

# STATE OF ARIZONA

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## **Arizona Game and Fish Department**

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## **Arizona Game and Fish Department Heritage Fund 2016 Report to the Arizona Legislature**

Project Year July 1, 2015 to June 30, 2016

December 28, 2016

## **Acknowledgments**

The assistance of personnel throughout the Arizona Game and Fish Department (Department), and our external cooperators, in preparing this report and conducting the activities reported herein is gratefully acknowledged.

## **Civil Rights Notification**

The Department prohibits discrimination on the basis of race, color, sex, national origin, age, disability in its programs and activities. If anyone believes they have been discriminated against in any of the Department's programs or activities, including its employment practices, the individual may file a complaint alleging discrimination directly with the Arizona Game and Fish Department, Director's Office, 5000 W. Carefree Highway, Phoenix, Arizona 85086; (623) 236-7290, or U.S. Fish and Wildlife Service, Office of Diversity and Inclusive Workforce Management, Public Civil Rights Accessibility & Disability Coordinator, 5275 Leesburg Pike, Falls Church, VA 22041; (703) 358-1724. If you require this document in an alternative format please contact the Arizona Game and Fish Department, Director's Office as listed above or by calling TTY at 1-800-367-8939.

## **Project Funding**

Title 17, Chapter 2, Article 6. Arizona Game and Fish Commission Heritage Fund

### §17-296. Definitions

In this article:

1. "Public access" means providing entry to publicly held lands for recreational use where such entry is consistent with the provisions establishing those lands.
2. "Sensitive habitat" means the specific areas within the geographical area historically or currently occupied by a species or community of species in which are found those physical or biological features essential to the establishment or continued existence of the species and which may require special management, conservation or protection considerations.
3. "Endangered species" means a species or subspecies or population of native Arizona wildlife whose population throughout its range has been reduced due to any cause whatsoever to such levels that it is in imminent danger of extinction, elimination from its range in Arizona, or has been eliminated from its range in Arizona.
4. "Threatened species" means a species, or subspecies or population of native Arizona wildlife that throughout its range although not presently in imminent danger of extinction, being eliminated from its range in Arizona, is likely to or might become an endangered species in the foreseeable future.
5. "Candidate species" means a species or subspecies, or population of native Arizona wildlife, for which habitat or population threats are known or suspected but for which substantial population declines from historic levels have not been documented.
6. "Urban wildlife" means the wildlife that occurs within the limits of an incorporated area or in close proximity to an urban area that receives significant impact from human use.
7. "Environmental education" means educational programs dealing with basic ecological principles and the effects of natural and man related processes on natural

and urban systems and programs to enhance public awareness of the importance of safeguarding natural resources.

8. "Habitat evaluation" means the assessment of the status, condition and ecological value of habitat and subsequent recommendations of management, conservation or other protection measures, or mitigation measures, including but not limited to, recommendation of reasonable alternatives for the proposed projects that might otherwise affect the habitat under assessment.
9. "Habitat protection" means the process of protecting the quality, diversity, abundance, and serviceability of habitats for the purposes of maintaining or recovering populations of Arizona wildlife.

§17-297. Arizona Game and Fish Commission Heritage Fund

- A. The Arizona game and fish commission heritage fund is established consisting of monies deposited from the state lottery fund pursuant to section 5-572 and interest earned on those monies.
- B. The fund shall be administered by the Arizona game and fish commission and is not subject to appropriation and expenditures from the fund are not subject to outside approval notwithstanding any provision of section 17-241 or 17-261 or any other statutory provision to the contrary. Monies received pursuant to section 5-572 shall be deposited directly with the Arizona game and fish commission heritage fund. On notice from the commission, the state treasurer shall invest and divest monies in the fund as provided by section 35-313, and monies earned from investment shall be credited to the fund.
- C. All monies in the Arizona game and fish commission heritage fund shall be spent by the commission only for the purposes and in the percentages set forth in this article. In no event shall any monies in the fund revert to the state general fund and monies in the fund are exempt from the provisions of section 35-190 relating to lapsing of appropriations.
- D. The commission shall not use its rights of eminent domain to acquire property to be paid for with money from the Arizona game and fish commission heritage fund.

§17-298. Expenditures from Fund; Purpose and Amounts; Annual Report

- A. Monies received pursuant to section 5-572 shall be spent as follows:
  1. Five per cent on public access, including maintenance and operation expenses.
  2. Sixty per cent on the identification, inventory, acquisition, protection and management, including maintenance and operations, of sensitive habitat. At least forty per cent of the monies available under this paragraph shall be spent on the acquisition of sensitive habitat utilized by endangered, threatened and candidate species. The commission may dispose of any lands acquired for use as habitat by an endangered, threatened or candidate species under this paragraph when the species no longer qualifies as an endangered, threatened or candidate species. The Arizona game and fish commission shall dispose of the land in a manner consistent with the preservation of the species of concern. The disposal may include conservation easements and fee simple transfers with associated instruments of protection. The commission shall follow the guidelines established pursuant to section 37-803 relating to the disposition of real property by a state agency. In addition, disposal shall include a written agreement between the

commission and the purchaser requiring the purchaser to incorporate management actions to ensure proper maintenance of the species of concern. Management actions may include maintenance of habitat, selective control of nonnative species, maintenance of genetic viability, monitoring of populations and habitat, coordinating conservation activities, funding conservation actions and assessing conservation progress.

3. Fifteen per cent on habitat evaluation or habitat protection.
  4. Fifteen per cent on urban wildlife and urban wildlife habitat programs.
  5. Five per cent on environmental education.
- B. All monies earned as interest on monies received pursuant to section 5-572 shall be spent only in the percentages and for the purposes described in subsection A of this section or for costs of administering the Arizona game and fish commission heritage fund in such amounts as determined by the Arizona game and fish commission.
- C. On or before December 31 each year the commission shall submit its annual report to the president of the senate, the speaker of the house of representatives and the chairmen of the senate and house of representatives committees on natural resources and agriculture, or their successor committees. The annual report shall include information on:
1. The amount of monies spent or encumbered in the fund during the preceding fiscal year and a summary of the projects, activities and expenditures relating to:
    - (a) Property acquisition.
    - (b) Identification, inventory, protection and management of sensitive habitat.
    - (c) Habitat evaluation and protection.
    - (d) Urban wildlife.
    - (e) Environmental education.
    - (f) Public access.
  2. The number and location of parcels of property acquired during the preceding fiscal year.
  3. For personal and real properties acquired with fund monies during the preceding fiscal year, the amount of property tax revenue paid to each taxing jurisdiction during the last full tax year prior to acquisition.
  4. The amount of money spent from the fund during the preceding fiscal year for employee personal services.
  5. The number of full-time employees employed in the preceding fiscal year in connection with property acquisition, including survey, appraisal and other related activities.
  6. The total number of full-time employees employed in the preceding fiscal year for the programs listed in subsection A of this section.
  7. A list of the grants awarded during the preceding fiscal year including information on the recipients, purposes and amounts.

### **Reporting Requirement**

This Heritage Program Report to the Arizona Legislature is required under, and submitted in compliance with, Arizona Revised Statutes §17-298.

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## HERITAGE ACQUISITION

The Arizona Game and Fish Commission (Commission) did not purchase any property with Heritage Acquisition funding in FY 2016.

However, the Department spent \$14,380 in Heritage acquisition funds on closing costs for the donation of Planet Ranch. The transfer of Planet Ranch to the Commission was a component of the Big Sandy River-Planet Ranch Water Rights Settlement Agreement which will provide environmental benefits by enhancing and restoring wildlife habitat under the Lower Colorado River Multi-Species Conservation Program (LCR MSCP). The Department also spent \$26,234.35 for due diligence on potential future acquisitions.



There were four full-time employees working for the Department in the preceding fiscal year connected to property and water right acquisitions. The Department spent \$3,372.41 for Heritage Acquisition Personnel Services and \$185,948.02 for Habitat Evaluation and Protection Personnel Services for these activities.

## HERITAGE IDENTIFICATION, INVENTORY, PROTECTION and MANAGEMENT of SENSITIVE SPECIES

Heritage Identification, Inventory, Acquisition, Protection and Management (IIAPM) funds are combined with other funding sources, like State Wildlife Grants (SWG) and Wildlife Restoration Funds, to implement a wide variety of projects to benefit sensitive habitats and species. This leveraging of funds magnifies the return on investment by accomplishing critical conservation work throughout Arizona. In most cases, IIAPM funds provide a fiscal foundation that enables or entices other sources to contribute to making a conservation concept a reality. The projects below are just a few examples of many projects enabled by IIAPM funds this year in Arizona. Although none of these projects has been funded solely by Heritage, their success is clearly attributable to the program.



## Bald Eagle Conservation



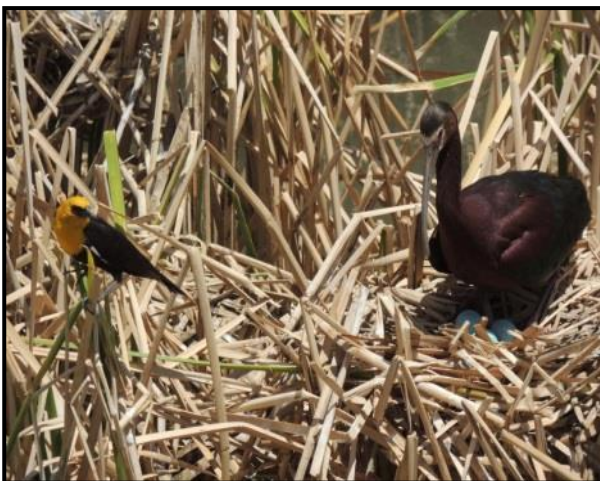
Heritage IIAPM funds have contributed significantly to the recovery and delisting of the bald eagle in Arizona. Arizona has used IIAPM funds to collect data on Arizona's bald eagle population which has been used several times by the U.S. Fish and Wildlife Service (USFWS) to defend the decision to delist the species in Arizona. Without IIAPM funding and the biological data, pro-listing litigants would have likely succeeded in placing Arizona's bald eagle population back on the Endangered Species List. Arizona's future bald eagle monitoring and management will rely heavily on Heritage funds.

## Greater Phoenix Area Waterbird Survey

The greater Phoenix metropolitan area has become an ever increasing destination for wintering birds. Each year, more neighborhood lakes and golf course ponds are created, attracting wintering aquatic birds. Recent Coordinated Bird Monitoring surveys verified that this urban area holds a higher density and diversity of wintering aquatic birds than any other place of its size in Arizona. Heritage IIAPM funds help collect the data to lessen land use conflicts and to continue cooperative surveys that result in proactive wildlife management.



## Breeding Marshbird and Colonial Waterbird Surveys



Annual statewide surveys are conducted to assist in monitoring populations of marshbirds and colonial waterbirds, some of which are Species of Greatest Conservation Need in Arizona. Heritage IIAPM funds support biologists that coordinate survey training workshops and the survey efforts of various agency biologist and volunteers. Data from these surveys are used to assess breeding population of rails, egrets, herons, and cormorants, including the endangered Yuma Ridgway's Rail and expanding and increasing population of neotropical cormorants.

### California Condor

Heritage IAPM funds continue to support recovery efforts for the endangered California condor. IAPM funds enabled the Arizona Game and Fish Department (Department) to promote its successful voluntary lead reduction program by addressing one of the greatest challenges to condor recovery efforts: lead poisoning. In 2016, the condor educational programs reached over 15,000 Arizona residents at more than 60 events. The benefits of this outreach are demonstrated by the Department's innovative free non-lead ammunition program achieving a greater than 80% hunter participation rate since 2007. California condors reached a milestone in Arizona as 2016 is the 20 year anniversary of their reintroduction into Arizona.



### Sonoran Desert Tortoise

The Sonoran desert tortoise was a Candidate for listing under the Endangered Species Act (ESA), until October 2015 when the USFWS published their final determination that the Sonoran desert tortoise did not warrant listing. The Department continues to use Heritage funds to monitor Sonoran desert tortoises and to engage the U.S. Fish and Wildlife Service regarding development of a Candidate Conservation Agreement with Assurances (CCA) that will guarantee continued tortoise conservation while providing non-federal partners with assurances against take.



### Sonoran Pronghorn Conservation

Funding from IAPM is helping the Department save the fastest native land mammal in the United States, the endangered Sonoran pronghorn. Severe drought in the Southwest reduced the wild population in Arizona to an estimated 21 animals in 2002. Due to ongoing management efforts such as building waters, enhancing native habitats, and captive breeding pens, the most recent population estimate is 202 pronghorn in the original herd south of Interstate 8. This is the highest population estimate since 1994. As a result of this success, the Department established two more populations on the Kofa National Wildlife Refuge where there are an additional 75 pronghorn and on the Barry M Goldwater Range where 26 additional pronghorn were released into the wild.





## Relict Leopard Frog Conservation



For 10 years, the Department has used Heritage funds to conserve Relict Leopard Frogs, a candidate for listing under the ESA. This year, along with partners at University of Nevada Las Vegas and others on the Relict Leopard Frog Conservation Team, Department staff revised a 10 year old conservation agreement for the Relict Leopard Frog. Ongoing conservation actions such as translocations and threat removal combined with the new, signed conservation agreement led the USFWS to determine that the

Relict Leopard Frog does not warrant listing under the ESA.

## Golden Eagle Baseline Surveys and Monitoring

As a result of newly established permitting authorities under the Bald and Golden Eagle Protection Act (BGEPA), there is an emerging need to accurately assess the population size and trends of golden eagles. Compounding this need is the increased mandate for BGEPA permits on renewable energy resource development. Without baseline nest location, occupancy, and productivity data, the USFWS has a limited ability under the BGEPA to issue permits to ensure compliance. Heritage IIAPM funds are currently helping the Department collect the data on golden eagles to allow for the USFWS to issue permits for developmental compliance. In 2016 after six years of survey effort, the Department has confirmed over 250 occupied golden eagle breeding areas; a 1,680% increase over the number of known breeding areas when the rule was published. This information has been invaluable in evaluating siting of proposed renewable energy projects.



## Arizona Bat Conservation Partnership

Over 50 percent of U.S. bat species are in some category of concern from emerging threats, such as bat fatalities at wind power facilities, unprecedented human activity and growth, climate change, and large-scale bat die-offs from white-nose syndrome. Arizona has one of the most diverse bat faunas in the United States with 28 species. Heritage IIAPM funding allows the Department to play a key role in creating partnerships to address these threats, with the common goal of conserving Arizona's bat resources. Over the past six years and using Heritage IIAPM funds, the Department was the lead in acquiring nearly



\$1 million dollars for western states to monitor bat populations and threats.



### **Topminnow and Pupfish Safe Harbor Agreement Progress**

Ranchers, private landowners, and local governments are helping recover some of Arizona's endangered fishes through a Safe Harbor Agreement (SHA). SWG and Heritage Funds enable the Department to oversee and monitor landowner-enrolled sites under the SHA for Gila and Yaqui topminnow and desert and Rio Sonoita pupfish. To date, the Department has enrolled 18 participating landowners and stocked 23 refuge ponds for conservation. Loss and degradation of natural habitat, competition and predation by non-native fish, disease and parasites have impacted these fishes in the wild. SHA-enrolled populations help further recovery goals for these fish and provide a ready source of new fish for future stocking and repatriation efforts. These fish also provide a native solution to mosquito control in local and rural neighborhoods; research has demonstrated that topminnow are just as effective as non-native mosquitofish in preying on mosquito larvae.

### **Arizona Six Species of Native Fish Conservation Plan**

Under the Department's leadership, the Arizona Six Species of Native Fish Conservation Plan



was finalized in August 2015. This plan outlines conservation actions and priorities for roundtail chub, headwater chub, flannelmouth sucker, Little Colorado River sucker, bluehead sucker, and Zuni bluehead sucker. Since 2006, federal, state, tribal, and non-governmental organization partners worked together to implement conservation actions in the original Six Species Conservation Agreement and Strategy. In September 2015, eight of those partners, including the Department, reconfirmed their conservation commitments under the new

plan. Arizona is one of the signatory member states to the 2006 Three Species Range-wide Conservation Agreement and Strategy for roundtail chub, flannelmouth sucker, and bluehead sucker. Arizona Heritage Funds have been used to plan and implement many of the state-led actions to improve the status and distribution of roundtail and headwater chub, bluehead sucker, and Little Colorado River sucker. Specific projects implemented in 2016 under this conservation plan included surveys, stockings, and nonnative fish removal efforts.



### **Arizona Bird Conservation Initiative – Coordinated Bird Monitoring**

Continental and local declines in many bird populations have led to renewed international concern for the future of migratory and resident birds. Heritage funds are enabling the Department to create bird conservation partnerships with federal, tribal, state, and private land management entities statewide to establish monitoring projects which will contribute to regional and national efforts assessing bird population trends and reverse these declines. The projects include bird monitoring projects for: grassland species, Sonoran desert species, riparian species, waterbirds, colonial nesters, and nightjars.



### **Huachuca Springsnail Precluded from ESA Listing**

In September 2016, the USFWS determined that the Huachuca springsnail does not warrant protection under the ESA, since the species continues to occupy a large portion of its historic range, and most of those populations occur on federal lands with existing protections. Over the past six years, the Department, USFWS, Coronado National Forest, and Fort Huachuca have collaborated on monitoring and management actions to benefit and safeguard the springsnail, including a new CCA for the species approved in August 2016. Heritage Funds were used to conduct extensive baseline inventories of the snail populations and their habitat, and to develop the initial draft of the CCA. Surveys conducted in July and September 2016 discovered two new populations of the snail in habitat not previously explored.



### **Public and Private Lands: Sensitive Habitats (Heritage IAPM Stewardships)**

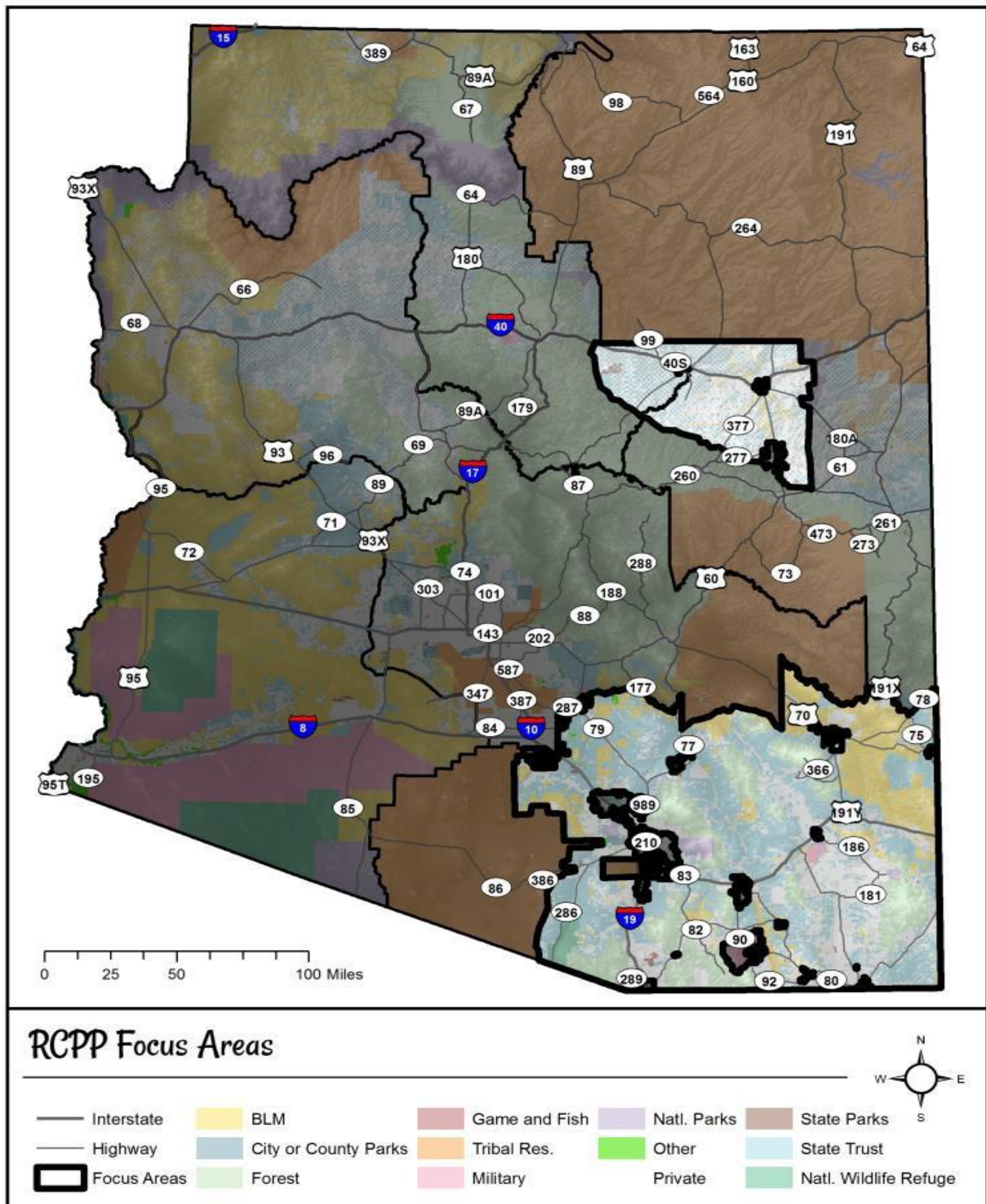
The focus of the IAPM program is to work cooperatively with private landowners to accomplish projects that benefit sensitive habitat and at-risk species. Every effort is made to match these state funds against federal programs in order to expand the scope and impact of these projects.

The Sensitive Habitats Project works to improve the status of wildlife with particular emphasis on those species listed as Species of Greatest Conservation Need in Arizona's State Wildlife Action Plan (SWAP) to restore sensitive habitats for species at-risk.

The Department worked with Landowners to complete 16 new habitat agreements utilizing Heritage IAPM funding. Two of these agreements were focused to directly benefit perennial waters and riparian habitats, which are critical for wildlife in Arizona; another three projects were focused on improving tolerance of Mexican Wolves among the ranching community. Staff paid out of this fund also worked on two landscape level habitat restoration initiatives that will improve grassland habitat for a suite of grassland obligate species and directs \$6 million in funding to grassland restoration and management efforts.

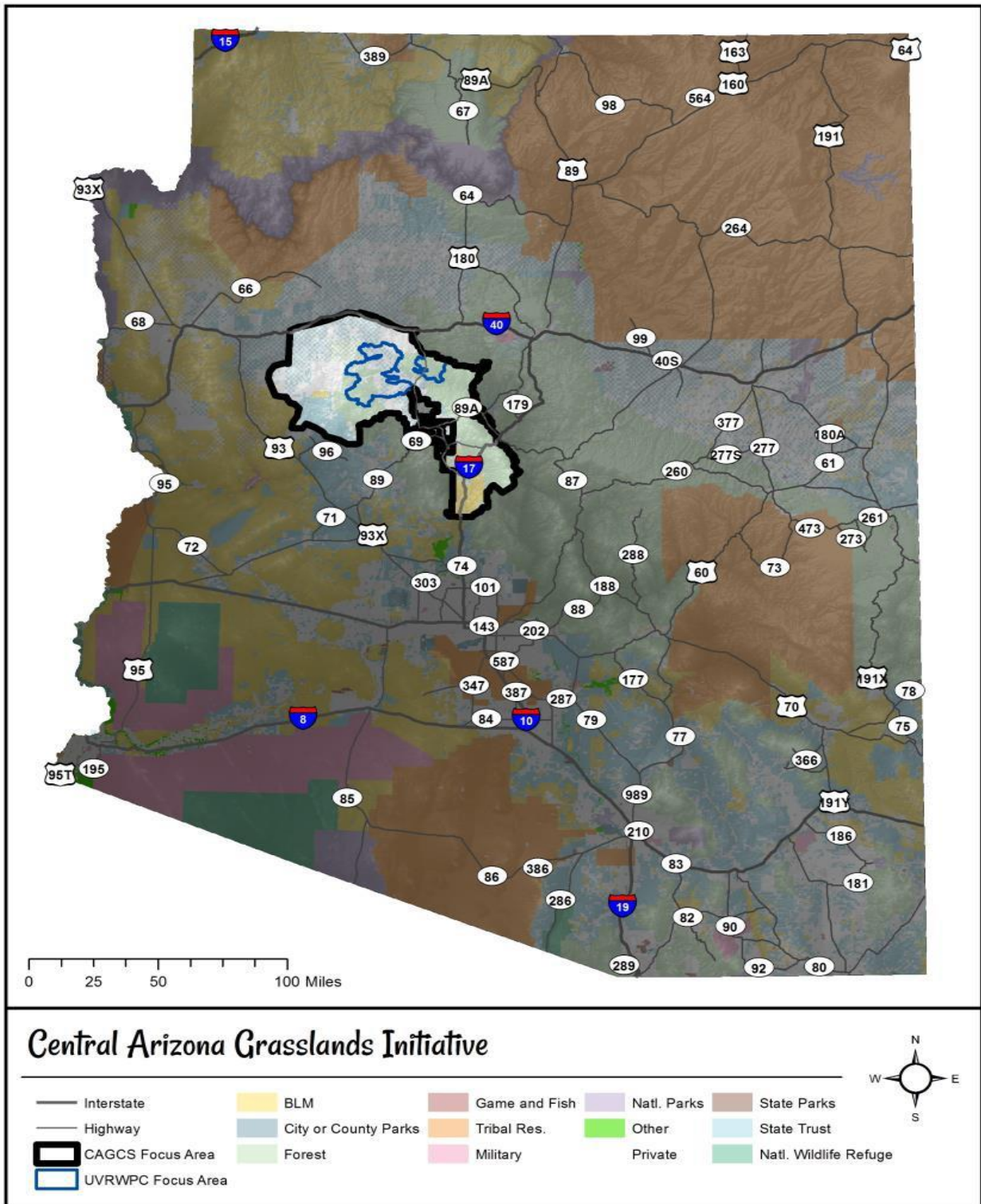
### **Examples of IIPAM Successful Projects:**

**Landscape level Grassland Habitat Restoration through the new Regional Conservation Partnership Program (RCPP).** Grassland habitats are some of the most threatened habitats in Arizona, and contain several species of concern. The Department has initiated two separate landscape level habitat restoration projects (see maps below) that will span a five year period, located in three focus areas that aim to improve habitat for several grassland obligate species at a landscape level. These projects highlight the impact partnerships can have on wildlife habitat management and the importance of the Heritage fund to the Department's ability to leverage external funding sources to accomplish more habitat restoration by focusing on common goals and working together to find creative solutions to improving wildlife habitat. For this project the Department's Landowner Relations Program initiated two Regional Conservation Partnership Proposals through the Natural Resource Conservation Service (NRCS). This brought together the Arizona Department of Agriculture (AZDA), Arizona Department of Environmental Quality (ADEQ), The Upper Verde River Watershed Coalition, the USFWS Partners Program, several sportsman groups, and private landowners to provide \$6 million in funding for on the ground projects that will restore 60,000 acres of grasslands, provide year round water on 150,000 acres of rangeland, and eliminate 40 miles of fencing barriers to wildlife movement.



NRCS, using Farm Bill funding to improve air, water, soils, and wildlife, has allocated \$3 million for this project, AZDA is providing \$800,000 through an open space program called the Livestock and Crop Conservation Grant Program, ADEQ is providing \$400,000 through a Water Quality initiative, USFWS is providing \$150,000 for recovery of federal trust species, the Upper Verde River Watershed Coalition is contributing \$1,000,000, and the Department is providing \$150,000 for restoration of grassland habitats. Private landowners and sportsman groups are also providing in-kind services towards completing projects for these initiatives.





On the surface these programs all seem to have differing goals and objectives; however, through building trust and strong relationships, the common underlying goal of each of these programs is to improve rangelands for future generations of Arizonans. More specifically, restoring grassland habitat and distributing livestock through water availability directly improves wildlife habitat, reduces soil erosion and improves water quality, and ensures open space for wildlife and livestock to thrive. The first year of this project ended with nearly 5,000 acres of grassland restored, 100,000 acres of rangelands improved with reliable waters, and removal of 32 miles of barriers to pronghorn movement removed.

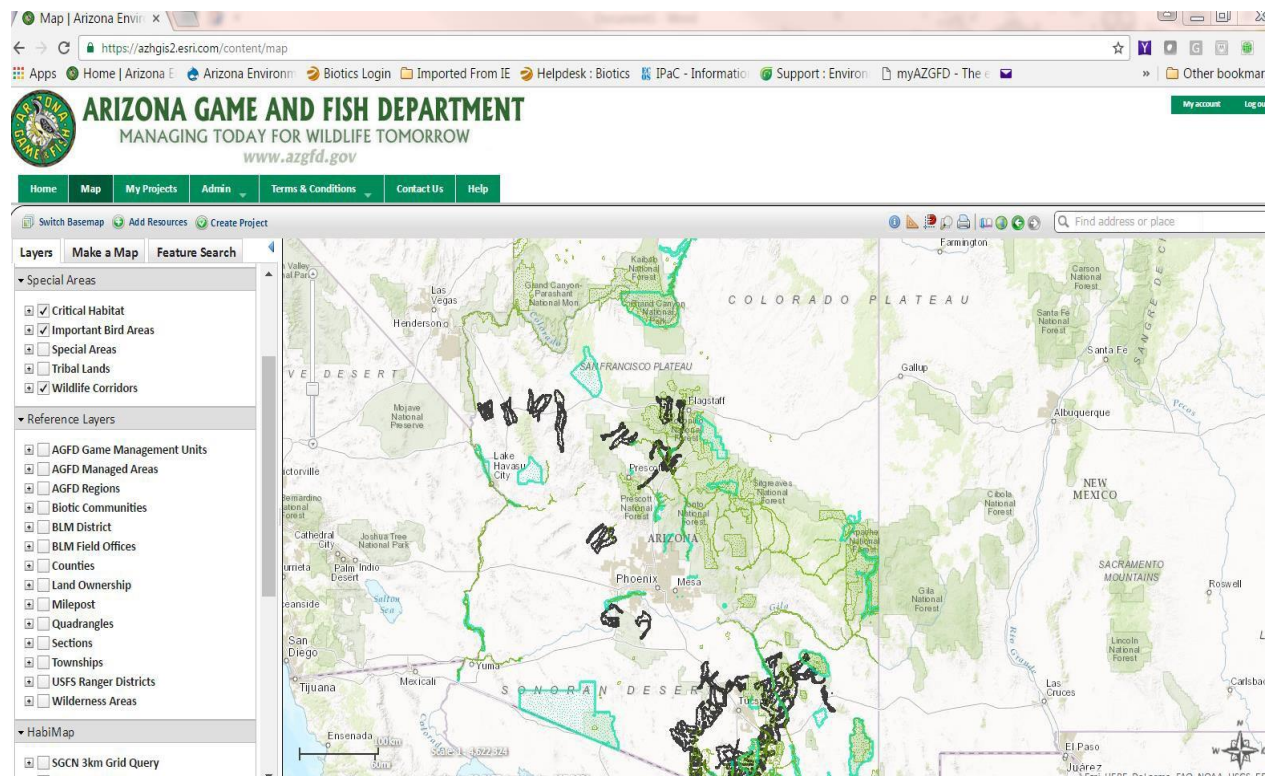
An additional 20,000 acres of grassland restoration work and another 40,000 acres of water work have been funded for implementation in 2017. \$50,000 in Heritage funding was used in the first year of these projects and will continue to be used over the rest of the project period.

### Heritage Data Management System (HDMS)

HDMS is part of a network of more than 80 Natural Heritage Programs and Conservation Data Centres in the western hemisphere. This information is made available to help Arizonans make prudent decisions weighing future development, economic growth, conservation, and environmental integrity.

During fiscal year 2016, Department staff entered 524 new records and updated an additional 623 records within the HDMS. In addition, Department staff wrote or updated 76 species abstracts. Occurrence and status information were provided to 60 requests related to research, conservation actions, and development projects. Six new species management guidelines were created to guide avoidance and mitigation measures to go along with the Online Environmental Review Tool.

The Online Environmental Tool was used for viewing Department data, creating maps, and receiving lists of species documented in a geographic area related to conservation, education, or development actions. Over 2000 projects were submitted during FY 2016.



Department staff continued to increase other data sets to make sure the most current science are used in decisions. The iMapInvasives web site for tracking invasive species continues to grow in users and data (<http://www.imapinvasives.org/arizonalogin>). Department staff have finished digitizing species observation data related to Scientific Collecting Permits for the past 15 years; the dataset now has over 300,000 point observations to guide research and management decisions. Citizen Science efforts continue to be explored.

## **HABITAT EVALUATION AND PROTECTION**

As defined in Title 17, Heritage Evaluation and Protection funds shall be spent on programs that provide assessment of the status, condition and ecological value of habitat and subsequent recommendations of management, conservation, mitigation or other protection measures, including but not limited to; recommendation of reasonable alternatives for the proposed projects that might otherwise affect the habitat under assessment; in addition to protecting the quality, diversity, abundance, and serviceability of habitats for the purposes of maintaining or recovering population of Arizona wildlife.

Heritage Habitat Evaluation and Protection funding supports a realty program that includes acquisition, disposals, and exchanges; existing property and water rights tracking; land and water use fees associated with Commission owned property; drafting and execution of land use agreements on Commission owned properties; drafting and execution of land use agreements with federal, state, local government, and private property; project review on Commission owned property; and maintenance of property and water right information. The Department completed the following activities as a function of the program.

- Continued to enhance the Wildlife Land and Water AZ Application, an online application housing all Commission land and water information. The application now has a GIS component along with additional reporting features, dashboard, and functionality to identify and track all projects on Commission owned property.
- Made voluntary contributions in lieu of taxes on all eligible Commission owned property. Contributions included \$22,736.03 to eight counties with \$12,455.72 paid from Heritage IIAPM non-acquisition funds.
- Paid administrative fees associated with water rights including decreed, canal company, and irrigation district assessments.
- Renewed nineteen agreements and paid associated fees.
- Executed thirteen new agreements including the Bureau of Reclamation LCR-MSCP Lease at Planet Ranch making a portion of the property and water rights available for LCR-MSCP purposes.

## **HERITAGE URBAN WILDLIFE**

As defined in Title 17, Heritage Urban funds shall be spent on urban wildlife/wildlife habitat programs. Urban wildlife is defined as wildlife that occurs within limits of an incorporated area or in close proximity to an urban area that receives significant impact from human use. The Department spends Heritage Urban funds on a wide variety of projects and activities. These activities include urban law enforcement, human-wildlife interactions, information and education public outreach, and watchable wildlife.



## Urban Law Enforcement

Intentional wildlife feeding continues to be a problem in some of Arizona's urban areas. The Department sent sixteen notification letters to residents based on reports of people feeding wildlife, in violation of A.R.S. 13-2927. This law currently applies only to Maricopa, Pinal, and Pima counties. One warning citation was issued in Tucson's Region V, and no citations were issued for the unlawful feeding of wildlife in the three affected counties. Department personnel continue to educate residents about the dangers of feeding wildlife through individual contacts, community presentations on "Living with Urban Wildlife", and through printed and online materials about coexisting with native wildlife.

## Urban-Wildlife Conflicts

Department personnel recorded over 4,000 calls related to human-wildlife conflicts across the state. Callers were given information on identifying what is attracting wildlife to their homes or neighborhoods as well as methods of minimizing the conflicts. Once they learned ways to effectively deal with wildlife around their homes, most residents were generally tolerant of the wildlife living among them. For communities experiencing chronic issues, Department staff conducted presentations and held open discussions with residents on how to resolve conflicts with wildlife. Public outreach was conducted in both the Tucson and Phoenix metroplexes over the past year, resulting in educating over 725 individuals in 18 different communities on how to "live with wildlife."



## Urban Wildlife

After successfully fledging a pair of young peregrine falcons in downtown Phoenix in 2015, the nest box on the Maricopa County Administration Building got a facelift. The nest box was cleaned out, modified with an intermediate ledge, and outfitted with a new pan-tilt-zoom camera. The 2016 nesting season saw only one of the four eggs hatch. The lone hatchling had splayed legs which, without human intervention, would have resulted in the bird not being able to survive. Department personnel utilized a falconry technique to hobble the bird for a short while so the tendons could be properly aligned. This is the first time this technique has been



known to be done on wild birds, and it was completely successful. Eager viewers enjoyed many hours of seeing the young falcon playing in the nest box. Unfortunately, the bird ultimately did not survive a fall from above the tenth floor of the County building. Although the downtown peregrines did not raise any young to fledge this year, people from around the world were able to view these peregrines lay eggs, incubate, feed, and care for their young via live streaming video from the nest box. The number of unique “hits” to the peregrine cam webpage was estimated at nearly 50,000 viewers from 38 different countries and 36 different states. These numbers show the public’s overwhelming passion for wildlife!

### **Tres Rios Nature and Earth Festival**

The Department continues to have a lead role in this annual 12 year old event. This festival celebrates the rich cultural and wildlife diversity of the “Three Rivers” area in the Southwest Valley. This two-day, family-friendly event provides many activities including bird watching, beginning archery, fishing clinics, canoeing, zip line, nature hikes and a chance to view live wildlife. Visitors also have the opportunity to talk with experts on outdoor-related topics such as wildlife, recycling, and “green” friendly concepts. Once again, the festival was held at the Department’s Base & Meridian Wildlife Area



Area and attendance was estimated at over 8,000 people.

## **HERITAGE ENVIRONMENTAL EDUCATION**

As defined in Title 17, Heritage Environmental Education funds shall be spent on educational programs dealing with basic ecological principles and the effects of natural and man related processes on natural and urban systems and programs to enhance public awareness of the importance of safeguarding natural resources.

### **Professional Educator Development**

Department staff developed and delivered professional educator instruction on mission- consistent topics to over 350 individuals during the reporting period. Hundreds more accessed the professional development materials (e.g., lesson plans) available on the Department’s “Focus: Wild Arizona” webpages. These resources and presentations provide professional educators with an opportunity to learn about wildlife management and conservation, habitat, technology, science inquiry, Heritage grants, biological careers, and a variety of other topics.

Heritage-funded staff also served on a variety of agency and nongovernmental boards and committees that provide support and resources to the educator communities throughout the state, such as: Be Outdoors Arizona, Arizona STEM Network, Arizona SciTech Festival, and the Arizona Science Education Leaders Association. Staff collaborated with the Arizona



Association for Environmental Education to begin the development of an environmental literacy plan for the state. They also served as the lead for a grant from the Association of Fish and Wildlife Agencies looking at building participation pathways to increase outdoor recreation. Staff also disseminated information of interest through small and large group presentations at local, regional, and national meetings of educators.



### **Wildlife Rehabilitation**

The Department's Wildlife Center is almost exclusively supported with Heritage Urban funds. The Center provides specialized care for sick, injured, orphaned, and confiscated wildlife, and cares for the Department's collection of live animals used for public outreach programs. With the support of cooperating volunteer veterinarians, the Center provides care for a variety of wildlife including birds, mammals, and reptiles. Most of these animals are brought to the Department by concerned citizens.



During the reporting period, the Department received substantive positive kudos for aiding bear cubs, a mountain lion kitten, several deer fawn, and a peregrine falcon that attracted some media attention.

Most wildlife brought to the Center are fully rehabilitated and returned to the wild. Those that are non-releasable due to permanent injuries are sent to approved wildlife sanctuaries or zoos to serve as “animal ambassadors” in their public outreach programs or exhibits.



### **Desert Tortoise Adoption Program**

The Department’s Tortoise Adoption Program continues to provide a valuable service for Arizona citizens. For several decades citizens in desert communities have kept desert tortoises as pets in their backyards. To ensure unwanted desert tortoise pets are not released to the wild- potentially spreading disease to a resident population and endangering the life of the pet tortoise- the Department accepts and then adopts out unwanted animals. Approximately 400 desert tortoises were received, some medically treated, and adopted out during the reporting period. The part-time staff member who runs the program provides a customer-appreciated service answering citizen phone calls, Facebook posts, letters, and emails. In addition the annual tortoise adoption in the spring gets very favorable attention from the print and video press.



### **School Programs**

Heritage Environmental Education funds are utilized to deliver education programs to K-12 schools. Students from throughout the state participated in “hands-on” wildlife education activities through summer camps, classroom presentations, career fairs, homeschooled activities, and field-based research events. Many of these students and their chaperones participated in the Department’s annual Youth Day event at the Outdoor Expo.



One of the Department’s largest school outreach efforts is directed toward 4th grade students. 10,000 students throughout the state participated in a wildlife education program correlated to Arizona’s Academic Content standards. This program focuses on animal adaptations and uses live animals to better illustrate the concepts presented to the students.

Department staff also conducted or participated in numerous outdoor wildlife workshop events, summer camps, and special needs camps orientated toward children. The workshop-type events are hands-on activities, often directed toward large groups or families. One of the more popular events is the Department’s annual Career Exploration Day. Grade school, high school, and college aged students listened to a panel of biologists discuss the diversity of jobs available in wildlife management. The event is live streamed through the Departments website to ensure students throughout the state can participate. To further encourage and support students interested in biological careers, the Department collaborated with the three major universities to establish liaisons. Department employees regularly meet with and mentor students to advise them on wildlife career opportunities and other topics.



At the Hirsch Conservation Education Area, located on the Ben Avery Shooting Facility, the Department provided a series of monthly programs. These programs introduced children and their families to a variety of nature and outdoor related activities and topics such as: raptors of Arizona, digital photography, wildlife viewing, geocaching, wildlife tracking, kayaking, fishing, and off-highway vehicle safety. In addition, the Department hosted a number of homeschool family programs throughout the Phoenix area. These included nonnative turtle trapping, crayfish capture, and other programs. Approximately 1,000 people participated in these events.



New this year was the “Quail Kids Wildlife and Outdoor Recreation Summer Camp”. Camp activities included live wildlife presentations, nature hikes, bird watching, owl pellet dissection, and more.

Approximately 200 children participated, 25 of which were given scholarships based on their family’s household income.

### **Environmental/Wildlife Outreach**

Department staff and volunteers interacted with approximately 250,000 individuals at numerous public gatherings, workshops, festivals, and fairs throughout the state. In addition, Department staff regularly promotes wildlife education through live media appearance and print media interviews. Some examples of some of the larger public events the Department participated at include:

- AGFD Outdoor Expo
- AGFD Wildlife Center Open House
- Get Outdoors Expo (Scottsdale and Flagstaff)
- Prescott Great Outdoors
- Verde Valley Birding and Nature Festival
- Payson Wildlife Fair
- El dia de loss Niño’s Children's Festival
- Navajo Nation Zoofest
- Yavapai County Cattle Growers Annual Sale
- High Country Hummers
- Arizona Animal Welfare League Summer Camp
- ASU Life Sciences Career Fair
- Glendale Community College Earth Day
- Gila River Indian Community Earth Day
- Show Low Days Outdoor Recreation Show
- Coconino County Fair
- Legislative Day at the State Capitol
- Woodland Lake Wildlife Festival

- Becoming an Outdoor Woman
- Grand Canyon National Park Wildlife Day
- Yuma Catfish Rodeo
- Southwest Birding and Nature Festival
- Tres Rios Nature and Earth Festival
- Gila River Indian Community Winter Bird Count
- Kartchner Caverns Cave Fest
- Tucson Birding and Wildlife Festival

Three of the most noteworthy events Department staff participated in during the reporting period (in regards to extraordinary public attendance) were the Department's Wildlife Center Open House, the AGFD Outdoor Expo, and the Get Outdoors Expo. Public attendance at these three events alone exceeded 100,000 visitors. To help inspire an appreciation of Arizona's wildlife and habitat to visitors at the public outreach events, the Department displays live, un-releasable wildlife from its Wildlife Center to nearly all outreach presentations. The Department's live "animal ambassadors" include a variety of hawks, eagles, owls, reptiles, and rodents. For most visitors this is the first time they have ever experienced wildlife so close, which further enhances their interaction with the Department.



## HERITAGE PUBLIC ACCESS

The Landowner Relations Program oversees the Department's recreational access efforts by which the Department collaboratively enhances opportunities for the public to enjoy wildlife. This is accomplished by identifying lands and waters that are closed to the public or that do not have sufficient access, then working with all interested parties to meet recreation and other access needs. Fiscal year 2016 was a very successful year with a number of significant accomplishments. To begin with, the Department is in the third year of a partnership with the City of Yuma Tourism Bureau to attract visitors from all over the county to Yuma for some of the best dove hunting in North America. This effort highlights the value of hunting for both wildlife management purposes as well as the economic benefits to local communities. The Department's role is to work with farmers to plant crops that will keep doves in the area by providing food resources, as well as working with these private landowners to allow hunting on their farms. Finding places to hunt is the single biggest obstacle for increasing the number of hunters, so this program should bring more hunters to Yuma, which will provide more tourism dollars for the city. Yuma Tourism Department is using their contacts and expertise to promote the hunting opportunities and the Department's efforts to secure access, so there will be marketing specialists providing expertise to highlight the important work accomplished using Heritage funding.

The Department completed 27 recreational stewardship agreements with private landowners. This fiscal year the Department also allocated \$1,800,000 of federal funds and Game and Fish funding towards securing access. The projects funded with these federal dollars are included in this report as accomplishments due to the fact that the staff's developing these projects were funded through the Heritage budget. These efforts secured access to an additional 291,000 acres for the public to enjoy for wildlife related recreation. In total, the Department had 72 access agreements where 4.4 million acres had access secured through Department efforts. In addition, the Respect program worked with approximately 300 landowners statewide and the Department assisted with 42 Adopt-A-Ranch events which included over 650 volunteers totaling 5,102 volunteer hours. Using a value of \$21.69 per hour, this represents \$110,662 in volunteer in-kind funding that contributes to the Heritage Access resources for projects that secure access for Arizona's citizens.

### **Examples of Successful Access Projects:**

**The Landowner Compact Program** - The Department began a program called the Landowner Compact in 2013 that was designed to make an impact on the behavior of all people interested in outdoor wildlife recreation on private lands. This program aims to connect people and the decisions they make on their OHV or out hunting with the impacts their actions can have on the landscape. Some examples would be: choosing to drive down wet roads and creating large ruts in the soft ground, creating new roads with OHVs that fragment and destroy habitat; leaving gates open where cattle moves out of the pasture they are supposed to be in for management reasons; and respecting private landowners and their property. Small choices can lead to major changes in the public's ability to access private lands and any public lands that could be inaccessible if the roads across private lands are locked. This program also ties together several ranches into a compact. If you are caught doing something not allowed based on a set of rules designed to improve recreational user's behavior, you lose your access privileges on that



ranch and all of the ranches enrolled in the Landowner Compact. This program is not appropriate for every landowner or every ranch in the state, but it has been a successful program with eight landowners currently enrolled. To learn more about the program, visit <https://agfdlandownerrelations.com/ranch-compact-overview/>

**Yuma Dove Plot Program** - Building on an experimental idea initiated two years ago, the Department entered into agreements with six farms to delay harvest of seed crops until after the dove season. Through this program the Department is ensuring access for dove hunters to prime hunting opportunities over a significant food source. This program also holds doves in the Yuma area for a longer period of time, providing additional days for hunters to be in the field. Dove hunting in the Yuma areas is a huge event, and access for dove hunters has become a very important type of access for the Department to secure. This year the Yuma Tourism Department has been actively promoting this program for the fall of 2016. The Department expects this new marketing of the program to result in even greater participation in dove hunting in the Yuma area, from both residents of Arizona as well as people from other states and countries. This program was successful as initial data indicates a 6% increase from the 2014 to 2015 hunting seasons in the number of dove hunters in the Yuma area, and that the average number of days in the field for all hunters in this area increased by 1 day. The Department looks forward to what the 2016 dove hunting season brings.

## OTHER REPORT REQUIREMENTS

The Department received \$10 million from lottery revenues for Heritage Funded programs and expenditures totaled approximately \$8.08 million in fiscal year 2016. The following information represents Department Heritage Fund expenditures in fiscal year 2016:

1. Heritage Funds Spent for:
 

(a) Property acquisition (and due diligence associated costs)	\$359,227
(b) Identification, inventory, protection & management of sensitive species	\$3,561,742
(c) Habitat evaluation and protection (\$800,000 used to match federal grants)	\$1,560,700
(d) Urban Wildlife	\$1,520,782
(e) Environmental education	\$481,144
(f) Public access	\$501,342
  
2. No property was purchased by the Commission with Heritage Funds in FY 2016; however, the Department spent \$14,379.96 in Heritage acquisition funds on closing costs for the donation of Planet Ranch; and \$26,234.35 for due diligence on potential future acquisitions.
3. No property was purchased by the Commission in FY 2016.
4. In 2016 the Department spent \$2,663,101 for employee personnel services and \$1,128,064 for employee related expenses.
5. Four Department employees charged time to Heritage funds, when involved with property and water right acquisitions. These employees also charge non-Heritage fund sources.
6. In fiscal year 2016, the Department employed 50 full-time employees to administer Heritage-funded programs.
7. The list of Heritage Grants awarded follows:

In fiscal year 2016, the Department awarded 18 Heritage Grants out of 44 grant applications received awarding **\$418,070** in Heritage Funded Grants. The Department conducted Heritage

Grant Workshops in three communities throughout Arizona during July and August 2015. Following is information on each of the 18 Heritage Grant award recipients:

**Environmental Education (EE)** received two applications and two applicants were awarded Heritage EE Grants totaling **\$14,300** of the \$16,000 available.

1. Vail Unified School District – Andrada Polytechnic High School, for the project titled *“Desert around Andrada Polytechnic High School.”* The award amount \$4,300.
2. Arizona State Parks (ASP) sponsoring the Be Outdoors Arizona Foundation, for the project titled *“Developing the Nature Walk.”* The award amount \$10,000

**Outdoor Education (OE)** received two applications and two applicants were awarded Heritage OE Grants totaling **\$3,770** of the \$16,000 available.

1. Washington Elementary School District, Orangewood Elementary, for the project titled *“Orangewood at Camp Colley Environmental Workshop.”* The award amount \$2,040.
2. The City of Yuma, for the project titled *“Wildlife Habitat Field Study in the Yuma Wetlands (YEW).”* The award amount \$1,730.

**Schoolyard Habitat (SCHOOLYARD)** received fourteen applications and five applicants were awarded Heritage Schoolyard Grants totaling **\$37,500** of the \$37,500 available.

1. Sky Island High School, for the project titled *“Sky Islands’ High School Wildlife Lab, Desert Tortoise Habitat & Native Bird Habitat.”* The award amount \$6,855.
2. Desert Marigold Charter School, for the project titled *“Desert Marigold Schoolyard Riparian Habitat Restoration.”* The award amount \$8,900.
3. Mohave Accelerated Charter School, for the project titled *“Heritage School-Wide Native Habitat.”* The award amount \$9,000.
4. Tucson Unified School District, Sam Hughes Elementary School for the project titled *“Sam Hughes Elementary School Courtyard Habitat.”* The award amount \$5,115.
5. Patagonia Union High School, for the project titled *“Rainwater Harvesting Native Pond.”* The award amount \$7,630.

**Urban Wildlife (URBAN)** received fifteen applications and five applicants were awarded Heritage Urban Grants totaling **\$112,500** of the \$112,500 available.

1. National Park Service, Desert Research Learning Center, for the project titled *“Living Stream Habitat at Saguaro National Park to Support Sensitive Fish and Aquatic Wildlife Species.”* The award amount \$9,986.

2. The City of Flagstaff, for the project titled "*Frances Short Pond Wildlife Project.*" The award amount \$33,960.
3. The City of Sedona, for the project titled "*Wildlife Viewing Piers.*" The award amount \$30,000.
4. The Town of Payson, for the project titled "*American Gulch Loop Trail & Viewing Area Phase-II.*" The award amount \$19,840.
5. The City of Yuma, for the project titled "*Lower Bench West Wetlands New Developed Park Extension.*" The award amount \$18,714.

**Public Access (ACCESS)** received six applications and one applicant was awarded a Heritage Access Grant totaling **\$50,000** of the \$50,000 available.

1. Cochise County, for the project titled "*Geronimo Trail's Route to Public Lands.*" The award amount \$50,000.

**Identification, Inventory, Acquisition, Protection and Management (IIAPM)** received five applications and three applicants were awarded Heritage IIAPM Grants totaling **\$200,000** of the \$200,000 available.

1. Arizona Board of Regents, Northern Arizona University, for the project titled "*Habitat evaluation to maximize success of spikedace and loach minnow repatriation.*" The award amount \$66,033.
2. Arizona Board of Regents, the University of Arizona for the project titled "*Creating artificial middens to increase habitat and attract Mt. Graham red squirrel settlement.*" The award amount \$69,967.
3. Arizona Board of Regents, the University of Arizona for the project titled "*Sonoran tiger salamander demography and life history variation; the ecology of terrestrial adults.*" The award amount \$64,000.