

Upper Agua Fria Watershed Partnership

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Vision Statement

As prudent stewards of the Upper Agua Fria Watershed - which provides beauty, bounty and sustenance - we envision a sustainable, multi-generational future of health and continued abundance achieved through best-practice management of this semi-arid watershed's natural systems.

Mission Statement

The Upper Agua Fria Watershed Partnership provides a regular forum to engage diverse stakeholders proactively to develop, discuss, and coordinate

- relevant objective information,
- collaborative work projects, and
- best-practice management policies concerning the holistic, long-term health of the watershed's natural systems in the context of demographic and ecological change.

Water Quantity Goals

One overarching goal is to understand and better quantify the Water Budget. (How much water is available and how much is being used?) The goals below can be used to evaluate components of the water budget. The goals are not necessarily in order of priority.

Goal #1: Determine how storage changes.

Task 1: ADWR Well Sweep for groundwater levels. Interpretation of well sweep data. Evaluate future needs

Task 2: Micro gravity survey

Goal #2: Understand Precipitation (gages).

Task 1: Inventory gage system and effectiveness. (Evaluate – e.g. are we getting the correct information? Do we need others?)

Task 2: If others are needed, make (and implement) plan for new gages.

Goal #3: Understand Pumpage.

Task 1: Determine current water-use trends (collect and compile data and analyze for trends)

Goal #4: Understand surface water system –(variation, diversions, baseflow, inflow/outflow).

Task 1: Compile and evaluate data

Task 2: Evaluate need for additional surface water gages

Task 3: Install new surface water gage (if justified and funded)

Goal # 5: Recharge. Comment: Recharge is difficult to quantify

Goal #6: Water Conservation and education.

Task 1: Coordinate and cooperate with Coalition

Task 2: Obtain and evaluate data on water-use (see Goal #3)

Water Quality Goals

Goals #1: Identify, prioritize and document water quality concerns throughout the Upper Agua Fria Watershed and positively influence the future visions for water use designations. Consult ADEQ (Arizona Department of Environmental Quality) for present designations. (NEMO Report)

Goal #2: Stay abreast of issues surrounding water quality, such as erosion/stream bank stabilization methodology, dumping, plant and animal pest management, septic system management, livestock water management, riparian zone management.

Goal #3: Investigate use of computer modeling with the help of the information-gathering GIS (Geographic Information System--check with NRCS). CTIC (Conservation Technology Information Center) publications may be helpful. See www2.ctic.purdue.edu/KYW/Brochures/PutTogether.html

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Goal #4: Investigate water quality parameters for regular monitoring at various sites throughout the Upper Agua Fria Watershed, such as Nitrates, Phosphates, pH, Bacterial/Biological surveys, Vegetative surveys, Turbidity.

Goal #5: Establish specific objectives and encourage management alternatives based on water quality trends. For example, cleaner water can be obtained by doing "x" because we have documentation of declining quality due to "y".

Goal #6: Create opportunity for participation and interaction (education) in the Upper Agua Fria Watershed through clean-ups, workshops, field days/tours, guest speakers, celebrations.

Watershed Health Goals

Goal #1: Identify and appraise the general condition of the watershed uplands and the major components – by geomorphic, geologic, soil & vegetation, and land use criteria – in relation to its hydrologic function.

Goal #2: Identify and appraise the conditions of the riparian areas and how they are functioning. Are there trends in habitat conditions that warrant further study or management actions?

Goal #3: Identify and appraise the probable general effect of existing and expected land uses on flood flows and sediment production.

Goal #4: Identify and appraise the watershed conditions and the existing and expected land uses likely to maintain the water production of the watershed in terms of groundwater recharge and base flow. In particular, what are the likely general effects of urbanization?

Goal #5: Identify and appraise the areas which are particularly vulnerable to watershed damage – both onsite and downstream – from potential wildfires.

Climate Change Goals

Goal #1: Identify and study the most reliable scientific resources concerning the most likely effects of climate change on watershed functions in Arizona and the Upper Agua Fria.

Goal #2: Identify local trends which may be observed, measured and monitored in the watershed's various bio-vegetation zones which may be indicative of climate change. For example, invasive species, bark beetle, etc..

Goal #3: Develop best-case and worst-case scenarios for climate change for the UAF.

Planning Goals

Engage (participate, dialogue?) in comprehensive federal, state, county and community land use planning efforts throughout the Agua Fria watershed in pursuit of the UAFWP vision and mission. As prudent stewards of the Upper Agua Fria Watershed, the Partnership will advocate best management practices for current and future operations.