



THE CREEKSIDE ALMANAC

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Prescott Creek's Watson Woods Bird Surveys

by Doris Cellarius



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Karen O'Neil, a member of Prescott Creeks Board of Directors, is the leader of our Watson Woods Bird Surveys. She is a member of Prescott Audubon and

a past President of Arizona Audubon Council. She recently engaged a number of Prescott Audubon volunteers in helping her conduct Prescott Creek's Watson Woods Bird Surveys. Our Watson Woods Restoration grants requires documentation of how well the restoration improves water quality and the overall health of the ecosystem. Plants, water, reptiles, amphibians, and birds are being studied. Anticipated outcomes of restoration are greater species diversity and greater numbers of individual birds.

Watson Woods, an exciting place to study birds, is an area designated as an Important Bird Area (IBA) by National Audubon, <http://www.audubon.org/bird/IBA/>. Prescott Audubon nominated it because of its importance as a riparian area for both migratory birds and nesting birds. The bird study consists of nine surveys a year, following the IBA program's scientifically verifiable protocols to document progress of the restoration in Watson Woods. They use a transect protocol, dividing up sections of the Woods along Granite Creek for counts taking 1 1/2 to 2 hours. Bird counts are recorded on site and the data is entered into a database, useful both to us and scientists around the world. www.aziba.org

Monitoring bird populations in Watson



Left: Roughleg hawk. Right: Heron. Photos by R. Greg

Woods began in November 2008. Nine to ten volunteers usually go out on a survey. Six of the nine counts take place between the end of April and the middle of September. The morning start time depends on the season. The volunteers have been pleased to see that the restoration work does not appear to be interfering with bird populations, and there have been noteworthy observations. Wood ducks, great blue heron, and red tailed hawks are seen often. In May of 2009 approximately 100 cliff swallow nests were observed. Between Nov. 2008 and 2009 the pop-

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Prescott Creeks is a 501(c)(3) nonprofit organization with the mission to promote, protect and celebrate the ecological integrity of riparian systems and associated wetlands in the central Arizona watersheds through conservation, restoration and education.

From the Executive Director



With “Executive Director “ preceding the “Preserve Manager” part of my title, I find myself in the office more often than I find myself in the field these days. I

got involved with Prescott Creeks because of my passion for exploring the outdoors and being amazed by what I see and learn.

I recently had the opportunity to work with 10 volunteers for a day of tree-planting. It was grey and wet; there was snow on the ground. We were cold and somewhat miserable until our attitudes dramatically shifted when one of the volunteers observed a troop of Western bluebirds fly in and perch on cottonwoods we’d just planted that morning. What a treat! It was then that we were all reminded why we were there, and what we were really doing that day.

In the pages that follow, I hope you will find inspiration by our Board Chair’s description of Karen O’Neil’s work with the Prescott Audubon Society monitoring birds at the Preserve or by the words of Chuck Budinger’s approach to his work as the Prescott Environmental Coordinator for Arizona Department of Transportation. You’ll learn more about the motivations and activities of volunteer Don Grise, and about the repercussions of the recent flooding to the Preserve’s restoration work.

The people I work with on a daily basis are inspiration. Prescott Creeks could not accomplish its mission without the assistance and support of so many dedicated community members. I thank you all.

All my best,

Michael Byrd
Executive Director
Preserve Manager

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Photo by Walt Anderson, 2009

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Volunteer Profile – Don Grise

By Jay Crocker



Don Grise has been volunteering with Prescott Creeks for over two years. Currently he is in charge of construction, maintenance and repair of the irrigation system used in Watson Woods to irrigate all the newly planted cottonwoods and

willows. This system is extensive and Don's going to be busy this spring with all the repair work needed to get the system back in order after the January flood. Also, the system needs to

be expanded to water all the new plantings from this year.

Don is a retired manager and engineer from the cellular industry. In his retirement, he volunteers at Prescott Creeks and a local youth camp in Prescott. Since he was young he has enjoyed outdoor activities like hiking, camping and boating. Also, he enjoys traveling to other parts of the US and other countries to hike in and enjoy scenic areas.

Don volunteers at Prescott Creeks to be outdoors in the great Prescott area weather and to work with other volunteers and staff at Prescott Creeks. See our website at www.PrescottCreeks.org or more information on how your volunteer time can make a difference.

Working Together for the Good of the Watershed

by Chuck Budinger, ADOT Prescott Environmental Coordinator



Intro: Chuck Budinger is the Prescott Environmental Coordinator for Arizona Department of Transportation. He is a member of the Watershed Improvement Council (WIC), a group dedicated to understanding and planning for the Upper Granite Creek Watershed. More information on the project and the WIC can be found at www.GraniteCreekWatershed.org.

In September of 2008, the Arizona Department of Environmental Quality (ADEQ) issued an Individual Stormwater Permit to the Arizona Department of Transportation (ADOT) as a part of ADEQ's program to apply the Clean Water Act to protect the quality of the water within the State. The Stormwater Permit was issued to regulate stormwater releases from the State's highways and maintenance facilities. The Permit establishes practices to prevent the passage of pollutants to surface waterbodies during the use, construction and maintenance of the highways.

An important part of the Permit is the attention given to impaired waters that cross or are adjacent to highways and highways projects. "Impaired water" is a specific classification assigned to waterways that do not meet the minimal water quality standards for their designated uses. For example, a certain water body used for swimming might have less-stringent water quality standards than for a waterbody used for fishing or as a drinking water source. Some water bodies have multiple uses and therefore require special protection.

Granite Creek, from its headwaters to Watson Lake, is impaired for low Dissolved Oxygen (DO) which is not a common classification for a waterbody in Arizona. Low DO can be caused by abundant groundwater discharges to a stream channel, heavy sediment from erosion, or high bacterial concentrations. Elevation and temperature can also influence DO. The cause of low DO in Granite Creek has not been conclusively established

as of this date, so specific actions have not been identified to improve water quality.

In the summer of 2009, Prescott Creeks formed the Watershed



Improvement Council as the result of a grant awarded to them from ADEQ. The Council is comprised of the local jurisdictions that cover Granite Creek: City of Prescott, Yavapai County, the Yavapai-Prescott Indian Tribe, the Forest Service and ADOT; as well as community and business representatives. The purpose of the Council is to sample and monitor the upper watershed, to identify likely sources of pollutants that might be contributing to the impairment of the Granite Creek Watershed, and to propose projects with the potential to improve the water quality of the Watershed. This program establishes a framework for the five jurisdictions to coordinate planning efforts, sampling and data analysis, and project selection. The Council is also engaged in developing public outreach for the entire watershed area. Collaboration by the five jurisdictions within the watershed, with

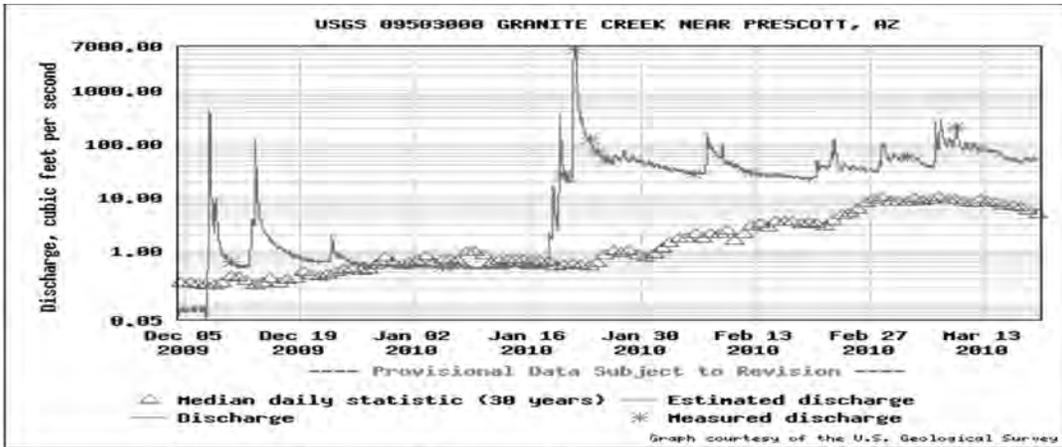
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Granite Creek Restoration – Flood Tested; Creeks Approved

by Mark Wirtenan & Michael Byrd

A commonly known cliché is “When it rains, it pours” and the Granite Creek Watershed can attest to the truthfulness of this saying after this winter. The US Geological Survey stream gage (#09503000) on Granite Creek supports the story told downstream at the Watson Woods Riparian Preserve Restoration Project.

On January 21, 2010, a large flood event on Granite Creek took place. Measurements taken at the gage during the flood event show that at 11:30 am, water in the creek started to rise due to rain and snow events in the area. By 1:30 pm, the flow had risen from 28 cubic feet per second (cfs) to over 1,600 cfs. (Imagine 28 cfs as a bit less than knee-deep and you start to get the picture.) By 9:15 pm that night the flood peaked at a whopping 6,200 cfs. Consulting engineers at Natural Channel Design calculated a flood frequency analysis of the peak discharges recorded at the gage and estimated that the January flood had a recurrence interval of approximately 40 years (see figures below).



Return Interval	2 years	5 years	10 years	20 years	40 years	50 years	100 years
Discharge (cfs)	1,300	2,600	3,700	4,800	6,200	6,600	8,000

What this means to the Prescott Creeks is that the Restoration Project experienced a flood of approximately twice the size as what engineers designed it to withstand. While there were negative impacts, we are very pleased with the project’s performance overall. The floods “tested” the project after only 9 months and planted vegetation was estimated to have an 85-90% survival rate. Direct impacts to the restoration activities were most notable in the upstream areas of the Preserve and are helping Prescott Creeks to understand better “what the creek wants to do.” Ecological restoration is, after all, as much of an art as it is a science.

Further restoration activities this spring will focus on repairing and enhancing changes brought about by the flood as well as additional cottonwood and willow plantings along constructed channels and through the floodplain. As always, community members are the keystone of this restoration effort and there will be many opportunities for volunteer participation in a variety of tasks. Contact Prescott Creeks if you would like to take part, and we will let you know when and how you can help.

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ulation of lesser goldfinches decreased significantly. This may have been due to the dry summer. Not all birds were those one would expect to see. In January 2009 they saw a swamp sparrow, which usually occurs in the Eastern United States. Although European starlings, an introduced species, have been observed, surveys indicate that there have not been many as were expected.

When we asked Karen when she became a very serious observer of birds, she told us that she spent her childhood exploring wild places near her home in northwestern New Jersey, but it was not until later in life, after moving to Arizona, that she became very serious about this. Now her love of birds has carried her and her husband to interesting places around the world to see more of them. Prescott Creeks is most grateful to Karen and the Prescott Audubon volunteers for their contributions to our Watson Woods Restoration Project. New volunteers are welcome to join the team. They need not be Audubon members but they must be willing to bring binoculars and learn the procedures. If anyone would like to participate, please contact Karen O’Neil at (928) 778-3018.

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the active cooperation of ADEQ, will provide opportunities to integrate activities across jurisdictional boundaries. The benefit of this approach is that Council members can coordinate programs that will lead to the development of practices or facilities to prevent migration of contaminants associated with stormwater and to develop joint projects that will improve water quality.

Collaboration with ADEQ allows Council members the time and ability to address the water quality issues together rather than separately engaging in activities resulting from unfunded mandates, fees, fines or other regressive compulsory action. The Council provides an opportunity for ADOT to participate at the local level with jurisdictions having a common interest and achieving goals for that common interest. Addressing these issues through the Council in collaboration with ADEQ is a much better method to attain watershed health than “compulsory compliance to the Permit.” It is the difference between the spirit of the law and the letter.

Watson Woods Riparian Vocabulary

Often words used to describe Prescott Creeks' work are specific to preservation and restoration. The words below are common terms used in our articles and in our work.

channelization: when human direct the course of flowing water.
confluence: when two streams, creeks, or rivers come together to form one body of water.
deciduous: trees that lose their leaves at some point during the year.
drainage: the path water follows on its way down stream.
ecosystem: all the living and non-living organisms in a community.
erosion: the wearing away of the land surface by running water, wind or ice.
evergreen: trees that do not lose their leaves.
flood plain: flat section of a stream, creek, or river, where excess water will spread over a large area.
Granite Creek: creek that all the water from Prescott flows into – a tributary of the Verde River.
headwaters: the start of a stream, creek, or river – the top of the watershed.
infiltration: the process by which water seeps into the soil.
percolation: the passing of a liquid through the soil to below the ground.
pollution: to introduce unnatural objects into a natural area.

reach: continuous stretch , especially a straight portion of, a river or creek that can be seen in one view
recruitment: when a plant or animal reaches the age where it can reproduce.
reservoir: a natural or artificial lake or pond in which water is stored for use.
restoration: to fix something that has been damaged.
riparian: a place that is next to water – such as a lake, stream, river, or creek.
run-off: water that flows on the surface or through the ground into streams, rivers, lakes and oceans.
tributary: a stream or creek that flows into a larger stream, creek, or river.
water cycle: (hydrologic cycle) the circulation and distribution of fresh water on the earth.
watershed: an area from which water drains and flows towards a common low area.

Granite Creek Cleanup 2010



Once again Prescott Creeks hosted the annual Granite Creek Cleanup. This was the 16th year for the Cleanup and our 4th year organizing this important Prescott tradition!

Thanks to all of you who joined as a community to

clean the Granite Creek Watershed of garbage and solid waste. Every year hundreds of volunteers come out to pick up trash from our creeks all over town. In the past four years we have averaged nearly four tons of trash per year.

We couldn't do it without you. Look forward to seeing you at next year's Granite Creek Cleanup where we will all continue to make our area a better place to live and visit.



West Howland

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For questions, concerns or comments, contact Prescott Creeks at (928) 445-5669 or Info@PrescottCreeks.org.

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