The Arizona Riparian Council Newsletter

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THE 'AHAKHAV TRIBAL PRESERVE
A RIPARIAN RESTORATION PROJECT BY THE COLORADO RIVER INDIAN TRIBES

Fred Phillips, American Society of Landscape Architects, Project Coordinator

The 'Ahakhav Tribal Preserve started with the vision of Dennis Patch, Colorado River Indian Tribes (CRIT) Council Member and CRIT Director of Education. Over the last half century Patch has witnessed "progress" — agricultural and residential development, dams and water diversions — the systematic destruction of his people's homeland on the lower Colorado River. In 1994, he sought to restore the landscape that once existed, such as the cottonwood/willow (*Populus fremontii/Salix gooddingii*) gallery forests, mesquite (*Prosopis* spp.) bosques, and the diverse meandering wetlands of the river together with the wildlife supported in these habitats.

Patch's vision inspired Peter Nimkoff, then CRIT Attorney General, to contact Benjamin Frederique, a doctoral candidate at Purdue University. The two found Fred Phillips, a student in Purdue's Landscape Architecture program, who spent the next two vacations at a CRIT drafting table. Next, Phillips recruited two more Purdue students; Sonia Mullinex and Adam Perillo to set about turning the vision and the early plans into a reality.

The second summer of the project in 1995 saw the development of the original plan. The 'Ahakhav Preserve Plan goals included: combining local, tribal, state, and federal resources to restore and monitor viable wetland, riparian, and aquatic communities; creating a nature park with low impact recreation opportunities; establishing a native plant nursery; and implementing an environmental education program for tribal members and visitors. Outreach within the tribal community helped ensure the project's long-term success - Tribal Elders and the community at large were consulted on all aspects of the project.

Upon Tribal Council approval, the plan was submitted to all relevant agencies for review. Revisions and comments were incorporated into the final draft plan before seeking the necessary permits and additional funding. Sonia and Adam headed back to school, but within one year all necessary permits had been secured (CRIT and SHPO archaeological concurrences, NEPA consultation, U.S. Fish and Wildlife Service's critical habitat consultation, and most importantly, the U.S. Corps of Engineers wetland restoration permit).

With permits and a solid plan in place the next priority was to locate project funding. Tribal "seed monies" helped get us started. Then a list was developed to target all potential grants that best fit the preserve plan. The first grant obtained came from the Bureau of Indian Affairs (BIA) Woodlands Program ($10,000 to

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Inside This Issue

LETTER TO THE EDITORS

[Editors' Note: Letters to the editors are not necessarily the views or opinions of the Council and may be edited. Although willow flycatcher-related issues are important, we encourage letters focused on other riparian issues and topics as well.]

In a recent letter to the ARC newsletter, Dennis Parker expressed "utter disbelief" that extinction may be imminent for Southwestern willow flycatcher if the population at Roosevelt Lake is inundated before a replacement population is established. "Nothing could be further from the truth," he says.

Mr. Parker appears to be alone in his optimism. In a 1993 report for the mining industry, Mr. Parker argued that the southwestern willow flycatcher is not a valid subspecies, that it has not declined to the level of endangerment, and that no evidence exists that riparian habitat has declined. In a July 25, 1996 letter to the *Arizona Republic*, he concluded: "Before the Fish and Wildlife Service stepped in to 'save' the willow flycatcher, the bird was doing just fine. Cowbird parasitism was negligible and livestock were present on the breeding grounds. The bird chose the exotic tamarisk over cottonwood-willow habitats, and there was no reason to believe that management changes were called for."

In regard to the precarious status of the flycatcher, see the final biological opinions on Lake Mead, Lake Isabella, and Roosevelt Lake. In all three, U.S. Fish and Wildlife Service (USFWS) biologists conclude the flycatcher has declined dramatically since being listed as endangered, and that "extinction is foreseeable." The Lake Mead opinion states that the environmental baseline for the flycatcher, prior to any further habitat loss, is already jeopardy. There are only six flycatcher populations range-wide with only 20 pairs of birds. One was destroyed in a 1996 fire on the San Pedro River, two more have been approved for complete inundation by the USFWS (Lake Mead and Roosevelt Lake), and a fourth (Lake Isabella/Kern River) will be substantially degraded.

Mr. Parker states that habitat at Roosevelt Lake cannot be essential, since the flycatcher got along without it in the 1970s. According to this theory, no ephemeral habitat type could ever be deemed essential. It is true that when the flycatcher was abundant, no particular patch of riparian habitat was essential to its survival. Now that it have been reduced to such low numbers (300-500 pairs range-wide), the loss of a single population is devastating. The Lake Mead biological opinion, for example, states that the loss of the population is "catastrophic" due to the low numbers of flycatchers, low number of "large" populations, and a few remaining large stands of willow in the Southwest.

Mr. Parker would have us to believe that the destruction of the Roosevelt, Mead, and Isabella populations is okay since the USFWS authorized it. Regarding Roosevelt, I would refer him to the subsequent Lake Mead biological opinion (pg. 66) which seriously questions the adequacy of the mitigation associated with Roosevelt Lake. Regarding Lake Mead, Mr. Parker should review the draft biological opinion which stated it is imperative to preserve either the Lake Mead or the Roosevelt Lake population to avoid jeopardy. A January 22, 1997 briefing statement accompanying the draft stated that saving one of the populations was "the absolute minimum necessary to alleviate jeopardy," warning that "water and power interests...have threatened to walk out of the (HCP) process if what they perceive as a 'draconian' biological opinion is produced." Shortly thereafter, the consultation process was moved from the field office to the regional office, and all limitations to the destruction of the Lake Mead and Roosevelt populations were removed from the opinion. The *Arizona Daily Star* quoted Regional Director Nancy Kaufman as saying the final opinion would only allow the flycatcher to "continue limping along." Not exactly an optimistic account.

The Lake Isabella situation is even worse. U.S. Fish and Wildlife Service biologists submitted mitigation proposals directly to Congressman Calvin Dooley, who rejected them one by one, until the agency was forced to agree to a plan whereby the population would

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Two-month-old cottonwoods.

(Cont. from page 1... 'Ahakav)

revegetate two acres of riparian forest). Soon Tribal donations exceeded $200,000. Thereafter, a steady stream of grants "spike-flowed" and within two years we compiled over $2.3 million for preserve operations. The largest contribution ($931,000) came from the Arizona Water Protection Fund (AWPF). Combined with the Bureau of Reclamation and Arizona Game and Fish Department matching funds, the AWPF grant is funding 100 acres of revegetation, 110 acres of wetland aquatic restoration, and "before" and "after" bird censusing, and wetland/aquatic ecological monitoring.

Life is funny. In February 1996 we hauled a D9 'dozer to the site to destroy exotic salt cedar (*Tamarix chinensis*) stands and thus begin restoration of a native riparian forest. In 1997, we destroyed the 'dozer. Since 1996 we have restored 125 acres of this habitat. Bertin W. Anderson's *Revegetation and Wildlife Management Center* came on board next. We experienced great short-term success with initial revegetation efforts. Some of our cottonwoods planted in 1996 have reached heights exceeding 22 feet; some honey and screwbean mesquites (*Prosopis glandulosa* and *P. pubescens*, respectively) have exceeded 10-12 feet. How do you grow cottonwoods, willow, and mesquite at up to an inch per day?

We used Dr. Anderson's nine-step revegetation method. Site selection includes soil testing on two points per acre where depth to water table, salinity, pH, conductivity, and soil moisture are quantified and mapped. Once preliminary parameters are established we selectively clear around existing native species. The nine-step plan includes: preliminary soil analysis of surface soil and soil just above the water table; propagules started from cuttings; selectively clearing the site; intensively soil sampling on 20-foot centers; augering holes where each propagule is to be planted; installing a buried irrigation system; planting the site; irrigating depending on species water demand and depth to the water table; and weekly monitoring tree growth and foliage volume. I guess good things keep growing. Happily we can report similar success with our 75-acre project planted this June.

In 1996 we established the 'Ahakhav Native Plant Nursery

with a $10,000 grant. In our first year we propagated over 20,000 native trees and shrubs. The nursery supplies all of our revegetation efforts as well as other restoration projects on the lower Colorado River. Nursery funds are used for salaries, nursery expansion, and for project operations in need of cash.

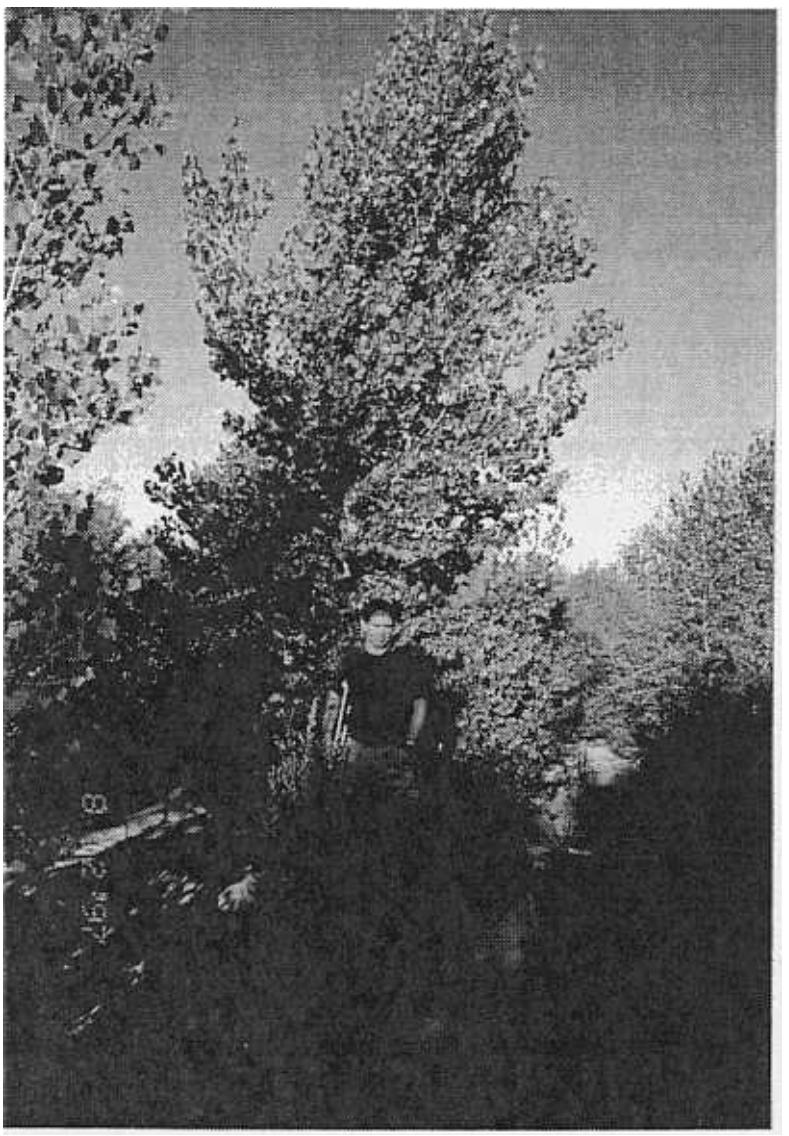
Dave Wegner's Ecosystem Management International (EMI) came into the preserve picture in the project's initial planning stages. Later, EMI formed a plan for the pre- and post-restoration hydrographic mapping and ecological monitoring. Since March 1997, we have collected information on backwater topography, substrate material, fisheries, water quality, invertebrates, and sensitive habitat areas. Our evaluation of the above resulted in a restoration/dredging plan that protects existing sensitive habitats and maximizes restoration in deteriorating areas.

Restoration construction will begin in February 1998. Twelve months of fighting thick cattails (*Typha* spp.), anaerobic muck, and extreme temperatures should yield exceptional results. Mapping and monitoring, once restoration construction has been completed, should quantify successes and shortcomings. We should be in great shape to design our own long-term management of the backwaters as well as guide future regional restoration projects.

We're not all about biology and numbers, though. 'Ahakhav has gradually generated great interest in wilderness recreation. We managed to borrow enough tents and sleeping bags and gather enough food and volunteers for our first camping trip to the Grand Canyon in October 1996.

One year later, after submitting grant applications, receiving more Tribal funds and increasing volunteer participation, our outdoor recreation/education program has really taken off. CRIT, Patagonia, Kelty, Outdoor Research, Wilderness Systems, and even the U.S. Army have generously donated outdoor gear. Our hand-me-downs have been replaced with a full array of canoes, kayaks, tents, sleeping bags, binoculars, and other gear necessary for the program.

In our first year, we've hosted over 650 youth and adults in our program. Activities include canoe and camping trips, interpretive hikes, a summer day camp, cookouts, trail days, tree planting, and other activities. Foreign exchange students, Tribal Elders, local professionals, and an army of kids routinely gather for our weekend canoe trips. Community involvement has



One-year-old cottonwood.

been vital. Everyone's ideas, energy, and support for the project have helped us succeed.

'Ahakhav Park has also been a great staging ground for all of our activities. The park facilities include a 2-acre grassy day-use area with picnic tables, barbecue pits, interpretive trails, and shade trees. Opening day on October 19th, 1996 brought 500 people together for the Park's dedication. We celebrated with traditional dancing and singing and various words of wisdom and encouragement from Tribal councilmen and our Tribal Elders. Then the kids and canoes hit the water before feasting on 200 pounds of "pitted" beef.

Even with Sonia and Adam gone (they've graduated and were married this summer), our current office staff of 5 is still crammed into one room and our full-time field staff has grown to 15. Within a month we will open our new Preserve office and visitor center at the Park site and the additional space will be a welcome change. Future plans for the preserve facilities include primitive camping sites, an amphitheater, and three additional miles of interpretive trails. Hopefully, beneath traditional mesquite bosques and cottonwood forests, the Preserve will serve as a cultural classroom.

We have worked hard here and have been very lucky. But the vision was not myopic. We have been presented with a bigger picture. Systematic devastation can *only* be countered with systematic restoration. So far, hundreds of people have pulled together for *200 acres* and I often wonder how many might get together to preserve the lower Colorado River region. Grant funding remains unpredictable, fleeting. Budget cuts keep coming. I don't know what the future holds. But we will keep doing our small part for the lower Colorado River habitats.

The other night I walked through 'Ahakhav. The smell had changed; it's cooler than it used to be here. Our 1-year-old cottonwoods towered 20-feet above me. It is amazing what can be done when a community comes together and takes action as a whole. Let the historic cultural visions continue to guide us.

(Cont. from page 2. Editors)

be immediately inundated and jeopardy would be "mitigated" by a team to be assembled later. The team has not yet been assembled and will be advisory only, having no authority to require specific mitigation.

The flycatcher's status could hardly be worse, we cannot be sure it is recoverable at this point. The USFWS's inability to say "no" to be continued habitat loss, despite its own warning that extinction is foreseeable, is disheartening to say the least. In every case, the agency has authorized permanent destruction today, in exchange for possible mitigation in the future. The Southwest Center's proposal and litigation strategy is simple: if the agency really believes future, offsite mitigation will work, then it should be happy to delay the inundation of the Mead, Roosevelt, and Isabella populations until the mitigation is proven to have been effective. None of the agencies or water interests will take this common sense approach, however, because none really believe in the mitigation they espouse. That is why they place the risk on the flycatcher, rather than upon themselves.

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CURRENT RIPARIAN RESEARCH

AVIAN HABITAT USE IN SOUTHERN NEVADA RIPARIAN AREAS WITH VARYING AMOUNTS OF *TAMARIX RAMOSISSIMA*

by Sandra L. Haigh, University of Nevada, Las Vegas

Avian species richness, species diversity, and density were measured and compared over a 21-month period on six riparian sites in Lake Mead National Recreation Area (LMNRA), southern Nevada. Sites consisted of two lakeshore areas with almost pure stands of *Tamarix ramosissima* and four streamside areas, two with mixed *Tamarix* and native vegetation and two with only native vegetation. Overall mean avian species richness, diversity, and density were lowest on lakeshore sites, intermediate on mixed stream sites, and highest on stream sites with native vegetation. Differences in these values were significant between lakeshore and stream sites and between stream sites for density. Habitat variables within these sites that were measured and correlated with avian community factors included perennial species richness, perennial species diversity, relative percent cover of *Tamarix*, percent total cover native vegetation, foliage volume, and arthropod biomass. Perennial plant species richness and diversity decreased on sites as amount of *Tamarix* increased based on relative canopy coverage measurements. Significant differences were found in foliage volumes of *Tamarix* growing on different site types at all three heights measured during various seasons. No difference in foliage volumes of native vegetation growing on different site types were found at any height in any seasons. Foliage height profiles based on foliage volumes measured at three different heights were constructed. Age profiles and age-stem diameter relationships of *Tamarix* were determined for four populations growing in the two habitat types. Stream sites were found to have older populations with less recruitment and averaged slightly fewer number of growth rings/cm than lakeshore populations. Arthropods were sampled monthly from three vegetation layers, were identified to family, and then dried and weighed to determine sample biomass. Estimates of biomass in g/m^3 and in g/ha were calculated for each site. Taxonomic diversity of arthropods was highest in the sites with no *Tamarix* and lowest in sites with little native vegetation. Significant differences were found in arthropod abundance between native vegetation and *T. ramosissima*. Using linear models, arthropod biomass was the poorest predictor of the three bird community factors at all levels. Percent total cover of native vegetation was the best predictor of bird species diversity, richness, and density across the three site types. Values for r^2 were improved slightly by using various nonlinear models for all factors at all levels. Multiple linear regression was used to construct a model to predict each avian factor using the five vegetation factors across all six sites and across the three site types. Values for r^2 were similar for bird species diversity and richness and lower for bird density across all six sites. At the site type level, r^2 values were higher, with the value for bird density being the highest. Perennial plant species that birds used in greater proportions relative to their abundance were identified and included *Acacia greggii, Prosopis pubescens, P. glandulosa,* and *Larrea tridentata*. Plant species that birds used less in proportion to their abundance included *Phragmites australis* and *Baccharis sarothroides*.

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SPECIES PROFILE



THE TIGERS OF ARIZONA

by Jim Collins

A leopard may change its spots, but there are tigers of a different stripe - in Arizona. I'm not talking about cats, but salamanders.

The tiger salamander (*Ambystoma tigrinum*) complex has species distributed from the east to west coasts of the United States, and from southern Canada to Mexico City. One part of the complex has about 13 species distributed throughout the highlands around Mexico City. The other part of the complex has another 5-8 subspecies or species. Of this group, all authorities agree on 5 subspecies: *tigrinum* from mostly east of the Mississippi River, *mavortium* in the central Great Plains and much of Texas, *diabolic* from the northern Great Plains, *melanostictum* also in the upper Great Plains and the northwestern United States, and *nebulosus* from the Rocky Mountains and intermontane West. *Ambystoma t. californiense* from the Central Valley of California and *velasci* from around Mexico City are variously regarded as subspecies or separate species. Finally, *stebbinsi* is found in southern Arizona, 1 of 3 subspecies occurring in that state.

The Arizona tiger salamander (*A. t. nebulosus*) is on the North and South Rims of the Grand Canyon and across the central and eastern parts of the state above about 1,700 m in stock tanks and natural ponds, marshes, and lakes in pinyon-juniper, ponderosa pine, spruce-fir, and montane meadow habitats. All evidence indicates that this is a native race. The barred tiger salamander (*A. t. mavortium*) occurs mainly in stock tanks below about 1,700 m in central Arizona. This race was probably introduced from eastern Colorado and New Mexico, Nebraska, and west Texas as a byproduct of importing salamanders used as fish bait ("waterdogs"). The Sonoran tiger salamander (*A. t. stebbinsi*) lives in the grasslands and oak woodlands of the San Rafael Valley, and has an especially interesting history.

The Sonoran tiger salamander was described from the San Rafael Valley in southern Arizona in 1954. Subsequent research indicates this race has the genetic properties of a hybrid, likely originating by the union of salamanders from *A. t. nebulosus* and *mavortium*. Sonoran tiger salamanders presently occur only in stock tanks and surrounding terrestrial habitats; none live in the aquatic habitats - especially river margins, marshes, and ponds - that are most similar to what aquatic habitats in the San Rafael Valley were like before the arrival of European-derived settlers. In 1993, conservationists petitioned to have the Sonoran tiger salamander listed as an endangered subspecies, triggering a complex chain of events and raising many questions. The subspecies was federally listed as threatened in February 1997.

Tiger salamanders have one of the most complex life histories of all salamanders. Males and females court in aquatic habitats between mid-January in the San Rafael Valley and May at higher elevations; a rare breeding may happen in summer. Females lay a few hundred to a few thousand eggs, attaching each singly, preferably on rocks, twigs, and so forth, but occasionally on bare soil. Tiny larvae hatch in a few weeks, depending on temperature, and begin growing. After 4-6 weeks, 1-35% of larvae in some populations develop enlarged teeth, wide heads, and eat other salamanders as well as invertebrate prey. Typical larval salamanders eat only invertebrates.

Cannibalistic and typical larvae grow for about 8 weeks. Some then metamorphose, leave the aquatic habitat, and

live on land under rocks, logs, or in mammal burrows until returning to water to breed. If the habitat retains water, and has enough depth so that it will not freeze to the bottom, some larvae may not metamorphose, but retain the larval morphology while maturing their gonads. These mature gilled morphs, or neotenes, may eventually metamorphose. However, if the habitat retains water, they may be neoteric for their entire life.

In Arizona, introduced nonnative salamanders pose threats to the native tiger salamander subspecies *nebulosus* and *stebbinsi*, and nonnative fishes (like sunfish and bass) readily eat salamanders. Bacterial and viral diseases of undetermined causes irregularly decimate populations of tiger salamanders on the North Rim of the Grand Canyon, in the San Rafael Valley, and in parts of the White Mountains. These fascinating amphibians are an important part of our natural resource heritage in Arizona.

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MEET OUR NEWEST BOARD MEMBERS

BARBARA HESLIN, AT-LARGE BOARD MEMBER

Barb is employed by the Arizona Game and Fish Department's Phoenix office as a Habitat Evaluation Specialist in the Habitat Branch. She has also worked for the Department as a Habitat Specialist at the Mesa office and as a field crew leader for the Department's North Kaibab Ranger District northern goshawk survey crew. Prior to her employment with the Department, Barb was a Wildlife Biologist on the Mendocino National Forest in northern California from 1988 through 1992. She also was employed as a Biological Technician on the Bear Springs Ranger District, Mt Hood National Forest and on the North Kaibab Ranger District of the Kaibab National Forest from 1983 to 1988. Barb received her M.S. in Biology at Northern Arizona University in 1984, and her B.A. in Outdoor Education/Biology from Northland College in 1980. Barb and her husband, Terry, have a two year old son, Malcolm, who was born on Earth Day 1995.

HOWARD KOPP, TREASURER

Although Howard has been a member of the Arizona Riparian Council for just this past year, his interests in riparian issues extends back to his childhood growing up along the Hudson River in the 1960s. At that time, the health of the Hudson River was in serious jeopardy, raising the environmental awareness of those people near the river. After moving to Arizona in 1974, his interests in environmental issues remained (although his notion of riparian habitat has changed drastically). Howard graduated from Arizona State University in 1982 with a B.S. in Microbiology and then became interested in the field of environmental law. He graduated from Arizona State University's College of Law three years later. After graduating from law school he was hired by the Arizona Department of Water Resources, where he has worked primarily on the implementation of the Groundwater Code. In 1994, he also became counsel for the Arizona Water Protection Fund Commission. In this role, he negotiates agreements with successful grant applicants. In his free time, Howard is attending Arizona State University part-time as a graduate student in the Masters of Environmental Planning program. Outside interests include hiking, nature photography, and ghost town hunting.

It's Time Again for.....

The Fall Campout and Get-Together!

Join us at 1 pm Saturday, October 18, 1997 at the Ashdale Administrative Site near Cave Creek. If you'd like, bring your lunch and come a little earlier. Bob Smith, Entomologist from the University of Arizona will talk about the role of crayfish in the stream ecosystem. We will also learn about stream assessment methods being used by the Tonto National Forest and other methods being developed by Arizona State University for Arizona Game and Fish. The Board of Directors would like any ideas for the spring meeting. We are planning a fun wildlife program for the evening hours; e.g., blacklighting bugs or mist-netting bats. Bring your family as we are planning on having activities for the kids.

On Sunday you can choose from field trips to some restoration projects on the Tonto National Forest or to the Sears Kay ruins which will be led by Scott Woods, Archaeologist for the Tonto National Forest.

How to Get There

From Tucson and other points south, take I-10 through Phoenix to 1-17 and then the Carefree Highway exit. Coming from Flagstaff on I-17 take the Carefree Highway exit. Drive east to Scottsdale Road, turn north (left) to Cave Creek Road. Turn east (right) and go for about 7 paved miles and it then becomes a dirt road. It is fine for two-wheel-drive vehicles, but washboardy. After about 12 miles of dirt road there are gates and two stock ponds on the left. From there you drop down to the Seven Springs Campground (18.3 mi from Cave Creek Road). Drive past Seven Springs 0.1 mi to the turn off on the left to Ashdale Administrative Site (0.4 mi from turnoff). It is easy to miss so watch for signs! If you get to the CCC Campground you've gone too far.

This is a campout so please be prepared to do so. We will provide dinner, but you need to bring your own breakfast. If you plan on attending please let us know how many adults and children will be attending so that we can have head counts to plan appropriately for dinner.

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Bring your family!!

AN UPDATE ON FOSSIL CREEK

by Marty Jakle, Land Use Committee Chair

A Draft Environmental Assessment (DEA) has finally hit the streets for the relicensing by the Federal Energy Regulatory Commission (FERC) of the Childs/Irving Hydroelectric Project which is operated by Arizona Public Service (APS; the deadline for comments was September 15, 1997). The Arizona Riparian Council has been interested in this project for over five years and commented on it in its early stages. The Council held its Fall Meeting in October 1992, at the Irving Power Plant and heard presentations on the studies which were being conducted for the relicensing effort. The next day the group hiked up to Fossil Springs after camping at the plant.

A little background on the Fossil Creek relicensing is in order for those of you who may not be familiar with the relicensing issue or may have forgotten some of the nuts and bolts of this project. Fossil Creek is approximately 14 miles in length from its source at Fossil Springs to its confluence with the Verde River at Childs, Arizona. The water flows out of Fossil Springs at a constant base flow of 43 cubic feet per second (cfs). Approximately 0.2 mile downstream from the springs is a dam which diverts all but 0.2 cfs of the water into a flume that transports water to the Irving Power Plant. At the Irving Plant, all but 2 cfs is put back in the flume and the water flows to the Childs Power Plant.

The proposed alternative for the relicensing of the two plants would release 10 cfs back into Fossil Creek in the segment from the dam to the Irving Plant and 5 cfs from the Irving to Childs segment. This proposal is the same one that was put forward in 1992.

The Council, since its early involvement with this project, has felt that the term that best describes this project is *opportunity.* An opportunity to restore a southwestern stream that has few of the impacts of other streams and, with the turn of a crank, return 100% of its base flow. We have urged those involved with the project, mainly APS and the U.S. Forest Service, to find a way to make this happen.

The Council's comments on the DEA focused on trying to point out the opportunity which exists at Fossil Creek and concerns with the assessment's content. A major concern with the DEA was that it stated that the proposed alternative (10/5 cfs) was the best one for the system's natural resources — better than putting all 43 cfs back into the stream.

The major points of our comments are summarized below: The main problems and concerns with this document are as follows:

- An Environmental Impact Statement (EIS) should be prepared for this project, not an Environmental Assessment (EA).
- The DEA used the incorrect environmental baseline to evaluate the impacts of the project.
- The instream flow analysis used to evaluate the impacts of the different alternatives had several major flaws.
- Data and analysis of impacts to riparian vegetation are lacking.
- Mitigation for the project's impacts is lacking.
- A better economic analysis is needed for the project.
- Relicensing the project as proposed would mean the loss of a unique opportunity to restore a southwestern stream.

OPPORTUNITY FOR MEANINGFUL STREAM RESTORATION

Although we have major concerns about the data, assumptions, and conclusions presented in the DEA, our biggest concern is not with the content of the DEA. Instead, it is what we view as a real

opportunity to "do the right thing" has been missed. "Doing the right thing," restoring base flow to Fossil Creek, would not only benefit the natural resources and people, but it would benefit those involved in the project. At the same time the agencies and entities involved with this project are publicly advocating ecosystem management, wise use of natural resources, finding win-win opportunities, and forming partnerships, they are pursuing a relicensing effort which represents the "business as usual" attitude between the agencies and regulated entities. We believe that restoring the base flow to Fossil Creek is a ***real*** opportunity that is simply too good, for everyone involved, to pass up.

The Council believes that restoring base flow to Fossil Creek is truly a win-win situation for all of those involved with this project. The agencies and corporate decision makers should be trying to find ways to restore the stream, yet resolve their individual concerns. We believe that people, working together to find solutions to complex problems, can find a way to make restoring the stream a reality. If the decision is made to try to find a way to restore the stream, the Arizona Riparian Council will work hard with agencies, business interests, and other interested groups to make it happen.

WILDERNESS TOO WILD FOR SOME

by Julie Newberg, The Arizona Republic

The following comments, left on U.S. Forest Service registration sheets and comment cards by backpackers, were sent in by Thomas Ellsworth on the Internet:

- ❑ Escalators would help on steep uphill sections.
- ❑ Instead of a permit system or regulations, the Forest Service needs to reduce worldwide population growth to limit the number of visitors to wilderness.
- ❑ Ban walking sticks in wilderness. Hikers that use walking sticks are more likely to chase animals.
- ❑ A small deer came into my camp and stole my bag of pickles. Is there a way I can get reimbursed? Please call.
- ❑ Found a smoldering cigarette left by a horse.
- ❑ Trails need to be reconstructed. Please avoid building trails that go uphill.
- ❑ Chairlifts need to be in some places so that we can get to wonderful views without having to hike to them.
- ❑ Too many bugs and leeches and spiders and spider webs. Please spray the wilderness to rid the area of these pests.
- ❑ Please pave the trails so they can be plowed of snow in the winter.
- ❑ The coyotes made too much noise last night and kept me awake. Please eradicate these annoying animals.
- ❑ Reflectors need to be placed on trees every 50 feet so people can hike at night with flashlights.
- ❑ All the mile markers are missing this year.
- ❑ Need more signs to keep area pristine.

Graphic is not from original story and has been added by ARC Editors.

- ❑ The places where trails do not exist are not well-marked.
- ❑ A McDonald's would be nice at the trailhead.

[Reprinted from the March 27, 1997 issue of the Arizona Republic. Used with permission. Permission does not imply endorsement.]

VOLUNTEER CORNER

VOLUNTEER NATURALIST OPPORTUNITIES AT BROWN CANYON, BUENOS AIRES NATIONAL WILDLIFE REFUGE, ARIZONA

Two volunteer naturalist positions are opening this fall for Tour Leaders and Education Center Hosts in Brown Canyon, located on the Buenos Aires National Wildlife Refuge 45 miles south of Tucson. Volunteers will live in Brown Canyon leading scheduled public and group natural history and bird tours or hosting overnight educational groups at the Brown Canyon Education Center. Brown Canyon is located at 3,700 ft elevation in the Baboquivari Mountains. The spectacular sycamore-lined canyon is known for birds like Strickland's woodpecker, buff-collared nightjar, and sulphur-bellied flycatcher. Conditions are remote but comfortable.

Individual(s) or couples are required to volunteer 40 hrs/week, must have knowledge of natural history of the Southwest and be able to identify birds by sight and sound. Experience leading tours or teaching preferred. Must have certification or be able to pass basic first aid. Must be outgoing and enjoy working with people and present a professional image. Must be able to perform light maintenance and repairs. The naturalist/leader position requires physical ability to hike 6 miles for long tours. Preferred minimum commitment 1 year. **No pets or smoking.**

Benefits include $50/week stipend, first-aid training, vehicle for work, living in one of the most beautiful places in Arizona.

For application or more information, contact:
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ARIZONA RIPARIAN COUNCIL

The Arizona Riparian Council always needs people who will help at environmental education fairs with our booth. This can sometimes be with short notice and is often on weekends.

We also are in need of a new Noteworthy Publications Editor. Ron Tiller, who has been doing an excellent job, has other commitments and endeavors and will be unable to be our Editor. One needs to be able to access scientific literature, to read and understand it, and to write a brief paragraph on each publication.

The Council will also be losing Pat Shafroth, a Member at Large, as he is moving back to Colorado. If anyone is interested in filling his position please contact us as well.

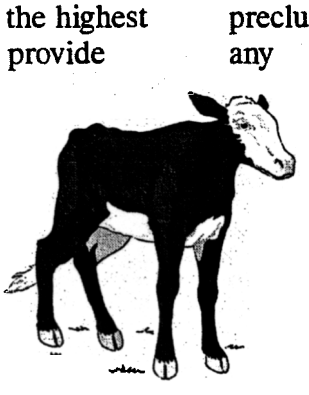
For further information, contact Cindy (602) 965-2490 or Jeff (602) 263-9522.

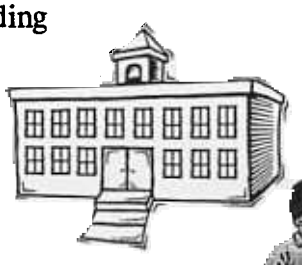
LEGAL ISSUES OF CONCERN

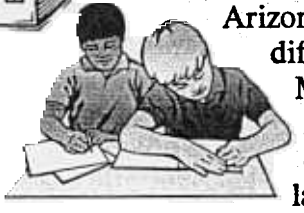
Kimberly MacEachern and Chris Vamos, Law Offices of Kane Jorden von Oppenfeld Bischoff & Biskind, P.L.C.

ENVIRONMENTAL GROUPS BID FOR GRAZING LEASES IN LIMBO

Arizona law has unwittingly placed two unlikely interests at odds over grazing leases. One side claims that the purpose of a grazing lease is to provide ranchers with the right to use state land to graze their cattle. Therefore, the state cannot accept a bid to use the land for nongrazing purposes even if the bid is higher. The other side claims that, regardless of the purpose, grazing leases are supposed to go to the highest bidder in order to provide funding for Arizona schools. They further argue that perpetually renewing leases at a low price for ranchers when another higher offer exists denies school children of money they are entitled to. Both sides cite Arizona law supporting their opposing positions.







Against the backdrop of a lawsuit brought by the Center for Law in the Public Interest (CLPI) against the Arizona State Land Department (ASLD) over the manner in which grazing leases are issued, two groups representing nonranching interest have applied for grazing leases, offering premium bids for the leases. The CLPI lawsuit involves the most fundamental aspects of Arizona law: the Enabling Act and the Arizona Constitution, which mandate that leases of state trust land go to the "highest and best bidder." Interestingly, the state is not required to advertise the availability of grazing leases which have a term of less than 10 years. The CLPI argues in its lawsuit that in practice, as soon as the grazing leases expire they are perfunctorily renewed, effectively creating a lease in perpetuity and precluding any opportunity for competitive bidding. The CLPI argues that the biggest loser in this system is Arizona's public school system, which state land lease proceeds directly fund. Judge Michael Dann of the Maricopa County Superior Court agrees with the Center's contention and has reversed an earlier ruling against CLPI. A hearing on final resolution of the case is pending and the ASLD is weighing its options.

The two conservation groups currently competing for grazing leases are Forest Guardians and the Western Gamebird Alliance. Forest Guardians currently holds two grazing leases near New Mexico streams and has planted cottonwood and willow in an effort to restore the habitat. They seek to implement a similar plan in Arizona on 160 acres on the Babocomari near Elgin and about 4,000 acres near Cataract Creek on the Babbitt family ranch. Forest Guardians' spokesman, John Horning, noted that New Mexico originally rejected the birds but eventually accepted them under Enabling Act and Constitutional language that mirror's Arizona's. But Steven Williams of the ASLD says that the implementing law in Arizona is significantly different than New Mexico law. Arizona's statutory definition of "grazing lands" is very narrow, and includes land "only used for the ranging of animals" (A.R.S. §37-101.7). In contrast, New Mexico's definition is much broader and includes agricultural activities.

This distinction in the State's land use definitions creates Forest Guardians' current dilemma since the group has no intention of grazing cattle on the leased land. One option, according to Williams, is for the group to request reclassification of the lands from grazing to commercial use and reapply. Commercial lands can be used for "...any general purpose other than agricultural, grazing,

mining, homesite, or rights-of-way" (A.R.S. §37-101.3).

Forest Guardians' bid for grazing lands was substantially higher than the amount that the grazing rental fee would bring to the state trust. But at this point, ASLD can only address the fact that the intended use (for a nongrazing purpose) does not meet the current classification of the land (for grazing). As Horning sees it, this results in ASLD serving the interests of "ranchers instead of the school kids who are to benefit from the management of state trust lands." For Williams and the ASLD it is only a matter of implementing state law as it is written. There are sure to be more developments in the near future as both sides work toward resolution of the lawsuit and the bids. For further information, contact Rolf von Oppenfeld or the authors at (602) 955-9200.

If you are interested in becoming our Noteworthy Publications Editor, please contact Cindy at 602-965-2490 or Jeff at 602-263-9522.

The Arizona Riparian Council (ARC) was formed in 1986 as a result of the increasing concern over the alarming rate of loss of Arizona's riparian areas. It is estimated that <10% of Arizona's original riparian acreage remains in its natural form. These habitats are considered Arizona's most rare natural communities.

The purpose of the Council is to provide for the exchange of information on the status protection, and management of riparian systems in Arizona. The term "riparian" is intended to include vegetation, habitats, or ecosystems that are associated with bodies of water (streams or lakes) or are dependent on the existence of perennial or ephemeral surface or subsurface water drainage. Any person or organization interested in the management, protection, or scientific study of riparian systems, or some related phase of riparian conservation is eligible for membership. Annual dues (January-December) are $15. Additional contributions are gratefully accepted.

This newsletter is published three times a year to communicate current events, issues, problems, and progress involving riparian systems, to inform members about Council business, and to provide a forum for you to express your views or news about riparian topics. The next issue will be mailed in May with the deadline for submittal of articles December 15, 1997. Please call or write with suggestions, publications for review, announcements, articles, and/ or illustrations.

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CALENDAR

Arizona Riparian Council Fall Campout Get-Together, October 18-19, 1997, Ashdale Administrative Site, Cave Creek Ranger District, Tonto National Forest. For further information, Contact Cindy Zisner at (602) 965-2490 or email Cindy.Zisner@asu.edu.

Symposium on Environmental, Economic, and Legal Issues Related to Rangeland Water Developments, November 13-15, 1997, Phoenix, Arizona. . Questions regarding the symposium should be directed to Daniel Strouse, Director, Center for the Study of Law, Science, and Technology, Arizona State University, PO Box 877906, Tempe, AZ 85287-7906; phone (602) 965-2554; email Daniel.Strouse@asu.edu.

A Century of Parks in Southern Arizona, Second Conference on Research and Resource Management in Southern Arizona National Park Areas, May 5-7, 1998, Quality Hotel and Suites, Tucson, Arizona. For further information contact Kathy Hiett, Registration Coordinator, at (520) 670-6896 X3; FAX (520) 670-6525; email katherine_hiett@nps.gov.

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