Upper Verde

Wild and Scenic River

A Citizens' Proposal

Executive Summary

April, 2011

Photo P01. Low Water, Wild River

A green artery pulsing through the heart of Arizona

Introduction:

The upper Verde River in Arizona has been a candidate for designation as a Wild and Scenic River since 1982 when Prescott National Forest prepared the first eligibility study for the area. Now, three decades later, we understand that the upper Verde River is far more important than previously thought. Now, although the Verde River is the longest living river surviving in Arizona, threats to the upper Verde River and its riparian habitats appear with increasing frequency and severity. Now, we have a more complete understanding of the outstanding and remarkable ecological value of our river. Now, the time is right to designate the Upper Verde Wild and Scenic River (UVWSR).

Two years ago, a coalition of local citizen experts (geology, hydrology, ecology, archaeology, and recreation) and conservation organizations (Arizona Rivers, the Arizona Wilderness Coalition, the Audubon Society, and the Sierra Club) began again to study and explore the upper Verde, an effort that has created this Citizens' Proposal for the Upper Verde Wild and Scenic River.

The coalition prepared a draft proposal for UVWSR, which was presented for comment to a broad selection of stakeholders including: Prescott National Forest, Coconino National Forest, Arizona Game and Fish Department, the Yavapai-Apache Nation, Salt River Project, The Nature Conservancy, U.S. Fish and Wildlife Service, and private land owners. Stakeholder comments are incorporated into the final proposal, which is hereby submitted to the river management agencies for use in planning processes and to Congress for designation. The Citizens' Proposal provides information necessary for the public, for state, federal and private agencies, for Congress, and for the President to recommend and include the upper Verde River into the National Wild and Scenic River System.

The goal of the proposal is to protect the upper Verde River to the maximum extent authorized by the Wild and Scenic Rivers Act while simultaneously minimizing effects on private property and ranching, and maximizing the management efficiency. Importantly, the proposal represents a cooperative effort between local land/river users, private landowners, tribes, federal, and state agencies — a collaborative effort demonstrating public concern and care for our public lands.

This Executive Summary succinctly synthesizes the essential points of the Citizens' Proposal. To be concise and readable, citations are omitted; the full proposal, included on the attached DVD, is fully

documented and substantiated. Additionally, the DVD contains numerous appendices that fully document this proposal, including photos, maps, UTM coordinates, and GIS files. The Citizens' Proposal Steering Committee maintains a web site www.protectourverde.com for education, contacts, comments, and downloads.

Photo P79. Riparian habitat on the upper Verde River

Regional Setting:

The Verde watershed, identified by The Nature Conservancy as one of the highest priority conservation areas in the southwest, connects the Sierra Madre highlands and deserts of Mexico, the Southwest U.S. deserts, and the Colorado Plateau - a north-south riparian corridor influencing wildlife throughout the Southwestern United States. As a biological and geologic transitional zone, it supports a variety of habitats and a rich diversity of wildlife, especially in riparian areas. Riparian zones along perennial rivers occupy less than 0.38% of Arizona's landscape, and their habitats have been severely damaged by a wide range of anthropogenic activities.

Nearly all of Arizona's rivers have been degraded by bank-side development, groundwater withdrawal, and surface water diversions. The Colorado River in Arizona is completely regulated and is no longer perennial to the sea. The Gila River, dammed and regulated, is no longer perennial for most of the state. The Salt River is constrained and regulated by four dams and is no longer perennial below the confluence with the Verde. The formerly perennial Santa Cruz River is now effluent dependent and mostly ephemeral. The San Pedro River, even after decades of effort to maintain a base flow, is perennial for only 53 miles of its 174-mile length. Most of Arizona's major rivers are now no longer rivers – they are dry washes flowing only after heavy precipitation; their riparian habitat, and wildlife, is gone.

Today, the Verde River above Horseshoe Dam is the longest (approximately 150 miles) and one of the last perennial, free flowing, relatively pristine rivers in Arizona and the Southwest. The proposed UVWSR will complete a remarkable resilient habitat (Figure 2) connection between six Wilderness Areas, eight Inventoried Roadless Areas, three National Forests, one National Monument, two Wild and Scenic Rivers, two State Parks, two Important Bird Areas, and one Wildlife Preserve. The Verde River above Horseshoe Dam is the lifeblood of a protected riparian corridor 162 miles long connecting over 543,000 contiguous protected acres, a truly exceptional ecological resource for the Southwest and the entire United States of America.

Photo P11. Upper Verde River.

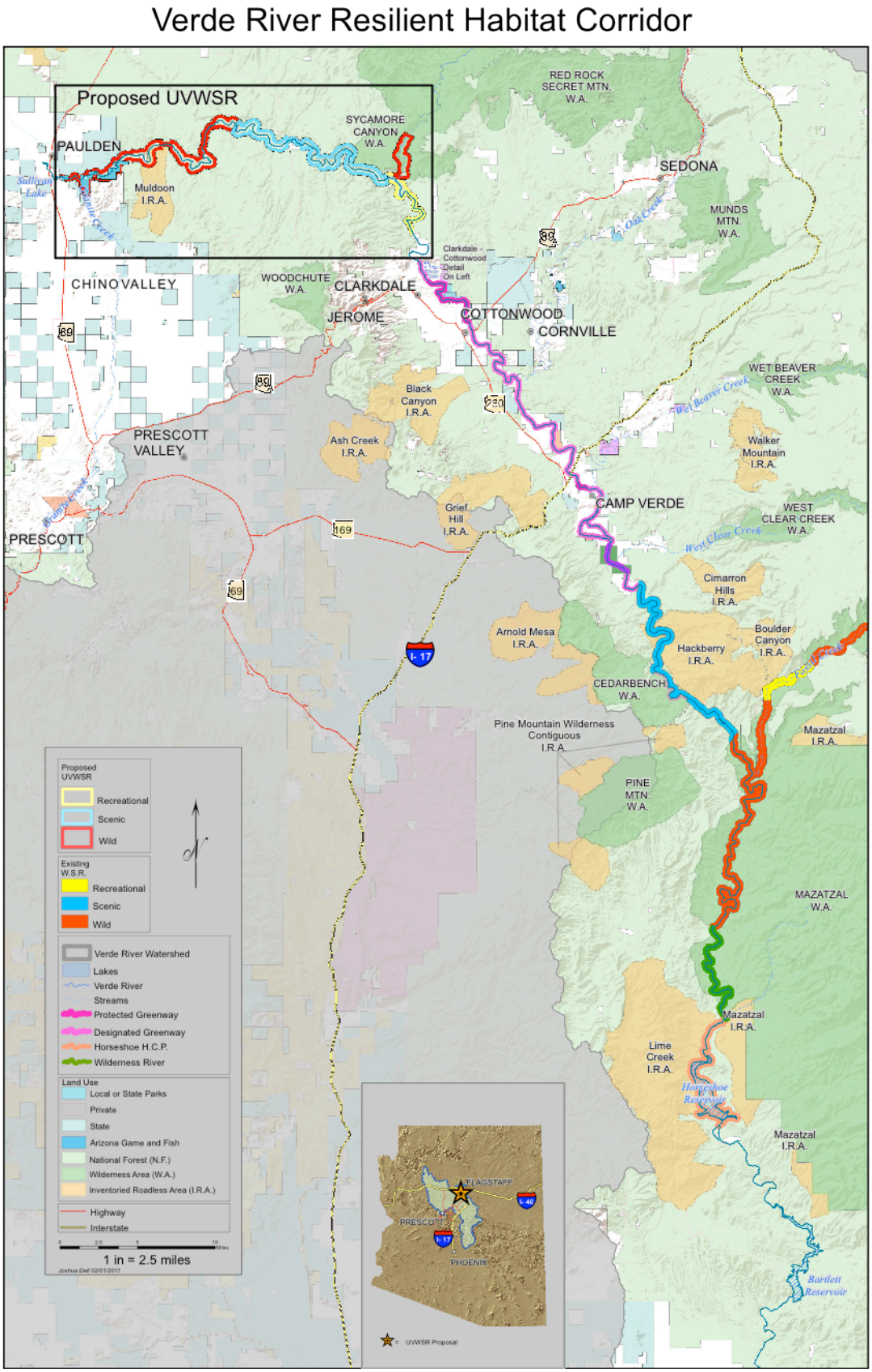

Figure 2. Map M2. Verde Watershed Resilient Corridor

Ecological Value:

The Verde River watershed comprises 5.8 percent of the landscape area in Arizona, yet it supports a surprisingly large fraction of Arizona's vertebrate species: 78 percent of breeding bird species, 89 percent of bat and mammal carnivore species, 83 percent of native ungulate species, 76 percent of reptiles and amphibian genera (including 94 percent of lizards and 68 percent of snake genera) — an impressive concentration of wildlife (see *Biological Inventory of the Verde Watershed,* Appendix A4.1 page 31). Ecologists estimate that 80% of vertebrate species in a watershed depend on riparian habitat for some or all of their life cycle. The narrow riparian zone along the riverbanks is the heart of a watershed; in a generally arid region, riparian areas are lush, green ribbons full of life. Beaver and river otter are abundant.

The proposed UVWSR provides important habitat for a variety of native wildlife species federally listed under the United States Endangered Species Act (ESA), including the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) and the yellow-billed cuckoo (*Coccyzus americanus occidentalis*), a candidate for listing. The river also provides important habitat for nesting and wintering populations of bald eagles (*Haliaeetus leucocephalus*).

Photo P55. Beaver dam on Granite Creek

According a The Nature Conservancy study, "Arizona's native fish species are among the most imperiled fauna in North America", and the upper Verde is one of the best native fish environments in Arizona. Native fish species of concern currently present in the Verde include the Sonora sucker (*Catostomus insignis*), desert sucker (*Catostomus clarkia*), the candidate roundtail chub (*Gila robusta*), longfin dace (*Agosia chrysogaster*), speckled dace (*Rhinichthys osculus*), the threatened spikedace (*Meda fulgida*), the endangered razorback sucker (Xyrauchen texanus), and an experimental, nonessential population of Colorado pikeminnow (*Ptychocheilus lucius*). Additional sensitive aquatic species of

concern include the candidate Mexican garter snake (*Thamnophis eques*), narrow-headed gartersnake (*Thamnophis rufipunctatus*), and the lowland leopard frog (*Lithobates yavapaiensis*). The study area contains designated critical habitat for the razorback sucker and spikedace. The USFWS has issued a proposed rulemaking upgrading Endangered Species Act status for spikedace and loach minnow (*Tiaroga cobitis*) from *Threatened* to *Endangered* and designating the entire UVWSR study area (excepting Segment Four, the lower four miles of Sycamore Creek) as critical habitat for both species.

These species are struggling for continued existence; their survival depends on a stable, hospitable riparian habitat provided by the upper Verde River. When the upper Verde is protected by Wild and Scenic River designation, the riparian corridor can be better managed to preserve its plants and animals.

Photo P35. Desert nesting bald eagle overlooks Stillman Lake.

Other Values:

The upper Verde River has significant recreational values (See *Citizens' Proposal* pages 23, 71), impressive cultural/historic value (See *Citizens' Proposal* page 24, 60), and substantial scientific and educational value (See *Citizens' Proposal* page 24).

Threats:

The upper Verde River is threatened by population growth, development, destructive recreation, insufficient management, invasive species, water pollution, and groundwater mining (See *Citizens' Proposal* page 16 for details and photos).

Description of Study Area:

Access: There are 15 trailheads and three roads that access the proposed UVWSR. For details, see *Citizens' Proposal* page 31 and maps M3a-d in the map appendix.

Climate: The summer climate is sunny, warm and dry with monsoon rains. The winter climate is cold, sunny, with occasional winter storms (*Citizens' Proposal* page 35).

Geology: The watershed is in the transition zone between the Colorado Plateau and the Basin and Range Province (See *Citizens' Proposal* page 38).

Hydrology: The upper Verde River has a steady base flow of approximately 20 cfs with substantial seasonal flood flow surges often exceeding 10,000 cfs. The study area includes Verde Springs, the sole source of base flow for the first 25 miles of the upper Verde River. The Big Chino Aquifer supplies 80-86% of Verde Springs outflow. Unrestricted groundwater pumping in the Big Chino Aquifer (out of the study area) threatens to eventually diminish the flow of Verde Springs and damage the riparian habitat (See *Citizens' Proposal* page 45).

Water and Air Quality: The upper Verde River water meets the Clean Water Act standards for body contact. Air quality meets national PM10 standard for particulates; no urban air pollution is present (See *Citizens' Proposal* page 53, 80)

Minerals and Timber: There are no active logging or mining operations or resources in the study area (See *Citizens' Proposal* page 80).

Proposed Classification:

The Citizens' Proposal for the Upper Verde Wild and Scenic River (UVWSR) documents the eligibility and classification for the upper Verde River (herein defined as between the communities of Paulden and Clarkdale, Arizona) and selected tributaries to be designated as part of the National Wild and Scenic Rivers System (NWSRS).

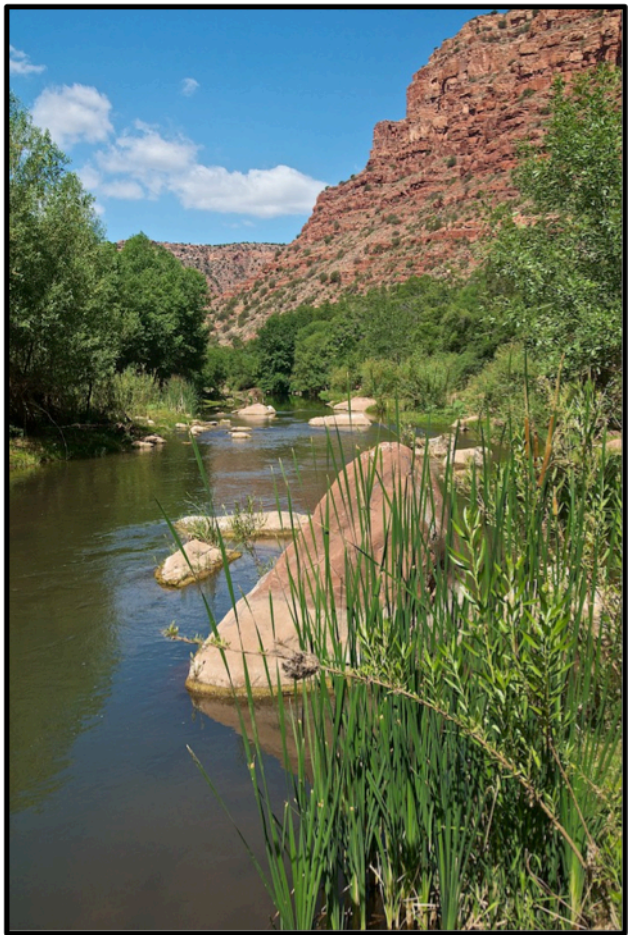

Photo P02: Verde River above Sycamore Creek

Recommendations for designation are based on a systematic evaluation of natural and cultural values along the river segments and adjacent lands. The criteria for determining eligibility were the free flowing character of the river segments and the presence of one or more Outstandingly Remarkable Values (ORVs) including scenery, geology, fish, wildlife, historic and cultural, recreation, and other values. The analysis shows that 44.5 miles of the upper Verde River, plus 1.6 miles of lower Granite Creek and 4.0 miles of Sycamore Creek are eligible for inclusion in the NWSRS. Every segment in the study area qualifies for seven ORVs.

The Wild and Scenic Rivers Act (WSRA) provides a three-tiered classification system for eligible river segments — wild, scenic, and recreational — based on the degree of human development on the river and adjacent shorelines. The upper sections of the Verde River and the two tributaries described in this proposal have been divided into five segments differently classified (See Figure 1 below):

• Segment One, comprising part of the Arizona Game and Fish Upper Verde River Wildlife Area on lower Granite Creek should be designated Wild.

• Segment Two, from the western end of Stillman Lake to Bear Siding should be designated Wild.

• Segment Three, from Bear Siding to the confluence with Sycamore Creek should be designated as Scenic.

• Segment Four, on Sycamore Creek from Parsons Spring to the Packard Ranch road crossing should be designated as Wild.

• Segment Five, on the Verde from the confluence with Sycamore Creek to the Prescott National Forest boundary near Clarkdale should be designated as Recreational.

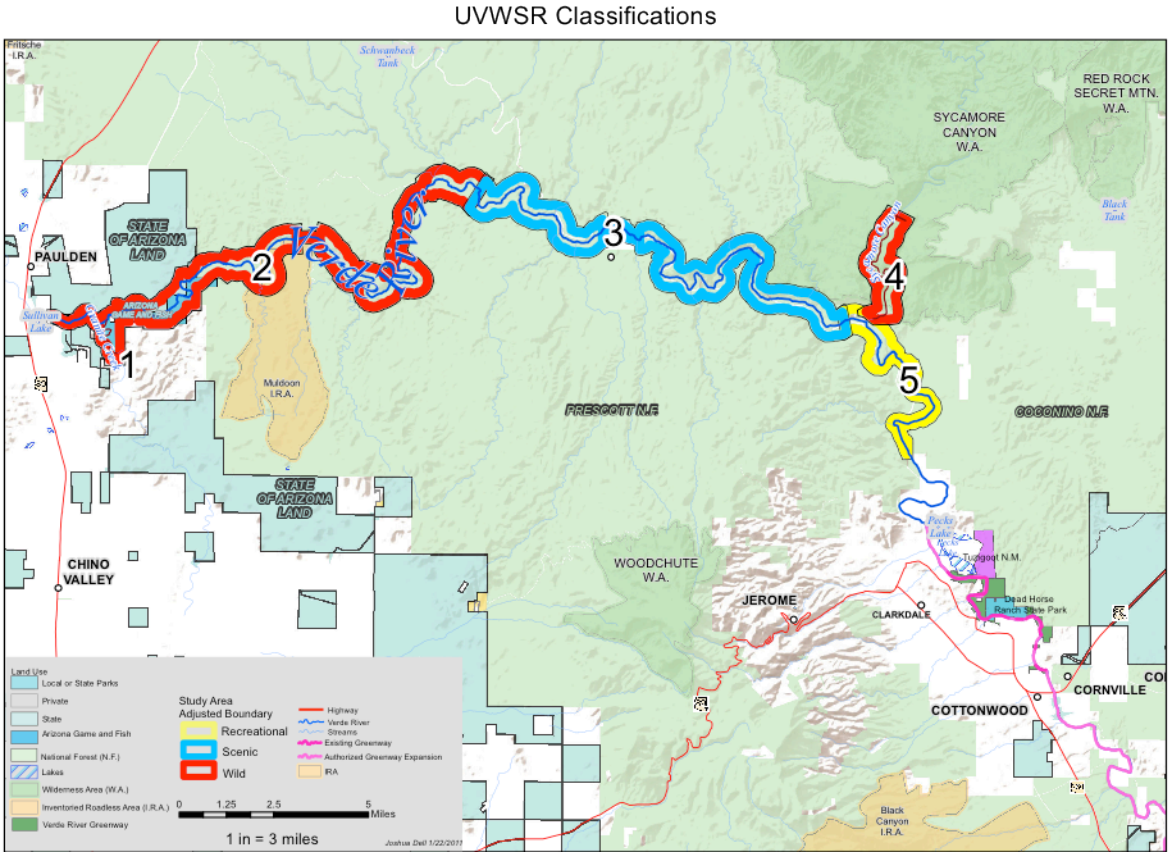

Figure 1: Map M1. Classification Overview

Using a rim-to-rim boundary adjustment (see *Citizens' Proposal* page 150) minimizes impacts on private property owners while protecting the Outstandingly Remarkable Values (ORVs). Property use and classification data are in Figures 29-30 below. Private property comprises only 6.1 percent of the total area. The adjusted boundary includes 231.2 acres/mile, less than the 320-acres/mile

maximum defined in the WSRA. Every segment of the proposed UVWSR contains seven ORVs; only one is required. The study area is richly qualified for designation as a Wild and Scenic River.

Figure 29. Classification Summary

Segment	Description	Classification	Length (miles)	Total Area (acres)
1	Lower Granite Creek	Wild	1.6	
2	Stillman Lake to Bear Siding	Wild	20.5	
3	Bear Siding to Sycamore	Scenic	16.9	
4	Sycamore Creek	Wild	4.0	
5	Sycamore to PNF boundary	Recreational	7.0	
Total			**50.2**	**11,605**
	Average Acres per mile		**231.2**	

Figure 30. Property ownership in study area.

Ownership	River length (miles)	Adjusted Area (acres)	Percent Area
PNF	35.8	8646	74.5%
CNF	4	964	8.3%
AZGFD	6.3	906	7.8%
ASLD	1.4	387	3.3%
Private	2.7	702	6.1%
Total	**50.2**	**11,605**	**100%**

Outstandingly Remarkable Values:

Every segment of an eligible river must contain at least one Outstandingly Remarkable Value (ORV). The framework and criteria used to evaluate the upper Verde River's resource values were based on the Wild and Scenic River Study Process published by the National Wild and Scenic Rivers Coordinating Council (Appendix A1.2), and on the U.S. Forest Service Handbook (FSH 1909.12 Chp 80, Appendix A2.3).

Scenery: The upper Verde River is one of the most beautiful areas in the state of Arizona; displaying green meadows, red rocks, blue sky, fall color, white clouds, and mountain peaks, plus hosting wildlife from several neighboring ecoregions – all unique features of a rare southwestern riparian corridor (See *Citizens' Proposal* page 135).

Recreation: Recreational opportunities along the upper Verde River include hiking, backpacking, horse riding, photography, wildlife viewing, swimming, train riding, camping, fishing, hunting, and interpretation or observation of geological, cultural, and ecological features (See *Citizens' Proposal* page 71).

Fish: On the upper Verde, historical native fish diversity together with the high quality habitat carries tremendous potential for restoration of native fish populations, including four species protected by the Endangered Species Act. The resident native fish are listed above and discussed in *Citizens' Proposal* page 140.

Photo P71. Sonora sucker captured for native fish monitoring.

Geology: The Verde Valley, one of the three great valleys in the Transition Zone, is regionally significant as a unique physiographic feature revealing intermixture between the Colorado Plateau and the Basin and Range province. Remarkably, hiking along the river bank on the Great Unconformity, a hiker can stand on Precambrian granite and simultaneously touch Tapeats sandstone, bodily bridging a one-billion-year gap in the geologic record (See *Citizens' Proposal* page 138).

Wildlife: Vegetation communities and geography along the riparian zone of the upper Verde River constitute a unique, essential, *continuous* wildlife corridor connecting the Sonoran Desert with the highlands, creating a unique mixture of vegetative habitats for animals and preserving the rich biodiversity of the watershed. As noted above, the watershed supports a substantial part of Arizona's vertebrate wildlife (See *Citizens' Proposal* page 141).

The upper Verde has recorded sightings of 270 migratory and year-round birds and 209 breeding bird species. Species protected by the Endangered Species Act include the candidate Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), the threatened bald eagle (*Haliaeetus leucocephalus*), and the candidate Mexican gartersnake (*Thamnophis eques megalops*). It is potential habitat for the federally endangered southwestern willow flycatcher (*Empidonax traillii extimus*). Species rated sensitive by Prescott National Forest include the common black hawk (*Buteogallus anthracinus*), the American peregrine falcon (*Falco peregrinus*), Abert's towhee (*Pipilo aberti*), Western red bat (*Lasiurus blossevillii*), Pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), the pocket free-tailed bat (*Nyctinomops femorosaccus*), the lowland leopard frog (*Rana yavapaiensis*), the Arizona toad *(Bufo microscaphus microscaphus),* and the narrow-headed garter snake *(Thamnophis rufipunctatus).*

The Arizona Game and Fish Department has identified several Wildlife Species of Concern: the candidate least bittern (*Ixobrychus exilis*), the river otter (*Lontra canadensis Sonora*), the Belted kingfisher (*Megaceryle alcyon*), and the fringed myotis *(Myotis thysanodes)* bat.

Historic and Cultural: The entire length of the study area is rich in history, from the historic railways to homesteads and cattle ranches. Over 100 years of ranching history is represented in this river corridor by numerous historic corrals, homesteads, and ranch building, weathered but still

standing. Ranching families that have been in the area for generations are still active in the watershed, raising cattle on private lands and USFS grazing leases (See *Citizens' Proposal* page 143).

The upper Verde River hosts an extremely high density of Native American archaeological sites. Prescott National Forest internal reports document 54 heritage resources along the upper Verde between the western and eastern PNF boundaries, all of which would qualify for the National Register of Historic Places. There are at least eight additional sites within the study area west of the PNF boundary plus many more sites along Sycamore Creek that were not counted in their report. To this day, the Yavapai-Apache people regard the river and the springs as an essential part of their character, culture, and spirituality (See *Citizens' Proposal* page 144).

Photo P18. Rock art observatory above Stillman Lake.

Other Values – Hydrology and Ecology: The upper Verde River hydrology is regionally significant because it is one of the last free-flowing undeveloped rivers in the Southwest. The hydrology and riparian ecology of the region are nationally significant because of the river's flash flood regime, a consequence of the climate and the absence of dams. The upper Verde River hydrology is also unique in that the river's headwater aquifer underlies grasslands, whereas most western rivers originate in mountains.

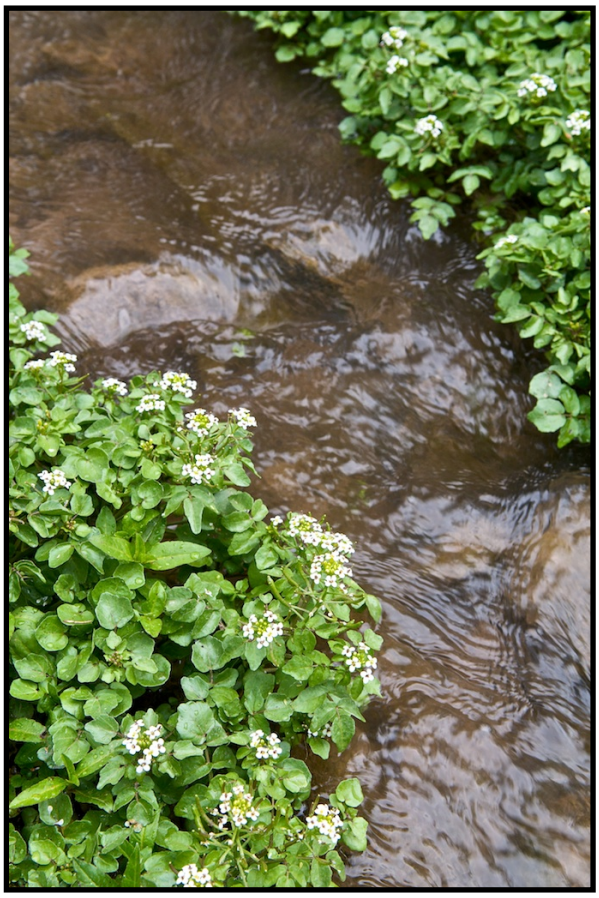

Photo P20. Verde Springs, crowned with flowering watercress, produces the base flow for the upper Verde River.

The upper Verde's base flow supports an ecologically important riparian corridor with a diverse vegetative community functioning in relatively pristine, intact conditions. These waters create an oasis in the arid lands of Central Arizona and supporting a rich diversity of species. Riparian areas provide the harsh desert climate with water, cover, shade, and travel corridors for hundreds of species (See *Citizens' Proposal* page 145).

Discussion and Analysis:

The Citizens' Proposal does not include a full suitability study. However, the proposal does analyze some of the issues that must be considered by public agencies and the United States.

Comparison with PNF: As part of a required update to the forest plan, Prescott National Forest released an update to the UVWSR Eligibility Study in December 2010. The report did not include a Suitability analysis; PNF has no immediate plan to submit a UVWSR proposal to Congress. The updated eligibility study found 37.7 miles of the upper Verde eligible for WSR designation in four segments. The Citizens' Proposal classifications and ORVs are very similar to the PNF study. Differences between the plans are easily understood and explained (See *Citizens' Proposal* page 187).

Water rights issues: Water rights are highly contentious matters, especially in Arizona. The goal and purpose of this proposal is to protect the upper Verde River, its habitats, flora, and fauna, and the many other ORVs described herein to the maximum extent allowed by the WSRA. The WSRA was not intended to resolve water resource issues; the WSRA pointedly defers to and claims no exemption from state water law. This proposal is NOT intended to address some significant water resource issues in the Big Chino Watershed. The impact of a UVWSR on water rights can be summarized (complete discussion in *Citizens' Proposal* page 193):

• The WSRA creates an implied federal reserved water right limited in quantity and purpose to protect the reasons for designation, vesting on the designation date.

• In Arizona, federal rights are subject to vested, prior appropriation water rights. Federal water rights do not supersede or interfere with water rights that pre-date designation. Therefore, senior water rights, both groundwater and surface, are not threatened by the federal reserved right.

• WSR designation alone does not guarantee a continuous instream flow, or protect natural flow conditions, as it does not confer any new ownership of water.

• Therefore, water resource disputes and concerns are not a legitimate barrier to designation of the UVWSR.

Public support: In summary, local citizens, local governments, corporations, and all national, regional, and local conservation organizations strongly favor protecting the upper Verde River. All parties to the local water resource dispute publicly acknowledge and value the upper Verde River and are, in their view, acting to protect it. No party has advocated harming the river. Local support for protecting the upper Verde is a rare point of unanimity.

Concerns of river managers: This Citizens' Proposal has been developed using frequent and close consultation with PNF, SRP, and AZGFD; their concerns have been incorporated throughout. For further discussion of their concerns, see *Citizens' Proposal* page 187.

Legislative language: To facilitate Congressional consideration and address some concerns of the river managers, we suggest legislative language specifying the boundary and classifications, water rights, stream monitoring, and wildlife management (*Citizens' Proposal* page 205).

How WSR protects the river:

- Recognizes the upper Verde River as a national treasure.
- Prevents new federal water projects, diversion, and mining.
- Maintains the free-flowing character of the river within the WSR boundary.
- Protects water quality.
- Supports and respects Arizona's ranching heritage.
- Requires a Management Plan protecting the ORVs for which the river is designated.
- Requires public participation in river management.

What WSR does not do:

- Will not protect the base flow of the river, control groundwater mining in the Big Chino Valley, or change any existing water rights.
- Arizona water laws and policies retain unaltered jurisdiction in the UVWSR.
- Does not alter existing rights, privileges, or contracts on federal lands, including grazing leases.
- Does not control private property uses, including ranching, or confer public access to private land.

Conclusion:

The goal and purpose of this proposal is to protect the upper Verde River, its ecosystems and habitats, its flora and fauna, and the many other ORVs described herein. Neither the WSRA nor this proposal is intended to address, and cannot resolve, water resource issues in the Big Chino Aquifer. Controversy over water resources is always a part of WSR designation; the mere existence of controversy does not constitute a legitimate barrier to designation.

Ecologically healthy riparian zones and perennial rivers are now extremely rare in Arizona, representing a few tenths of one percent of the landscape. Most riparian environments of the American Southwest have been lost, modified, or degraded, and the few remaining riparian areas face severe degradation from recreation, grazing, water extraction, and urbanization. Arizona's major rivers no longer run year round due to dams, diversions, and development. When riparian areas are impaired, the health of the overall ecoregion and wildlife suffer serious consequences. The upper Verde River is one of the best remaining intact riparian corridors in the southwest.

This proposal for the Upper Verde Wild and Scenic River represents an important opportunity to protect, restore, and maintain critical riparian and aquatic habitats as well as the natural and cultural resource values in the river corridor. UVWSR designation will be a milestone for the reversal of riparian degradation in Arizona and in the American Southwest.

Wild and Scenic River designation for the upper Verde River is the most effective way to preserve the unique, rare, and exemplary outstandingly remarkable values and to protect for posterity the full extent of the Verde River Watershed riparian corridor — over 160 miles of protected riparian habitats connecting over 543,000 contiguous acres of protected public lands, a truly exceptional ecological resource for Arizona, the Southwest and the United States of America.

We present Congress with an extraordinary opportunity to protect this river now, and to let it thrive as an intact, natural riparian ecosystem. The Wild and Scenic Rivers Act was designed to protect places exactly like the upper Verde River, a green artery pulsing through the heart of Arizona.