



ARIZONA RIPARIAN COUNCIL

ARIZONA RIPARIAN COUNCIL NEWSLETTER

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Need for Riparian Education Driven Home with Letter to the Editor

by Tanna Thornburg

Most of us have heard about the proposed Arizona-Florida Land Exchange Act that Arizona Representative Morris Udall has spent three years negotiating to exchange 68 acres of the Phoenix Indian School property for \$34.9 million (earmarked for trust funds to benefit Arizona Indians) and 118,000 acres of environmentally sensitive Florida wetlands valued at \$48.9 million (total value = \$80.4 million). The entire Indian School property, 104 acres, is believed to be worth at least \$122 million making the 68 acres worth approximately \$79.8 million. The rest of the Indian School property is to be used for expansion of the Veterans Hospital and for a 20 acre city park.

There has been a proliferation of newspaper articles and television stories on the proposed trade. These stories have done a good job (or so I thought) of explaining the value of the Florida wetlands that were a part of the trade. The U.S. Department of the Interior wants to acquire the Florida lands to enlarge the Big Cypress National Preserve, create a refuge for the federally endangered Florida panther, and expand the Ten Thousand Islands Wildlife Refuge. Most people have agreed that the Florida lands are the No. 1 environmental priority for acquisition right now.

So it came as a shock to me to read the following Letter to the Editor in the Phoenix Gazette that vehemently opposed the trade:

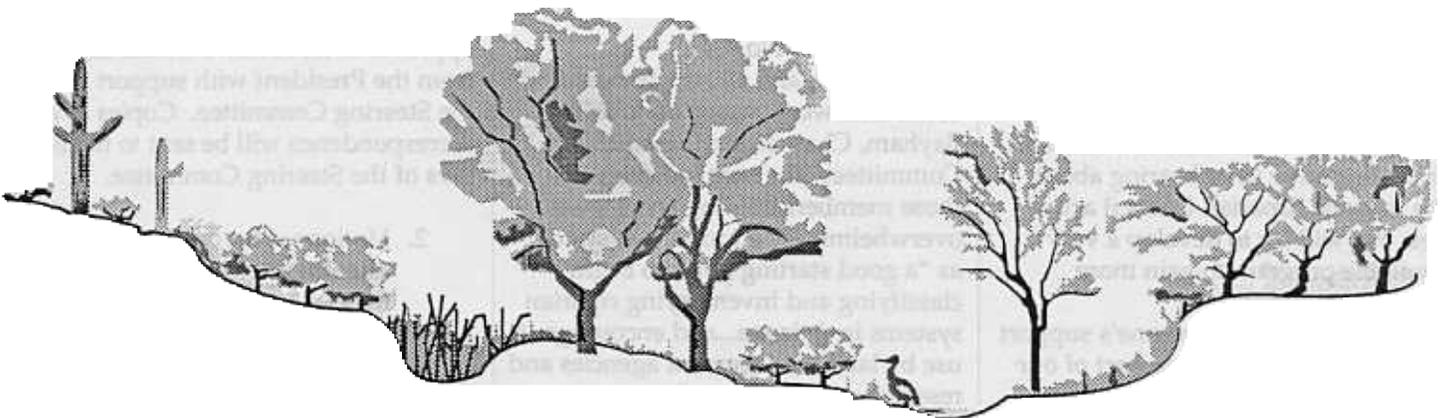
Florida Swamp Scam

I can hardly believe this. What is going on? Who is kidding whom? I thought only New Yorkers got suckered for Florida swampland.

If the state and the city allow the federal government to swap one acre of prime city property in the heart of Phoenix for even 10,000 acres of swampland in Florida, then we are all stupid and there is a big payoff someplace, but not in Arizona. It seems openly scandalous!

*F. Johnson
Phoenix*

The attitude expressed in the letter goes back to the long-held opinion that swamplands (wetlands) are only good for breeding disease-carrying mosquitoes and man-eating alligators and that they should be drained and filled to create "productive," developable land. [Swamp Scam continued on page 3]



ARIZONA RIPARIAN COUNCIL STEERING COMMITTEE REPORTS

President's Spring Report

by *Duncan Patten*

The Annual Meeting of the Arizona Riparian Council gave us all a lift and indicates that we are doing the right thing. Unfortunately, after a lift there is often a let down. As all organizations, we experience this as the many individuals who continue to give their time to the activities of the Council must return to the demands of their jobs or other normal daily activities. At the Steering Committee meeting in May, the committee chairs realized that we need more frequent interaction. This will not only stimulate the committee activities, but will allow us to compare ideas and develop new directions for the Council.

Most of our committees continue to keep active. Their efforts, as described in the Committee reports in this newsletter, show that rapid progress in some activities is elusive and thus frustrating. The Council needs to include as many willing people in the committee activities as possible. In this way we get a better cross-section of those interested in Arizona riparian issues.

The Steering Committee addressed some issues that will mean decisions by the membership (see meeting minutes). One deals with administrative structure of the Council and the other with Council finances. We find that we need a more solid financial base than that provided by "overages" in income from the annual meeting. We need to consider some low level of dues. This is of concern because we do not want to lose any individual who is interested in participating in or hearing about the Arizona Riparian Council activities. We will try to develop a very equitable program to gain more operational funding.

We appreciate everyone's support and enthusiasm for being part of our growing organization. If you have

any ideas that will help us improve or develop our programs, please contact me or any member of the Executive Committee or chair of the appropriate committee.



Secretary/Treasurer's Report

by *Chuck Hunter*

Cash on hand Dec. 31, 1987	\$2,225.48
*Expenses	<u>\$1,184.74</u>
Balance: May 9, 1988	\$1,040.74

*Expenses owed to the Center for Environmental Studies for mailings and phone calls.

The Secretary report includes one item regarding the membership balloting for acceptance of the proposed riparian classification system. The results of the balloting are as follows:

Yes = 37 No = 4

These results and all supplemental comments were passed on to Bill Bayham, Chair of the Classification Committee. The vote indicates that those members holding an opinion overwhelmingly endorse this system as "a good starting point to begin classifying and inventorying riparian systems in Arizona...and encourage its use by land management agencies and research organizations."

Steering Committee Report

The May 9th, 1988 meeting of the ARC Steering Committee was held in Casa Grande at the Holiday Inn at 6:00 pm. In attendance were: Duncan Patten, Chuck Hunter, Bill Bayham, Tanna Thornburg, Andy Laurenzi, Kniffy Hamilton, Marty Jakle, Frank Baucom, and Kathy Groschupf.

President Duncan Patten addressed several issues that needed to be resolved by the Steering Committee:

1. Should the ARC become actively involved on issues and if so how should this be done?

It was decided that each committee may define and pursue issues as they see fit. The importance of each issue and how to address it will be at the discretion of the committee. A committee may decide that the resolution of an issue requires the approval of the entire ARC and may put the resolution to a vote (as with the proposed classification system). Conversely, a committee may decide that the resolution of an issue may be approved by the President with support from the Steering Committee (as with recommendations to the DWR on assessing instream flow applications). Finally, reviews of documents will continue to be addressed by members expressing interest on a case-by-case basis; final approval of all reviews would come from the President with support from the Steering Committee. Copies of all correspondence will be sent to members of the Steering Committee.

2. Motions were carried unanimously to amend the Bylaws on two issues:

a) To combine the Board of Directors with the Steering Commit-

tee. This may be accomplished by the Executive Committee and chairs of working committees becoming the Board of Directors with two additional members elected from the ARC at large.

b) To institute a system of dues in supporting the newsletter and other mailings to the ARC membership. An annual fee of \$5.00/individual was agreed upon to support the newsletter and other mailings.

The Executive Committee will recommend these amendments to the Bylaws and these revisions will be voted on at the 1988 Annual Meeting by the ARC's membership.

Duncan Patten will establish a Nomination Committee to search for candidates for executive offices to be voted on at the Annual Meeting.

A general decision was made to have the 3rd Annual Meeting of the ARC in the Tucson area in late October or early November. Duncan proposed that the General Session include speakers involved with using riparian areas such as cattle growers, OHV, sand and gravel operators, anglers, rafters, utilities, etc. "Cooperation in Riparian Management" was suggested as a tentative theme. Possibly we could have a panel discussion chaired by a representative of the Holistic Resource Management Institute. One technical session may include advanced technology for riparian management. Another may be a panel discussion on classification and inventory. Contact Duncan to submit other ideas.

The next Steering Committee meeting will be held in mid-September to plan final details for the Annual Meeting. All members are invited to participate. Meeting adjourned at 10:00 pm.

[Swamp Scam continued from page 1]

One of the bad things about working in the natural resource field is that we tend to see a very narrow perspective of the world. We are so caught up in our work that we tend to forget that the majority of people see and judge the world through entirely different eyes and values.

If we are truly to have an impact in the world, we need to occasionally pull ourselves away from our studies, research, field work, and technical papers that only our peers read and understand and reach out to the general public. We need to boil our research down to words and conclusions that the layman can understand. We need to express ourselves in ways that enable the average person to relate to and care about the need for wetland and riparian habitat protection. If you are expecting someone else to do it for you, you are whistling in the dark, up a creek without a paddle, spitting into the wind, etc.

We as resource managers, biologists, and researchers need to become educators, writers, and public speakers. We don't need to make a career of it, but we do need to seek out opportunities to talk about the importance of riparian habitats to wildlife, air and water quality, flood control, water supply, and the people of

Arizona and the Nation. If we care enough about this issue to spend our lives working and studying it, we should care enough to spend a couple days a year writing and talking about it to the general public.

I'm sure most of you have heard about the "ripple effect." It usually refers to the advantage of training school teachers about a topic so that one teacher will teach his/her 30 children for an average span of 10 years (3,000 kids!), and those kids will impact their friends and family, etc. This method seems superior to going right into the classroom to talk to those 30 kids yourself (there are advantages to both, actually). I like to think of the ripple effect in even more simplistic terms. In most of our lives as resource people, we only tend to communicate with each other, educating ourselves. I am asking you to step outside that comfortable realm every now and then and talk to a classroom full of kids, participate in a teacher's workshop, talk at a Kiwanis luncheon, or a neighborhood Scout troop. Make that effort to communicate your knowledge of and passion for natural resource conservation to someone else. It will ripple out and touch more people than you can imagine. I don't want to see anymore letters to the editor like the one above.



ARIZONA RIPARIAN COUNCIL COMMITTEE REPORTS

Classification and Inventory

by Bill Bayham

The Arizona Riparian Council has endorsed the riparian classification system developed by this Committee. Forty (40) members responded to the ballot which was circulated last March with thirty-six (36) voting in favor of an endorsement and four (4) opposed. The next step is to develop procedures for applying the system in the field for inventory and mapping. Plans are in the works to select an area in south-eastern Arizona where we can map riparian habitats using the classification system and develop field procedures in the process. The final goal is to publish a paper in a technical journal which describes the system in addition to a field guide for use by resource managers.

Another area of concern is to evaluate opportunities for adopting a standard system for riparian classification that can be used by land management agencies in Arizona. It is our hope that this system can serve as a basis for accomplishing this objective. Along these lines, a recent meeting was held at the Arizona Game and Fish Department involving representatives from the Game and Fish, U. S. Forest Service, U. S. Fish and Wildlife Service, Bureau of Land Management, State Land Department, Arizona Department of Water Resources and the Riparian Council. Each organization reported on what it was currently doing with respect to mapping and inventorying riparian habitats and the kinds of classification systems that are currently being used and how the information is being stored. Following the reports, discussions centered on opportunities for adopting a standard classification and identifying obstacles or constraints that must be overcome in order to accomplish this goal. From the discussion, it was evident that all agencies were interested in standards and a common

framework for organizing riparian data. The State agencies appeared to have the least number of constraints and were in the best position for adopting a common system for classifying riparian habitats in Arizona.

A common constraint facing the federal agencies was the fact that they had to view the issue from a national perspective and that the final decision ultimately had to be made from their central headquarters in Washington, D. C., rather than at a local or regional level. Of the federal agencies, the BLM was at a stage where they are presently evaluating this issue in order to adopt a system for the Bureau to use for inventorying, evaluating and monitoring riparian areas under its administration. Because they have not made any formal commitments to a specific system yet, they are open to cooperating with other organizations to the extent possible. A major constraint of the USFWS is the significant investment it has already made with the National Wetlands Inventory System.

As a follow-up to the meeting, it was decided to select a small study area in which to classify and map riparian habitats using the different systems currently available (e.g. the USFWS system and the ARC system) for comparative purposes and to identify common denominators that can serve as a basis for converting from one system to another. In addition to field mapping, it was agreed that the data be digitized to augment capabilities for overlay analysis and other data manipulations.

An area has been selected to coincide with the same location where the ALRIS program is conducting a pilot study for digital hydrography database. It is the intention of our committee to do this in parallel with our effort to develop procedures and a field guide for the ARC Classification System.

Education

by Tanna Thornburg

The Education Committee has been working on a number of projects that have recently come to fruition. ARC's quarterly newsletter is now a regular publication and will be in constant need of articles and notices of riparian related conferences, projects and events. **The summer newsletter deadline is July 15; fall deadline is October 1st.** Please let me know of upcoming events, meetings, etc. that you think would be of interest to the Council membership. It just takes a simple phone call.

The narrative for the riparian slide show is finished. Slides are being copied from those who contributed work and graphics are being prepared by Norris Dodd to give the program a professional look. Rich Ockenfels will be contacting some of you to help fill in gaps for "specialty" slides. Thanks to all who assisted with this project. We hope to have the premier showing of the slide show at the Annual Meeting this fall.

On April 30-May 1, the ARC co-sponsored a very successful Riparian Natural History Workshop for over 30 elementary and secondary teachers at the Hassayampa River Preserve. The workshop was co-sponsored by the Arizona Association for Learning in and about the Environment (AALE), and presenters included Holly and Bryan Richter, Jeffrey Cooper (The Nature Conservancy); Matt Peirce (G&F); Ron Hibbert (retired USFS Rocky Mountain Res. Sta.); Bill Kepner (USFWS); Marty Jakle (BR); Mary Gilbert (G&F); and myself (AZ State Parks). Most of the agency presenters are also ARC members. Next year, a similar workshop is being planned for the Verde River Greenway/Red Rock State Park near Cottonwood and Sedona.

The first in a series of informative fact sheets has been completed. These

fact sheets are being developed to promote awareness of riparian issues and are aimed at the general public. If developing educational materials interests you, give me a call (255-1996).

Land Use

by Bruce Roundy

On April 16-17, the Arizona Branch of the Center for Holistic Resource Management (HRM) hosted a tour for the Land Use Committee and officers of the ARC. Rain prevented a tour of riparian areas under HRM on the Conway Ranch in the Tonto Basin. However, the 50 people in attendance gathered at the Punkin Center schoolhouse and received a good introduction to HRM.

Slide presentations, talks and panel discussions were presented by a diverse group including BLM and USFS land managers, ranchers, extension agents, and academics. Results of deferring livestock grazing until after peak flow periods to allow vegetation to catch silt on riparian areas in Oregon, as presented in Earl McKinney's slide presentation, were very impressive and illustrate the potential for successful livestock management in riparian areas.

Early Sunday morning, Eddie and Bettie Sue Conway braved hazardous road conditions to make a video of the intended tour area, which was subsequently shown to the group. The video indicated a positive response of the riparian vegetation to HRM as applied by the Conways. The formal and informal discussions on this tour indicate that environmental goals for many ranchers involved in HRM are very similar to those of other people concerned about riparian area ecology. The Land Use Committee would like to thank Bobbie Holaday, Diana Kessler, and the Arizona Branch of HRM for providing such an informative session.

Policy and Issues

by Andy Laurenzi

The Policy Committee continues to function primarily as an ad-Hoc committee to publicly address various riparian management issues as articulated by other Committees or at-large Council members. There are several areas in which the Committee is actively involved. These are:

- 1) The development of a policy statement. Solicitations have been made of the various committees to develop a one or two paragraph policy statement as it pertains to their committee. Responses will then be incorporated into a draft policy statement for the Arizona Riparian Council and submitted to Steering Committee members for approval.
- 2) A clearinghouse for information and issues related to riparian systems in Arizona and the Southwest. I urge any members with items of interest to submit them to me at The Arizona Nature Conservancy office. Information is presented to the Steering Committee and some attempt is made to address issues which demand immediate attention.

Keep in mind that with regard to specific land management issues, any individual is free to raise salient points as a member of the Council and draw up an appropriate response. This will be reviewed and edited by the Policy Committee with a final review and the signature of the President of the Council. Any issues or letter comments deemed inappropriate will be discussed with the author.

Along these lines comments from the Council were submitted on the Alamo Lake Dam project, the Safford and Arizona Strip District RMP scoping, the Mittry Lake channelization, 404 permit application on the San Pedro River and the draft National Wetlands Priority Conservation Plan prepared by the USFWS.

Protection and Enhancement

by Kniffy Hamilton

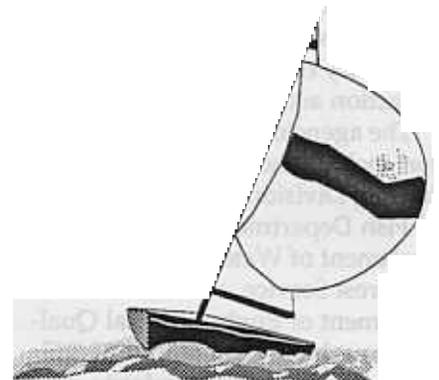
The Protection and Enhancement Committee is still concentrating on completing the annotation of the remaining articles for the ARC's Annotated Bibliography. Kris Randall is coordinating the effort. A finished product is hoped to be completed by September. BLM may support a volunteer (on a per diem basis) to help finish and organize the document. Prominent riparian ecologists will be asked to review the annotations for quality control.

Water Resources

by Marty Jakle

A letter has been drafted by the committee to the Arizona Department of Water Resources regarding implementation of instream flow guidelines. Bill Davis volunteered to draft legislation including those guidelines. There has been a strong indication that the DWR is not wanting to pursue instream flow applications at this time and may need some outside encouragement to demonstrate that it is a priority for Arizona. I suggested that the ARC develop a policy on "Water Marketing." Mary Wilkosz has accepted the assignment.

If you have an interest in participating in the any of the committees, please contact the committee chairs (phone numbers are listed on the back page).



ALRIS Plans to Develop a Digital Hydrography Database

by Bill Bayham

The Arizona Land Resource Information System (ALRIS) is conducting a pilot study to develop a prototype for a 1:24,000 scale digital hydrography database. What this involves is the design and implementation of a computer-based system for capturing and organizing all of the hydrographic features (streams, springs, wells, lakes, reservoirs, ponds, canals, etc.) that occur on the U.S.G.S. 7.5 minute topographic maps into a digital map cover for Arizona. The pilot study was initiated in response to a survey conducted among several state and federal agencies in cooperation with the Arizona Mapping Advisory Committee (AZMAC).

The ALRIS program is administered by the State Land Department and was established by law for the purpose of developing and maintaining a geographic information system (GIS) to support land and resource planning and management activities in Arizona. AZMAC, which was established by executive order of former Governor, Bruce Babbitt, is responsible for gathering information on agency requirements for map materials, aerial photography, satellite imagery and digital cartographic data. AZMAC also serves as a forum for interagency coordination of map production activities.

The agencies cooperating in this effort include the U.S.G.S. National Mapping Division, the Arizona Game and Fish Department, the Arizona Department of Water Resources, the U.S. Forest Service, and the Arizona Department of Environmental Quality. Through the pilot study, ALRIS will establish a set of standards, speci-

fications and procedures for developing the digital hydrography coverage statewide. Some of the objectives are to format the spatial data so that it is capable of interfacing with a variety of existing data files which contain information related to water rights, water quality and water usage. The hydrography data will also be structured in a manner that is conducive for combining it with other thematic layers of spatial data such as geology, soils, vegetation, land use, land ownership and administrative areas for integrated resources planning and analysis.

The geographic area chosen for the pilot study is located in Graham County and was selected for its varied representation of hydrographic features, drainage patterns, landforms and land uses. It includes a block of (6) U.S.G.S. 7.5 minute quadrangles which encompass remote and rugged terrain in the Pinaleno Mountains, agricultural areas within the Gila Valley, and urban areas associated with Thatcher and Safford. In addition to providing a design method for establishing standards, specifications and procedures for developing digital hydrography data, the pilot study will be used to demonstrate some of the integrated planning applications related to Water Resource Management using GIS technology.

Red Rock State Park Offers Site For Meetings

by John Schreiber

Red Rock State Park, presently under development and not open to the general public yet, will be available on a limited basis for group meetings, workshops, and tours starting September 1988. The state park, located just southwest of Sedona along Oak Creek and the Red Rock Loop Road, is scheduled to be open in 1990. The interim period prior to the park opening will be used to provide access to potential user groups from the educational community that should be of benefit to State Parks for the exposure and to initiate ongoing programs that will carry over when the park opens.

Held in private ownership until 1981, the park's riparian habitat along one and a third miles of lower Oak Creek is in a relatively undisturbed condition and supports a wide diversity of plant and animal species, including a nesting pair of black hawks. One of the primary purposes for the park is to protect the riparian zone. The area is in need of resource studies for most of the biological elements; there are limited facilities on site to accommodate classes or graduate students interested in conducting environmental inventories or research.

I would be interested in having one of the Council meetings here in the near future or offer a tour of the park to Council members. Interested groups or organizations can contact the Park at P.O. Box 3864, West Sedona, AZ 86340 or call (602) 282-6907.

BUREAU OF LAND MANAGEMENT

Status of the San Pedro Riparian Management Area

by Douglas Duncan

Work on the San Pedro Riparian Management Area is progressing rapidly. The tentative opening date for the southern half of the area is July 1st, and the area will be available for picnicking, hiking, and equestrian use during daylight hours only.

The Draft Management Plan is in review and will be released for public comment in September. The Friends of the San Pedro River have been working hard restoring an old ranch house on the property. This private, non-profit organization, formed to assist the BLM with management of the area, will use the renovated San Pedro House as a visitor contact point and headquarters.

Safford District staff are continuing to inventory the area's resources. Progress reports will be available soon for the small mammal, avian, herpetofauna, vegetation, photo monitoring, and hydrologic surveys. These inventories have been in progress continuously for more than one year. Anyone interested in specific information on these inventories should contact the San Pedro Project Office in Fairbank.

An exception to this activity is the bill which would make this area BLM's first Riparian National Conservation Area. The bill is currently stalled in the U.S. Senate, where it appears it will die this session. Regardless of the bill's inactivity, management and protection of this vitally important resource made significant progress this past year and should continue to do so in the coming year.

For more information, contact: San Pedro Project Office, BLM, P.O. Box 9853, RR 1, Huachuca City, AZ 85616, 457-3395.

Riparian Areas in Western Arizona to be Inventoried

by Bob Hall and Rebecca Peck
(paraphrased by the editor)

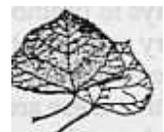
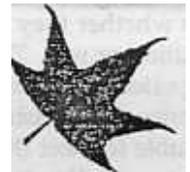
Over the next five years, the Kingman Resource Area staff will inventory all the riparian habitats in its jurisdiction. The first step is identifying all possible riparian areas; those habitats dependent on surface water or vegetation that subsurface water is supporting. An evaluation handbook, refined for district use, has been prepared and includes elements such as hydrologic features, biologic communities, utilization, riparian condition (numerical rating), evidence of reproduction, vegetation composition, etc. Those areas that need help will be targeted for rehabilitation. The inventory will provide a yardstick to measure other areas and to give baseline data for monitoring purposes.

The Rest Rotation System Project on Upper Burro Creek/Francis Creek is in its 4th year in a 7-year cycle. Initially some trees were planted and drip irrigated, but Mother Nature has really shown us up by demonstrating how many trees she could plant. Preliminary data shows the riparian area is coming back extremely well. Both the rancher implementing the rest rotation grazing system and the BLM staff monitoring the project are impressed with the results.

The black hawks nesting in the area are now changing nest sites instead of finding only one site suitable. A pair of bald eagles have nested on the creek. Shrubs and forbs are growing rapidly and young trees are really taking off. The project was designed to be successful, but such positive results this quickly were a surprise to all those involved.

More positive news regarding bald eagles comes from Alamo Lake State Park. Two young eagles have fledged after being banded by mem-

bers of the Eagle Watch Program. These individuals have provided a valuable service to the agencies responsible for protecting these endangered birds. Important information concerning breeding, nesting, and feeding behavior and rearing of young has been gathered by these dedicated people and the information will be added to the data files of these westernmost Arizona populations of breeding bald eagles.



National Forest Riparian Areas

by Bob Lefevre

For years National Forest riparian areas have been managed with an emphasis on riparian-dependent resources. Recently, there has been emphasis on classifying and rating riparian areas for the purpose of finding out more about them and what stage of plant succession they are in. In southeastern Arizona, our riparian areas do not always meet the classic nationwide definitions, but the emphasis is just as intense because of the contrasts between streamside zones and the upland areas, which are often deserts or other dry environments.

The Coronado National Forest has made an effort in the Forest Plan to place even greater emphasis on these areas whether they meet everyone's definition or not. The specially designated areas have high plant diversity and density standards and a timetable to meet those standards. How to actually attain the standards is going to be a challenge in some cases, especially where the problems to be solved are multiple such as roads, cattle grazing, frequent high water, and recreation. Where the cause of substandard conditions can be singled out, there are usually ways to deal with it. But where multiple causes are evident, the solutions have to be more creative. Future visitors to popular riparian areas on the Forest may find carefully designed trails and picnic grounds, public information signs or visitor centers, closed roads, seasonal closures, and other innovative ways to promote riparian area recovery and maintenance. It is the attitude of the Coronado National Forest that these areas have values in and of themselves, and if people want to use them, it will have to be on the riparian area's terms.

Improving Riparian Vegetation For Wildlife And Livestock- An Arizona Success Story

by Dave Stewart

(Editor's note: this article has been edited to conserve space. For full article information, contact Dave Stewart, Tonto National Forest.)

The Tonto National Forest is a unique and diverse three million acre area located in central Arizona. The Forest provides for one of the highest levels of domestic livestock use in the National Forest system while at the same time providing more public recreation use than any other National Forest.

In 1987, the Tonto National Forest provided for approximately 390,000 animal unit months (AUM) of permitted grazing and 7,800,000 recreation visitor days use, a combination not found anywhere else in the National Forest system. With increased public use has come increased public awareness and concern for traditional management practices and use of the Forest by livestock. The recent increase in public expectations for recreation, wildlife and riparian habitat is dictating tremendous change in the Forest's livestock industry in order to keep pace with the changing emphasis.

Riparian zones found within the Forest are of critical importance to many forms of wildlife and vary from major perennial riverine ecosystems such as the Salt and Verde Rivers to smaller intermittent streams and ephemeral desert washes.

The Problem

Historic problems associated with overgrazing and resulting detrimental effects on the Forest's watersheds and riparian areas have been well docu-

mented by the Forest. A typical grazing allotment consists of 30,000 acres with 300-500 adult cattle permitted yearlong. Until the past 5-10 years, the predominant form of range management or grazing system has consisted of continuous yearlong grazing where cattle were allowed to roam and graze unchecked and unmanaged for the bulk of the entire year. It is the opinion of Forest personnel that this type of historic livestock use has had tremendous detrimental effects on watershed and riparian conditions.

To illustrate the problem, in 1981 upon initiating the land management planning process, permitted grazing was at a level of 428,000 AUMs. At this time, grazing capacity was estimated to be 246,000 AUMs. The Forest subsequently has committed itself to a meticulous program of balancing permitted livestock use with grazing capacity and implementing improved forms of management on an allotment by allotment basis.

Grazing-Riparian Conflicts

Riparian areas within the Tonto provide critical habitat to many forms of wildlife. Foremost is a localized population of the endangered bald eagle, unique in that they are the only known winter nesting bald eagles in North America, preferring mature and overmature cottonwood trees located along major riverine ecosystems to locate their nests.

The Maricopa Chapter of the Audubon Society threatened legal action over the Forest's grazing policies which were deemed to be in direct conflict with the Endangered Species Act. Livestock grazing along the Salt and Verde Rivers was alleged to be prohibiting the regeneration of young cottonwood seedlings. As decadent cottonwood trees providing nesting habitat were lost to natural forces such as flooding, bald eagles were being forced to nest in less

than desirable habitat such as cliffs and pinnacles.

It was the position of Audubon that all livestock grazing along the Salt and Verde Rivers should be eliminated through fencing. It was the position of the Forest Service that fencing of the river corridors was probably an impossible task and that a more practical solution involved proper stocking and overall better management of livestock through the development of allotment management plans. These plans would provide for elimination of the historical practice of continuous yearlong grazing and the implementation of better overall management of entire watersheds rather than just selected riparian areas.

The Sedow Allotment—An Example

Prior to 1979 most of the Sedow Allotment was being managed under a four pasture deferred grazing system and encompassed a portion of the Salt River, still receiving continuous yearlong grazing. Permitted numbers of livestock consisted of 11,700 AUMs. In 1979, the revised level was a total of 5895 AUMs. The allotment management plan called for implementation of a grazing system employing the principles of the Santa Rita grazing system developed by S. Clark Martin in 1973 for Arizona's yearlong semidesert ranges. With modifications, the plan utilized 5-6 month grazing periods, 18 month rest periods, and provided for two years out of three back to back spring-summer rest. Monitoring in 1980 revealed dramatic increase of cottonwood and willow seedlings and saplings in the upper reaches of some riparian tributaries. Further modifications resulted in increased levels of riparian vegetation establishment. Observations indicate dramatic increases in cottonwood, willow, and other riparian species throughout the allotment with almost complete restoration in selected areas in periods of three years or less. Monitoring of grazing capacity may result in permitted livestock numbers of 9400 AUMs.

Management Implications and Conclusions

Can healthy riparian conditions and livestock grazing coexist? As related to the Tonto National Forest there is probably enough evidence to answer yes if the necessary level of management can be achieved. It should not be inferred that the grazing of livestock in a prescribed manner has caused, in itself, the improvement in riparian conditions. Rather, increases in riparian vegetation are occurring coincident with change from continuous yearlong grazing to improved management which allows managers, both agency personnel and grazing permittees, to be opportunistic in capitalizing on the naturally occurring processes and conditions necessary for riparian reproduction and establishment. While all the complex biological and physical factors involved are not fully understood, it is safe to say that on allotments such as the Sedow and Roosevelt, grazing by livestock is no longer a limiting factor towards the improvement of riparian conditions as long as the management levels presently being applied are continued into the future.

Management and resulting improvement in riparian conditions such as those on the Sedow and Roosevelt allotments have far reaching implications for the rest of the Forest. The Tonto National Forest LMP calls for these types of management actions to be applied to all allotments. It is the goal of the Tonto to accomplish this in the next few years. The Tonto views allotment management planning as an ongoing and never-ending process of continued implementation of new management ideas and constant monitoring of objectives. An obvious and key ingredient is the involvement by the livestock industry as full partners in management in order to accomplish the objective of healthy riparian areas for use by both wildlife and livestock.

"Can healthy riparian conditions and livestock grazing coexist?"

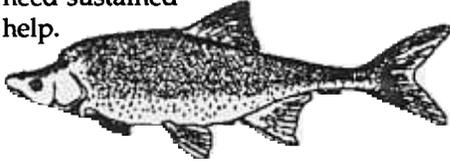
"Management and resulting improvement in riparian conditions such as those on the Sedow and Roosevelt Allotments have far reaching implications for the rest of the Tonto National Forest."

"An obvious and key ingredient is the involvement by the livestock industry as full partners in management in order to accomplish the objective of healthy riparian areas for use by both wildlife and livestock."

A Healing Step

Reprint from *High Country News*

A 15-year, federal-state commitment to bring back three endangered fish species in the upper Colorado River basin was signed Jan. 21. Interior Secretary Don Hodel, the governors of three western states, and the Western Area Power Association agreed that the Colorado squawfish, bonytail chub, and humpback chub need sustained help.



That will come from projects to increase instream flow, create spawning grounds, and improve backwaters in the upper Colorado, Green, Yampa, and White Rivers.

John Hamill, an Interior Department coordinator, estimates annual operating costs at \$2.3 million, although an additional \$15 million is sought from Congress. Ten million dollars would be earmarked for acquiring water rights from private citizens. The recovery plan is a joint effort of the Bureau of Reclamation, USFWS, the Western Area Power Administration, which is a bureau of the U.S. Department of Energy, and Colorado, Utah, and Wyoming. Hamill says the plan is designed to reverse habitat damage from early water development of the Colorado River.

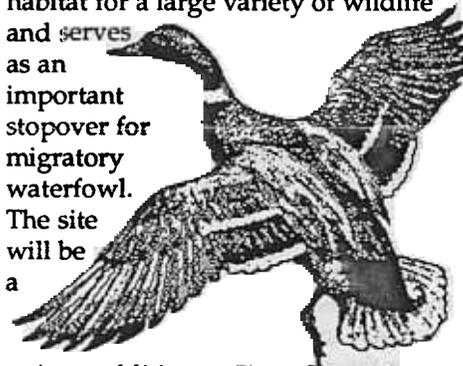
Agua Caliente Spring

Agua Caliente Spring, touted as supporting one of the most environmentally unique wetlands in southern Arizona, is located in Tucson along Agua Caliente Wash near the Catalina Highway and the Coronado National Forest boundary. Historically, the area supported a large Hohokam village and today it is surrounded by the rapidly growing northeast Tucson residential area.

The spring and surrounding land are owned by the Pima County Parks & Recreation Department and is currently being inventoried by the consulting firm, William Bryce Lloyd and Associates. The inventory and subsequent public involvement will provide the base for the master planning of Agua Caliente Regional Park.

The wetland provides important habitat for a large variety of wildlife and serves

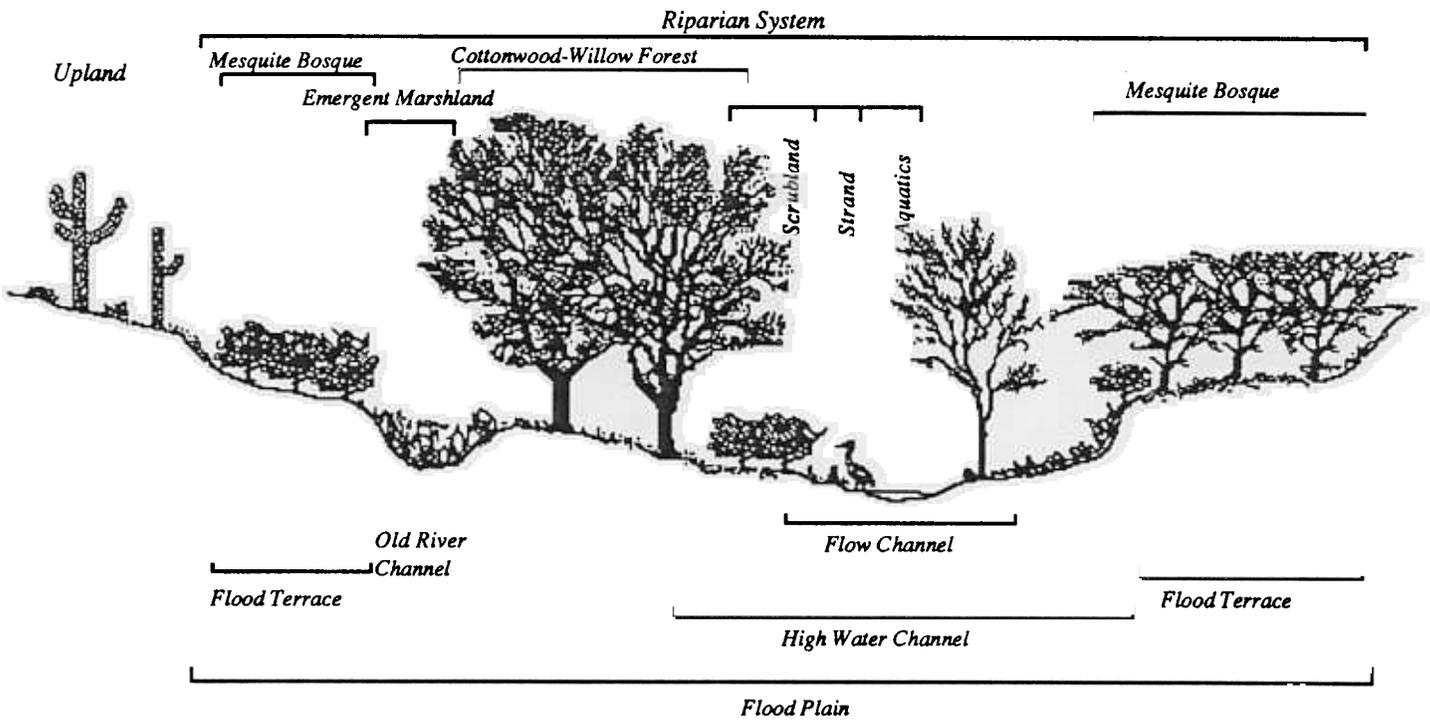
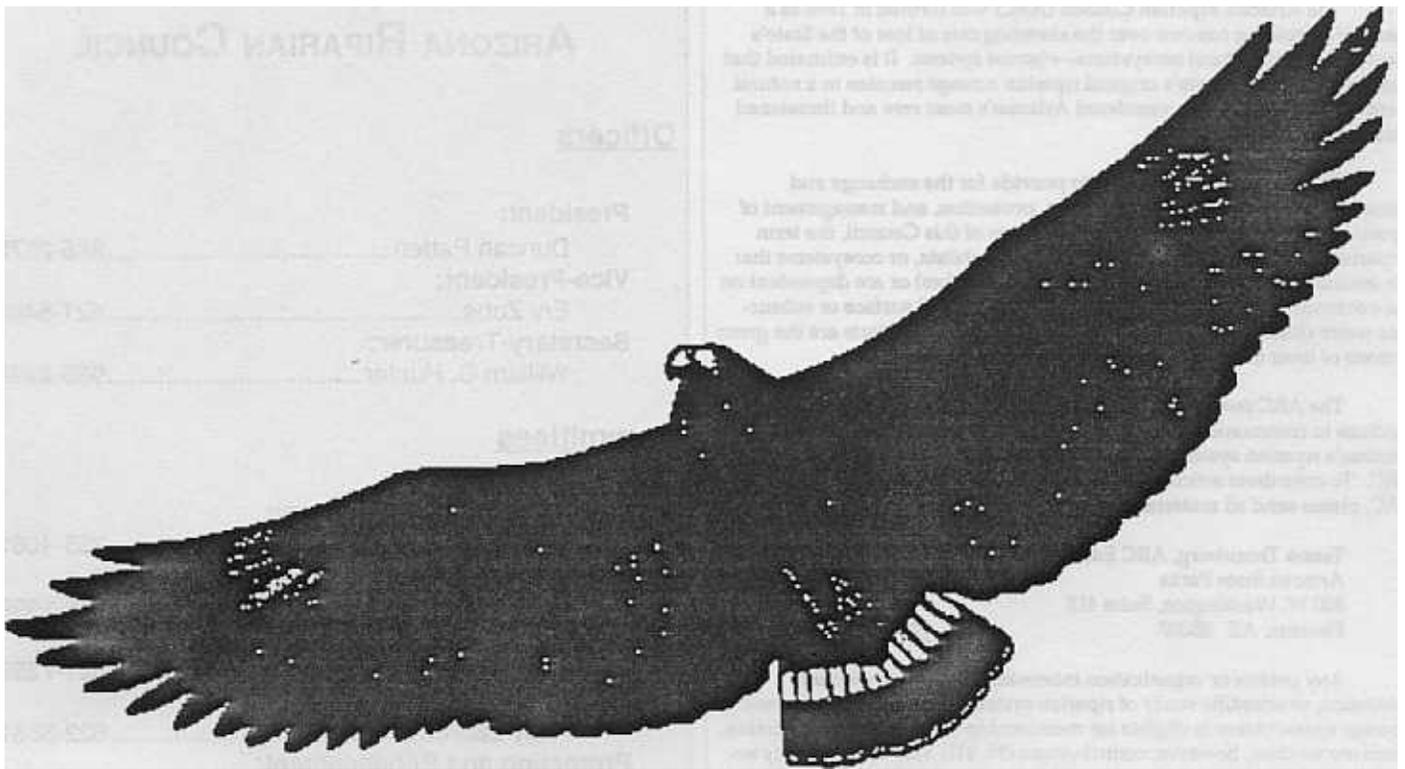
as an important stopover for migratory waterfowl. The site will be a



unique addition to Pima County's park system as an environmental and educational park harboring a rare wetland ecosystem.

CALENDAR OF EVENTS

- * June 13-14, 1988—20th Anniversary Wild and Scenic Rivers Celebration, sponsored by the BLM and the USFS; Taos, NM. Contact Joe Sovcik at 505-988-6565.
- * June 26-29, 1988—Wetlands '88: Urban Wetlands and Riparian Habitat, Oakland, CA. Contact Jon Kusler, Assoc. of State Wetland Managers, Box 2463, Berem, NY 12023, 518-872-1804.
- * July 11-15, 1988—Western River Workshop, Eugene, Oregon. Contact Dennis Canty, NPS, FTS 399-5366 or 206-442-5366.
- * July 25-27, 1988—Southwest Rivers Conference, sponsored by the National Park Service; San Antonio, TX. Contact Don Goldman at 505-988-6891.
- * September 13-16, 1988—National Rivers Preservation Conference, Columbus, Ohio. Contact John Kopec, Planning Supervisor, Division of Natural Areas and Preserves for the Scenic Rivers Program, Ohio Dept. of Natural Resources, 614-265-6460.
- * September 22-24, 1988—A California Riparian Conference is planned for Davis, University of California. This will be California's second conference, following up the very successful one held in 1981. Contact Dana L. Abell, Riparian Conference Coordinator, University Extension, University of California, Davis, CA 95616.
- * October 18-20, 1988—Short course on "Principles of Groundwater", Phoenix, AZ. Contact NWWA, 6375 Riverside Dr., Dublin, Ohio 43017, 614-761-1711.
- * November 18-19, 1988—"Celebrate America's Rivers"—A National Conference in Honor of the 20th Anniversary of the National Wild and Scenic Rivers System. Sponsored by American Rivers, Inc., the National Park Service, and the U.S. Forest Service; Washington DC. Contact Suzi Wilkins, American Rivers, 202-547-6900.



The Arizona Riparian Council (ARC) was formed in 1986 as a result of increasing concern over the alarming rate of loss of the State's most threatened natural ecosystems—*riparian systems*. It is estimated that less than 10% of the State's original riparian acreage remains in a natural form. These habitats are considered Arizona's most rare and threatened natural communities.

The purpose of the ARC is to provide for the exchange and transmittal of information on the status, protection, and management of riparian systems in Arizona. For the purpose of this Council, 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, intermittent, or ephemeral surface or subsurface water drainage. To put it more simply, riparian habitats are the green ribbons of trees and shrubs growing along watercourses.

The ARC newsletter is published quarterly and is an effective medium to communicate current events, issues, and impacts that involve Arizona's riparian systems as well as detailing the happenings of the ARC. To contribute articles and information or address comments to the ARC, please send all materials to:

Tanna Thornburg, ARC Editor
 Arizona State Parks
 800 W. Washington, Suite 415
 Phoenix, AZ 85007



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 upon written application. There are no dues, however, contributions (\$5, \$10, \$25) are gratefully accepted. For more information about the Arizona Riparian Council or to join, write to the return address below.

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