

United States Department of the Interior  
Bureau of Reclamation  
Lower Colorado Region  
Phoenix Area Office

## **FINDING OF NO SIGNIFICANT IMPACT**

**COMMUNITY WATER COMPANY OF GREEN VALLEY  
CENTRAL ARIZONA PROJECT WATER DELIVERY SYSTEM  
PIMA COUNTY, ARIZONA**

July 2010

Approved:  \_\_\_\_\_ Date: July 8, 2010

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FONSI No. PXAO-10-02

## BACKGROUND

In 1982, Reclamation prepared an Environmental Impact Statement (EIS) to address the potential environmental impacts associated with the allocation of Central Arizona Project (CAP) water to municipal and industrial water users, non-Indian agricultural users, and Indian Tribes (Reclamation 1982). The EIS included a description of each water user's preliminary plans for the delivery and use of CAP water, and a general description of the resulting environmental impacts if that information was available at the time the EIS was prepared. On May 17, 1985, Community Water Company of Green Valley (CWC) entered into a CAP water service subcontract with Reclamation and the Central Arizona Water Conservation District (CAWCD) for 1,100 acre-feet/year (AFY) of CAP water. This CAP water service subcontract was later amended in 1997 when New Pueblo Water Company transferred 237 AFY of CAP water to CWC. As a result of the Arizona Water Settlements Act in 2005, CWC was allocated an additional 1,521 AFY of CAP water, making CWC's total CAP water entitlement equal to 2,858 AFY.

Prior to entering into the initial subcontract in 1985, Reclamation reviewed CWC's conceptual plan for taking and using its CAP water entitlement through treatment and direct use. Reclamation determined the conceptual plan would not result in significant impacts. Because CWC did not anticipate implementing that plan in the reasonably foreseeable future, however, Reclamation indicated that once CWC finalized its plan for taking and using its CAP water entitlement, the plan would need to be submitted for review and final environmental clearances prior to commencement of construction. This is a requirement of the CAP water service subcontract.<sup>1</sup>

In April 2008, CWC provided Reclamation with a final plan for taking and using its CAP water entitlement ("Proposed Project"). Under the Proposed Project, CWC would deliver its CAP entitlement via pipeline to a recharge facility to be constructed near the CWC service area. CWC's CAP Water Delivery System would help offset the declining water table and provide an alternative water supply should CWC encounter water quality or other issues that make its existing wells unusable for drinking water purposes.

Reclamation determined an environmental assessment (EA) was required because:

- A substantial amount of time had elapsed subsequent to Reclamation's original review of the conceptual plan;
- The areas to be impacted were different and environmental conditions had changed since the conceptual plan was submitted; and

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<sup>1</sup> Section 4.3(f) of the subcontract states in part, "Notwithstanding any other provision of this subcontract, Project Water shall not be delivered to the Subcontractor unless and until the Subcontractor has obtained final environmental clearance from the United States for the system or systems through which Project Water is to be conveyed after delivery to the Subcontractor at the Subcontractor's Project turnout(s). Such system(s) shall include all pipelines, canals, distribution systems, treatment, storage, and other facilities through or in which Project Water is conveyed, stored, or treated after delivery to the Subcontractor at the Subcontractor's Project turnout(s)...."

- The final plan (Proposed Project) included the construction and operation of a recharge facility, which was not previously identified in the conceptual plan.

Reclamation initiated public scoping for preparation of an EA on the Proposed Project on August 11, 2008. A draft EA (DEA) was prepared in compliance with the National Environmental Policy Act, as amended (NEPA), and Department of the Interior regulations regarding implementation of NEPA (43 CFR Part 46). Reclamation issued the DEA for public review and comment on March 6, 2009; the public review and comment period ended on April 24, 2009. A total of 16 written comment letters were received; at a public hearing held in Green Valley, Arizona, on the evening of March 26, 2009; four individuals provided oral comments. In June 2009, while Reclamation was finalizing the EA and preparing responses to comments, CWC notified Reclamation that it was withdrawing the proposed recharge facility identified in the March 2009 DEA because that recharge facility would be too costly to build and maintain. CWC undertook an extensive investigation to research alternative sites, and identified two feasible recharge sites in fall 2009.

A revised DEA (RDEA) was prepared to reflect the new recharge site alternatives (the proposed South Parcel, and an alternate North Parcel). This RDEA also included an increase in the capacity of the recharge facility (from 5,000 AFY to the originally proposed 7,000 AFY), and an optional tie-in to the CAP terminus (CAP Terminus Alternative), in case CWC is not able to connect to the CAP water source at its preferred location—the Pima Mine Road Recharge Project Lateral. The descriptions of the action alternatives originally included in the DEA were revised for the RDEA to accommodate these refinements to the Proposed Project, and the impacts from the refined plan were evaluated and described in the RDEA. The majority of the impacts described in the RDEA remain essentially the same as those identified in the DEA; however, the elimination of the original recharge site removed the potential for adverse effects to two federally protected species. Reclamation also incorporated revisions to the text to address comments previously received on the DEA. Reclamation released the RDEA for public review and comment on April 19, 2010.

Reclamation received 10 comment letters on the RDEA. The majority of the comments were essentially the same as those raised during the initial comment period on the DEA. Reclamation revised responses to the initial set of comments received on the DEA, prepared responses to comments received on the RDEA, and made changes to the EA deemed appropriate or necessary after carefully considering all the comments received. Appendix F of the final EA includes all comments received on both the DEA and RDEA, and Reclamation's responses.

### FINDING OF NO SIGNIFICANT IMPACT

Based upon the EA (ERO 2010), and after considering all public comments received on the EA, Reclamation has determined that CWC's plans for taking and using its CAP entitlement of 2,858 AFY will not result in significant environmental impacts to the Upper Santa Cruz Subbasin of the Tucson Basin Aquifer, Green Valley/Sahuarita area, or the human environment in the vicinity of the project area. Preparation of an EIS is not required. This decision is based upon the following considerations.

(1) No significant adverse environmental impacts are anticipated to result from construction and operation of the CWC CAP Water Delivery System. Construction of the pipeline delivery system will primarily occur within previously disturbed road rights-of-way, and use of these rights-of-way would not change existing or planned land uses in the area. Both the proposed South Parcel recharge site and alternate North Parcel site are highly disturbed. The South Parcel is currently used for cattle grazing. The North Parcel appears to have been frequently graded, and/or has been or is currently used for stockpiling material. It is sparsely vegetated. Recharging CAP water at either of these locations is anticipated to reduce the rate of regional ground water elevation decline, and potentially reduce associated land subsidence within the northern portion of CWC's service area, southern portion of Sahuarita, and portions of the Farmers Investment Company land that are under cultivation.

(2) The Proposed Project will not result in any adverse effects to public health or safety. The project area is located within an area that is attaining all National Ambient Air Quality Standards. Construction of the Proposed Project will cause localized minor increases in emissions of hydrocarbons, carbon monoxide, nitrogen oxides, particulate matter, and sulfur dioxide from construction-related vehicle and equipment operations. Land-disturbing construction-related activities also will cause temporary emissions of particulate matter and fugitive dust. The construction contractor will be required to obtain a county permit prior to initiating any land-disturbing activities, which will require implementation of dust control measures to minimize emissions. Mobile sources of air emissions are not regulated in attainment areas; however, these contributions are negligible when compared to the amounts generated within the regional airshed. The contribution of project-related emissions during the estimated 6.5-month construction period compared to the countywide emissions for the same period ranges from 0.01 percent (carbon monoxide) to just under 0.3 percent (sulfur dioxide).

There also would be temporary emissions of air pollutants from periodic scarifying of the recharge basins to maintain infiltration rates. These activities are expected to occur over a period of one to two weeks each year; the emissions will be only a fraction of those created during construction of the Proposed Project. No exceedances of air quality standards are expected to occur as a result of implementing the Proposed Project, and no adverse air quality impacts are expected to result from operation of the pipeline or recharge facility following construction.

The relatively minute quantities of pollutants released during construction and subsequent operation of the CWC CAP Water Delivery System will have a negligible cumulative effect on local air quality or global processes that lead to climate change.

(3) Construction and operation of the CWC CAP Water Delivery System is not anticipated to result in direct adverse impacts to unique characteristics of the geographic area such as historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. The pipeline alignment will cross the proposed alignments of several trails planned to be developed in the future by the National Park Service (NPS). A portion of the De Anza National Historic Trail, which connects early mission sites and Spanish settlements of the 1700s, primarily as an auto tour route with points of interest along the way, falls within the

Project Area. The De Anza Trail is administered by local governments and the NPS in partnership with agencies, private landowners, and nonprofit organizations. There may be short-term inconveniences to those using the De Anza Trail while the pipeline is being installed in the vicinity; however, Trail access will be provided during construction. Once constructed, the buried pipeline will not adversely impact use of the De Anza Trail or any trails developed over it in the future.

There is no agriculture on any of the proposed project lands; however, the proposed recharge site is currently used for cattle grazing. The elimination of grazing on this parcel is not considered significant; other State trust lands are available for grazing in the general vicinity. There are no wild and scenic rivers, or rivers proposed for designation as wild and scenic in the vicinity of, or that could be impacted by, the project.

(4) Effects on the quality of the human environment are anticipated to be beneficial under the Proposed Project. The recharge site is located in the Upper Santa Cruz Subbasin, which has experienced and continues to experience ground water table declines due to pumping in excess of natural and artificial recharge. The Tucson Basin Aquifer, within which the Upper Santa Cruz Subbasin is located, has experienced long-term water level declines and some related subsidence due to cumulative overdrafts associated with agricultural, industrial, mining, and public water supply usage. Recharge at CWC's recharge facility will increase the amount of water that is artificially recharged within the subbasin, thus reducing the rate of overdraft and potentially inhibiting land subsidence in the northern portion of the CWC water service area. Additionally, the CWC CAP Water Delivery System will provide an alternate water supply for the CWC water service area in the future, should any of the CWC ground water wells experience water quality or other problems that make the pumped water unusable as a potable water source. Although there will be temporary minor inconveniences to the public during installation of the pipeline, especially where the alignment crosses roads, there will be a long-term benefit to the Green Valley/Sahuarita area and the Upper Santa Cruz River Subbasin.

(5) Highly uncertain, unique or unknown risks affecting the human environment are not anticipated to occur as a result of this Proposed Project. Installation of the pipeline delivery system will involve conventional construction methods. Currently there are 11 ground water recharge projects operating in the Tucson Active Management Area, several of which recharge CAP water. CAP recharge has been occurring within the three-county CAP water service area for 13 years, and use of CAP water recharge facilities combined with continued ground water pumping has become a fairly common practice by developers for complying with state assured water supply certification requirements.

(6) The Proposed Project will not establish a precedent for future actions, and will not represent a decision in principle about a future consideration. Reclamation reviews each CAP water service subcontractor's plan for taking and using its CAP entitlement and compares it against the conceptual plan evaluated in the NEPA documentation covering the initial allocation. The need for and scope of any subsequent environmental clearances are based upon this comparison of the differences between the conceptual and final plans, and application of the

Council on Environmental Quality regulations and Departmental regulations implementing NEPA.

(7) Cumulatively significant impacts are not anticipated to occur as a result of the Proposed Project. The EA considered the potential cumulative effects of impacts from the Proposed Project, when added to impacts resulting from reasonably foreseeable future actions located within the geographic impact area and occurring within relevant timeframes. Air pollutant emissions from construction of the Proposed Project could combine with other construction-related emissions, resulting in temporary increased air pollutant concentrations; however, quantifying the combined emissions or otherwise qualitatively characterizing the impacts is not possible because the specific projects and construction schedules are unknown. Pima County requires that construction projects obtain a permit prior to any land-disturbing activities; therefore, it is assumed there will be some level of local control over the timing, location, and level of permitted activities that could result in cumulative impacts.

The Proposed Project will temporarily disturb almost 56 acres of previously disturbed Semidesert Grassland habitat along several roads; these areas will be reseeded after completion of pipe installation. Construction and operation of the recharge facility will permanently replace about 21 acres of highly disturbed Sonoran Desertscrub habitat with recharge basins and berms. Even taking into consideration the ongoing loss of native vegetation resulting from urban development, these habitats remain relatively abundant in southeastern Arizona, and the cumulative impact from disturbance and loss of these 77 acres is not considered significant on a regional scale.

In the long term, implementation of the Proposed Project will recharge CAP water in the vicinity of CWC's pumping, thus providing some remediation for over-pumping within the Upper Santa Cruz Subbasin. Combined with anticipated future ground water withdrawals, the cumulative effect of the Proposed Project is anticipated to be slightly beneficial.

(8) The Proposed Project will not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP), nor will it cause loss or destruction of significant scientific, cultural, or historical resources. A Class I records review for the "area of potential effect" (APE) was conducted of the following records: the Arizona State Museum (ASM) in Tucson; the State Historic Preservation Office in Phoenix; and the ASM online database, AZSite. The APE associated with the Proposed Project was also intensively surveyed (Class III) for cultural resources.

The Proposed Project will be constructed primarily on previously disturbed land. Out of seven previously recorded historic properties within the APE which may be impacted, all but one have been determined not eligible for the NRHP. The Proposed Project will pass through the boundaries of the historic Town of Sahuarita, which has been recommended eligible for listing on the NRHP; however, construction activities will avoid known historic features and will be limited to the previously disturbed right-of-way.

One previously unrecorded cultural resource site was identified during the Class III survey on the alternate North Parcel. It is a recent Historic-era site, which was deemed ineligible for

listing on the NRHP due to the lack of integrity and failure to meeting the NRHP eligibility criteria. Similarly, use of the CAP Terminus Alternative to tie into the CAP water source could impact a single historic site; however, this site also was deemed ineligible for listing on the NRHP.

Thus, the Proposed Project, including use of the alternate recharge facility or CAP Terminus Alternative, will have no adverse effect to historic properties, as defined in the National Historic Preservation Act. No other cultural resources occur in the area of planned disturbance.

(9) No federally protected species or areas designated as critical habitat will be adversely affected by the Proposed Project. Reclamation identified two federally protected endangered or threatened species, listed on Fish and Wildlife Service's (FWS) website for Pima County, for which suitable habitat is present within the geographic area of impact: Lesser long-nosed bat (*Leptonycteris curasoae yerbabuena*) (LLNB) and Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*) (PPC). No saguaro cacti or suitable LLNB habitat will be impacted by project construction and operation (using either the South Parcel or North Parcel), and there will be no effect to LLNB from the Proposed Project.

No PPC were located during surveys of areas to be disturbed by the Proposed Project (using either the South Parcel or North Parcel); however, the introduction and spread of invasive plant species within PPC habitat have the potential to alter the plant community by crowding out native species and replacing them with species that have a heavier fuel load and higher fire potential. This can result in fires that burn hotter and more frequently than would occur naturally with native vegetation, thus increasing the potential for fire-related PPC mortality. Weed control measures will be implemented during construction, and construction-disturbed areas will be monitored for noxious weeds during and for two years following construction. Construction-disturbed areas not needed for permanent facilities also will be seeded with a native seed mix appropriate for the area, to discourage weed infestation. There will be no effect to PPC from the Proposed Project.

Saguaro cacti and PPC were found along the 2-mile CAP Terminus Alternative alignment. Should this alternative be implemented, saguaro cacti--that are identified by a horticulturalist specializing in cacti to be capable of being safely transplanted--will be relocated outside the construction right-of-way. The saguaro cacti will be relocated as close to their original location as possible; work will be conducted by a qualified, experienced contractor in compliance with Arizona Revised Statutes §3-900 through §3-934 (Arizona Native Plant Law). Saguaros that are too large to transplant will be replaced at a ratio of 3:1. Transplanted/replacement saguaros will be monitored for 5 years; replacement and monitoring shall continue until an 80 percent survival rate is ultimately achieved.

The construction contractor will be required to maintain a minimum buffer of 72 feet to the nearest PPC to ensure there is no damage to any PPC during construction. Fencing and an on-site monitor during construction will be employed to ensure there is no impact to PPC. Weed control measures identified for the Proposed Project also will be undertaken as part of this

alternative. With implementation of these measures, there will be no effect to LLNB or PPC from use of the CAP Terminus Alternative.

(10) The Proposed Project does not threaten to violate federal, state, or local law or requirements imposed for the protection of the environment. CWC and its contractor(s) are required to follow and comply with all applicable federal, state, and local environmentally-related rules, regulations, requirements and conditions related to construction and operation of the Proposed Project including, but not limited to, the following: work within waters of the U.S.; construction and operation of an underground storage facility; storage of water at an underground storage facility; and construction-related permits prior to any land-disturbing activities.

(11) A total of 26 comment letters were received on the DEA and RDEA. Four individuals provided oral comments at the public hearing on the DEA. All comments and Reclamation's responses are included in Appendix F to the final EA.

The majority of the public comments received indicated an EIS should be prepared on the Proposed Project, based upon one or more of the following opinions: The impacts from the project itself would be significant; the project is connected to the Rosemont mine project and as a connected project the impacts would be significant; and/or this project, together with the Rosemont mine, would result in significant cumulative impacts. After carefully considering the proposed project, meeting with Coronado National Forest (CNF) to understand the proposed Rosemont Mine Plan of Operation (MPO) (which is the subject of an EIS being prepared by CNF), and following the regulations, Reclamation concluded the two projects are not "connected" for purposes of carrying out compliance with NEPA. Reclamation explained its position in responding to scoping comments (Appendix B to the EA) and reiterated this position in the responses to comments on the DEA and RDEA (Appendix F to the EA). Reclamation also has conferred with the CNF from time to time during preparation of the EA, to confirm whether or not assumptions upon which Reclamation based its position, had changed. Briefly, Reclamation's position is as follows.

Reclamation recognizes construction of the CWC CAP water delivery system is proposed to be funded by Rosemont, and that CWC plans to give Rosemont priority over other customers for use of the water, the system, and recharge capacity for the first 15 to 20 years unless those uses are needed by CWC to meet delivery obligations to other portions of CWC's service area. While connected in a financial sense, Reclamation has determined the proposed action and Rosemont mine are not "connected" as defined in 43 Code of Federal Regulations Section 1508.25(a)(1) for the reasons provided below. The NEPA regulations indicate actions are connected and should be discussed in the same NEPA document if the actions meet any of the following:

(i) Automatically trigger other actions which may require environmental impact statements.

*Reclamation's determination: Approval of the CWC water delivery system does not automatically trigger the Rosemont mine operation. CWC has, since 1985, pursued*

*opportunities to develop a means for taking and using its CAP entitlement. Presently, use of CWC's proposed water delivery system is not identified in Rosemont's proposed MPO under consideration by CNF. Reclamation's approval of the CWC water delivery system is not contingent upon CNF's approval of the proposed Rosemont MPO, nor the operation of the mine itself.*

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

*Reclamation's determination: As indicated in a memorandum to CWC from Rosemont dated January 20, 2009 (Attachment D of the Draft EA), Rosemont has made a commitment to pay for construction of the CWC water delivery system independent of, and not contingent upon the outcome of CNF's review of the proposed Rosemont MPO. The proposed Rosemont MPO does not include the CWC water delivery system and therefore currently CWC's water delivery system is not considered to be a prerequisite for the mine's operation.*

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

*Reclamation's determination: The CWC water delivery system has separate utility from the Rosemont mine. Based upon Rosemont's commitment to fund the construction of the water delivery system independent of, and not contingent upon, the permits and approvals of the proposed Rosemont MPO, which is the subject of an EIS being prepared by CNF, the proposed project does not depend upon the mine to justify its construction and operation. Neither does Rosemont depend upon the construction of the pipeline to proceed with its mine proposal. It can meet its commitment to replenish water within the Tucson Active Management Area using other sources of CAP water and other groundwater storage facilities, as has been occurring since 2007. Therefore, Reclamation believes these two actions are not interdependent parts of a larger action, nor do they depend on the larger action for their justification.*

The potential effect of future mine-related pumping was an issue that also was raised in many of the comments received. The outcome and timing of the Rosemont Mine project will not be known until a Record of Decision is issued on the EIS for the proposed Rosemont Mine; however, Rosemont's production wells are located within the ground water area of impact surrounding the recharge basins. To be responsive to this concern, Reclamation requested that modeling conducted to evaluate the proposed project's impact on ground water include both (1) a scenario in which there is no mine-related pumping in the future; and (2) a scenario in which there is mine-related pumping in the future. The modeling indicates the Proposed Project will reduce the amount of ground water decline over the project life, with or without the proposed Rosemont Mine pumping.

Documents related to this action are identified below.

ERO (ERO Resources Corporation). 2010. Final Environmental Assessment – Community Water Company of Green Valley Central Arizona Project Water Delivery System, Pima County. Prepared for Bureau of Reclamation, Phoenix Area Office. July.

Reclamation (Bureau of Reclamation). 1982. Water Allocations and Water Service Contracting Environmental Impact Statement – Central Arizona Project (INT FES 82-7). Boulder City, NV.