

Cover Page: Application Information

1. Title of Project: Ash Creek Riparian Protection Project

2. Type of Project:
Water Acquisition
X Capital Project or other
Water Conservation
Research
3. Stream type
X Perennial
Intermittent
Ephemeral
4. Date submitted 7/31/96
5. Date received by ADWR
6. Applicant Name: Mingus Springs Camp (Henry Dahlberg Foundation)

7. Applicant address (city, county, zip code)
Mingus Springs Camp
(Henry Dahlberg Foundation)
2946 Darca Drive
Prescott, AZ 86301
8. In an AMA
Phoenix
Tucson
Prescott
Pinal
Santa Cruz
Outside AMA X

9. Contact person/title and Henry Dahlberg, Ed.D. Trustee
phone/fax number: 520-445-3778/520-776-1268

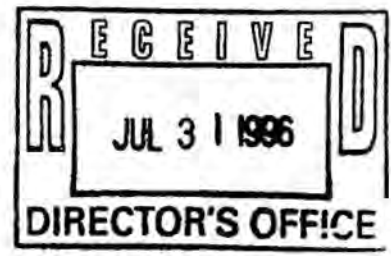
10. Type of application:
New (X) Continuation ()
11. Project start date: 3/1/97
End date: 11/1/99

12. Other grants obtained and secured:
Grant type Amount
USFS \$4,000
Total \$4,000
13. Estimated funding:
a. AWPF \$19,248
b. Applicant \$26,464
c. Other \$4,000
d. Total \$49,712
14. Tax ID number: PII (Fed) State

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.

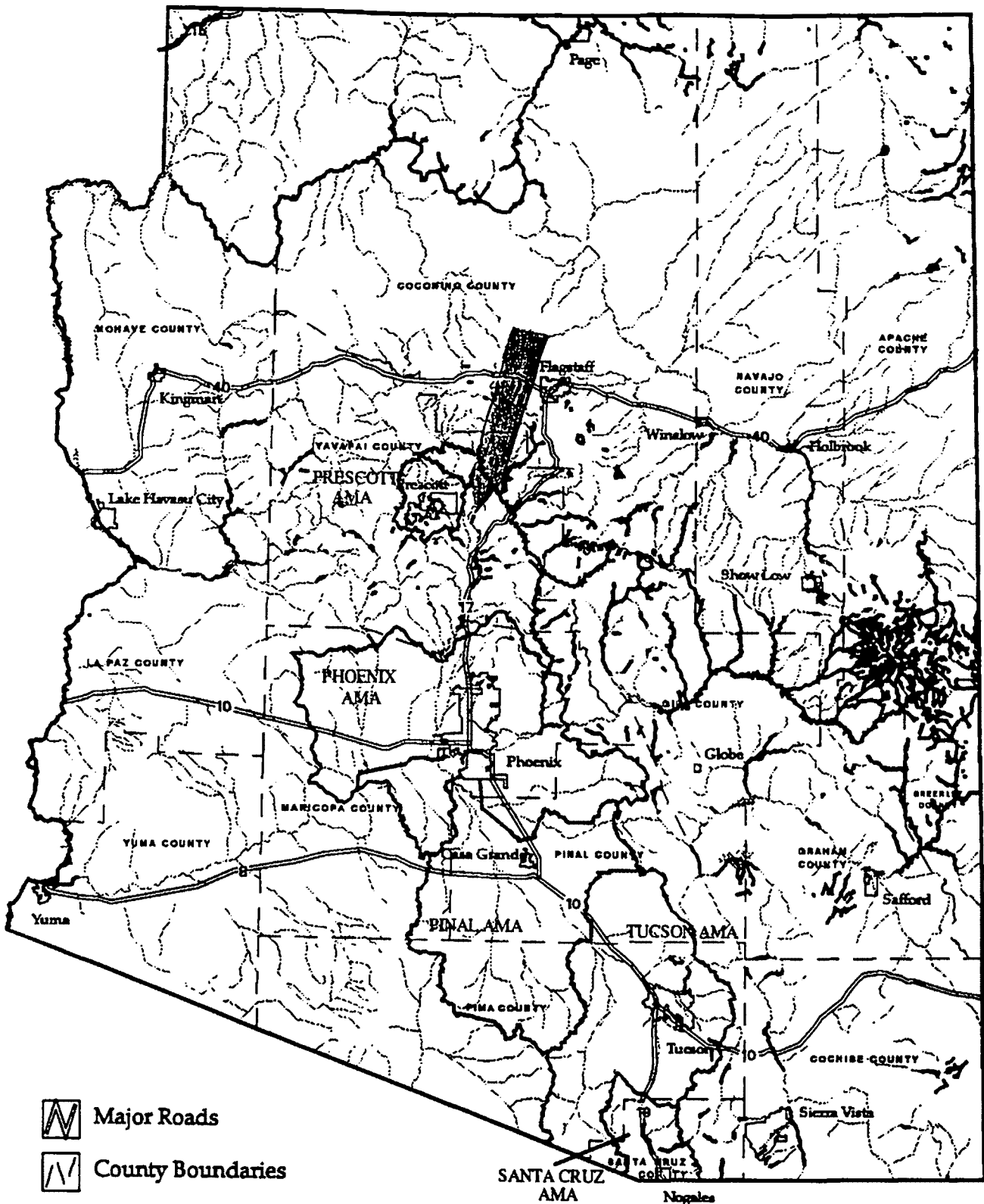
Henry Dahlberg
Typed Name of Authorized Representative
Signature






Trustee - 445-3778
Title and Telephone No.
7/30/96
Date Signed



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.



-  Major Roads
-  County Boundaries
-  Perennial Streams
-  Intermittent or Ephemeral Streams
-  Active Management Areas



PROJECT NAME:

ASH CREEK RIPARIAN PROTECTION PROJ.



Summary:

The Ash Creek Riparian Projection Project will restore and maintain a riparian habitat fed by several springs. The Ash Creek Project is a joint effort between Mingus Springs Camp and the USFS and encompasses both private and National Forest lands. This is a construction project and while one of the goals is to facilitate the educational objectives of Mingus Springs Camp, funds are not requested for educational programs. The project area is currently influenced by livestock grazing and a single lane dirt road in the upper reaches of the watershed. While this project is expected to be monitored and evaluated for ten years, funding is requested for one year with construction to be completed in three years. Similar successful projects are on-going in Burnt Canyon (approximately two miles north of the Ash Creek Project) and in the lower reaches of Ash Creek at the Orme Ranch about 15 miles south of Mingus Springs. No outside water supply will be required.

Objectives:

One of the major objectives is to improve turkey habitat. Arizona Game and Fish transplanted 25 turkeys from the Williams area to Ash Creek three years ago. While the turkeys are surviving, they are not multiplying due to lack of habitat for poults. The Forest Service wildlife biologist and the silviculturalist will implement several treatments to improve habitat for turkeys. These treatments will include removal of encroaching trees on existing meadows and reduction of the overstory along riparian areas which will increase openings and promote grasses.

A second objective is to extend the riparian area by increasing water retention through gabion and log dam construction, limitation of livestock grazing and selective thinning. The USFS range conservationist will determine the time and duration of grazing in the fenced area.

A third objective is to slow overland flows. While the top of the watershed is only two miles above the location of the proposed project, the watershed is about five square miles in area and significant flooding occurs.

A fourth objective is use the newly fenced area as an outdoor classroom for environmental education serving campers and students from elementary to college age.

Methods:

Capital funding is requested for fencing, gates, tree thinning, gabion dam materials, culverts and one cattle guard. These capital items will protect and aid in the restoration of the riparian habitat by controlling livestock, reducing the pollution and siltation caused by vehicles, and enhancing water holding capacity by the construction of gabion and log dams. Additional methods will include silviculture treatment to manipulate the canopy along Ash Creek and to remove conifers which have encroached on meadows. These trees will be used to construct dams to increase the water retention of the meadow lands. Active revegetation using Carex spp. or similar species is not a part of this project, however, it is anticipated that natural revegetation will occur.

Significance:

Ash Creek has perennial and intermittent reaches with permanent pools found throughout the drainage on Mingus Mountain. The project area is in the upper reaches of the watershed and thus influences downstream flows. As there are few sources of water on the mountain, this riparian area is crucial for plants and wildlife. This project will be a model for the enhancement of areas which have been minimally impacted. Every year, for 28 years, hundreds of students and campers have been involved in water study and conservation projects at Mingus Springs. Children have constructed all the dams in the 75 acre area which is currently fenced. This project will allow environmental education and hands-on work to continue in the newly fenced acreage.

LOCATION INFORMATION SHEET/LAND OWNERSHIP FORM

1. County: Yavapai 2. Section: 28-34 3. Township: 15N

4. Range: 2E 5. Stream Name: Ash Creek

6. Landownership of project area: Private land and land managed by USFS

7. Current land use of project area: Summer Camp and School Camping - Env Educ

8. Length of stream through project area: 6,400'

9. Size of project area (in acres): 130

10. Is the project area fully defined at this time: Y/N? Yes.

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

From Jerome, proceed south on 89A approximately five miles to the summit of Mingus Mountain. At the summit, turn left following the signs to Mingus Springs Camp. There are six miles of dirt road to the camp.

12. Describe the agreements which give you legal access to the project area throughout the project period. Include signed copies of any agreements already in effect.

Legal access across National Forest to private land. (Land patented 4-15-1904 #38564)

Statement of problems:

There is currently no way to control access of livestock to the riparian area. Uncontrolled grazing has resulted in detrimental impacts to riparian and aquatic species, increased sediment loads during accelerated overland flows and reduced infiltration into the alluvial terraces. Vehicles passing through low water crossings increase sedimentation and pollute water by having petroleum products washed from the undercarriage. Growth of small conifers has encroached on meadow land and will cause the gradual diminution of grasses and the associated insects critical to turkey poults.

Statement of causes of the problems:

There is no fence to control livestock access to the proposed project area; there are no culverts; and there are no erosion control structures in the area to be fenced. Trees have encroached on the riparian and meadow areas.

Statement of remedies or solutions:

Construct four strand barbed wire fence (smooth bottom wire) and cattle guard to exclude livestock from an additional 30 acres. Install culverts to minimize impact of vehicle traffic. Construct 20 gabion and log control structures to reduce accelerated overland flows and movement of sediment and to increase water holding potential of the watershed. Selectively cut conifers to reduce overstory in selected riparian and meadow areas.

Introductory Information:

A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends to do otherwise.

Aldo Leopold - A Sand County Almanac

HISTORY

Anglo settlement occurred in this isolated mountain valley in the 1890s. Mining brought the first people to Ash Creek, water caused them to stay. Four springs were developed in the early 1930's and a two acre pond was constructed in 1949. About 75 acres were fenced in 1948 and for almost 50 years now the impact on the area has been limited to controlled grazing by horses and unplanned grazing by cattle which occasionally find a way through the fence. The permittee has not grazed the allotment around Mingus Springs for five years. Cattle from a neighboring allotment do get through the allotment fence line and frequent the area regularly.

Mingus Springs has been a children's summer camp since 1950. The Dahlberg Foundation bought the camp in 1968 and has operated the camp as a not-for-profit facility serving other non profit groups for the past 28 years. The Foundation has no plans to change the operation or ownership of the camp in the future. A 12 acre portion of the property will be sold in 1996, but with an easement permitting the construction and maintenance of erosion control structures in the intermittent drainages. No riparian or meadow areas will be sold.

Much of the conservation work has been accomplished by campers and students. The camp was the site of Youth Conservation Corps camps for many years. As part of the environmental education efforts of the camp fifteen gabion dams have been constructed from 1971 to the present. Students and campers participate as part of the camping program in one hour of hands-on conservation work. This work often entails filling gabion baskets with indigenous rock. We have found that children can complete a dam safely in a surprisingly short time - and have fun doing it! Our staff makes and sets the baskets and puts on the "lids" when the baskets are filled. Environmental education has always been an important part of life at camp.

Funding is being requested to continue work which has been on-going for 28 years. While some riparian enhancement would occur within the currently fenced area, the addition of 30 acres of private and National Forest Land in the reach immediately above the fenced area will serve to protect a significant spring and its associated riparian habitat as well as improve the downstream reach.

In addition to numerous small dams, culverts have been installed at three low water crossings over the past three years. The results of all these efforts have been dramatic with a few short reaches described as "good" using the criterion of the Prescott Riparian Inventory and Monitoring Methods guidelines. Increased surface flow, grass cover, biological diversity and water sources for wildlife have resulted from these treatments.

The riparian area was enhanced by extensive thinning of the watershed at Mingus Springs Camp in the 1970's with funding from the Forestry Improvement Project. Mingus Springs Camp was awarded the Governor's Forest Conservationist of the Year award in 1977. Funding is being requested to continue the thinning of conifers which are encroaching on the moist meadow and riparian areas.

EXISTING CONDITION

Using the Prescott Riparian Inventory Methods and Monitoring (PRIMM) instrument during 1994-95, 56 inventories were completed on the Forest including seven springs on the Verde Ranger District where Ash Creek is located. The subjective condition ratings for the reach inventories are: Good - 16, Fair - 24, and Poor - 16. The trend is commonly Static and Down.

Introductory Information (continued):

The riparian area included in this project has a subjective rating using PRIMM of "Fair" with some limited areas within the fence rated as "Good". Riparian grass cover is largely dominated by exotic species such as weeping lovegrass and orchard grass.

The Hydrologic Unit Code for Ash Creek is AZ15070102-028. Ash Creek drains into the Agua Fria River and ultimately into the Gila River. The project will include 6,400' of stream channel. The starting elevation at the upper reach is 6,820' dropping to 6,660' yielding a gradient of 2.5% sloping toward the south-south-east.

Channel attributes:

Dominate particle size - cobble bed with a mixture of gravel and sand with some small boulders. Channel has moderate entrenchment (1.4-2.0).

The channel has low sinuosity (1.2-1.4).

Landform feature - coarse textured alluvial terraces with stable, moderately steep side slopes. Depositional landforms. Single channel.

Community Type:

This warm temperate mixed evergreen - deciduous forest biome is characterized by the dominance of Populus acuminata (narrowleaf cottonwood), which may be mixed with other trees. The riparian forest is open with trees strung out along the drainage. Associated conifers include Pinus ponderosa (ponderosa pine) and Juniperus depeanna (alligator juniper). Associated deciduous species include Fraxinus pennsylvanica ssp veluntina (velvet ash), Juglans major (black walnut), Alnus oblongifolia (alder), and Acer negundo (box elder).

Understory plants include Salix spp. (willows), Rosa arizonica (Arizona rose), Robinia neomexicana (New Mexico locust), Rhamnus californica (California buckthorn), Rhamnus betulaefolia (coffeeberry), Carex spp. (sedges), Juncus spp. (rushes) and Poa spp. (bluegrasses).

This riparian biome is considered warm and temperate; i.e. soil temperature regimes range from mesic to the warmer portion of frigid. The soil moisture regime of upland soils that adjoin these forests is ustic or dry and hot.

TREATMENT PLAN

The major capital expenditure will be for 4,000' of four strand barbed wire fencing. The fence line will include three 12' gates and one 16' concrete cattle guard. The Forest Service will install the cattle guard. The fence will be constructed on National Forest land and on the private land - National Forest Boundary. It will add approximately 30 acres to the area already fenced. It is not the intent of this project to exclude livestock, but to control access to the riparian area. Currently such access is uncontrolled. The USFS will determine the frequency and duration of livestock grazing within the fenced area. As a control, a perennial portion of Ash Creek immediately below the project area will remain unfenced allowing livestock unimpeded access to the riparian area.

The impact of vehicles will be ameliorated by the installation of culverts at three low water crossings. It is anticipated that the Mingus Springs staff will install one culvert a year for three years. The culverts will prevent the siltation caused by traffic through the water in the crossings and petroleum products will not be washed from the undercarriage of the vehicles. Mingus Springs Camp will install the culverts. The camp staff has installed three culverts over the past three years and has found that by protecting them with gabions, they do not wash out during floods.

Introductory Information (continued):

Twenty log and gabion control structures will be constructed above and below the springs and on tributary intermittent drainages. These structures will be built over three years. Dams are typically only 18"-24" high and are stair stepped down the drainage. A Brunsen level is used to locate each dam so that the top of the lower dam is level with the base of the upstream dam. Other considerations such as gradient, soil type and the presence of bedrock are also considered in placement of control structures.

REALISTIC DESIRED CONDITION

The project has several measurable goals.

One of the major goals is to improve turkey habitat. Arizona Game and Fish transplanted 25 turkeys from the Williams area to Ash Creek three years ago. While the turkeys are surviving, they are not multiplying due to lack of habitat for poults. The Forest Service wildlife biologist and the silviculturalist will implement several treatments to improve habitat for turkeys. These treatments will include removal of encroaching trees on existing meadows and reduction of the overstory along riparian areas which will increase openings and promote grasses.

A second goal is to extend the riparian area by increasing water retention through gabion and log dam construction, limitation of livestock grazing and selective thinning. The USFS range conservationist will determine the time and duration of grazing in the fenced area.

A third goal is to slow overland flows. While the top of the watershed is only two miles above the location of the proposed project, the watershed is about five square miles in area and significant flooding occurs.

A fourth goal is use the newly fenced area as an outdoor classroom for environmental education serving campers and students from elementary to college age.

The project has no known negative impacts.

Scope of Work: Objectives and Benefits

Objective #1:

Construct additional fencing to control livestock access to an additional 30 acres.

Benefits:

Better management of livestock will allow for protection of Ash Creek's riparian resources.

Objective #2:

Install culverts, gates and a cattle guard.

Benefits:

Limit the siltation and pollution impact of vehicle traffic on the riparian resource. Vehicles increase siltation and added petroleum products to the water as they pass through water-filled crossings.

Objective #3:

Construct 20 gabion and log control structures.

Benefits:

Reduce overland flows, increase water storage capacity, provide more diverse water sources for wildlife and aquatic species and increase the size of the riparian habitat.

Objective #4:

Selectively thin overstory along Ash Creek and its associated meadows where conifers are encroaching.

Benefits:

Provide more diverse habitat for wildlife and aquatic species and increase grasses and forbs.

Objective #5:

Provide an example of a healthy riparian habitat.

Benefits:

Provide a "workshop" experience in environmental education for students and campers. Protect and enhance small but critical spring fed riparian areas in Arizona.

Objective #6:

Implement a resource monitoring program.

Benefits:

Provide baseline conditions and measure effectiveness of treatments proposed for this project.

Scope of Work: Task Descriptions

Task #1 Description: Permits, Authorizations and Clearances

The following permits, authorizations, and/or clearances will be acquired: State Historic Preservation clearances for all project work that involves soil disturbance and USFS resource clearances -- archeological survey, biological assessment and evaluation and interdisciplinary environmental analysis. The USFS will provide the expertise to conduct the necessary surveys and assessments. The value of that work is included in the USFS in-kind contribution.

AWPF task cost: \$0.00

Deliverable description: Signed copies of all necessary permits, authorizations and clearances.

Deliverable due date: May 31, 1997

Task #2 Description: Construction of habitat improvements.

Subtask 2a: Order materials

Fencing, gates, culverts, gabion wire and a cattle guard needed for the project will be ordered. These materials will be obtained as they are needed in accordance with deliverable due dates.

Subtask 2b: Construct fence and other improvements.

The fence with three gates will be constructed by an independent contractor in accordance with the USFS guidelines for construction four-strand (3 barbed, 1 smooth) wire fence. The USFS will flag or otherwise indicate the precise route for the fence shown on project maps. A 16' cattle guard will be installed at the north end of the project. The cattle guard will be furnished by a private vendor and installed by the USFS.

Culverts will be installed at three low water crossings. Culverts will be furnished by a private vendor and installed by Mingus Springs Camp. Each crossing will have two 24" culverts; one crossing will use 40' culverts the other two 30' culverts.

Gabion and log control structures will be built over the 33 months of the project. Wire for the structures will be 5' x 150' 10 gauge with 6"x 6" mesh and furnished by a private vendor. Mingus Springs Camp staff will cut and form the baskets from this wire as we have done for 20 years. The baskets will be filled by students and campers from indigenous rock. Lids will be wired on by camp staff.

Thinning of trees encroaching the meadow areas and removal of selected trees along the corridor will be accomplished as part of the project. Selection of trees will be made by the USFS. Trees cut in the meadow area will be used to construct log dams across the drainage, and thus have no value as lumber or cordwood. Thinning will be undertaken by Mingus Springs staff and funded by AWPf.

AWPF task cost: \$18,478.

Deliverable description: (1) Copies of materials' invoices; (2) Description of construction progress in applicable progress reports; (3) photo documentation of completed project.

Deliverable due date: (1) July 31, 1997; (2) August 30, 1997, November 30, 1997, August 30, 1998, November 30, 1998, August 30, 1999. (3) November 30, 1999.

Scope of Work: Task Descriptions (Continued)

Task #3 Description: Monitoring

Subtask 3a: Baseline Monitoring

Eight monitoring sites will be located within the riparian area. Baseline monitoring information will be collected from March 1, 1997 through May 31, 1997. USFS personnel involved in the baseline data gathering will include ecosystem planner, range conservationist, wildlife biologist, soils scientist, hydrologist and silviculturalist. The team will be headed by the ecosystem planner from the Verde Ranger District. Photo monuments will be established at those locations.

Subtask 3b: Post-construction Monitoring and Data Analysis

The monitoring sites will be evaluated twice a year during the three years of the project. As necessary after that time. Photos will continue to be take by Mingus Springs project manager twice a year and after significant overland flow events until 2007. Photo and documents will be archived at the Verde Ranger District with copies available for environmental education at Mingus Springs Camp.

AWPF task cost: \$0.00

Deliverable description: Discussion of data collection and analyses in applicable progress reports and the final report.

Deliverable due date: August 30, 1997, November 30, 1997, August 30, 1998, November 30, 1998, August 30, 1999, November 30, 1999.

Task #4 Description: Maintenance Agreement

A maintenance agreement which assigns responsibility for maintenance of the fence and associated appurtenances, culverts and control structures to Mingus Springs Camp will be negotiated with the USFS.

AWPF task cost: \$0.00

Deliverable description: A copy of the agreement between the USFS and Mingus Springs Camp.

Deliverable due date: August 30, 1997.

Scope of Work: Task Descriptions (Continued)

Task #5 Description: Progress and Final Reports

Quarterly reports will be provided to the Commission each February, May, August and November during the funded period. The reports will provide updates on project construction and monitoring activities which have occurred during that period. The progress reports will begin in May, 1997 and end August, 1999. A final report will be provided to the Commission in November, 1999. The report will be an evaluation of the effectiveness of the treatments described above based on the Prescott National Forest Riparian Inventory and Monitoring Methods instrument. The Ecosystem Planner will coordinate the evaluation for the USFS. The Project Director will be responsible for compiling the report. Photographs with annotation will be included as an additional assessment tool.

AWPF task cost: \$0.00

Deliverable description: Quarterly and Final Reports

Deliverable due date: Quarterly reports: May, August and November, 1997; February, May, August and November, 1998; and February, May and August, 1999. Final Report will be provided November, 1999.

PROJECT BUDGET

	FUNDING SOURCES			
	AWPF	Other	Donated Mat./Serv.	TOTAL
			\$962	
ADMINISTRATION COSTS (1)				
DIRECT LABOR COSTS (2)				
Project Manager			\$8,910	
USFS Ecosystem planner		\$1,800		
USFS Fisheries Biologist		\$1,000		
USFS Archeologist		\$ 200		
Install Culverts			\$6,592	
Install Cattle guard		\$1,000		
Construct Gabion/Log Control Structures			\$10,000	
Thinning	\$2,415			
OTHER DIRECT COSTS				
Culverts	\$ 2,408			
Cattle guard	\$ 1,290			
Fence (includes installation)	\$ 12,000			
Wire for gabions	\$ 635			
Field Supplies	\$ 500			

	FUNDING SOURCES			
	AWPF	Other	Donated Mat./Serv.	TOTAL
OUTSIDE SERVICES				
CAPITAL OUTLAY				
Tech/Industrial Equip. (3)				
Water (CAP/Effluent)				
Other (describe)				
TOTALS	\$19,248	\$ 4,000	\$26,464	\$49,712

- (1) Administration costs are limited to 5% of the total dollars requested for a project.
- (2) Include wages, salaries, and fringe benefits.
- (3) Attach list of capital equipment expenditures over \$1,000.00

Budget Information:
Explanation of Costs:

Direct Labor

Project Manager: \$18.00 per hour, 20 hours per month for 33 months.

All donated services will be provided by the USFS (see attached letter of support and commitment to work.)

Culvert installation donated value amount based on \$45 per foot less the cost of culverts.

Cattle guard installation donated value amount based on conversation with Bill Townsend, SO, Prescott National Forest.

Gabion cost based on one half standard rate of \$60.00 per cubic yard due to the use of students and campers for much of the construction.

Thinning of the trees along the riparian corridor and in the meadow areas will be done by Mingus Springs staff. As the trees are used in dam construction, no commercial value may be assumed. The cost for a Mingus Springs maintenance person to do the work is \$10.06 per hour which includes benefits. It is estimated that it will take six weeks to complete the thinning.

Other Direct Costs

Culvert cost based on estimate for 200' of culvert, required cuts with torch, bands, delivery and taxes - NAIL-CO, Prescott Valley

Fence cost based on site visit by American Fence, Prescott Valley - 4,000' fence to USFS specs in rocky terrain.

Cattle guard cost based on concrete 16'x 7'1" cattle guard without end wings, includes delivery and taxes - Precast Concrete, Phoenix.

Gabion wire based on 1500' of 10 gauge 5' 6"x 6" mesh concrete slab reinforcing wire - Foxworth-Galbraith Lumber Company, Prescott.

Existing Plans:

The proposed Ash Creek Riparian Protection Project is an extension of a riparian enhancement and protection project immediately to the south at Mingus Springs Camp which has been on-going immediately to the south for the past 28 years.

The lower reaches of Ash Creek (approximately 10 miles below the proposed area) has been the subject of significant riparian enhancement and protection at the Orme ranch which is part of the Allotment Management Plan completed in 1985. Details may be found in Beyond the Rangeland Conflict, Toward a West that Works, by Dan Dagget.

Within two miles of the Ash Creek Riparian Protection Project is the Burnt Canyon riparian area where treatment has concentrated on improving the water holding capacity of intermittent drainages. This project is referenced in the USFS letter of support and commitment.

Community Support:

See attached letters from the USFS (Verde Ranger District), Prescott AMA, Carl Tomoff and the Prescott Public Schools.

Personnel:

Project Director: Henry Dahlberg, Ed.D.

Dr. Dahlberg has his doctoral degree in Education Administration. He has been involved in environmental education since 1970. While with the Prescott Public Schools he founded the Community Nature Center and wrote environmental education curriculum for grades kindergarten through high school. He directed the first USFS residential Youth Conservation Corps program in 1974 and trained YCC staff in environmental education as a contract employee for several years. He has directed Mingus Springs Camp since 1968 - a major emphasis of the camp has been environmental education built around stream studies and conservation work at the camp.

Ecosystem Planner: Melinda Roth

The Ecosystem Planner on the Verde Ranger District, will lead an interdisciplinary team in the analysis of the pine type on Mingus Mountain to determine actions needed to meet the Forest Service's directed emphasis of recreation and wildlife in this area. This is an ecosystem project and can incorporate private lands when land owners identify possible cooperative opportunities. Public scoping will begin in August 1996 with the development of two or more alternatives, environmental analysis, and a decision scheduled for completion in FY97.

Fisheries Biologist: Albert Sillas

Mr. Sillas has been the District Biologist for five years on the Verde Ranger District, Prescott National Forest. He has initiated and directed many wildlife habitat improvement projects in the Mingus Mountain area. He is a member of the Mingus Mountain Ecosystem Interdisciplinary Team that seeks to address issues on wildlife, threatened and endangered species, and recreation for the EM area.

Archeologist: Charlotte Sasonkin

Ms Sasonkin has been the district archaeologist on the Verde Ranger District for the last five years. As the Heritage Resources Management program leader, she has conducted numerous archaeological surveys for a variety of projects and recorded a wide range of archaeological sites in the Verde Valley, as well as consulted with the SHPO on the eligibility of and potential effects to these sites. In support of this project, she will conduct the archaeological surveys, identify, record and evaluate any archaeological sites encountered and consult with SHPO s to the potential effects of the proposed project on heritage resources.

State Historic Preservation Office Information (must be submitted)

SHPO Certification

This certification is required by regulations implementing the State Preservation Act (A.R.S. 41-861 through 41-864), effective July 24, 1982. It is understood that recipients of state funds are required to comply with this law throughout the project period. The State Historic Preservation Act mandates that all State agencies consider the potential of activities or projects to impact significant cultural resources. Each State agency is required to consult with the State Historic Preservation Officer with regard to those activities or projects that may impact cultural resources.

PROJECT TITLE: ASH CREEK RIPARIAN PROTECTION PROJECT

Please answer the following questions which provide information about the potential of the project to impact cultural resources:

Does the project have the potential to disturb the surface and/or subsurface of the ground?
YES: X NO: _____

Are there any buildings or structures (including mines, bridges, dams, canals, etc.) which are 50 years or older within the project area that have the potential to be disturbed by the proposed activity?
YES: _____ NO: _____

Are there any known prehistoric and/or historic archaeological sites within the project area?
YES: _____ NO: _____

Are you aware of any archeological investigations that have been performed within one (1) mile of the project area?
YES: _____ NO: _____

If you have answered "NO" to all of the above questions, please sign on the line below certifying that the activity or project is in compliance (and will remain in compliance throughout the project period) with the State Historic Preservation Act. **YOU MUST SUBMIT THIS FORM WITH YOUR COMPLETED APPLICATION.**

Authorized Signature

Date

If you have answered "YES" to any of the questions above, please answer all applicable questions on the other side of this form.

If you answered yes to question #1, specifically identify any surface or subsurface impacts that are expected. Attach extra sheets if more space is needed.

Fence construction, culverts and cattle guards will cause surface and subsurface impacts.

If you answered yes to question #1, describe the current ground surface condition within the entire project area boundary (i.e., is the ground in a natural undisturbed condition, or has it been bladed, paved, graded, used for agriculture, etc.). Attach extra sheets if more space is needed.

A 16' wide dirt road passes through the Project Area.

If you answered yes to question #2, list the sites, their names, and provide a brief description of the site.

Has the project area been previously surveyed for cultural resources by a qualified Archaeologist?

YES: _____ NO: X _____

DON'T KNOW: _____

If yes, submit a copy of the Archaeologist's report with your application.

YOU MUST SUBMIT THIS FORM WITH YOUR COMPLETED APPLICATION

AWPF Task Form for Fencing

Item	Applicant's Response
Fence type:	Four strand barbed wire, (bottom wire smooth)
Fence description:	Constructed by private fencing company to USFS specifications
Purpose of fence:	Control livestock access to riparian area
Approximate fence length:	4,000'
Approximate number of gates to be installed:	Three (3)
Approximate number of cattle guards to be installed:	One (1)
Cost of fence in budget: (Includes gates)	\$12,000
Cost of cattle guards in budget:	\$1,290
Have you included a map indicating the approximate location of all fence segments? If NO, please explain WHY.	Yes
Who will be responsible for fence maintenance once the fence is complete?	Mingus Springs Camp (applicant)
Additional information if required	

United States
Department of
Agriculture

Forest Service
Verde Ranger
District

P.O. Box 670
Camp Verde, AZ 86322-0670
Phone: (520)567-4121
FAX: (520)567-1179

Reply To: 1580

Date: July 30, 1996

Henry Dahlberg
Mingus Springs Camp
2946 Darca Drive
Prescott, AZ 86301

Dear Henry:

I want to express my support for your proposal to continue the riparian restoration and development work upstream from the lake at Mingus Springs. The inclusion of National Forest lands with the private land is logical recognizing that Ash Creek crosses both ownerships in the project area. This project fits well with the work that has previously been done in the camp and also with the work that the Forest Service has done in nearby Burnt Canyon.

Because the Forest Service only recently acquired this parcel through the land exchange program, we have not fully evaluated it's potential. After looking at the land within the camp, we are confident that you have demonstrated the capabilities of this stretch and would be pleased to have you continue the improvement onto public land. The gabions, tree plants and reseeding of grasses have notably improved the streamside where you have already worked. A benefit of treating this particular stretch is that the watershed is among the healthiest on Mingus Mountain as a result of your participation in the American Tree Farm program. Tree species diversity as well as the spacing and age class distribution on the watershed above the creek represents what I envision as the historic condition of the mountain. It is expected turkey will benefit by continuing to increase openings and promoting grasses especially important for the proper growth and development of young turkeys. The fencing will allow more livestock control in meeting habitat improvement and management objectives.

In addition to improving the riparian zone, this project is an excellent opportunity to provide applied environmental education for the students at the camp. Riparian areas are valuable learning laboratories because of their responsiveness and because of the important role they play in ecosystems.


Henry Dahlberg

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The Forest Service will provide technical support through monitoring and design assistance. This includes assistance where design criteria require cutting pines that are encroaching on or shading the creek. And of course, we want to continue to participate in the Mingus Springs Camp's environmental education programs. This is a great "win-win" partnership we share.

Good luck on your application for riparian improvement funds.

Sincerely,

acting *for* 
THOMAS D. BONOMO
District Ranger

ARIZONA DEPARTMENT OF WATER RESOURCES
PRESCOTT ACTIVE MANAGEMENT AREA
2200 East Hillsdale Road, Suite A
Prescott, Arizona 86301-4941
Telephone (520) 778-7202
Fax (520) 776-4507



July 29, 1996

Henry Dahlberg
Mingus Springs Camp
PII
Prescott, Arizona 86301

Dear Henry,

I have read your proposal to conduct a riparian protection and management program on lands public and private near Mingus Springs, and wish to offer my support for this project.

As you know, a major part of our mission here is education of the public in the use and management of our water resources. Although this planned project lies outside the Prescott Active Management Area the educational opportunities which will be available will have impact within our area of management.

I hope you are successful in your application.

Sincerely,

A handwritten signature in cursive script that reads "Phil Foster".

Phil Foster, Director
Prescott Active Management Area

PF:ve

PRESCOTT UNIFIED SCHOOL DISTRICT

146 S. Granite St. • Prescott, Arizona 86303 • (520) 445-5400 • Fax (520) 776-0243

July 30, 1996



Kevin J. Kapp
Assistant
Superintendent

Dr. Henry Dahlberg

PII

Prescott, AZ 86301

Dear Dr. Dahlberg:

The following is a letter of support for the proposal submitted by Mingus Springs Camp to the Arizona Water Protection Fund Commission for the construction projects designed to protect the riparian environment within Mingus Springs Camp.

Mingus Springs Camp has been utilized by Prescott Unified School District for many years as a site for our 5th Grade Environmental Camp Program. This program enables 5th Graders to spend three days and two nights at Mingus Springs Camp involved in a wide variety of environmental and outdoor education activities. The program has been tremendously successful and correlates exceptionally well with our 5th Grade Science Curriculum's goals and objectives.

I have also been personally associated with Mingus Springs Camp for the past 26 years as a camp counselor, Director of Arizona Computer Camp and Director of the Youth Conservation Corps Program in 1979 and 1980. The Youth Conservation Corps Program involved high school-aged youth in 30 hours of conservation work and 10 hours of environmental education each week throughout the summer. Mingus Springs Camp was an ideal location for this federally funded program and would have continued as the site if funding for the program had not been eliminated in 1981.

On behalf of Prescott Unified School District I am able to fully support the proposal of Mingus Springs Camp to the Arizona Water Protection Fund Commission for the improvement and safeguarding of the riparian environment within Mingus Springs Camp.

Sincerely,

KEVIN J. KAPP
Assistant Superintendent

KJK:cl

Personal Identifying Information

Prescott, AZ 86303
Personal Identifying Information

25 July 1996

Arizona Department of Water Resources
Water Protection Fund Commission
300 N. Third Street
Phoenix, AZ 85004

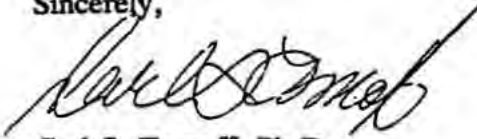
Dear Sirs:

I am writing in support of the proposal entitled "Ash Creek Riparian Protection Project" which is designed to improve an important riparian area along Ash Creek on Mingus Mountain. Plans for fencing, culverts, and cattle guards to prevent grazing by livestock should allow for recovery of moist meadow like conditions which would benefit Wild Turkeys and other birds and animal life, both terrestrial and aquatic.

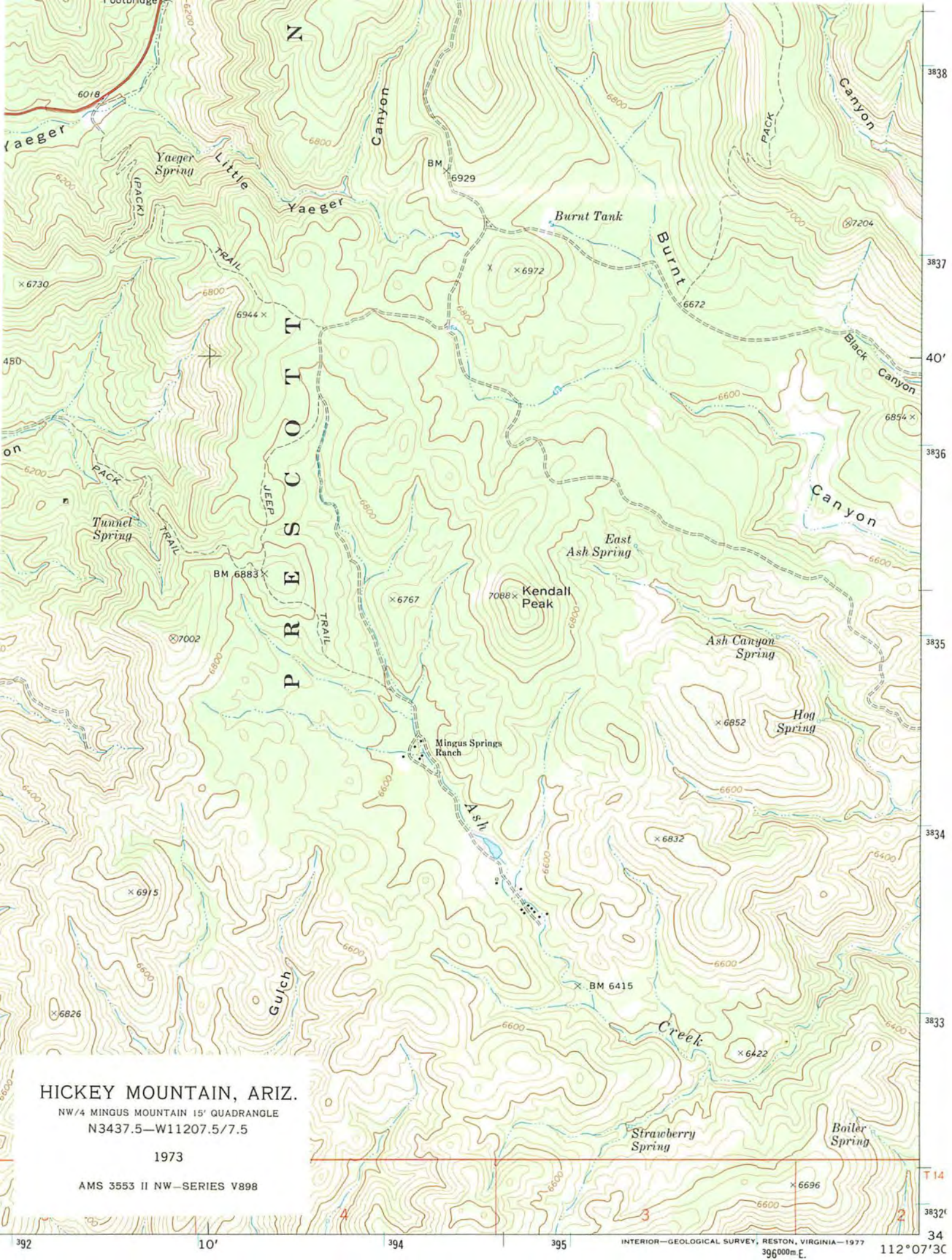
I am familiar with Mingus Springs Camp and the ecology of the mountain. I have worked at the camp as an environmental educator and appreciated the remarkable learning opportunities provided by the riparian habitat along Ash Creek. As a consultant for the Prescott National Forest conducting a recent breeding bird survey of Mingus Mountain, I noted how scarce and limited in distribution riparian habitat is on the mountain. Many plants and animals are highly dependent on this moist habitat, while countless others benefit from its resources. One's personal aesthetic experiences associated with the lush conditions are difficult to describe.

I strongly urge you to support these proposed efforts to enhance and restore this remarkable jewel for the benefit of plants, animals, and people.

Sincerely,



Carl S. Tomoff, Ph.D.



HICKEY MOUNTAIN, ARIZ.

NW/4 MINGUS MOUNTAIN 15' QUADRANGLE
N3437.5-W11207.5/7.5

1973

AMS 3553 II NW-SERIES V898

ASH CREEK RIPARIAN PROTECTION PROJECT

