of the EA is being provided to the SHPO and interested Tribes based on interest received during tribal consultation.

#### **G. Wild and Scenic Rivers Act of 1968**

There are no rivers designated or proposed for designation as wild and scenic within or near the project area.

#### **H. Wilderness Act of 1964, as amended**

There are no areas designated or proposed for designation as wilderness areas within or near the project area.

#### **I. Executive Order 11990, Protection of Wetlands**

Executive Order 11990 provides for the protection of wetlands through avoidance or minimization of adverse impacts. The proposed allocation transfer would not result in impacts to any wetlands.

#### **J. Executive Order 11988, Floodplain Management**

Executive Order 11988 requires avoiding or minimizing harm associated with the occupancy or modification of a floodplain. The proposed allocation and contract execution would not cause any harm to the floodplain. Current plans are to dedicate this water as a permanent supply to the existing Rancho Mañana Golf Course. Should its use modify or impact a floodplain, CCWC would need to ensure there would be no adverse modification to the floodplain, or harm to an adjacent downstream landowner.

**K. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

As indicated in Chapter 3, Section C, minority or low-income populations would not be disproportionately impacted by this project.

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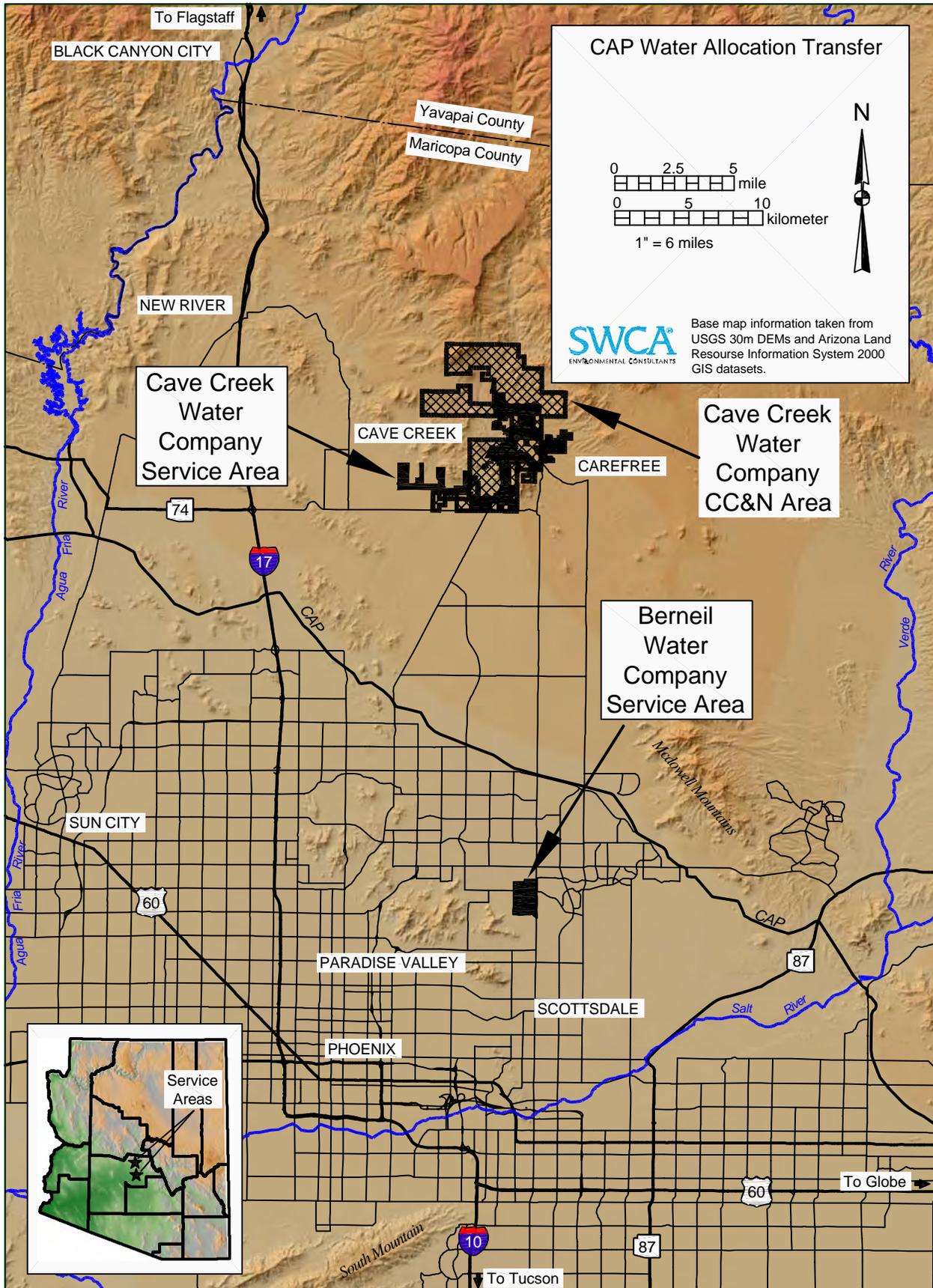
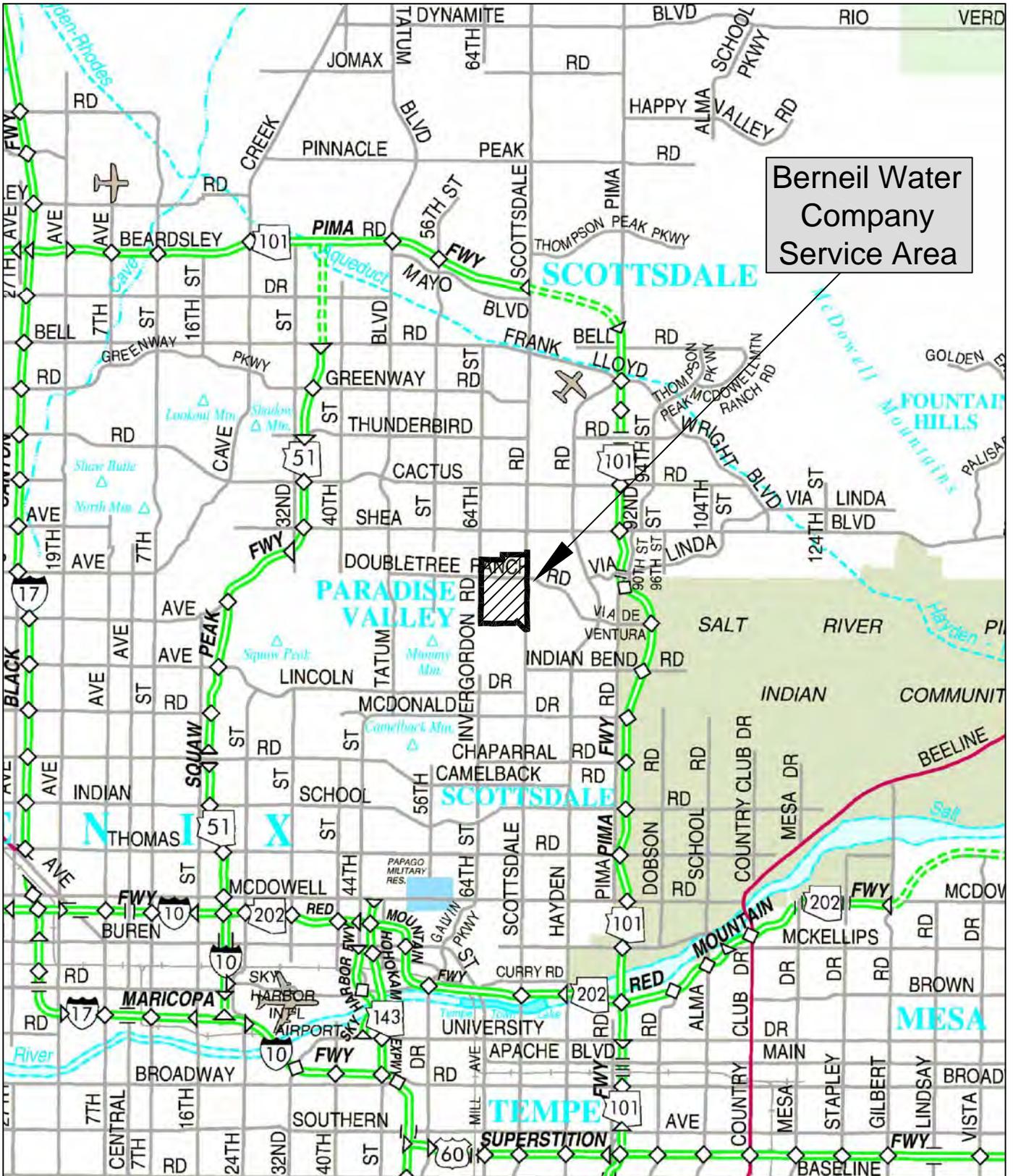


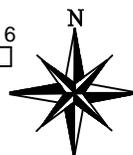
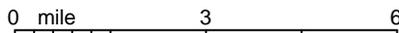
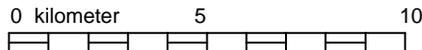
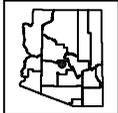
Figure 1. General Location of the Service Areas



**Berneil Water  
Company  
Service Area**

Map Source: MAP LOCATION

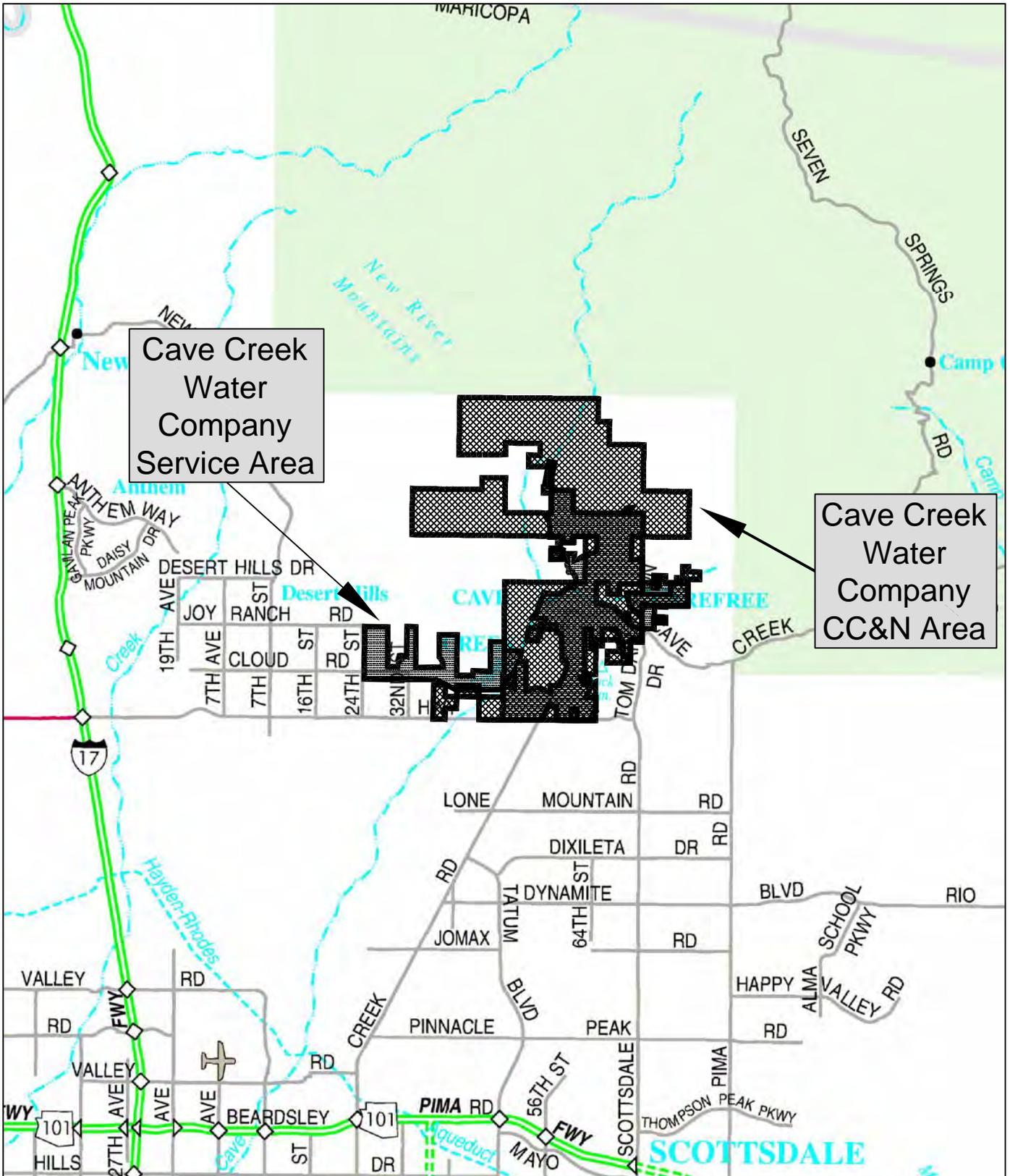
MacroMAP®



**CAP Water Allocation  
Transfer**

Figure 2. Berneil Service Area

**SWCA**  
ENVIRONMENTAL CONSULTANTS



Map Source: MacroMAP®

MAP LOCATION

**SWCA**  
ENVIRONMENTAL CONSULTANTS

0 kilometer 5 10

0 mile 3 6

**CAP Water Allocation Transfer**

Figure 3. Cave Creek Water Company (CCWC) Service Area

**APPENDIX A**  
**SCOPING MAILER AND COMMENT LETTERS**









# United States Department of the Interior

BUREAU OF RECLAMATION

Phoenix Area Office

PO Box 81169

Phoenix, Arizona 85069-1169

IN REPLY REFER TO:

PXAO-1500

ENV-6.00

MAY 2 2003

To: All Interested Persons, Organizations, and Agencies

From:  
**ACTING**

*Waverly T. Wisting*  
Carol Lynn Erwin  
Area Manager

Subject: Notice of Public Scoping for Preparation of an Environmental Assessment (EA) on the Proposed Transfer of 200 Acre-Feet (AF) of Central Arizona Project (CAP) Water from Berneil Water Company (Berneil) to the Cave Creek Water Company (CCWC), Maricopa County, Arizona (Action by May 30, 2003)

We have received a proposal from CCWC for purchase and transfer of 200 AF of Berneil's CAP water allocation. If approved, CCWC's CAP water service subcontract would be amended to add 200 AF to its existing allotment of 1,600 AF, for a total of 1,800 AF of CAP water to be delivered to CCWC annually (see Figures 1 and 2, attached). CCWC indicates the additional CAP water would be used to supply irrigation water to a golf course within its service area, or would be treated, delivered, and used as a potable water supply within the CCWC water service area. No new treatment and delivery facilities would need to be constructed for CCWC to use this transferred CAP water.

Berneil entered into a CAP water service subcontract in 1985 for 432 AF, but has never taken delivery of any of its CAP water allocation. Berneil transferred 200 AF to the city of Scottsdale and 32 AF to the city of Phoenix in 1998. If the remaining 200 AF of its CAP water allocation is transferred to CCWC, Berneil's CAP water service subcontract would be terminated. Berneil would continue to rely upon ground water for its potable water supply, and has entered into an agreement with the city of Scottsdale to provide emergency back-up supplies in cases of emergency.

We are requiring preparation of an EA to describe the anticipated environmental consequences resulting from this proposed CAP water transfer. This memorandum is to request your input regarding issues and concerns that you feel should be addressed in this EA. To be most helpful, comments should be as specific as possible and sent to Reclamation at the above address, Attention: Ms. Sandra Eto, by May 30, 2003. If you have any questions, please contact Ms. Eto of the Environmental Resource Management Division, at 602-216-3857. Thank you for your interest in this project.

Attachments 2



**APPENDIX B**

**BERNEIL WATER COMPANY CORRESPONDENCE (2003)**

**BERNEIL WATER COMPANY  
P. O. BOX 219  
TEMPE, ARIZONA 85280**

**PHONE 480-966-0115  
FAX 480-947-7542**

June 23, 2003

Ms. Sandra Eto  
Environmental Resource Management Division  
Bureau of Reclamation  
Post Office Box 81169  
Phoenix, Arizona 85069-1169

**Re: Transfer of CAP Water from Berneil Water Company  
To Cave Creek Water Co.**

Dear Ms. Eto:

This letter is written to provide additional background on the water situation of the Berneil Water Company as it relates to the transfer of its CAP water allocation. First, it is important to recognize that Berneil Water Company's service area is completely surrounded and cannot expand. For all intents and purposes, it is completely built out. There are but a handful of lots to be developed. While lots with existing service are being remodeled or replaced, the water demand is not being altered significantly. The Berneil Water Company has two operating wells. These wells are capable of meeting the current and projected water demand within its service area. In addition, the Berneil Water Company has an emergency service connection with the City of Scottsdale. This service connection provides sufficient reliability to the system in the event of unexpected outages or other emergencies. Water levels in its operating wells do not demonstrate any significant decline or create any concern regarding their ability to continue to produce water at present rates, which again are sufficient to meet projected demands.

It is important to recognize also that initially the Berneil Water Company's entire 432 acre foot allocation was proposed to be transferred to the Cave Creek Water Co. The adjoining communities of Scottsdale and Phoenix contended that they should retain a portion of the CAP water for their municipally owned water utilities to compensate for the Berneil Water Company's continued groundwater pumping. Ultimately, the Arizona Department of Water Resources recommended only 200 acre feet be transferred to Cave Creek Water Co., with the remaining 232 acre feet being retained by the adjoining communities of Scottsdale and Phoenix. Thus, the transfers approved by the Arizona Department of Water Resources already have taken the impacts of continued pumping into consideration.

Ms. Sandra Eto  
June 23, 2003  
Page 2

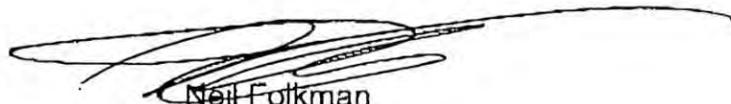
Prior to agreeing to transfer its CAP water supply, the Berneil Water Company discussed with both the City of Scottsdale and the City of Phoenix, the concept of having the Berneil Water Company's CAP water treated by either city and having the treated water delivered to the Berneil Water Company. While the City of Phoenix originally orally indicated a willingness to enter into such an arrangement, later both Cities indicated they were not interested in such an arrangement. The Berneil Water Company's service area is not located in proximity to the CAP canal. Therefore, building a treatment and distribution system to take and receive a 432 acre foot allocation was cost prohibitive. It is even less economic to consider treating and delivering only the 200 acre feet for which transfers have not yet been approved by the Bureau. Moreover, in excess of \$60,000 is currently owed to the Central Arizona Water Conservation District related to the 200 acre feet to be transferred to Cave Creek Water Co.

Finally, it must also be emphasized that the Berneil Water Company is unaware of any land within its service area that could be subdivided. Therefore, no purpose would be served for it seeking a designation of assured water supply, which designation only applies when a water provider is seeking to serve a new subdivision. Furthermore, in the unlikely event a subdivision requested service from the Berneil Water Company, it is believed the subdivision could obtain a Certificate of Assured Water Supply by joining the Central Arizona Groundwater Replenishment District.

As a result of the foregoing, the Berneil Water Company continues to support the recommended transfer of 200 acre feet of its CAP allocation to Cave Creek Water Co.

If you have any questions, please do not hesitate to contact the undersigned.

Very truly yours,



Neil Folkman  
Secretary

WPS/tsg  
Cc: Jay George, Cave Creek Water Co.

## **APPENDIX C**

### **ADWR ASSURED WATER SUPPLY CORRESPONDENCE (1997)**

## ARIZONA DEPARTMENT OF WATER RESOURCES

500 North Third Street, Phoenix, Arizona 85004  
 Telephone (602) 417-2410  
 Fax (602) 417-2415



FIFE SYMINGTON  
 Governor

RITA P. PEARSON  
 Director

January 24, 1997

Ms. Myrtle George, President  
 Cave Creek Water Company  
 Post Office Box 13507  
 Scottsdale, Arizona 85267

184-17

Dear Ms. George:

At your request, the Arizona Department of Water Resources (ADWR) has reviewed the application of the recently adopted Assured Water Supply Rules, A.A.C. R12-15-701 *et seq.* to Cave Creek Water Company (CCWC). CCWC representatives have indicated that a substantial capital investment has been made in water transmission and treatment facilities prior to the adoption of the new rules. The purpose of these facilities is to deliver CCWC's allocation of 1600 acre-feet of Central Arizona Project (CAP) water to a new development within the CCWC service area. CCWC has suggested that strict application of the new rules, which would require that a significant portion of this water be reserved for current and presently committed demand, will result in the inability of CCWC to recoup this capital investment for the benefit of its investors.

We have reviewed the facts presented in this matter which are summarized as follows:

1) CCWC caused CAP distribution and treatment facilities to be built which are capable of receiving the entire 1600 acre-feet of CCWC's CAP water and delivering 1100 acre-feet as potable supply; 2) CCWC secured the Arizona Corporation Commission's approval of a financing tariff allowing contractual arrangements with new subdivisions to finance the CAP facilities; 3) CCWC entered into agreements with various developers allocating its entire CAP supply in return for the individual developers' commitment to finance the CAP facilities; 4) the contracts with the developers contained contingency escalator and reallocation clauses that allowed CCWC to guard against unanticipated costs of the project and financial inability on the part of any individual developer; 5) CCWC obtained ADWR's acceptance of the proposed method of processing applications for certificates of assured water supply by the potential developers within the CCWC service area, consistent with this financial structure; 6) notwithstanding this financial structure, certain developers have not used the amount of CAP water allocated to them under these contracts, and their individual solvency does not permit CCWC to recover the financial shortfall on the capital improvements from them; and 7) some contractors are claiming entitlement to reimbursement of their financial contributions based upon their inability to use all of the water originally purchased. These facts purportedly compel CCWC to exercise the reallocation clauses in these original contracts and transfer this unused water to new developers in the area. Strict application of A.A.C. R12-15-703(E), however, prevents that reallocation. We understand your formal request, as expressed in discussions and in prior correspondence, is to waive the application of this rule based upon the financial hardship

Ms. Myrtle George  
January 24, 1997  
Page Two

that would result to CCWC if it were applied.

Based on our review of these facts, which we believe are unique to CCWC, we have concluded that sufficient proof of an unanticipated adverse financial result has been demonstrated and limited relief from the requirements of A.A.C. R12-15-703(E) is warranted. Please bear in mind that this relief only relates to CCWC's ability to pledge CAP water in support of applications for certificates of assured water supply filed by individual developers. The burden of exercising the reallocation provisions of the existing contracts in a manner that makes the CAP water available to new customers rests solely with CCWC, and each individual application will still be evaluated in accordance with standard practices, except for the exemption granted by this letter.

Also at your request, we have undertaken to examine existing conditions within CCWC's service area and develop a water budget to indicate the amount of CAP water available to pledge to new development. Based on an analysis of supply and demand factors (summarized in Attachment A), ADWR has determined that up to 940 acre-feet of CAP water can be made available to developers seeking certificates of assured water supply based on contracts with CCWC, subject to the following considerations:

- A demonstration that CCWC treatment capacity will be expanded in a timely manner to not less than 1600 acre-feet. The treatment plant capacity will be determined based on the standards prescribed in the Assured Water Supply Rules. Until such demonstration is made, 440 acre-feet of the total is available for potable delivery.
- Of the remaining 500 acre-feet, approximately 330 acre-feet is currently being delivered to the Eagle Creek Golf Course. This 330 acre-feet can be made available to serve new development upon identification and verification of sufficient renewable supplies to replace the CAP water. The replacement supplies must conform to the standards for physical, legal and continuous availability established in the Assured Water Supply Rules (A.A.C. R12-15-703). We understand that possible replacement supplies include effluent based on a contract with the Town of Cave Creek, and a 200 acre-foot surface water appropriation from the Cave Creek watercourse. For purposes of determining availability of the effluent, ADWR will consider the volume expected to be generated from current and committed uses up to the capacity of the treatment plant.
- Of the volume available for allocation, 27 percent will be reserved for non-residential uses which are expected to occur concurrent with the development of new subdivisions. This figure is based on the current residential/non-residential mix in the service area (not including the golf course).

In summary, until plant capacity is increased and supplemental supplies are verified for the golf course, 440 acre-feet is available for allocation to potable uses. Of this volume, 119 acre-feet is

Ms. Myrtle George  
January 24, 1997  
Page Three

reserved for allocation to non-residential uses leaving 321 acre-feet for residential use on subdivision lots. The supply availability determination may be periodically updated by ADWR as conditions warrant.

It is the intention of ADWR that CCWC use the forgoing information to restructure its financial arrangements with individual developers and exercise, if necessary, the reallocation clauses in its existing contracts to complete this restructuring. If CCWC takes advantage of this opportunity to ~~restructure, developers seeking certificates of assured water supply supported by contracts for~~ delivery of CAP water consistent with this letter shall not be required to independently obtain a renewable water source under A.A.C. R12-15-703(E) in order to qualify for that certificate. The exemption from the requirements of A.A.C. R12-15-703(E) granted by this letter shall endure for a period of ten years from the date of this letter.

The exemption from A.A.C. R12-15-703(E) and the budget of available water expressed in this letter is not an allocation of water to CCWC, nor is it intended to create a property right or an expectation of property right in any quantity of water or the ability to contract for the delivery of that water. Rather, it is intended to assist CCWC in mitigating the financial hardship that would otherwise accrue to CCWC by application of the new rules to existing, but partially executory contracts. As such, this exemption from the rule extends only to the contracts that were in existence when the new rules took effect and to successor contracts executed within the ten-year exemption period. After the ten-year exemption period, CCWC must contemplate that any further reallocation shall be subject to A.A.C. R12-15-703(E), as that rule is interpreted and enforced by ADWR at that time. ADWR expresses no opinion, at this time, whether a further exemption should be granted beyond the ten-year period granted by this letter, and CCWC should plan its financial structure accordingly. Finally, the exemption from the rule granted in this letter extends only to the original 1600 acre-feet CAP allocation of CCWC. The new rules shall apply to any additional CAP water that CCWC may acquire.

Sincerely,



Rita P. Pearson  
Director

RPP:mjp:kd

**ATTACHMENT A - WATER SUPPLY AVAILABILITY ANALYSIS  
CAVE CREEK WATER COMPANY**

**SUPPLY**

Groundwater supply annually available to CCWC and private wells	630 AF
CAP available	
Potable	1,100 AF
Non-potable	<u>500 AF</u>
Total supply available	<u>2,230 AF</u>

**DEMAND**

CCWC current demand (1995)	
CCWC service area (less golf course)	450 AF
Eagle Creek Golf Course	330 AF
Committed demand and demand associated with private wells	
Residential (2,049 lots at .3 AF/lot)	615 AF
Non-residential (proportional value - 2049 lots at .11 AF/lot)	<u>225 AF</u>
Total current and committed demand	<u>1,620 AF</u>

**SUPPLY AVAILABLE FOR ALLOCATION** \* (see note below)

Assuming replacement supplies are not verified for the golf course and treatment plant is not expanded (current scenario)	<u>440 AF</u>
Assuming replacement supplies are not verified for the golf course and treatment plant is expanded	<u>610 AF</u>
Assuming replacement supplies are verified for the golf course and treatment plant is expanded	<u>940 AF</u>

\* 27 percent of the indicated volume will be reserved for new non-residential uses in the service area which are expected to develop concurrent with new residential subdivisions. Thus, the 440 AF results in an adjusted figure of 321 acre-feet available for allocation to new residential lots (for on-lot usage). Though the average residential use in the service area has been approximately .3 acre-feet per lot (.41 including non-residential use in the service area), the actual usage on each lot may vary depending on lot size and other conditions. CCWC is responsible for assuring that the estimate of water use for each subdivision is calculated accurately for allocation purposes. It is recommended that ADWR Assured Water Supply staff in the Phoenix AMA be consulted prior to determining the allocation volume to avoid complications in approving Certificates of Assured Water Supply. CCWC is responsible for properly allocating water for non-residential uses, regardless of whether or not these uses will be reflected in an assured water supply analysis.

## **APPENDIX D**

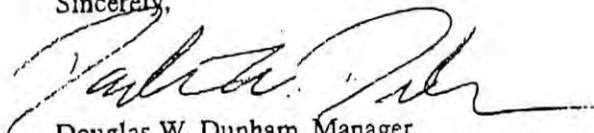
### **ADWR ALLOCATION USE CORRESPONDENCE (2003)**



This recommendation, and the requirement that the proposed 200 af CAP transfer to CCWC be used to serve current and committed demand, is consistent with the provisions of the January 24, 1997 letter from Director Rita Pearson to CCWC.

If you have any questions, please call Kay McNeely in the Phoenix Active Management Area at 602-417-2400, extension 7292.

Sincerely,



Douglas W. Dunham, Manager  
Office of Assured and Adequate Water Supply

cc: Cave Creek Water Co.  
Bureau of Reclamation, Department of the Interior  
Phoenix Active Management Area, ADWR  
Colorado River Management, ADWR

**APPENDIX E**  
**AGFD CORRESPONDENCE**



Phoenix Office  
2120 North Central Ave., Suite 130  
Phoenix, Arizona 85004  
Tel 602.274.3831 Fax 602.274.3958  
www.swca.com

March 11, 2003

Sabra Schwartz  
HDMS Program Coordinator  
Arizona Game and Fish Department  
2222 W. Greenway Road  
Phoenix, Arizona 85023-4399

**RE: REQUEST FOR INFORMATION CONCERNING ARIZONA SPECIAL STATUS SPECIES  
AND HABITAT RELATED ISSUES**

Dear Mr. Kennedy:

SWCA has been contracted to complete an Environmental Assessment (EA) to describe and assess the environmental consequences that may result from the Bureau of Reclamation executing a water service subcontract amendment to assign the remaining portion of Berneil Water Company's (Berneil) Central Arizona Project (CAP) contract entitlement to the Cave Creek Water Company (CCWC). Berneil intends to transfer 200 acre-feet (af), its CAP water entitlement, to CCWC and terminate its water service subcontract. CCWC's existing CAP water service subcontract would be amended to increase its annual CAP water allocation by 200 af, it currently is allocated 1,600 af per year. The EA will be prepared in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), and Reclamation's NEPA Handbook. The Berneil project area is approximately 930.77 acres and is located in Section 3 of Township 2 North, Range 4 East and Sections 27 and 34 of Township 3 North, Range 4 East, in the town of Paradise Valley, Maricopa County, Arizona. The CCWC project area is approximately 5630.17 acres and is located in Sections 1 and 2 of Township 5 North, Range 3 East; Sections 4, 5, and 6 of Township 5 North, Range 4 East; Sections 35 and 36 of Township 6 North, Range 3 East; and Sections 8, 9, 15, 16, 17, 20, 21, 22, 27, 28, 29, 31, 32, 33, and 34 of Township 6 North, Range 4 East in the town of Cave Creek, Maricopa County, Arizona.

This correspondence is a request for information concerning special status species potentially occurring in the geographical area that encompasses the project area. However, one significant note regarding this proposed project is that no new infrastructure will be built; therefore, no new surface and/or vegetation disturbance will occur with this project. We also invite comments on habitat-related issues or any other concerns which your agency may have regarding future development of this area.

If you have any questions or require additional information, please contact me at (602) 274-3831. We appreciate your assistance and respectfully request your response as soon as possible.

Sincerely,

A handwritten signature in cursive script that reads "Eleanor R. Gladding".

Eleanor R. Gladding  
Biologist

enclosure



THE STATE OF ARIZONA  
**GAME AND FISH DEPARTMENT**

2221 WEST GREENWAY ROAD, PHOENIX, AZ 85023-4399  
(602) 942-3000 • AZGFD.COM

**GOVERNOR**  
JANET NAPOLITANO  
**COMMISSIONERS**  
CHAIRMAN, JOE CARTER, SAFFORD  
SUSAN E. CHILTON, ARIVACA  
W. HAYS GILSTRAP, PHOENIX  
JOE MELTON, YUMA  
MICHAEL M. GOLIGHTLY, FLAGSTAFF  
**DIRECTOR**  
DUANE L. SHROUFE  
**DEPUTY DIRECTOR**  
STEVE K. FERRELL



March 24, 2003

Ms. Eleanor Gladding  
SWCA  
2120 N. Central Ave.  
Suite 130  
Phoenix, AZ 85004

Re: **Special Status Species Information for Township 2 North, Range 4 East, Section 3; Township 3 North, Range 4 East, Sections 27 and 34 (Berneil Project Area). Township 5 North, Range 3 East, Sections 1 and 2; Township 5 North, Range 4 East, Sections 4-6; Township 6 North, Range 3 East, Sections 35 and 36; Township 6 North, Range 4 East, Sections 8, 9, 15-17, 20-22, 27-29, 31-34 (Cave Creek Water Company).**

Dear Ms. Gladding:

The Arizona Game and Fish Department (Department) has reviewed your request, dated March 11, 2003, regarding special status species information associated with the above-referenced project area. The Department's Heritage Data Management System (HDMS) has been accessed and current records show that the special status species listed on the attachment have been documented as occurring in the project area (3-mile buffer). In addition, this project does not occur in the vicinity of any proposed or designated Critical Habitats.

The Department's HDMS data are not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity.

Making available this information does not substitute for the Department's review of project proposals, and should not decrease our opportunities to review and evaluate new project proposals and sites. The Department is also concerned about other resource values, such as other wildlife, including game species, and wildlife-related recreation. The Department would appreciate the opportunity to provide an evaluation of impacts

Ms. Eleanor Gladding

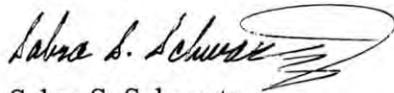
March 24, 2003

2

to wildlife or wildlife habitats associated with project activities occurring in the subject area, when specific details become available.

If you have any questions regarding the attached species list, please contact me at (602) 789-3618. General status information, state-wide and county distribution lists, and abstracts for some special status species are also available on our web site at: [http://www.azgfd.com/wildlife\\_conservation/edits/species\\_concern.html](http://www.azgfd.com/wildlife_conservation/edits/species_concern.html).

Sincerely,



Sabra S. Schwartz  
Heritage Data Management System, Coordinator

SSS:ss

Attachment

cc: Bob Broscheid, Project Evaluation Program Supervisor  
Russ Haughey, Habitat Program Manager, Region VI

AGFD #03-17-03(14)

# Special Status Species within 3 Miles of T2N,R4E Sec 3; T3N,R4E Sec 27, 34

Arizona Game and Fish Department, Heritage Data Management System

March 24, 2003

Scientific Name	Common Name	ESA	USFS	BLM	WSCA	NPL
<i>FALCO PEREGRINUS ANATUM</i>	AMERICAN PEREGRINE FALCON	SC	S		WSC	
<i>SONORELLA ALLYNSMITHI</i>	SQUAW PEAK TALUSSNAIL	SC	S			

No Critical Habitats in project area. AGFD #03-17-03(14), Water Services: Berneil Project.

**Special Status Species within 3 Miles of T5N,R3E Sec 1, 2; T5N,R4E Sec 4-6;  
T6N,R3E Sec 35-36; T6N,R4E Sec 8, 9, 15-17, 20-22, 27-34**

Arizona Game and Fish Department, Heritage Data Management System

March 24, 2003

Scientific Name	Common Name	ESA	USFS	BLM	WSCA	NPL
<i>GOPHERUS AGASSIZII (SONORAN POPULATION)</i>	SONORAN DESERT TORTOISE	SC				WSC
<i>MACROTUS CALIFORNICUS</i>	CALIFORNIA LEAF-NOSED BAT	SC			S	WSC
<i>NYCTINOMOPS FEMOROSACCUS</i>	POCKETED FREE-TAILED BAT				S	

No Critical Habitats in project area. AGFD #03-17-03(14), Water Services: Cave Creek Water Company Project.

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES  
ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department

Revised January 17, 1997

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

Desert tortoises of the Sonoran population are those occurring south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position at all times and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 105 degrees Fahrenheit unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to two miles, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 105 degrees Fahrenheit, the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- These guidelines do not apply to the Mohave population of desert tortoises (north and west of the Colorado River). Mohave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.
- These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.
- Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

RAC:NLO:rc

**STATUS DEFINITIONS**  
**ARIZONA GAME AND FISH DEPARTMENT (AGFD)**  
**HERITAGE DATA MANAGEMENT SYSTEM (HDMS)**

**FEDERAL US STATUS**

**ESA Endangered Species Act (1973 as amended)**  
US Department of Interior, Fish and Wildlife Service (<http://arizonaes.fws.gov>)

**Listed**

- LE** Listed Endangered: imminent jeopardy of extinction.
- LT** Listed Threatened: imminent jeopardy of becoming Endangered.
- XN** Experimental Nonessential population.

**Proposed for Listing**

- PE** Proposed Endangered.
- PT** Proposed Threatened.

**Candidate (Notice of Review: 1999)**

- C** Candidate. Species for which USFWS has sufficient information on biological vulnerability and threats to support proposals to list as Endangered or Threatened under ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.
- SC** Species of Concern. The terms "Species of Concern" or "Species at Risk" should be considered as terms-of-art that describe the entire realm of taxa whose conservation status may be of concern to the US Fish and Wildlife Service, but neither term has official status (currently all former C2 species).

**Critical Habitat (check with state or regional USFWS office for location details)**

- Y** Yes: Critical Habitat has been designated.
- P** Proposed: Critical Habitat has been proposed.

[ \N No Status: certain populations of this taxon do not have designated status (check with state or regional USFWS office for details about which populations have designated status)].

**USFS US Forest Service (1999 Animals, 1999 Plants: corrected 2000)**  
US Department of Agriculture, Forest Service, Region 3 (<http://www.fs.fed.us/r3/>)

- S** Sensitive: those taxa occurring on National Forests in Arizona which are considered sensitive by the Regional Forester.

**BLM US Bureau of Land Management (2000 Animals, 2000 Plants)**  
US Department of Interior, Bureau of Land Management, Arizona State Office  
(<http://azwww.az.blm.gov>)

- S** Sensitive: those taxa occurring on BLM Field Office Lands in Arizona which are considered sensitive by the Arizona State Office.
- P** Population: only those populations of Banded Gila monster (*Heloderma suspectum cinctum*) that occur north and west of the Colorado River, are considered sensitive by the Arizona State Office.

### TRIBAL STATUS

#### NESL Navajo Endangered Species List (2000)

Navajo Nation, Navajo Fish and Wildlife Department

(<http://www.heritage.tnc.org/nhp/us/navajo/esl.html>)

The Navajo Endangered Species List contains taxa with status from the entire Navajo Nation which includes parts of Arizona, Utah, and New Mexico. In this notebook we provide NESL status for only those taxa whose distribution includes part or all of the Arizona portion of the Navajo Nation.

#### Groups

- 1 Those species or subspecies that no longer occur on the Navajo Nation.
- 2 Any species or subspecies which is in danger of being eliminated from all or a significant portion of its range on the Navajo Nation.
- 3 Any species or subspecies which is likely to become an endangered species, within the foreseeable future, throughout all or a significant portion of its range on the Navajo Nation.
- 4 Any species or subspecies for which the Navajo Fish and Wildlife Department (NF&WD) does not currently have sufficient information to support their being listed in Group 2 or Group 3 but has reason to consider them. The NF&WD will actively seek information on these species to determine if they warrant inclusion in a different group or removal from the list.

### MEXICAN STATUS

#### MEX Mexican Federal Endangered Species List (October 16, 2000)

Proyecto de Norma Oficial Mexicana PROY-NOM-059-ECOL-2000

The Mexican Federal Endangered Species List contains taxa with status from the entire Mexican Republic and waters under its jurisdiction. In this notebook we provide MEX designations for only those taxa occurring in Arizona and also in Mexico.

- P** En Peligro de Extinción (Determined Endangered in Mexico): in danger of extinction.
- A** Amenazada (Determined Threatened in Mexico): could become endangered if factors causing habitat deterioration or population decline continue.
- Pr** Sujeta a Protección Especial (Determined Subject to Special Protection in Mexico): utilization limited due to reduced populations, restricted distribution, or to favor recovery and conservation of the taxon or associated taxa.
- E** Probablemente extinta en el medio silvestre (Probably extinct in the wild of Mexico): A native species whose individuals in the wild have disappeared, based on pertinent documentation and studies that prove it. The only existing individuals of the species are in captivity or outside the Mexican territory.

[ | = One or more subspecies of this species has status in Mexico, but the HDMS does not track it at the subspecies level (most of these subspecies are endemic to Mexico). Please consult the NORMA Oficial Mexicana PROY-NOM-059-ECOL-2000 for details.]

**STATE STATUS**

**NPL** **Arizona Native Plant Law (1999)**  
Arizona Department of Agriculture (<http://agriculture.state.az.us/PSD/nativeplants.htm>)

- HS** Highly Safeguarded: no collection allowed.
- SR** Salvage Restricted: collection only with permit.
- ER** Export Restricted: transport out of State prohibited.
- SA** Salvage Assessed: permits required to remove live trees.
- HR** Harvest Restricted: permits required to remove plant by-products.

**WSCA** **Wildlife of Special Concern in Arizona (in prep)**  
Arizona Game and Fish Department (<http://www.azgfd.com>)

**WSC** Wildlife of Special Concern in Arizona. Species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines, as described by the Arizona Game and Fish Department's listing of Wildlife of Special Concern in Arizona (WSCA, in prep). Species indicated on printouts as WSC are currently the same as those in **Threatened Native Wildlife in Arizona (1988)**.

**APPENDIX F**

**ADWR CORRESPONDENCE TO TOWN OF PARADISE VALLEY (2004)**

## ARIZONA DEPARTMENT OF WATER RESOURCES

500 North Third Street, Phoenix, Arizona 85004

Telephone 602 417-2410

Fax 602 417-2415

Janet Napolitano  
Governor

February 2, 2004

OPTIONAL FORM 99 (7-90)

## FAX TRANSMITTAL

# of pages 3

To	Jenn Hagan	From	Sandy Eto
Dept./Agency	SWCA	Phone #	602-216-3857
Fax #	602-274-3958	Fax #	

NSN 7540-01-317-7388

5099-101

GENERAL SERVICES ADMINISTRATION

Mr. Thomas M. Martinsen, Jr.  
Town Manager  
Town of Paradise Valley  
6401 East Lincoln Drive  
Paradise Valley, Arizona 85253-4399

The Honorable Ed Winkler  
Town Council Member  
Town of Paradise Valley  
6401 East Lincoln Drive  
Paradise Valley, Arizona 85253-4399

CLASSIFICATION
CONTROL NO.
FOLDER ID
UPDATE

Re: Transfer of 200 acre-feet of Berneil Water Company's (Berneil) Central Arizona Project (CAP) municipal and industrial (M&I) allocation to Cave Creek Water Company (Cave Creek)

Dear Mr. Martinsen and Councilman Winkler:

Thank you for the opportunity to discuss the Town of Paradise Valley's (Paradise Valley) concerns regarding the transfer of the remaining 200 acre-feet of Berneil's Central Arizona Project (CAP) M&I allocation to Cave Creek. During the October 24, 2003 meeting, you expressed concerns regarding whether Berneil has sufficient water supplies to meet its current and projected demand, including water demand associated with the build-out of the few remaining lots within its service area, and its conservation requirement. As a result of those concerns, you asked the Arizona Department of Water Resources (Department/ADWR) to consider rescinding its recommendation regarding the transfer of the final 200 acre-feet to Cave Creek and allow the allocation to remain with Berneil for use within its service area. In addition, you requested information associated with the Department's public notification process for proposed CAP transfer actions.

Subsequent to the October 2003 meeting, Department staff reviewed its findings associated with the CAP transfer process that was conducted in 1996 at Berneil's request, as well as the status of Berneil's current water supply, demand and use rate.

#### *Central Arizona Project Transfer Process*

In 1995, Berneil approached the Department and requested to transfer its 432 acre-feet CAP allocation to Cave Creek. In accordance with the Department's CAP M&I transfer policy, the Department directed Berneil and Cave Creek to submit water supply plans that explained how the proposed transfer would meet the water management objectives of Section III of the transfer policy (see attached policy). At a minimum, the plans had to include information describing the

Mr. Martinsen and Councilman Winkler

February 2, 2004

Page 2 of 3

quantities of water available to meet their current, committed and projected demands, and the source(s) of their water supply.

In response to the requirement that Berneil submit a water supply plan, a report by Manera, Inc. entitled, "Physical Availability of Water to Berneil Water Company" was provided to the Department for review (see attached report). The results of the report indicated that with a projected build-out demand of 1,032 acre-feet, the depth to water within Berneil's service area would not exceed 1,000 feet below the land surface. This determination was based on Berneil's 1995 water use rate of 1,613 gallons/water meter/day and the potential addition of 64 new lots resulting from the subdivision of existing multi-acre lots. As a result of our evaluation of the Berneil report, the Department concluded that, without using its CAP allocation to offset its groundwater withdrawals, the 100-year projected groundwater depth for the Berneil area would be approximately 723' below land surface. Based on the hydrologic evaluation, the Department determined that Berneil had adequate groundwater supplies to meet its 100-year projected M&I water demand.

Once the information was submitted, the Department published a public notice regarding the proposed transfer action. All Phoenix AMA water providers were given direct notice of the proposed action. This included the cities of Phoenix and Scottsdale and Paradise Valley Water Company. The Town of Paradise Valley may not have received direct notice. However, the Department did advertise the proposed transfer action once per week for two consecutive weeks in the Phoenix Gazette on May 16 and May 23, 1996. Interested parties had 30 days after the second advertisement to submit written comments. Written comments were considered during the Director's review of the proposed action.

As a result of the public notice, the cities of Phoenix and Scottsdale submitted requests that they be considered for a portion of Berneil's CAP allocation. Phoenix and Scottsdale contended that they would be adversely affected by Berneil not using its 432 acre-feet CAP allocation to offset its groundwater demand.

In 1997, the Department recommended to the Secretary of the Interior that 32 acre-feet of Berneil's allocation be transferred to Phoenix and that the remaining 400 acre-feet be divided evenly between Scottsdale and Cave Creek. Subsequent to the Department's recommendation, the Central Arizona Water Conservation District Board approved the transfers from Berneil to Phoenix, Scottsdale and Cave Creek during a public meeting. At that same time, a three-party agreement governing the assignment of 200 acre-feet of Berneil's CAP allocation to Cave Creek was executed. The agreement binds Berneil to specific performance. In 1998, the transfer actions for Phoenix and Scottsdale were completed.

#### Conservation Requirement

Under state law, Berneil has the right to drill new wells, subject to well permit conditions, in its service area to meet its M&I water demand. The quantity of water that can be used within Berneil's service area, whether it is groundwater or commingled groundwater and CAP water, is governed by a conservation requirement that was adopted as part of the Third Management Plan

Mr. Martinsen and Councilman Winkler  
February 2, 2004  
Page 3 of 3

for the Phoenix Active Management Area (Phoenix AMA). In terms of Paradise Valley's concerns regarding Berneil's current water use rate and its conservation requirement, representatives from Berneil need to meet with Mr. Mark Frank, Director of the Phoenix AMA to discuss potential strategies for addressing issues associated with its conservation requirement.

#### Conclusion

Based on the review of our records, Berneil initiated the Department's transfer process by requesting to transfer its CAP M&I allocation. The Department conducted the transfer in accordance with its CAP M&I transfer policy. The process included public notification, consideration of submitted comments and requirements that Berneil demonstrate adequate groundwater supplies to meet its projected service area demand.

At present, Berneil does not wish to retain any portion of its CAP allocation and wants the transfer of the final 200 acre-feet of its allocation to Cave Creek completed. Based on the evidence submitted to the Department, we believe that Berneil and the citizens of Paradise Valley that reside within its service area have sufficient water supplies to meet their long-term M&I water demand. As a result, there is no compelling reason for the Department to rescind its recommendation and, as such, continues to recommend that the transfer go forward.

If Paradise Valley wishes to pursue this further, it will need to discuss options with both Berneil and Cave Creek.

If you have any additional questions or concerns, please contact Tom Carr or Tricia McCraw at (602) 417-2400, extensions 7171 and 7266, respectively.

Sincerely,



Herbert R. Guenther  
Director

#### Enclosures

cc: (w/enclosures)

Mr. Bill Plummer, Consultant

(w/o enclosures)

Ms. Sandy Eto, Environmental Resource Manager, U.S.B.R.,

Mr. David S. "Sid" Wilson, General Manager, CAWCD

Mr. Neil Folkman, Secretary, Berneil Water Company

Mr. Mark Frank, ADWR, Area Director, Phoenix AMA

Mr. Jim Holway, ADWR Assistant Director, Water Management Division

Mr. Frank Putman, ADWR, Acting Assistant Director, Hydrology Division

Mr. Patrick Schiffer, ADWR, Chief Counsel, Legal Services

## **APPENDIX G**

### **ADWR REVISIONS TO ASSURED WATER SUPPLY CORRESPONDENCE (2005)**

**ARIZONA DEPARTMENT OF WATER RESOURCES**  
**Office of Assured and Adequate Water Supply**  
500 North Third Street, Phoenix, Arizona 85004  
Telephone (602) 417-2465  
Fax (602) 417-2467



**JANET NAPOLITANO**  
Governor

**HERB GUENTHER**  
Director

April 5, 2005

Cave Creek Water Company  
Jay George  
P.O. Box 448  
Cave Creek, AZ 85331

**RE: Review of physical availability  
For assured water supply purposes  
Cave Creek Water Company**

Dear Mr. George:

As you are aware, the Department of Water Resources has conducted a detailed review of current and committed water demands within the Cave Creek Water Company (Cave Creek) water service area to determine the availability of water supplies for new development.

The Department conducted a review of Cave Creek's physical availability and notified you of our findings at our meeting on January 6, 2005. Subsequent to that meeting, you supplied additional information, which the Department has reviewed. As a result of this additional review, the Department has determined that Cave Creek's CAP allocation of 1,600 acre-feet per year is not fully utilized as of the date of this letter. The Department previously determined that no additional groundwater is physically available for additional assured water supply determinations within the water service area. This finding remains unchanged.

In our initial review, the Department calculated the total current and committed demands for Cave Creek to be 2,247.9 acre-feet per year, including delivery of 297.4 approximately acre-feet to the Rancho Manana Golf Course and approximately 52.6 acre-feet to Desert Hills Water Company. The total groundwater and CAP supplies available to Cave Creek are 2,230 acre-feet per year, creating an apparent deficit of 17.9 acre-feet per year. Since our initial review, the Department reviewed the contracts of delivery service from Cave Creek to Desert Hills and Rancho Manana, and found that Cave Creek can discontinue deliveries to these entities if the water is needed by customers of Cave Creek.

The Department has determined that additional CAP water would be available for additional development if any of the following occurs:

- 1) Cave Creek's requested re-allocation of 200 acre-feet of Berneil Water Company's CAP allocation is approved by the Secretary of the Interior and all associated documentation and contracts are fully executed and additional capacity is available to treat and deliver the water to Cave Creek's customers.

April 5, 2005

Cave Creek physical availability

- 2) Cave Creek's requested re-allocation of 806 acre-feet of CAP water is approved by the Central Arizona Water Conservation District and all associated documentation and contracts are fully executed and additional capacity is available to treat and deliver the water to Cave Creek's customers.
- 3) Cave Creek may provide evidence that a Certificate of Assured Water Supply or an application for a new certificate has or will supersede a previously issued certificate (i.e., it covers the same land as the previously issued certificate). Evidence that would allow the Department to free up the demand associated with a superseded Certificate may include a demonstration that both certificates have been or will be issued to cover the same land or parcel. In addition, the Department may be able to free up demand associated with a previously issued certificate, if there is a request from the Certificate holder and/or current land owner for revocation of the Certificate.

The exemption from A.A.C. R12-15-703(E) as outlined in the Department's January 26, 1997 letter to Cave Creek remains in effect until January 26, 2007. After that date, any new applications for assured water supply will be required to comply with A.A.C. R12-15-703(E).

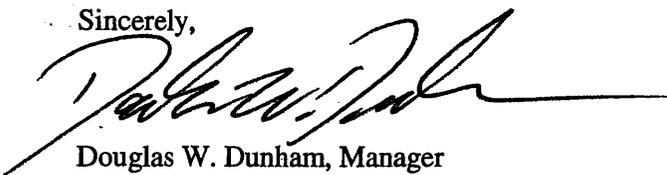
Attached is a memo describing the results of the Department's review of water availability in the Cave Creek Water Company service area. As of the date of this letter, the Department has determined that 332.4 acre-feet per year are available to serve new developments. Future additional supplies may be added as outlined above.

The Department currently has one pending application for a Certificate of Assured Water Supply within the Cave Creek Water Company service area (Carefree Mountain Ranch Estates). Assuming this Certificate is issued for 3.5 acre-feet per year, then 329 acre-feet per year remain available for future assured water supply determinations.

The Department understands that a re-plat of the Cahava Springs subdivision may occur in the near future. Further, it is also the Department's understanding that the projected water demand of the proposed re-plat of Cahava Springs will be significantly less than that of the plat currently on file with the Department. Once a Certificate application is received and the demands are confirmed, additional water equivalent to the difference between the original certificate and the superseding certificate will be available for future applicants seeking Certificates of Assured Water Supply.

Please feel free to contact me with any questions regarding this letter or the status of physically available supplies for Cave Creek Water Company.

Sincerely,



Douglas W. Dunham, Manager  
Office of Assured and Adequate Water Supply

Cc: Cindy Liles, Global Water  
Kristin Magin, Salmon, Lewis & Weldon, P.L.C.  
Usama Abujbarah, Town Manager, Town of Cave Creek  
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