The Verde River Exchange

Water Offset Program
The Verde River
The Value of the Verde River

Water Supply

Verde Photos: Doug Von Gausig, Town of Camp Verde, Sedona Chamber of Commerce and Tourism Bureau
The Value of the Verde River

Lifeblood of the Ecological System
The Value of the Verde River

Community Center
The Value of the Verde River
Tourist Destination, Economic Driver

Verde Photos: Doug Von Gausig, Town of Camp Verde, Sedona Chamber of Commerce and Tourism Bureau
The Value of the Verde River

Solace for the Soul

Verde Photos: Doug Von Gausig, Town of Camp Verde, Sedona Chamber of Commerce and Tourism Bureau
The Verde System

- Water source for Verde Valley, Prescott area, and downstream cities.

- Two “Wild and Scenic” stretches, there are only 2 in AZ; Supports 1 of 20 Cottonwood-Willow Gallery forests in the world.

- Supports Property values.

- Generates $88 million a year for tourism-related businesses and the total economic influence is even greater.

The Verde River is one of the last healthy, flowing river systems in Arizona.
Rivers in Arizona

- Nothing to systematically protect rivers from running dry.
- Throughout west, rivers have dried up or depleted.
- In Arizona 35% of the river miles that once flowed freely year-round no longer do.
- Particular ecological and human significance (desert state).
Rivers in Arizona

The Salt River

The Colorado River

Photos Sam Jansen and Jocelyn Gibbon
Groundwater in Arizona

AZ Water Supply Source (2006)

Source: ADWR
Groundwater in Arizona
Groundwater in Arizona

• AZ surface water and groundwater use treated as separate.
• Groundwater use outside of AMAs not limited to what’s available long-term.
• Surface water users and groundwater users using the same water, legal pretense that it’s different → conflict
Groundwater in Arizona

• Rural AZ developing on groundwater in excess of what’s recharged.

• Subsidence, wells being deepened.

• TNC study: 7 additional significant river stretches will go dry from municipal groundwater pumping in our lifetime.
Statewide Problem

Parched: Arizona's shrinking aquifers

Charting how we use water, one map at a time

Caitlin McGlade, The Republic | azcentral.com

Arizona Community Reckons With Loss Of Groundwater
Verde Valley Wells as of 1950:
190 Wells

Local Consequences

Image Courtesy Salt River Project
Local Consequences

Verde Valley Wells as of 2006: 6,300 Wells

Image Courtesy Salt River Project
Verde Valley cracks list for Top 10 U.S. Travel Destinations

Lonely Planet is the world's leading travel publisher and holds the No. 1 spot in guidebook sales in the world.
Verde River Threats

• Habitat compromised by invasive species.

• Diversions from ditches ➞ stretches of the river system already dry or nearly dry.

• Proliferation of wells ➞ long term threat to aquifer and flow levels.
Friends of Verde River Greenway (FVRG) restores, preserves and promotes the natural, cultural, scenic and recreational resources of the Verde River and its tributaries.

We envision a healthy, free-flowing river and tributaries that support the environment, our thriving economy and the quality of life for current and future generations.
FVRG Role in Watershed Restoration

“Boots-on-the-Ground” Collaborative projects and to promote and implement watershed stewardship.
Building a Local Solution

Credit for creative water use
Program Genesis

• Implement actionable local solutions that work in the larger AZ water rights and water politics picture.

• Respect local economic, environmental and social values.

• Preserve property rights and individual water users’ autonomy.
Program Genesis

• Ensure collaboration and shared stewardship among water users and community members from different sectors.

• Focus on a positive, voluntary and proactive approach.

• Address underlying long-term issues.
What is the Verde River Exchange?

Provides a mechanism for groundwater users to “offset” the impact of their groundwater pumping on the Verde River.
Partners
How Does it Work?

1. Well pumping lowers Verde River water levels.

2. A Seller (usually a private landowner) voluntarily agrees not to consume a certain amount of water.
How Does it Work?

3. The seller’s reduced consumption is converted into Water Offset Credits that may be purchased by Buyers.

4. A Buyer purchases Water Offset Credits, reducing their ‘water footprint’ and the impact of their groundwater use.
5. The result: Through this balancing mechanism, total water use, and its impact on the river system is reduced.
Project Area
“Buyers” in the Verde River Exchange program are businesses, farms, or homes that continue to use the water they need—but purchase “Water Offset Credits” to help offset the impact of their water withdrawal.

Buyers purchase Water Offset Credits for a given year, allowing others to be paid to use less. They receive a Water Offset Certificate commemorating their participation in the Exchange and documenting their purchase of Water Offset Credits.

Reduce Your Water Footprint
“Sellers” in the Verde River Exchange program are water users in the Verde Valley that have recently and historically been using water but agree to cease or reduce their use for a year, in return for a modest payment.

Sellers sign a contract and agree to change their water use for a year (usually by “fallowing,” or not irrigating, a portion of land that had been irrigated). In return, they are paid for the temporary non-use of water—which allows the Verde River Exchange to create Water Offset Credits.

Reduce Your Water Footprint
Why Might a Buyer Participate?

Potential buyers might be motivated to purchase Water Offset Credits because the credits offer:

- The opportunity to promote **sustainable water supply** for the future of the Verde Valley’s communities and its economic health;

- The opportunity to **enhance the Verde River** as an environmental, recreational, and scenic asset; and

- The opportunity for businesses to **reduce their water footprint** and share the story of their part in promoting a sustainable water future.
Launched July 21, 2016
Verde River Exchange Water Offset Program

CERTIFICATE

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Page Springs Vineyards & Cellars

FOR OFFSETTING

1,369,000
GALLONS OF WATER

2016

4.2
ACRE-FEET

TYPE OF USE OFFSET:

Irrigation of Vineyard

Our livelihoods and quality of life depend on ensuring a healthy river system for all. This Water Offset Certificate is helping to preserve a flowing Verde River and to protect the local water supply that sustains our community by reducing our collective use of the river and its connected groundwater systems. The Verde River is treasured by the Arizona communities that rely on it, and your participation in the Verde River Exchange Water Offset Program demonstrates your commitment to preserving the flowing waters and the green heart of the Verde Valley.

CERTIFICATE NO. 1

July 15, 2016

DATE

Chip Norton, President

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Water Currents

Two Arizona Vineyards Give Back to a River through a Voluntary Water Exchange

Post by Sandra Postel of National Geographic's Freshwater Initiative in Water Currents on July 25, 2016

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Verde River Exchange Water Offset Program

CERTIFICATE

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Cacique Cellars & Merkin Vineyards

FOR OFFSETTING

1,369,000
GALLONS OF WATER

2016

4.2
ACRE-FEET

TYPE OF USE OFFSET:

Irrigation of Vineyard

Our livelihoods and quality of life depend on ensuring a healthy river system for all. This Water Offset Certificate is helping to preserve a flowing Verde River and to protect the local water supply that sustains our community by reducing our collective use of the river and its connected groundwater systems. The Verde River is treasured by the Arizona communities that rely on it, and your participation in the Verde River Exchange Water Offset Program demonstrates your commitment to preserving the flowing waters and the green heart of the Verde Valley.

CERTIFICATE NO. 2

July 15, 2016

DATE

Chip Norton, President
“You can’t plant and watch grow something like a vine and not have it affect you at some core level. To be a truly gifted grape farmer you have to be connected and present. That level of focus, compassion and care can become the heartbeat and driving economic and artistic life-force of a place.”

—Maynard James Keenan, Caduceus Cellars and Merkin Vineyards
"We are such a visually oriented culture. If I ask somebody to describe different shades of red and pink, people can conjure up descriptions from their crayon collections as a kid. But if you ask people to describe taste or smell it’s quite underdeveloped. So for me wine has always been… a liquid landscape and a way of expressing the earth and the landscape through your sense of smell or taste rather than visually or dictatorially or otherwise."

–Eric Glomski, Page Springs Cellars and Vineyards

Page Springs Cellars & Vineyards

Image Courtesy of Felice+Whitney
The End Goal?

Healthy flowing waterways

Water supply for future generations

Sustainable economic development
Building Our Program

- Increase number of projects
- Expand scope and duration of offsets
- Incentivize participation

www.verderiverexchange.org
Questions?

Special Thanks for Images:
Doug Von Gausig
Friends of Verde River Greenway
Sedona Chamber of Commerce & Tourism Bureau
Town of Camp Verde
Environmental Defense Fund
Arizona Department of Water Resources
Salt River Project
Freshwater Policy Consulting

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