

STATE OF ARIZONA

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Arizona Game and Fish Department

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Arizona Game and Fish Department Heritage Fund 2017

Report to the Arizona Legislature

Project Year July 1, 2016 to June 30, 2017

December 18, 2017

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.
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- 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 2017.

However, the Department spent \$49,401 in Heritage acquisition funds on due diligence for the acquisition of the EC Bar Ranch in Apache County. The acquisition of EC Bar Ranch to the Commission is set to close escrow in December 2017, and will provide wildlife benefits by protecting habitat for New Mexico meadow jumping mouse, southwestern willow flycatcher, Little Colorado spinedace, and yellow-billed cuckoos. The Department also spent \$6,600 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 \$12,850.82 for Heritage Acquisition Personnel Services.

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 Pittman-Robertson Funds, to implement a wide variety of projects identified in Arizona's State Wildlife Action Plan (SWAP). 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 hundreds of projects enabled by IIAPM funds thus far 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

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. Annual Coordinated Bird Monitoring surveys confirm that this urban area continues to attract 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 nesting 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 IIAPM funds continue to support recovery efforts for the endangered California condor. IIAPM funds enabled the Arizona Game and Fish Department (Department) to promote its successful voluntary lead reduction program by addressing the greatest challenge to condor recovery efforts: lead poisoning. In 2017, the condor educational programs reached over 7,500 Arizona residents at more than 20 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. The 2017 participation rate in this lead reduction program was 88.5%. California condors reached a milestone in Arizona as 2016 was the 20th year anniversary of their reintroduction into Arizona.



Sonoran Pronghorn Conservation

Funding from IIAPM 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 228 pronghorn in the original herd south of Interstate 8. As a result of this success, the Department established two more populations on the Kofa National Wildlife Refuge and on the Barry M Goldwater Range where an additional 92 and 44 animals have been released into the wild. Both populations are slowly growing and expanding their range to meet the recovery objectives.

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. In 2017 after seven years of survey effort, the Department has confirmed over 275 occupied golden eagle breeding areas; a 1,846% 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 fatalities at wind power facilities, unprecedented human activity and growth, climate change, and large-scale die-offs from a disease called 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. Heritage IIAPM funds have been instrumental for tracking bat population status and trends and for monitoring changes in bat species distributions.

Black-footed Ferret Conservation

The Heritage IIAPM funded Black-footed Ferret Reintroduction Program in Arizona is working to achieve the population numbers required for down-listing the species to threatened, with the ultimate goal of meeting the state's population objective for delisting. To achieve this goal, the Department finalized a statewide plan that will ensure federal regulatory obstacles do not hinder the Department from expanding the reintroduction effort to multiple areas throughout the state. Heritage IIAPM funds are being used to monitor the existing populations, to reintroduce new populations, survey their movements with telemetry, and to conduct field studies to counter the species biggest threat; sylvatic plague.



Black-tailed Prairie Dog Monitoring



In an effort to preclude the need to list the species under the Endangered Species Act, in 2008 the Department reintroduced black-tailed prairie dogs into grasslands within the species' historical range in the Las Cienegas National Conservation Area. Those efforts have grown into managing three colonies and a population of over 200 black-tailed prairie dogs. In 2017, Heritage IIAPM funds allowed for an additional reintroduction of 94 animals into Sands Ranch in partnership with Pima County. In addition to direct population enhancements, the Department, BLM and the Arizona Antelope Foundation partnered to aggressively implement habitat improvement projects to restore over 700 acres of grassland through mesquite tree removal and prescribed burns.



Arizona Important Bird Areas - Citizen Science

Heritage IAPM funding facilitates the support of Arizona’s Important Bird Areas (IBA) Program. Launched in 2001, the Arizona program (co-administered by Tucson Audubon Society and Audubon Arizona in coordination with the Arizona Bird Conservation Initiative), identifies the most important sites for priority bird species and habitats, coordinates citizen-science bird inventory and monitoring, and promotes on-the-ground habitat projects. The IBA Program is closely tied to the Department’s SWAP strategies for conserving priority birds and for helping to keep common species common, by pursuing conservation actions to address stressors to habitats and to Species of Greatest Conservation Need. To date 45 IBAs have been identified in Arizona and include riparian and wetland habitats, southeastern “sky island” mountains, and grasslands. Fourteen of these IBAs are considered of global significance.

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 Sonoyta pupfish. To date, the Department has enrolled 24 participating landowners and stocked 24 refuge ponds for conservation, an additional nine sites are pending enrollment. 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 2017 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.

Pinaleño Land Snail Conservation Agreement Signed

In August 2017, the USFWS approved a new conservation agreement with the Department and Coronado National Forest to monitor and manage seven species of native land snails within the Pinaleño Mountains in southeastern Arizona. This agreement includes the rare Wet Canyon talussnail and Pinaleño talussnail, two of a dozen Arizona mollusks that will be evaluated for ESA listing over the next seven years. Department staff used Heritage Funds to conduct population surveys of these snails and their habitat over the past 17 years, and developed this updated agreement. This conservation agreement will be a template for conserving other native mollusks in Arizona under similar agreements.



International and Borderlands Program



The Department continued to implement various binational wildlife projects using Heritage funds. Many of these projects concentrated along the west portion of the Arizona-Sonora Border in collaboration with the Commission of Ecology and Sustainable Development of Sonora and the Pinacate and Upper Gulf of California Biosphere Reserves. This past year, we completed shorebird and desert pupfish surveys at the Colorado River Delta; Sonoyta Mud Turtle telemetry along the mid-section of the Sonoyta River; flat-tail horned

lizard presence and demography plots and bat roost count and mist netting that included five species (Lesser long-nose bat, big brown bat, Townsend's big eared bat, California bat, and pallid bat) at the Pinacate Biosphere Reserve.

Public and Private Lands: Sensitive Habitats (Heritage IIAPM Stewardships)

The focus of the Identification, Inventory, Acquisition, Protection and Management (IIAPM) 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 the Department's SWAP Plan and to restore sensitive habitats for species at-risk.

The Department worked with Landowners to complete eleven new habitat agreements utilizing Heritage IIAPM funding. Two of these agreements were focused to directly benefit perennial waters and riparian habitats, which are critical for wildlife in Arizona. Staff paid out of this fund also worked on four landscape level habitat restoration initiatives that will improve grassland habitat for a suite of grassland obligate species and directs \$10 million in funding to grassland restoration and management efforts over a 5 year period.

The DKRT Invasive Plant Management Project. The Verde River is known for its wildlife habitat, water supply, and recreational opportunities. It is one of the most substantial free-flowing rivers in Arizona. In April 2011, a group of interested state, federal, and private entities coordinated the

development of the Verde River Cooperative Invasive Plant Management Plan. The purpose of the plan, to develop a strategic approach for controlling invasive plants within the riparian corridor of the Verde River watershed. A steering committee was formed (called Verde Watershed Restoration Coalition or VWRC), comprised of members of the community and agency personnel to implement the plan.

The DKRT Invasive Plant Management Project was a priority project for VWRC occurring along a ½ mile reach of private land along the Verde River, just east of Cottonwood and sustains a lush riverside plant community that supports a large wildlife population, including river otter, beaver, bald eagles, several endangered bird species and native fish. Several large infestations of invasive plants have invaded the area and threaten the long-term health and sustainability of the riparian forest.

This project improved 14 acres of riparian habitat on the 34 acre DKRT property along a half mile reach of the Verde River through the strategic removal of inventoried invasive non-native plants. Specific objectives of the project include eliminating noxious weeds; restoring native plant communities; increasing plant species diversity; and improving wildlife habitat. This project will benefit the public by improving wildlife habitat for threatened and endangered species, including fish, snakes and migratory birds.

Before Treatment

After Treatment



Hickey Allotment dirt tank renovation for Chiricahua Leopard Frogs. The Department assisted in cleaning 3 stock tanks on the Hickey Allotment on the Apache Sitgreaves National Forest in the Department's Pinetop Region . This was a part of a larger tank cleaning effort by the Permittee across 2 allotments. The Department had specific interest



in this effort as it has the potential to increase water availability for all wildlife while creating more permanent watering sites for the Chiricahua leopard frog. The allotment once supported a stable metapopulation of frogs but a lack of permanent water played a role in its extirpation. Once these three tanks fill with summer precipitation in the summer of 2017, there will be enough water to begin reintroductions of frogs within a year.

Panther Tank (1 of 3 tanks renovated in this project)

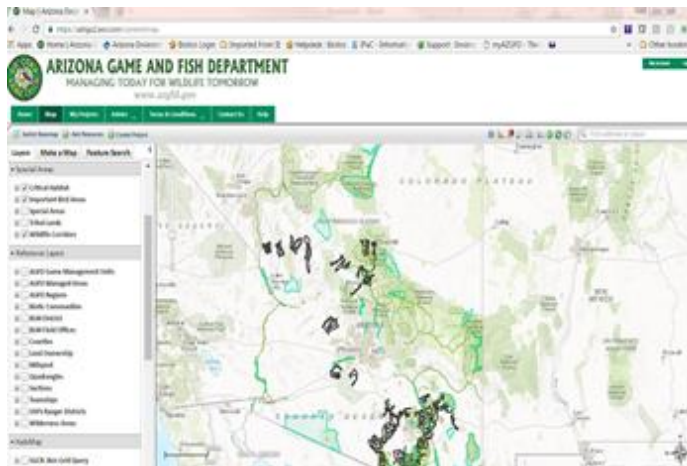
IIAPM Heritage Data Management System (HDMS)

HDMS is part of a network of more than 80 Natural Heritage Programs and Conservation Data Centers 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 2017, Department staff entered 623 new records and updated an additional 1127 records within the HDMS. In addition, Department staff wrote or updated 65 species abstracts. Occurrence and status information were provided to 60 requests related to research, conservation actions, and development projects. Four new species management guidelines were created to guide avoidance and mitigation measures in 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 1890 projects were submitted during FY 2017.

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 16 years; the dataset now has over 500,000 point observations to guide research and management decisions. Citizen Science efforts continue to be explored with our iNaturalist application having almost 22,000 records submitted by volunteers (<https://www.inaturalist.org/projects/hdms-point-observation-database>).

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.

Specifically this fiscal year, Department staff conducted the following Heritage associated activities:

- Yellow-billed cuckoo surveys on Commission owned Horseshoe Ranch as part of project monitoring for the on-going experimental cottonwood garden.
- Maintenance of Little Colorado spinedace refugia ponds at Grasslands Wildlife Area and Chiricahua leopard frogs at Sipe Wildlife area.
- Participation with Fish and Wildlife Service in regards to providing information on the Biological Opinion on the Lower San Pedro Wildlife Area.
- Working with Pima County on their application preparation for HCP acquisition funding.
- Scheduled water deliveries with the Bureau of Reclamation for Lower Colorado River-Multi-Species Conservation Plan leased land at the Cibola Valley Conservation and Wildlife Area.

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 enhancements to the Wild Land and Water application, including creation of a new user level to provide regional staff with login ability. Additionally, a Projects section was added for regional staff to enter proposed projects and associated funding requirements for properties, providing a system for planning and tracking project implementation, including funding needs and spending across all properties.
- Made voluntary contributions in lieu of taxes on all eligible Commission-owned property; contributions included \$34,867.21 to ten counties with \$11,161.76 paid to eight counties from Heritage IIAPM non-acquisition funds.
- Renewed five agreements and paid associated fees.
- Executed three new agreements on Heritage Acquisition funded properties, including a Right of Entry for removal of the condemned cabin on White Mountain Grasslands Wildlife Area.
- Paid administrative fees associated with water rights including decreed, canal company, and irrigation district assessments.

The Department expended \$215,060.36 for Habitat Evaluation and Protection Personnel Services for these activities.

HERITAGE URBAN WILDLIFE

Human-Wildlife Conflicts

Department personnel recorded over 4,600 calls related to human-wildlife conflicts across the state, of which nearly half of the calls were from the Phoenix and Tucson metro areas. 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 discussions with residents on how to resolve conflicts with wildlife. Public outreach was conducted in both Region V and Region VI over the past year, resulting in educating approximately 675 individuals in 11 different communities on how to live with wildlife.



Urban Law Enforcement

Intentional feeding of wildlife continues to be a problem in Arizona's urban areas. Statewide, there were 81 calls to the Operation Game Thief Hotline reporting illegal feeding of wildlife, of which 72 were in the largest metropolitan centers of Phoenix and Tucson. One citation was issued in Region VI for unlawful feeding. However, Region V sent 62 "no feeding" letters and Region VI sent 23 "no feeding" letters warning residents that feeding wildlife is unlawful (a violation of A.R.S. 13-2927). This law currently applies only to Maricopa, Pinal, and Pima counties. Regional personnel continue to educate residents about the dangers of feeding wildlife through individual contacts, community presentations on "Living with Urban Wildlife", and through all printed and online materials about coexisting with native wildlife.

Tres Rios Nature and Earth Festival:



Department personnel have continued to have a lead role in this annual event over the last 13 years. 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. Due to flooding in the Salt

River, the festival was held April 1st and 2nd instead of the first weekend in March. The festival was held at the Department's Base and Meridian Wildlife Area and due to the later date, attendance was down to about 6,000 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 excels in developing and delivering professional educator trainings on mission-consistent topics. During the last reporting period we interacted with nearly 300 educators. Hundreds more accessed our professional development materials (e.g., resource trunks, lesson plans) through the



Department's "Focus: Wild Arizona" webpages. These resources and our presentations (in person and via the internet) 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.

Staff funded by Heritage dollars also participated on a variety of agency and nongovernmental boards and committees that provide support and resources to the educator communities throughout the state, such as: Arizona STEM Network, Arizona SciTech Festival, and the Arizona Science Education Leaders Association, and various school districts. We worked with the Arizona Association for Environmental Education in the development of a statewide environmental literacy plan. Staff also disseminated information of interest to educators through small and large group presentations at local, regional, and national meetings.

Wildlife Rehabilitation

The Department's Wildlife Center is primarily 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, nonreleaseable 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.



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

During the reporting period, the Department received positive exposure for aiding bear cubs, an otter, a mountain lion kitten, several deer fawn, and a peregrine falcon that attracted substantive media attention. We also received considerable interest from the public and positive media coverage on a three-legged tortoise that was rehabilitated and adopted out to a family. Desert Tortoise Adoption Program

The Department's Tortoise Adoption Program continues to provide a valuable service for Arizona

citizens and tortoise owners. The Heritage Fund provides some funding for the program. For generations, homeowners in Arizona's desert communities (Tucson, Phoenix, Yuma, and Kingman) have kept desert tortoises as pets in their backyards or enclosures. To ensure unwanted desert tortoise pets are not released to the wild, potentially spreading pathogens or parasites to a resident population and endangering the life of the pet tortoise, the Department created an adoption program. The Department accepted and then adopted out approximately 350 desert tortoises during the reporting period. Approximately 40% of the tortoises received required veterinary treatment for malnutrition, respiratory diseases, bladder stones, or traumatic injuries. Once the treatment plan is completed and the tortoises deemed healthy by the Department's consulting veterinarians they are adopted out to new families.

The Department hosts an annual "Tortoise Adoption Day" near April 1st. People line up to adopt a homeless tortoise and often there is an adoption waiting list. The Department in cooperation with volunteer consulting veterinarians also hold a "prehibernation clinic" in September of each year, at half the normal cost, to ensure pet tortoises are healthy enough to survive the winter. The clinic raises thousands of dollars annually for the adoption program. Both events bring the Department positive media attention.

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, homeschool activities, and field-based research events. Many of these students and their chaperones and parents, also participated in the Department's annual Youth Day event at the Outdoor Expo.



The Department's largest school outreach efforts are directed toward 4th graders. Approximately 10,000 students throughout the state, and in every county, 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 and 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.

For a second year in a row, the Department, in cooperation with Wildlife for Tomorrow Foundation, held 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)
- Wildlife Day at Sportsman’s Warehouse
- Verde Valley Birding and Nature Festival
- Payson Wildlife Fair
- El Dia de Los Niño’s Children’s Festival
- Navajo Nation Zoofest
- Bill Luke Bass Days
- High Country Hummers
- Arizona Animal Welfare League Summer Camp
- Glendale Community College Earth Day
- Gila River Indian Community Earth Day
- Show Low Days Outdoor Recreation Show
- Coconino County Fair
- Woodland Lake Wildlife Festival
- Camp Courage for Burns and Trauma
- Tucson Kids Festival
- Pinetop Fall Art Festival
- Bikers Soar for Wildlife Poker Run
- 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 Days at Sportsman’s Warehouse, the AGFD Outdoor Expo, and the Get Outdoors Expo (Flagstaff and Scottsdale). 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

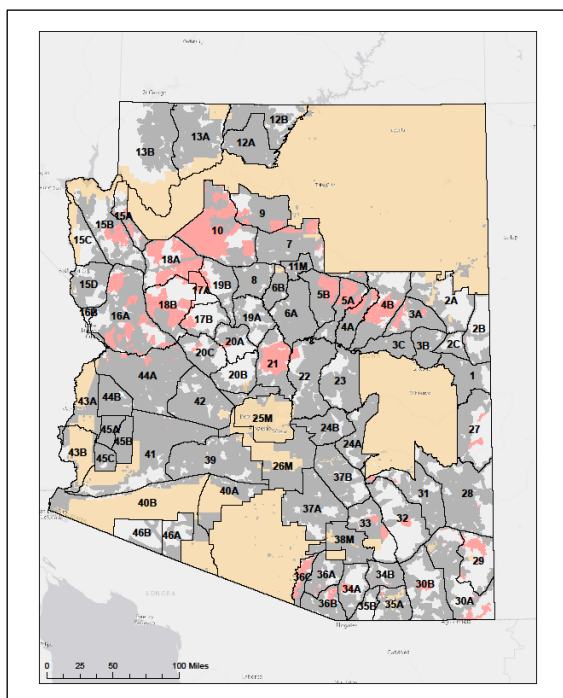
Public Lands Access (Heritage Public Access)

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 work with all interested parties to meet recreation and other access needs.

Fiscal year 2017 was a very successful year with a number of significant accomplishments. The Department completed 23 recreational stewardship agreements with private landowners. This fiscal year the Department also allocated \$900,000 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 120,239 acres for the public to enjoy for wildlife related recreation. In total, the Department had 80 access agreements where 4.5 million acres had access secured through Department efforts. In addition, the Respect program worked with approximately 300 landowners statewide and the Department assisted with 41 Adopt-A-Ranch events which included over 707 volunteers totaling 5,957 volunteer hours. Using a value of \$21.69 per hour, this represents \$129,209 in volunteer in-kind funding that contributes to the Heritage Access resources for projects that secure access for Arizona's citizens.

The Landowner Compact Program - The Department began a new 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. The Department enrolled 2 new ranches into this program, the Perrin Ranch near Williams, AZ and the Santa Margarita Ranch along the Mexican border south of Tucson. These two agreements secured access into areas that with significantly restricted recreational access opportunities and will have an expected impact to the local economies of nearly \$450,000 per year. This program is not appropriate for every landowner or every ranch in the state, but it has been a successful program with 10 landowners currently enrolled. To learn more about the program, visit <https://www.azgfd.com/landowner-compact/>

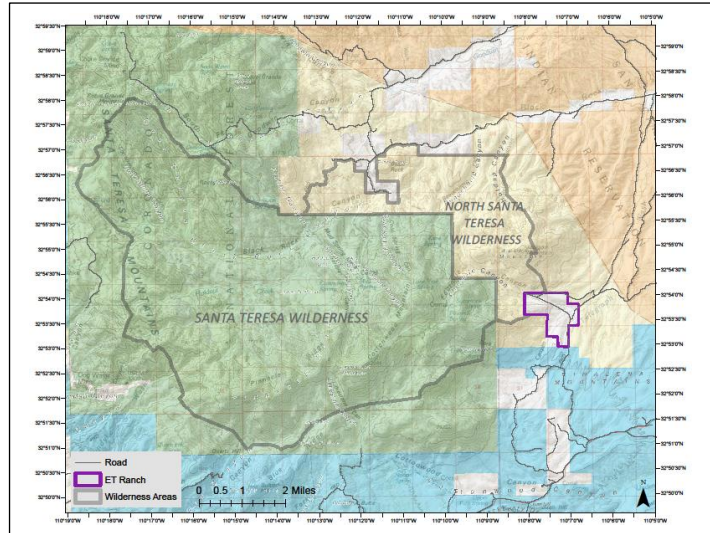
Private and land locked public Areas Opened for the Public- Statewide Perspective



Pink = area opened through access program
Grey = area that cannot be closed by private landowners
Tan = tribal or areas closed to hunting by law
White = potential areas that could be closed by private landowners

ET Ranch perpetual access easement –

This was an interesting project as a piece of private property controlling access from the eastern side 40 plus sections of federal lands was for sale. A land trust was able to purchase the property, but before the land trust passed the property on to a federal land management agency the Department was able secure a right-of-way easement to secure motorized access along the roads into the existing federal lands. Additionally, this easement also secured a camping area for hunters, bird watchers, and campers to use into perpetuity. This is significant as this property is adjacent to federal lands designated as wilderness area, and is likely to be designated wilderness in the future.



Without this easement motorized access and camping could be lost with any change in land use designation. To make this project work in the timeframes needed, a private-public partnership was initiated where the Southern Arizona Sportsman Club agreed to hold this easement for the public uses until the Department could get through the process for this club to transfer the easement to the Department.

OTHER REPORT REQUIREMENTS

The Department received \$10 million from lottery revenues for Heritage Funded programs and expenditures totaled approximately \$8.3 million in FY2017. The following information represents Department expenditures in fiscal year 2017:

Heritage funds spent for:

- (a) Property acquisition \$200,123
- (b) Identification, inventory, protection & management of sensitive species \$4,018,079
- (c) Habitat evaluation and protection \$1,619,214 (\$800,000 was used to match Federal grants)
- (d) Urban Wildlife \$1,489,036
- (e) Environmental education \$507,313
- (f) Public access \$478,726

The Department spent \$2,791,373 for employee personnel services and \$1,221,957 for employee related expenses on 54.3 FTEs.

1. The Arizona Game and Fish Commission (Commission) did not purchase any property with Heritage Acquisition funding in FY 2017. However, the Department spent \$49,401 in Heritage acquisition funds on due diligence for the acquisition of the EC Bar Ranch in Apache County. The acquisition of EC Bar Ranch to the Commission is set to close escrow in December 2017. The Department also spent \$6,600 for due diligence on potential future acquisitions.



2. No property was purchased by the Commission in FY 2017.
3. In FY2017 the Department spent \$2,791,373 for employee personnel services and \$1,221,957 for employee related expenses.
4. Four Department employees charged time to Heritage funds, when involved with property and water right acquisitions. These employees also charge non-Heritage fund sources.
5. In fiscal year 2016, the Department employed 54.3 full-time employees to administer Heritage-funded programs.
6. The list of Heritage Grants awarded follows:

For the FY 2017 Heritage Grant Cycle, eligible applicants were expanded to include non-profit organizations. Applications more than doubled to 96 from the prior year's 44 applications. The Department awarded 30 Heritage Grants awarding **\$335,959** in Heritage Funds. Below is a listing of the grants awarded:

Outdoor Education (OE) had \$16,000 available. The Department received twenty applications and awarded nine grants, totaling \$16,000. The selected grantees were:

1. O17020, Grand Canyon Trust a non-profit organization for the project titled "***4FRI Student Assessments and Monitoring.***" The award amount \$ 1,619.
2. O17012, Washington School District, Orangewood School for the project titled "***Orangewood at Camp Colley Environmental Workshop.***" The award amount \$ 2,310.
3. O17014, Flagstaff Unified School District, Flagstaff High School for the project titled "***Service Learning and Outdoor Leadership.***" The award amount \$1,212.
4. O17006, Gilbert Unified School District, Quartz Hill Elementary for the project titled "***Exploring Ecosystems – Day trip to Arizona Sonoran Desert Museum.***" The award amount \$2,200.
5. O17002, Paradise Valley School District, Sweetwater Elementary for the project titled "***Crayfish Project.***" The award amount \$2,000.
6. O17013, Oak Creek Watershed Council, a non-profit organization for the project titled "***Water Sample Week.***" The award amount \$1,591.
7. O17009, Gilbert Unified School District, Superstition Springs Elementary for the project titled "***Second Grade Butterfly Wonderland Field-Trip.***" The award amount \$600.
8. O17008, Flagstaff Unified School District, Marshall Magnet Elementary for the project titled "***Phoenix Zoo.***" The award amount \$2,000.
9. O17003, Safari Club International, a non-profit organization for the project titled "***Transportation Funding for Conservation Education.***" The award amount \$2,468.

Environmental Education (EE) had \$16,000 available. The Department received 23 applications and awarded five grants, totaling \$16,000. The selected grantees were:

1. E17009, Flagstaff Unified School District, Flagstaff High School for the project titled "***Life Zone and Pronghorn Management Case Studies.***" The award amount \$ 2,420.

2. E17012, Keepers of the Wild, a non-profit organization for the project titled ***“Informal Environmental Education Experience.”*** The award amount \$3,730.
3. E17019, Tohono Chul, a non-profit organization for the project titled ***“Bio-Field Science Program.”*** The award amount \$2,500.
4. E17010, Arizona State University, Tempe Polytechnic Campus for the project titled ***“Sonoran Desert Citizen Science: Building Nature Stewards.”*** The award amount \$ 4,850.
5. E17004, Four Corners School of Outdoor Education, a non-profit organization for the project titled ***“Place-Based Education for K.I.D.S.”*** The award amount \$2,500.

Schoolyard Habitat (SCHOOLYARD) had \$30,000 available. The Department received thirteen applications and awarded three grants, totaling \$29,800. The selected grantees were:

1. S17001, Paradise Valley School District, Sonoran Sky Elementary School for the project titled ***“Sonoran Sky’s Wonderland Outdoor Classroom, Pond & Habitat.”*** The award amount \$10,000.
2. S17009, Tucson Unified School District, Rincon University High School for the project titled ***“Rincon University High School Schoolyard Wildlife Habitat.”*** The award amount \$9,800.
3. S17007, Creighton School District, William Machan Elementary School for the project titled ***“Machan Urban Wildlife Oasis.”*** The award amount \$10,000.

Urban Wildlife (URBAN) had \$100,000 available. The Department received 26 applications and awarded seven grants, totaling \$100,000. The selected grantees were:

1. U17002, City of Saint Johns for the project titled ***“Patterson Ponds Recreation Area Revitalization.”*** The award amount \$ 46,965.
2. U17005, Kachina Village Improvement District for the project titled ***“Kachina Wetlands: Providing viewing opportunities of watchable wildlife.”*** The award amount \$16,350.
3. U17006, Highlands Center for Natural History, a non-profit organization for the project titled ***“Interpretive Signage for James Family Discovery Gardens.”*** The award amount \$10,000.
4. U17007, Catalina Foothills School District, Manzanita Elementary for the project titled ***“Critter Cams for Kids.”*** The award amount \$ 2,250.
5. U17020, City of Tucson, Parks and Recreation Department for the project titled ***“Tucson Birding Trail Map – Update and Reprint Project.”*** The award amount \$ 3,772.
6. U17024, The Arboretum at Flagstaff, a non-profit organization for the project titled ***“Meadow and Wetlands Discovery Trail.”*** The award amount \$15,145.
7. U17025, Little Colorado River RC&D a non-profit organization for the project titled ***“Rainbow Lake Weed Control.”*** The award amount \$5,518.

Public Access (ACCESS) had \$50,000 available. The Department received six applications and awarded two grants, totaling \$50,000. The selected grantees were:

1. P17004, The Town of Camp Verde for the project titled "*Homestead Park Access Road Phase-I.*" The award amount \$ 24,500.
2. P17005, Graham County for the project titled "*Lebanon Reservoir Access.*" The award amount \$25,500.

Identification, Inventory, Acquisition, Protection and Management (IIAPM) had \$200,000 available. The Department received eight applications and awarded four grants, totaling \$124,159. The selected grantees were:

1. I17008, New Mexico State University for the project titled "*Assessment of Burrowing Owl Translocation Efforts in Southern Arizona.*" The award amount \$39,269.
2. I17003, Arizona Center for Nature Conservation dba The Phoenix Zoo, a non-profit organization for the project titled "*Narrow-headed gartersnake outdoor propagation and soft-release research enclosures.*" The award amount \$37,100.
3. I17001, Arizona Board of Regents on behalf of Arizona State University for the project titled "*Characterizing the Sonoran Desert tortoise through genomic analyses of hybrids and speciation.*" The award amount \$33,776.
4. **I17006, Arizona State University Office of Research and Sponsored Projects for the project titled "*The History of a Lethal Pathogen in Arizona Ranid Frogs.*" The award amount \$14,014.**