

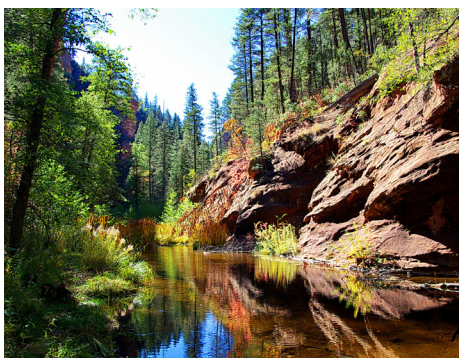
# VERDE RIVER WATERSHED REPORT CARD NEWSLETTER

Nov. 13–14, 2018 Stakeholder workshop summary

The first Verde River Watershed Report Card workshop took place on November 13–14th, 2018 in Cottonwood, Arizona. More than 25 diverse stakeholders came together at this workshop to conceptualize the watershed, create a shared vision, and discuss indicators for the Verde River Watershed Report Card.

This newsletter summarizes outputs from the initial stakeholder workshop to develop the Verde River Watershed Report Card. The objectives of the workshop were to: i) introduce the project and agree on expected outcomes; ii) begin the process of developing a report card; and, iii) define the geographic scope of the report card, indicators, thresholds, data sources, and communication plan.

This project is a partnership between Friends of the Verde River and The Nature Conservancy with generous funding from the United States Forest Service and the Nina Mason Pulliam Charitable Trust. The University of Maryland Center for Environmental Science (UMCES) is leading the creation of this report card to assist Friends of the Verde River and The Nature Conservancy achieve their goals of collaboratively restoring habitat, sustaining flows, and promoting community stewardship to support a healthy Verde River system.



West fork of Oak Creek, Sedona, AZ. Al\_ HikesAZ CC BY-NC 2.0.



Abundant recreational opportunities bring tourists to the Verde River. USDA Forest Service.



River otters are iconic to the Verde River. Doug Von Gausig.

# VERDE RIVER WATERSHED VALUES AND THREATS



The Verde River, one of the last perennial rivers in the American Southwest, is a glowing strip of life that cuts through the arid landscape.

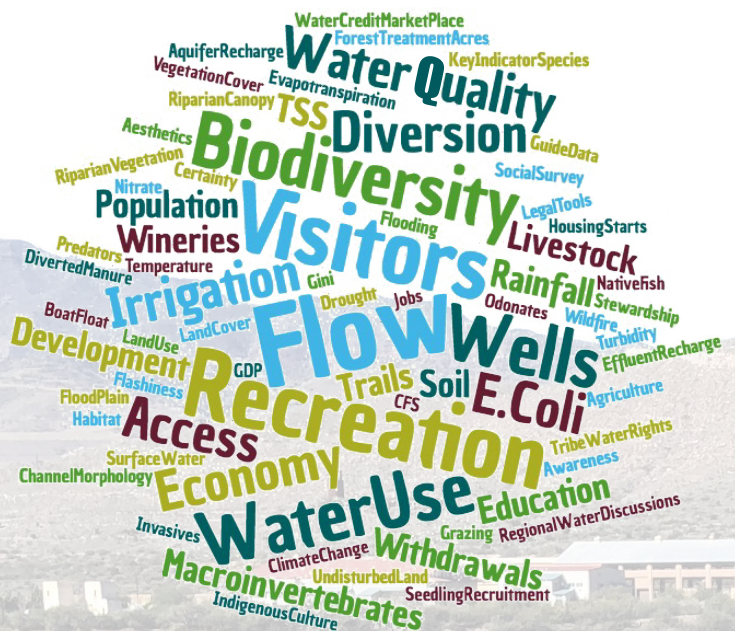
The Verde is also a hard-working river, supporting everything that lives on its banks. From cottonwoods to winemakers, otters to farmers, and fish to the millions of people who count on the Verde for drinking water. Every living thing in the watershed benefits from the river in some way.

However, the Verde and those who depend on it are under threat. Climate change, unchecked groundwater withdrawals, and lack of water rights certainty all undermine the river's health. Unless action is taken we all risk losing the benefits the river provides to us.

These values and threats are important to determining the health of the Verde River Watershed. Based on this conceptualization of the Verde, indicators that reflect these values were discussed during the workshop. It is not feasible to include every indicator that was identified, but it is important to consider a wide range of indicators during the development of the report card.



Top: View of the Verde River from Tuzigoot River Access. Middle: Stakeholders conceptualizing the Verde River watershed during the November workshop. Bottom: Workshop participants brainstorming possible indicators of ecosystem health for the Verde River Watershed Report Card. Emily Nastase.



Word cloud of values and threats to the Verde River watershed.

# PROPOSED INDICATORS OF VERDE RIVER WATERSHED HEALTH

Report cards evaluate the health of watersheds based on a set of scientifically-derived indicators and thresholds. Watershed health encompasses the chemical, physical, and biological integrity of riverine systems. This can also include the social and economic values that healthy river basins deliver to society, and the health of management and governance systems that provide protection or restoration of river health. Indicators that were brainstormed during the workshop fall under three broad categories: sustaining flows, restoring habitat, and promoting community stewardship. All of the proposed indicators will be evaluated for inclusion in the Verde River Watershed Report Card, and are listed below.



A healthy Verde River watershed has flowing **water**, natural **habitat** structure, and supports thriving **communities**.

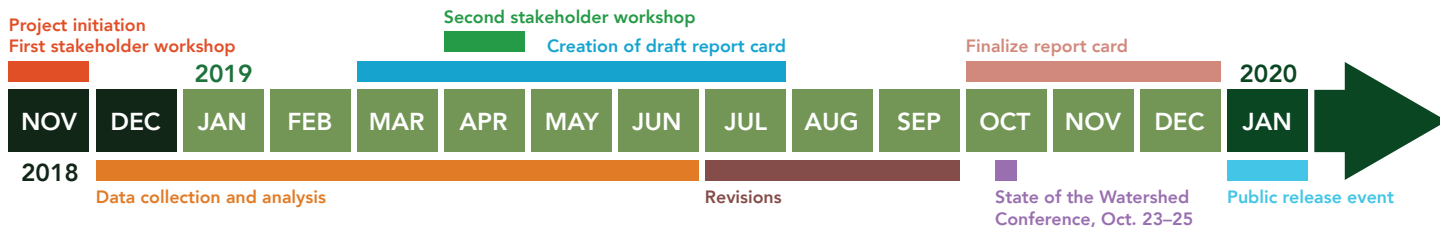
For flows to be sustainable they must be of sufficient **water quality** and **water quantity**. Draft indicators to measure water quality include total suspended solids, temperature, dissolved oxygen, nutrients, *E. coli*, blue green algae, conductivity, stormwater management, and trash. Draft indicators to measure water quantity included water flow, surface water use, ground water use, and water management policies.

A healthy river needs healthy habitat. Indicators of **landscape condition**, such as land use, land cover, and channel morphology, reflect the impact of the river's physical surroundings on the river's health. Indicators of **biodiversity**, such as the number of species or the quantity of invasive species, reflect the diversity of life the river supports. Indicators of **climate**, such as frequency of fires and floods, temperature, and precipitation, reflect the threats to the river and the watershed.

Finally, no river system is healthy unless the communities it supports are thriving. A thriving river community has an **economy** with growing industries and rising incomes, citizens and local governments who are **engaged** and care deeply about their communities, and **recreational opportunities** on the river.

# NEXT STEPS AND PROJECT TIMELINE

The development and production of the Verde River Watershed Report Card is estimated to take 15 months, with the release planned for January 2020. Following the initial stakeholder workshop in November 2018, the next seven months entail collection and analysis of data for the identified indicators. The second stakeholder workshop will be held in Cottonwood, AZ on April 4–5, 2019. A draft report card will be created from April to July 2019 based on the discussion and feedback from the second stakeholder workshop. From July to November, the Verde River Watershed Report Card will be revised and finalized, with a soft-release during the State of the Watershed conference in October 2019.



## Workshop participants

Steve Ayers, *Town of Camp Verde*  
 Chrissie Bausch, *Kyl Center, ASU*  
 Judy Culver, *Prescott National Forest Service*  
 Scott Deeny, *The Nature Conservancy*  
 Tim Elinski, *Cottonwood*  
 Beth Escobar, *Town of Clarkdale*  
 Jodie Filardo, *Town of Clarkdale*  
 John Ford, *The Nature Conservancy*  
 Bjorn Fredrickson, *Forest Service Regional Office*  
 Jocelyn Gibbon, *Freshwater Policy Consulting*  
 Eric Glomski, *Page Springs Cellars*  
 Laura Jones, *Friends of the Verde River*  
 McKenzie Jones, *City of Sedona*  
 David Merritt, *US Forest Service*  
 Kelly Mott LaCroix, *US Forest Service*  
 Tom Palmer, *Prescott National Forest*  
 Selena Pao, *The Nature Conservancy*  
 Tom Runyon, *Coconino National Forest*  
 Kim Schonek, *The Nature Conservancy*  
 Lucas Shaw, *Salt River Project*  
 Nancy Steele, *Friends of the Verde River*  
 Tom Thurman, *Yavapai County Board of Supervisors*  
 Ron Tiller, *Arizona Department of Environmental Quality*  
 Doug Von Gausig, *Verde River Institute*  
 Matthew Wilson, *Friends of the Verde River*  
 Max Wilson, *Friends of the Verde River*  
 Chad Yocum, *Prescott National Forest*



Participants of the first stakeholder workshop held at the Cottonwood Riverfront Water Reclamation Facility in November 2018. Chrissie Bausch.

## Science communication

Andrew Elmore, Alexandra Fries, Emily Nastase, *University of Maryland Center for Environmental Science Integration and Application Network*

Cover photo: Verde Canyon. Doug Von Gausig.