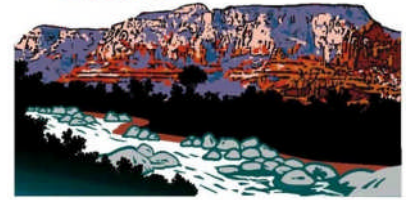


OAK CREEK CHRONICLES

...a newsy letter about our watershed

Oak Creek Watershed
COUNCIL



Project Update: The Impairment of Oak Creek

Other News: New programs being planned

An essay: A Creek Runs Through It ...

September 14, 2010

Project Update: Since the beginning of July, our Oak Creek Watershed Improvement Plan (OCWIP) volunteer task force has completed their mapping and sampling training, and the Watershed Improvement Committee (WIC) created a list of sampling locations along Oak Creek which was submitted to the Arizona Department of Environmental Quality (ADEQ) in August. Field, and other technical work, will recommence as soon as approval is received.



Other News: >> The OCWC, in partnership with the University of Arizona, Cooperative Extension Department, is sponsoring a Master Watershed Steward (MWS) Program to be based in Sedona with enrollment in early spring, 2011. The curriculum is currently being developed by Candice Rupprecht, Statewide Coordinator for the MWS Program.



>> Keep Oak Creek Canyon Beautiful (KOCCB) volunteers collected 10 bags of trash at Mile 380 in Oak Creek Canyon in July, and have a final pickup

for 2010 planned on September 25th.

>> New grant funding for the development of the Oak Creek Clean Water Community Outreach Plan (Clean Water COP) has been applied for with a possible start date in January, 2011.



We'll have more to details for you in the next edition on all of the aforementioned, but since the following article is currently being released outside of the newsletter distribution in an effort to provide members of our watershed community with some background on the origins, problems and future of Oak Creek, we thought it appropriate to share it with you in advance. It is also intended to garner support for the Clean Water Community Outreach Program planned for 2011 that will include a pilot litter-pickup program for Oak Creek, and an education program promoting stewardship of the Creek.

A CREEK RUNS THROUGH IT...

The Oak Creek Watershed, that is. Fifty five miles of fresh water perpetually in motion, Oak Creek is the thread that weaves together the fabric of our watershed community, as well as being vital to its economic, recreational and natural future.



Some think that the movement of water represents life itself, and has soothing, relaxing properties. That would definitely be a fitting description for Oak Creek most of the time, but on other occasions it is one independent critter, thrashing and swirling; hurling everything in its way with wild abandon; an untamed beast with awesome power.

We all love it, though, right? Angry or calm, it is there every day for us to enjoy. We fish it, swim in it, drink it, photograph it, gaze at it, encourage others to visit and enjoy it, too. A multi-faceted playground set against a backdrop of pine forests and red rocks, then wandering down to a valley of undulating terrain, grasslands and floodplain.

Meandering through the watershed, Oak Creek flows heedless of boundaries from its head waters in Fry Canyon, Coconino County; dissecting the City of Sedona, and traversing Yavapai County to its confluence with the Verde River; joined by five major limb-like tributaries on its trek--Pumphouse Wash, West Fork, Munds Canyon, Dry Creek and Spring Creek.

You may ask, what is a watershed anyway? According to John Wesley Powell, scientist geographer, a watershed is "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community." In our watershed community, of course, that "common water course" is Oak Creek.

Watersheds come in all shapes and sizes. They cross county, state, and national boundaries, and there is over 2100 of them in the continental U.S.

Our own Oak Creek Watershed is part of the Verde River Watershed, and is approximately 300,000 acres, or about 464 square miles, and Oak Creek arises from a series of springs.



Produced by Lane Council of Governments

Springs? So how does the water magically appear? Ten years ago, Dr. Gordon Southam, a geomicrobiologist, authored a source mapping study of Oak Creek along with other staff and personnel from Northern Arizona University (NAU), in which is stated that "water recharging from the Mogollon (muggy-own) Rim percolates through the Coconino Sandstone and fractures along the Oak Creek fault, feeding the upper reaches of Oak Creek. The regional aquifer is



composed of the Verde Formation, Coconino Sandstone, Supai Formation, Redwall Limestone, Martin Formation and Tepeats Sandstone.

Regional groundwater flow is to the southwest, with the exception of a small region of north and northeasterly flow above the Rim. Groundwater depths range from 200 to 500 feet below land surface. Seeps and springs feed the alluvium along the Creek, supplementing baseflow from the regional aquifer. The portion of the watershed below the Rim experiences little or no recharge since in most months evaporation exceeds precipitation. However, during the winter months there may be some recharge since precipitation exceeds evaporation."

The pristine birthplace of Oak Creek would seem to be the perfect ending to this article, but unfortunately it is also the beginning of its downstream troubles. While Oak Creek is classified by Arizona Department of Environmental Quality (ADEQ) as an "outstanding" watercourse, it is also on the impaired list due to persistence of the indicator fecal coliform bacteria *Escherichia coli* (*E. coli*) suggesting fecal contamination. It is a reoccurring problem that results in periodic closures of recreational areas, and can cause recreation water illnesses. The persistence of *E. coli* in the watershed may indicate various sources including recreational users as well as domestic and wild animals.

The state and federal governments have spent a lot of money over the past twenty years trying to identify and eliminate sources of fecal contamination to Oak Creek. Now, they have basically said "enough is enough" and in October, 2009, ADEQ awarded the OCWC a Water Quality Improvement grant, under the federal Clean Water Act, to develop the Oak Creek Watershed Improvement Plan (OCWIP) that will identify where contamination problems are occurring along the entire length of Oak Creek, and offer solutions to be implemented. The Plan will be completed in the early part of 2011, with some solutions in Phase II also implemented in 2011. However, large-scale and/or multiple mitigation efforts are expected to be accomplished in 2012, and beyond. In a nutshell, the challenge faced by the OCWC is to find, fix, finish, and follow-up the problems associated with the impairment of Oak Creek.

While the Oak Creek Watershed Council is providing the management expertise, this is a community-driven project, and decisions made on the "find, fix, and finish" aspects are a shared

responsibility by a group of volunteers called the Watershed Improvement Committee (WIC) which is part of a larger Stakeholder Coalition.

The OCWIP project is based on a scientific approach, and designed to identify and reduce, if not eliminate, fecal contamination, but the OCWC recognizes that without the continuing involvement, and understanding, by the watershed community on an on-going basis, permanently removing Oak Creek from the impaired list will be an overwhelming challenge. That's where the "follow-up" kicks in, and while the OCWC is committed to preserving the integrity of Oak Creek, it is essential that its stewardship must be a part of the watershed community culture.



To this end, the OCWC is in the process of developing the Oak Creek Clean Water Community Outreach Program (Clean Water COP) that will essentially be a community-driven (maintenance) program to remove trash and litter from Oak Creek, as well as educate watershed residents, and visitors, in the proper stewardship of Oak Creek.

In short, the mission of Clean Water COP will be to educate residents and visitors to Oak Creek in following protocols that are expected of them in its use, while at the same time mobilizing a "boots-on-the-ground" volunteer task force to participate in a litter and trash pick-up program, which will eventually involve the entire length of Oak Creek. How will this help?

Did you know that it is common for used diapers, as well as animal and human feces, to be found in and around many areas of Oak Creek? Litter and trash, as well as left-over food and refreshments, are also routinely observed, and attract forest animals such as skunks and raccoons that add to the fecal contamination. The remedy is simple—the more people who observe, and put into practice, the rules of outdoor ethics, the less contamination of Oak Creek.



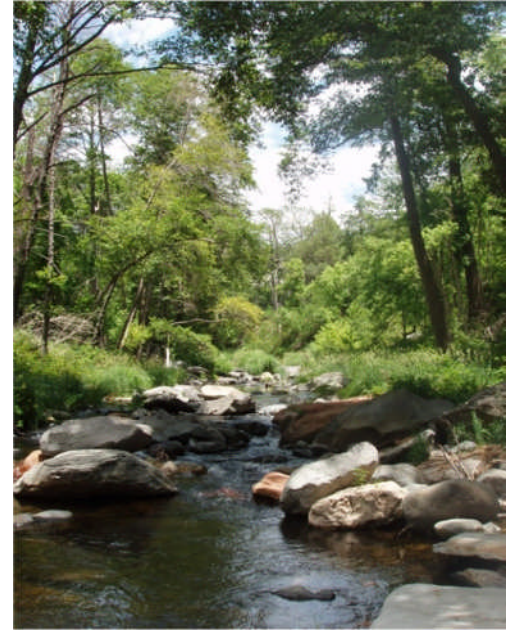
The OCWC envisions the future administration of the cleanup program will be similar to an Adopt-A-Highway litter pickup, only referred to as Adopt-A-Creek, and follow the guidelines set out in the National River Cleanup program. OCWC will partner with individual volunteers; other community group volunteers; as well as those graduating from its newly developed Master Watershed Steward Program in the Spring of 2011, in order to field at least fifty volunteers for the pilot program. More details on the Community Outreach Program will be released pending the availability of funding.

In the not too distant future, there may be two choices you, as a member of the Watershed community, will face in the challenge to preserve the integrity of Oak Creek. 1. Support from the sidelines... or... 2. Get involved and ensure the legacy of a pristine, and trouble-free, Oak Creek, for future generations.

The first option is understandable, and at the very least only requires acknowledgment of the problems; support of the solutions; and to give Oak Creek the respect it needs.

On the other hand, if you have the time and are a "can-do" person, the second option is a no-brainer, and your participation, in whatever activity you choose, will be welcomed. We are a phone call or e-mail away.

Regardless, the end will justify the means, and improve the quality of life for all those who live within the watershed. Perhaps, in these troubled times, a united community might even inspire other communities in our country, and prove that together, we ARE making a difference.



Barry Allan, Executive Director

barry@oakcreekwatershed.org