

Cover Page

WPF 0206

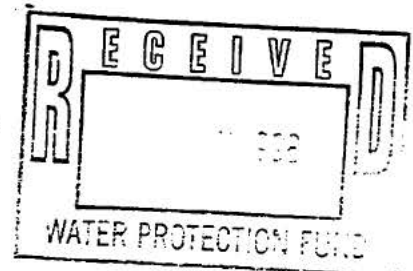
Fill in all blanks on the cover page. Devise a short descriptive title for the proposal. Your project may fall into more than one of the four primary project types. If so, select all categories that apply. For #12 below, only list other monies that are secured at the time of application submittal. For #13c below, you may list the total of both secured and unsecured money that is committed at the time of application submittal. The difference between #13 and #12 should represent the total of unsecured money for your proposal.

Cover Page: Application Information

1. Title of Project: Horseshoe Allotment: Verde Riparian Project II
2. Type of Project:
 - ☐ Water Acquisition
 - ☒ Capital Project or other
 - ☐ Water Conservation
 - ☐ Research
3. Stream type
 - ☒ Perennial
 - ☐ Intermittent
 - ☐ Ephemeral
4. Date submitted 8/17/1998
5. a. Date Attended an AWPf Workshop _____
5. b. Date Attended an AWPf Consultation _____
6. Applicant Name George and Sharon Yard

7. Applicant address (city, county, zip code)
 - mailing address physical address
 - RR 4, Box 960A Perkinsville, AZ
 - Flagstaff, AZ 86001 no post office
 - Coconino County Yavapai County

8. Inside AMA
 - ☒ Prescott



9. Contact person/title:

Phone number:

Fax number:

10. Type of application:
 - New (x) Continuation ()

11. Project start date: 1/1/99
- End date: 1/1/2002

12. Other monies obtained and secured:

Grant type	Amount
_____	_____
_____	_____
_____	_____

13. Estimated funding:
 - a. AWPf \$85,436
 - b. Applicant \$57,625
 - c. USFS, NRCS, RMES \$31,265
 - d. Total \$174,326
14. Tax ID number _____

15. The undersigned hereby offers and agrees to perform in compliance with all terms, conditions, specifications and scope in the application. Signature certifies understanding and compliance with the attached application. Signature certifies that all information provided by the applicant within this application is true and accurate. The Arizona Water Protection Fund Commission may approve grant award agreements with modifications to scope items, methodology, schedule, final products, and/or budget.

George and Sharon Yard

Typed Name of Authorized Representative

Owner _____

Title and Telephone No

Signature

George H. Yard
Sharon C. Yard

Date Signed 8/1/98

1998 AWPf Application

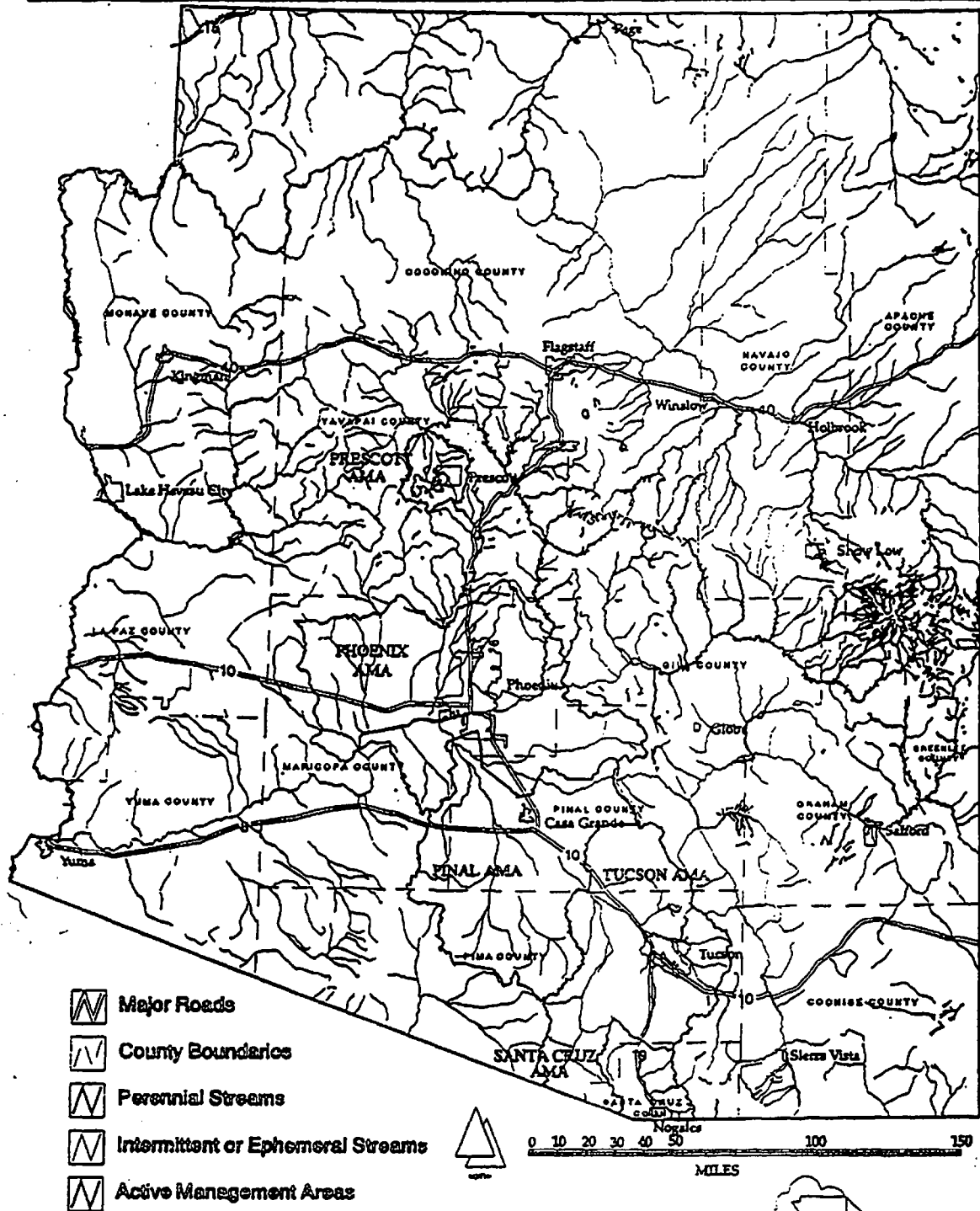
ARIZONA WATER PROTECTION FUND APPLICATION FOR 1998

GRANT APPLICATION FOR HORSESHOE ALLOTMENT: VERDE RIPARIAN PROJECT II

Table of Contents	pages
Cover Page: Application Information.....	1
Arizona Map.....	2
Range Allotments Map (Chino Forest District).....	3
Project Topo Map (Verde River with upland pasture without water).....	4
Summary Page.....	5
Project Schematic Drawing.....	6
Project Area Photographs.....	7
Location Information Page.....	8
Evidence of Control and Tenure.....	9
Introduction.....	10-12
Scope of Work: Objectives.....	13
Scope of Work: Task Descriptions.....	14-16
Scope of Work: Sampling, Revegetation and Monitoring Plans.....	17
Task Timetable.....	18-20
Project Budget Forms.....	21-22
Perform Water Development by Frank McNally.....	23
Pfleuger Pfence Company Project.....	24-25
Monitoring by Jay Eby-Independent Contract.....	26-27
River Fence Project.....	28-29
Matching Information.....	30-31
Existing Plans.....	32
Community Support (endorsement letters cover page only).....	33
*** see endorsement letters Appendix 10	
Personnel.....	34-35
SHPO Certification.....	36-37
Appendix (following numbered pages)	
Appendix 1: Special Warranty Deed with legal description of private land (3 pages)	
Appendix 2: Waiver of Term Grazing Permit (3 pages)	
Appendix 3: Easement Through Neighbors Private Property	
Appendix 4: Well Driller Report for Well on Private land to be used for Proposed Project	
Appendix 5: Interagency Southwest Strategy	
Appendix 6: River Revegetation Project (willow spriglet planting)	
Appendix 7: Memorandum of Understanding (Upper Verde River Adaptive Management Partnership)	
Appendix 8: RMES Research Contributions in Kind	
Appendix 9: Pump Invoice 1994	
Appendix 10: Endorsement letters	

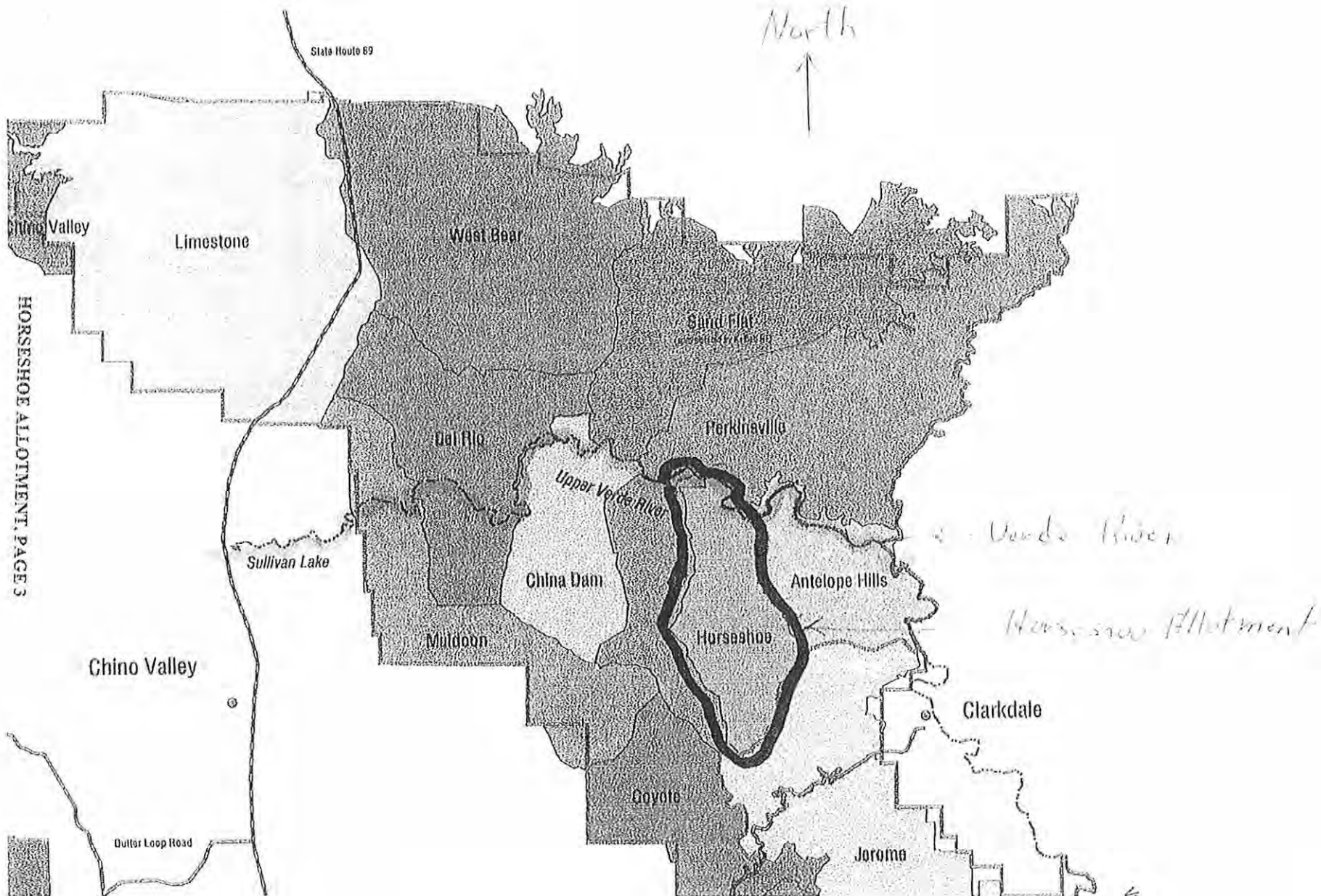
Arizona Map Instructions

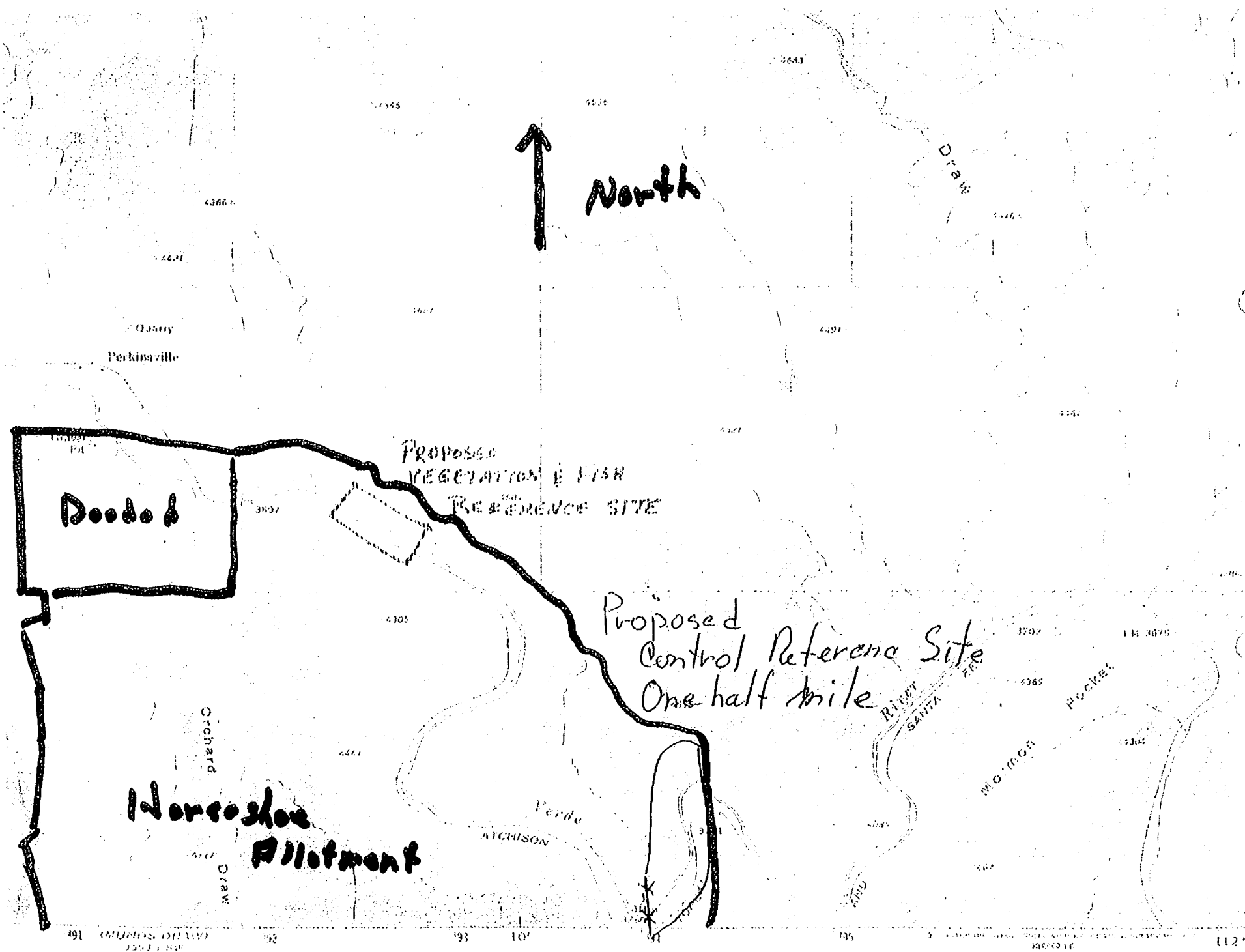
Indicate on the map the approximate location of your project. Ensure that your markings are clearly visible on all five copies submitted.



HORSESHOE ALLOTMENT: VERDE RIPARIAN PROJECT II

Range Allotments





Summary Page

A grant from the AWPf was granted to the Horseshoe Allotment Ranch in 1996. This grant was not utilized due to the Prescott National Forest problems with the NEPA process. This NEPA problem has been corrected.

Summary

Application is being made again for three purposes:

1. to continue to enhance and maintain a four mile reach of the Verde River ecosystem
2. to develop water distribution and pasture division in the 3000 acre pasture adjacent to the river. (This pasture has no water after closing off the river.)
3. to create opportunities as to the feasibility of maintenance of riparian vegetation and fish habitat with intermittent dormant season grazing.

Project Objectives

1. To continue to restore the river ecosystem to a proper functioning condition through a livestock grazing system that permits enhancement of riparian vegetation.
2. To attain balance of upland grazing by managed distribution of cattle through water and pasture development.
3. To develop previously unknown data through monitoring exclosures and with limited controlled grazing in partnership with the Rocky Mountain Station and the Prescott National Forest.
4. To sustain the present livestock operation.

Problem Statement

The "uncontrolled" grazing of cattle on sensitive vegetation along rare perennial southwestern rivers is cited as being a major factor adversely affecting river ecosystems. It is essential to know the effects of limited dormant season grazing on the riparian vegetation as well as the effects on aquatic habitat.

The process of excluding the cattle from the river, five years ago, has created a dry pasture adjacent to the river which has no water. The project will include a three and one half mile water line and pasture division fence to allow utilization of this pasture and to increase balanced grazing.

Another problem is the lack of sound data concerning riparian vegetation and dormant season grazing, and the apparent absence of data concerning grazing and fishery habitat.

Method

We propose to continue to exclude cattle from grazing the river.

We propose to install a water line into the dry pasture, 3.75 miles long, with five cattle drinkers, three small wildlife drinkers, and two water lots.

We propose to engage in applied scientific studies on the river with the Rocky Mountain Experiment Station, utilizing cattle treatments, limited dormant season grazing, controls and monitoring.

We propose to monitor for the effects we attain by:

1. River riparian vegetation will be monitored by contracted range consultant, Jay Eby, by photo plots, and by the Chino District Interdisciplinary Team.
2. The upland range will also be monitored by Jay Eby using plant frequency analysis developed by the University of Arizona.
3. Extensive studies and monitoring of experimental plots will be performed by the Rocky Mountain Experiment Station.









(The Rocky Mountain Experiment Station has already performed studies on this portion of the Verde River for five years and one of their sites for studying the Spikedace, the threatened species, is on this portion of the river. They propose to continue with extensive studies.)

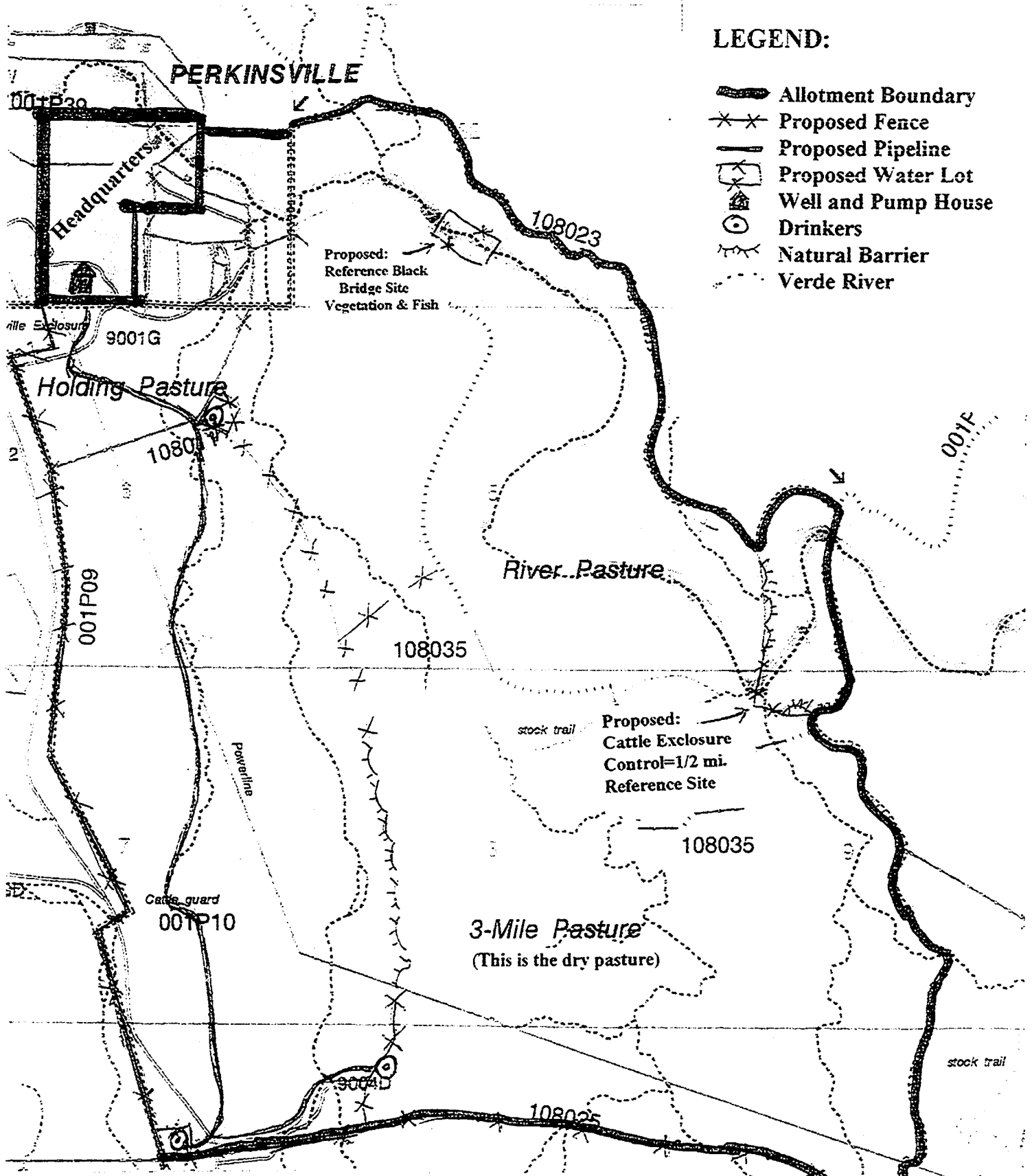
Significance of the Project:

If this project is successful, it appears to be a "win-win" situation for all parties involved. The project is endorsed by a partnership of The Prescott National Forest, The Rocky Mountain Station, and the Permittees. This project will demonstrate there are reasonable ways to solve the "Rangeland Conflict". We desire to be involved in solutions to problems, and are committed to making this resource a desirable place for future generations.

HORSESHOE ALLOTMENT: VERDE RIPARIAN PROJECT II GEORGE & SHARON YARD

LEGEND:

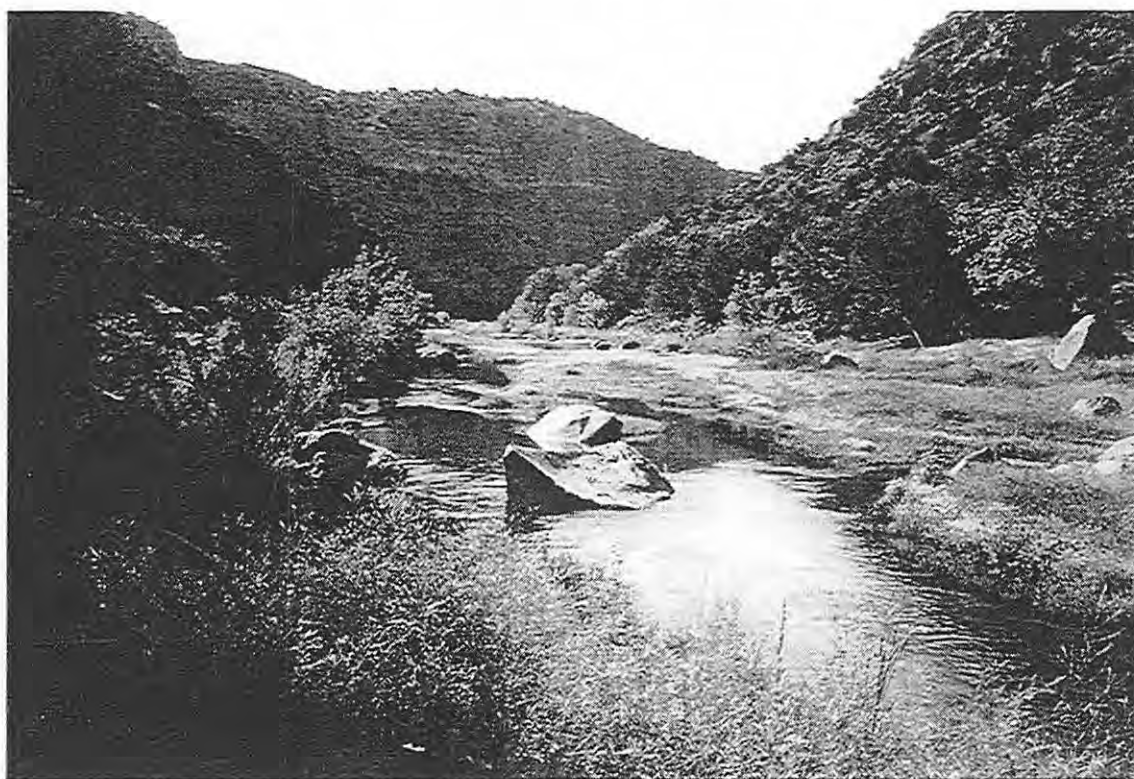
-  Allotment Boundary
-  Proposed Fence
-  Proposed Pipeline
-  Proposed Water Lot
-  Well and Pump House
-  Drinkers
-  Natural Barrier
-  Verde River



HORSESHOE ALLOTMENT: VERDE RIPARIAN Project II



"UNCONTROLLED GRAZING"



"CONTROLLED GRAZING"

Project Location & Environmental Contaminant Information

This form is to be completed for projects which involve a specific stream reach or watershed area. If the exact extent of the project area is not completely defined at the time this form is completed, please make note of this on line #9 & 10 below, and complete the form with location information which is as accurate as possible. Outline the study area on a 7.5 minute (15 minute if the project area is too large), U.S.G.S. topographic map and include a copy with each copy of the application.. The Arizona Map previously requested is for general public use when reviewing your application summary, while the U.S.G.S. map is for staff use. All applicants must complete the environmental contaminant questions.

LOCATION INFORMATION

1. County: YAVAPAI 2. Section: See project map 3. Township: 18N 4. Range: 28
5. Legislative District: 2
6. Stream Name: Verde River
7. Landownership of project area: Private land and Public land USFS-PNF
8. Current land use of project area: Grazing and Recreation-(hiking, fishing, hunting, canoeing, kayaking, scenic river views from a train, and bird watching)
9. Length of stream through project area: 3.75 miles
10. Size of project area (in acres): 16,000 acres
11. Area Benefited by Project Implementation:
3.75 miles of Upper Verde River adjacent 3500 acres of dry pasture

Miles of Stream Benefited 3.75 miles
Acres of Riparian Habitat (circle one) Enhanced, Maintained, Restored, Created: APPROX. 30 acres

12. Provide directions to the project site from the nearest town. List any special access requirements.

Go East 21 miles on the Perkinsville Road from Chino Valley to the Headquarters of the Y-D Ranch Horseshoe Allotment. There is no road access to the river beyond the headquarters and access requires assistance by horseback.

ENVIRONMENTAL CONTAMINANT LOCATION INFORMATION

For purposes of this manual, environmental contaminants are substances which pose risk of harm to human health or the environment and include hazardous substances, hazardous wastes, petroleum products or Environmental Protection Agency priority toxic pollutants (defined by CERCLA 42 USC §9601, RCRA 42 USC §6903 and the Environmental Protection Agency). Environmental contaminants do not include wastewater from a wastewater facility permitted by a local, state, or federal authority having jurisdiction over wastewater.

1. Does your project site contain known environmental contaminants? Yes No XX If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants.
2. Are there known environmental contaminants in the project vicinity? Yes No XX If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants.

Evidence of Control and Tenure

Proposed capital development plans and research projects shall be located on land and water which the applicant owns or manages. Research projects on sites not controlled by the applicant shall include and attach the access agreement or permit allowing the research. At a minimum, the applicant must include in the application as one of the first tasks obtaining and submitting the appropriate agreements prior to initiation of the remaining project tasks. For water, either surface water, groundwater or effluent, when included as a project feature or benefit, you must include evidence of control and tenure with your application or include in your application a task to obtain control.

1. If you own the land on which the project is located, attach a copy of the appropriate legal document showing title in the name of the Applicant, and including a legal description of the property.

See Appendix # 1

If you manage the land on which the project is located, attach a copy of the lease, special use permit, intergovernmental agreement or other appropriate official instrument.

See Appendix # 2

If you do not own or manage the land on which the project is located, attach documentation verifying ownership (as noted above) and attach a copy of the permit, agreement or letter of intent that allows you access to the site.

See copy of Perkins access (appendix #3).

The project will be on USFS riparian area and USFS upland range, PNF

Permission is granted for the project granted by USFS-Prescott National Forest, Chino Valley District (see endorsement letter found in appendix #10) written by Mark Johnson, Chino District Ranger .

2. If your project, including the benefits claimed for the Fund, involves surface water flows or use of groundwater withdrawals, demonstrate ownership and tenure by attaching the appropriate documentation .

If you do not own or manage the water that the project uses or that benefits the Fund, attach documentation verifying ownership (as noted above) and attach a copy of the permit, agreement or letter of intent that allows you use of the water.

Project includes a well on our private land, see appendix # 4.

Project includes management on three and one half miles of the Verde River-see intent endorsement letter found in Appendix #10, Chino District, USFS; also includes 1200 ft. of permittee private land (See map pg. # 6).

Give the background of the project. List the problem or problems that you address in your proposal, list the cause or causes of these problems, list the remedies or solutions and state the years of project-related benefit from the project that you will implement. Provide the necessary introductory information which supports your listing of the problem(s), cause(s), and solution(s). Describe the project area's relevant history if applicable. Justify the term your project will provide benefit. For on-going projects, the history and background of the project should be provided: Describe the site prior to project initiation, tasks that have been completed and any site changes that have occurred as a result of these activities.

Background:

The Horseshoe allotment is a beautiful ranch nestled in the mountains of central Arizona extending from the Verde River to the top of Mingus Mountain in the vicinity of Jerome. It has approximately four miles of Verde River flowing through its northern end. This river had been grazed every year all summer for perhaps one hundred years. Upon acquisition of the ranch in 1991, the Yards realized the riparian area had severe problems and began then to reduce grazing. In 1993, fences were built and grazing the river was discontinued altogether. To our knowledge this is the only riparian area of any size to have had cattle grazing excluded by the permittee.

In 1996, we received a grant from the AWPf to assist us in developing water and pasture divisions in the 3000 acre pasture adjacent to the river. By exclusion of the river, this pasture has no water and has not been utilized by the ranch. Our permitted numbers for the ranch are 225 adult head per year. Since the exclusion of cattle from the riparian pasture and the dry pasture, we have reduced (voluntarily) our numbers by seventy-five head. This effects our net profit about \$5,000 per year.

Although we were unable to utilize the grant in 1996 (due to NEPA process difficulties by the Prescott National Forest), we continued with our proposal of cattle exclusion on the riparian area and are now completing the fifth year of exclusion. Our goal of riparian enhancement has been met by the standards we set. An Interdisciplinary Team of five specialists from the Prescott National Forest and the Rocky Mountain Experiment Station have determined this reach of the river is in proper functioning condition. It is apparent to us the riparian width has grown from two feet to, in some areas, twenty feet. Sedges and rushes have returned, forcing out the bermuda grass. There are literally thousands of trees; willows, cottonwood and ash. There are bulrushes higher than one's shoulder when horseback. The stream has become much narrower and deeper. After the 1993 flood, where there was rock, cobble and sand, there is a flood plain with ten to twenty inches of soil, and up to twenty feet of prime riparian vegetation. There are even overhanging banks in some areas. We have evidence of all of this documented by our established six photo points and by many incidental photographs.

In 1992, the Rocky Mountain Experiment Station began studies on the Upper Verde River and an area called the "Black Bridge Pool Site" has been studied extensively determining types and numbers of fish. This area "Black Bridge Site" is in the Horseshoe Allotment. It is of interest that the Spikedace, a threatened species of fish, were somewhat numerous in 1994, have slowly dwindled in numbers to none this last year. The reasons for this are unknown. However, it happened in one pool while there were no cattle and the riparin vegetation was going from poor to excellent. These fish survived one hundred years of heavy grazing. Is there some unknown factor causing this fish to demise in the presence of good riparian vegetation and the absence of cattle? Is it possible that with enhancement of the vegetation and the subsequent enhancement of fishery habitat for the non-native predators of the Spikedace, that it is actually causing the extinction of this Threatened Species?

There is a dire need for scientific data in this area. There appears to be little. The permittees, (Gipes and Yards), have approached the Rocky Mountain Experiment Station and the Chino Forest District to request that the question of research be considered. The RMRS and the PNF were enthusiastic and we called a scoping meeting to determine interests and needs. A broad group of persons have met three times to discuss the need for research of river, riparian area and ungulate grazing. Representation of the following groups were present; The Prescott National Forest, the Rocky Mountain Experiment Station, the United States Fish and Wildlife Service, The Arizona Game and Fish, the permittees and the public. The data concerning the subject was presented to the group by the research Station. All agreed that there was a clear cut need for scientific data on this subject. This led to the formation of a partnership and subsequently a Memorandum of Understanding among the Prescott National Forest, the Rocky Mountain Experiment Station, and the Permittees. Others have been invited and we expect them to join.

Increasingly in the last few years persons concerned with our natural resources and environment have been squabbling over the method to accomplish the protection. Lately, there is considerable emphasis on "collaborative stewardship" among agencies, public, and land managers (see Southwest Strategy appendix #5). This partnership of ours is attempting to meet those goals. We are here, before the AWPf Commission, in an unprecedented position. We are each applying for funding for our own private needs, and we are also each applying for funding to reach common goals of society.

To demonstrate our commitment to the resource, the following accomplishments are listed:

1. 1993-made a decision not to graze the river which led to the exclusion of the adjacent 3000 acre pasture and to the temporarily reduction of our herd by seventy-five head.
2. 1993-constructed several gap fences to keep cattle out of the river.
3. Constructed a fence around a neighbors 100 acres to keep her cattle out of the river.
4. We have removed the cattle from the river for five years. This has required the frequent rebuilding of river water gaps destroyed by floods. It also required the sale of some cattle that persisted in going on the river.
5. 1996 February-organized a Willow Planting Project. Planted some 3000 willow spriglets in the riparian areas, (see appendix #6).
6. 1996 Summer drought-fed cattle hay on deeded land in order not to graze the riparian area.

Under background it is appropriate to discuss the permit process by the Forest Service. Though NEPA process is still not quite finished, the Prescott National Forest Supervisor, Mike King, and the Chino District Ranger, Mark Johnson, have elected to allow this project to proceed under the "categorical exclusion" provision, (see Mark Johnsons letter of August 3, 1998, appendix #10).

In order that monitoring is professional, we have contracted Jay Eby, retired range specialist from the forest service to perform monitoring on the upland range and our established photo points on the river. There is included in this application a letter of explanation, (see pg. #26-27). Incidentally, he has had twenty years of experience in the Chino District on this allotment.

It is noted that we selected the Rocky Mountain Experiment Station because of their continuing study, monitoring, and apparent interest. As stated elsewhere in this document, they bring professionalism as well as integrity to this project.

Statement of problem(s):

As stated in our summary there are four problems about which we are concerned:

1. The management of the river in order to continue to enhance and maintain the riparian areas in a proper functioning condition.
2. The development of water and fence in the upland river adjacent pasture made dry by exclusion of cattle from the river.

3. To assist in a partnership with the PNF, the RMES, and other permittees, in development of scientific data for the benefit of those land managers concerned with riparian and fishery habitat responsibilities.
4. To sustain the present livestock operation.

Statement of cause(s) of the problem(s):

1. Riparian degradation can be partially caused by continuous growing season grazing.
2. Exclusion of the cattle from the river has left 3000 acres of range without water, therefore not utilizable by the ranch.
3. The problem of developing good data concerning river water, riparian vegetation, fishery habitat, and cattle grazing is partially the fault of not having a coordinated effort on part of the forest service, the permittees, the wildlife agencies and a research entity.
4. Many of the uncoordinated efforts of the governmental agencies, i.e., forest service and wildlife agencies, and the permittee has led to a stand-off in action implementation and has severely impacted the cultural and economic aspect of the ranch business.

Statement of project-related remedies or solutions:

1. We have already nearly developed our former goal of attaining proper functioning condition of the riparian vegetation.
2. The solution to the dry pasture will be a waterline development and a division fence.
3. The partnership of the PNF, the RMES, and the Permittees will begin to produce data of value to the wildlife agencies, the permittees, to you the Arizona Water Protection Commission, to the ranching industry and hopefully for the environmentalist public land conflict.
4. All of the above solutions will assist the ranch in attainment of its cultural and economic goals.

Statement of project years of benefit (Demonstrate your level of commitment to maintenance of project benefits and capital improvements; is it < 5 years, 5 - 10 years, 11-15 years, or 16 - 20 years?)

We expect the benefits of this project to last greater than twenty years. We are indeed committed to maintenance of the capital projects for twenty years or more. We are committed to a coordinated collaborative relationship with the Prescott National Forest and the Rocky Mountain Experiment Station as is stated in our memorandum of understanding (see appendix #7).

Scope of Work: Objectives

Objectives are specific, measurable outcomes of the project. List these objectives in numerical order, with the first objective having the most important outcome.

Objective #1:

To continue preventing access of cattle into the riparian area of the river, so that natural revegetation can continue to occur.

Objective #2:

To utilize an adjacent dry pasture created by excluding the river from grazing with the development of a three and one half mile water line and a two and one half mile division fence.

Objective #3:

Monitor the effects of grazing treatments. There will be three entities monitoring the effects:

1. FS using Interdisciplinary Team with a hydrologist, a wildlife biologist, a fishery biologist, and an agronomist
2. Rocky Mountain Experiment Station with special emphasis on fish habitat, riparian vegetation and its relationship to ungulate grazing
3. Permittee by serial photo point monitoring, by contract with a range-forest specialist, Jay Eby.

Describe in detail the tasks you will perform to accomplish your objectives and achieve your desired results. These tasks must be exactly the same as the tasks listed in your task-timetable. Please use the same task numbering on each form.

- A deliverable is a product produced from a task, which is submitted to the Commission and proves that the task was completed. Deliverables are often reports, photos, data, etc. that are submitted along with invoices for materials and labor.
- Obtaining permits and conducting monitoring are potential tasks for all applications. Obtaining access agreements for research projects is also another potential task for all research projects.
- Revegetation and Monitoring Plan development must be a task with an appropriate cost assigned if you do not currently have one(s) prepared. Go to Appendix B for appropriate Plan content outline.
- If appropriate to your project, have your last task be a Final Report and assign a value commensurate with the overall project value (5% - 10% of overall project value).
- As much as possible, make each Task discrete and payable upon completion. A few tasks will continue throughout the contract duration.

Task #1 Description: Obtain Permits

- a. SHPO: Authorization obtained by PNF in 1996 for original unused grant is still in effect, according to Mark Johnson, Ranger at the Chino District.
- b. Prescott National Forest has an analysis with the Rocky Mountain Experiment Station which is to be complete in October 1998.

Deliverable description: Signed copies of above

Deliverable due date: a. 2/1/99, b. 2/1/99

AWPF task cost: NONE

Task #2 Description: Design Water Development

Contract with NRCD (Natural Resource Conservation Service) a Northern Arizona Engineer, to design a water development. A preliminary design has been accomplished for the prior grant.

Deliverable description: Actual engineer plan

Deliverable due date: Feb. 1, 1999

AWPF task cost: NONE (NRCD=\$2,600.00)

Task #3 Description: Perform Water Development

Contract with McNelly Brothers Company to purchase material, bury pipe and install drinkers, storage tanks, valves and pump (permittee to supply pump).

Sub task a. The materials will be purchased and stored at ranch headquarters under applicants responsibility.

Sub task b. Pipe line construction according to FS specification and NRCS Engineer. There will be three and three quarters mile of pipeline, five drinkers for cattle, three drinkers for wild life, two storage tanks, valves etc.

Deliverable description: Description of construction in appropriate reports

Deliverable due date: 3/1/99, 4/1/99, 5/1/99, Process complete 6/1/99

AWPF task cost: \$50,450 (see detailed description on page #23)

Task #4 Description: Develop Division Fence in Three Mile Pasture

Contract with Pfeuger Pfence Company:

Length: 2.5 miles @ \$7,500/mi.

Includes: 2 water lots 150ft X 150ft,

5 gates,

approx. 20 "H" braces,

4 strand wire (FS specs) to be 3 barb and one (bottom strand) smooth wire

Subtask a. Purchase material

Subtask b. Begin project

Subtask c. Mid point project

Subtask d. complete project

Deliverable description:

Deliverable due date: a. 1/1/99, b. 2/1/99 c. 4/15/99, d. 7/1/99

AWPF task cost: \$19,907 (see detailed description, page #24-25)

Task #5 Description: Monitor River and Upland Range

1. Contract with Jay Eby, Range specialist for monitoring upland range and river.

6 days/year x 4 years @ \$200.00/day plus \$100.00/year (for reports)=\$5,200.00 total

Deliverable description: (see page #26-27)

Deliverable due date: February every year for four years

AWPF task cost: \$3,900 (\$1,300 cost born by permittee for base line monitor level this fall 1998)

2. Rocky Mountain Experiment Station: Extensive studies regarding vegetation, fish and grazing

Deliverable description: Refer to RMES, Alvin Medina

Deliverable due date: To be determined by RMES-annually

AWPF task cost: None (see RMES grant proposal)

3. Prescott National Forest Chino District

Chino District Interdisciplinary Team to determine condition of river annually.

Deliverable description: 9/99, 9/2000, 9/2001

AWPF task cost: None (PNF responsibility)

Task #6 Description: Attend AWPF Information Transfer Meeting

The permittee will prepare and present to the Board a summary of the process and its effects with pictures one year after completion of the project.

Deliverable due date: To be determined by AWPF

AWPF task cost: \$500

Task #7 Description: Grazing Management Plan

A grazing management plan will be prepared with the completion of the upland range improvement and completion of grazing treatments.

Deliverable due date: 7/99

AWPF task cost: None

Task #8 Description: Room and board for pipeline and fence construction crews by permittees at their headquarters

Room and Board for Fence and Pipeline Construction Crew

Because of travel distance to access ranch (nearest town is Chino Valley @ 23 miles of dirt road), it will be beneficial and more efficient for the construction crews to remain at the ranch headquarters, for room and board. Ranch management will accept the responsibility and cost; \$15.00 board plus \$10.00 room = \$25.00/day/worker

Pipeline;

crew of 3 for 15 days @\$25.00/day = \$1,125

Fence;

crew of 3 for 60 days @ \$25.00/day = \$4,500

TOTAL \$5,625 born by permittee

AWPF task cost: NONE

Task #9 Description: Maintenance Agreement

A maintenance agreement that describes who will be responsible for maintaining each of the range improvements constructed during the project period will be developed during November 1999. In addition, a maintenance inspection schedule, specifying who will be responsible for doing what and when, will also be developed.

Until the maintenance program is established, the applicant will be responsible for maintaining all funded project improvements.

Deliverable Description: Maintenance Agreement with USFS

Deliverable Due Date: ? 4/99

AWPF Task Cost: none

Task #10 Description: River fence project

Approximately .5 mile of fence requiring special design tripod braces to withstand flood flows. Estimate 3000 feet of fence in 3 river crossings. (see River Fence Project page #28)

Deliverable due date: (Pending Study Schedule RMES)

AWPF task cost: a. \$8,440

Task # 11 (LAST) Description: Progress and Final Report

Quarterly progress reports will be provided to the Commission each February, May, August and November during the funded project period. The reports will provide updates on project construction, livestock removal and monitoring activities which have occurred during that period. The progress reports will begin in May 1999 and end August 2002. A final report will be provided to the Commission in December 2002. This report will include an analysis and presentation of vegetation data, a qualitative evaluation of photographic monitoring information, the allotment management plan, and the project maintenance agreement. Manager

\$18/hr X 6hr/report X 4reports X 3 yrs = \$1,296

Clerk \$10/hr X 2hr/report X 4reports/yr X 3 yrs = \$ 240

Final report; Manager \$18/hr X30hrs =\$540 \$1,536

Clerk \$10/hr X10hrs =\$100 640

\$2,176

AWPF Task cost: \$2176

Deliverable description: Final project report will summarize all methodologies used, outcome of all tasks, summarize and analyze project data & monitoring data, suggest any further changes needed in the project and evaluate project success measured against the objective.

Deliverable due date: 12/2002

AWPF task cost: Submit a task cost to AWPf commensurate with the overall value of your project (5% - 10%). Funding of the Final Report will be used in most contracts as the incentive to successfully finish project.

Scope of Work: Sampling, Revegetation and Monitoring Plans

Sampling Plans, Revegetation Plans, Monitoring Plans (Water Quality, Hydrology, Vegetation, Wildlife, etc.), Photo Monitoring Plans: Some applications may include baseline environmental inventories and most will contain project monitoring. Within your application, describe your monitoring or sampling objective and, in as much detail as possible, describe the monitoring and sampling methodology, and/or study design that will be used to accomplish that objective. Include a description of the equipment you wish the Fund to purchase. For water features include: water level, well schematics, USGS gage station data, well number/location, existing hydrologic reports, recharge or recovery plans. Reference Appendix B for more detailed outlines.

Again, submit as much of the sampling plan, monitoring plan, revegetation plan, etc. information as possible with the application addressing as elements of plan outlines in Appendix B. If you receive a grant award, you must submit detailed plans as deliverables. *Include in your application* a task and appropriate budget within the Scope of Work: Sampling, etc. Plans and on budget forms to complete detailed plan(s) after grant award.

SCOPE OF WORK-MONITORING PLAN

I. Permittee Plan

A. Upland Range

1. Objective:

- a. Increase plant cover and liter
- b. Decrease bare ground

2. Method:

- a. Plant Frequency Analysis, developed by the U of A by Frank Ogden for Short Term condition, and Parker-Three-Step with Dobbenmire modification for Long Term analysis. (see Jay Eby's monitoring page #26-27)

3. Mechanism:

- a. Jay Eby a forest-range consultant will be contracted who will set transit and read yearly for four years

B. River Monitor-Continuation from 1996

1. Objective: To demonstrate enhancement of riparian vegetation

Expect: Increase in vegetation, i.e., sedges, bulrush, trees (will observe new trees and growth of existing trees)

2. Method:

- a. Photo plots

3. Mechanism:

In 1996 the permittee established six photo plots at various points across the river. Even though the grant was not utilized we continued to monitor, taking pictures across, up stream and down stream, every six months for these last two years. It is worth noting that our objectives then (as now) have been met and exceeded. Jay Eby, forest-range consultant, will continue to conduct these studies.

II. Rocky Mountain Experiment Station

Has been performing studies on the Upper Verde River for four years concerning vegetation, hydrology, morphology, etc. This will be continued and more extensive studies will be performed with the use of cattle treatments. The effect of ungulate grazing on riparian vegetation during the dormant season is unknown. Also, it is hopeful that some data regarding grazing and the fishery habitat will be determined as a review of the literature reveals there is no scientific data of this type now.

III. PNF-Chino District

The Chino District has an Interdisciplinary Team which has monitored the river for two years to determine the Proper Functioning Condition.

Task - Timetable

Enter the starting and ending dates of the AWPf project, the duration of the AWPf funded project (in number of months), and the years of benefit your project will provide to the riparian or aquatic habitat. Indicate the timing of all tasks from the scope of work. If you perform a task periodically (e.g., taking water level measurements every 3 months), indicate it in this manner rather than as if it is performed every month. Provide the estimated cost to the AWPf for each task (which includes labor, materials, administration, etc.). The total cost for all tasks must add up to the exact amount you are requesting from the AWPf on the application cover page (line 13a), and must agree with the AWPf column total on the budget page. Forms for years 2 and 3 are included for multi-year projects.

Start Date: 1/1/99 Yrs of Benefit: 20 End Date: 1/1/2002 Duration: 3 years			Project Name: HORSESHOE ALLOTMENT: RIPARIAN PROJECT II											
Project Categories and Tasks			Months Since Project Initiated (Year 1)											
Task No.	Task Cost	Task Description	1	2	3	4	5	6	7	8	9	10	11	12
1	None	Obtain Permits	X											
2	None	Design Water Development		X										
3	?	Perform Water Development			X	X	X	X						
4	\$18,708	Upland Fence	X	X		X			X					
5-a.	\$5,200	Monitor-Private Consultant		X										
5-b.	None	Monitor-RMES		X										
5-c.	None	PNF, Chino District									X			
6	\$500	Attend AWPf information class	X											
7	None	Grazing Management Plan							X					
8	None	Per Diem Labor AND BOARD							X					
9	None	Maintenance Agreement												X
10	AWPF 5000	River Fence Project <small>Total Est. \$440</small>												
11	2,176	Progress + Final Report												

Project Categories and Tasks			Project Name: HORSESHOE ALLOTMENT: RIPARIAN PROJECT II											
			Months Since Project Initiated (Year 2)											
Task No.	Task Cost	Task Description	13	14	15	16	17	18	19	20	21	22	23	24
1	None	Obtain Permits												
2	None	Design Water Development												
3		Perform Water Development												
4		Upland Fence												
5-a.		Monitor-Private Consultant		X										
5-b.		Monitor-RMES		X										
5-c.		PNF, Chino District								X				
6		Attend AWPf information class												
7		Grazing Management Plan												
8		Per Diem for Labor and Board												
9		Maintenance Agreement												
10		River Fence Project												
11		Progress & Final Report												

Project Categories and Tasks			Project Name: HORSESHOE ALLOTMENT: VERDE RIPARIAN PROJECT II											
			Months Since Project Initiated (Year 3)											
Task No.	Task Cost	Task Description	25	26	27	28	29	30	31	32	33	34	35	36
1		Obtain Permits												
2		Design Water Development												
3		Perform Water Development												
4		Upland Fence												
5-a.		Monitor-Private Consultant		X										
5-b.		Monitor-RMES		X										
5-c.		PNF, Chino District									X			
6		Attend AWPf information class												
7		Grazing Management Plan												
8		Per Diem for Labor and Board												
9		Maintenance Agreement												
10		River Fence Project												
11		Progress & Final Report												X

Project Budget Forms

On the project budget form, break down your budget into Administrative costs, Direct Labor costs, Other Direct costs, Outside Services costs, and Capital Outlay costs. It is most helpful to identify all costs by Task number. Identify requested AWPFC funding on the first form and other matching funds on the next form.

Administrative costs are management and overhead costs and by statute the total administrative costs charged to the AWPFC cannot exceed 5% of the total amount requested from the AWPFC.

Direct Labor costs include the labor costs directly involved with the project. Break down these costs by: Job classification (e.g., laborer, project scientist, hydrologist, etc.); average cost/hour for that job classification; number of hours for that job classification; and total cost [Total cost = (Job classification cost/hour) x (number of hours)].

Other Direct cost include supplies and materials, paper, pencils, computer time, per diem, printing, public relations, etc.

Outside Services are consultants or subcontractors.

Outlay Capital costs include any equipment costs greater than \$1000.00.

TASK: Number and short description	AWPFC FUNDS REQUESTED					
	ADMIN COSTS (1)	DIRECT LABOR COSTS (2)	OTHER DIRECT COSTS	OUTSIDE SERVICES	CAPITAL OUTLAY (3)	TOTAL
Task #3: Perform Water Development(see pg. 23)						\$50,450.00
Task #4: Upland Fence Project (see pg. 24-25)		\$10,880	\$4,526.50		\$4,527.50	\$19,970.00
Task #5: Monitor River & Upland (see pg. 26)						\$3,900.00
Task # 6: Information Transfer meeting						\$500.00
Task #10: River Fence Project (see pg. 28)		\$2,473	\$2,800		\$3,167	\$8,440.00
Task #11: Progress & Final Report						\$2,176.00

TOTAL \$85,436.00

TASK: Number and short description	OTHER FUNDS (MATCHING) (4)					
	ADMIN COSTS (1)	DIRECT LABOR COSTS (2)	CAPITAL OUTLAY (3)	TOTAL		TOTAL
Matching task #1: Cattle Reduction				\$26,400		
Matching task #2: Project Manager				\$10,800		
Matching task #3: Per Diem				\$5,625		
Mat. #4: Backhoe				\$8,000		
Matching task #5: USFS Range Technician Archiologic clearance				\$15,165		
Matching task #6: NRCS Pipeline engineering plan				\$2,600		
Matching task #7: RMES (see enclosure \$27,000 x .5)				\$13,500		
Mat. #8: Baseline Monitoring-fall 1998				\$1,300		
Mat #9: High pres./ low vol.(see app.#9)				\$5,500		
				\$88,890.00		

DATE: 8-12-98

From McNELLY CONSTRUCTION AZ 097981

RE: ESTIMATION OF WATER DEVELOPMENT COST FOR GEORGE AND SHARON YARD'S HORSESHOE ALLOTMENT VERDE RIVER RIPARIAN PROJECT #2

PIPE LINE INCLUDES LABOR TO INSTALL & MATERIAL

PVC \$1.60/FT SCHED. 40 OR 80 APPROX. 6000' \$9,600

P.E. HD. \$1.25/FT 200PSI OR 160PSI APPROX. 19,800' \$24,750
(PE 3408)

STORAGE TANKS INCLUDES TANKS, LABOR, VALVES, V. BOXES, PLUMBING PARTS

POTABLE TANK 8,000 GAL \$8,000
(NEW TANK)

STORAGE TANK ON THE HILL 10,000 GAL \$3,000
(USED FUEL CELL)

DRINKING TROUGHS INCLUDES 415 GAL TROUGH, FLOAT BOX, VALVE BOX
LABOR, NECESSARY PLUMBING PARTS

\$1,700 EA. 3 TROUGHS \$5,100

\$50,450

PLUS APPLICABLE TAXES

SIGNED Frank W. McNelly 8-12-98
McNELLY CONSTRUCTION

PFLUEGER PFENCE COMPANY

UPLAND FENCE DETERMINATION:

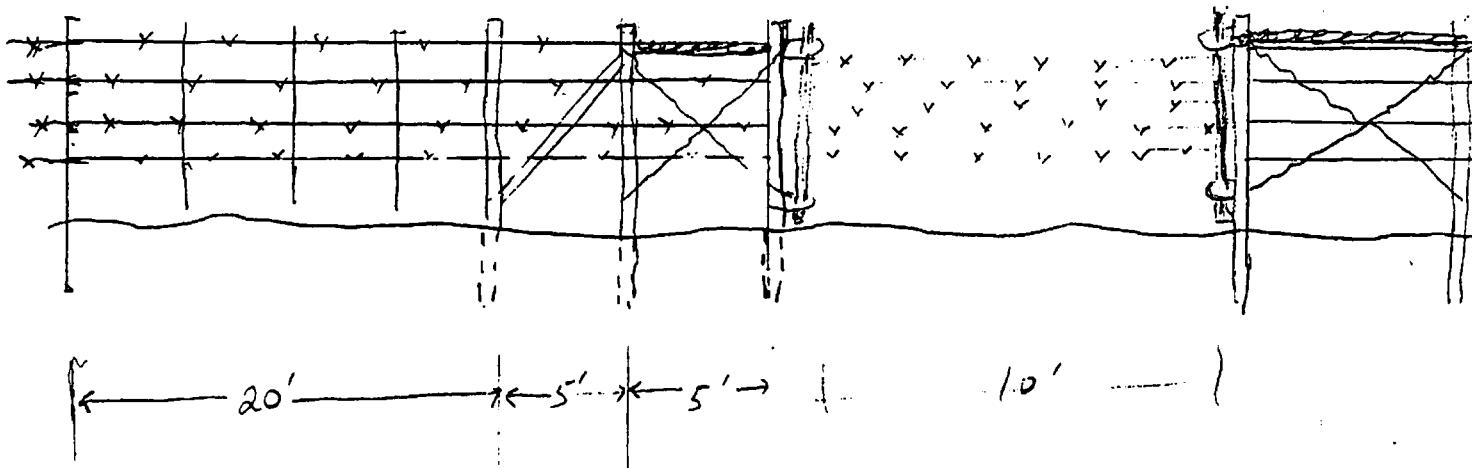
	Per Mile	TOTALS
1. Administration cost.....	In kind	
2. Labor:		
4 men 8 days @ \$12.00/day x 8 hr.....	\$3,072	
1 man 8 days @ \$22.00/day x 8 hr.....	<u>1,280</u>	
	\$4,352 x 2.5 mi.....	\$10,880.00
3. Material for 1 mile:		
Posts @ \$2.66 x 264.....	\$702.24	
Wire @ \$35.00 x 16.....	560.00	
Wire stays @ .39 x 264 x 2.....	205.92	
Wood stays @ .75 x 264.....	198.00	
Brace, clips, stay wire.....	<u>145.00</u>	
	\$1811.00 x 2.5 mi.....	\$4,527.50
3. Other Project Costs:		
a. Truck 1/4 mile of material		
80 mi @ 100/trip x 4	\$400.00	
b. Bring men to Ranch 80 mi. ,to home 80 mi		
x 1/wk=8 trips @ 100 ea. trip.....	800.00	
c. Pack with Horses		
16 rolls wire-strips		
60 bundles t posts 15 trips		
other tools & material 2 trips		
@ ? \$25.00/trip.....	<u>625.00</u>	
	\$1,825.00 x 2.5.....	<u>\$4,562.50</u>
		TOTAL..... \$19,970.00

****Note:**

It is inefficient bringing men from town to the ranch and back to town one time per week. From the ranch to hill site is two to three miles over rough terrain, thirty minutes each way, and upon arrival, there is a 1/4 mile 350 feet ascent to be on the job. Material has to be carried the same route and will need packing up the hill. If the expense exceeds this, we will bear it.

Cont. Pflueger Pfence Company Project

**UPLAND RANGE 2 1/2 MILES PROJECT
FENCE STANDARD FOREST SERVICE SPECIFICATIONS**



1. Four wire, barb 3, bottom smooth
2. Steel 'T' posts 5.5' by 18" in ground
3. Brace and corner post=Double "H" brace
4. Stays=three
5. Gate-hand made as shown

MONITORING PLAN
Y-D RANCH
PERKINSVILLE, ARIZONA

The Arizona Water Protection Fund Commission is granting moneys to instal grazing improvements on the Y-D Ranch in order to protect or enhance the flow of clean water to the river systems of the State of Arizona. It is the object of this plan to provide additional information over and above that available to the Commission from State and Federal Agencies on the effects on the land due to the expenditure of these funds and provide information to the Ranch that will help adjust their operation so as to maximize the benefits of these improvements on the lands.

The assumptions that form the basis of this plan are that stable stream banks, increased woody riparian vegetation, herbacious vegetation densities that approach the potential of the upland sites lead toward the goal of protecting and enhancing water quality. And that increased litter from vegetation that is sufficient to disperse raindrop impacts on the soil surface and that increased plant canopy within four and one half feet of the soil has the same effect and leads toward the same goals.

River Pasture:

We will continue to photograph twice each year the eight points along the river initiated by the Ranch building on the four years of observations at these sites.

The Forest has done extensive inventories and established monitoring points along the river. We will assume that they will continue these studies.

The rocky Mountain Research Station will establish and monitor a program to evaluate the effects of livestock use along the river.

We will assume that the Forest Service will inform us of the results of their monitoring.

20 x 50 TWE

We will use the University of Arizona's Plant Frequency Monitoring techniques to monitor short term trend. However, we will use a standard Daubenmire Frame, ~~50 x 150~~ centimeters for the frame size rather than designing a frame size for the sites. The clustered Parker Three step transects existing on the allotment were overlaid with Daubenmires in 1995 at a 5 foot interval forming a base of information for those sites. The Terrestrial Ecosystem Survey recently completed by the Forest Service also used these parameters for evaluations within their survey. Using the same parameters will enable us to relate our results directly to their survey even if the predetermined frame size is not totally responsive to each plant community.

Monitoring will be done each fall to take advantage of the total years growth and production.

Photographs will be taken of a 3 X 3 plot and a general view of each of three 100 foot transects at each site.

We will record all of the standard information for the Daubenmire transect so that we can compare with previous measurements and extract the plant frequency data for the U of A plant frequency evaluations.

Home Pasture:

A cluster of Parker Three step transects is established in this pasture. We will use this same site.

Three mile pasture:

The planned improvements will split this pasture in to two. We will select one site in each planned division to monitor.

Middle Pasture:

There are three existing clusters of transects in this pasture. We will adopt these sites.

Red Flat Pasture:

There is one three hundred foot Daubenmire in this unit placed here in 1995. We will adopt this site.

Woodchute Pasture:

There is but one cluster of transects in this pasture. We will adopt it but add one study on the basalt soils on Woodchute Mountain to better sample the two diverse sites within this pasture.


JAY W. EBY, forester

RIVER FENCE PROJECT:

3,000 feet of river fence with three crossings

I. Material estimate

Steel posts 4 x 4" x 8' @ \$31.00 x 40.....	\$1,240.
Brace posts 2" x 2" x 6' @ \$14.00 x 32.....	448.
Wire Rolls 3,000 1,320' x 4 wires @ \$33.00/roll x 10.....	330.
Stay Wood 600 (5' intervals) x \$.75 /per stay.....	450.
T posts 3,000' 20 x \$2.66.....	399.
Stay wire, bolts, clips & cable.....	<u>300.</u>
TOTAL FOR MATERIALS 3000'.....	\$3,167.....\$3,167

II. Direct Labor:

4 men 8 days @ \$12/hr x 8 hr (for one mile).....	\$3,072
1 man 8 days @ \$22/hr x 8 hr (for one mile).....	<u>1,280</u>
Total for direct labor for one mile.....	\$4,352
TOTAL FOR DIRECT LABOR 3000'.....	\$2,473.....\$2,473

III. Indirect Costs:

Estimate carrying men to fence site by horseback.....	\$2,000
(10 trips x \$200.00)	
Est. transportation to & from town 160 miles round trip.....	<u>800</u>
(trip \$100/trip x 8) TOTAL FOR INDIRECT COSTS.....	\$2,800..... <u>\$2,800</u>

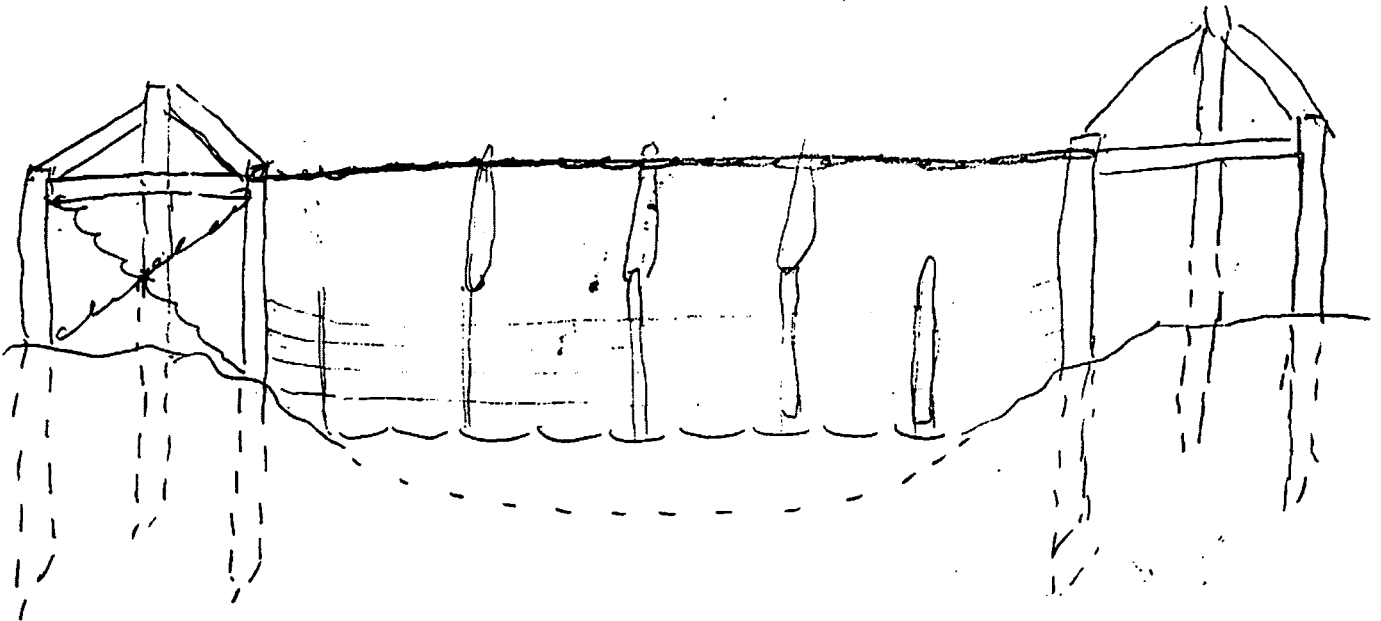
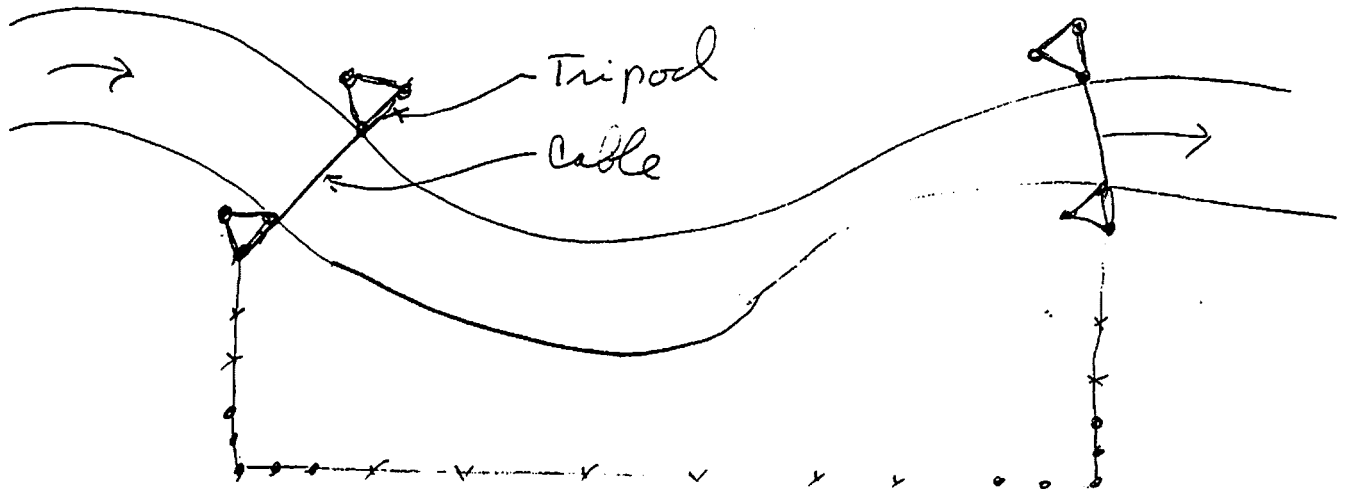
TOTAL COST FOR RIVER FENCE 3000' THREE CROSSINGS.....AWPF \$8,440.00

****PLEASE NOTE:

The above calculation has caused me considerable consternation. It appears to be approximately \$16,000/ mile! However, I have recalculated it several ways and each time the figures are similar. When one is building these structures across the river and this heavy material needs transportation for up to four miles from the headquarters horseback, bringing in the laborers by horseback, it creates long days without much accomplishment. I do not want this to compromise our application. If it would please the commission we will take half the costs, for "in kind" contribution.

Continued: **RIVER FENCE PROJECT SPECIFICATIONS**

River Crossing Fence non-standard
Heavy Tripods of four inch angle iron four feet in ground
Usually withstands the floods



Tripod posts are four inches angle iron eight feet long with a ppoint for pounding. Will be 3 ft. to 4 ft. in the ground. Braced three ways and cross braced cable between tripods and fence suspended to cable.

Matching Information

Provide written evidence of all secured funds (in-hand or committed in writing) that you are listing on the cover page. For unsecured funds, list their amount and describe their status. If you were to obtain them, list when this would occur. The value of volunteer labor is based on current minimum wage; technical volunteer labor can be based on an hourly fee comparable to a consultant's fee. An explanation of any in-kind contributions listed in your application is recommended.

Matching task #1: Cattle Reduction

By engaging in this river enhancement project, the permittees have encured a financial loss every year for five years. The usual allotted permit of 225 head was reduced to 150 head. This represents a 75 head year long reduction. Estimated cost to permittee:

75 total (equivalent to the following)

6 Bulls

6 Replacement Heifers

53 Mature Cows

53 Mature Cows x 80% Calf crop = 42 Calves

42 Calves @ average of \$360 per head = \$15,120/y

\$5,282/yr x 5 years = \$26,460 of reduced income to the Yard's for engaging in this riparian enhancement project

Matching task #2: Project Manager

Estimate project manager:

\$18.00/hour x 20hr/week x 30 weeks = \$10,800

Matching task #3: Per Diem for room and board

Room and board for construction crews, both fence and water line

225 man days @ \$25.00/day = \$5,625

Matching task #4: Backhoe

Estimate backhoe use:

a. Preparation of base and installation of 2 storage tanks	20 hours
b. Ditch preparation for drinkers, valve housing, and assist in installation	80 hours
c. Loading, unloading, and carrying material to project	40 hours
d. Assist in deep lay (60") in major-draw crossings x 6	<u>60 hours</u>
Total hours	200 hours

Labor and machine @ \$40.00/hr x 200 hours = \$8,000

Matching task #5: USFS

Range technician	\$12,665
Archaeologic clearance x 2	<u>2,500</u>
	\$15,165 Total

Matching task #6: NRCS

Pipeline engineering plan	\$2,600
---------------------------	---------

Matching task #7: Rocky Mountain Experiment Station

Combining the David Gipe and Yard's projects, their estimated contribution is \$400,000 over a seven year period (see appendix #8). It has been estimated that approximately \$100,000 will be expended on the Horseshoe Allotment Verde Riparian Project II. The RMES has already expended \$13,500 on the Horseshoe Allotment, which will be given as matching funds. \$13,500

Matching Task #8: Baseline monitoring by Jay Eby

Prior to initiation of project born by permittee-Fall 1998	\$1,300
--	---------

Matching Task #9: Pump for delivery of water from headquarters to upland range three and one half miles, 600 feet elevation. Requires special low volume high pressure pump 6 gal/min at 600 feet. Purchased in 1994 for this purpose. Purchase price \$5,500 (see appendix #4)

Existing Plans

Discuss any existing plans, reports or information that are relevant to the project and that the Commission should be aware of when evaluating your proposal. This might include other projects that are being performed or being planned in the area that may affect your project, or local planning/zoning changes that could impact the project area. Emphasize any institutional partnerships and collaborative planning being used in your project.

Existing Plans:

In this area the only other plan that has pertinence to our project is the Rocky Mountain Experiment Station plan to perform extensive studies and monitoring concerning river vegetation, fishery habitat and ungulate grazing. This is discussed more extensively under Background Information.

The AWPf commission should be aware of the David Gipes, Alameda Land and Cattle Company's plan, as they are making application for AWPf funding and the studies by the RMES on this ranch will be in conjunction, with the studies on the Gipes' ranch.

Community Support

Indicate the community support for your project from within the project impact area. Include signed copies of letters from community organizations or groups that support your project. Please be aware that for public support to affect your proposal's criteria rating score, it must be included with your application. If pertinent, describe your commitment to work jointly with affected cities, towns, counties, NRCs, special districts, and/or Indian tribes. If you are a federal or state agency, you should attach evidence of support from those citizens who lease or hold use-permits for the lands to be impacted by your project. Indications of public support for your proposal that are received after your application is submitted will be forwarded to the Commission and may affect their decisions on which proposals to fund, but will not affect the criteria rating score.

Community Support:

1. Prescott National Forest- Chino Valley Ranger District-Mark Johnson, Ranger
2. Rocky Mountain Experiment Station-USFS-Alvin L. Medina, Research Ecologist
3. Verde Water Association-Camp Verde-Jay Wilkinson, Chairman
4. Cooperative Extension Service-U of A -Prescott Office-Jeff Schalaus, County Agent
5. Alameda Land & Cattle Company-David Gipe, neighbor rancher
6. Jay Eby, Retired USFS, Forest-range consultant
7. Perkins Ranch, Inc., Tom Perkins, Neighbor
8. ALAN W. KESSLER, NEIGHBOR, RANCHER
9. FRANK MCNELLY, NRC CHAIRMAN
10. RODNEY LUCAS, USFS, REGIONAL SUPERVISOR
- 1996 support letters for original grant
8. US Fish & Wildlife Service-Sam Speller, Field Supervisor
9. Arizona Game & Fish Dept-Robert Posey, Habitat Program Manager
10. Frank Proteva, Glen Canyon Environment Studies
11. SWCA, Inc-Save W. Carothers, PhD-Environmental Consultant
12. Michael Collier, M.D., Former Board Member Nature Conservancy
13. NRC-Chino Winds-John Olsen, Chairman
14. Stephanie Yard, P.E.-NRC-Flagstaff Field Support Engineer
15. NRC-Michael Somerville, State Conservationist
16. Ed LeViness, retired U of A Range Livestock Specialist
17. Tom Moody, Grand Canyon Trust, conservation consultant
18. Thomas Parker, Dept Fish & Wildlife, State of Washington
19. Bar T Bar Ranch, Bob & Judy Prosser neighbor rancher.
20. Coconino NRC- Frank McNelly, Chairman

****NOTE-Individual endorsements see appendix 10

Personnel

Indicate the key personnel associated with this project. Include a brief biographical sketch that describes relevant qualifications.

1. **McNelly Construction Company:**

Owner Frank McNelly, Contractor license #097981, A5

Family owned & Operated Company, owns catapiller with pipe laying ability

Ex perience:

- a. Yavapai Ranch, Prescott, AZ
- b. Mike McCauley, Perrin Ranch, Williams, AZ
- c. Brian Wilson, Fourhills Ranch, Williams, AZ

2. **Interdisciplinary Team, Chino District:**

Jack Turner, Hydrologist

Cara Staab, Wildlife biologist

Ron Stein, Soil Scientist/Forest Riparian Coordinator

Janice Beck, Range-con

Elaine Zamora, Archiologist

Alan Kelso, Range-con

Glenna Siegfried , Geographic Information System Coordinator

3. **Rocky Mountain Experiment Station:**

Alvin Medina, Riparian Specialist

John Rinne, Fishery Biologist

Dan Neary, Fishery Biologist

Malcus Baker, Hydrologist

4. **Pfleuger Pfence Company:**

John Pfleuger, Fence Contractor, Cottonwood, AZ

Has built numerous fences in and about Flagstaff, Cottonwood and Camp Verde

5. **Range Condition Trend Contractor:**

Jay Eby, Forest-range specialist

Retired from PNF-Chino District

6. **George H. Yard:** Ranch owner and retired physician

Born February 28, 1930, in Bisbee Arizona, to a ranch family.

Ranch Raised

Family ranch operator at the age of sixteen thru eighteen, due to father being severely ill

U of A: 2 years of agriculture and 2 years of biology

Northwestern University Medical School

Owned and operated Horsemesa Allotment Permit on the Coconino National Forest from 1966 to 1979

Owned and operated The Bar X Ranch in Young Az, on the Tonto National Forest from 1980 to 1986

Participated in Haigler Creek Restoration with exclusion of cattle by fence. The cattle were allowed to graze 3 months out of every 24 months. The experiment was very successful.

Skills:

Ranch operator and cattle manager, cowboy, farrier, backhoe operator, welder, electrician, long time fence builder, designed and maintained water systems, physician, resource concerned environmentalist

Sharon Ann Yard: Ranch owner and retired Registered Nurse

Born May 24, 1945 in Farmington, New Mexico. Raised in Arizona on the Navajo Reservation, Tuba City

Direct participant in ranch management with husband for twenty-one years

Skills:

Ranch operator and cattle manager, cowgirl, book keeper, gardener, cook, fence builder, caretaker of public land, resource conscience, and an animal lover



Rio Verde Ranch
P.O. Box 286
Paulden, AZ 86334

Bar Heart Ranch
P.O. Box 335
Paulden, AZ 86334

David R. Gipe
Personal Identifying Information

Donald T. Verner
Personal Identifying Information

July 31, 1998

Arizona Water Protection Fund
Arizona Department of Water Resources
500 N. Third St.
Phoenix, AZ 85004

Gentlemen;

The Horseshoe Allotment (Verde Riparian Project II) owned and operated by Dr. George and Sharon Yard, is making application for a grant under the Arizona Water Protection Fund. I am writing this letter to whole heartedly support their application and ask that the Commission honor their request.

The Yards and ourselves are partners in the Upper Verde River Adaptive Management Unit. As such we are familiar with their operation and believe that their grant request fits squarely within the purpose of the Fund.

The Horseshoe Allotment is down river from us with the same problems and opportunities that we face. We believe that our coming together with the Forest Service, the Rocky Mountain Research Station, the US Fish and Wildlife and the State Game and Fish Department will not only benefit the Verde River corridor but the entire watershed as well.

The Yards have exhibited a level of commitment to the well being of the River system, both aquatic and terrestrial, that is unusual. If granted the funding will allow them to go to the next level of stewardship for the riparian and uplands under their management.

We ask that the Horseshoe Allotment be funded.

Sincerely,

A handwritten signature in black ink, appearing to read "David R. Gipe", written over a horizontal line.

David R. Gipe

Alan W. Kessler
Personal Identifying Information

August 5, 1998

Arizona Water Protection Fund
Arizona Department of Water Resource
500 North Third Street
Phoenix, Arizona 85004

RE: Horseshoe Allotment:
Verde Riparian Project II

Gentlemen and Ladies:

This letter is written to urge you to support this project with your awarding of a grant for the project. I have been aware of the proposal since it was first proposed. It is my belief that examples of this type of management must be put in place and documented in a scientific manner because it will validate part of what is mis-understood by those unfamiliar with natural systems.

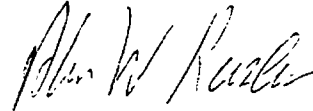
As a rancher who manages land which includes some typical Arizona mid elevation riparian systems, I know from experience and monitoring that grazing domestic stock during the dormant season actually enhances the health of the system. At times these riparian systems need to be grazed during the growing season as well. With clearly defined goals of what is expected to be created the prescription of grazing and/or no grazing does not need to be static or set in stone. These systems are very responsive and require active management to enhance their functioning. The uplands areas must be 'treated' by managing domestic stock; as these areas are what feed the riparian areas; if the soil surfaced is prepared by controlling and directing the domestic livestock use and impact more water is taken into the soil and infiltrates down to the levels where it comes out in the riparian systems. The proposed monitoring by the various members of the partnership will gather a wealth of information for review by others planning similar projects.

The grazing Permittees who are making this application are very upstanding people who have demonstrated, over the 25 years I have known them, that they are willing to go the extra mile to accomplish very good work. Because of their professions they are able to bring a scientific query to the process and because of their lifetime tie to the land as ranchers they have the needed powers of observation and feel for how natural systems ebb and flow. They will continue to be very attentive to their responsibility in carrying out the proposal as they demonstrated the first time they applied and received a grant. They also are to be commended for forging the partnership in this endeavor; it is not always easy to enter into such an

arrangement with agencies; however, the partnership will be a very strong base to complete the task with.

I strongly urge you to support this application by awarding the grant that is being applied for. I will be happy to answer any further questions you might have regarding my statements about riparian systems and domestic livestock.

Thank you for your time and consideration of these comments.

A handwritten signature in black ink, appearing to read "Alan W. Kessler". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Alan W. Kessler