



**Agua Fria Open Space Alliance, Inc.**

Agua Fria Open Space Alliance, Inc., an Arizona nonprofit corporation

# **AFOSA Progress Report: 01/14/09**

Presented to the AFOSA Board of Directors

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## **I. Introduction**

### **A. Location of the Agua Fria River Basin**

The Basin includes the area drained by the Agua Fria River from the River's beginning on the north slope of Glassford Hill to the Gila River west of Phoenix. Rain that falls on the crest and east slopes of the Bradshaw Mountains, the south and west slopes of Mingus Mountain and the Black Hills, and the west slopes of the New River Mountains drains into the Agua Fria. AFOSA focuses on the upper part of the Basin from Prescott Valley to Black Canyon City.

### **B. Definition of open space**

Most people think of open space as an unobstructed landscape view or vista. This could be the view across a city, a lake, or a mountain range. Planners define open space as an area that is not occupied by buildings. In almost all instances open space contains plants, and is often completely covered by vegetation. In cities and towns open space includes backyards, plazas and parks. Outside town it includes farms, prairies, lakes and forests.

Dense urban development is just beginning in the Agua Fria River Basin, and throughout most of the Basin homes tend to be far apart. Many homes are on large lots set within a landscape that is mostly open space. Around our towns we have unoccupied valleys, foothills, and mountains. Much of our open space is not privately owned, and most of it has a natural covering of plants, soils and wildlife.

### **C. Importance of open space**

Many people care about plants, animals, rocks, soil, broad vistas, wild landscapes. Records of people's attempts to protect natural landscapes can be found in the artifacts and records of civilizations thousands of years old.

Americans have long been concerned for nature. As our nation grew, the harvest of the most conveniently accessible resources devastated the land in some areas. Around Prescott, for instance, excessive timber harvest during the 1800's resulted in soil erosion, flooding, and reduction of fresh-water supplies. As part of a national effort to prevent destruction and begin sustainable use of forest lands, the Prescott Forest Reserve was established May 10, 1898. One of the most influential spokesmen for conservation was Theodore Roosevelt a former resident of Prescott. Roosevelt felt that it was the responsibility of each generation to pass to the next a land that was healthy, fertile, and productive. Roosevelt also expressed many people's underlying concern for nature when he said: "The wildlife and its habitat cannot speak. So we must and we will."

### **D. Specific benefits from sustainable use and protection of open space**

- **Watershed Protection:** The amount and quality of water available is partially determined by the vegetation and soils covering the landscape. If vegetation is removed, rain runs off more rapidly and may wash away the soil. This can significantly reduce the amount of water soaking into the ground.
- Maximizes productivity over long periods.
- Maintenance of plant and animal diversity, ecosystem stability and productivity, and environmental quality locally and globally. As it now exists, open space has broad, long-term, benefits to offer for our personal, national, and global welfare.
- Open space improves human health: Various components of open space have been clinically proven to contribute to personal health and happiness. We benefit from our interactions with plants and animals, and many of us benefit from the knowledge that wild landscapes still exist. Roger Ulrich's work on the relationship between people and plants is an attempt to understand the underlying attraction people

have for nature. Most people have an instant aversion to snakes and spiders, but not guns. Vegetated scenes produce a greater drop in blood pressure than scenes of the bloodiest automobile accidents.

[Ulrich, R. S. (1986). Effects of hospital environments on patient well-being. Research Report Series, 9, No. 55. Department of Psychiatry and Behavioral Medicine, University of Trondheim, Norway.]

## **II. AFOSA's activities**

### **A. During 2007, AFOSA**

1. Incorporated
2. Organized a clean-up on public land
3. Held its first Open Space Convention with speakers from:
  - a) Prescott National Forest
  - b) University of Arizona NEMO group
  - c) Bureau of Land Management
  - d) Yavapai County Trails Committee
  - e) Friends of the Agua Fria National Monument

### **B. During 2008, AFOSA's Board of Directors**

1. Applied for and received tax-exempt status as a 501(c)(3) nonprofit corporation.
2. Organized the second Open Space Conference at Arcosanti and included:
  - a) A morning birding tour
  - b) A full day of presentations
  - c) An afternoon hike along the Agua Fria River.
3. Interviewed on:
  - a) National Public Radio
  - b) Public Television
4. Made presentations to:
  - a) Arizona Riparian Council
  - b) Open Space Alliance of Central Arizona
  - c) Mortimer's Nursery Exhibition
  - d) Public Meeting at Big Bug Station, Mayer, Arizona
  - e) Upper Agua Fria Watershed Partnership (December)
5. Applied for and received grants from Adobe Corporation and Microsoft, Inc.
6. Contributed a chapter on the Agua Fria River Basin to the regional Water Conservation Workbook being produced by Shaun Rydell, City of Prescott.
7. Coauthored a book chapter on desert fire ecology with Raymond M. Turner, U.S.G.S.

8. Created and made monthly updates to: (<http://aguafriaopenspace.org>). (Site opened November 16, 2008.)
  
9. Inventory Progress: Preparation and Results of Demonstration Project
  - a) W. U. S. Alliance Checklist
  - b) Natural History Sources Bibliography
  - c) Species Checklists
  - d) Vegetation Mapping and Monitoring Practicum
  - e) Relevé Form
  - f) Repeat Photography Form
  - g) Preliminary Results
  - h) Arizona Bird List
  
10. Field Guide I. Draft
  
11. Open-space course design and supervision at Prescott College
  
12. Adopted the Long-Term Sonoran Desert Fire Ecology Project
  - a) Location, study objectives, preliminary results.

### **III. AFOSA Activities Planned for 2009**

#### **A. During 2009, AFOSA's Board of Directors.**

1. Participate in the USDI Bureau of Land Management Wet-Dry Project and Organize the Upper Reach Team.
  
2. Join and Participate in the USDA NRCS West Yavapai Weed Management Area Committee
  - a) (AFOSA staff will provide a field demonstration on weed monitoring with repeat photography scheduled for the March 9 meeting.)
  
3. AFOSA is being considered for the Weed Survey on the Agua Fria National Monument.
  
4. Organize the third Open Space Conference at Arcosanti and include:
  - a) A morning birding tour
  - b) A full day of presentations
  - c) An afternoon hike along the Agua Fria River.
  - d) Theme: Best of the Basin, Rare Plants, Animals & Habitats of the Agua Fria River Basin, Central Arizona.
  
5. Will complete the Habitat Inventory and Monitoring Manual
  
6. Make public presentations to:

- a) Upper Agua Fria Watershed Partnership (Jan 6)
  - b) Dynamic Deserts: Resource Uncertainty in Arid Environments, The Second Annual Frontiers in Life Sciences Conference Series, Arizona State University, Tempe, Arizona (Feb 26)
  - c) Repeat Photography Methods . U. S. D. A., West Yavapai Weed Management Area (Mar 9)
7. Regularly update its web site.
  8. Join and participate in the new group: Friends of the U. S. National Forest
  9. Complete Field Guide I.

#### **IV. Discussion—Ideas and New Business:**

##### **A. The Third Annual Open Space Conference**

Arcosanti on May 2, 2009. Details are provided on our web site. ***Best of the Basin, Rare Plants, Animals & Habitats of the Agua Fria River Basin, Central Arizona.*** Agencies will be asked to send speakers to list and discuss the most important places under their jurisdiction. These places will be the starting points for AFOSA's baseline inventory and monitoring program. Important areas will be defined as those that contribute the most to species diversity and environmental health and stability within the Basin. Topics might include Wilderness Areas, endangered species habitats, important migration corridors, high-diversity areas, important open-space parcels near urban areas. Target groups include Natural Areas, Audubon, Native Plants, Groups for Antelope, Amphibians, Fish, Reptiles, etc. as well as AZG&F, BLM, FS, .... Speakers scheduled as of January 15, represent Audubon and the U. S. Forest Service.

##### **B. Known Problems and Threats to Open Space within the Basin are mostly related to the Human Impact**

1. Improperly planned housing and development
  - a) Dispersed housing disrupts animal activities.
  - b) Construction destroys habitats and alters local hydrology and microclimate
  - c) Development planning that does not respect natural resource values
2. Insecticides: Eliminate food required by birds, and cause harm to other animals.
3. Fire and weeds: Positive interaction destroying Sonoran Desert vegetation in the southern portion of the Basin
4. Herbicides: Preemergents poison birds and animals.
5. Fertilizers: Alter chemistry of surface runoff and groundwater.
6. Improper Recreation Use:

- a) Off-road vehicle use: Complete removal of vegetation cover has occurred in many places in the western U. S. This leads to wind-blown dust problems, and on slopes it leads to erosion and flooding.
- b) In southeastern Utah mountain biking has become so excessive that last month the Governor of Utah vowed to bring it under control.
- c) In South Mountain Park in Phoenix, hikers have destroyed most of the natural vegetation and soil cover.

**C. Major species problems within the basin:** During preparation of species lists we determined that some organisms are undergoing destructive population explosions and others are disappearing. Information is linked to our website.

- 1. Weeds
- 2. Biological Soil Crusts
- 3. Amphibians
- 4. Mammals
  - a) Antelope
  - b) Others
- 5. Reptiles
- 6. Fish
- 7. Birds

For the species groups above and others there is a serious lack of detailed information. We really do not know how well the living creatures of the basin most are faring in the Basin. Some partial surveys have been completed in the past, but detailed inventories have never been conducted. For instance, we learned that there are no vegetation inventories for the Basin that are detailed enough to allow classification and mapping of plant species associations. This information is critical to understanding the distribution and health of animal populations. Needless to say, there are no plans in place to provide the public education and political will that is needed to prevent invasive weeds from replacing native species within the Basin, protect sensitive species and habitats, prevent soil erosion, etc. All of these problems have been caused by or at least influenced by human activities. Even without natural stresses from climate resource values within the Basin are in a state of decline.

**D. The Natural Resources Baseline, Inventory, and Monitoring Manual (Review and discussion):**

**E. Form a Friends of the Agua Fria River or Wildlife subcommittee of AFOSA.**

The purposes would include all those of AFOSA. The Friends might be a stronger focal point for community participation than the entire Basin. The Agua Fria and its tributaries are absolutely essential for the survival of many of the animals found within the Basin. Very little detailed information about the river is available. Some environmental assessment work has been done recently by members of the Arizona Riparian Council, Friends of Agua Fria National Monument and U. S. Bureau of Land Management, but these groups need help and encouragement to expand their efforts.

## **V. Reminder of topics needing development effort**

- A. Agency Liaison**
- B. Trails**
- C. Soil Conditions (surveys incomplete)**
- D. Endangered species inventory**
- E. Minerals & Mines inventory and safety inspections**
- F. Archeological site inventory and protection**
- G. Livestock Grazing**
- H. Water Use**
- I. Hazards**
- J. Open-Space Education**
- K. Recreation**
- L. Sponsorship and fund raising**
- M. Open space acquisition and management**

## **VI. AFOSA's general goals: AFOSA's purpose is to preserve the permanent value of open space for all users. The specific objectives and purposes are:**

- A. to educate the public concerning the nature, value, and use of open space (undeveloped lands) in the Agua Fria River Basin above Black Canyon City.**
- B. to contribute to planning for sustainable long-term public uses of open space in the region.**
- C. to sponsor seminars and other educational events where community and environmental leaders, governmental and organizational representatives and other concerned members of the public and government may meet to exchange ideas, suggest solutions and implement strategies to manage open space for sustained nondetrimental use.**
- D. to describe, map, and evaluate the current conditions, uses, and potential use of the region's open space using existing information, field observations, and applicable knowledge from other areas.**
- E. to distribute the results of its findings to land owners and managers, educators,**

and the general public.

**F. to develop plans for activities**

**G. to recommend areas for all types of recreational use.**

**H. to be vigilant for hazardous areas that pose risks to public safety, and recommend corrective actions to managers.**

**I. to be vigilant for sensitive areas and other areas being damaged or threatened by current use, and to recommend mitigation to owners and managers to prevent loss of potential use.**

**J. to expand and redefine our education, research, and planning programs from time to time as necessary to meet the continuing challenge of sustained-use management of open space.**