



# PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS  
LOS ANGELES DISTRICT

BUILDING STRONG®

Proposed Re-Authorization of an  
Existing In-Lieu Fee Program

**Public Notice/Application No.:** SPL-2012-00544-MB

**Program:** Maricopa County Parks and Recreation Department In-Lieu Fee Program

**Comment Period:** November 16 – December 16, 2012

**Project Manager:** Marjorie Blaine (520) 584-1684; Marjorie.E.Blaine@usace.army.mil

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## Program Sponsor

Mr. R.J. Cardin  
Director  
Maricopa County Parks and Recreation  
Department  
234 N. Central Avenue, Suite 6400  
Phoenix, Arizona 85004

## Location

The Program service area would encompass the following watersheds:

- Middle Gila (HUC 15050100)
- Lower Santa Cruz (HUC 15050303)
- Santa Rosa Wash (HUC 15050306)
- Upper Salt (HUC 15060103)
- Tonto (HUC 15060105)
- Lower Salt (HUC 15060106)
- Lower Verde (HUC 15060203)
- Lower Gila-Painted Rock Reservoir (HUC 15070101)
- Agua Fria (HUC 15070102)
- Hassayampa (HUC 15070103)
- Centennial Wash (HUC 15070104)
- Lower Gila (HUC 15070201)
- Tenmile Wash (HUC 15070202)
- San Cristobal Wash (HUC 15070203)
- San Simon Wash (HUC 15080101)

## **Activity**

To modify the existing Maricopa County Parks and Recreation Department (“MCPRD”) In-Lieu Fee (“ILF”) Program (“Program”) pursuant to the requirements of the Corps-EPA Compensatory Mitigation Rule<sup>1</sup> (33 CFR 332.8(d)) (“Mitigation Rule”), as well as to modify the Program’s service area from Maricopa County to the above watersheds (Figure 2 in the attached Prospectus). For more information see pages 2 and 3 of this notice. Supporting documents are attached to this Public Notice.

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Interested parties are hereby notified that a Prospectus has been received in order to re-authorize an existing ILF Program for the purpose of mitigating impacts to waters of the United States authorized, or enforcement actions resolved, under section 404 of the Clean Water Act. Interested parties are invited to provide their comments on the proposed re-authorization of this Program, which will become a part of the record and will be considered as part of this proposal.

Comments should be mailed to:

U.S. Army Corps of Engineers  
Los Angeles District, Regulatory Division  
Attn: Marjorie Blaine, Senior Project Manager  
Tucson Resident Office  
5205 E. Comanche Street  
Tucson, Arizona 85707

Alternatively, comments can be sent electronically to: [Marjorie.E.Blaine@usace.army.mil](mailto:Marjorie.E.Blaine@usace.army.mil)

## **Background**

The MCPRD has requested the Corps re-authorize the Program. If re-authorized, this Program would continue to receive monies from individuals or entities (“project proponent”) receiving Corps authorization under section 404 of the Clean Water Act and, when appropriate, to resolve Section 404 enforcement actions within the proposed service area (Figure 2 in the attached Prospectus).

The MCPRD (<http://www.maricopa.gov/parks/>) is a division of Maricopa County which is home to one of the largest regional parks systems in the nation with over 120,000 acres of open space parks. The mission of MCPRD is to provide, through responsible stewardship, the highest quality parks, trails, programs, services, and experiences that energize visitors and create life-long users and advocates. MCPRD recognizes that rapid urbanization puts pressure on the natural areas within its parks and the need to protect and restore its waterways. The goal of the MCPRD ILF program is to replace functions and values of aquatic resources and associated habitats which have been degraded or destroyed as a result of activities conducted in compliance with or in violation of Section 404 of the Clean Water Act. The MCPRD has operated the current ILF program since 2005.

With the existing Program, the Program sponsor has acquired \$81,312.00 in ILF fees associated with Corps permits. These fees have been used to install fencing and access controls within the Agua Fria Conservation Area to minimize future damage of the area and support restoration.

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<sup>1</sup> The mitigation rule was promulgated by the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency at 33 C.F.R. Part 332 and 40 C.F.R. Part 230, respectively.

## **Mitigation Approval and Permitting Processes**

Mitigation requirements for a particular project are negotiated between the project proponent and the Corps. The project proponent must therefore first submit a mitigation proposal to the Corps that describes the proposed use of an ILF Program or Mitigation Bank. If appropriate credits are not available at a Mitigation Bank located within the service area, and the Corps determines that the Program is the most appropriate approach to mitigation implementation, then the project proponent would contact the Program sponsor to discuss mitigation options. The Program sponsor would review copies of all permits issued to the project proponent and then submit a proposal to the project proponent, including the estimated cost of the proposed mitigation work. Prior to acceptance of payment ("credit sale"), the Program sponsor would also contact the Corps in order to verify the Corps' requirements.

Upon receipt of payment, the Program sponsor becomes legally responsible for initiating the necessary mitigation and monitoring within three growing seasons of receipt of payment. During this time, the Program sponsor would submit a complete Mitigation Plan<sup>2</sup> to the Corps and Interagency Review Team (IRT)<sup>3</sup> as well as an application for Corps permit(s)<sup>4</sup> should the proposed ILF mitigation project activities involve a discharge of dredge or fill material within waters of the U.S. or work within navigable waters of the U.S. The Corps would complete consultation, as appropriate, under the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act, the National Historic Preservation Act and other applicable laws, prior to any permit authorization.

Program funds would be held in a Program account, and all credit sales would be tracked and reported by the Program sponsor to the Corps at a minimum on an annual basis, and also uploaded to the Corps' Regulatory In-lieu Fee and Banking Information Tracking System (RIBITS) .

To ensure permanent protection of the Program mitigation sites, the Program sponsor would secure in-perpetuity conservation easements or grant deed restrictions to be recorded at the appropriate County's Registry of Deeds.

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts and benefits of the proposed re-authorization of the Program. Any comments received will be considered by the Corps to determine whether the proposal has the potential to provide mitigation opportunities for permittees authorized to impact waters of the U.S. under section 404 of the Clean Water Act or as a means of resolving Section 404 enforcement actions.

Additional details are provided in the Prospectus attached to this Public Notice.

For additional information please contact Marjorie Blaine of my staff via phone at 520-584-1684 or via e-mail at Marjorie.E.Blaine@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.

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<sup>2</sup> The content of a complete Mitigation Plan is described in the Mitigation Rule, at 33 CFR 332.4(c)(2-14).

<sup>3</sup> The Interagency Review Team (IRT) consists of member Agencies and includes U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Arizona Game and Fish Department, Arizona Department of Environmental Quality, Pima County Regional Flood Control District, Pima County Office of Conservation and Science, and City of Phoenix Office of Environmental Programs.

<sup>4</sup> The proposed mitigation activities may also require separate approval from the Arizona Department of Environmental Quality.



*Regulatory Program Goals:*

- To provide strong protection of the nation's aquatic environment, including wetlands.
  - To ensure the Corps provides the regulated public with fair and reasonable decisions.
  - To enhance the efficiency of the Corps' administration of its regulatory program.
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**U.S. ARMY CORPS OF ENGINEERS – LOS ANGELES DISTRICT**  
DEPARTMENT OF THE ARMY  
TUCSON RESIDENT OFFICE  
5205 E. COMANCHE STREET  
TUCSON, ARIZONA 85707

# Draft Prospectus for the MCPRD In-Lieu-Fee Program



Prepared by Maricopa County Parks and  
Recreation Department

For the United States Army Corps of Engineers

*June 1, 2011 and revised October 12, 2012*



# Draft Prospectus: In-Lieu Fee Program

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<b>CONTACT LIST</b>					
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Jennifer Waller, Operation Manager	MCPRD	<a href="mailto:jenniferwaller@mail.maricopa.gov">jenniferwaller@mail.maricopa.gov</a>	Maricopa County Parks and Recreation Department 234 N. Central Ave, Suite #6400 Phoenix, AZ 85004	602-372-7460 Ext. 201	602-506-4692
Leigh Johnson, Park Planner	MCPRD	<a href="mailto:leighjohnson@mail.maricopa.gov">leighjohnson@mail.maricopa.gov</a>	Maricopa County Parks and Recreation Department 234 N. Central Ave, Suite #6400 Phoenix, AZ 85004	602-506-8941	602-506-4692
Sandy Eto, Environmental Specialist	BOR	<a href="mailto:seto@usbr.gov">seto@usbr.gov</a>	Bureau of Reclamation 6150 W. Thunderbird Road Glendale, AZ 85306	623-773-6254	623-773-6486
<p>Abbreviations:            MCPRD: Maricopa County Parks and Recreation Department – ILF Sponsor            BOR: Bureau of Reclamation – Land Owner</p>					

## Draft Prospectus: In-Lieu Fee Program

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<b>ABBREVIATIONS and ACRONYMS</b>	
ADEQ	Arizona Department of Environmental Quality
AFCA	Agua Fria Conservation Area
AZGFD	Arizona Game and Fish Department
ASLD	Arizona State Land Department
B-H RMP	Bradshaw-Harquahala Resource Management Plan
BLM	Bureau of Land Management
CAP	Central Arizona Project
BOR (Reclamation)	Bureau of Reclamation
CO	Carbon Monoxide
County	Maricopa County
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
GSA	Geographic Service Area
HUC	Hydrologic Unit Code
ILF	In-Lieu Fee
LOC	Levels of Acceptable Change
LPMP	Lake Pleasant Master Recreation Plan
LPRP	Lake Pleasant Regional Park
MAG	Maricopa Association of Governments
MCPRD (Department)	Maricopa County Parks and Recreation Department
MCSO	Maricopa County Sheriff's Office
MWD	Maricopa County Municipal Water Conservation District #1
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
OHV	Off-Highway Vehicle
PJD	Preliminary Jurisdictional Determination
ROS	Recreation Opportunity Spectrum
USACE	United States Army Corp of Engineers
USGS	U.S. Geological Survey



# Draft Prospectus: In-Lieu Fee Program

## 1. Introduction

Maricopa County is home to one of the largest regional parks systems in the nation with over 120,000 acres of open space parks. In addition to the Desert Outdoor Center at Lake Pleasant, there are 10 regional parks in the system which was visited by over 2.1 million people in 2011. Our scenic Sonoran Desert park system includes the following parks:

- Adobe Dam Regional Park
- Buckeye Hills Regional Park
- Cave Creek Regional Park
- Estrella Mountain Regional Park
- Lake Pleasant Regional Park
- McDowell Mountain Regional Park
- San Tan Mountain Regional Park
- Spur Cross Ranch Conservation Area
- Usery Mountain Regional Park
- White Tank Mountain Regional Park

*Our vision is to connect people with nature through regional parks, trails and programs, inspire an appreciation for the Sonoran Desert and natural open spaces, and create life-long positive memories.*

*Our mission, through responsible stewardship, is to provide the highest quality parks, trails, programs, services and experiences that energize visitors and create life-long users and advocates.*

The Maricopa County Parks and Recreation Department (MCPRD or Department) is providing this prospectus for the purpose of establishing and managing an in-lieu fee (ILF) program for the benefit of the watersheds and other associated waterways in Maricopa County, Arizona that lay within the Department’s jurisdictional area or park boundaries. The Department has been successful in carrying out mitigation projects in other wetland areas inside Lake Pleasant Regional Park boundaries. This prospectus includes the need and rationale for the ILF program, descriptions of proposed ILF sites, and its geographic service area.

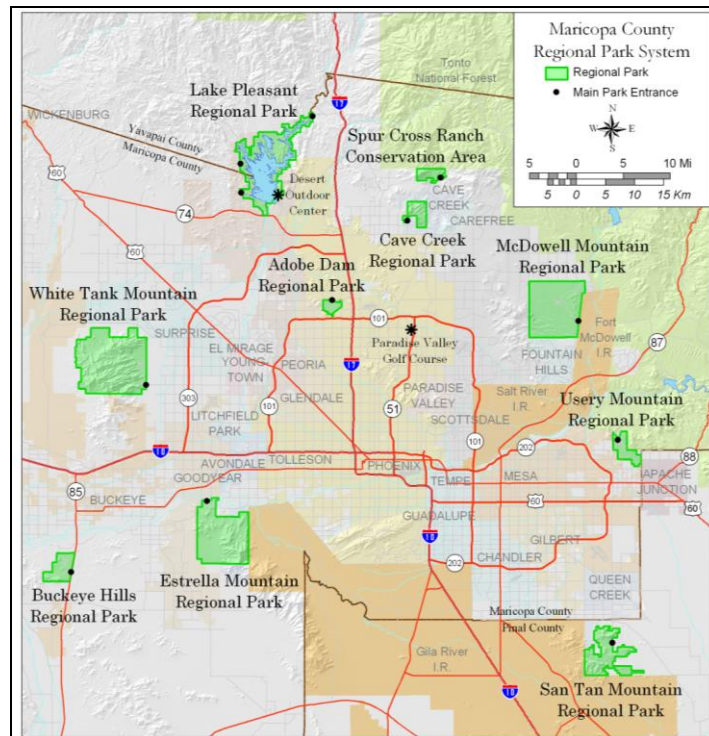


Figure 1: Park locations

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## 2. Basis of need

Rapid urbanization in central Arizona continues to expand, reducing opportunities for people seeking a relatively natural and undeveloped outdoor recreational experience, especially in Maricopa County, southern Yavapai County, and northern Pinal County, all areas where MCPRD manages its parks and recreational facilities (Figure 1). This rapid urbanization puts pressure on the natural areas within its parks and MCPRD recognizes the need to protect and restore its waterways within its area(s) of control, when possible. This ILF program will assist MCPRD with its mission of responsible stewardship, and ultimately improve surrounding watersheds.

The primary objective of projects developed and funded under this ILF program will be to replace functions and values of aquatic resources and associated habitats that have been degraded or destroyed as a result of activities conducted in compliance with or in violation of Section 404 of the Clean Water Act of 1972 and/or Section 10 of the River and Harbor Act of 1899. Specifically, the MCPRD proposes to establish an in-lieu fee program under the U.S. Army Corps of Engineers (USACE) new rule (33 C.F.R. Part 332) for the purposes of offsetting environmental losses resulting from unavoidable impacts to waters of the United States due to permitted and unpermitted activities.

The photos below show the negative side-effects of these impacts. These photos show examples of illegal dumping and OHV use; however, the Agua Fria Conservation Area (AFCA) has also experienced damage from target shooting, vandalism, wood cutting, and other illegal activities.



**Photo 1: Illegal dumping**

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**Photo 2: Illegal dumping in mesquite bosque area**

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**Photo 3: unauthorized OHV uses near waterway**

### **3. ILF mitigation project site conditions description(s)**

According to the U.S. Census Bureau, Maricopa County had an estimated population of 3,880,244<sup>1</sup> for the year 2011. The land area of the County is 9,200 square miles with 414.9 persons per square mile. MCPRD currently has nearly 120,000 acres of park lands and open space within its system. These parks include rugged mountains, expansive deserts, and valuable riparian/wetland areas.

The Agua Fria Conservation Area site proposed for inclusion in the ILF program contains significant natural and cultural resources and is discussed in more detail below.

#### **A. Site conditions of at least one proposed ILF mitigation project site**

For example, within the boundaries of Lake Pleasant Regional Park (LPRP), a 23,361 acre area, is an area of 2,405 acres called the Agua Fria Conservation Area (AFCA). This area although set aside as a conservation area in the 1995 Lake Pleasant Master Plan (LPMP), remained largely unregulated and had been severely degraded and was in peril of being lost completely if preventative measures were not put into place. A Management Plan was adopted in 2010 via a very collaborative and public process to kick-off restoration efforts. The AFCA hosts a unique collection of natural and cultural resources as identified by a 2010 Environmental Assessment (EA) performed by Bureau of Reclamation (BOR) and is a very desirable area to have as an ILF Sponsor site. MCPRD has a 50-year agreement with BOR expiring June 1,

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<sup>1</sup> U.S. Census Bureau, Maricopa County Arizona Quick Facts.  
<http://quickfacts.census.gov/qfd/states/04/04013.html> as accessed October 15, 2012.

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2040, with a 50-year extension option to manage the area as a county park. BOR retains any surface or sub-surface mineral rights.

## **B. Habitats and species**

The AFCA is a productive eagle nesting area and four areas within the AFCA are categorized as having a high density of desert tortoise (*Gopherus agassizii*) signs: "River Bend," "Agua Fria," "Tule Creek", and "Indian Mesa."<sup>2</sup> Historically, the AFCA also played host to two native fish species, the longfin dace (*Agosia chrysogaster*) and desert sucker (*Pantosteus clarki*), that were noted to occur within LPRP boundaries, as well as in perennial tributary waters outside LPRP. The federally endangered Gila topminnow (*Poeciliopsis occidentalis*) was also noted in perennial portions of tributaries to the Agua Fria River (Cella Barr 1995 Lake Pleasant Regional Park Master Plan; p. VI-11). The upper end of the Agua Fria River provided spawning habitat for striped bass, especially after substantial spring flows.

Habitats of the Sonoran Desert scrub biome include:

- Arizona Upland
  - paloverde cacti-mixed scrub series
- Lower Colorado River Valley
  - creosote-white bursage series
- Sonoran Riparian Deciduous Forest

Lake Pleasant increases avian diversity of LPRP by providing wintering and migratory habitat for large numbers of waterfowl and shorebirds. Mammal populations also reflect the diversity found within LPRP. Medium-sized mammals such as coyote (*Canis latrans*) and gray fox (*Urocyon cinereoargenteus*) are common. LPRP also lies within the greater Lake Pleasant Herd Management Area as administered by the Bureau of Land Management (BLM) for wild burros. The Sonoran desert also supports a wide variety of reptiles and amphibians. The various species found in the area are detailed in Appendix A.

## **C. Description and acreage of existing wetlands**

MCPRD does not have a complete delineation of all wetlands and other waters of the U.S. within all its park boundaries. However, potential ILF sites have been rudimentarily identified as being within Estrella Mountain Regional Park, Spur Cross Ranch Conservation Area, Lake Pleasant Regional Park, and potentially others. The major watersheds are listed in section 3.F.

MCPRD estimates, via identifying qualifying drainages on Google Map aerial photos, there are approximately 596 acres of jurisdictional waters in the AFCA (Appendix B, Jurisdictional Waters and Land Ownership). All drainages are xeroriparian in nature, except the main channel of the Agua Fria River, which is largely intermittent or subject to exposure to the waters of Lake Pleasant when the lake is filled to capacity.

## **D. Methods for establishing, restoring, rehabilitating, and/or preserving wetlands**

The methods used for establishing, restoring, rehabilitating, and/or preserving wetlands will vary depending on which hydrologic unit (or geographic service area) is affected and its specific needs.

However, fencing and the use of barriers is the first step to restoring AFCA to a more natural condition and to restore the health of riparian vegetation and wildlife. Establishing test plots of riparian trees; replanting native vegetation in the mesquite bosque and willow area(s); and eliminating invasive species

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<sup>2</sup> Per desert tortoise habitat quality assessment and survey of LPRP as conducted by BOR (Goodlet 2003).

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to promote restoration are also priorities. Springs may also be analyzed to determine if sedimentation removal would be beneficial. Continued trash removal and other clean-up efforts are also vital to restoring the area. Signage will be used to educate visitors to the sensitivities of the area and to post applicable rules and regulations. Seasonal closures of the area for eagle nesting (December 15 to June 15) with very limited public access will also aid in restoration efforts.

In later phases of the preferred alternative for AFCA, per its 2010 Management Plan, passive recreation will be allowed to include fishing (in response to public demand). Using an adaptive management approach will allow park staff to monitor and change its practices to include actively restoring vegetation where and when appropriate. This process relies on and incorporates planning and documentation, performance standards, monitoring, and management, all components of the ILF program.

## E. Site history

The areas in and around LPRP, including AFCA, have long been used for human occupation and association and contain many sites of cultural artifacts. Cultural and historical resources identified within LPRP boundaries during cultural resource surveys cover a wide range of periods of human progress within the Southwest - Archaic, Prehistoric, Protohistoric, and Historic - underscoring the importance of water in the arid Southwest. The Aqua Fria River, a perennial water source, is a central component of the cultural framework of the region. More recently, ranching and grazing as well as mining became traditional land uses in the area.

The land was acquired and is owned by BOR through a process of purchase and condemnation during the late 1980's and early 1990's. Per a 1990 Recreation Management Agreement, it has been incorporated into the MCPRD regional park system.

AFCA is surrounded by other agency owned land (BLM, BOR, Arizona State Land Trust, etc) ensuring that its future as an open, native, desert area is fairly certain. (Refer to maps in Appendix B for surrounding land ownership.) The area is split between Maricopa and Yavapai Counties and is also within the incorporated area of the City of Peoria. Any allowable development is subject to the zoning restrictions shown in table 1 below:

<b>Maricopa County</b>	Rural-43: Rural Zoning District – one (1) acre per dwelling unit
<b>Yavapai County</b>	RCU-2A: Residential Conditional Use – two (2) acres per dwelling unit
<b>City of Peoria</b>	AG: General Agriculture – minimum lot size five (5) acres SR-43: Suburban Ranch – one (1) acre per dwelling unit

Source: 1995 Lake Pleasant Master Plan

## F. Hydrology and geographic service area(s)

The hydrology of Maricopa County is contained within Region 15 Lower Colorado Region<sup>3</sup> and includes 15 watersheds at the eight-digit Hydrologic Unit Code (HUC) level, representing the full extent of MCPRD's possible geographic service area. However, MCPRD currently has parks in only 6 of those 15

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<sup>3</sup> USGS, Boundary Descriptions and Names of Regions, Subregions, Accounting Units and Cataloging Units. [http://water.usgs.gov/GIS/huc\\_name.html#Region15](http://water.usgs.gov/GIS/huc_name.html#Region15) as accessed October 11, 2012.

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watersheds. Therefore, this proposed ILF program will focus on those 6 geographic service areas, or HUC's, where parks are located; the program may be expanded to include other geographic service areas if park lands are acquired within them.<sup>4</sup>

The following table and figure show the 15 eight-digit HUC's that fall within the MCPRD geographic service area and which park is located in the HUC:

HUC	Name	Area (Sq. mi.)	MCPRD Park
15050100	Middle Gila	3,310	Estrella, San Tan, Usery
15050303	Lower Santa Cruz	1,580	
15050306	Santa Rosa Wash	1,290	
15060103	Upper Salt	2,160	
15060105	Tonto	1,030	
15060106	Lower Salt	1,340	Cave Creek, Spur Cross
15060203	Lower Verde	1,940	McDowell
15070101	Lower Gila-Painted Rock Reservoir	2,090	Estrella, Buckeye
15070102	Agua Fria	2,420	Adobe Dam, Lake Pleasant, White Tank, Spur Cross
15070103	Hassayampa	1,410	White Tank
15070104	Centennial Wash	1,940	
15070201	Lower Gila	4,170	
15070202	Tenmile Wash	1,220	
15070203	San Cristobal Wash	1,570	
15080101	San Simon Wash	2,130	

Note: shaded areas indicate focus of proposed ILF program although all HUCs listed fall within Maricopa County.

Sources:

EPA, Surf Your Watershed. [http://cfpub.epa.gov/surf/county.cfm?fips\\_code=04013](http://cfpub.epa.gov/surf/county.cfm?fips_code=04013) as accessed October 15, 2012.

EPA, MyWATERS Mapper. [http://watersgeo.epa.gov/mwm/?layer=LEGACY\\_WBD&feature=15070102&extraLayers=null](http://watersgeo.epa.gov/mwm/?layer=LEGACY_WBD&feature=15070102&extraLayers=null) as accessed October 15, 2012.

USGS, Boundary Descriptions and Names of Regions, Subregions, Accounting Units and Cataloging Units.

[http://water.usgs.gov/GIS/huc\\_name.html#Region15](http://water.usgs.gov/GIS/huc_name.html#Region15) as accessed October 11, 2012.

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<sup>4</sup> MCPRD is currently working with BLM to establish the Vulture Mountains Cooperative Recreation Area in the northwest portion of the county, near the Town of Wickenburg, AZ. R&PP applications have been submitted to BLM and are awaiting approval. Once approved, the Vulture Mountains Cooperative Recreation Area, along with its geographic service area, may potentially join this ILF program. There is no estimated timeframe on receiving R&PP approval and subsequently, no timeframe on when Vulture Mountains Cooperative Recreation Area may join this program.

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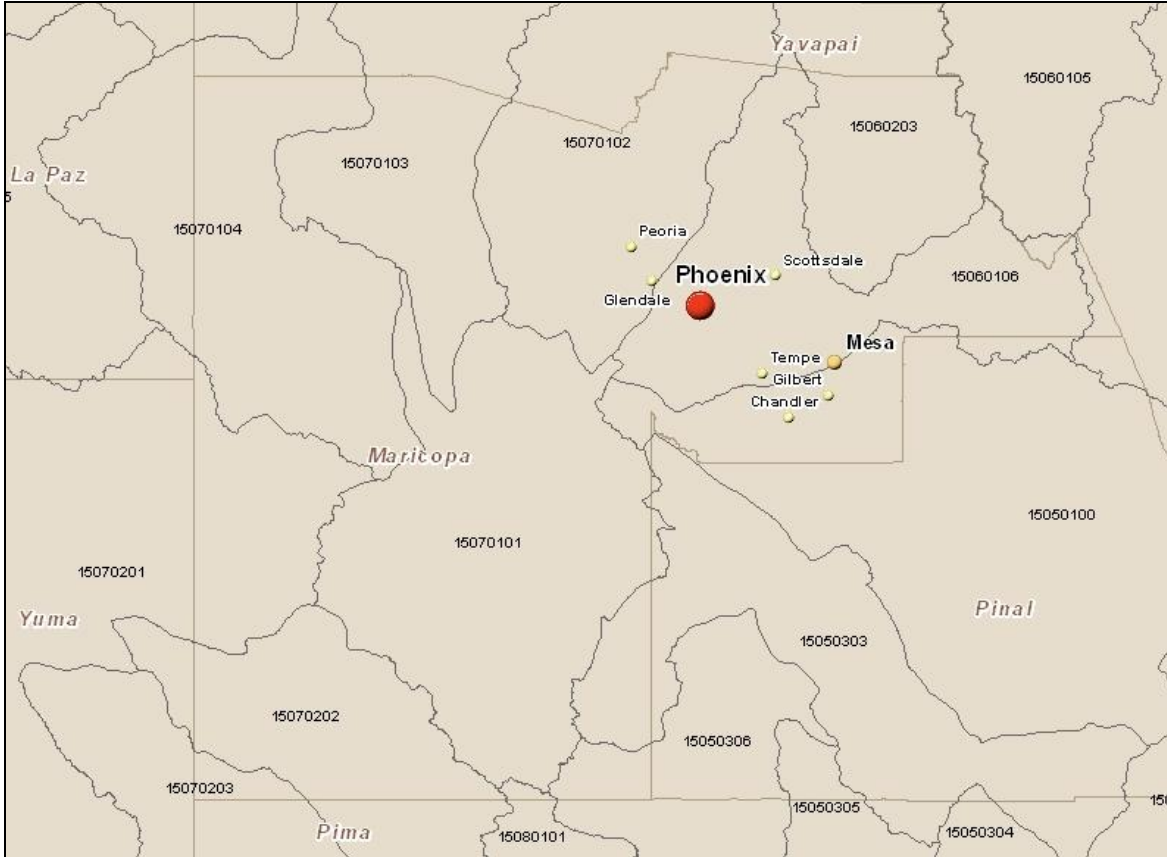


Figure 2: MCRPD geographic service area<sup>5</sup>

The site discussed in this prospectus as a proposed ILF project site, the AFCA, is within HUC 15070102 Agua Fria watershed (figure 3) and within the more narrowly defined boundary of HUC 150701020514 Agua Fria River-Lake Pleasant (Local Drainage)<sup>6</sup> with an area of 22,049.65 acres.

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<sup>5</sup> Mapping data imported from ArcGIS online, as accessed October 25, 2012.

<sup>6</sup> EPA, MyWATERS Mapper.

[http://watersgeo.epa.gov/mwm/?layer=LEGACY\\_WBD&feature=15070102&extraLayers=null](http://watersgeo.epa.gov/mwm/?layer=LEGACY_WBD&feature=15070102&extraLayers=null) as accessed October 15, 2012.



## Draft Prospectus: In-Lieu Fee Program



Figure 3: HUC 15070102 Agua Fria watershed, 1,561,650.89 acres<sup>7</sup>

#### 4. Contribution to connectivity and ecosystem function

MCPRD has nearly 120,000 acres of park lands and open space within its system. These parks are located throughout the county. Lake Pleasant Regional Park, Estrella Mountain Regional Park, and Spur Cross Ranch Conservation Area contain active riparian areas while others contain a number of washes and drainage areas. Many parks are adjacent to open spaces owned by other agencies, allowing even greater connectivity of ecosystems and/or drainages.

MCPRD is tasked with the unique undertaking of providing recreation while maintaining natural and cultural resources found within each park. As an ILF Sponsor, MCPRD is able to restore damaged natural riparian areas and prevent invasive species, with the goal of improving stream functions and habitats.

#### 5. Potential conflicts and compatibility with any other plans, policies, or regulations

MCPRD regularly partners and coordinates with the appropriate agencies at local, state, and the federal level on projects. MCPRD has a 50-year agreement with BOR expiring June 1, 2040, with a 50-year extension option to manage Lake Pleasant Regional Park (including the AFCA area) as a county park. As the ultimate land owner, BOR retains any rights to surface or sub-surface mining activities. AFCA is surrounded by other agency owned land (BLM, BOR, Arizona State Land Trust, etc) ensuring that its future as an open, native, desert area is fairly certain (Appendix B, surrounding land ownership).

In December 2006, several government agencies responsible for the land, recreation and wildlife management of the area, i.e. MCPRD, BOR, Arizona Game and Fish Department (AZGFD), Maricopa County Sheriff's Office (MCSO), Bureau of Land Management (BLM) and Arizona State Land Department

<sup>7</sup> EPA, Watershed Assessment, Tracking & Environmental Results.

[http://ofmpub.epa.gov/tmdl\\_waters10/attains\\_watershed.control?p\\_huc=15070102&p\\_cycle=&p\\_report\\_type=T](http://ofmpub.epa.gov/tmdl_waters10/attains_watershed.control?p_huc=15070102&p_cycle=&p_report_type=T) as accessed October 15, 2012.

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(ASLD) agreed that shooting, trash dumping, off-road vehicle travel, vandalism, and criminal activity were degrading cultural and natural resources of the AFCA and creating a public hazard. The agencies recognized a management plan for the AFCA needed to be developed and implemented to ensure protection of the area's cultural and biological resources and to maintain the area as a viable and enjoyable recreational area.

The group also recognized that development of the management plan would require coordination among the agencies having responsibility and jurisdiction over the AFCA and adjacent public lands, as any change in land management within the AFCA is likely to shift prohibited activities onto adjacent lands. To address the concerns and with public input, an AFCA Management Plan was adopted in July 2010 and centered on the fact that the area should remain a conservation area with limited access (Appendix C, 2010 AFCA Management Plan and Appendix D, Management Plan Components) for passive recreational opportunities, to include fishing (a compatible use per ILF guidelines). However, due to the damage that the area has sustained, it will greatly benefit as an ILF Sponsor site.

Some neighboring land areas allow grazing, and periodically stray cattle are found within the AFCA as they seek out water sources. These stray cattle have contributed to the damage found in the area and are consequently reported and then removed as needed by the local ranchers. Burros are also seen within park boundaries but are part of a BLM Herd Management Area and live in the area under protection of the Wild and Free-Roaming Horse and Burro Act of 1971.

## 6. Disposition of proposed ILF mitigation project site(s)

MCPRD does not have a complete delineation of all wetlands and other waters of the U.S. within its park boundaries. Potential ILF sites have been rudimentarily identified as being within Estrella Mountain Regional Park, Spur Cross Ranch Conservation Area, Lake Pleasant Regional Park, and potentially others.

### A. Previous use as mitigation project(s)

The AFCA has been used as a mitigation site (as has Chalky Springs and Morgan City Wash in the southern portion of Lake Pleasant Regional Park) under previous generations of the ILF program. Previous funding received under the older program was used to begin the fencing and installation of access controls within the AFCA with the intent of minimizing future damage and beginning the restoration process. The Chalky Springs and Morgan City Wash projects are complete and show significant improvements. However, monies received have only provided enough financial resources to fence approximately 4 miles of the 14 miles requiring fencing. All available funds from previous mitigation programs have been spent. (See table 3 below for a summary of public funds received for restoration of the AFCA site.)

<b>Funding Source</b>	<b>Amount Received or Obligated</b>	<b>Purpose</b>	<b># Acres Affected/Linear Mileage</b>
AZGFD	\$266,667	For road improvement, launch ramp, host sites, gate, fence, entry pod, parking lot, maintenance pod, etc. as per the Management Plan.	Approximately 4 acres against the EA
USACE	\$81,312	Fencing installation within the AFCA	3

Abbreviations:  
USACE: U. S. Army Corps of Engineers (Previous Mitigation Funding)  
AGFD: funding obligated as part of the Management Agreement

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## **B. Designated or dedicated for passive park or open space use**

The 1995 Lake Pleasant Master Plan that describes the protection and development of AFCA places a strong emphasis on maintaining biological values. The 2010 AFCA Management Plan (See Appendix C, 2010 AFCA Management Plan) continues to emphasize sustaining biological values while allowing also passive recreation. These documents support MCPRD's mission and vision.

## **C. Designated for purposes inconsistent with habitat preservation**

MCPRD is not aware of any designation within the AFCA that would be inconsistent with habitat preservation.

## **D. Acquired by a public entity or provided to a jurisdiction for park or natural open space**

The land was acquired and is owned by BOR through a process of purchase and condemnation during the late 1980's early 1990's. Per the 1990 Recreation Management Agreement, it has been incorporated into the MCPRD regional park system.

## **7. PJD for USACE review and approval<sup>8</sup>**

Resources are not available to perform a PJD on the entirety of the MCPRD system. However, specifically for the AFCA, there are approximately 596 acres of jurisdictional waters in the ILF project area (Appendix B, Jurisdictional Waters). This acreage was not determined by field assessment, but by identifying qualifying drainages and delineating approximate drainage width from Google Map aerial photos. All drainages are xeroriparian in nature, except the main channel of the Agua Fria River, which is largely intermittent or subject to exposure to the waters of Lake Pleasant when the lake is filled to capacity. This number of acres provides a substantial and unique area to be used as an ILF sponsor site.

## **8. Compensation planning framework**

Consideration of nearby landscape stressors such as encroachment from development and resource damage will allow for more effective site selection. Comprehensive strategies that are used by the Department to select, secure and implement aquatic resources involve the following components:

### **A. Watershed-based rationale for delineation of each service area(s)**

The watershed-based rationale for MCPRD includes the geographic service area as previously detailed in Section 3.F. and in table 2. Specifically, the compensation planning framework for AFCA includes the geographic service area as shown in Appendix B, Jurisdictional Waters and includes HUC 150701020514 Agua Fria River-Lake Pleasant (Local Drainage)<sup>9</sup> with an area of 22,049.65 acres. This area serves a customer base of the greater Phoenix metropolitan area and its visitors.

The watershed-based rationale for the delineation of this service area has many components. This, as an ILF Sponsor site, will provide funding needed to assist with fencing the area, revegetation efforts, and with keeping trash and other illegal dumping out of waterway. It will allow the mesquite bosque and other riparian forestation (willow, cottonwood, ironwood, palo verde) to regenerate in areas adjacent to the river bank; allow MCPRD and/or AZGFD to monitor fish and other wildlife and habitat populations;

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<sup>8</sup> A PJD can only be used to determine that wetlands or other water bodies that exist on a particular site "may be" jurisdictional waters of the United States. For the purposes of this document, a PJD is one done in accordance with the requirements of USACE Regulatory Guidance Letter 08-02.

<sup>9</sup> PA, MyWATERS Mapper.

[http://watersgeo.epa.gov/mwm/?layer=LEGACY\\_WBD&feature=15070102&extraLayers=null](http://watersgeo.epa.gov/mwm/?layer=LEGACY_WBD&feature=15070102&extraLayers=null) as accessed October 15, 2012.

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prevent invasive species from taking a foothold; and to keep illegal OHV use out of the area. This area is an important drainage area for the Bradshaw Mountains (esp. Indian Mesa and Williams Mesa).

## **B. Description of threats to aquatic resources in service area(s)**

The major threats to AFCA have been identified as illegal dumping, target shooting, illegal OHV uses, grazing, etc. and invasive species (i.e. salt cedar; quagga mussels within Lake Pleasant).

## **C. Analysis of historic aquatic resource loss in the service area(s)**

The 1995 LPRP Master Plan and the 2010 AFCA Management Plan required environmental analysis. EA's performed for the area represent the best historic documentation that MCPRD has regarding aquatic and other resource conditions in the area.

Potential losses include a decline in longfin dace (*Agosia chrysogaster*) and desert sucker (*Pantosteus clarki*) populations and spawning habitat for other species. "The quality of the largemouth bass fishery has decreased however, and it has been hypothesized this is due to the recent invasion of striped bass (*Morone saxatilis*) resulting from the importation of Colorado River water into Lake Pleasant through the Central Arizona Project (CAP) system."<sup>10</sup> Because of temperature and dissolved oxygen constraints, the striped bass move further downstream into Lake Pleasant from June to September (Stewart et al. 2008; p 28). Periodic flooding has scoured vegetation along banks and shorelines.

## **D. Analysis of current aquatic resource conditions in the service area(s)**

The 1995 Master Plan identified only two native fish species, the longfin dace (*Agosia chrysogaster*) and desert sucker (*Pantosteus clarki*), within the LPRP boundaries, as well as in perennial tributary waters outside LPRP. The federally endangered Gila topminnow (*Poeciliopsis occidentalis*) can be found in perennial portions of tributaries to the Agua Fria River (Cella Barr 1995 Lake Pleasant Regional Park Master Plan; p. VI-11). Some parts of the Agua Fria River may provide spawning habitat for striped bass, especially after substantial spring flows. (Generally, Lake Pleasant is also home to various Bass, Crappie, Catfish, Sunfish, and Tilapia.)

The EA performed for the 2010 AFCA Management Plan further noted:

"Lake Pleasant has historically been regarded as one of the premier largemouth bass (*Micropterus salmoides*) fisheries in Arizona. Up to an estimated 150 largemouth bass tournaments per year have occurred on Lake Pleasant (Bryan 2005; p. 56) and the spring drawdown of the reservoir is timed to enhance spawning and nesting by bass. The quality of the largemouth bass fishery has decreased however, and it has been hypothesized this is due to the recent invasion of striped bass (*Morone saxatilis*) resulting from the importation of Colorado River water into Lake Pleasant through the CAP system.

The AFCA is within what was the "upper basin" as defined by Bryan (2005). Because the upper basin is influenced primarily by flows from the Agua Fria River and runoff from various washes and creeks, it tends to be more productive than the major deep portion of the reservoir. AFCA's diverse habitat and high productivity create excellent fishing opportunities and, as a result, experiences a large portion of the total angling pressure on the reservoir (Bryan 2005; p.3). Although anglers pursue white and large mouth bass and some channel catfish (*Ictalurus punctatus*), the majority of anglers now are fishing for striped bass within the AFCA (N. Robb,

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<sup>10</sup> Bureau of Reclamation, Environmental Assessment, Lake Pleasant Regional Park, Agua Fria Conservation Area Management Plan, January 2010, pages 40 – 41

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pers. comm. 2009). An AGFD study suggested that the upper end of the Agua Fria River provides spawning habitat for striped bass, especially after substantial spring flows (Stewart et al. 2008; p. 29). The majority of tagged striped bass remained in the Agua Fria from September to May. Because of temperature and dissolved oxygen constraints, the striped bass move further downstream into Lake Pleasant from June to September (Stewart et al. 2008; p. 28)."<sup>11</sup>

## **E. Statement of aquatic resource goals and objectives for each service area**

The system-wide goal of the ILF Program is the rehabilitation or re-establishment (collectively known as restoration) of lost aquatic resource functions of riverine ecosystems, particularly as they relate to habitat, water quality, and flood control purposes. The amounts, types and locations, and priorities will vary and will be determined on a case by case basis.

However, specific to the AFCA, the goal of restoration work at the site is to preserve, enhance, and diversify habitat while stabilizing disturbed land. Additional goals and objectives are detailed in its 2010 Management Plan. (This 2,405 acre area is significant enough to warrant the ILF program participation to help complete the fencing project and future restoration efforts.)

## **F. Prioritization strategy for selecting and implementing compensatory mitigation activities**

For AFCA, the immediate and primary strategy for mitigation is the need to complete the fencing around the area. As stated previously, the progress made with fencing in this area has already begun to have a positive impact on the area but a large portion of the area is still in need of fencing. Establishing test plots of riparian trees; replanting native vegetation in the mesquite bosque and willow area(s); and eliminating invasive species to promote restoration are also priorities. Springs may also be analyzed to determine if sedimentation removal would be beneficial.

Informational, regulatory, warning, and end-of-roadway signs and a kiosk with interpretive information will also be utilized to educate the public to the character of the ILF area(s). The area will be monitored and the Management Plan modified as required to achieve the desired effect.

## **G. Explanation of how preservation objectives satisfy criteria of 33 C.F.R. § 332.3(h)**

Preservation will be one type of the compensatory mitigation credits that the Program seeks to serve, with other credit activities being enhancement, restoration, creation and passive regeneration.

Provides important functions: Providing creation, enhancement, restoration and/or protection of these areas will greatly increase both the function and value of the aquatic resources. If these resources are not preserved, increased degradation will continue to occur and increase non-point source pollution, erosion and sedimentation. The primary component of the ILF Program is to protect the special assemblages of natural and cultural resources located within the project area.

The 1995 LPMP established guidelines for development of Lake Pleasant Regional Park and outlined future desired conditions for, among other things, recreation and resource protection; the entire north and east sides were identified as a conservation area. An area in the northeastern portion of LPRP was later identified as the Agua Fria Conservation Area (AFCA) in recognition of the referenced special assemblages of natural and cultural resources that occurred there. In 2010 the AFCA Management Plan was adopted to address issues found within the AFCA.

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<sup>11</sup> Bureau of Reclamation, Environmental Assessment, Lake Pleasant Regional Park, Agua Fria Conservation Area Management Plan, January 2010, pages 40 – 41.

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Contributes to watershed sustainability: Removing or minimizing threats to the AFCA is vital to its recovery and future sustainability.

Appropriate and Practicable: The 2010 AFCA Management Plan will be administered in phases so that MCPRD may have adequate time to prepare budget requests and address staffing needs. The phases will also allow some natural revegetation to occur before determining if more active replanting efforts are needed. The plan will also phase in passive recreational uses as can be tolerated by the environment. The plan uses an adaptive management approach and will include appropriate and practical efforts to partner with neighboring agencies to address the needs of not only AFCA, but also surrounding areas.

Permanently protected: The current Recreation Management Agreement with BOR has a term of 50 years, expiring June 1, 2040, with an additional renewal term of 50 years.

Under Threat of Destruction or Adverse Modification: As noted before, rapid urbanization in central Arizona continues to expand and puts great pressure on parks and open spaces. The AFCA exhibits the negative results of those pressures and is in peril of being lost without the ILF program and continuing efforts to avert and repair damage and to restore the area to more natural conditions, ultimately improving the waterways and watershed.

## **H. Description of any public and private stakeholder involvement in plan development**

MCPRD routinely partners with other agencies and consults the public and other stakeholders for their input as it creates its management plans. Public and private stakeholders were consulted as part of the planning process for the 2010 AFCA Management Plan and their feedback was incorporated into the final plan.

## **I. Description of long-term protection and management strategies**

MCPRD wishes to uphold long-term protection and management strategies as outlined in its 1995 LPMP, 2010 AFCA Management Plan, as well as uphold its mission and vision to insure the health of the park system for future generations. Some of these activities include: coordinating and consulting with its agency partners; establishing a baseline report detailing existing conditions; developing area or sub-area management plans utilizing best practices; implementing mitigation, conservation, and/or preservation measures; monitoring; and adapting its management plan to accommodate successes or shortcomings of mitigation measures.

## **J. Strategy for periodic evaluation and reporting on the progress of the ILF program**

MCPRD recommends and practices follow up monitoring and reporting to track the progress of its ILF programs and implements changes as needed to facilitate improvement and success of the ILF program. For example, the 2010 AFCA Management Plan incorporates an adaptive management approach to monitoring and evaluating the effects of implementing said plan on the natural and cultural resources within the AFCA. An adaptive management approach will enable resource managers to determine how well management actions meet their objectives and whether or not changes need to be made or additional steps taken to improve protection of sensitive resources and achieve successful management.

Prior to implementing the Management Plan, staff inventoried and documented baseline conditions of the AFCA (via field surveys and photo monitoring) and determined its class description(s) much like those used as Recreation Opportunity Spectrum (ROS) class descriptions. In consultation with BOR and the agency partners, MCPRD established standards and limits of acceptable change using indicators such

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as: access; remoteness; visual characteristics; site management; visitor management; social encounters; and visitor impacts.

MCPRD staff monitors the AFCA on an ongoing basis and documents any changes to these indicators which result from implementing its Management Plan. An annual review of the AFCA area will be conducted by a Resource Management Team comprised of MCPRD, BOR and AGFD staff. Should the team determine that the limits of acceptable change have been exceeded, the Resource Management Team will determine what, if any, adaptations or changes should be recommended to achieve the initial goals established for it or to further refine the Management Plan to determine additional steps to be undertaken to achieve its objectives.

All recommendations from the Resource Management Team will be presented to, and evaluated by, the MCPRD Director, in concert with BOR's Phoenix Area Office Manager, for approval and implementation. In addition, MCPRD will coordinate with MCSO and AZGFD on law enforcement activities in the area. If problems with unlawful use are noted, MCPRD will ensure proper action is taken to mitigate the issue.

### **9. Summary**

The Maricopa County Parks and Recreation Department is providing this prospectus for the purpose of establishing and managing an in-lieu fee program for the benefit of many of the watersheds and other associated waterways in Maricopa County that occur within the Departments' jurisdiction or park boundaries. The AFCA has been discussed as an initial program candidate, but it is intended that other appropriate areas be eligible for future consideration. Continuing to provide sponsor sites under this program will assist MCPRD in its mission of responsible stewardship and will allow in-progress work at the Agua Fria Conservation Area to continue.

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### Appendix A – Common species found at Lake Pleasant Regional Park and/or Agua Fria Conservation Area

PLANTS			
Red Brome	<u><i>Bromus rubens</i></u>	Quailbush	<u><i>Atriplex lentiformis</i></u>
Desert Hackberry	<u><i>Celtis pallid</i></u>	Canyon ragweed	<u><i>Ambrosia ambrosioides</i></u>
Desert Willow	<u><i>Chilopsis linearis</i></u>	Fairy Duster	<u><i>Calliandra eriophylla</i></u>
Rigid Spiny Herb	<u><i>Chorizanthe rigida</i></u>	White Brittlebush	<u><i>Encelia farinose</i></u>
Longleaf Ephedra	<u><i>Ephedra trifurca</i></u>	Wild Buckwheat	<u><i>Eriogonum</i></u> Sp.
Heron's Bill	<u><i>Erodium circutarium</i></u>		<u><i>Ferocactus acanthodes</i></u>
Cheesebrush	<u><i>Hymenoclea salsola</i></u>	Compass Darrel Cactus	<u><i>Echinocereus engelmannii</i></u>
Bladderpod	<u><i>Isomeris arborea</i></u>	Strawberry Hedgehog	<u><i>Cercidium floridum</i></u>
Chuparosa	<u><i>Justicia californica</i></u>	Blue Paloverde	<u><i>Cereus giganteus</i></u>
White Ratney	<u><i>Krameria grayi</i></u>	Saguaro	<u><i>Acacia constricta</i></u>
Pinchushon Cactus	<u><i>Mammillaria sp.</i></u>	White-thorn Acacia	<u><i>Ferocactus acanthodes</i></u>
Wooly Plantain	<u><i>Plantago insularis</i></u>	Barrel Cactus	<u><i>Opuntia fulgida</i></u>
Jojoba	<u><i>Simmondsia chinensis</i></u>	Chain-fruit Cholla	<u><i>Cynodon dactylon</i></u>
Globe Mallow	<u><i>Sphaeralcea sp.</i></u>	Bermuda Grass	<u><i>Haplopappus tenuisecta</i></u>
Arrowweed	<u><i>Tessaria sericea</i></u>	Burroweed	<u><i>Canotia holacantha</i></u>
Graythorn	<u><i>Zizyphus obtusifolia</i></u>	Crucifixion Thorn	<u><i>Opuntia phaeacantha</i></u>
Creosote Bush	<u><i>Larrea tridentate</i></u>	Prickly Pear	<u><i>Opuntia engelmannii</i></u>
Triangle-leaf Bursage	<u><i>Ambrosia deltoidea</i></u>	Engelmann Prickly Pear	<u><i>Opuntia bigelovii</i></u>
Foothill Paloverde	<u><i>Cercidium microphyllum</i></u>	Teddy Bear Cholla	<u><i>Tamarix pentandra</i></u>
Velvet Mesquite	<u><i>Prosopis velutina</i></u>	Salt Cedar	<u><i>Salix goodingii</i></u>
Ironwood	<u><i>Olneya tesota</i></u>	Gooding Willow	<u><i>Populus fremontii</i></u>
Ocotillo	<u><i>Fouquieria splendens</i></u>	Fremont Cottonwood	<u><i>Typha</i></u> sp.
Burrow Brush	<u><i>Hymenoclea monogyra</i></u>	Cattail	<u><i>Agave murpheyi</i></u>
Catclaw Acacia	<u><i>Acacia greggii</i></u>	Hohokam Agave	<u><i>Cereus greggii</i></u>
Fourwing Saltbush	<u><i>Atriplex canescens</i></u>	Night Blooming Cereus	<u><i>Baccharis sarothroides</i></u>
		Desert Broom	

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<b>BIRDS</b>			
Eared Grebe	<u><i>Podiceps nigricollis</i></u>	Costa's hummingbird	<u><i>Calypte costae</i></u>
Western Grebe	<u><i>Aechmophorus occidentalis</i></u>	Anna's hummingbird	<u><i>Calypte anna</i></u>
Pied-billed Grebe	<u><i>Podilymbus podiceps</i></u>	Black-chinned Hummingbird	<u><i>Archilochus alexandri</i></u>
White Pelican	<u><i>Pelecanus erythrorhynchos</i></u>	Belted Kingfisher	<u><i>Ceryle alcyon</i></u>
Double-crested Cormorant	<u><i>Phalacrocorax auritus</i></u>	Northern Flicker	<u><i>Colaptes auratus</i></u>
Great-blue Heron	<u><i>Ardea Herodias</i></u>	Gila Woodpecker	<u><i>Melanerpes uropygialis</i></u>
Green-backed Heron	<u><i>Butorides striatus</i></u>	Ladder-backed Woodpecker	<u><i>Picoides scalaris</i></u>
Black-crowned Night Heron	<u><i>Nycticorax nycticorax</i></u>	Vermilion Flycatcher	<u><i>Pyrocephalus rubinus</i></u>
Cattle Egret	<u><i>Bubulcus ibis</i></u>	Western Kingbird	<u><i>Tyrannus verticalis</i></u>
Great Egret	<u><i>Casmerodius albus</i></u>	Ash-throated Flycatcher	<u><i>Myiarchus cinerascens</i></u>
Mallard	<u><i>Anas platyrhynchos</i></u>	Black Phoebe	<u><i>Sayornis nigricans</i></u>
Gadwall	<u><i>Anas strepera</i></u>	Say's Phoebe	<u><i>Sayornis saya</i></u>
American Wigeon	<u><i>Anas Americana</i></u>	Horned Lark	<u><i>Eremophila alpestris</i></u>
Green-winged Teal	<u><i>Anas crecca</i></u>	Cliff Swallow	<u><i>Hirundo pyrrhonota</i></u>
Cinnamon Teal	<u><i>Anas cyanoptera</i></u>	Violet-green Swallow	<u><i>Tachycineta thalassina</i></u>
Redhead	<u><i>Aythya Americana</i></u>	Northern Rough-winged Swallow	<u><i>Stelgidopteryx serripennis</i></u>
Ring-necked Duck	<u><i>Aythya collaris</i></u>	Tree Swallow	<u><i>Tyachycineta bicolor</i></u>
Lesser Scaup	<u><i>Aythya affinis</i></u>	Common Raven	<u><i>Corvus corax</i></u>
C. Merganser	<u><i>Mergus merganser</i></u>	Verdin	<u><i>Auriparus flaviceps</i></u>
Turkey Vulture	<u><i>Cathartes aura</i></u>	Bewick's Wren	<u><i>Thyomanes bewickii</i></u>
Cooper's Hawk	<u><i>Accipiter cooperii</i></u>	Cactus Wren	<u><i>Campylorhynchus brunneicapillus</i></u>
Harris' Hawk	<u><i>Parabuteo unicinctus</i></u>	Rock Wren	<u><i>Salpinctes obsoletus</i></u>
Red-tailed Hawk	<u><i>Buteo jamaicensis</i></u>	Marsh Wren	<u><i>Cistothorus palustris</i></u>
Osprey	<u><i>Pandion haliaetus</i></u>	Canyon Wren	<u><i>Catherpes mexicanus</i></u>
Golden Eagle	<u><i>Aquila chrysaetos</i></u>	Northern Mockingbird	<u><i>Mimus polyglottos</i></u>
Bald Eagle	<u><i>Haliaeetus leucocephalus</i></u>	Curve-billed Thrasher	<u><i>Toxostoma curvirostre</i></u>
Peregrine Falcon	<u><i>Falco peregrinus</i></u>	Black-tailed Gnatcatcher	<u><i>Poliophtila melanura</i></u>
American Kestrel	<u><i>Falco sparverius</i></u>	Blue-grey Gnatcatcher	<u><i>Poliophtila caerulea</i></u>
Gambel's Quail	<u><i>Callipepla gambelii</i></u>	Ruby-crowned Kinglet	<u><i>Regulus calendula</i></u>
Common Moorhen	<u><i>Gallinula chloropus</i></u>	Water Pipit	<u><i>Anthus spinoletta</i></u>
Sora	<u><i>Porzanno carolina</i></u>	Phainopepla	<u><i>Phainopepla nitens</i></u>

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<b>BIRDS</b>			
American Coot	<u><i>Fulica americana</i></u>	Loggerhead Shrike	<u><i>Lanius ludoyicianus</i></u>
Killdeer	<u><i>Charadrius vociferous</i></u>	European Starling	<u><i>Sturnus vulgaris</i></u>
Greater Yellowlegs	<u><i>Tringa melanolueca</i></u>	Bell's Vireo	<u><i>Vireo bellii</i></u>
Spotted Sandpiper	<u><i>Actitis macularia</i></u>	Black-throated Gray Warbler	<u><i>Dendroica nigrescens</i></u>
Least Sandpiper	<u><i>Calidris minutilla</i></u>	Lucy's Warbler	<u><i>Vermivora luciae</i></u>
Common Snipe	<u><i>Gallinago gallinago</i></u>	Orange-crowned Warbler	<u><i>Vermivora celata</i></u>
Ringed-bill Gull	<u><i>Larus delawarensis</i></u>	Yellow Warbler	<u><i>Dendroica petechia</i></u>
Rock Dove	<u><i>Columba livia</i></u>	Yellow-rumped Warbler	<u><i>Dendroica coronate</i></u>
White-winged Dove	<u><i>Zenaida asiatica</i></u>	Wilson Warbler	<u><i>Wilsonia pusilla</i></u>
Mourning Dove	<u><i>Zenaida macroura</i></u>	Common Yellowthroat	<u><i>Geothlypis tricas</i></u>
Inca Dove	<u><i>Coumbina inca</i></u>	MacGillivray's Warbler	<u><i>Oporornis tolmiei</i></u>
Greater Roadrunner	<u><i>Geococcyx californianus</i></u>	Western Meadowlark	<u><i>Sturnella neglecta</i></u>
Great Horned Owl	<u><i>Bubo virginianus</i></u>	Red-winged Blackbird	<u><i>Agelaius phoeniceus</i></u>
Barn Owl	<u><i>Tyto alba</i></u>	Brewer's Blackbird	<u><i>Euphagus cyanocephalus</i></u>
Western Screech Owl	<u><i>Otus kennicottii</i></u>	Brown-headed Cowbird	<u><i>Mlonthrus ater</i></u>
Elf Owl	<u><i>Micrathene whitneyi</i></u>	Hooded Oriole	<u><i>Icterus cucullatus</i></u>
Lesser Nighthawk	<u><i>Chordeiles acutipennis</i></u>	Northern Oriole	<u><i>Icterus galbula</i></u>
Common Poorwill	<u><i>Phalaenoptilus nuttallii</i></u>	Summer Tanager	<u><i>Piranga rubra</i></u>
White-throated Swift	<u><i>Aeronautes saxatalis</i></u>	Northern Cardinal	<u><i>Cardinalis cardinalis</i></u>
Pyrrhuloxia	<u><i>Cardinalis sinuatus</i></u>	Black-throated Sparrow	<u><i>Amphispiza bilineata</i></u>
Blue Grosbeak	<u><i>Gulraca caerulea</i></u>	Chipping Sparrow	<u><i>Spizella breweri</i></u>
Black-headed Grosbeak	<u><i>Pheucticus melanocephalus</i></u>	Brewer's Sparrow	<u><i>Spizella breweri</i></u>
House Finch	<u><i>Carpodacus mexicanus</i></u>	White-crowned Sparrow	<u><i>Zonotrichia leucophrys</i></u>
Lesser Goldfinch	<u><i>Carduelis psaltria</i></u>	Lincoln's Sparrow	<u><i>Melospiza lincolni</i></u>
Green-tailed Towhee	<u><i>Pipilo chlorurus</i></u>	Song Sparrow	<u><i>Melospiza melodia</i></u>
Albert's Towhee	<u><i>Pipilo aberti</i></u>	Rufous-crowned Sparrow	<u><i>Aimophila ruficeps</i></u>
Lark Sparrow	<u><i>Chondestes grammacus</i></u>		

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<b>MAMMALS</b>			
Collared Peccary	<u><i>Dicotyles tajacu</i></u>	Arizona Pocket Mouse	<u><i>Perognathus amplus</i></u>
Mule Deer	<u><i>Odocoileus hemionus</i></u>	Bailey's Pocket Mouse	<u><i>Perognathus baileyi</i></u>
Coyote	<u><i>Canis latrans</i></u>	Desert Pocket Mouse	<u><i>Perognathus penicillatus</i></u>
Gray Fox	<u><i>Urocyon cinereoargenteus</i></u>	Merriam's Kangaroo Rat	<u><i>Dipodomys merriami</i></u>
Ringtail	<u><i>Bassariscus astutus</i></u>	Cactus Mouse	<u><i>Peromyscus eremicus</i></u>
Raccoon	<u><i>Procyon lotor</i></u>	Deer Mouse	<u><i>Peromyscus maniculatus</i></u>
Badger	<u><i>Taxidea taxus</i></u>	Southern Grasshopper Mouse	<u><i>Onychomys torridus</i></u>
Striped Skunk	<u><i>Mephitis mephitis</i></u>	White-throated Woodrat	
Mountain Lion	<u><i>Felis concolor</i></u>	Desert Cottontail	<u><i>Neotoma albigula</i></u>
Bobcat	<u><i>Felis rufus</i></u>	Black-tailed Jackrabbit	<u><i>Sylvilagus audubonii</i></u>
Harris' Ground Squirrel	<u><i>Amospermophilus harrisi</i></u>	Cave Myotis	<u><i>Lepus californicus</i></u>
Rock Squirrel	<u><i>Spermophilus variegates</i></u>	Western Pipistrelle	<u><i>Myotis yelifer</i></u>
Round-tailed Ground Squirrel	<u><i>Spermophilus tereticaudus</i></u>	Big Brown Bat	<u><i>Pipistrellus hesperus</i></u>
Botta's Pocket Gopher	<u><i>Thomomys bottae</i></u>		<u><i>Eptesicus fuscus</i></u>

<b>AMPHIBIANS</b>			
Tiger Salamander	<u><i>Ambystoma tigrinum</i></u>	Couch's Spadefoot Toad	<u><i>Scaphiopus couchi</i></u>
Sonoran Desert Toad	<u><i>Bufo alvarius</i></u>	Western Spadefoot Toad	<u><i>Scaphiopus hammondi</i></u>
Great Plains Toad	<u><i>Bufo cognatus</i></u>	Canyon Treefrog	<u><i>Hyla arenicolor</i></u>
Red-spotted Toad	<u><i>Bufo punctatus</i></u>	Leopard Frog	<u><i>Rana pipiens</i></u>
Woodhouse's Toad	<u><i>Bufo woodhousei</i></u>	Bullfrog	<u><i>Rana catesbiana</i></u>

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<b>FISH</b>			
Threadfin Shad	<u><i>Dorosoma petenense</i></u>	White Bass	<u><i>Morone chrysops</i></u>
Carp	<u><i>Cyprinus carpio</i></u>	Largemouth Bass	<u><i>Micropterus salmoides</i></u>
Goldfish	<u><i>Carassius auratus</i></u>	Green Sunfish	<u><i>Chaenobryttus cyanellus</i></u>
Golden Shiner	<u><i>Notemigonus crysoleucus</i></u>	Bluegill	<u><i>Lepomis macrochirus</i></u>
Red Shiner	<u><i>Notropis lutrensis</i></u>	Redear Sunfish	<u><i>Lepomis microlophus</i></u>
Gila Sucker	<u><i>Catostomis insignis</i></u>	White Crappie	<u><i>Pomoxis annularis</i></u>
Channel Catfish	<u><i>Ictalurus punctatus</i></u>	Black Crappie	<u><i>Pomoxis nigromaculatus</i></u>
Yellow Bullhead	<u><i>Ictalurus natalis</i></u>	Blue Tilapia	<u><i>Tilapia aurea</i></u>
Mosquitofish	<u><i>Gambusia affinis</i></u>		

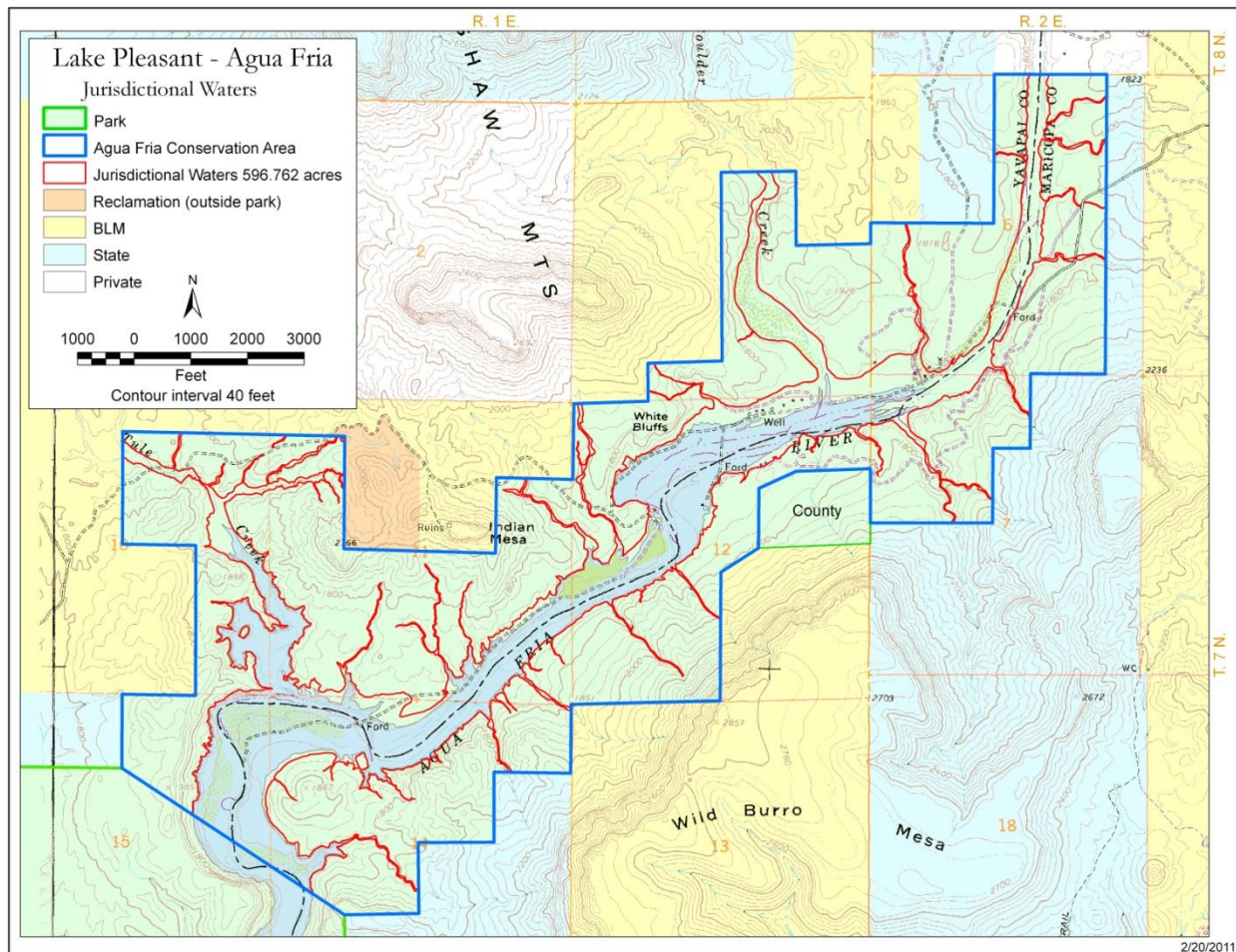
Source: Bureau of Reclamation, January 2010 Environmental Assessment for Lake Pleasant Regional Park, Agua Fria Conservation Area Management Plan.

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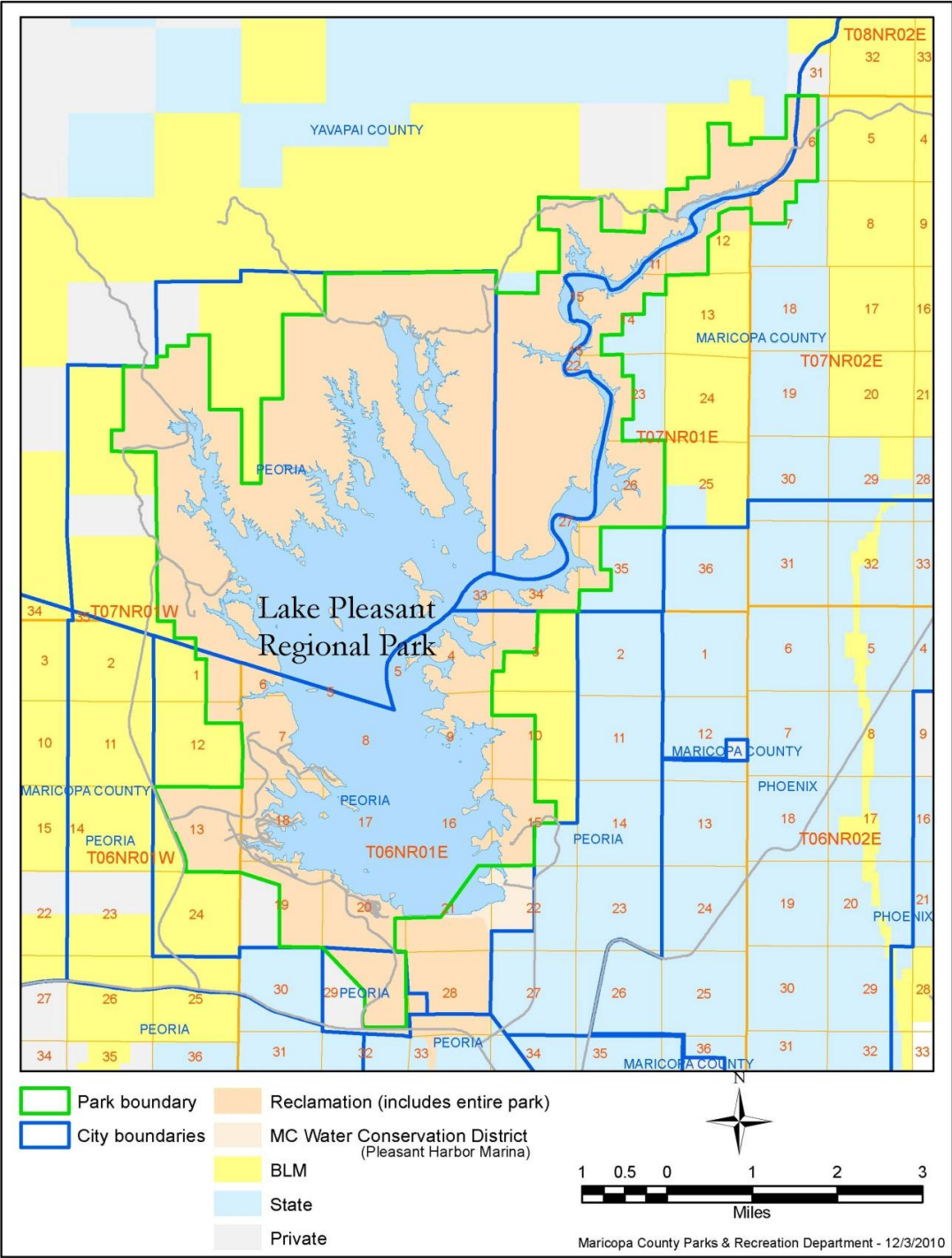
## Appendix B – Map of jurisdictional waters within AFCA and surrounding land ownership

There are approximately 596 acres (596.4) of jurisdictional waters in the ILF project area (see map below). This acreage was not determined by field assessment, but rather by identifying qualifying drainages delineating approximate drainage width from Google Map air photos. All drainages were of xeroriparian in nature, except the main channel of the Agua Fria River, which is largely intermittent or subjected to exposure to the waters of Lake Pleasant when the lake is filled to capacity.

This and the following map show surrounding land ownership.



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## Appendix C – 2010 Agua Fria Conservation Area Management Plan

Published under separate cover.



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## Appendix D – Management Plan Components – Draft Conceptual Plan

