

*Pima County Department of Transportation
and Flood Control District*

Cienega Creek Natural Preserve Management Plan

October 1994

*Prepared by McGann & Associates Inc.
Landscape Architects and Planners
with assistance from the
Arizona Game and Fish Department's Heritage Fund*



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Section 1: Introduction
1.1 Introduction 1-1

Section 2: Management Objectives
2.1 Management Objectives 2-1

Section 3: Management Zones
3.1 Management Zones 3-1

Section 4: Proposed Development
4.1 Proposed Development 4-1
4.2 Implementation Plan 4-14

Section 5: Administration and Staffing
5.1 Administration and Staffing 5-1

Section 6: Public Use
6.1 Public Use 6-1
6.2 Public Use - Management Zone A 6-2
6.3 Public Use - Management Zone B 6-6
6.4 Permit System 6-8
6.5 Use of Preserve for Utility Lines 6-10
6.6 Use of the Preserve for Scientific Research 6-11

Section 7: Resource Management
7.1 Water Resources 7-1
7.2 Vegetation 7-4
7.3 Wildlife Resources 7-6
7.4 Soil and Mineral Resources 7-8
7.5 Visual Resources 7-9
7.6 Cultural Resources 7-10

Section 8: Wildland Fire Management
8.1 Wildland Fire Management 8-1

Section 9: The Preserve Boundary
9.1 The Preserve Boundary 9-1
9.2 Priority Acquisitions 9-4

Section 10: Inter-Departmental and Inter-Agency Coordination
10.1 Inter-Departmental and Inter-Agency Coordination 10-1

Appendices:
Appendix A: Existing CC&R's and Attachments A-1
Appendix B: Proposed Revisions to CC&R's and Attachments B-1
Appendix C: Implementation Checklist C-1

List of Figures

Figure 1-A	<i>Cienega Creek Natural Preserve Site</i>	1-4
Figure 3-A	<i>Management Zones</i>	3-3
Figure 4-A	<i>Proposed Development</i>	4-9
Figure 4-B	<i>Three Bridges Entry Conceptual Plan</i>	4-10
Figure 4-C	<i>Colossal Cave Road Entry Conceptual Plan</i>	4-11
Figure 4-D	<i>Mescal Arroyo Entry Conceptual Plan</i>	4-12
Figure 4-E	<i>Empirita Ranch Facilities Conceptual Plan</i>	4-13
Figure 8-A	<i>Unique Resource Fire Management Zone</i>	8-4
Figure 9-A	<i>Land Status</i>	9-3
Figure 9-B	<i>Existing Land Ownership and Proposed District Park Site</i>	9-5

1.1 Introduction

Purpose of this Document:

The purpose of this document is to present a plan that identifies objectives, that articulates policies, and that lists specific actions that will be taken related to the management of the Cienega Creek Natural Preserve.

Related Documents:

This document is one of two that were prepared as part of the management plan project. A “Background Report” was also prepared. The Background Report, dated January 1994, provides a comprehensive summary of the existing resources and features of the Preserve. It includes information related to:

- The Regional Setting
- Local Conditions
- Biological and Physical Resources
- Cultural Resources
- Visual Resources
- Existing Development, and
- Current Use

By reference, the “Background Report” is made an Appendix to this Management Plan. Copies of the “Background Report” are on file at the offices of the Pima County Flood Control District, the Vail Public School Library, and the Himmel Park Branch of the Tucson Public Library.

Description of the Preserve:

The Cienega Creek Natural Preserve is a 3,979 acre parcel of land located along Cienega Creek in eastern Pima County. The property is owned by the Pima County Flood Control District. The Preserve site extends from Colossal Cave Road on the northwest to the former headquarters of the Empirita Ranch on the southeast and includes a twelve mile reach of Cienega Creek. (See Figure 1-A). Approximately half of this reach exhibits perennial stream flow.

The quality of surface water in Cienega Creek is very good. A reach of the creek within the Preserve has been designated as a “Unique Water of Arizona” due in part to the excellent quality of the surface water.

The stream channel is deeply incised. Existing within the channel are approximately 1,000 acres of land with riparian woodland vegetation. Adjacent to the riparian corridor are more hills covered with vegetation typical of the Sonoran and Chihuahuan Deserts.

1.1 Introduction (Continued)

Description of the Preserve (Continued):

The presence of water combined with riparian vegetation creates wildlife habitat of very high value. This habitat supports large and diverse populations of mammals, birds, fish, reptiles, and amphibians. Several special status species are present within the Preserve.

There is a limited amount of urban development within the boundaries of the Preserve. The Southern Pacific Railroad's eastbound track runs through the site. The westbound track crosses the Preserve as does Interstate Highway 10 and Marsh Station Road. Also present on the site are several existing utility lines and related improvements.

Additional information related to the resources and features of the Preserve is included in the "Background Report".

Significance of the Preserve:

The Cienega Creek Natural Preserve is significant on a regional basis due to the presence of perennial stream flow and the presence of lush riparian vegetation. In combination, these conditions create an area with very high values for recreation, scenic quality, and wildlife habitat. The natural condition of the site also serves to facilitate ground water recharge and to ameliorate the intensity of storm water runoff from the Cienega Creek basin which drains into and through Tucson metropolitan area.

The significance of the Preserve is amplified in that it is one of a very few remaining examples of a desert riparian environment. Environments of this type once paralleled many of the water courses and drainages in southern Arizona such as the Santa Cruz River near Tucson. During the past century the extent of these riparian areas has been greatly reduced due to the surface water diversions and ground water pumping that accompanied large scale urban development. The Cienega Creek Natural Preserve encompasses one of these few remaining desert riparian areas.

Management Plan Updates:

The Pima County Flood Control District recognizes that the resources of the Preserve are dynamic and that changes will occur in response to the implementation of the Management Plan. The District also recognizes that the extent and type of development on lands surrounding the Preserve has changed significantly in recent years and that this change will continue to occur.

1.1 Introduction (Continued)

Management Plan Updates (Continued):

To respond to these changing conditions, the District will review this management Plan every five years. If modifications are deemed warranted, the plan will be amended to incorporate the required changes. If no changes are made, the existing plan at the time of review will remain in effect.

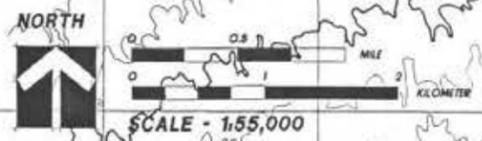
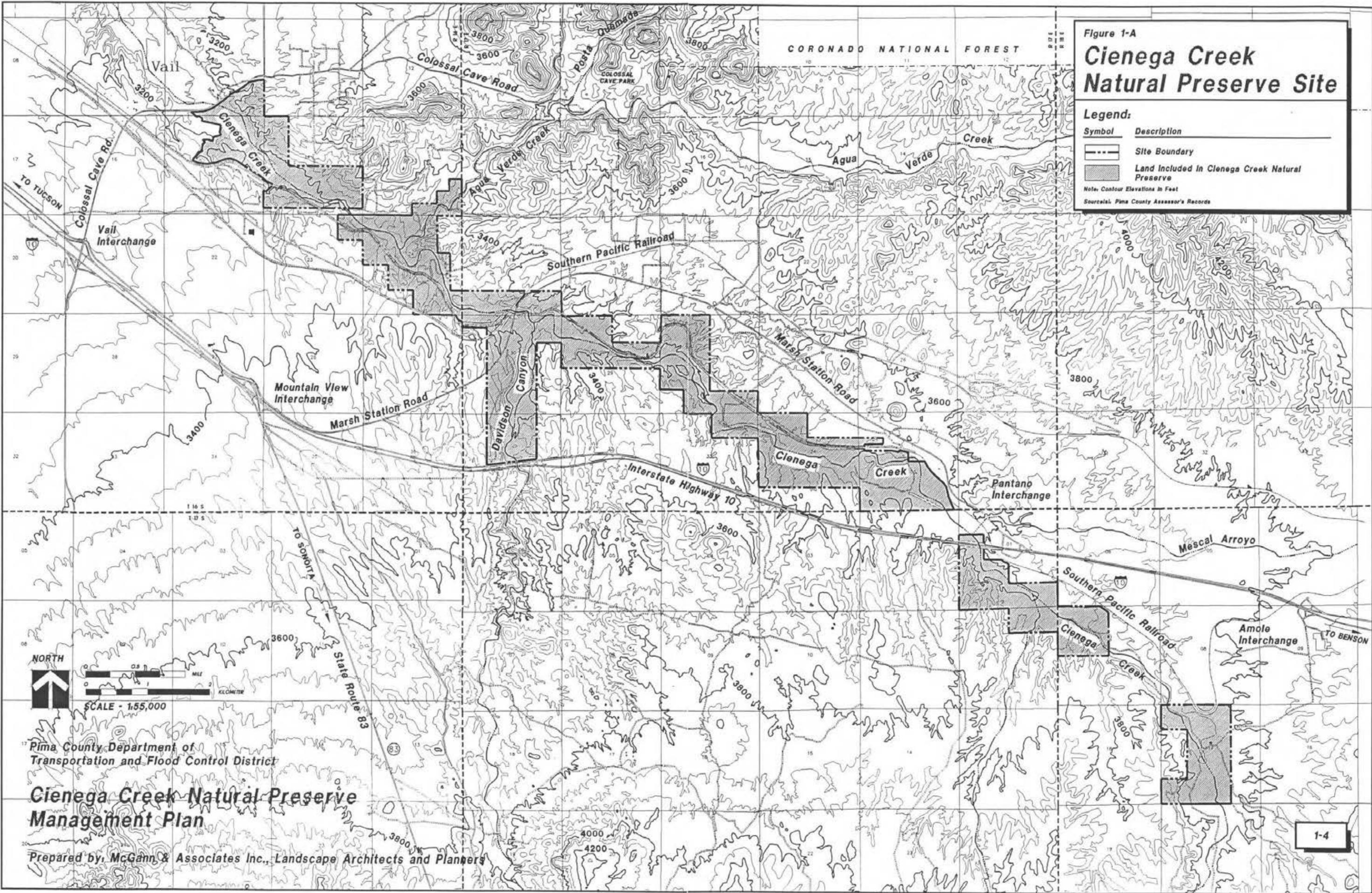
If significant changes impacting public use of the Preserve are proposed, they will be presented for public review and comment prior to their adoption.

Figure 1-A
**Cienega Creek
 Natural Preserve Site**

Legend:

Symbol	Description
	Site Boundary
	Land Included in Cienega Creek Natural Preserve

Note: Contour Elevations in Feet
 Source: Pima County Assessor's Records



Pima County Department of
 Transportation and Flood Control District

**Cienega Creek Natural Preserve
 Management Plan**

Prepared by: McGann & Associates Inc., Landscape Architects and Planners

2.1 Management Objectives

Introduction:

When the Cienega Creek Natural Preserve was established in 1986, the Pima County Board of Supervisors, sitting as the board of Directors of the Pima County Flood Control District, adopted Declaration of Restrictions, Covenants, and Conditions. This document states that the Preserve was established "...for the purposes of the preservation and protection of the natural and scenic resources of the property,...for the benefit and protection of the County, its resources, residents, and visitors". The Cienega Creek Natural Preserve will be managed in a manner that is consistent with this declaration.

To accomplish this end, three principal management objectives have been established. The principal management objectives, in order of importance, are as follows:

1. To preserve and protect the perennial stream flow in Cienega Creek.
2. To preserve and protect the existing natural riparian community along the stream corridor.
3. To provide opportunities for public use of the Preserve for recreation, education, and other appropriate activities.

These management objectives are discussed individually below.

Objective No. 1: Preservation of Perennial Stream Flow

The maintenance of perennial stream flow is the most important of the three principal management objectives. It will also be the most difficult to achieve. Without perennial stream flow, the other resources of the Preserve would be greatly diminished. Riparian vegetation would be lost, habitat values would be diminished, and scenic quality would be reduced. Accompanying these changes would be a reduction in the value of the Preserve for recreation, education, and other types of public use.

The maintenance of perennial stream flow will be the most difficult objective to achieve in that even the very best on-site management policies and practices cannot ensure continued perennial flow. Off-site activities, particularly groundwater pumping, will ultimately determine the future of perennial stream flow within the Preserve. Coordination with other resource management agencies and with area landowners will be essential if this objective is to be achieved.

2.1 Management Objectives (Continued)

Objective No. 2: Preservation of Riparian Community

Preserving the existing natural riparian community is the second most important management objective. Like the preservation of perennial stream flow, the preservation of existing natural riparian community will yield several benefits.

These benefits include the maintenance of current habitat, scenic quality, and recreational values. They also include reducing flood peaks for downstream areas.

By actively managing the Preserve to protect the riparian community and to remove threats that could potentially compromise its current healthy condition, a variety of secondary management objectives such as prevention of soil erosion can also be accomplished.

Objective No. 3: Provision of Opportunities for Public Use

The third most important management objective will be to provide opportunities for appropriate public use. There are two significant elements associated with this objective. The first stems from the use of public funds to acquire the lands currently within the Preserve. With the expenditure of these public funds the citizens of Pima County became the owners of this important natural resource area. With ownership came the right to utilize the preserve for appropriate activities.

The second element of the management objective is recognition that public use can engender a sense of stewardship and a concern for the well-being of the resource. An area that is used on a regular basis by concerned citizens is much less likely to be abused and vandalized than an area where public access is prohibited and use is by trespassers only. It is therefore an important management objective that appropriate public use be accommodated within the Preserve.

This management objective should not be misinterpreted to suggest accommodation of unrestricted public use. Restriction on both the level and type of public use will be necessary. These necessary restrictions are identified in the "Public Use" section of this document.

3.1 Management Zones

Introduction:

Two Management Zones are proposed for the Cienega Creek Natural Preserve. These zones are:

- **Management Zone A** which includes all areas of the Preserve north of Interstate Highway 10 (I-10), exclusive of a 25 acre (future) Pima County park site located near colossal Cave Road.
- **Management Zone B** which includes the 25 acre County park site near colossal Cave Road, and all areas of the Preserve south of I-10. Included in this area is the former Empirita Ranch headquarters.

The location and extent of these management Zones is illustrated in Figure 3-A. These management zones were established to reflect the level of development that currently exists in each of these areas, the sensitivity of the resources in these areas, and the uses proposed for each.

Although many management policies are common to both areas, policies related to development and public use are more restrictive in Management Zone A, and less restrictive in Management Zone B.

Management Zone A:

Management Zone A consists of approximately 3,074 acres of land. Present within Management Zone A are the reaches of Cienega Creek with perennial stream flow and the areas of the Preserve with riparian woodland vegetation. These resources are extremely rare in southern Arizona and are therefore afforded the greatest protection.

The management objects and policies for Management Zone A, as presented herein, will serve as guidelines for the use and protection of the subject area.

Management Zone B:

Management Zone B consists of approximately 905 acres of land, 25 of which are located at the County park site near Colossal Cave Road. The balance of Management Zone B is located south of I-10. The land south of I-10 consists of two parcels, separated by land currently owned the Arizona State Land Department. Cienega Creek within Management Zone B does not exhibit perennial stream flow.

Management Zone B encompasses the headquarters of the former Empirita Ranch. Four residential buildings and six barn type structures have been constructed on the site. Also present are over 100 acres of land previously cleared for agricultural crop production.

3.1 Management Zones (Continued)

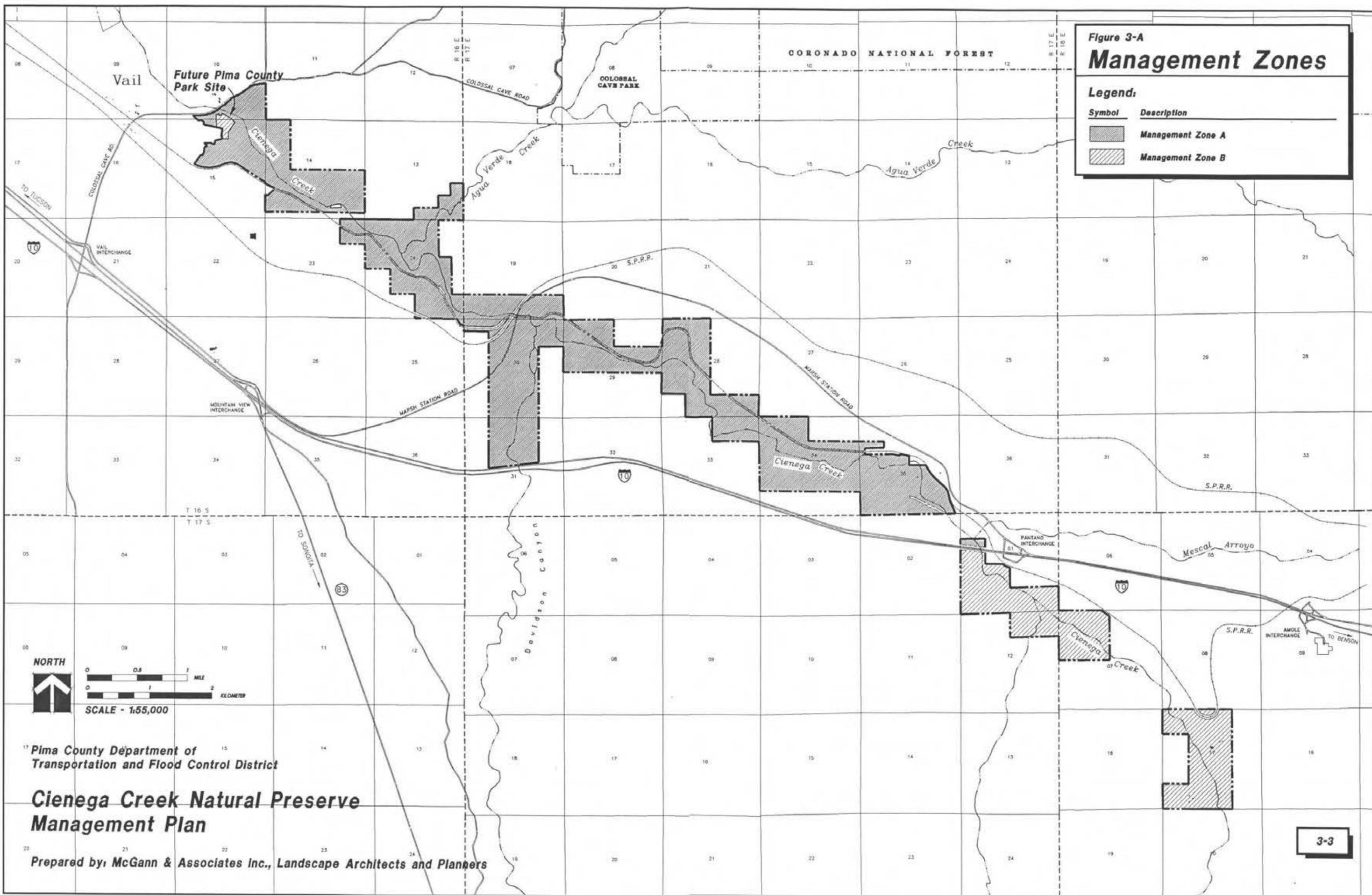
**Management
Zone B (Continued):**

It is anticipated that some of the existing improvements in Management Zone B will be utilized and that additional facilities may be constructed to create an active recreation / camping area in this location. The planning and design of these facilities was not included in the scope of this management Plan project. Further studies and plans for the site will need to be developed as part of a subsequent project or projects.

The objectives and policies for management Zone B, as presented herein, will serve as guidelines for subsequent planning and design of facilities in the subject area. They will also be used in conjunction with the future operation of public use facilities in this location.

**Figure 3-A
Management Zones**

Symbol	Description
	Management Zone A
	Management Zone B



NORTH

 0 0.5 1 MILE
 0 1 2 KILOMETER
 SCALE - 1:55,000

Pima County Department of
 Transportation and Flood Control District

**Cienega Creek Natural Preserve
 Management Plan**

Prepared by McGann & Associates Inc., Landscape Architects and Planners

4.1 Proposed Development

Introduction:

The Cienega Creek Natural Preserve was established as an area where the natural and scenic resource of the site would be preserved and protected. As such, there will be a limited amount of development within the Preserve boundaries, particularly in Management Zone A., where development will be restricted to facilities at designated points of access and trail system.

In Management Zone B, which includes a future County park site and the Empirita Ranch area, development will be more extensive. The Pima County Parks Department intends to construct active recreational facility at the County park location to serve the community of Vail. Also planned for this site are facilities that will allow for access to the proposed River Park, which will extend along the Pantano Wash from Colossal Cave Road to the Rillito River. Within the Empirita Ranch area, a campground with related public use and support facilities may be developed.

Descriptions of these proposed improvements and facilities are provided below. The location of proposed facilities is illustrated in Figure 4-A.

Restrictions Covenants and Conditions:

Development within the preserve will necessarily be guided by the Declaration of Restrictions, Covenants, and Conditions (CC&R's) for the Cienega Creek Natural Preserve. These CC&R's presently apply to a portion of the property within the current boundaries of the Preserve. A copy of the existing CC&R's is included as Appendix A to the document. It is proposed that the CC&R's be amended to apply to all areas of the Preserve within Management Zone Q (See Section 3, management Zones). A proposed draft of the amended CC&R's is included as Appendix B to this document.

Preserve Entries:

At the present time, there are no designated public entries into the Preserve. Without these designated entries, visitors often get to the Preserve by crossing State Trust Land and/or the Southern Pacific railroad right-of-way without authorization. To address this issue, four designated points of access into the Preserve are proposed.

The Three Bridges Entry:

The Three Bridges Entry will consist of a short access drive with gate, a small parking lot, an information kiosk, a trailhead for pedestrian access to the trail system, a small observation area, and appropriate traffic control signs. A conceptual plan for these facilities is illustrated in Figure 4-B.

4.1 Proposed Development (Continued)

Preserve Entries (Continued):

Three Bridges Entry (Continued)

The proposed parking lot will be located on the west side of Marsh Station Road and will accommodate approximately ten (10) automobiles. It will be designed to allow a vehicle towing a horse trailer to pull through without backing up, but will not include vehicle/trailer or RV parking spaces. Equestrian users will be directed to alternate locations for access to the Preserve trail system.

At the rim of the Cienega Creek channel, an observation area will be constructed in association with the parking lot. The limits of this area will be clearly marked as visitors will be allowed to utilize the overlook without a permit. (See Section 6, Public Use). A kiosk with information related to permit requirements and Preserve use regulation will also be installed in this location.

Pedestrian access to the Preserve trail system will also be a part of the Three Bridges entry. Gates will be provided at the trailhead to preclude entry by automobiles, motorcycles, off-highway vehicles, and stray cattle. No utility services are proposed for this area. The Three Bridges entry will be constructed on property currently owned by Pima County Flood Control District. The design of this entry will require coordination with the Southern Pacific Railroad in as much as the railroad has an existing service drive that is adjacent to the proposed overlook location.

Due to the relatively heavy use this area of the Preserve currently receives, the Three Bridges Entry will be given first priority in terms of entry development.

The Colossal Cave Road Entry:

This entry will provide for pedestrian, equestrian, and bicycle access to the Preserve from Colossal Cave Road. Facilities to be developed at this location include; a short access drive, parking spaces for approximately five (5) automobiles and three (3) vehicles with horse trailers, an information kiosk, access control gates, and fencing. A conceptual plan for these facilities is shown in Figure 4-C. No utility services are proposed for this area.

4.1 Proposed Development (Continued)

Preserve Entries (Continued):

Colossal Cave Road Entry (Continued):

To the greatest degree possible, the Colossal Cave Road entry will be designed so that it can be expanded or modified in the future to serve the proposed County park. This entry will be constructed on property owned by Pima County and/or Pima County Flood Control District. The Colossal Cave Road Entry will be given second priority in terms of Preserve entry development.

Mescal Arroyo Entry:

A third entry will be developed along Marsh Station Road near the confluence of Cienega Creek and Mescal Arroyo. Prior to the development of this entry, approximately 40 acres of land will need to be acquired from the State Land Department. (See Section 9, Preserve Boundary).

This entry will include a short access drive with gate and a small parking lot with spaces for approximately five (5) automobiles and three (3) vehicles towing horse trailers. Fencing and gates will be utilized to control off-highway vehicle access to the Creek. An information kiosk will also be provided at this location.

The Mescal Arroyo Entry will provide pedestrian, equestrian, and bicycle access to the Preserve trail system. A crossing underneath an existing bridge will be utilized as an alternative to an at-grade crossing of the Southern Pacific railroad track. A conceptual layout of these facilities is shown in Figure 4-D. No utility services are proposed for the Mescal Arroyo Entry area.

The Mescal Arroyo Entry will be given third priority in terms of Preserve entry development.

Empirita Ranch Entry:

A fourth entry to the Preserve is proposed for the Empirita Ranch area. This entry will provide motorized vehicle access from the I-10 Amole Interchange (MP 292) to the former Empirita Ranch Headquarters area. It will follow the existing access road in this location. The facilities to be developed at the Empirita Ranch would determine the roadway improvements required. Roadway improvements would be implemented concurrent with the construction of recreational facilities at the Empirita Ranch.

4.1 Proposed Development (Continued)

Trails:

A trail system consisting of pedestrian only and multiple-use trails (trails on which pedestrian, bicycle and equestrian use is permitted) will be developed within and adjacent to the Preserve. Trail development will consist of the installation of trail markers, minor pruning or removal of vegetation, and the construction of small erosion control improvements. Trail surfacing or pavement will not be provided.

Trail alignments will utilize existing dirt roads and tracks wherever possible and will be routed to minimize disturbance to the riparian vegetation and habitat. The various segments of these trails is illustrated in Figure 4-A.

Colossal Cave Road to Three Bridges Trail:

This trail will be a multiple-use trail accommodating pedestrian, equestrian, and bicycle use. A portion of this trail will be outside the Preserve boundary. The trail will originate at the colossal Cave Road Entry and extend southeast through the Preserve to the right-of-way for the Tucson Electric Power (TEP) 345 KVA transmission line. It will follow the TEP right-of-way for a distance of approximately 12 miles and then reenter the Preserve in Section 13 (T16S-R1`6E). The trail will proceed east to Agua Verde Creek and then southwest to Cienega Creek. It will follow Cienega Creek to the Three Bridges area. As the trail approaches Marsh Station Road, it will cross the Southern Pacific's right-of-way below the westbound track bridge over Cienega Creek. (See figure 4-A).

A significant portion of this trail follows existing dirt roadways or tracks and as such, the requirement for new construction or the removal of existing vegetation will be limited. It will, however, be necessary to enter into agreements with TEP and Southern Pacific Railroad regarding public use within their respective rights-of-way.

A portion of the Colossal Cave Road to Three Bridges Trail will be part of the Arizona Trail.

Three Bridges to Mescal Arroyo Trail:

The Three Bridges to Mescal Arroyo Trail will be a multiple-use trail. Portions of the trail will follow an old road scar between the Preserve boundary and Marsh Station road and will cross the Southern Pacific Railroad at an existing culvert in Section 35 (T16S-R17E). See Figure 4-A. The trail will pass through State Trust Land and a small parcel of privately owned land. This trail

4.1 Proposed Development (Continued)

Trails (Continued):

will accommodate the equestrian and mountain bicycle traffic that will be prohibited from using the Cienega Creek Trail. The Three Bridges to Mescal Arroyo Trail will be a segment of the Arizona Trail.

Mescal Arroyo to Empirita Ranch Trail:

This trail will be a multiple-use trail and will extend along Cienega Creek from the Mescal Arroyo Entry to the proposed facilities at the former Empirita Ranch headquarters. (See Figure 4-A). The trail will follow the Creek to a point south of I-10 and then utilize an existing dirt road that parallels the Creek and extends to the form Empirita Ranch headquarters.

The trail will pass through portions of the Preserve, State Trust "Land, and the ADOT right-of-way below the I-10 bridges over Cienega Creek. The Mescal Arroyo to Empirita Ranch Trail will be a segment of the Arizona Trail.

The Cienega Creek Trail:

This restricted use trail will extend along Cienega Creek from the vicinity of the Del Lago Water Company in-holding to the Mescal Arroyo entry. (See Figure 4-A). The trail will be for pedestrians only due to the sensitive natural resources that exist in this area. No physical development is proposed, the trail will simply follow the creek channel.

With the exception of short reaches, where the creek channel extends outside the boundaries of the Preserve (See Section 9, The Preserve Boundary), the Cienega Creek Trail will be developed on property owned by Pima County Flood Control District.

Davidson Canyon Trail:

The Davidson Canyon Trail will extend from the Three Bridges to Mescal Arroyo Trail to the Preserve Boundary at the I-10 right-of-way. It will follow the Davidson Canyon channel except for a short segment north of Cienega Creek. It will cross the Southern Pacific Railroad's eastbound track at an existing culvert in Section 19 (T16S-R17E). See Figure 4-A. The Davidson Canyon Trail will be a multiple-use trail. It will be constructed on Pima County property except for a short segment north of Cienega Creek which passes through State Trust Land and crosses the Southern Pacific Railroad right-of-way.

4.1 Proposed Development (Continued)

Trails (Continued):

Davidson Canyon Trail (Continued):

The development of this trail will be given low priority until such time as provisions are made for the continuation of this trail through the private property located south of I-10.

The Arizona Trail:

It has been proposed that a segment of the Arizona Trail, which will extend through the state from the Arizona-Mexico to Arizona-Utah borders when completed, pass through the Preserve. This trail will accommodate equestrian, bicycle, and pedestrian use.

The Arizona Trail may incorporate portions of the trail described above. (See Figure 4-A). As currently proposed, the trail will enter the Preserve at Agua Verde Creek and follow the Agua Verde to the Colossal Cave Road to Three Bridges Trail. It will follow the Colossal Cave Road to Three Bridges Trail to a point near Marsh Station Road. It will then follow the Three Bridges to Mescal Arroyo and the Mescal Arroyo to Empirita Ranch Trails. South of the Empirita Ranch it will continue through the Bureau of Land Management's Empire-Cienega Resource Conservation Area.

Trails through State Trust Land:

The development of the Arizona Trail through this area is contingent upon the acquisition of a Special Land Use Permit (SLUP) for the construction of the trail across State Trust Land. Alternatively, the necessary State Trust Land could be purchased by Pima County or some other public agency.

Relationship to the Eastern Pima County Trail System Master Plan:

The trail system proposed herein is consistent with the trail system for this region as describe in the Eastern Pima County Trail System Master Plan. Some new use restrictions are proposed, but none of the trails proposed by the Master Plan have been deleted. The Preserve trail system may provide opportunities for future linkages to other trails identified in the Easter Pima County Trails Master Plan. It is recommended that these other adjacent, connecting trails be minimally developed and that signs be posted at the Preserve boundary indicating permit requirements and use restrictions with the Preserve.

Empirita Ranch Facilities:

The Empirita Ranch Area may be developed to provide a recreation area with an associated campground. The area will be developed to retain the character of the former ranch. An equestrian staging area will also be developed in this location. All development will be implemented in a manner that does not diminish or threaten the resources associated with the Cienega Creek riparian corridor. Additionally, future recreational developments shall not require intensive water use.

4.1 Proposed Development (Continued)

Empirita Ranch Facilities (Continued):

An improved access road from the I-10 Amole Interchange may be a part of the Empirita Ranch area development. This road could also serve as a secondary access road to the Bureau of Land Management's Empire-Cienega Resource Conservation Area located south of the Preserve. Future development will include control or closure of motorized access to the other portions of the existing roadways within the Empirita Ranch area.

The improved access road would be constructed within an existing easement that has been granted to the Pima County Flood Control District. Reassignment of this easement from the Flood Control District to Pima County should be considered so that the access road can be operated and maintained as a public County highway.

The design of all improvements will need to be coordinated with the Water Facilities Master Plan for the Empirita Ranch area. This Water Facilities Master Plan is part of an agreement between Pima County Flood Control District and the Empirita Ranch Limited Partnership. The agreement allows the partnership to construct and operated up to 16 wells within the Empirita Ranch area.

Flood related hazards posed by Cienega Creek and Anderson Wash will be evaluated in the development planning phase. Proper disposal of trash and debris, removal of unnecessary fences, and possible demolition of some structures will also be studied.

Upon completion of new facility construction in the Empirita Ranch area, the flood Control district and Pima County will conduct land exchange to transfer ownership of the developed area and portions of access roadway to Pima County.

A conceptual land use sketch for this area is provided as Figure 4-E. Detailed land use and facility planning will be conducted as part of a project that follows this Management Plan.

Other Improvements:

Information Kiosks:

Information kiosks will be constructed at several locations within the Preserve. These kiosks will be constructed of durable materials and will include replaceable panels with information regarding permit requirements, use restrictions, and the trail system within the Preserve. Interpretive panels should also be developed and installed at kiosk locations.

4.2 Implementation Plan

Introduction:

Provided below is a summary of design and construction projects and other actions that will be necessary for the development of the facilities identified in Section 4.1, Proposed Development. Also included in the summary is a notation regarding the party or department that will be responsible for coordination of the project.

Project	Coordinating Party
1. Finalize IGA between Flood control District and Parks and Rec. Department	DOT & FCD and Parks and Recreation Dept.
2. Design and Construct Three Bridges Entry (C)	DOT & FCD
3. Design and Construct Colossal Cave Road Entry (C)	DOT & FCD
4. Obtain Easement(s) for Colossal Cave Rd. to Three Bridges Tail (S)	Real Property Division DOT
5. Mark / Construct Colossal Cave Rd. to Three Bridges Trail (S) ***	DOT & FCD
6. Acquire Land for Mescal Arroyo Entry (S)	Real Property Division DOT
7. Design and Construct Mescal Arroyo Entry (C)	DOT & FCD
8. Mark / Construct three Bridges to Mescal Arroyo Trail (S) ***	DOT & FCD
9. Mark / Construct Mescal Arroyo to Empirita Ranch Trail (S) ***	DOT & FCD
10. Prepare Plans for Renovation of Empirita Ranch Residential Bldg. (C)	Facilities Management Dept.
11. Renovate Empirita Ranch Bldg. as Preserve Manager's Residence (C)	Facilities Management Dept.
12. Prepare Master Plan for Public Use Facilities at Empirita Ranch (C)	Parks and Recreation Dept.
13. Prepare Improvement Plans for Empirita Ranch Public Use Facilities (C)	Parks and Recreation Dept.
14. Construct Empirita Ranch Public Use Facilities (C)	Parks and Recreation Dept.
15. Design and Construct County Park at Colossal Cave Road (C)	Parks and Recreation Dept.

(C) Project or task implemented by Design Consultant or Construction Contractor

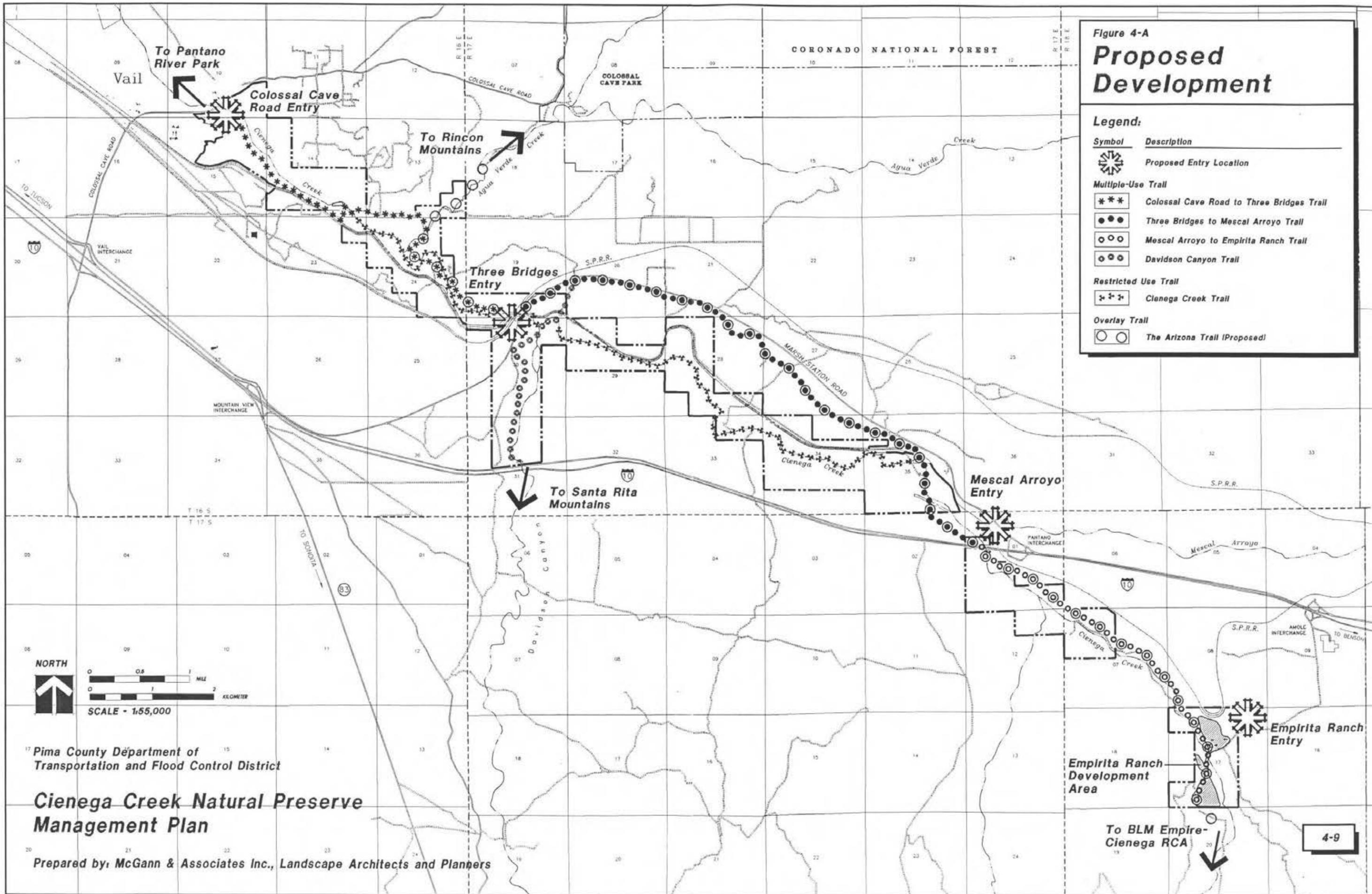
(S) Project or task implemented by Pima Co. staff with volunteer help as appropriate

*** Subject to ASLD issuance of Special Land Use Permit for Arizona Trail

Figure 4-A
Proposed Development

Legend:

Symbol	Description
	Proposed Entry Location
Multiple-Use Trail	
	Colossal Cave Road to Three Bridges Trail
	Three Bridges to Mescal Arroyo Trail
	Mescal Arroyo to Empirita Ranch Trail
	Davidson Canyon Trail
Restricted Use Trail	
	Cienega Creek Trail
Overlay Trail	
	The Arizona Trail (Proposed)



NORTH

 0 0.5 1 2
 0 1 2
 MILE
 KILOMETER
 SCALE - 1:55,000

17 Pima County Department of
 Transportation and Flood Control District

**Cienega Creek Natural Preserve
 Management Plan**

20 Prepared by: McGann & Associates Inc., Landscape Architects and Planners

Figure 4-B
Three Bridges Entry Conceptual Plan

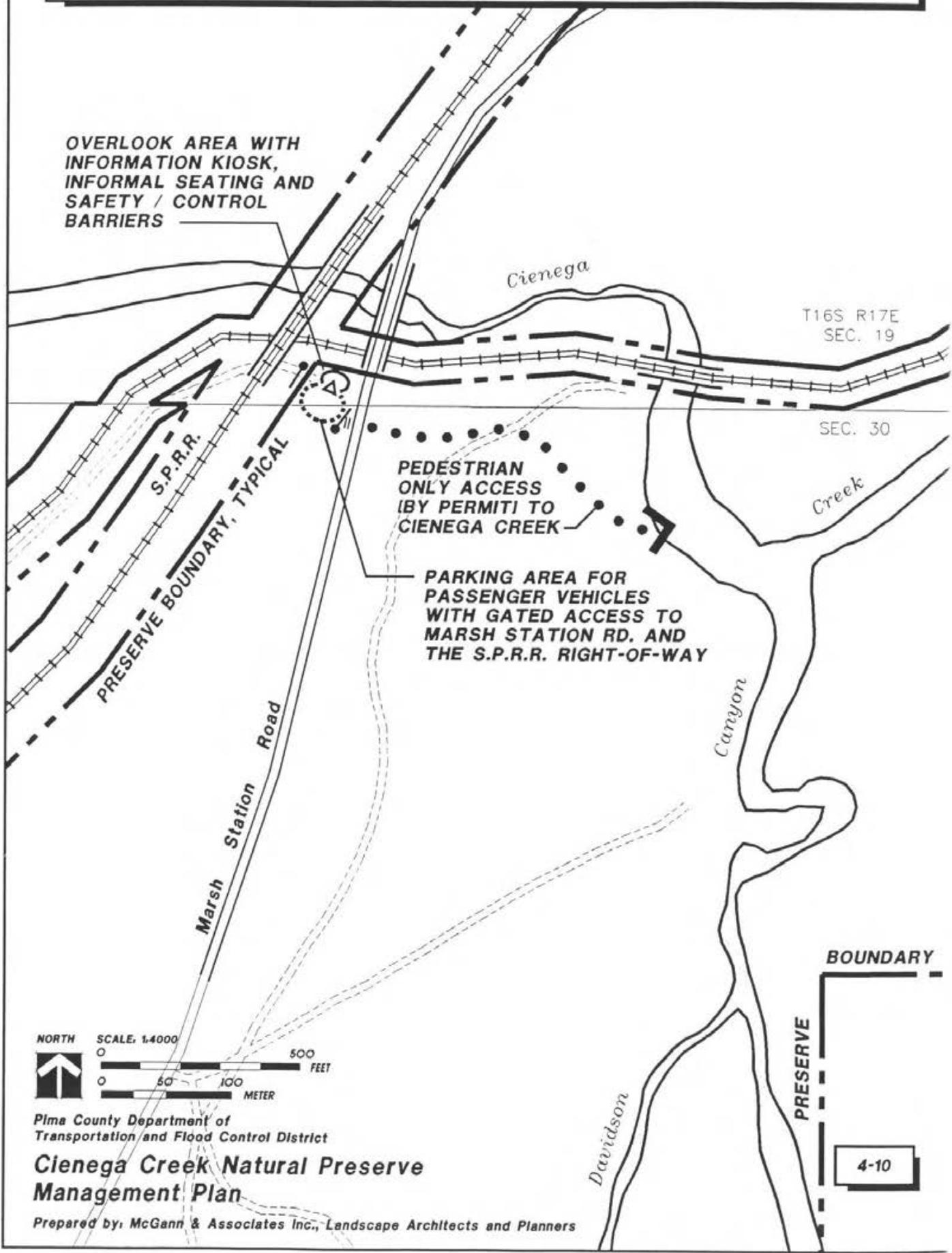
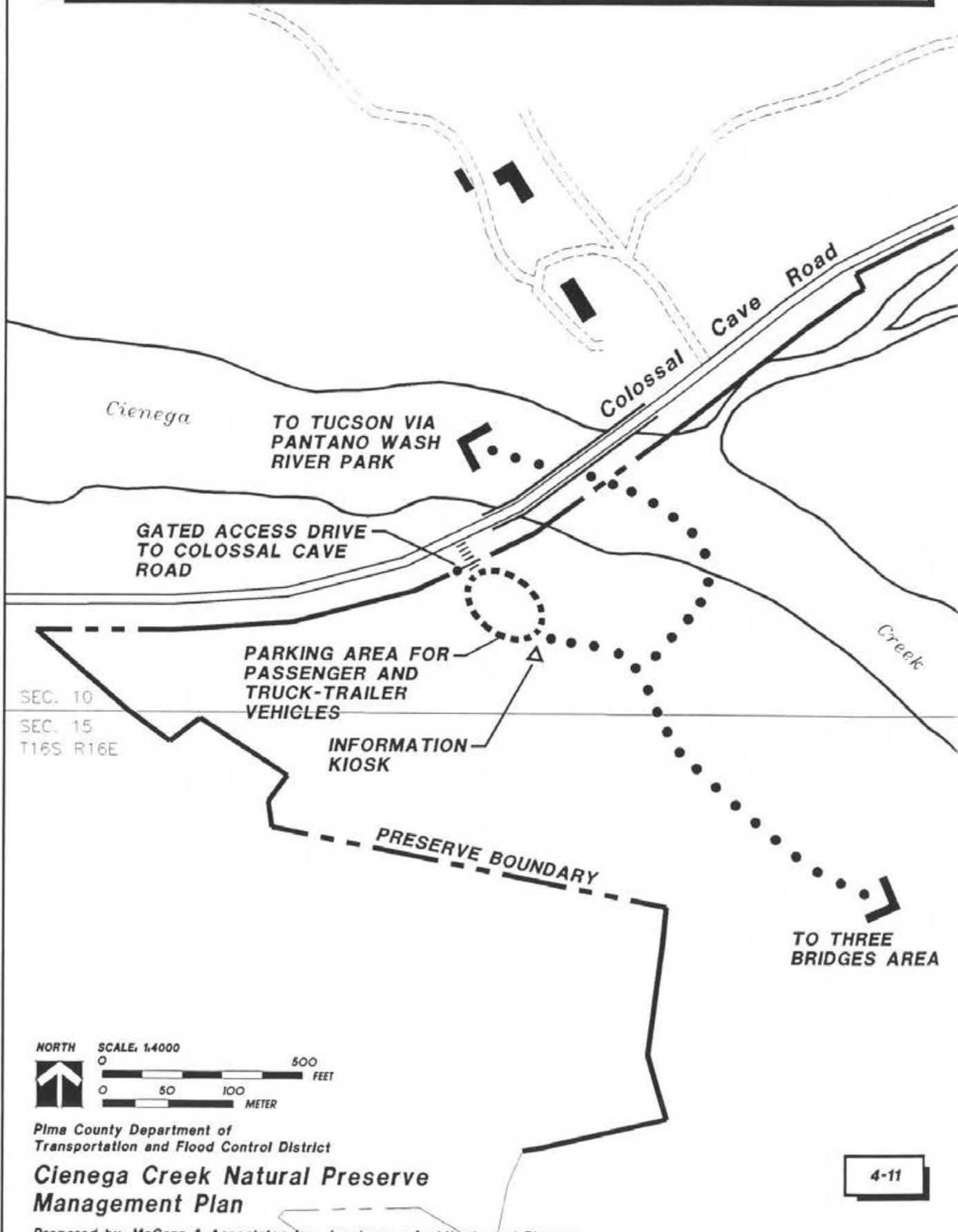


Figure 4-C

Colossal Cave Road Entry Conceptual Plan



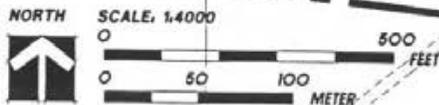
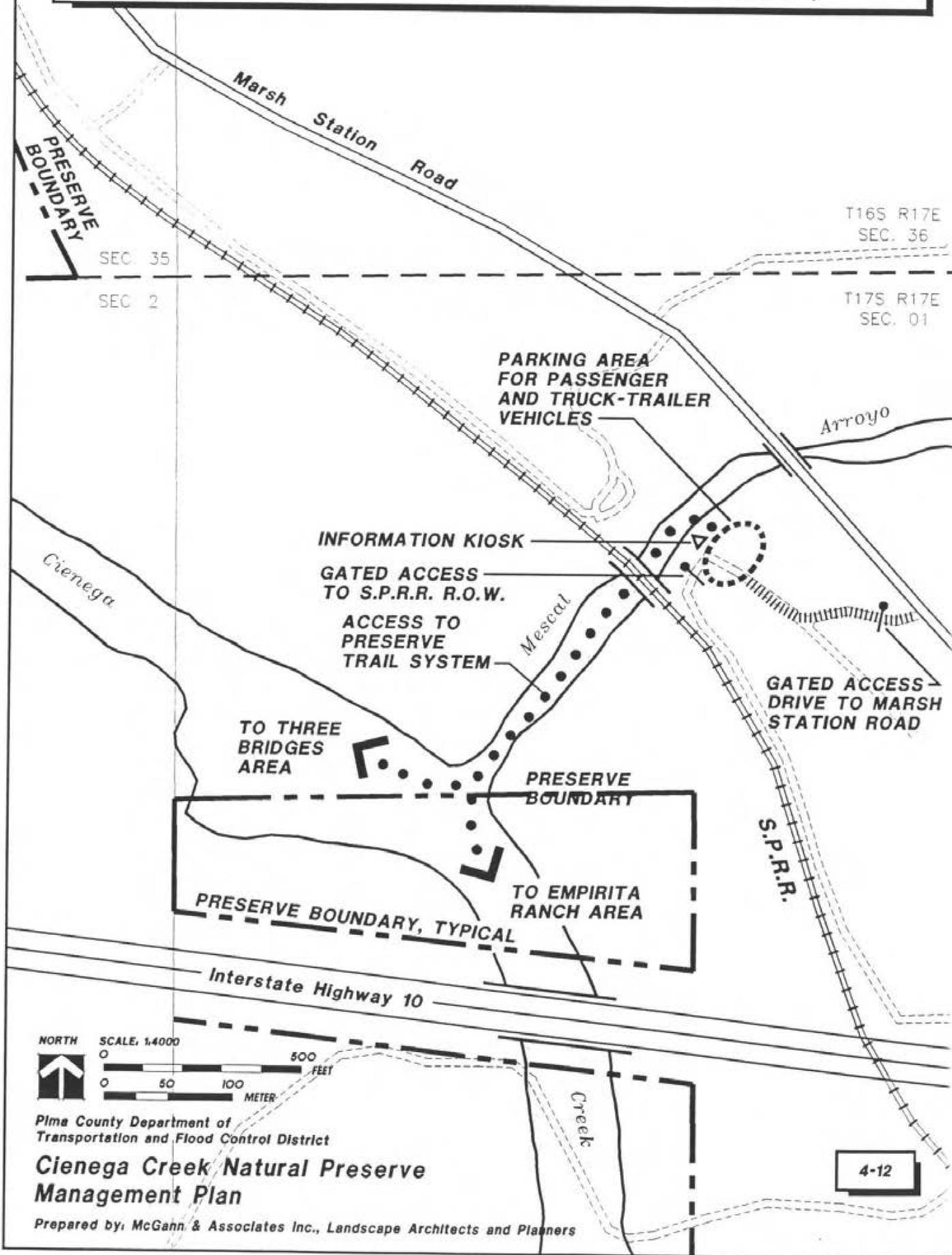
NORTH
SCALE: 1:4000
500 FEET
50 100 METER

Plma County Department of
Transportation and Flood Control District
**Cienega Creek Natural Preserve
Management Plan**

Prepared by: McGann & Associates Inc., Landscape Architects and Planners

Figure 4-D

Mescal Arroyo Entry Conceptual Plan

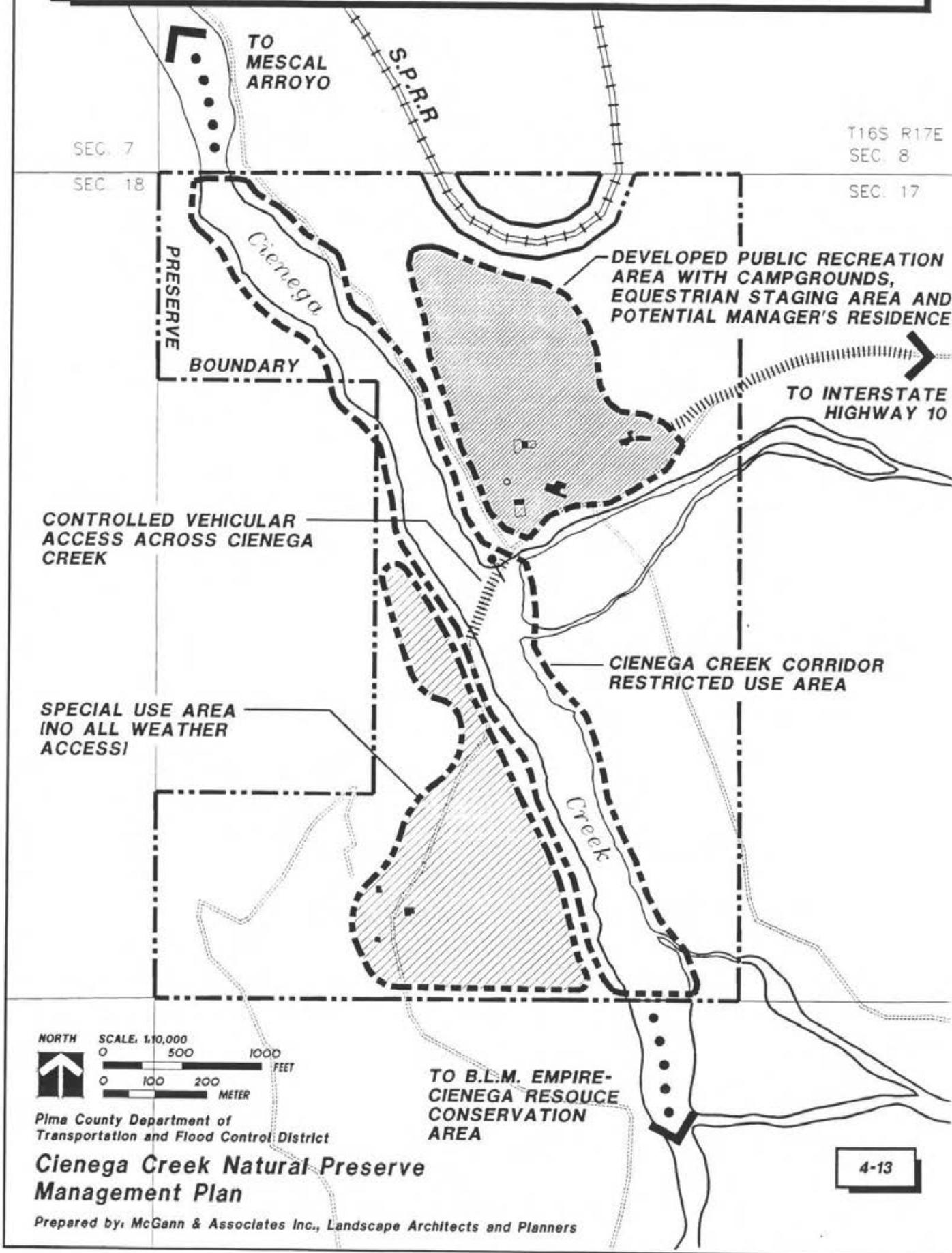


Plma County Department of
Transportation and Flood Control District
**Cienega Creek Natural Preserve
Management Plan**

Prepared by: McGann & Associates Inc., Landscape Architects and Planners

Figure 4-E

Empirita Ranch Facilities Conceptual Plan



NORTH
SCALE: 1:10,000
0 500 1000 FEET
0 100 200 METER

Plima County Department of Transportation and Flood Control District

Cienega Creek Natural Preserve Management Plan

Prepared by: McGann & Associates Inc., Landscape Architects and Planners

5.1 Administration and Staffing

Ownership and Jurisdiction:

The Cienega Creek Natural Preserve shall remain under the ownership and jurisdiction of the Pima County Flood Control District. The Pima County Parks and Recreation Department will coordinate all day-to-day management activities. The County's activities will be coordinated with other State and Federal resource management agencies with a presence in the region.

Responsibility of Pima County Departments:

To provide appropriate and cost effective management of the Cienega Creek Natural Preserve, the site will be designated as a unit of the Pima County Park system. The Pima County Flood Control District will delegate to the Pima County Parks and Recreation Department the authority and responsibility for its management through an Intergovernmental Agreement (IGA) and the annual budget process.

Specific responsibilities of the Parks and Recreation Department include:

- Administration of the public use (permit) system.
- Provision of ranger patrols.
- Installation and maintenance of perimeter fencing.
- Maintenance of the Preserve trail system and signs.
- Coordination with caretakers and monitoring of caretaker agreement compliance
- Coordination of fire management and emergency response activities.
- Coordination with the Flood control District, the Real Property Division, the Sherriff's Department, the Arizona Game and Fish Department, grazing permittees, utility companies and other parties as required to protect natural, cultural, and physical resources.
- Preparation of quarterly report to the Flood control District summarizing: the number of hours patrolled, the number and type of permits and citations issued, budget status, and information related to other management issues and activities.
- Semi-annual meeting with Flood control District and Property Management Department staff to review management issues.

5.1 Administration and Staffing (Continued)

Responsibility of Pima County Departments (Continued):

- Coordination of planning activities and the provision of funding for the development and operation of the proposed County Park and the proposed public use facilities at the Empirita Ranch.

Specific responsibilities of the Flood Control District include:

- Oversight of water resource management programs
- Provision of funding for resource protection activities in Management Zone A
- Provision of funding for resource management activities in Management Zone B until such time as the District Park and Empirita Ranch Facilities are developed.
- Coordination of Preserve entry and trail development projects.

Other Pima County Departments and Divisions will also assist the Park and Recreation Department and the Flood Control District on an as-needed basis.

Staffing:

It is recommended that staffing at the Cienega Creek Natural Preserve ultimately consist of a Preserve Manager with support staff to be added if and when needed. The Preserve Manager shall have educational and/or work experience in natural resource management. The Preserve Manager shall also have, or shall undergo after hiring, law enforcement training. The Preserve Manager would replace the currently-funded ranger position.

The Preserve Manager could be funded by either the Flood control district or the Park and Recreation Department. If funded by the Parks Department, the Preserve Manager would report to the Parks Superintendent of Natural Resources and the position would be supported and implemented with the development of the Empirita Ranch headquarters. If funded by the district, the Preserve Manager would report to the Chief Hydrologist and could be hired independently of the proposed Empirita Ranch development.

To facilitate on-site resource management and law enforcement it is recommended that the Preserve Manager reside on or near the site. An existing residential structure at the former Empirita Ranch headquarters could be used for this purpose. Renovation of the structure would be required prior to occupancy.

5.1 Administration and Staffing (Continued)

Responsibilities of the Preserve Manager:

The Preserve Manager would be responsible for:

- Overall coordination of programs and activities at the Preserve.
- Enforcement of Preserve regulations and general law enforcement on the site subject to limitations as defined by applicable statutes
- Assisting the Parks Department with the review of requests and the issuance of permits for general recreational use and permits for special uses and activities.
- Coordination of resource monitoring and enhancement programs including but not limited to; water well monitoring, water quality sampling and testing, and the monitoring of vegetative changes.
- Coordination of volunteer and research programs.
- Coordination of public use facility operation and maintenance within Management Zone B, the Empirita Ranch area and the proposed County Park if the Preserve Manager is funded by the Parks Department.
- Other activities and programs as may be identified by the Parks Department or the Flood Control District.

Caretakers:

Caretakers are individuals who are allowed to reside on (and in some cases use) the site in return for the performance of various monitoring and maintenance tasks. The Flood Control District currently has two caretaker agreements related to Cienega Creek Natural Preserve. Since the establishment of the Preserve, the use of caretakers has been a cost effective way to assist in the protection of the site. As such, the caretaker system will be retained for the foreseeable future.

The caretaker agreement between Pima County and the caretaker currently residing in Section 35 (T16S-R17E) was recently renewed and runs through January 1999. The continued need for a caretaker in this location, and the provisions of the agreement should be reviewed by the Flood Control District and the Parks Department prior to subsequent renewals. Ultimately, this caretaker site should be discontinued in favor of another site with better access.

5.1 Administration and Staffing (Continued)

Caretakers (Continued):

The current caretaker agreement between the Flood Control District and the private company currently utilizing the Empirita Ranch area in conjunction with a ranching operation runs through 1998. It is unlikely that the construction of proposed recreational improvements will begin before that date and as such it is not anticipated that Pima County will need to exercise the agreement's termination clause.

The renewal of this caretaker agreement and the term and conditions of the renewal should be predicated on the timing and nature of facilities to be developed on the Empirita Ranch site. A phased reduction in the extent of the property utilized by the caretaker should also be considered.

The current caretaker agreement related to the Empirita Ranch area allows the Flood Control District to impose restrictions related to grazing within the riparian areas. An annual review of the resources in this location should be conducted and, if necessary, appropriate restrictions applied.

Volunteer Programs:

Pima County has previously received offers by individuals and groups who want to volunteer their time and efforts to perform various activities and services related to the Preserve. Volunteer work, coordinated by the Parks Department, will be utilized to the extent that such services are beneficial to the operation and management of the Preserve.

Planned Actions:

The following actions related to the administration and staffing of the Preserve are planned.

- The formal transfer of specified management responsibilities from the Pima County Flood Control District to the Pima County Parks and Recreation Department via an Intergovernmental Agreement.
- Budgeting and employment of a Preserve Manager.
- On-going coordination with caretakers and review of caretaker agreements at time of renewal.
- Initiation and on-going coordination of volunteer programs.

6.1 Public Use

Management Objectives:

The Cienega Creek Natural Preserve will be managed with the objective of accommodating public use to the degree that such use will not result in degradation of the natural and scenic resources of the site.

Restrictions on Type and Level of Public Use:

The types and levels of public use permitted within the Preserve shall be subject to the restrictions outlined herein. These restrictions serve several purposes, including:

- The protection of natural and scenic resources as prescribed by the adopted Declaration of Restrictions, Covenants, and conditions for the Cienega Creek Natural Preserve.
- The protection of public (visitor) welfare and safety relative to natural hazards such as flooding.
- A reduction in the need for capital improvements such as access road, toilet buildings, and supporting utility lines.
- A reduction in the need for on-going maintenance services such as trash collection and removal.
- A reduction in the potential for conflicts between incompatible uses.
- The maintenance of on-site conditions that will allow the public to enjoy the outdoor experience not available in other Pima County Parks and natural areas.

6.2 Public Use – Management Zone A

Management Zone A Policies:

The following policies shall apply to public use within Management Zone A.

- All visitors will be required to obtain a permit from the Pima County Parks and Recreation Department before entering the Preserve except that use of the proposed overlook area located at the Three Bridges Entry will be excluded from this requirement. (See Section 6.4 of this document for information related to the proposed permit system).
- Permits will be issued to individuals and to groups of up to four persons. Permits for larger groups involved in educational programs or other approved activities may be issued at the discretion of the Parks Superintendent of Natural Resources.
- Except as approved by the parks Superintendent of Natural Resources, permits will be issued to no more than 50 persons for access to the Preserve on a single day.
- The maximum number of permits issued for a single day may be reduced by the Parks Superintendent of Natural Resources if deemed necessary to protect the natural and scenic resources of the site or to protect the welfare of the public.
- All or portions of the Preserve may be temporarily closed to public use by the Parks Superintendent of Natural Resources if deemed necessary to protect natural resources of the site or protect the welfare of the public.

Activities Permitted within Management Zone A:

The following activities will be allowed within Management Zone A subject to all applicable rules and regulations.

- Hiking, wading, backpacking, picnicking, and related activities.
- Railroad train watching and photography or painting.
- Non-intrusive bird and wildlife observation and photography or painting.
- Wading in pools and stream.
- Other non-consumptive recreational or education activities.
- Scientific research subject to the requirements listed herein.

6.2 Public Use – Management Zone A (Continued)

Activities Restricted within Management Zone A:

The following activities shall be restricted within Management Zone A:

- Horseback riding and mountain bicycle operation by the public which shall be restricted to designated equestrian and bicycle trails. (Until such trails are developed, equestrian and bicycle use will be restricted to areas identified by the Parks Superintendent of Natural Resources).
- Horseback riding by Pima County personnel or caretakers which shall be limited to that required for monitoring or administrative activities or as approved by the Superintendent of Natural Resources.
- The filming of movies, videos, or television shows which shall be subject to the restrictions established by the Parks Superintendent of Natural Resources on a case-by-case basis.
- Hunting, fishing, trapping, and the discharge of a firearm which shall be subject to the rules and regulations published annually by the Arizona Game and Fish Department.
- The installation of new utility lines shall be subject to the provisions of the Restrictions, Covenants, and conditions applicable to the Preserve site.

Activities Prohibited within Management Zone A:

The following activities are expressly prohibited within Management Zone A:

- The use of motorized vehicles, except as may be required for emergency or administrative purposes and approved by the Parks Superintendent of Natural Resources.
- Livestock grazing.
- Overnight camping or other overnight activities.
- The starting of campfires, cooking fires, fires for any other purpose.
- The harvesting of fuelwood.
- The destruction, disturbance, harvesting, or removal of plants, seeds, or plant parts except as may be authorized by the Parks Superintendent of Natural Resources.
- The destruction, disturbance, or removal of cultural resources, except as may be authorized by the Parks Superintendent of Natural Resources and appropriate state authorities.

6.2 Public Use – Management Zone A (Continued)

Activities Prohibited Within Management Zone A (Continued):

- The mining of minerals, the quarrying of aggregate materials, or the placement of fill soils or debris.
- The discharge or storage of waste materials, hazardous materials, or any other materials that might result in the degradation of the natural and scenic resource of the Preserve.
- The construction of buildings, structures, fences, or any other site improvement except as may be authorized by the Parks Superintendent of Natural Resources.
- The carrying out of trade or commercial activities except as approved by the Parks Superintendent of Natural Resources.
- Any other activity identified by the Parks Superintendent of Natural Resources as detrimental to the natural and scenic resources of the Preserve. Such additional use restrictions shall be posted or published to inform the public of their existence.

Planned Actions:

The following actions related to public use of Management Zone A are planned.

- Amendment of the declaration of Restrictions, Covenants, and Conditions to make the provisions applicable to all areas within Management Zone A including future acquisitions but excluding the proposed Preserve entrances.
- The implementation of a permit system as described in Section 6.4 of this document.
- The posting of notices at Preserve entries and at other appropriate locations to inform public of access permit requirements and Preserve use regulations.
- The monitoring of public use and the enforcement of regulations including the prosecution of violators as appropriate.
- Periodic review of the impact of public uses on the natural and scenic resources of the Preserve and the development and adoption of amendments to this Management Plan as appropriate.
- The submittal of a petition to the Arizona Game and Fish Department (AGFD) requesting that the Department's management unit boundaries be revised to consolidate all areas of the Preserve within a single AGFD management unit.

6.3 Public Use – Management Zone B

Management Zone B Policies:

The following policies shall apply to public use within Management Zone B.

- A permit will be required for access to Management Zone B until such time as the area is developed for the types of public uses described in Section 4 of this document. Thereafter, public access will be controlled, but a permit will not be required.
- Specific public uses and activities allowed on the site shall be as defined by master plans for the Empirita Ranch Area of the Cienega Creek Natural Preserve and the proposed County Park near colossal Cave Road, the preparation of which shall be coordinated the Pima County Parks and Recreation Department. These mater plans shall restrict public uses to those activities that will not be detrimental to the natural and scenic resources of the Preserve.

Activities Permitted within Management Zone B:

The following activities will be allowed within Management Zone B subject to all applicable rules and regulations.

- All activities permitted within Management zone A pus those activities that are subsequently identified in the Master Plan for the Empirita Ranch Area of the Cienega Creek Natural Preserve and the Master Plan for the proposed County Park.

Activities Restricted within Management Zone B:

The following activities shall be restricted within Management Zone B:

- All activities restricted in Management Zone A except as may be amended by the Master Plan for the Empirita Ranch Area of the Cienega Creek Natural Preserve and the Master Plan for the proposed County Park.

Activities Prohibited within Management Zone B:

The following activities are expressly prohibited within Management Zone B:

- All activities prohibited in Management Zone A except as may be amended by the Master Plan for the Empirita Ranch Area of the Cienega Creek Natural Preserve and the Master Plan for the proposed County Park.

6.3 Public Use – Management Zone B (Continued)

Planned Actions:

The following actions related to the public use of Management Zone B are planned:

- Periodic review of the impact of public uses on the natural and scenic resources of the Preserve and the development and adoption of amendments to this Management Plan as appropriate.
- The preparation of a Master Plan for the development and use of the Empirita Ranch Area of the Cienega Creek Natural Preserve.
- The preparation of a Master Plan for the development and use of the proposed County Park.

6.4 Permit System

Purpose of the Permit System:

The permit system will serve four functions:

- It will serve as a mechanism to monitor and control the number of individuals using the site so that use levels do not degrade the resource.
- It will provide the parks and Recreation Department with advance notice of large or unusual activities that may warrant monitoring or supervision.
- It will serve to assist in the enforcement of Preserve use regulations.
- It will provide an opportunity to convey safety and resource protection information to visitors.

Description of the Permit System:

The permit system to be utilized at the Preserve will allow for the issuance of three types of permits. These permits are as follows:

- **Day Use Permits** issued to individuals and small groups that allow for access into the Preserve for recreational and educational activities. Day Use Permits will be valid for a single entry only during a specified 1 to 7 day period.
- **Special Use Permits** issued to organizations, groups, or individuals for activities such as trail rides, film making, or research. Special Use Permits will be valid for a specified period of time only. Conditions may be attached to each Special Use Permit.
- **Multiple Entry Permits** issued to individuals such as utility company personnel who must enter the Preserve to inspect utility lines. Multiple Entry Permits will be valid for a period not exceeding one year. Multiple entry permit holders will be required to periodically report their activities to the Preserve Manager.

All three type of permits will require that the holder comply with all of the rules and regulations that have been established for the Preserve.

Issuance of Permits:

Permits will be issued on a first-come – first served basis. The Parks Department will receive requests for permits by telephone, fax, or letter. Permits will be issued and held for pick-up, mailed, or transmitted via fax. The faxing of permits designated government offices located throughout Pima County for convenient pick-up by the requesting party will also be utilized when appropriate. Flash flood notices will be included on permits issued during late June through September.

6.4 Permit System (Continued)

Issuance of Permits (Continued):

If necessary, a permit system such as establishing a restriction on the number of permits an individual may obtain over a specified period of time may be implemented to ensure equal access to the Preserve by all of the citizens of Pima County.

Access to Existing Utility Easements:

It is recognized that existing utility easements within the boundaries of the Preserve may allow for unrestricted access to the property described in these easements by utility company personnel. In such instances, permits will not be required of utility company personnel for access to the subject properties. Voluntary compliance with the access permit requirement will, however, be requested by Pima County.

6.5 Use of Preserve for Utility Lines

Introduction:

There are ten utility companies that have existing facilities within or adjacent to the Cienega Creek Natural Preserve. Included are; overhead electrical lines, buried communication cables, water lines, and gas and petroleum product pipelines. Many of these utility lines follow the Interstate Highway 10 corridor. Requests for the installation of new, upgraded, or replacement utility lines along this corridor are anticipated.

Policies:

The following policies related to utility lines and related facilities apply to all areas of the Preserve.

- All utility lines and utility line access roads within the Preserve shall be within recorded easements.
- Written access agreements shall be developed by the Real Property Division of the Pima County Department of Transportation and each of the utility companies with facilities located outside the Preserve.
- If determined necessary by the Parks Superintendent of Natural Resources, access agreements will require that the respective utility company develop and submit an emergency response plan related to potential failure of their facilities within the Preserve.
- Requests for new utility line installations within the Preserve shall be reviewed on a case-by-case basis by the Parks Superintendent of Natural Resources and the Flood Control District. If approved, work shall be implemented in accordance with the declaration of Restrictions, Covenants, and Conditions.

Planned Actions:

The following actions related to utility line installations within the Preserve are planned.

- The drafting and recording of easements and the development of access agreements between Pima County Flood Control District and individual utility companies in all cases where such easements and agreements do not currently exist.
- The review of all applications for the installation of new or replacement utility lines within the Preserve to be followed by written notice or approval with conditions or rejection.
- The monitoring of new or replacement utility line construction to determine compliance with conditions of approval.

6.6 Use of Preserve for Scientific Research

Introduction:

The resources of the Cienega Creek Natural Preserve create numerous opportunities for scientific research. In as much as research can add to what is currently known about the Preserve and potentially result in new information relevant in management, scientific research will be encouraged. Research will, however, be subject to the following policies and procedures listed below.

Policies Related to Scientific Research:

The following policies shall apply to all scientific research conducted at the Preserve.

- Appropriate scientific research by qualified individuals or organizations related to the biophysical and cultural resources of the Preserve will be encouraged.
- Cooperative agreements between the Pima County Flood Control District and research institutions such as the University of Arizona will be encouraged to the extent that they result in on-going research related to the biophysical and cultural resources of the site.
- Research that involves the destruction of resources or other negative environmental impacts, as determined by the Parks Superintendent of Natural Resources, shall be prohibited.
- All research programs and activities shall be reviewed, in advance, by the Parks Superintendent of Natural Resources and the Flood Control District, and approved by the District.
- All research activities shall comply with the public use regulations identified herein including, but not limited to prohibitions related to: motorized vehicle use, camping, construction of structures, removal of plants, and the discharge of hazardous waste materials.
- Information generated by research conducted at the Preserve shall be made available to Pima County for its use related to the on-going management of the Preserve.

Procedures Related To Scientific Research:

A research proposal letter shall be submitted to the Parks Superintendent of the Natural Resources and approved prior to the commencement of any research project. The research proposal shall, at a minimum, identify the following.

- The name of the organization or individual responsible for the proposed research activities and funding agency, if applicable.
- The purpose of the research with supporting information related to why the Preserve is an appropriate location for the proposed study.

6.6 Use of Preserve for Scientific Research (Continued)

Procedures Related To Scientific Research (Continued)

- The identification of proposed research activities, number of individuals to be involved, and equipment to be utilized or temporarily installed.
- Dates when on-site research activities will occur.
- A statement acknowledging all applicable restrictions related to use of the Preserve.

If the proposal is found to have scientific merit and if it is determined that the Preserve is an appropriate location for its implementation, a Special Use Permit will be issued to the applicant. Conditions, as deemed appropriate by the Parks Superintendent of Natural Resources or the Flood Control District, may be attached to the Special Use Permit.

A final report or summary of findings from the research project shall be submitted to the Pima County Flood Control District for its information and files.

7.1 Water Resources

Management Objectives:

The Cienega Creek Natural Preserve will be managed with the objective of maintaining or enhancing the existing conditions on the Preserve site related to: perennial stream flow, groundwater levels, surface water quality, and groundwater quality.

Policies:

The following policies shall apply to all areas of the Preserve.

- No use or activity shall be conducted within the Preserve that will materially diminish the quality of the ground water or surface water within the Preserve.
- The pumping of ground water to support public use facilities proposed for management Zone B shall be limited to rates that will not have a negative influence on surface water flows or groundwater levels within the Preserve.

Planned Actions:

The following actions related to management of water resources with the Preserve are planned.

- Continued monitoring at the Empirita Ranch by Errol Montgomery and Associates consisting of annual data summaries as described in the 1993 "Hydrology Monitoring Program".
- Continued surface water quality monitoring at Marsh Station Road by the Arizona Department of Environmental Quality (ADEQ) during May, August, November, and February. (Sampling to be conducted in May and November if ADEQ reduces its sampling schedule to twice yearly).
- Continued flow monitoring at the Pantano Wash near Vile gage (00948450) by the U.S. Geological Survey.
- Continued operation of the flow warning system stream gages and precipitation gages at; Pantano Wash near Vail (4250), Cienega Creek at I-10 (4280), and Davidson Canyon near I-10 (4310).
- Measurement of water levels on a monthly basis at wells: 16-17-33abb, 16-17-35caa, 16-17-35dbc, and 16-16-14ddc and observation of stream flow in Section 35 (T16S-R17E).
- The maintenance and protection of existing water rights by active participation in the adjudication process and by defense of existing claims and certificates to surface waters and subflows.

7.1 Water Resources (Continued)

Planned Actions (Continued):

- The provision of support to legislative measures to strengthen Arizona's in-stream flow program.
- The encouragement of research regarding the relationship of stream flows to ground water levels and the water resource needs of riparian habitat.
- Continued coordination with the Arizona Department of Transportation (ADOT) to identify means to prevent and mitigate spills on I-10 so that hazardous materials are not released into Cienega Creek.
- The monitoring, reporting, and remediation of potential sources of contaminants and adjacent to the Preserve.
- Participation in the review of development proposals for adjacent lands whenever possible to assess and comment on the potential impacts of such development on the water resources of the Preserve.
- The submittal of a petition to the State Land Department requesting that the Pima County Flood Control District be allowed to review and comment on all applications related to the sale, lease, or permitting of State Trust Land within the contributing watershed for mineral extraction purposes.
- The submittal of a petition to the Bureau of Land Management and the U.S. Forest Service requesting that the Pima County Flood Control District be allowed to review and comment on all applications related to the sale, lease, or permitting of federal land within the contributing watershed for the mineral extraction purposes.
- The development and periodic updating of a plan for responding to hazardous material releases within or near the Preserve.
- On-going coordination between the Pima County Flood Control District and the Southern Pacific Railroad, the Arizona Department of Transportation and the various pipeline companies with facilities within the Preserve regarding hazardous material response plans.
- The study of stream flow and groundwater table effects arising out of or from the implementation of the Empirita Ranch Water Facilities Master Plan and its development of well field / extraction.

7.1 Water Resources (Continued)

Planned Actions (Continued):

- An inventory of existing mineral claims or mineral status of title within Preserve and determination if such claims are subject to appropriation without surface owner consent or knowledge.
- An inventory of existing mineral claims or mineral status of title within the watershed contributing to the Preserve on State, Federal, and privately owned properties within the watershed.

7.2 Vegetation

Management Objective:

The Cienega Creek Natural Preserve will be managed with the objective of preserving, protecting, and enhancing the existing native vegetation with the greatest emphasis given the protection and restoration of riparian woodlands and other areas with riparian vegetation.

Policies:

The following policies shall apply to all areas of the Preserve.

- The introduction of non-native plant species shall be prohibited.
- To the extent feasible noxious, non-native plant species such as tamarisk that threaten to displace native plant species shall be monitored and, if necessary, controlled or removed from the Preserve.
- Livestock grazing within the Preserve shall be limited to those areas in Management Zone B located south of I-10 and to the existing 60 acre pasture located adjacent to the existing caretaker's residence in Section 35 (T16S-R17E).
- All areas of the Preserve previously cleared for agricultural crop production will be revegetated with native vegetation. The implementation of this revegetation program will be accomplished on a phased basis. (This policy shall not apply to areas within Management Zone B, that will be used for the development of public use facilities.)
- All areas disturbed by the construction of entrances or other facilities shall be revegetated utilizing native plant species as identified in Section 4 of the Background Report prepared in conjunction with this project.

Planned Actions:

The following actions related to the management of on-site vegetation are planned.

- The completion of perimeter fencing and the maintenance of such fencing as required to prevent livestock from entering the preserve from adjacent properties.
- The submittal of an application to the Arizona Game and Fish Department Heritage Fund for a grant that would allow for on-going monitoring of vegetative and wildlife resources and the identification of restoration needs and priorities.

7.2 Vegetation (Continued)

Planned Actions (Continued):

- The development of a cooperative program involving the Arizona Game and Fish Department and the University of Arizona related to the long-term monitoring of vegetative resources within the Preserve. The program will include monitoring of the presence and status of invasive exotic species such as tamarisk.
- The establishment of permanent photo points for the monitoring of changes in vegetation over time especially in areas subject to high visitor use and grazing.
- Coordination with the University of Arizona and other research organizations related to the implementation of studies to monitor the long-term dynamics of streambed recovery and long-term changes in vegetative communities.
- The restriction of activities within portions of the Preserve when the vegetation becomes degraded due to overuse and the revegetation of disturbed areas with native species if necessary.
- The closure and revegetation of existing roads no necessary or desirable for public access, utility access, or fire management.
- The utilization of inter-governmental agreements with the Arizona Game and Fish Department to monitor and assess the status of the on-site vegetation and to engage in enhancement programs when appropriate.

7.3 Wildlife Resources

Management Objective:

The Cienega Creek Natural Preserve will be managed with the objective of maintaining healthy and diverse wildlife populations on the site and to accommodate wildlife movement patterns on and through the Preserve site.

Policies:

The following policies shall apply to all areas of the Preserve.

- The introduction of non-native wildlife species shall be prohibited.
- Pets and other domestic animals shall be prohibited on-site except for those appropriately restrained by leashes or cages.
- Public use of portions of the Preserve may be restricted on a temporary basis, if necessary, to protect habitat essential to the survival or healthy condition of native wildlife species.
- Hunting and trapping on-site shall be in accordance with the rules published annually by the Arizona Game and Fish Department.
- The protection of significant habitat areas and the maintenance of corridors that facilitate the movement of wildlife from the Preserve to other protected public lands shall be given consideration when assessing potential land acquisitions and expansion of the Preserve.
- The Preserve will be monitored for the presence of Honeybee swarms. Colonies and/or swarms of bees located near trails or high-use public areas will be removed in accordance with established Pima County procedures.

Planned Actions:

The following actions related to the management of wildlife resources are planned.

- The submittal of an application to the Arizona Game and Fish department Heritage Fund for a grant that would allow for on-going monitoring of vegetative and wildlife resources.
- The Preserve site will be monitored for the presence of noxious non-native animal species and, if necessary, measures will be taken to control or remove such species.

7.3 Wildlife Resources (Continued)

Planned Actions (Continued):

- The development of a cooperative program involving the Arizona Game and Fish Department and the University of Arizona related to the long-term monitoring of wildlife resources within the Preserve. The program will include monitoring of:
 - The presence and status of threatened and endangered species such as the Mexican garter snake and the lowland leopard frog.
 - The presence and status of invasive vertebrates such as bull frogs.
 - The status of native fish populations
 - An annual survey of breeding raptors.
 - An annual survey of breeding birds.
- Coordination with nongovernmental conservation organizations such as the Tucson Audubon Society to establish and implement annual breeding bird and Christmas bird surveys.
- The establishment of a system for recording notable wildlife observations consisting of cards with space for basic information about the species seen, location, date, behavior, and observer.
- The utilization of an inter-governmental agreement with the Arizona Game and Fish Department to periodically assess the status of wildlife resources and to engage in enhancement and recovery programs when appropriate.
- Rigorous enforcement of Pima County leash laws and Preserve regulations related to domestic animals.
- The submittal of a petition to the Arizona Game and Fish Department (AGFD) requesting the consolidation of Preserve lands within a single AGFD management unit.

7.4 Soil and Mineral Resources

Management Objective:

The Cienega Creek Natural Preserve will be managed with the objective of preventing unnatural soil erosion and deposition of soil into drainage channels within the Preserve site.

Policies:

The following policies shall apply to all areas of the Preserve.

- The use of motorized vehicles on the Preserve shall be prohibited except within designated parking areas or as approved by the Parks Superintendent of Natural Resources for emergency purposes.
- The use of mountain bicycles and the riding of horses within the Preserve shall be limited to designated trails and use areas.
- The extraction of minerals or aggregate materials from the site shall be controlled by the adopted Restrictions, Covenants, and Conditions.

Planned Actions:

The following actions related to the management of soil and mineral resources on the project site are planned.

- The rigorous enforcement of the prohibition against motor vehicle use and the restrictions related to mountain bicycle and equestrian use.
- Periodic inspection of the site to identify the location and extent of soil erosion problems within the Preserve.
- The implementation of road closure, revegetation, and stabilization programs as needed to control severe erosion in localized areas.
- The submittal of a petition to the State Land Department and the Bureau of Land Management requesting that the Pima County Flood Control District be allowed to review and comment on all applications related to proposed mineral extraction activities within the contributing watershed and within areas of the Preserve where the Pima County Flood Control District does not currently hold mineral rights.
- An inventory of existing disturbed aggregate extraction sites within the Preserve.
- An inventory of existing permits for extraction with the watershed contributory to the Preserve.

7.5 Visual Resources

Management Objective:

The Cienega Creek Natural Preserve shall be managed with the objective of protecting and enhancing the visual resources of the site with both on-site and off-site vantage points given consideration.

Policies:

The following policies shall apply to all areas of the Preserve.

- The visual resources of the site shall be protected through the preservation and protection of the vegetation, landforms, water, and other natural features that contribute to the visual quality of the site.
- All facilities constructed within the Preserve shall be designed to minimize their visual impact when viewed from on-site and off-site vantage points.
- All facilities constructed within the Preserve shall be designed to take advantage of vistas and views of on-site features and regional landforms.
- The protection of significant view corridors shall be given consideration when assessing potential land acquisitions and expansion of the Preserve.

Planned Actions:

The following actions related to the management of visual resources on the site are planned.

- The revegetation of disturbed areas within the Preserve site as required to restore or enhance visual quality.
- The review of all development plans and rezoning applications submitted to the Pima County Planning and Development Services Department for projects proposed for areas surrounding the Preserve. Reviews shall be for the purpose of identifying potential impacts on the visual and other resources of the Preserve.

7.6 Cultural Resources

Management Objective:

The Cienega Creek Natural Preserve will be managed with the objective of preserving and protecting the cultural resources present on the Preserve site.

Policies:

The following policies shall apply to all areas of the Preserve.

- All applicable federal, state, and county regulations pertaining to the protection of cultural resources shall be enforced at the Preserve.
- Preserve facilities shall be located and designed to avoid conflicts with known cultural resource sites.
- Access to certain cultural resource sites will be permitted in conjunction with education and interpretive programs.

Planned Actions:

The following actions related to the management of cultural resources on the Preserve site are planned.

- The implementation of a Class III Cultural Resource Survey covering all lands currently within the boundaries of the Preserve and the recording of identified sites with the Arizona State Museum.
- The implementation of a Class III Cultural Resource Survey covering all lands that are acquired and added to the Preserve.
- The rigorous enforcement of all applicable federal, state, and county statutes related to the protection of cultural resources present within the Preserve.
- The periodic inspection of known sites within the Preserve to monitor the condition of these cultural resources.

8.1 Wildland Fire Management

Management Objective:

The Cienega Creek Natural Preserve shall be managed with the objective of preventing wildland fires from causing personal injury and with the objective of preventing wildland fires from causing unnecessary damage to the Preserve or adjacent properties.

Policies:

The following policies related to wildland fire management shall apply to the Preserve.

- All wildland fires, regardless of ignition source, shall be appropriately managed and controlled.
- The response to all wildland fires that pose a threat to human life, residential structures, non-residential structures, fixed improvements, or other personal property on adjacent lands shall be maximum suppression.
- The response to all wildland fires that do not pose a threat to human life, residential structures, non-residential structures, fixed improvements, or other personal property on adjacent lands shall be to effectively control or to suppress such fires as deemed appropriate by the Parks Superintendent of Natural Resources after consultation with fire management and resource management agency representatives.
- The preferred response to wildland fires within the “Unique Resource Fire Management Zone” as illustrated in Figure 8-A, shall be to appropriately control such fires without the use of mechanized equipment and without the cutting of fire breaks if possible. The basis for this response is the desire to prevent damage to significant natural and cultural resource areas.
- The preferred response to wildland fires outside of the “Unique Resource Fire Management Zone” as illustrated in Figure 8-A, shall be to appropriately control such fires with minimal use of mechanized equipment and through the use of existing trails and roads as fire breaks if possible.
- Pima County recognizes that fire is a natural phenomenon and that occasional fires may be necessary for the maintenance of a healthy, natural ecosystem.

8.1 Wildland Fire Management (Continued)

Policies (Continued):

- Pima County will consider the use of prescribed burns if and when it is deemed to be an appropriate and necessary resource management tool. Prior to any prescribed burn, Pima County will prepare a Prescribed Burn Plan and will circulate the plan to local fire districts, area landowners and other resource management agencies for review and comment. No prescribed burn shall be initiated without the concurrence of the Flood Control District, the State Land Department, the Arizona Game and Fish Department and the Bureau of Land Management.
- Livestock grazing will not be utilized as a fuel reduction technique in Management Zone A except within the existing 60 acre pasture in Section 35 (T16S-R17E). Control and maintenance of fencing in this area shall be assigned to the grazer. Livestock grazing may, however, be utilized for this purpose within those portions of Management Zone B located south of I-10 if control of livestock and maintenance of fencing is assumed by the grazer.

Planned Actions:

The following actions related to wildland fire management within the Preserve are planned.

- The prohibition against overnight camping and the starting of fires for any purpose within Management Zone A, as described in Section 6.2 of this report, shall be enforced in an effort to reduce the likelihood of man-caused wildland fires.
- Pima County shall work cooperatively with the Arizona State Land Department (the agency with responsibility for controlling wildland fires on the Preserve and on other undeveloped County lands) and shall provide the ASLD with information and maps as may be required for an appropriate and effective response to fires that occur on the site.
- Pima County shall work cooperatively with all local fire districts, including, but not limited to: the Rincon Valley Fire District, the Mescal Fire District, the Corona de Tucson Fire District, and the Rural-Metro Fire Company and shall provide these fire districts with information and maps as may be required for an appropriate and effective response to fires that occur on the site.
- Pima County shall from time-to-time invite representatives of the Arizona State Land Department and representatives of the local fire districts to on-site inspections of the Preserve for the purpose of familiarizing these representatives with the site conditions and with site-specific fire management issues.

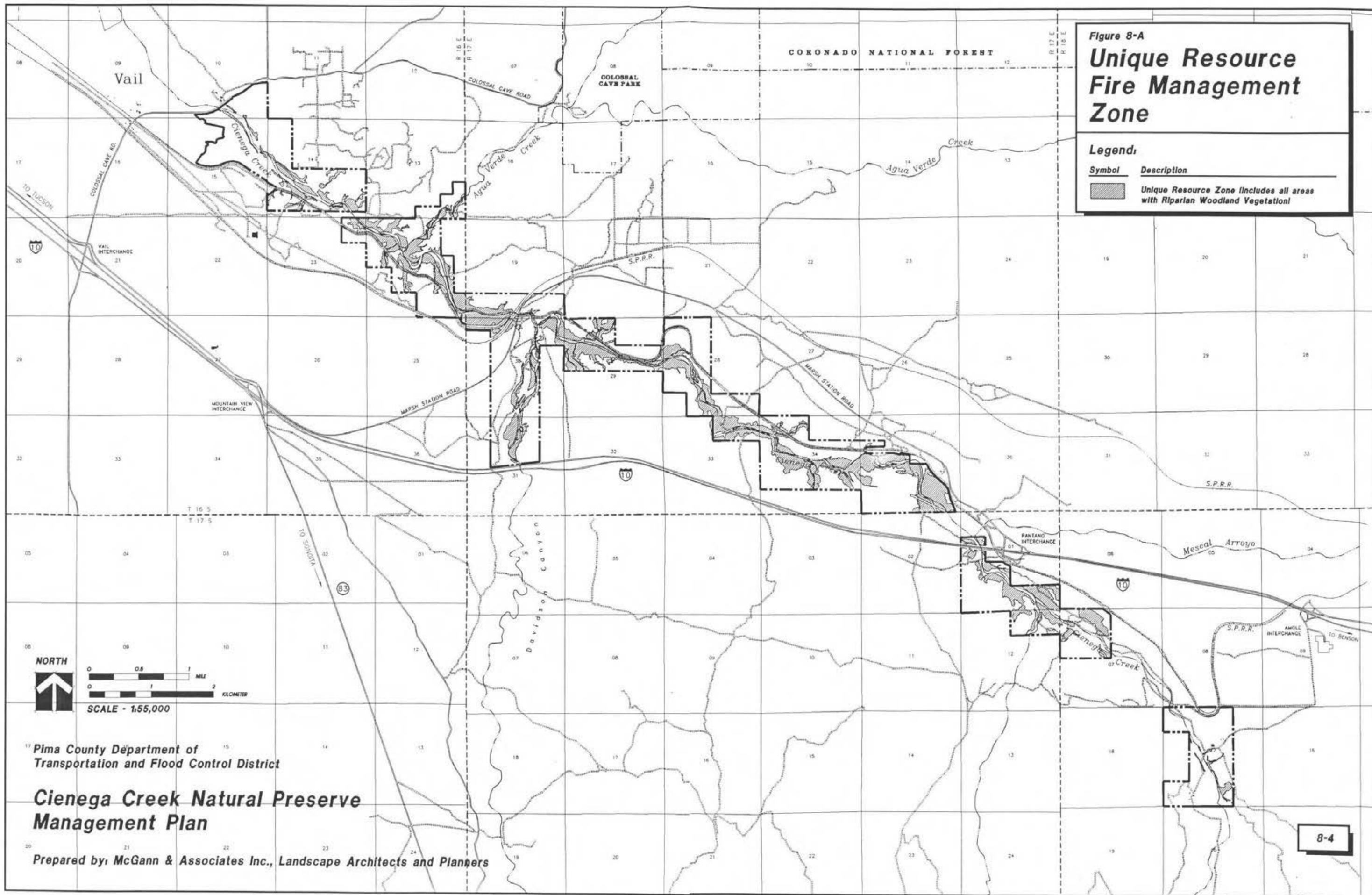
8.1 Wildland Fire Management (Continued)

Planned Actions: (Continued)

- Pima County shall construct in conjunction with the development of the proposed District Park, an accessible water source with appropriate plumbing for use by wildland fire fighting crews.
- Pima County shall construct in conjunction with the development of facilities at the former Empirita Ranch headquarters area, an accessible water source with appropriate plumbing of use by wildland fire fighting crews.
- Pima County shall provide all on-site caretakers with the names and phone numbers of agencies and individuals to contact to report the occurrence of wildland fires on or near the Preserve site.

Figure 8-A
Unique Resource
Fire Management
Zone

Symbol	Description
	Unique Resource Zone (includes all areas with Riparian Woodland Vegetation)



Pima County Department of
 Transportation and Flood Control District

**Cienega Creek Natural Preserve
 Management Plan**

Prepared by: McGann & Associates Inc., Landscape Architects and Planners

9.1 The Preserve Boundary

Management Objective:

The objective of all land acquisitions and the associated expansion of the Preserve will be to create boundaries that allow for and facilitate effective resource management.

Policies:

The following policies related to land acquisition and boundary adjustments shall apply to all areas of the Preserve.

- The Pima County Flood Control District will actively seek to acquire lands along the Cienega Creek channel to provide continuous Pima County ownership along the riparian corridor between the Empirita Ranch and Colossal Cave Road.
- Pima County will actively seek to acquire lands adjacent to the current boundary of the Preserve as may be required for the protection of significant natural or cultural resource areas.
- Pima County will seek to acquire, when appropriate, lands surrounding the Preserve as required to create an effective natural buffer between the sensitive riparian areas of the site and off-site areas that could be developed in a manner that would materially compromise the natural and scenic resources of the Preserve.
- The Pima County Flood Control District will seek to dispose of those parcels of land within the Preserve that are not essential for effective resource management or that do not provide an effective natural buffer between the Preserve and off-site areas that are currently developed if such parcels could potentially be developed with compatible uses.

Planned Actions:

The following actions related to the acquisition of property and the adjustment of Preserve boundaries are planned.

- Discussion with impacted landowners and if willing sellers are identified, acquisition of properties listed as high priority acquisitions in Section 9.2 of this document.
- Discussion with the State Land Department and if possible, acquisition by purchase or trade of all State Trust Lands located between Interstate High 10 and Marsh Station Road.

9.1 The Preserve Boundary (Continued)

Planned Actions (Continued):

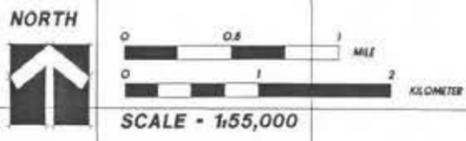
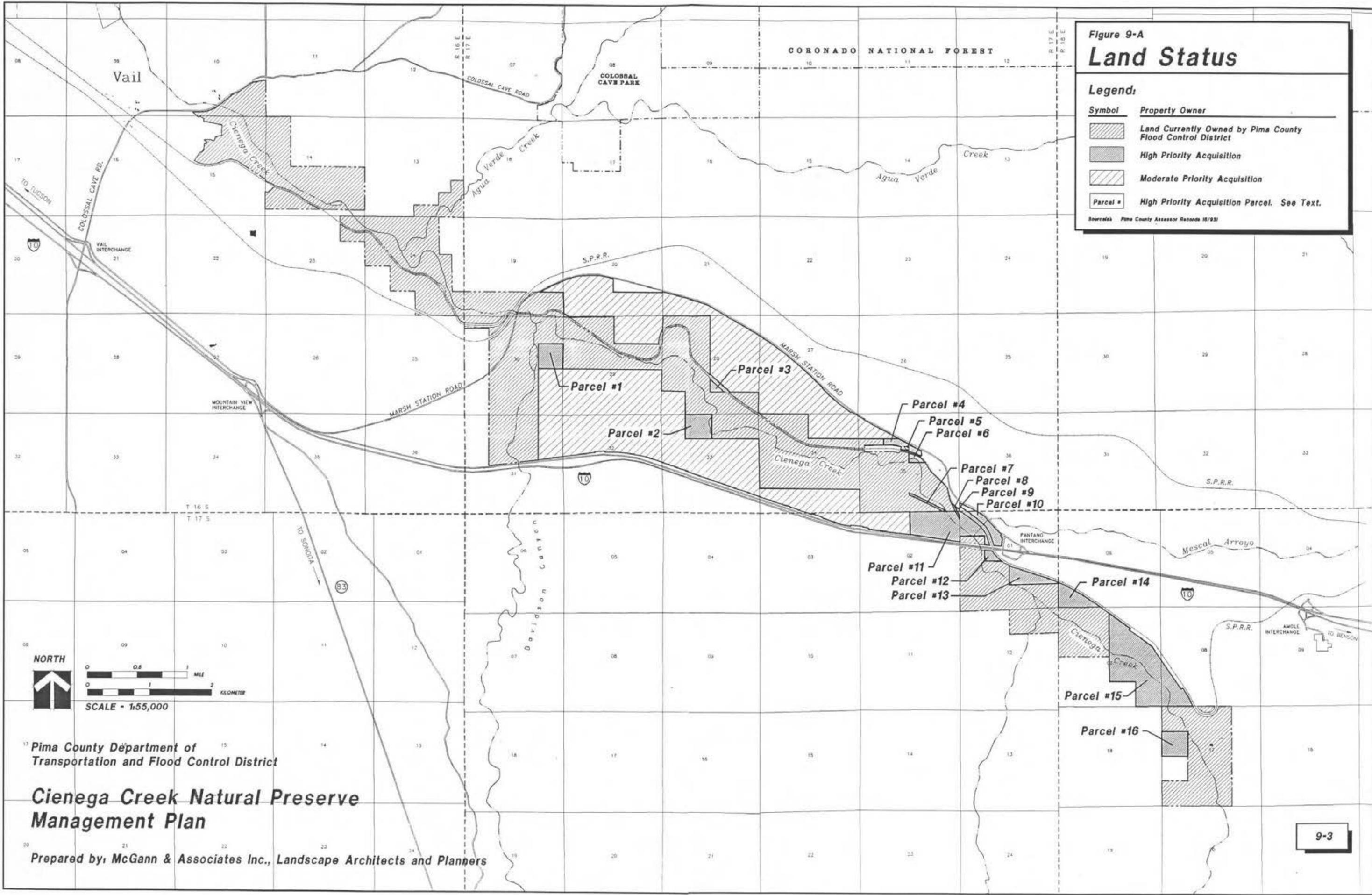
- Upon completion of the County Park and the Empirita Ranch developments, the Flood Control District will remove these areas from the Preserve through a land exchange with Pima County.
- The marketing and potential sale of excess properties such as that parcel located south of the Southern Pacific Railroad's No. 1 track in Section 24 (T16S-R16E). See Figure 9-A.

Figure 9-A
Land Status

Legend:

Symbol	Property Owner
	Land Currently Owned by Pima County Flood Control District
	High Priority Acquisition
	Moderate Priority Acquisition
	Parcel # High Priority Acquisition Parcel. See Text.

Source: Pima County Assessor Records 10/93



Pima County Department of
Transportation and Flood Control District

**Cienega Creek Natural Preserve
Management Plan**

Prepared by, McGann & Associates Inc., Landscape Architects and Planners

9.2 Priority Acquisitions

Introduction:

To provide effective, long-term management of the Cienega Creek Natural Preserve the acquisition of several parcels of land will be necessary. These priority acquisitions are listed below. Their location is illustrated in Figure 9-A.

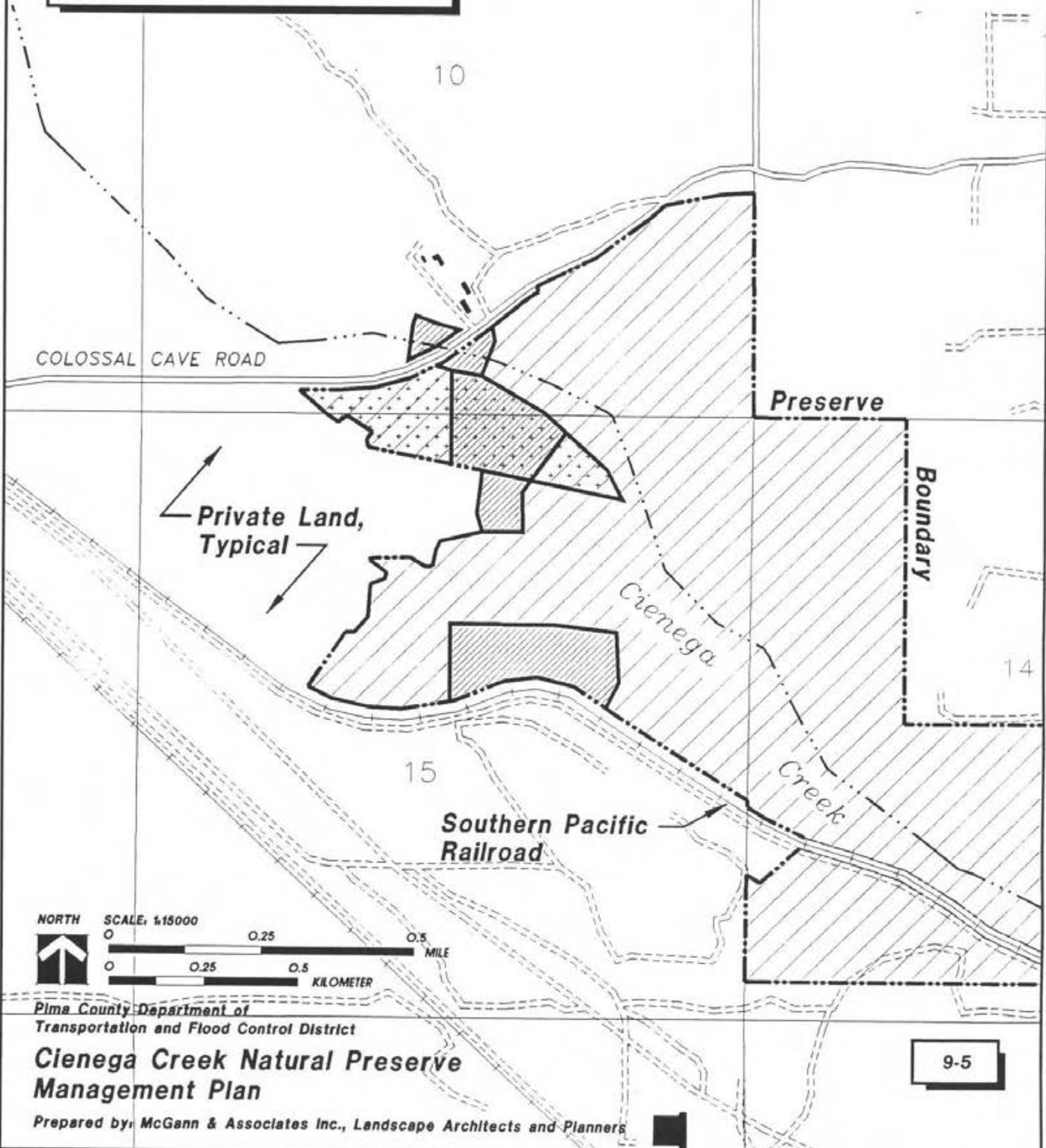
Parcel Number:	Approximate Acreage:	Current Owner and Tax Number:
1	39.8	Arizona State Land Department Phoenix, Arizona (306-01-0270)
2	43.3	Arizona State Land Department Phoenix, Arizona (306-01-025A)
3	6.1	Arizona State Land Department Phoenix, Arizona (306-05-0060)
4	16.0	Harry and Joel Turner Tucson, Arizona (306-09-0020)
5	0.9	Board of Trustees, School District No. 20 Vail, Arizona (306-09-0030)
6	6.3	Harry and Joel Turner Tucson, Arizona (306-09-0020)
7	4.8	Southern Pacific Railroad Monterey Park, California (306-09-0080)
8	1.9	Southern Pacific Railroad Monterey Park, California (306-09-0090)
9	0.7	Unknown (306-09-505A)
10	24.3	Arizona State Land Department Phoenix, Arizona (306-18-006C)
11	111.0	Arizona State Land Department Phoenix, Arizona (306-18-006C)
12	7.8	Arizona State Land Department Phoenix, Arizona (306-18-006C)
13	33.0	Arizona State Land Department Phoenix, Arizona (306-18-006C)
14	38.3	Arizona State Land Department Phoenix, Arizona (306-18-006C)
15	246.5	Arizona State Land Department Phoenix, Arizona (306-18-006C)
16	41.3	Arizona State Land Department Phoenix, Arizona (306-18-006C)

Figure 9-B

Existing Land Ownership and Proposed District Park Boundary

Legend:

Symbol	Description
	Land Currently Owned by Pima County
	Land Currently Owned by Pima County Flood Control District
	Proposed District Park Site



SCALE: 1:15000



Pima County Department of Transportation and Flood Control District

Cienega Creek Natural Preserve Management Plan

Prepared by: McGann & Associates Inc., Landscape Architects and Planners

10.1 Inter-Agency and Inter-Departmental Coordination

Management Objective:

Effective management of resources must be addressed on a regional scale. Close and on-going coordination between the Pima County Flood Control District and other agencies, other departments, and area landowners is therefore an objective of this Management Plan.

Policies:

The following policies shall apply to the on-going management of the Preserve.

- The Pima County Flood Control District and the Parks and Recreation Department will work cooperatively with the Bureau of Land Management, the U.S. Forest Service, the National Park Service, the State Land Department, the Arizona Game and Fish Department, the Arizona Department of Water Resources, the Arizona Department of Environmental Quality and area landowners in an effort to provide effective resources management within the Preserve and on surrounding lands.
- The Pima County Flood Control District and the Parks and Recreation Department will work cooperatively with, and will request as-needed technical assistance from, other Pima County departments including but not limited to; The Flood Control District, the Department of Transportation, the Planning and Development Services Department, the Department of Environmental Quality, and the Sheriff's Department in an effort to provide effective management of the Preserve.

Planned Actions:

The following actions related to inter-agency and inter-departmental coordination are planned.

- An inter-governmental agreement (IGA) will be developed between the Flood Control District and the Pima County Parks and Recreation Department to facilitate coordinated management of the Cienega Creek Natural Preserve.
- An inter-governmental agreement (IGA) will be developed between the Flood Control District and the Arizona Game and Fish Department to facilitate coordinated management of the Cienega Creek Natural Preserve.
- An inter-governmental agreement (IGA) between the Flood Control District, the Pima County Parks and Recreation Department, and the Bureau of Land Management will be developed to facilitate coordinated management of the Cienega Creek Natural Preserve and the Empire-Cienega Resource Conservation Area.

10.1 Inter-Agency and Inter-Departmental Coordination (Continued)

Planned Actions (Continued):

- An IGA between the Flood Control District, the Pima County Parks and Recreation Department, and the U.S. Forest Service will be developed to coordinate the use of the Arizona Trail through the Preserve and other issues of mutual interest.
- The convening of an annual coordination meeting involving representatives of the public agencies that manage land or resources within the Cienega Creek watershed including; the Pima County Flood Control District, the Pima County Parks and Recreation Department, the Bureau of Land Management, the U.S. Forest Service, and the Arizona State Land Department. The purpose of the meeting will be to coordinate management efforts and to identify critical issues that require management or monitoring.

Appendix A: Existing CC&R's and Attachments

Declaration of Restrictions, Covenants and Conditions for the Cienega Creek Natural Preserve

Know all by these presents:

That Pima County Flood Control District, a body politic, (the "Declarant") being the Owner of all of the following described property.

SEE ATTACHMENT "1" (the "Property" herein).

does hereby certify and declare for the purposes of the preservation and protection of the natural and scenic resources of the Property subject hereto, for the benefit and protection of the County, its resources, residents, and visitors, it has established, and does hereby establish, all of the following conditions, restrictions and covenants which shall pertain only to those portions of the Property which contain the floodplain, floodway or flood erosion zone of the Cienega Creek and Davidson Canyon, as specified by the floodplain Management Ordinance 1985-FC1. Said lands shall be used in accordance with the following provisions:

1. No building shall be erected, placed, or permitted to remain on the Property. No business, trade or manufacturing of any nature or description shall be carried out on or transacted on any portion of the property. No uses other than public recreation to the extent allowed herein and those uses permitted in the Cooperative Management Agreement dated March 3rd, 1987, among Pima County Flood Control District, Walter Armer as Co-Trustee of the Winston Wheeler and Ruth Wheeler separate Trusts, and the University of Arizona, a copy of which is attached hereto as Attachment 2 and made a part hereof by this reference, are permitted.
2. No motorized vehicles will be permitted on the Property except as required for emergency medical purposes or for maintenance or other uses approved in writing by Declarant or its designee(s).
3. The use of and access to the Property will be restricted to such uses that will maintain and protect the quality of the riparian nature of the area. The Property shall be protected and maintained as a unique riparian ecosystem. The declarant shall prevent deterioration of the area by causing the property to be patrolled by appropriate law enforcement personnel as is reasonably required.
4. The Declarant shall not conduct, or permit any other person or entity to conduct mining, quarrying, sand hauling, fill hauling, or timbering of any kind on the Property. Hunting or trapping of birds, or animals, or the destruction or removal of plants, shrubs, trees, except with written permission of the Declarant in accordance with paragraph 5 below, is expressly prohibited. In the interest of resource protection, no discharge of waste or by-products or materials on land or into the water channel that might result in harm to wildlife or human water supplies will be permitted.
5. A permit system, restricting the number of persons entering the area, will be established and administered by Pima County Parks and Recreation, or its successor, in cooperation with the Flood Control District, or its successor. The number of persons permitted access will be consistent with the goals of protection and maintenance of the riparian ecosystem of the area.

Appendix A: Existing CC&R's and Attachments (Continued)

6. Granting and construction of perpendicular utility and sewer facilities crossing the Property will be permitted on a case by case basis with written approval of the Declarant. Any such easement, permit or license shall require that construction, installation, and maintenance shall be undertaken without damage to the habitat and that any disturbance thereof shall be properly mitigated. All parallel installations including without limitation sewers, are prohibited. Proper care must be taken during construction of the facility to assure no damage will occur to the habitat and that any disturbance will be properly mitigated.

7. All drainage across the property will be left in its natural state and will not be altered, disturbed, or obstructed.

8. The aforesaid provisions, conditions, restrictions, and covenants are impressed and imposed upon only that portion of the Property described on Attachment 1 which are a part of the floodplain, floodway, and flood erosion zone of the Cienega Creek and Davidson Canyon as specified by the Floodplain Management Ordinance 1985-FC1. Said provisions, conditions, restrictions, and covenants are not personal and shall run with the land.

9. The Declarant and its successors shall enforce these Conditions, Restrictions and Covenants to the fullest extent allowed by law and/or to obtain equitable relief.

IN WITNESS WHEREOF, the undersigned has executed these presents this day of March 3, 1987.

(signed)

Sam Lena
Chairman of the Board of Directors
of the Pima County Flood Control District

Attest:

(signed)

Jane S. Williams
Clerk of the Board of Directors
of the Pima County Flood Control District

Appendix A: Existing CC&R's and Attachments (Continued)

Attachment 1

Parcel 1: - All that part of the South Half of the South Half of Section 19, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona, lying South of the Southern Pacific Railroad right-of-way, EXCEPT that part lying within the El Paso and Southwestern Railroad right-of-way.

Parcel 2: - All that part of the Northwest Quarter, of the North Half of the Southwest Quarter, the Southeast Quarter of the Southwest Quarter, and the South Half of the Southeast Quarter of Section 28, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona, lying Southerly of the Southern Pacific right-of-way.

Parcel 3: - All that part of the Northwest Quarter, and of the South Half of the Northeast Quarter of Section 29, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona, lying South of the Southern Pacific Railroad right-of-way.

Parcel 4 - The North Half of the Northeast Quarter; the Southeast Quarter of the Northeast Quarter; the West Half of the Southeast Quarter; the East Half of the Southwest Quarter; and the Southeast Quarter of the Northwest Quarter of Section 30, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona EXCEPT any part thereof lying within the Southern Pacific Railroad right-of-way.

Parcel 5 - That part of the West Half of the East Half and the East Half of the West Half of Section 31, Township 16 South, Range 17 East, G. & S. G. B. & M., Pima County, Arizona lying North of the Northerly line of the relocated Tucson-Benson Interstate Highway as said line is described in the final Order of Condemnation recorded in the office of the County Recorder of Pima County, Arizona, in Book 1775 of Dockets at Page 174 thereof.

Parcel 6 - The North Half of the Northeast Quarter of Section 33, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona.

Parcel 7 - The North Half of the South Half, and all that part of the South Half of the Northeast Quarter and of the Northwest Quarter lying South of the Southern Pacific Railroad right-of-way in Section 34, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona.

Cienega Creek
Wheeler Trust
LF:LC:agg

WP0472D

Appendix A: Existing CC&R's and Attachments (Continued)

Exhibit D

Management Goals and Statement of Policy

Pima County's management goals, simply stated, are to maintain the present natural characteristics of the Cienega Creek Natural Preserve, and if possible, to allow natural restoration of the climax vegetation. Cienega Creek today is not the same riparian zone it was 100 years ago. Historical accounts and geologic records suggest that the climax vegetation for much of the acquisition area may have been a cienega, or marshland. Additional marshlands appear to have existed downstream of the natural preserve, hence the name Pantano Wash, which in Spanish means marshland.

Restoration of the climax vegetation would have significant flood control and groundwater recharge benefits. Cienegas act as natural water storage reservoirs, and flows downstream from cienegas are less variable and of greater permanence than flows from typical ephemeral streams. The increased storage capacity and slow release of flood waters provided by cienegas act to decrease flood peaks.

The following management policies support Pima County's desire to maintain our last remaining low-elevation perennial stream in as natural a condition as possible.

- 1. No business, trade or manufacturing of any nature or description shall be carried on or transacted on any portion of the Preserve. No uses other than public recreation to the extent allowed herein are permitted.*
- 2. No motorized vehicles will be permitted on the Preserve except as required for emergency medical purposes or for maintenance or other uses approved in writing by Pima County or designee(s).*
- 3. The use of and access to the Preserve will be restricted to such uses that will maintain and protect the quality of the riparian nature of the area. The Preserve shall be protected and maintained as a unique riparian ecosystem. Pima County shall prevent deterioration of the area by causing the Preserve to be patrolled by appropriate law enforcement personnel as is reasonably required.*
- 4. Pima County shall not conduct, nor permit any other person to conduct mining, quarrying, sand hauling, fill hauling or timbering of any kind on the Preserve. Hunting or trapping of birds or animals, grazing of cattle, or the destruction or removal of plants, shrubs, trees, except with written permission of Pima County, is expressly prohibited. In the interest of resource protection, no discharge of waste or by-products or materials on land or into water channel that might result in harm to wildlife or human water supplies will be permitted.*
- 5. A permit system restricting the number of persons entering the areas, will be established and administered by Pima County Parks and Recreation in cooperation with the Flood Control District. The number of persons permitted access will be consistent with the goals of protection and maintenance of the riparian ecosystem of the area.*

Appendix A: Existing CC&R's and Attachments (Continued)

6. Granting and construction of perpendicular utility and sewer facilities crossing the preserve will be permitted on a case-by-case basis with written approval of Pima County. All parallel installations including sewers, are prohibited. Proper care must be taken during construction of the facility to assure no damage will occur to the habitat and that any disturbance is properly mitigated.

7. All drainage across the Preserve will be left in its natural state and will not be altered, disturbed or obstructed.

8. Scientific studies will be permitted as agreed upon by Pima County and State Parks.

IN WITNESS WHEREOF, the undersigned has executed these presents this day of March 3, 1987.

(signed)

Jane S. Williams
Clerk of the Board of Directors
of the Pima County Flood Control District

(signed)

Sam Lena
Chairman of the Board of Directors
of the Pima County Flood Control District

Appendix B: Proposed Revisions to CC&R's and Attachments

Amended Declaration of Restrictions, Covenants and Conditions for the Cienega Creek Natural Preserve.

Know all by these presents:

That Pima County Flood Control District , a body politic, (the "Declarant") being the Owner of all of the following described property.

SEE ATTACHMENT "1" (the "Property" herein)

does hereby certify and declare for the purposes of the preservation and protection of the natural and scenic resources of the Property subject hereto, for the benefit and protection of the County, its resources, residents, and visitors, it has established, and does hereby establish, all of the following conditions, restrictions and covenants which shall pertain only to those portions of the Property ~~which contain the floodplain, floodway or flood erosion zone of the Cienega Creek and Davidson Canyon, as specified by the floodplain Management Ordinance 1985-FG1.~~ which are located north of the Interstate Highway 10 right-of-way exclusive of the +/- 25 acre future Pima County Park site located south of Colossal Cave Road the boundary of which is described in Attachment 1. Said lands shall be used in accordance with the following provisions:

1. No building shall be erected, placed, or permitted to remain on the Property. No business, trade or manufacturing of any nature or description shall be carried out on or transacted on any portion of the property. No uses other than public recreation to the extent allowed herein and those uses permitted in the Cooperative Management Agreement dated March 3rd, 1987, among Pima County Flood Control District, Walter Armer as Co-Trustee of the Winston Wheeler and Ruth Wheeler separate Trusts, and the University of Arizona, a copy of which is attached hereto as Attachment 2 and made a part hereof by this reference, are permitted.
2. No motorized vehicles will be permitted on the Property except in designated parking areas or as required for emergency medical purposes, for maintenance and administrative activities, or other uses approved in writing by Declarant or its designee(s).
3. The use of and access to the Property will be restricted to such uses that will maintain and protect the quality of the riparian nature of the area. The Property shall be protected and maintained as a unique riparian ecosystem. The declarant shall prevent deterioration of the area by causing the property to be patrolled by appropriate law enforcement personnel as is reasonably required.
4. The Declarant shall not conduct, or permit any other person or entity to conduct mining, quarrying, sand hauling, fill hauling, or timbering of any kind on the Property. ~~Hunting or trapping of birds, or animals, or~~ The destruction or removal of plants, shrubs, trees, except with written permission of the Declarant in accordance with paragraph 5 below, is expressly prohibited. Hunting and trapping shall be limited to those activities and time periods authorized by applicable Arizona Game and Fish Commission rules and regulations. In the interest of resource protection, no discharge of waste or by-products or materials on land or into the water channel that might result in harm to wildlife or human water supplies will be permitted.

Appendix B - Proposed Revisions to CC&R's and Attachments (Continued)

5. A permit system, restricting the number of persons entering the area, will be established and administered by Pima County Parks and Recreation, or its successor, in cooperation with the Flood Control District, or its successor. The number of persons permitted access will be consistent with the goals of protection and maintenance of the riparian ecosystem of the area.
6. Granting and construction of perpendicular utility and sewer facilities crossing the Property will be permitted on a case by case basis with written approval of the Declarant. Any such easement, permit or license shall require that construction, installation, and maintenance shall be undertaken without damage to the habitat and that any disturbance thereof shall be properly mitigated. All parallel installations including without limitation sewers, are prohibited. Proper care must be taken during construction of the facility to assure no damage will occur to the habitat and that any disturbance will be properly mitigated.
7. All drainage across the property will be left in its natural state and will not be altered, disturbed, or obstructed.
8. The aforesaid provisions, conditions, restrictions, and covenants are impressed and imposed upon only that portion of the Property described on Attachment 1 which are ~~a part of the floodplain, floodway, and flood erosion zone of the Cienega Creek and Davidson Canyon as specified by the Floodplain Management Ordinance 1985-FC1.~~ located north of the Interstate Highway 10 right-of-way exclusive of a +/- 25 acre future Pima County park site located south of Colossal Cave Road the boundary of which is described in Attachment 1. Said provisions, conditions, restrictions, and covenants are not personal and shall run with the land.
9. The Declarant and its successors shall enforce these Conditions, Restrictions and Covenants to the fullest extent allowed by law and/or to obtain equitable relief.

IN WITNESS WHEREOF, the undersigned has executed these presents this day of March 3, 1987.

(signed)

Sam Lena
Chairman of the Board of Directors
of the Pima County Flood Control District

Attest:

(signed)

Jane S. Williams
Clerk of the Board of Directors
of the Pima County Flood Control District

Appendix B: Proposed Revisions to CC&R's and Attachments (Continued)

Attachment 1

~~Parcel 1: All that part of the South Half of the South Half of Section 19, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona, lying South of the Southern Pacific Railroad right-of-way, EXCEPT that part lying within the El Paso and Southwestern Railroad right-of-way.~~

~~Parcel 2: All that part of the Northwest Quarter, of the North Half of the Southwest Quarter, the Southeast Quarter of the Southwest Quarter, and the South Half of the Southeast Quarter of Section 28, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona, lying Southerly of the Southern Pacific right-of-way.~~

~~Parcel 3: All that part of the Northwest Quarter, and of the South Half of the Northeast Quarter of Section 29, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona, lying South of the Southern Pacific Railroad right-of-way.~~

~~Parcel 4: The North Half of the Northeast Quarter; the Southeast Quarter of the Northeast Quarter; the West Half of the Southeast Quarter; the East Half of the Southwest Quarter; and the Southeast Quarter of the Northwest Quarter of Section 30, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona EXCEPT any part thereof lying within the Southern Pacific Railroad right-of-way.~~

~~Parcel 5: That part of the West Half of the East Half and the East Half of the West Half of Section 31, Township 16 South, Range 17 East, G. & S. G. B. & M., Pima County, Arizona lying North of the Northerly line of the relocated Tucson-Benson Interstate Highway as said line is described in the final Order of Condemnation recorded in the office of the County Recorder of Pima County, Arizona, in Book 1775 of Dockets at Page 174 thereof.~~

~~Parcel 6: The North Half of the Northeast Quarter of Section 33, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona.~~

~~Parcel 7: The North Half of the South Half, and all that part of the South Half of the Northeast Quarter and of the Northwest Quarter lying South of the Southern Pacific Railroad right-of-way in Section 34, Township 16 South, Range 17 East, G. & S. R. B. & M., Pima County, Arizona.~~

~~Cienega Creek
Wheeler Trust
LF:LG:agg~~

~~WP0472D~~

~~Attachment 1 shall be amended to include a legal description of all property currently within the Preserve including all parcels located north and south of the Interstate Highway 10 right-of-way plus a description of the +/- 25 acre future Pima County Park site located south of Colossal Cave Road.~~

Appendix B: Proposed Revisions to CC&R's and Attachments (Continued)

Exhibit D

Management Goals and Statement of Policy

Pima County's management goals, simply stated, are to maintain the present natural characteristics of the Cienega Creek Natural Preserve, and if possible, to allow natural restoration of the *elimax* riparian vegetation. Cienega Creek today is not the same riparian zone it was 100 years ago. Historical accounts and geologic records suggest that the *elimax* riparian vegetation for much of the acquisition area may have been a cienega, or marshland. Additional marshlands appear to have existed downstream of the natural preserve, hence the name Pantano Wash, which in Spanish means marshland.

Restoration of the *elimax* riparian vegetation would have significant flood control and groundwater recharge benefits. Cienegas act as natural water storage reservoirs, and flows downstream from cienegas are less variable and of greater permanence than flows from typical ephemeral streams. The increased storage capacity and slow release of flood waters provided by cienegas act to decrease flood peaks.

The following management policies support Pima County's desire to maintain our last remaining low-elevation perennial stream in as natural a condition as possible.

1. No business, trade or manufacturing of any nature or description shall be carried on or transacted on any portion of the Preserve. No uses other than public recreation to the extent allowed herein are permitted.
2. No motorized vehicles will be permitted on the Preserve except as required for emergency medical purposes or for maintenance or other uses approved in writing by Pima County or designee(s).
3. The use of and access to the Preserve will be restricted to such uses that will maintain and protect the quality of the riparian nature of the area. The Preserve shall be protected and maintained as a unique riparian ecosystem. Pima County shall prevent deterioration of the area by causing the Preserve to be patrolled by appropriate law enforcement personnel as is reasonably required.
4. Pima County shall not conduct, nor permit any other person to conduct mining, quarrying, sand hauling, fill hauling or timbering of any kind on the Preserve. ~~Hunting or trapping of birds or animals, grazing of cattle, or~~ The destruction or removal of plants, shrubs, trees, except with written permission of Pima County, is expressly prohibited. Hunting and trapping shall be limited to those activities and time periods authorized by applicable Arizona Game and Fish Commission rules and regulations. The grazing of cattle shall be subject to policies established by the Pima County Flood Control District which shall be consistent with the goals of protection and maintenance of the riparian ecosystem in the area. In the interest of resource protection, no discharge of waste or by-products or materials on land or into water channel that might result in harm to wildlife or human water supplies will be permitted.

Appendix B: Proposed Revisions to CC&R's and Attachments (Continued)

5. A permit system restricting the number of persons entering the areas, will be established and administered by Pima County Parks and Recreation in cooperation with the Flood Control District. The number of persons permitted access will be consistent with the goals of protection and maintenance of the riparian ecosystem of the area.
6. Granting and construction of perpendicular utility and sewer facilities crossing the preserve will be permitted on a case-by-case basis with written approval of Pima County. All parallel installations including sewers, are prohibited. Proper care must be taken during construction of the facility to assure no damage will occur to the habitat and that any disturbance is properly mitigated.
7. All drainage across the Preserve will be left in its natural state and will not be altered, disturbed or obstructed.
8. Scientific studies will be permitted as agreed upon by Pima County, ~~and State Parks.~~

IN WITNESS WHEREOF, the undersigned has executed these presents this day of ~~March 3, 1987.~~
(Insert new date)

(signed)

Jane S. Williams
Clerk of the Board of Directors
of the Pima County Flood Control District

(signed)

Sam Lena
Chairman of the Board of Directors
of the Pima County Flood Control District

Appendix C: Implementation Checklist

- Introduction:** *Provided below is a checklist of task and activities that should be implemented during the initial five year period following the adoption of this Management Plan.*
- Continuing or Annual Activities:** *The following activities should be implemented on an on-going or annual basis.*
- *Monitoring of water quality and water well levels.*
 - *Monitoring of general vegetative changes and the status of invasive non-native species such as Tamarisk.*
 - *Implementation of annual wildlife surveys to document the status of amphibian, bird, fish, mammal, and reptile populations.*
 - *Installation and maintenance of perimeter fencing and gates.*
 - *Semi-annual meetings coordination meetings to be attended by staff from the Flood Control District, Parks, Property Management, and other Pima County Departments.*
 - *Annual coordination meetings with other resource management agencies.*
 - *Periodic inspection of cultural resource sites within the Preserve.*
- Year One (1995) Activities:** *The following activities and tasks should be implemented during the calendar year 1995.*
- *Finalization of an I.G.A. between the Flood Control District and the Parks and Recreation Department.*
 - *Adoption of amended CC&R's and Management Goals for the Preserve.*
 - *Implementation of the revised permit system and issuance of Day-Use, Special-Use, and Multiple Entry Permits as appropriate.*
 - *Prepare and submit a grant application to the Heritage Fund for funding of an on-going vegetative resource monitoring program.*
 - *Establish permanent photo-monitoring sites for tracking vegetative changes on the project site.*

Appendix C: Implementation Checklist

**Year One (1995)
Activities
(Continued):**

- *Initiate discussions with the Arizona Game and Fish Department (AGFD) regarding possible revisions to the AGFD's management unit boundaries.*
- *Develop new, or update existing I.G.A.'s with the Arizona Game and Fish Department and the Bureau of Land Management related to resource management issues.*
- *Initiate discussions with the Southern Pacific Railroad (SPRR) related to access agreements permitting trail crossings of SPRR rights-of-way.*
- *Coordination meeting with local fire districts and the State Land Department to distribute information and to develop a fire response strategy.*

**Year Two and Three
(1996 - 1997)
Activities:**

The following activities and tasks should be implemented during calendar years 1996 and 1997.

- *Completion of a Class III Survey of Cultural Resources covering all areas within the Preserve.*
- *Completion of access agreements with the Southern Pacific Railroad.*
- *Review of existing utility line easements and access agreements and, if necessary, preparation and new or amended easements and access agreements.*
- *Design and construction of the Three-Bridges Entry improvements.*

**Year Four and Five
(1998 and 1999)
Activities:**

The following activities and tasks should be implemented during calendar years 1998 and 1999.

- *Comprehensive review of existing management plan and adoption of amendments as appropriate.*
- *Review and, if appropriate, renewal of Caretaker Agreements.*

Appendix C: Implementation Checklist

As-Appropriate Activities:

Implementation of the following tasks and activities may be dependent on budget appropriations and actions by others who are not directly responsible for the management of the Cienega Creek Natural Preserve. As such, they should be considered annually and implemented as and when appropriate.

- *Purchase of priority acquisition parcels as identified herein.*
- *Preparation of a Master Plan and Improvement Plans for the public use facilities at the Empirita Ranch.*
- *Construction of public use facilities at the Empirita Ranch.*
- *Preparation of a Master Plan and Improvement Plans for the public use facilities at the proposed Pima County Park near Colossal Cave Road.*
- *Construction of public use facilities at the proposed County park near Colossal Cave Road.*
- *Design and construction of the Colossal Cave Road Entry, the Mescal Arroyo Entry, and the Empirita Ranch Entry.*
- *Incremental construction of trail system as described herein.*
- *Renovation of residence at Empirita Ranch for Preserve Manager.*
- *Employment of Preserve Manager.*