

# RECLAMATION

*Managing Water in the West*

## Draft Environmental Assessment

### Central Arizona Project Canal Trail: Tangerine Road to Pinal County Line

Pima County, Arizona



U.S. Department of the Interior  
Bureau of Reclamation  
Phoenix Area Office  
Glendale Arizona

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## **Mission Statements**

The U.S. Department of the Interior protects America's natural resources and heritage, honors our cultures and tribal communities, and supplies the energy to power our future.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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## ACRONYMS AND ABBREVIATIONS

AB	aggregate base
ACS	Archaeological Consulting Services, Ltd.
AGFD	Arizona Game and Fish Department
ASLD	Arizona State Land Department
ASM	Arizona State Museum
BE	Biological Evaluation
CAP	Central Arizona Project
CAWCD	Central Arizona Water Conservation District
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DOI	Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
ESA	Endangered Species Act
IPaC	Information, Planning, and Conservation System
LLNB	lesser long-nosed bat
NEPA	National Environmental Policy Act
NMGS	Northern Mexican gartersnake
NRHP	National Register of Historic Places
O&M	CAP Operations & Maintenance (O&M) Agreement
Right-of-Way Policy	Interim CAP Right-of-way Land Use Policy
Reclamation	Bureau of Reclamation
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Office
SWFL	southwestern willow flycatcher
USFWS	U.S. Fish and Wildlife Service
YBCU	yellow-billed cuckoo

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## **Chapter 1. Introduction, Background, Purpose and Need**

### **1.1. Introduction**

The Bureau of Reclamation has prepared this Draft Environmental Assessment (EA) to analyze the potential effects for a proposal by Pima County to open approximately 7 miles of recreational trail along the Central Arizona Project (CAP) canal maintenance road, and to install a 2-acre trailhead parking lot (Proposed Action; *Figure 1*).

The EA was prepared in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508), Department of the Interior (DOI) NEPA regulations (43 CFR part 46) Reclamation's NEPA Handbook, and internal directives and standards.

### **1.2. Background**

As part of the original plan for the construction of the CAP canal, Reclamation anticipated the development of a recreational trail along the entire 336-mile length of the canal that would accommodate walking, bicycling, jogging, and equestrian use. The trail was considered before portions of the CAP canal were constructed and included in the Environmental Impact Statement (EIS) for the CAP Granite Reef Aqueduct (January 1974). It was revisited in subsequent EISs for the Tucson Aqueduct Phases A and B. The Records of Decision were issued February 1983 and August 1984, respectively. The EISs examined a proposed trail along the downslope corridor of the canal. In 2003, the recreation trail along the CAP was designated as a National Recreation Trail by the U.S. Secretary of the Interior.

Approximately 60-miles of the CAP is located in Pima County, Arizona. In 1986, Pima County entered into a 50-year Recreational Land Use Agreement (Recreation Agreement) with Reclamation to develop a recreational trail that would utilize the CAP right of way along the Tucson Aqueduct. Over time, the Recreation Agreement has been amended to specify future trail related development projects and the cost-sharing approach for such development. The first amendment to the Recreation Agreement, dated April 1997, was for cost sharing of Sandario Road Trailhead. The second amendment, dated September 2007, outlined the cost-sharing approach for the development of a CAP Trail Master Plan and for the development of additional trail-related features, specifically the Tangerine and Avra Valley Trailheads. The second amendment also included the cost-sharing approach for the construction of the trail from (1) Tucson Mountain Park Well Site to the Sandario Trailhead facility and (2) Tangerine Trailhead to the Pima-Pinal County line. As a result of the second amendment to the Recreation Agreement, Pima County Natural Resources, Parks and Recreation Department developed a CAP Trail Master Plan (Master Plan) in December 2008. The Master Plan serves as a guide for the phased design and construction of the CAP Trail through Pima County. Within the Master Plan, the approximate 60-mile long recreational trail is broken up into ten segments. To date, only the Sandario Road Trailhead has been constructed. This trailhead was previously evaluated under NEPA (a Categorical Exclusion Checklist in April 1998) following the execution of the first amendment to the Recreation Agreement. The construction of the Sandario Road Trailhead

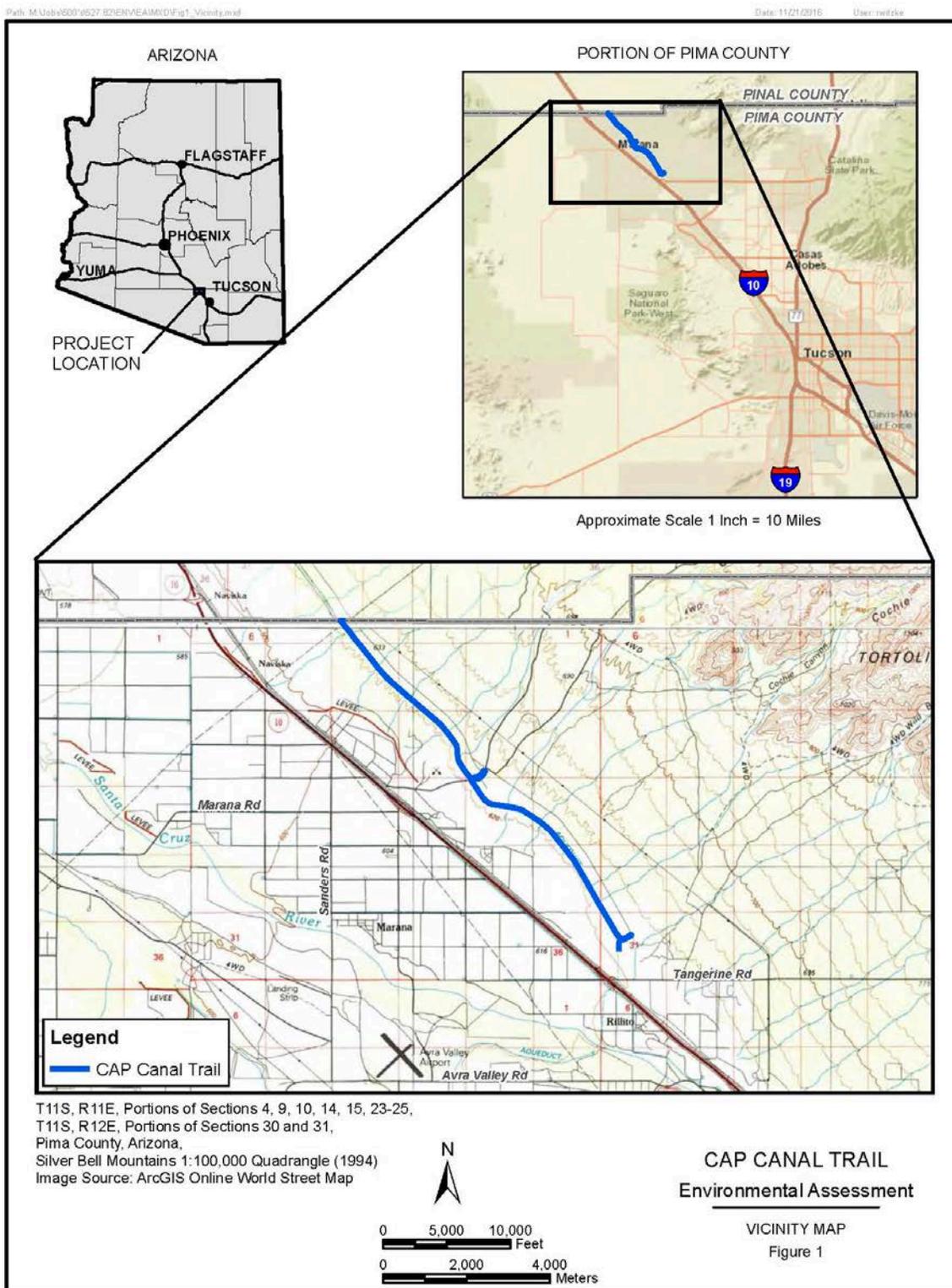
predates the Master Plan. This EA will evaluate the Tortolita Segment. The remaining segments will be evaluated under subsequent NEPA once the site-specific project details are identified.

The CAP Trail is listed as a first-priority regional trail in the Eastern Pima County Trail System Master Plan, which was first adopted by the Pima County Board of Supervisors in September of 1989. The plan was revised and re-adopted as a formal county ordinance in 1996, 2010 and 2012. Within this plan, Pima County preferred to locate the proposed trail on top of the CAP protection dike, an elevated, artificially constructed berm immediately outside (and east of) the CAP canal security fence.

As part of the CAP Operations & Maintenance (O&M) Agreement (O&M Agreement) between Reclamation and CAWCD, a list of environmental commitments are summarized (*Appendix A*), one of which includes an Interim CAP Right-of-way Land Use Policy (Land Use Policy; *Appendix B*). The Land Use Policy designates areas upslope of the CAP canal as mitigation areas, which were set aside to offset impacts associated with the construction of the canal. Lands within 25 feet or more of the upstream toe of any upslope embankment are jointly used for embankment and mitigation. The proposed alignment for the trail is located just west of the CAP mitigation property.

This EA presents an updated evaluation of potential impacts to the human and natural environment based on current conditions and updated resource data for this segment of the CAP Trail.

Figure 1. Vicinity Map



### **1.3. Purpose and Need for Proposed Action**

The purpose of the Proposed Action is to provide the recreation trail envisioned for the CAP. By opening 7 miles of trail and constructing the Tangerine Road trailhead, it would fulfill a portion of the Recreation Agreement between Reclamation and Pima County. In addition, it would implement a segment (i.e. the Tortolita Segment) of Pima County’s CAP Trail Master Plan.

Pursuant to the Recreation Agreement, Reclamation must approve 1) the Management and Development Plan for this portion of the trail and 2) any third party agreement for the development, operation, and maintenance of the trail. Consequently, the Recreation Agreement will be modified to include the approved Management and Development Plan for this segment of the trail.

### **1.4. Public Involvement and Comment**

Scoping is the process of actively soliciting input from the public and other interested federal, state, tribal, and local agencies. Reclamation follows the public involvement requirements according to the Council on Environmental Quality (CEQ) regulations set forth in 40 Code of Federal Regulations (CFR) 1501.7, which states, “there should be an early and open process for determining the scope of issues to be addressed and for identifying the process for determining the scope of issues to be addressed during the planning process.” During the scoping process, Reclamation solicits comments from the public and relevant agencies, organizes and analyzes the comments received, and then distills the comments in order to identify the issues to be addressed during the planning process.

The scoping process for the Tortolita Segment of the CAP Trail began on November 16, 2015 when Reclamation mailed a scoping newsletter to 9 potentially interested agencies and organizations. Reclamation received 2 comment letters as a result of the scoping process. The Sierra Club Rincon Group and the Pinal County, Open Space and Trails Department responded in support of the project and indicated they would like notification of the Draft EA (*Appendix C*).

Three tribes and the Arizona State Historic Preservation Office (SHPO) were also consulted with on the project. In addition, Reclamation consulted with the U.S. Fish and Wildlife Service (USFWS) and the Arizona Game and Fish Department (AGFD) on potential impacts to the CAP mitigation corridor as a result of the Proposed Action.

## Chapter 2. Proposed Action and Alternatives

### 2.1. Description of the Proposed Action

Reclamation proposes to open up access along 7 miles of the existing maintenance road of the CAP canal for a recreational trail that is proposed by Pima County (*Figure 2*). The Proposed Action was developed in accordance with Pima County’s Master Plan for the Tortolita Segment. It includes the conversion of a 2-acre, previously disturbed lot into a trailhead parking area on the northern side of Tangerine Road. It also entails posting of trail rules and interpretive and warning signs along the proposed trail alignment to educate the public and prevent off-trail use. The proposed trail would be designated for pedestrian, equestrian, and bicyclists use only; no motorized recreational vehicles would be allowed.

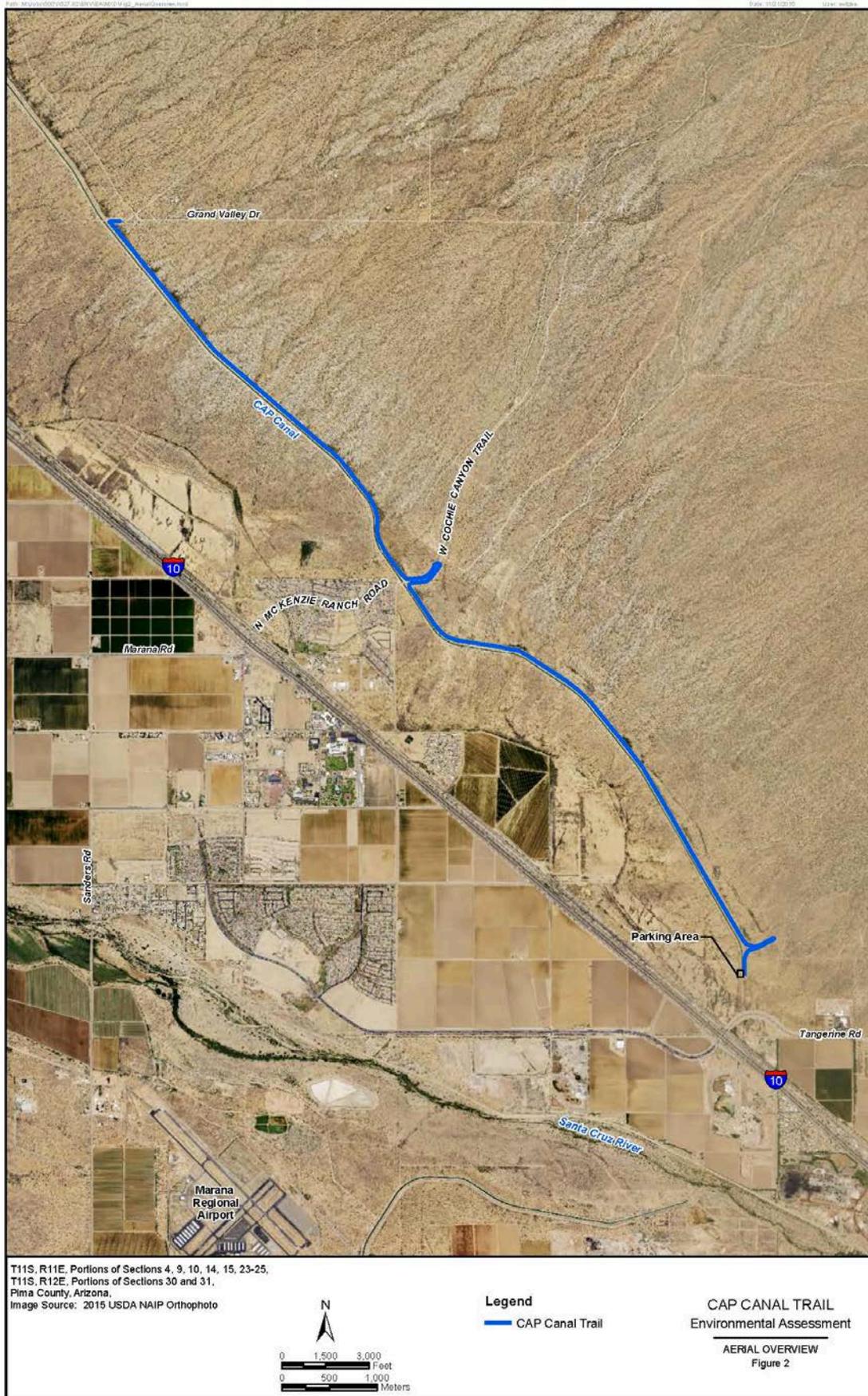
The proposed CAP Trail would be located east of the canal and utilize the existing maintenance road on top of the berm (Berm). The existing maintenance road parallels the CAP canal except just north of Tangerine Road and at W. Cochie Canyon Trail. At these locations the maintenance road turns east for approximately 0.25-miles before returning west. The trail parallels W. Cochie Canyon Trail before crossing and returning west toward the CAP canal. Once across, the trail continues north till it ends at E. Grand Valley Drive. The trailhead parking area is located a short distance north of westbound Tangerine Road and would be accessed via an existing dirt road, maintained by Central Arizona Water Conservation District (CAWCD). The trailhead would connect to the western end of the County’s Wild Burro Wash Trail, providing access to the Wild Burro Trail, Marana’s Tortolita Reserve, and Tortolita Mountain Park (Pima County 2012).

Since the trail will be established along the existing CAP maintenance road, there will be minimal ground disturbance associated with the establishment of the trail. The trail will be designated over an existing compacted dirt road, and no surface improvement will be required. The only ground disturbance on the trail will be with the placement of signs. The Proposed Action would also include the construction of a 2-acre trailhead parking lot. Construction activities will include grading, the application of an aggregate base (AB) surface, fencing and the installation of a cattle guard at the entrance of the parking lot.

As part of their O&M Agreement, CAWCD would continue to perform routine maintenance activities along the existing maintenance road, which will also serve as the proposed CAP Trail. CAWCD’s O&M activities include but are not limited to grading of the O&M road and maintaining the CAP facilities and fencing.

Portions of the Tortolita Segment of Pima County’s CAP Trail are within the Town of Marana with the balance being within unincorporated Pima County (Pima County 2008). The construction, operation and maintenance for the Tortolita Segment is anticipated to be carried out through a third-party agreement between Pima County and the Town of Marana.

Figure 2. Aerial Overview



## **2.2. Project Location**

The Proposed Action is located in Pima County, within the Town of Marana and on unincorporated Pima County parcels. The proposed trail will extend from Tangerine Road north to the Pinal County line (*Figure 1*). It will be located on the Berm along the eastern side of the CAP canal, outside the security fence, and west of the CAP mitigation property (*Figure 2*). It is approximately 7 miles long, starting at the proposed parking lot located at the southern end of the maintenance road just north of Tangerine Road (Project Area).

## **2.3. No Action Alternative**

Under the No Action Alternative, Pima County would not be authorized to open the maintenance road for recreational trail use and no parking area would be developed at the southern end of this portion of the CAP canal. CAWCD would continue to maintain the road so they can access the CAP canal.

Selection of the No Action Alternative would not meet the identified need for the Proposed Action.

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## **Chapter 3. Affected Environment and Environmental Consequences**

This chapter describes the affected environment (existing setting or baseline conditions) and analyzes direct, indirect, and cumulative effects of the Proposed Action on the physical, biological, and socioeconomic resources within the Project Area. The CEQ defines direct effects as those that are caused by the action and occur at the same time and place, indirect effects as those that are caused by the action and occur later in time or farther removed in distance and addresses cumulative effects in much more detail. Beneficial effects result in a positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition. Adverse effects are those which result in a change that moves the resource away from a desired condition or detracts from its appearance or condition.

Cumulative impacts are defined 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 other actions" (40 CFR 1508.7). Cumulative impacts were determined by combining the impacts of the alternatives with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects within the vicinity of the Project Area. The geographic scope for this analysis includes actions both, within and outside of Project Area. The temporal scope includes projects within a range of approximately ten years. Given this, the following projects were identified for the purpose of conducting the cumulative effects analysis, listed from past to future:

- Construction of the CAP (past)
- Ongoing maintenance activities along the road (trail alignment) (present)
- Grazing on Arizona State Land Department (ASLD) land east of the CAP (present)
- CAP Trail extension north and south, and creation of complementary trails and/or trails along the CAP canal (future)

### **3.1. Resources Eliminated from Further Study**

The following resources were considered but are not addressed further in this EA because it was determined that the resource is not present or that minimal or no impacts would result from the Proposed Action.

#### **3.1.1. Air Quality**

The Project is located within an attainment area identified by Region IX of the Environmental Protection Agency, under the Clean Air Act for National Air Ambient Quality Standards. The closest nonattainment area is located approximately 30 miles northwest near the City of Hayden. The Proposed Action would not require an air permit. Use of the existing maintenance road as a recreational trail would not affect air quality within the surrounding area. Construction of the parking lot, which would consist of clearing, grading, and applying AB for the 2-acre parking area, would be short-term in duration (3 to 4 days) and it is not expected to impact air quality. A water truck will be on site and will be used for dust control during construction activities. Therefore, air quality was eliminated from further study in this EA.

### **3.1.2. Water Resources**

The Project does not require the use or relocation of surface or groundwater. The Proposed Action would use the existing road for recreational activities and an existing degraded 2-acre site for a parking lot at the south end of the trail. Water used for dust control during construction of the parking lot would be obtained from the existing municipal water supply and trucked to the site. The Proposed Action would have no effect on water quality or quantity in the area; therefore, water resources were eliminated from further study in this EA.

### **3.1.3. Geology and Soils**

The Proposed Action would occur on a moderately compacted dirt road located on top of the Berm that parallels the eastern side of the CAP between Tangerine Road and the Pinal County boundary. A parking lot would be graded and stabilized with AB as previously described, which represents a negligible loss of open soil. The existing road supports light vehicle use for CAP maintenance purposes and routine grading. The Proposed Action would not increase motorized vehicle use or cause changes in the topography, soils, or geologic composition of the surrounding area. Therefore, geology and soils were eliminated from further study in this EA.

### **3.1.4. Floodplains and Wetlands**

Federal activities in floodplains and wetlands are guided in part by two Executive Orders (EO); EO 11988 “Floodplain Management” and EO 11990 “Protection of Wetlands” direct federal agencies to minimize impacts to these resources. No wetlands are located within the proposed alignment; therefore, the Proposed Action would not impact this resource. The Proposed Action is located within a Special Flood Hazard Area (SFHA), Zone A floodplain, which is defined as an area having a 1-percent annual chance of flood. However, the project will not adversely affect the floodplain because the construction will only impact previously disturbed areas. In addition, the surface of the parking lot will be constructed of water permeable aggregate, and the trail will be designated over an existing compacted dirt road. Therefore, the construction will not impact the functionality of the floodplain.

### **3.1.5. Visual**

The Proposed Action would not visually impact the surrounding area. The Proposed Action does not include the construction of buildings, the paving of the existing dirt maintenance road, or changes to the horizontal or vertical alignment of the existing road. The area for the 2-acre parking is generally level with little topography and the visual impact will be minimal. Additionally, the area is not visible from any viewers (roadways, residential or commercial facilities). Therefore, visual resources were eliminated from further study in this EA.

### **3.1.6. Noise**

A few residential neighborhoods are located along N. McKenzie Ranch Road, while the area east of the CAP is relatively undisturbed and used primarily for grazing on Trust Lands managed by the ASLD. No noise-sensitive receptors (e.g., libraries, schools, campgrounds, etc.) are located in the vicinity of the Proposed Action. Construction activities would be limited to the grading and stabilizing of the trailhead parking lot. Intermittent increases in noise from grading would occur during daytime hours and would be of short duration. Additional use of the maintenance road for

recreational purposes would not impact the noise level of the surrounding area. Therefore, noise was eliminated from further study in this EA.

### **3.1.7. Socioeconomic**

The Proposed Action would not have an immediate socioeconomic impact within the Town of Marana or Pima County. However, there is a potential for a minor beneficial effect on Marana's economy as the CAP Trail System is established.

### **3.1.8. Environmental Justice (EJ)**

EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations," directs federal agencies to review and develop strategies that address disproportionately high and adverse human health or environmental impacts on minority and low-income populations. The Town of Marana has a population of 34,961 of which 82 percent are white and 95.1 percent have lived above the poverty line in the last 12 months (U.S. Census Bureau 2015). The Proposed Action would not affect any minority or low-income populations, and no disproportionately high and adverse human health or environmental impacts will result from the Proposed Action. Therefore, EJ has been eliminated from further study in this EA.

## **3.2. Land Use and Recreation**

### **3.2.1. Land Use and Recreation Affected Environment**

The Proposed Action plans to use 7 miles of an existing maintenance road managed and maintained by the CAWCD. This is a dirt road located on top of the Berm along the eastern side of the CAP canal. Additionally, the proposed trailhead and parking area is located on 2 acres of land that has been heavily disturbed as a turnaround area for maintenance vehicles. Trust Lands administered by the ASLD are located to the east of the Project Area and are leased for grazing (*Figure 3*). West of the CAP, the San Lucas development, located along N. McKenzie Ranch Road, and the Marana Estates development, located along N. Adonis Road, consist of single-lot family homes. Reclamation's Land Use Policy designates areas upslope of the CAP canal as mitigation areas, which were set aside to offset impacts associated with the construction of the canal itself. Lands within 25 feet or more of the upstream toe of any upslope embankment are jointly used for the embankment and mitigation. The proposed alignment for the trail is located west of the mitigation property and would not disturb or remove any vegetation in the mitigation corridor. Pursuant the O&M Agreement, Reclamation consulted with the USFWS and AGFD to discuss potential impacts of the Proposed Action adjacent to the mitigation corridor.

Initially, the trail will only have one access point (at the trailhead). From the trailhead, the trail will extend to the north and will stop short of the Pinal County line. The end of the trail will be indicated with fencing. In the future, it is anticipated that the trail will extend to the north into Pinal County and further south into Pima County. At this point, the proposed trail will be accessible from either end.

### **3.2.2. Land Use and Recreation – Environmental Consequences**

#### **Proposed Action**

Under the Proposed Action, pedestrians, cyclists, and equestrians would have access to the road for recreational purposes. The proposed trail is considered a low-impact project. The use of the maintenance road as a recreational trail would not impact the land designated for CAP mitigation. The Proposed Action would have the beneficial effect of adding recreational opportunities for nearby residents. These increased recreational opportunities would not impact the grazing that occurs on adjacent ASLD land. CAWCD maintenance crews would be able to continue to use the existing maintenance road for the CAP.

#### **No Action Alternative**

Under the No Action Alternative, CAWCD maintenance crews would continue to use the existing road for operations and maintenance. The existing dirt road would not be open for public access and would not be available for recreational purposes. The approximately 2 acres designated for the trailhead parking area would not be constructed. There would be no change in land use on or adjacent to the proposed CAP Trail alignment.

#### **Cumulative Impacts**

The CAP Trail is expected to serve as a long-distance, non-motorized, multi-use recreational trail corridor connecting to future planned trails that would access Tucson Mountain Park, Saguaro National Monument (West), Ironwood Forest National Monument, and the Tortolita Mountains within Pima County. Growth is anticipated in Marana and northwestern Pima County, and the Proposed Action would provide additional recreational opportunities for present and future residents in the region. The extension of the trail to the north by Pinal County and south by Pima County could increase the number of recreation users along this portion of the trail resulting in potential beneficial impacts to recreation.

### **3.2.3. Management/Mitigation Measures – Land Use and Recreation**

The Development and Maintenance Plan will incorporate the following mitigation and management measures:

- Posting and maintaining public information signs at trail access points.
- Removing trash and waste along trail and trailhead.
- Maintaining fencing at the parking lot in order to prevent vehicles from traveling off-road and cattle from accessing the trail.
- Conducting patrols to identify trespass activities within the mitigation corridor
- Recommending remedial measures to reduce opportunities for trespass.

Figure 3. Land Management



### **3.3. Biological Resources: Vegetation**

The Proposed Action is located across the lower, western bajada of the Tortolita Mountains, which is characterized by the moderate rolling topography typical of the lower bajada formations associated with the desert mountain ranges of central and southern Arizona. The CAP canal, an open, artificial water canal, generally cuts across the lower bajada formed by the Tortolita Mountains, which slopes southwesterly toward the Santa Cruz River. The drainage pattern associated with the Tortolita Mountains lower bajada is one of slightly incised, dendritic channels that arise in the mountains or their steeper foothills (i.e. upper bajada). There are no natural perennial or intermittent water sources on or adjacent to the Proposed Action. The CAP canal and associated maintenance road cut north-south across the ephemeral drainages in the region.

#### **3.3.1. Affected Environment – Vegetation**

The Proposed Action is located within two subdivisions of the Sonoran Desertscrub biotic vegetation community: 1) the Lower Colorado River Valley Subdivision, and 2) Arizona Upland Subdivision Sonoran Desertscrub (Brown and Lowe 1980). The CAP canal interrupts washes that support xeroriparian vegetation and that generally convey stormwater flows northeast to southwest.

##### **3.3.1.1. Lower Colorado River Subdivision**

The Lower Colorado River Subdivision is the largest and most arid of the Sonoran Desert subdivisions, but it also makes contact with the remaining subdivisions as well as the Mohave Desert and with California coastal scrub. Average annual precipitation ranges between 1.4 to 11.3 inches (Brown 1994). The combination of high temperature and low precipitation creates intense competition between plants for scarce water resources. Plant growth is typically both open and simple and is often found scattered along drainages. The numerous and irregular shaped drainages often give an illusion of trees and shrubs forming a homogeneous community (Brown 1994). Commonly found species include western honey mesquite (*Prosopis glandulosa* var. *torreyana*), blue palo verde (*Parkensonia florida*), ironwood (*Olneya tesota*), and desert willow (*Chilopsis linearis*). Species in more arid parts of the subdivision include creosotebush (*Larrea tridentate*), ocotillo (*Fouquieria splendens*), brittlebush (*Encelia farinose*) and white bursage (*Ambrosia dumosa*).

##### **3.3.1.2. Arizona Upland Subdivision**

The Arizona Upland Subdivision of the Sonoran Desert is also known as the Arizona Desert, Paloverde Cacti Desert, and Cercidium-Opuntia Desert. Approximately 90 percent of the Arizona Upland Subdivision is on slopes, broken ground, and multi-dissected sloping planes (Brown 1994). Average annual precipitation ranges between 7 and 16 inches. Summer rainfall accounts for 30 to 60 percent of the annual total. Winter precipitation ranges from 10 to 40 percent of the annual total. The vegetation of the Arizona Upland Subdivision most often takes on the appearance of a scrubland or low woodland of leguminous trees with intervening spaces held by one to several open layers of shrubs and perennial succulents and columnar cacti (Brown 1994). Vegetation within the subdivision includes its characteristic trees: foothill palo verde (*Cercidium microphyllum*), blue palo verde, mesquite (*Prosopis* spp.), and catclaw acacia

(*Acacia greggii*). Cacti in this subdivision include several species of cholla (*Opuntia* spp.), saguaro (*Carnegiea gigantea*), and pincushion (*Mammillaria* spp.).

### **3.3.2. Environmental Consequences – Vegetation**

#### **Proposed Action**

The Proposed Action would not result in the removal of any vegetation along the CAP canal or within the adjacent mitigation property. While the location of the trailhead parking lot has been heavily disturbed by maintenance vehicles, there are a few creosote bushes that would be removed.

The spread of non-native and noxious plants by providing access to the public is a concern, but it is understood that the successful germination and establishment of various species of unwanted plants varies and can be relatively low. Unwanted seeds can be distributed along the trail by the shoes of joggers, treads of bike tires, and by horses defecating. Over time their establishment can increase and lead to impacts by spreading down into the mitigation corridor. An invasive species survey along the proposed trail was not conducted; however, buffelgrass (*Cenchrus ciliaris*) is an invasive plant species found in disturbed areas, especially along roads, and in steep rocky hillsides in the Sonoran Desertscrub biotic community. Buffelgrass is known to occur along Interstate-10, located approximately 1 mile west of the Proposed Action (EDDMapS 2015).

#### **No Action Alternative**

Under the No Action alternative, there would be no direct impact to vegetation, since the proposed trail would not be opened. The few creosote bushes that are found in the trailhead parking area would continue to persist for the foreseeable future.

#### **Cumulative Effects – Vegetation**

The loss of creosote bushes would be cumulative to land development, agriculture, and other human influences that have removed them within the lower Sonoran Desert. The loss of a few bushes is relatively inconsequential since it is the most common plant in southern Arizona.

Trespass into the mitigation corridor by recreationists could lead to damage through the creation of unauthorized trails, disposal of trash and other debris, and erosion. This would reduce the quality of the habitat that was set aside as mitigation for the construction of the CAP canal. The extension of the trail north and south could increase the number of recreation users along this portion of the trail resulting in potential impacts to vegetation.

### **3.3.3. Management/Mitigation Measures for Vegetation**

Management and mitigation measures to reduce potential adverse effects to native vegetation include:

- Removing trash and waste along the trail and at the trailhead.
- Maintaining the fence line at the parking lot to prevent vehicles from traveling off-road and cattle from accessing the trail.
- Conducting patrols to identify trespass activity within the mitigation corridor
- Requiring remedial measures to reduce opportunities for trespass

- Washing all equipment prior to beginning any construction activities associated with the Proposed Action. This will help to minimize the potential for the introduction and/or spread of invasive plant species.

### **3.4. Biological Resources: Terrestrial Wildlife**

#### **3.4.1. Affected Environment – Terrestrial Wildlife**

Residents and migrants that maybe observed near the proposed trail include the common nighthawk (*Chordeiles minor*), Gambel’s quail (*Callipepla gambelii*), gila woodpecker (*Melanerpes uropygialis*), white-winged dove (*Zenaida asiatica*), and the curve-billed thrasher (*Toxostoma curvirostre*). Birds of prey that can be found in the area include the red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), northern harrier (*Circus cyaneus*), and American kestrel (*Falco sparverius*).

The Sonoran Desert also hosts a wide variety of mammal species. Three rabbit species occur throughout this region: the desert cottontail (*Sylvilagus audubonii*), blacktailed jackrabbit (*Lepus californicus*), and antelope jackrabbit (*Lepus alleni*). Other typical desert mammals include Merriam’s kangaroo rat (*Dipodomys merriami*), white-throated woodrat (*Neotoma albigula*), coyote (*Canis latrans*), and collared peccary (*Pecari tajacu*).

Common lizards in the Project area include the zebra-tailed lizard (*Callisaurus draconoides*), tiger whiptail (*Aspidoscelis tigris*) and side-blotched lizard (*Uta stansburiana*). The variety of small mammals provides an abundant prey source for snakes including the Mohave rattlesnake (*Crotalus scutulatus*), long-nosed snake (*Rhinocheilus lecontei*), coachwhip (*Masticophis flagellum picues*), and gophersnake (*Pituophis catenifer*). Amphibians known to the area include the Great Plains toad (*Bufo cognatus*), Woodhouse’s toad (*Bufo woodhousii*), and red-spotted toad (*Bufo punctatus*).

#### **3.4.2. Environmental Consequences – Terrestrial Wildlife**

##### **Proposed Action**

Small mammal and reptile mortality may increase as a result of elevated trail use by bicycle and equestrian riders and increased vehicular patrols. Impacts to birds and large mammals are not anticipated. The Proposed Action would not affect the Tucson-Tortolita-Santa Catalina Mountains wildlife corridor since large scale ground disturbance or vegetation removal would not occur. The grading and filling of the trailhead parking lot would temporarily increase noise and vibrations, but would not affect any species in the area.

##### **No Action Alternative**

Under the No Action alternative, there would be no direct effect to terrestrial wildlife because no project would be implemented. There would be no loss of or disturbance to mammals, reptiles, amphibians, or birds because the trail would not be opened.

##### **Cumulative Effects**

The effects of the proposed project on wildlife would be cumulative to land development, agriculture, and other human influences affecting the area. The extension of the trail north and

south could increase the number of recreation users to this portion of the trail. This could then result in potential impacts to terrestrial wildlife.

### 3.4.3. Management/Mitigation Measures – Terrestrial Wildlife

Management and mitigation measures to reduce potential adverse effects to wildlife include:

- Posting public information signs.
- Removing trash and waste along trail.
- Installing a cattle guard at the entrance of the parking area to prevent cattle from accessing the trail.
- Maintaining the fence line at the parking lot to prevent vehicles from traveling off-road and cattle from accessing the trail.
- Conducting patrols to identify trespass activity within the mitigation corridor
- Requiring remedial measures to reduce opportunities for trespass

## 3.5. Special Status Species

### 3.5.1. Affected Environment – Special Status Species

An informal Biological Evaluation (BE) was prepared by the Town of Marana (2015) to evaluate the potential occurrence of special-status species, including federally listed species and state-listed species of concern, within and adjacent to the Proposed Action. The USFWS Information, Planning, and Conservation System (IPaC) Trust Resource Report generated a list of species and critical habitat to be considered under Section 7 of the Endangered Species Act (ESA). The AGFD Online Review Tool was used to determine known species occurrence records within 3 miles of the Project Area. Reclamation reviewed the BE and adopted a portion of the evaluation. All ESA considerations and determinations are outlined below. Additionally, Reclamation consulted with USFWS and AGFD to discuss the potential effects of the project.

The USFWS IPaC report identified four federally listed species that may be present in the vicinity of the Proposed Action: the endangered southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL), the threatened yellow-billed cuckoo (*Coccyzus americanus*; YBCU), the endangered but proposed to be delisted lesser long-nosed bat (*Leptonycteris yerbabuenae*; LLNB), and the threatened Northern Mexican gartersnake (*Thamnophis eques megalops*; NMGS). No proposed or designated critical habitat is located within the Proposed Action. Within the BE, these species and other special-status species were analyzed and given “potential to occur” and “effects” determinations. The screening analysis and determinations were based on a review of species occurrence records using the AGFD Online Review Tool, habitat requirements, and distribution and geographic ranges in relation to the Proposed Action.

The BE determined that other special-status species, not protected under the ESA, might occur. These species included the golden eagle (*Aquila chrysaetos*), the Western burrowing owl (*Athene cunicularia hypugaea*), the cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), the Tucson shovel-nosed snake (*Chionactis occipitalis klauberi*), and the Sonoran desert tortoise (*Gopherus morafkai*). Additionally, the AGFD Online Review Tool identified the

Tucson-Tortolita-Santa Catalina Mountains wildlife linkage corridor in the vicinity of the Project.

Prior to any land disturbing activities, a qualified biologist would conduct a burrowing owl survey in accordance with AGFD's 2009 survey protocol. The initial survey will be conducted no more than 90 days prior to constructing the parking lot and opening the trail. Additional surveys and mitigation measures may be required prior to any land disturbance if burrowing owls are present. Only a federal and state licensed entity is authorized to remove and relocate burrowing owls.

If owls are located along the trail or within the proposed parking lot area, their presence will be noted to Reclamation and CAWCD. This observation will aid CAWCD with their maintenance schedule; no maintenance activities will occur until passive or active exclusion measures can be implemented. If owls are found within the parking lot area, appropriate actions would be taken to exclude or relocate the owls by a permitted entity. Pima County and/or any third party agreement entity would notify Reclamation and CAWCD if burrowing owls are found so they can assist with and/or recommend appropriate action.

### **3.5.2. Environmental Consequences – Special Status Species**

#### **Proposed Action**

The Proposed Action would have no effect to federally-listed SWFL, YBCU, and NMGS because no nesting or foraging habitat is found along or within close proximity to the proposed trail and trailhead parking lot. There will also be no effect to the LLNB because there will be no disturbance or removal of forage species, such as saguaros or agaves, or the addition of night lighting. No proposed or designated critical habitat is present in the vicinity to the Proposed Action; therefore, the Proposed Action would have no effect on critical habitat.

Though golden eagles, burrowing owls, and the cactus ferruginous pygmy owls may occur within the general area, it is anticipated that these species would not be effected since no new ground disturbance will occur. If in the unlikely instance that burrowing owls are present, passive or active exclusion measures will be employed to minimize effects from potential human disturbances associated with the trail. Thus, there would be no adverse effect to migratory birds as considered under the Migratory Bird Treaty Act (MBTA).

The Tucson shovel-nosed snake may occur but is not likely to be effected since no new ground disturbance or vegetation removal is anticipated. Furthermore, recreation opportunities will be limited to the maintenance road on top of the existing Berm. The Sonoran desert tortoise is likely to occur within the project area; however, it is anticipated that they will not be affected by the project since no new ground disturbance will occur. Additionally, existing fencing will restrict recreationists to the road on top of the Berm.

### **No Action Alternative**

Under the No Action alternative, there would be no direct impact to federally listed, candidate, or special status species because the proposed trail would not be opened. Normal maintenance operations by CAWCD would continue along the existing maintenance road for the CAP canal.

### **Cumulative Effects**

The proposed project would not have any influence on federally listed and sensitive species within the area. Adverse effects to those species could come from a number of other activities such as land development, agriculture, and other human influence throughout the area. The extension of the trail north and south could increase the number of recreation users along this portion of the trail resulting in potential impacts to special status species.

#### **3.5.3. Management/Mitigation Measures – Special Status Species**

Management and mitigation measures to reduce potential adverse effects to special status species include:

- Conducting a burrowing owl survey no more than 90 days prior to constructing the parking lot and opening the trail. Pima County and/or any third party agreement entity would notify Reclamation and CAWCD if burrowing owls are found so the agencies can assist and/or recommend appropriate action.
- Fencing will be maintained. Restricting recreationists to the existing trail/maintenance road will reduce the likelihood of tortoise mortalities.
- Ensuring that no additional lighting will be added to the trailhead parking lot or along the trail.

### **3.6. Cultural Resources**

#### **3.6.1. Affected Environment – Cultural Resources**

Section 106 of the National Historic Preservation Act (36 CFR Section 800) requires that federal agencies consider and evaluate the effect that federal projects may have on historic properties. A Traditional Cultural Property is a property or place that is eligible for inclusion in the National Register of Historic Places (NRHP). Previous surveys of the Project Area were reviewed to determine whether cultural resources that might be eligible for inclusion in the NRHP are present and that could be adversely affected by the Proposed Action.

The Proposed Action alignment may have an effect on six known archaeological sites (*Table 2*). These sites were identified and documented during Class III cultural resources surveys conducted prior to the construction of the CAP canal (Westfall et al. 1984). Recently, Reclamation contracted with Archaeological Consulting Services, Ltd. (ACS) to revisit, remap, and re-assess “74 sites that had been identified in Reaches 3, 4, and 5 of the Tucson Aqueduct Phase B corridor” (Schilling 2013). ACS revisited 5 of the 6 sites in the project area. The sixth site, AZ AA:12:359 (ASM), is indicated as occurring in the Project Area, but is not mentioned in the ACS report and may have been destroyed during the construction of the canal. Of the six sites, three are eligible for inclusion in the NRHP (Schilling 2013).

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**Table 1. Archaeological Sites Identified During the Class III Survey (Westfall et al. 1984)**

Site Number (ASM)	Site Type	NRHP Eligibility	Land Jurisdiction	Previous Mitigation Activities	Citation
AZ AA:12:359	Historic Euroamerican trash scatter	Unevaluated	Reclamation	Unknown; site not mentioned in ACS report	ASM site card
AZ AA:12:361	Prehistoric agricultural site with artifact scatter	Eligible	Reclamation/ASLD	Surface artifact collection; no subsurface excavation	Schilling 2013:18
AZ AA:12:362	Prehistoric agricultural site with artifact scatter	Eligible	Reclamation/ASLD	Surface artifact collection; no subsurface excavation	Schilling 2013:21
AZ AA:12:367	Prehistoric agricultural site with artifact scatter	Eligible	Reclamation/ASLD	Surface artifact collection; no subsurface excavation	Schilling 2013:33
AZ AA:12:368	Hohokam village	Not eligible	Reclamation/ASLD/private	Surface artifact collection and excavation; mitigation complete	Schilling 2013:36
AZ AA:12:624	Prehistoric artifact scatter	Unevaluated; site location plotted incorrectly or site destroyed, not relocated by ACS	Unknown; site not relocated by ACS	Surface collection	Schilling 2013:87

### 3.6.2. Environmental Consequences – Cultural Resources

#### Proposed Action

The Proposed Action is located on the Berm, which consists of fill material that was likely excavated during the construction of the CAP canal. As such, it is highly unlikely that *in situ* artifacts or archaeological features would be present within the Berm or that implementation of the Proposed Action would have a direct impact on any potentially NRHP-eligible components of the three sites identified in **Table 1**. Indirect impacts to the archaeological sites that occur immediately adjacent to the Proposed Action could include unplanned visitation by trail users and off-trail travel by maintenance and/or emergency services vehicles. It is expected that the majority of trail users would use the trail for cycling and this activity is expected to have a lower likelihood for unplanned visitation to cultural sites versus walking or jogging. In order to reduce potential impacts to adjacent cultural sites, the Proposed Action includes the posting of signs to indicate the prohibition of off-trail use and the implementation of a monitoring program for unauthorized visitation and/or disturbance to the archaeological sites in the immediate vicinity of the Project.

### **No Action Alternative**

The No Action Alternative would not impact cultural sites. The proposed trail would not be open for recreational use. CAWCD vehicles would continue to use the existing dirt road for operation and maintenance purposes.

### **Cumulative Impacts**

The Proposed Action would not result in cumulative impacts on any cultural resources. The extension of the trail north and south could increase the number of recreation users along this portion of the trail resulting in potential impacts to adjacent cultural sites.

### **3.6.3. Management/Mitigation Measures for Cultural Resources**

Management and mitigation measures to reduce potential adverse effects to cultural resources include:

- Restricting the public access to the approved trail route.
- Identifying areas of trespass and damage both along the trail and adjacent to it.
- Conducting periodic archaeological site assessments to determine if cultural resources are being impacted by the trail system. If archaeological resources are being impacted, Reclamation will coordinate with CAWCD, Pima County, and any third party agreement entity.

## **3.7 Indian Trust Assets**

### **3.7.1 Affected Environment**

Indian trust assets (ITAs) are legal interests in property held in trust by the United States through the Department of the Interior for federally recognized Indian tribes or individual tribal members. Examples of things that may be trust assets are lands, mineral rights, hunting, fishing, or traditional gathering rights and water rights. The United States, including all of its bureaus and agencies, has a fiduciary responsibility to protect and maintain rights reserved by or granted to Indian tribes or individual tribal members by treaties, statutes, and Executive Orders. This trust responsibility requires that all Federal agencies, including Reclamation, ensure their actions protect trust assets. Secretarial Order 3175 (incorporated into the Departmental Manual at 512 DM 2) requires that when proposed actions of a DOI agency might affect trust assets, the agency must address those potential impacts in planning and decision documents and the agency consult with the tribal government whose trust assets are potentially affected.

The study area is located on uninhabited Federal land. No Indian trust assets have been identified in this area.

### **3.7.2 Environmental Consequences**

#### **No Action**

Under the No Action alternative, there would be no impact to Indian trust assets because no project would be implemented.

#### **Proposed Action**

No impact to Indian trust assets are anticipated as a result of this project.

#### **Cumulative Effects**

There would be no cumulative effects to Indian trust assets.

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## Chapter 4. Environmental Laws and Directives Considered

The federal laws, permits, licenses, and policy requirements included in *Table 2* have directed, limited, or guided the NEPA analysis within this EA.

**Table 2. Potential Regulatory Requirements**

<b>Law, Regulation, or Executive Order</b>	<b>Method of Compliance</b>
National Environmental Policy Act	Developed Environmental Assessment (EA)
Endangered Species Act	Biological Evaluation and informal consultation with the USFWS and AGFD regarding the mitigation property. Considered in EA under Section 3.5.
Migratory Bird Treaty Act	Considered in EA under 3.5 (specifically in relation to the burrowing owl)
Executive Order 12898 Environmental Justice	Considered in the EA under Section 3.1.7
National Historic Preservation Act	Coordination with State Historic Preservation Office and Tribes. Considered in EA under Section 3.6.
Clean Air Act	Considered in EA under Section 3.1.1.
Fish and Wildlife Coordination Act (FWCA)	Not a water resource project under the purview of FWCA
Clean Water Act	No waters of the U.S. will be impacted by this project.
Resource Conservation and Recovery Act (RCRA)	The proposed project is not expected to generate hazardous waste as defined and regulated under RCRA. Nonhazardous solid waste would be disposed of in accordance with State and Federal regulations at an approved landfill. Spills and disposal of petroleum contaminated media would be managed in accordance with State and Federal requirements. Vehicles and heavy equipment use would be restricted to existing road and proposed parking area.
Executive Order 11988 - Floodplain Management	Considered in EA under Section 3.1.4. No new construction will occur within the floodplain.
Executive Order 11990 - Wetlands	Considered in EA under Section 3.1.4. The project will not impact wetlands.
Secretarial Order 3175 (incorporated into Departmental Manual at 512 DM 2) - ITA	Considered in EA under Section 3.7

## **Chapter 5. Consultation and Coordination**

Agency Consultation: USFWS, AGFD, SHPO

Project information was provided to the following stakeholders:

- Audubon Society,
- Center For Biological Diversity,
- Coalition for Sonoran Desert Protection,
- Pinal County, Open Space and Trails,
- Sierra Club Rincon Group,
- Sky Island Alliance,
- Pima County Natural Resources Parks and Recreation,
- The Nature Conservancy,
- Hopi Tribe,
- Tohono O’odham Nation,
- Gila River Indian Community
- CAWCD

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## **Chapter 6. List of Preparers**

### **6.1. Bureau of Reclamation – Phoenix Area Office**

David Gifford, Archaeologist  
Kim Musser, former Environmental Protection Specialist  
Marcia Nesby, Water Resources Planner  
Nichole Olsker, Environmental Protection Specialist  
Sean Heath, Chief, Environmental Division  
Tab Bommarito, Biologist

### **6.2. Central Arizona Project**

Tom Fitzgerald, CAP Land Administrator

### **6.3. Pima County**

Steve Anderson, Planning Division Manager

### **6.4. Town of Marana**

Cynthia Nemeth-Briehn, Parks and Recreation Director  
Janine Spencer, Biologist  
Paula Bluemer, Environmental Project Manager

### **6.5. WestLand Resources, Inc.**

Brad Stone, Cultural Resources Specialist  
Fred Huntington, Cultural Resources Program Director  
Kimberly Otero, Project Manager  
Margaret Blais, Environmental Specialist

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**APPENDIX A**  
**Environmental Appendix**  
**To CAWCD Operating Agreement**  
**(Canal System Only)**

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**ENVIRONMENTAL APPENDIX TO OPERATING AGREEMENT  
(CANAL SYSTEM ONLY)**

The following O&M responsibilities will be carried out by the District. These responsibilities have been summarized from specific environmental commitments made by the Bureau of Reclamation in reports prepared in compliance with the National Environmental Policy Act (NEPA). The specific documents referenced are the Final Environmental Impact Statements (EIS's) for the Central Arizona Project (INT FES 72-35), Havasu Intake Channel, Havasu Pumping Plant, and Buckskin Mountains Tunnel (INT FES 73-2), Granite Reef Aqueduct (INT FES 74-5), Salt-Gila Aqueduct (INT FES 79-1), Tucson Aqueduct Phase A (INT FES 82-26), Tucson Aqueduct Phase B (INT FES 84-68), and the Environmental Assessment, Tucson Aqueduct Phase B Modifications (May 1988). Also included are items not directly taken from the EIS's, but which reflect current Reclamation policy guidance.

The District will:

B.1 Comply with all applicable Federal, State, and local environmental protection laws and regulations.

B.2 Maintain wildlife fencing, including tortoise barrier fencing, on aqueduct right-of-way in such a manner to prevent ungulates (deer, bighorn sheep, javelina) and tortoises from entering the aqueduct right-of-way. Maintain stock fencing to prohibit the entry of cattle into the detention basins and within the aqueduct right-of-way. The District will remove or make arrangements to have cattle removed that are found within the aqueduct right-of-way. The District will ensure that all gates along the aqueduct are kept closed.

B.3 Maintain fencing around Tucson B Tumamoca preserves, as well as those preserves contiguous with the aqueduct right-of-way in T.13 S., R.11 E., sections 20 and 29. Areas that have been washed out will be repaired. Damaged fence shall be replaced with fencing that conforms to type and height of adjacent wildlife fencing. If javelina are observed within the fenced areas, the District should notify Reclamation and Arizona Game and Fish Department (AGFD) for assistance in removal.

B.4. Maintain wildlife canal crossings, and game/cattle canal crossings. These crossings are identified on the Aqueduct System Location Maps (344-330-T-879 through T-885). The District will ensure that soil on wildlife and game/cattle crossings is uniformly distributed from one end to the other over each crossing, and ensure that wildlife and game/cattle crossings are not fenced at either end. CAWCD will maintain the gunnited surface at the ends of culverts under the canal at Milepost 305.856, 306.185, 307.004, and 307.363. With regard to those wildlife crossings which have special provisions for desert tortoises (large rock for shade cover), the District will ensure rock cover is along both sides of the crossing and that movement across canal is not obstructed by the rock.

- 1 B.5 Maintain soil covering on box flume overshoots designated as wildlife crossings  
2 located at Milepost 44.1, 49.1, 51.6, 52.6, 53.8, 55.6, 110.0, and 112.2. Soil covering  
+ should completely cover the hydraulic energy dissipators for a minimum width of 8-10  
5 feet.
- 6 B.6 Maintain redwood cleats on culverts adapted for wildlife use and replace damaged  
7 cleats when necessary.
- 8  
9 B.7 Notify AGFD if, at any time, wildlife are observed in the canal, such as ungulates  
10 and tortoises, and, provide access to the canal and cooperate with animal rescues. If live  
11 or dead wildlife are to be removed from the canal by District personnel, a collecting  
12 permit must be obtained from the AGFD. Provide an annual report to Reclamation  
13 documenting the number and species of wildlife lost in the canal.
- 14  
15 B.8 Avoid impacts to areas within the aqueduct right-of-way that have been identified  
16 by Reclamation as being sensitive to historic properties (including archaeological sites),  
17 and biological resources (including endangered species). These sensitive areas are  
18 identified in the Interim CAP Right-of Way Land Use Policy (Attachment 1). If  
19 avoidance of these areas is not practicable, the District will advise the Project Manager  
20 of proposed activities sufficiently in advance to allow Reclamation to complete any  
21 required environmental clearances and consultations.
- 22  
23 B.9 Notify Reclamation if significant cultural resources are discovered within the  
24 aqueduct right-of-way. The applicable procedures specified in 36 CFR 800.11 shall be  
followed.
- 25  
26  
27 B.10 Notify AGFD and the Project Manager sufficiently in advance of any complete  
28 dewatering of any section of the canal and provide access to the canal and cooperate  
29 with fish salvage activities.
- 30  
31 B.11 Notify the Project Manager prior to proposing introduction of any new fish species  
32 into the canal for controlling aquatic plant growth or any other purpose, for review and  
33 approval by Reclamation.
- 34  
35 B.12 Refrain from activities (such as constructing new fences, locating new field offices,  
36 storage yards or new workyards) which might obstruct movement of wildlife through the  
37 Tucson B Wildlife Mitigation Corridor.
- 38  
39 B.13 Maintain wildlife water developments at Mileposts 232.5, 245.9 and 246.5 and at  
40 the Black Mountain Operating Reservoir in good and efficient condition.
- 41  
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**Appendix B**  
**Interim CAP Right-of-way**  
**Land Use Policy**

## Interim CAP Right-of-Way Land Use Policy

September 1993

The Environmental, Realty, and Water and Lands Divisions have created a policy to address the various use constraints that exist on lands acquired for the Central Arizona Project detention and retention basins. This policy outlines certain commitments or uses of the subject lands and provides appropriate guidance in implementing such uses. The policy also provides guidance to the Central Arizona Water Conservation District (District) regarding constraints on their O&M activities within the subject lands. By letter dated March 17, 1993, a draft of this policy was provided to the Arizona Game and Fish Department, Fish and Wildlife Service, Bureau of Land Management, and the District. Comments have not been received from the BLM or District. In the absence of those agencies comments, this interim policy is being put in place as part of the Interim Operating Principles provided to the District in October 1993.

### P O L I C Y

This policy is for the lands administered by the Bureau of Reclamation (Reclamation) as a part of the Central Arizona Project (CAP) that lie upslope of the canal, including all areas within the detention/retention basins. The basins are defined as the lands from the upstream toe of any upslope embankment to the upstream right-of-way boundary line. These lands have the primary purpose of providing temporary storage of storm runoff. Sufficient interest was acquired in these lands to protect the United States from liability due to damages caused by water ponding behind the embankments. While the lands must remain under Federal control and be readily available for the primary purpose of flood control, other uses are permissible provided they are consistent with project O & M requirements, do not interfere with operation of the basin, and can accommodate intermittent flooding.

Reclamation has made a commitment to use the majority of these lands to mitigate the destruction and degradation of wildlife habitat resulting from the construction of the CAP aqueducts. Historic properties, (including archaeological sites which were avoided or not fully excavated during construction of the CAP) also occur within these lands. Therefore, it shall be the policy of the Arizona Projects Office to dedicate the lands within the detention/retention basins, as long as they remain under the control of the Federal government for the CAP, in the following manner:

-the lands between the downslope right-of-way fence and the upslope embankment are considered available for O&M purposes. Clearing of vegetation within this area shall be kept to the minimum necessary for operation and maintenance needs. However, these lands are not considered mitigation lands.

- the lands within 25 feet of the upstream toe of any upslope embankment, or more as may be locally required for flow conveyance needs and structural integrity, are, for operation and maintenance purposes, considered a part of the embankment. These lands will be used jointly for the embankment and mitigation. Since the lands closest to the embankments have the greatest potential for vegetative response and development of wildlife habitat, only the minimal amount of vegetation control to maintain the operational and structural integrity of the embankment, the associated flow paths, and the detention/retention basins will be undertaken. Lands that are subject to vegetation clearing every 5 years or less will not be classified as mitigation lands.

- all remaining lands within the detention/retention basins (a total land area equal to approximately 150 percent of the acreage within the aqueduct prism considered to be lost wildlife habitat [security/wildlife fence to security/wildlife fence or downstream security/wildlife fence to upstream toe of the embankment, where present]) shall be dedicated for mitigation of the impacts to wildlife habitat from the construction of the aqueducts, and protection and maintenance of wildlife habitat values provided. Except those lands previously dedicated to other project resource management purposes (e.g., the Paradise Valley Flood Detention Basin, the Pima County Hiking and Equestrian Trail, the Tumamoca globeberry preserves, and the Tucson Aqueduct Mitigation Corridor) shall not be included. The mitigation lands can be used for low-impact purposes (nature trails, wildlife study plots, etc.,) provided those purposes do not cause wildlife disturbances or habitat alteration. The appropriate wildlife management agencies will be consulted prior to the development of any low-impact projects.

- Lands within the basins may be considered for various project resource management purposes under the application of the following hierarchy of uses: operations, mitigation, public purposes, and private purposes. Appropriate mitigation measures will be undertaken for impacts from uses other than operations and mitigation on lands within the basins. Full replacement or enhancement of existing habitat values will be required in these mitigation measures. These measures will be developed in consultation with the appropriate wildlife management agencies.

- where District operation and maintenance requirements will require land surface disturbance or vegetation clearing within the detention/retention basins (i.e. more than 25 feet from the upstream toe of the upslope embankment), the District shall advise Reclamation of proposed activities sufficiently in advance to allow Reclamation to complete any required environmental clearances and consultations.

-All the lands covered by this policy will receive a field review at least every 5 years to evaluate the vegetative growth and the effectiveness of the mitigation effort. Representatives of the appropriate resource agencies will be invited to participate in the field reviews.

## **Appendix C Stakeholder Response To Scoping Letters**

**From:** Meg Weesner [<mailto:mweesner@att.net>]  
**Sent:** Wednesday, November 25, 2015 5:14 PM  
**To:** CAPEAMarana <[CAPEAMarana@westlandresources.com](mailto:CAPEAMarana@westlandresources.com)>  
**Cc:** Keith Bagwell <[kbagwell50@gmail.com](mailto:kbagwell50@gmail.com)>; Sandy Bahr <[sandy.bahr@sierraclub.org](mailto:sandy.bahr@sierraclub.org)>; Meg Weesner <[mweesner@att.net](mailto:mweesner@att.net)>; Randy Serraglio <[rserraglio@biologicaldiversity.org](mailto:rserraglio@biologicaldiversity.org)>; Cyndi Tuell <[cctuell@hotmail.com](mailto:cctuell@hotmail.com)>; Russell Lowes <[russlowes@gmail.com](mailto:russlowes@gmail.com)>; Michelle Crow <[mcrow10@cox.net](mailto:mcrow10@cox.net)>; Roy Emrick <[rmemrick@cox.net](mailto:rmemrick@cox.net)>  
**Subject:** Proposed Recreation Trail on CAP canal in Marana

From:  
Sierra Club Rincon Group  
738 North 5th Avenue, Ste. 214  
Tucson AZ 85705

I am writing on behalf of the Rincon Group of the Sierra Club regarding the Initial Scoping for an Environmental Assessment of a Proposed Recreational Trail Along the Central Arizona Project Canal in Pima County, Arizona.

We read the brief description of the project and are generally supportive since this would provide a needed recreation opportunity and have little additional environmental impact. We do not have any questions or comments at this time, but we do request that your assessment include the potential of this additional use to impact water, soils, wildlife and other environmental concerns.

Please send us notification when the Draft Environmental Assessment is available. You can use the following email addresses - [kbagwell50@gmail.com](mailto:kbagwell50@gmail.com), [mweesner@att.net](mailto:mweesner@att.net) and [sandy.bahr@sierraclub.org](mailto:sandy.bahr@sierraclub.org).

Thank you for including us in your notice.

Meg Weesner  
Sierra Club  
Rincon Group Executive Committee

**From:** Kent Taylor [<mailto:Kent.Taylor@pinalcountyaz.gov>]  
**Sent:** Monday, November 30, 2015 10:44 AM  
**To:** CAPEAMarana <[CAPEAMarana@westlandresources.com](mailto:CAPEAMarana@westlandresources.com)>  
**Subject:** CAP Recreational Trail-Marana Arizona Environmental Assessment

Good morning,

Thanks you for the opportunity to provide input for the initial scoping for the EA for this project.

Pinal County supports this project as proposed and it is consistent with our plans for the recreational trail as it proceeds into Pinal County.

Additionally, we support the use of the "dike" on the east side of the canal. The use of an already existing feature minimizes the need for additional ground disturbance, simplifies the implementation process and allows for the efficient use of resources for all involved.

Please also include us in the distribution list for the Draft EA, when applicable.

Kent A. Taylor, Director  
Pinal County Open Space and Trails  
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Florence, AZ 85132  
520-866-6910  
[kent.taylor@pinalcountyaz.gov](mailto:kent.taylor@pinalcountyaz.gov)