

NEWSLETTER FOR THE Upper Gila Watershed Alliance

FALL 2022 Vol. 25 No. 2



The mighty Gila is on the move, rearranging floodplains, trails, and trees. Flood debris downstream of the Gila River Bird Area. September 9, 2022. *Photos: Dennis Weller*

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Upper Gila Watershed Alliance

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Mission Statement

The Upper Gila Watershed Alliance is a non-profit watershed protection and conservation organization working to promote the long-term health of the Upper Gila Watershed and its communities of life. Through advocacy, education, research and restoration projects, we are striving to build communities of stewards in more locally based economies.

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BACK BY POPULAR DEMAND!

UGWA'S IN-PERSON ANNUAL MEETING!

Saturday, November 12, 11:00 am to 1:00 pm

The Nature Conservancy's Gila River Farm, Box Canyon Road

COVID is still with us and we're all learning to co-exist with it. In 2020 and 2021, UGWA declined to host our ever-popular annual meeting in the fall. But we're back, baby! Cautiously back. Back for those who feel comfortable meeting outside. Back for those who are happy to bring their own lunches and drinks.

Here's the schedule for November 12, 11:00 am to 1:00 pm (or later):

11:00 am: Brief business meeting

Presentation on two UGWA volunteer opportunities

Selection of board members

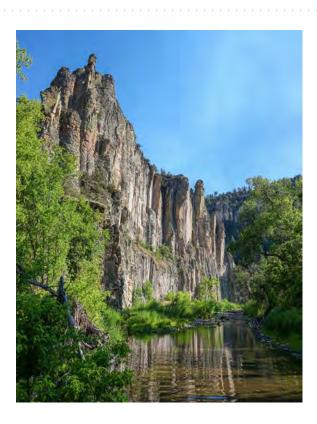
12:00 pm: Lunch and socializing. Remember

to bring your own lunch and drinks. To protect everyone's health, this is a brown-bag lunch, not a potluck. Or live dangerously

with a pink-bag lunch!

1:00 pm: Optional and fascinating tour of

the Gila River Farm's wetlands and native grass fields, led by our gracious host, The Nature Conservancy's Martha S. Cooper



Why Wild and Scenic?

by Donna Stevens

In the past few years, the UGWA newsletter has featured articles about the process and status of designating the Gila, San Francisco, and major tributaries as Wild and Scenic Rivers. It's time to take a look at the reasons why UGWA is part of a coalition to make this happen. What's the history and purpose of Wild and Scenic?

The Wild and Scenic Rivers Act was passed in 1968, a very momentous year for social change, good and bad. Prior to that, decades of dam construction and reservoir filling* had seriously degraded the nation's rivers. Rapids were disappearing and fish populations were declining. Conservationists, alarmed at the state of the nation's rivers, determined to save the remaining few. The result, after years of work by biologists, conservationists, and allies such as Secretary of the Interior Stewart Udall, a Congress that valued conservation, and the President of the United States, was the Wild and Scenic Rivers Act, which was signed into law on October 2, 1968.

Lyndon B. Johnson's words upon signing the Act were illustrative of the times, when there was a growing awareness of environmental degradation and a bi-partisan willingness to halt the decline. Here's a short excerpt of LBJ's signing remarks:

In the past 50 years, we have learned--all too slowly,

I think--to prize and to protect God's precious gifts. Because we have, our own children and grandchildren will come to know and come to love the great forests and the wild rivers that we have protected and left to them.

A few summers ago, after Secretary Udall took his lovely family on a float trip of high adventure down the turbulent Colorado River, he returned to Washington and said that every individual and every family should get to know at least one river.

So today we are initiating a new national policy which will enable more Americans to get to know more rivers... I am signing an act today which preserves sections of selected rivers that possess outstanding conservation values.

An unspoiled river is a very rare thing in this Nation today. Their flow and vitality have been harnessed by dams and too often they have been turned into open sewers by communities and by industries. It makes us all very fearful that all rivers will go this way unless somebody acts now to try to balance our river development.

In New Mexico, portions of the Rio Grande, Rio Chama, Pecos River, and East Fork of the Jemez are designated as Wild and Scenic. At less than 1% of the state's river miles, that barely qualifies as a good start, and all these river segments are in northern New Mexico.

Conspicuously missing from this list is America's First Wilderness River, the big-hearted Gila, with its headwaters in the nation's first designated wilderness area, the Gila Wilderness. The Gila is home to more than two hundred species of birds and seven threatened or endangered species. The wilderness and its river provide a much-needed respite from today's stressful world. It's increasingly clear that humans are hard-wired to require beauty as much as food and shelter, and the Gila River overflows in beauty (sometimes literally). Could there be a river more deserving of Wild and Scenic River status?

As measured in water volume, the Gila River is small. But in the arid Southwest, especially in the face of the increasing heat and drought of our changing climate, protecting it is even more vital than in 1968. Wild and Scenic River designation would prevent an ill-advised Gila diversion in the future, retain current river uses and access, and allow future generations to enjoy the Gila as we do now. Almost all of the 450 river miles proposed for Wild and Scenic status are within the Gila National Forest,

where designation would afford an extra layer of protection while still allowing upstream and downstream river reaches to be used for human benefits on private land, just as they are now.

In the last century, almost 2,000 dams have been removed from rivers across the country in an effort to reconnect the rivers and improve wildlife habitat. In southwest New Mexico, we still have an intact, functioning river. It behooves us to protect it now rather than spend millions of dollars decades from now on restoration. It's time for us to fully embrace the vision of late 60s legislation and protect the Gila River in perpetuity.

* Dave Rosgen, arguably the nation's foremost stream restorationist, famously said, "A river doesn't want to be a lake."

Many thanks to the Conservation Lands Foundation for funding UGWA's work on the Wild and Scenic Rivers campaign.



Citizen Science, Gila-style

by Donna Stevens

Although the Upper Gila Watershed Alliance doesn't include the word in our name, in many ways we are a "friends" group. As in friends of the Gila River, friends of the Gila National Forest. And because friends take care of each other, UGWA is instituting a citizen science program.

Citizen science can be defined simply as volunteers participating in projects to answer scientific questions or to learn about – and thus protect – a place close to home. A well-known example of citizen science is the Audubon Society's Christmas bird count, which began in 1900. This important inventory is a very intentional activity where volunteers survey an identified area on a particular day for a specific purpose.

But citizen science can be more casual and adaptable, too. For example, what if you're in the Gila National Forest and you happen to observe something that the Forest Service needs to know about? Maybe it's a severely rutted or eroding road that is sending sediment into a nearby stream. Perhaps you witness off-road vehicles driving cross-country, in a stream, or on a closed road. Maybe you see a dead bear, a pile of coyote carcasses, trash dumping, or illegal woodcutting (I've seen all of these over the years). Because the Forest Service is currently understaffed, employees aren't in the forest as much as they need to be, and they could use some helping hands.

To that end, UGWA has been working in the last several months to establish a pilot program that empowers volunteers to record their observations in the Gila National Forest. This is a perfect opportunity for hikers to make a difference while out in the forest to enjoy exercise, solitude, and beauty.

Our short questionnaire acts as a checklist of observable forest impacts. A series of simple questions allows the casual hiker or driver to record their observations. They will also log their location and and take a few photos. There are three options for collecting data.

The first two options are digital. Volunteers meet with UGWA's GIS guy to upload free Gila National Forest maps and UGWA's data form onto their personal smartphones. Or they can borrow UGWA's tablet that is ready to go. If recorded on the volunteer's smartphone or on UGWA's tablet, the information and photos can be uploaded easily into our online Field Maps account.

The third option works best for those who prefer the tried and true method of map: pencil and paper. Volunteers using UGWA's paper questionnaire can return the completed forms to us and we'll take it from there.

For any of these options – tablet, smartphone, or paper – UGWA will record volunteers' data and upload it to the Forest Service, and follow through with them. Volunteers get to do what they love – visit the Gila National Forest – while knowing that their observations, data, and photos are being put to good use.

If this sounds like something you'd like to do, please email Donna Stevens at **director@ugwa.org**

Thank you to the Maki Foundation and our anonymous Major Donor for funding our Citizen Science program.

Chris Lemme, Amy Yung, and Karen Valentine cutting hardware cloth for the Johnson-Su bioreactors.



Seven of 28 completed Johnson-Su bioreactors lined up waiting to be filled with food waste and woody biomass



Karen Valentine, Ed Valentnie, and Chris Lemme in Ed's woodworking shop cutting pieces for worm boxes to be made during the climathon events.

New Earth Project

by Carol Ann Fugagli

In February 2022, UGWA was the proud recipient of the Environmental Justice for Climate grant that focuses on food security, soil improvement, carbon sequestration, and food waste reduction (please see Carapace spring 2022 for more background). The big picture of this project involves gathering food waste from four participating school cafeterias (Cliff, Jose Barrios, Harrison Schmitt, and San Lorenzo) and combining it with woody biomass, aka liability biomass from forest thinning projects, and placing it in a static compost system called a Johnson-Su bioreactor. This unique type of composting produces a fungal-dominated compost that can be used as an inoculant to restore degraded agricultural fields and rangelands.

Another project component is education at the four participating elementary schools. One such activity involves conducting monthly experiments with 4th and 5th grade students to demonstrate the impacts of soil regenerative processes, including vermiculture, how compost and biochar affect seed growth, and the importance of regional native plants.

Since composting is a school-wide initiative, it's important for the entire staff to understand the program's details and objectives. To achieve this goal, UGWA and our partner 2811, an international organization for social change, created an online training called Climate Action Academy for staff and interested community members to educate them about climate change and food sustainability, thus increasing their ability and confidence to teach these relevant topics. The Academy included interviews from five local experts on topics ranging from vermiculture,

gardening in schools, and regenerative agriculture.

Phase two of the project will teach students about composting and its benefits to our planet during a half-day workshop, or climathon, at each participating school. This event will activate students to be changemakers by teaching them new skills for creating resilience in their community through composting. Kids will divide into groups, with one group building worm boxes, a second creating public service announcements about the importance of composting, and a third group creating artistic displays for their school's halls. Each group will present their projects to the other students and at the end of the day, all participants will discuss how this new learned information can be spread to other classrooms in their school.

Volunteers are welcome and needed at every step along the way to assist in the building of the bioreactors, record data from the filled bioreactors, collect food waste from schools and backyard debris for chipping. As the project evolves, there may be more opportunities and ways to contribute. We invite you to consider how the project's components relate to your personal interests and how you might be able to help. If you are interested in volunteering, please contact New Earth volunteer coordinator Nan Franzblau: nanfranzblau@yahoo.com.

This project has the potential to be a model for sustainability throughout New Mexico and beyond, and volunteers are an essential part of this project!

This work was carried out with the financial support from the Commission for Environmental Cooperation.



Tiger Shen, Camren Feldman, Lydell Marron, Eleona Marron, Elias Marron, Mike Fugagli, Wyatt Meador, Thadius Hawkins, Dylan Duverge, Thomas Lopez, Angelina Lopez, Amiya Gomez, and Jose Gomez celebrate the Gila Wilderness during Eco-camp.

In August, UGWA hosted a 5-day eco-camp for teenagers to reconnect young people with the natural world through a variety of fun, place-based activities, including indigenous skills training and nature hikes.

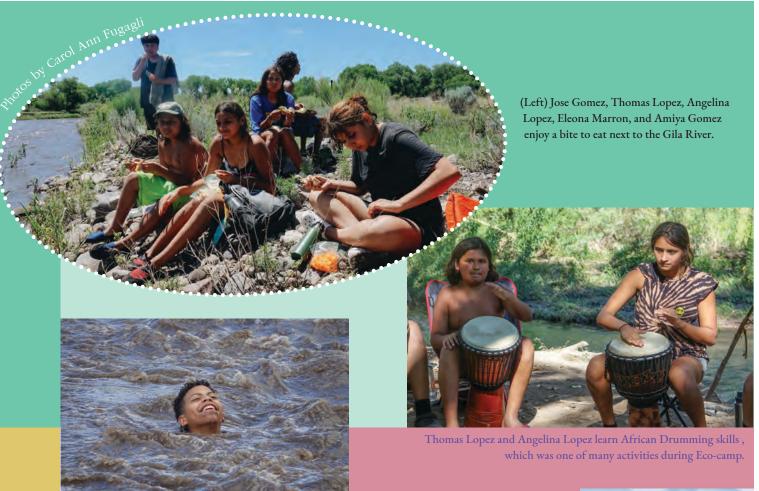
One unique aspect of this event was the cultural blending of students: five from Silver City and seven from the Fort Sill Apache Reservation in Lawton, Oklahoma and Sherman, Texas. Watching cultural differences melt away and friendships form was incredibly meaningful. At one point during the camp, two boys of different cultural backgrounds befriended one another and had long conversations on the river banks while others splashed and swam in the water.

Many of the participants were camping for the first time and were amazed with the wildlife they saw even around their tents. One student was excited because he had never seen so many lizards. Each day brought a new environmental focus as our experts taught hydrology, riparian ecosystems, ethnobotany, indigenous skills, and African drumming. Ample time was allowed for swimming in the Gila River for

a fully - and literally - immersive experience. Campers loved the pancakes made with local mesquite flour and had fun experimenting with edible insects purchased for this occasion. Each camper received a cap with an embroidered native animal as an entertaining way to help them learn about native species. Students were divided into groups, with each given a different daily task to emphasize the importance of teamwork in a group setting. In their free time, students played volleyball, went fishing, practiced fire by friction, and played cards with new friends.

At the end of the five days, participants shared their experiences. Many said they were introduced to eating healthy foods and enjoyed the taste of new fruits and vegetables. One student said it was one of the best five days of his life. The impact on the lives of the participants from this experience cannot be overstated. We will continue to build on this success next year by involving more students and adults.

Many thanks to The Nature Conservancy for funding and partnering with UGWA on eco-camp.



Lydell Marron is swept away by swimming in the rapids of the Gila River for the first time.

(Right) Teenagers enjoying the immersion of the Gila River.



Naomi Hartford, Robin Isom, with Mike Fugagli learning native plant identification.





Aldo Leopold Charter School Eco-monitors Ethan Hemphill, Kojan Iwaasa, and Kevin Peterson plant a native Arizona Sycamore along San Vicente Creek. Photos: Mike Fugagli

Thinking ON a Mountain: Taking Root

by Mike Fugagli

While tree planting recently with the Aldo Leopold Charter School's Youth Conservation Corp (YCC) Ecomonitoring crew that I supervise, I was struck hard with the obvious fact that ideas root just like trees. The trees the students were planting that day, Black Walnuts, Arizona Sycamores, and Velvet Ash, were going into the ground as the first native trees provided for restoration via Thinking ON a Mountain's (TOM) Seedlings to Saplings program. The idea that had grown and eventually led to the planting of those trees was a long time coming, a lifetime really, spent watching the biophysical systems of the Earth degrade and diminish, wondering, always wondering, what to do.

It felt good to get those trees in the ground. There was a lot of planting, and a lot of dancing. Dancing because young people are so naturally joyous and resilient. Pass out a few Jolly Ranchers, bring an oversized Bluetooth speaker, and, despite the evening news, you can plant a forest in a few hours, a real accomplishment for sure, but not really the principal goal.

The real goal of UGWA's Seedlings to Saplings program is simple: to plant the idea of restoration in young minds. And to nurture it, like a seedling, until it thrives on its own. At its heart, restoration is a peace offering to the emergent; an acknowledgement that there is a responsibility to care for something larger than ourselves. But restoration has recently taken on an even deeper meaning. Now that we, like Tolkien's dwarves, have dug too deep and have released demons from the ancient world, restoration has become our only viable path forward, the only road our children might travel toward a livable future.

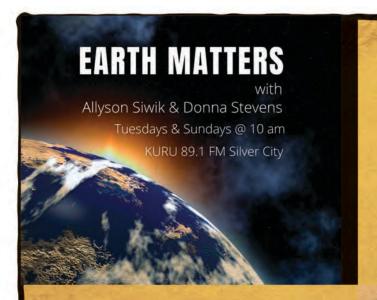
Our kids know that we are running out of options and running out of time. They know that the world's scientists and the UN Secretary General have declared "Code Red" for humanity. They know that global animal populations have declined almost 70% since 1970. They know that we're at 1.2 degrees Celsius above the pre-industrial baseline, with almost no chance of keeping global temperatures under 1.5 degrees Celsius, a hard-wired planetary boundary beyond which we move into the high risk zone for triggering irreversible planetary change. They know the entire biosphere is destabilizing and that the window for a safe landing is rapidly closing.



Bethany Jabbs, Ethan Hemphill, and Kojan Iwaasa grooving on restoration along San Vicente Creek.

And still they dance. It is amazing to me, their enthusiasm. All they ever really seem to need is the right music. And although a lifetime of ecological wounds means I can't always hear the music myself, sometimes I'll dance, too. It's contagious, and I trust them, especially when the trees are safely in the ground, well watered, and the roots are free.

Thank you to the Lineberry Foundation for funding UGWA's Youth Empowerment program.



The Gila Resources Information Project and the Upper Gila Watershed Alliance are relaunching Earth Matters, a bi-weekly podcast that will help you understand how New Mexicans are rising to the climate challenge and how you can, too.

Each hour-long episode will bring to you conversations with people working on the ground to address climate change in the Southwest and provide you with information on how you can make a difference and help bring collective action to this global crisis.

Climate change is here and New Mexico is feeling its effects.

What can we do to draw down our climate-changing carbon emissions, protect and restore our land and water, and adapt to harsher, more challenging conditions?

Allyson Siwik and Donna Stevens are your hosts for *Earth Matters*, airing every **Tuesday** and **Sunday** at 10 am on Gila/Mimbres Community Radio, **KURU** at 89.1 FM.

FIELD DAY AT GILA WOODNET: JOHNSON-SU BIOREACTOR CONSTRUCTION AND FILLING

Join us for a field day on Johnson-Su Bioreactor Construction and Filling on November 13, 2022, at Gila Woodnet!

In this hands-on workshop, participants will learn how to construct and fill Johnson-Su Bioreactors. Created by New Mexico State University's very own Dr. David C. Johnson and his wife Hui-Chun Su, the Johnson-Su Bioreactor is an ideal method of composting in dry, arid climates as it reduces water usage up to six times compared to other

composting methods. Little labor is required after the initial set-up as it is a completely noturn composting process (no need for a tractor or hours of shoveling!). The compost created in these bioreactors is biologically diverse, fungally dominated, and has exceptional potential to regenerate poor and degraded soils.

This is a free field day, but participation is capped at 30 people.

To save your spot, please preregister at https://www.crucescreatives.org/event-5009922.



Hurley 5th graders enjoy the cooling waters of the Gila River during the Children's Water Festival.



Carol Ann Fugagli and Cedar Smith assisting students from Jose Barrios to make yucca bracelets.



Bayard 5th grade students looking for macroinvertebrates in the Gila River.



Text and Photos By Carol Ann Fugagli

After taking a break due to the COVID-19 pandemic in 2020 and 2021, we were thrilled to partner with The Nature Conservancy to once again host the Children's Water Festival, an enriching program for the 5th graders of the Silver City, Cobre, and Lordsburg School Districts, in fall 2022. We purchased some new field equipment to enhance the learning experience, including mammal skulls of a coyote, beaver, and a bobcat, along with an aquatic microscope called a magiscope, which uses light from the sun to magnify the aquatic macroinvertebrates. The students were amazed by the intricacies of the organisms they examined.

We continued to improve this event by offering the field trip to one school at a time. Principals and teachers alike were pleased with the increased focus on learning and the additional time the students spent with each teacher. This new format allowed each group to remain with one teacher for 1½ hours to learn about aquatic macroinvertebrates, water temperature (Celsius and Fahrenheit) and how it affects aquatic organisms, and how to calculate water velocity. After lunch, students rotated to another teacher for a nature hike, investigation of mammal skulls, identification of birds while discussing bird migration, and a lesson in using yucca fibers to make bracelets. We trained and hired new teachers to allow for additional flexibility in everyone's schedules.

This new format also allows the students to immerse themselves in the water, playing and splashing, since there are fewer students for teachers to supervise. At the end of a fun-filled day of learning, one student exclaimed, "I wish school could always be at the river!"

Thank you to the Conservation Lands Foundation, the Lineberry Foundation, and The Nature Conservancy for funding the Children's Water Festival.





TROUT UNLIMITED VOLUNTEER WEEKEND

Sitting is the new smoking, so they say. Well, stub out that cig, get up and get moving! Our colleagues at Trout Unlimited are organizing a volunteer weekend to provide free exercise opportunities as you help to restore fish habitat and water quality in Little Turkey Creek, a tributary of Willow Creek in the Gila National Forest.

Here are more details from our friends at Trout Unlimited:

There will be two full days (4-5 November) for volunteer activities. We will work entirely within wilderness, within one mile of the trailhead, so we'll use wilderness-appropriate restoration techniques. Activities include cutting and planting willows, construction of one-rock dams and at least one Zuni bowl, placement of log vanes where bank erosion needs halting, and construction of a log jam at a suitable site.

There is camping available at the trailhead and other options nearby. The site is accessible by gravel roads on the remote, northern end of the forest. Volunteers should bring personal camping gear, work gloves, and waders or shoes that can get wet. A skilled camp cook will prepare tasty food, so volunteers only need to bring their own drinks and snacks. We'll camp at the wilderness boundary. Volunteers are encouraged to arrive on Thursday evening, November 3.. The major workdays are scheduled for Friday and Saturday, with no planned work on Sunday - just clean up and travel. Those with additional time on their hands can help to set up and take down work site and do stream habitat and bank erosion monitoring from November 1 -November 8.

Cheaper than a gym membership, and much better ambience!

For more information, details, and driving instructions, contact Jim Brooks at 505-331-5926 or arroyodejaime@gmail.com.

This event is also posted on the Trout Unlimited Events Calendar:

https://tu.myeventscenter.com/event/Gila-Work-69609

UGWA Membership Application

Your membership and additional financial support sustain UGWA and are critical to the organization's ongoing health. Share in the protection and conservation of our watershed and become an UGWA member today.

Name(s)					
Address					
City	State	Ž	Zip		
Telephone					
E-Mail					
Membership Categories—Annual Dues:					
Chiricahua Leopard Frog		\$	20		
Gila Trout			30		
Mexican Gray Wolf			50		



100

250

Make your check payable to

UGWA

and send to

PO Box 1536, Silver City NM 88062

I don't wish to join at this time, but please notify m	16
of upcoming events:	

Name

E-Mail

Beaver

River Otter

Other Amount

Thank You!

[April 15, 2022 – October 11, 2022]

New Members

David Becker

Returning Members & Supporters

Sue Mullen Davis • Joseph & Marilyn Gendron • Chloe Wurr • Robert Fischoff

Ellen Schweigert • Allison & Jeff Boyd • Victoria Reece • Dennis Switzer & Betty Spence

George & Lorna Ruebelmann • Dennis Weller • Randy Chulick • Marty Eberhardt & Philip Hastings

Marc Nevas • Marguerite Bellringer & Bill Schum • Corinne & Howard Smith

Sandy Hathaway • T & E Inc. • Marilyn Fogleman • Tom Hester

Jamie & Marion Newton • Monica Rude • Deb Preusch • Linda Pafford

April Crosby • Deb & Armando Guerra • Gail & Emanuel Stamler • Ron Parry

Jim & Jackie Blurton • Donna Stevens • Sharman & Peter Russell • Andrea & John Walker

Carlene Roters & Frank Merritt • Damie Nelson • Jane & Paul Riger • Susan Berry

Deb Cookingham & Hugh Epping • Carol & Richard Martin Gwen & Andy Payne

Lynda Aiman-Smith • Kate Kendig • Alex Tager & Keith Knadler

Nancy Brennan • Pam Bryant & Ron Groves • Susan Slade

Beth & Ed Leuck • Carol Morrison • Carol Ann & Mike Fugagli

Sondie & Nelson Murphy • Ceil Murray & David Rose

Marilyn Wright & Tris Germain • Jim Goodkind & Torie Grass • Jan McCreary

Funder Thank You!

Altman Foundation • Anonymous Major Donor • Commission for Environmental Cooperation

Conservation Lands Foundation • Lineberry Foundation • Maki Foundation • National Forest Foundation

Native Plant Society of New Mexico • The Nature Conservancy • Resources Legacy Fund

New Mexico Environment Dept. River Stewardship Program • The Wilderness Society

New Mexico Outdoor Recreation Division Outdoor Equity Fund



UGWA's Statement of Philosophy

The members of the UGWA recognize a vital and necessary connection between our individual and collective rights and responsibilities as landowners and community members and the long-term stewardship of the Upper Gila River Valley and Watershed.

The members of the UGWA share a love and concern for our community which is an integral part of our lives and, therefore, seek to harmonize our presence and activities within the watershed for the health and integrity of the entire "community," which includes the soil, the air, the water, the people, the plants, and animals.

The members of the UGWA share the conviction that men and women work best together in a spirit

of cooperation, conflict resolution, and consensual agreement that builds upon a common ground that benefits from the views and concerns of each individual acting as uncoerced free agents.

To realize our vision for the common benefit of the entire community served by the Upper Gila Watershed, and for the sake of future generations, the UGWA seeks ways and means to bring people and organizations together in constructive dialogue and activities aimed at clear communication, education, land restoration, research, and local economic health.

Upper Gila Watershed Alliance PO Box 1536 Silver City, New Mexico 88062

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