

YAVAPAI Water Smart™ NEWS

UPPER VERDE RIVER
WATERSHED PROTECTION COALITION

SEPTEMBER 2016

All Hands, All Lands

By Lora Lee Nye,
Executive Board
Chair



It hardly seems possible that less than a year ago we embarked on a path to reinvigorate forest products industries in Yavapai County. Much has been accomplished in ten months.

We listened to our forest industry partners last year and began the process to acquire the investment grade data they told us was necessary. Since that time, we have commissioned a wood supply study to get a handle on how much fiber we have available. The draft study is complete with a presentation on the final document scheduled for the October 26 Executive Board meeting. A labor market analysis, thanks to a grant from the Arizona Commerce Authority, is underway and will be complete by the start of 2017.

Our Prescott National Forest partners are conducting a large-scale restoration project of about 485,000 acres on the Chino Valley Ranger District.

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EXECUTIVE BOARD REQUESTS SUPPORT FROM CONGRESSMAN GOSAR

Members of the Upper Verde River Watershed Protection Coalition (UVRWPC) Executive Board, during their regularly scheduled meeting of July 27, unanimously passed a resolution requesting the support of Congressman Paul Gosar-R with federal issues that impact watershed health.

According to the resolution,

signed by Executive Board Chair Lora Lee Nye, the UVRWPC has identified specific issues that are impeding the ability to effectively manage local watersheds and improve forest health.

Issues surrounding environmental regulations are a focus of the request including assistance with prioritizing

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PRESCOTT NATIONAL FOREST Chino Restoration Project

Provided by the Prescott National Forest, Chino Ranger District

The Prescott NF will be proposing a series of actions to restore and maintain soil and watershed function, vegetation conditions, riparian and groundwater dependent systems, and natural fire regime. The goal is to move the landscape toward desired conditions described in the 2015 Land and Resource Management Plan for the Prescott National Forest (hereinafter referred to as the Forest Plan) and improve wildlife habitat for pronghorn antelope, migratory birds, native fish, and federally listed or regionally sensitive species. The Prescott National Forest (PNF) is proposing a series of actions to restore and maintain soil and watershed function, vegetation conditions, riparian and

groundwater dependent systems, and

natural fire regime. The goal is to move the landscape toward desired conditions described in the 2015 Land and Resource Management Plan (Forest Plan) for the Prescott National Forest, and improve wildlife habitat for the pronghorn antelope, migratory birds, native fish, and federally listed or regionally sensitive species.

Located in the northern PNF the project area encompasses approximately 518,000 acres and includes grasslands, pinon-juniper and ponderosa pine vegetation types. It spans two ranger districts, with the majority of the area (approximately 485,000 acres) on



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The critical importance of watershed management

By John Munderloh,
Water Resources Manager
Town of Prescott Valley

On July 20, 2010 a heavy monsoon rain hit the 15,000 acres ravaged by the Schultz Fire located northeast of Flagstaff Arizona. Governments and landowners tried to prepare for the coming flood with sandbags and berms, but experts underestimated the coming devastation. Homes up to 10 miles away were flooded and a 12-year old girl was swept away and drowned. Coconino County estimates that the direct costs to various government agencies was around \$60 million and the total financial impact was more than \$130 million.

All of this could have been prevented, of course. The cause of the flood devastation was due to the impact on the watershed from a high intensity forest fire. According to Keith Klassen, a Captain with the Summit Fire District responsible for the area burned by the Schultz fire, the Schultz pass area had long been considered a fire threat. Well before the fire, the Coconino National Forest had planned to thin the area, but an injunction filed by the Southwest Center for Biological Diversity delayed the thinning project for more than a year. By the time the injunction was lifted, the economic downturn was in full force and contractors that were once interested in the thinning project had moved on.

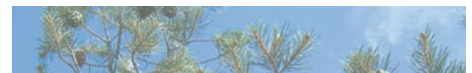
Years of fire suppression and mismanagement had created a forest that was unnaturally dense, allowing the Schultz fire to burn at such an intense level that the soil surface looked and acted like tar paper, shedding water rather than



allowing it to soak in. When the rains came, the energy created by the fast moving water dislodged soil downstream, cut gullies and created a lahar-like mass of muddy, ash-filled floodwater. The wildfire in Yarnell in the summer of 2016 is just one more example of the devastation and long-term impacts caused by wildfires.

We're lucky that recent events such as the Doce Fire and the Yarnell Hill fire in Yavapai County did not create similar circumstances. Counting on luck is not a responsible strategy. Starting in 2012, the Upper Verde River Watershed Protection Coalition (Coalition), a coalition of local governments in Central Yavapai County, began a comprehensive approach to managing our watersheds. In addition to mitigating wildfires, the Coalition is also focused on improving the amount of precipitation that reaches our aquifers. Currently, only 2% of the precipitation received on the watershed gets past thirsty plants and into our aquifers.

Continuing to ignore our watersheds is no longer an option, the negative consequences are simply too large. We need to restore about 1 million acres in Yavapai County within the next 20 years. This means that about 50,000 acres per year need to be addressed to have a chance of success. Less than 5,000 acres per year are currently being restored. Increasing the rate of restoration ten-fold will require the assistance of many partners, including private industry and private landowners. The National Association of State Foresters best describes the approach as "All Hands, All Lands."



(The following references were used in writing this column. http://frontrangeroundtable.org/uploads/Roundtable_News_060313_Schultz_Presentation_Recovering_After_Disaster_.pdf; <http://www.firefightheternation.com/article/features-0/schultz-fire-subsequent-flooding>)

New designation, responsibilities for Arizona State Forestry

As part of Arizona's fiscal year 2017 budget, the Office of the State Fire Marshal was consolidated into the Arizona Department of Forestry and Fire Management.

The department consolidation aids in government efficiency, preserves critical functions, and has the potential for cost savings. All of the Fire Marshal's previous powers and duties will be preserved and become part of the Department of Forestry and Fire Management's mission.

"We are proud to be part of Governor Ducey's vision for Arizona's government," said Arizona State Forester Jeff Whitney. "The Fire Marshal's duty is to reduce hazards to life and property through enforcement of the Arizona Fire Codes-which fits right in with Forestry's duty to prevent and suppress unwanted wildfire on state and unincorporated private property."

Formerly known as the Arizona State Forestry

Division, the Arizona Department of Forestry and Fire Management is responsible for the prevention and suppression of wildfire on 22 million acres of state and unincorporated private land in Arizona. The agency provides services for fire prevention, urban and community forestry, forest stewardship, forest health, utilization and marketing, and has a wide variety of forestry related federal grants available.

The agency maintains five district offices located throughout Arizona. In addition to the use of its own personnel the agency carries out its mission through partnerships with 250 of Arizona's local fire departments and through cooperative agreements with wildland firefighters throughout the western United States.



Chino Restoration Continued from page 1

the Chino Valley Ranger District, and the remainder (approximately 33,000 acres) on the Bradshaw Ranger District.

The project area spans both sides of the PNF. On the east side, it includes most of the forest north of the Verde River, and on the west from Granite Mountain north to the forest boundary. It also includes the Apache Creek and Juniper Mesa Wilderness Areas, their adjacent recommended wilderness areas, the Sycamore Canyon recommended wilderness area, and a Wild and Scenic River eligible segment of the upper Verde River.

PNF personnel managed about 425,000 acres in the project area. Treatments will include vegetation thinning, prescribed burning and fuels reduction. Other actions include erosion control and impact mitigation for forest systems roads, unauthorized routes, and unmanaged recreation use. The expectation is an improvement in ecological function and an increased diversity in the structure and composition of vegetation. Benefits will include higher infiltration rates for groundwater recharge, reduced soil movement, and improved water quality. Treatments are expected to increase the resilience of the ecosystem to respond to changes imposed by future climate trends.

Actions proposed by the PNF are in compliance with and according to guidelines and regulations included in the National Environmental Policy Act (NEPA).

Save the Date

October 26 is going to be a busy day for the Upper Verde River Watershed Protection Coalition (UVRWPC) and its partners.

At 2 p.m., executive board members will convene in the City of Prescott Council Chambers for the quarterly public board meeting. Rich Vandemark with Southwest Forestry will present the findings of the Ponsee demonstration project conducted in early 2016.

Tad Mason, president of TSS Consultants, will be on hand to present the much awaited findings of the recently completed Feedstock Analysis for Yavapai County. The study, which began in March 2016, was financed by the UVRWPC and a grant from the Arizona Department of Forestry and Fire Management.

Lora Lee Nye, Prescott Valley Town Council Member, chairs the UVRWPC Executive Board.

"Our technical advisory committee will update board members on all of our progress and seek direction for future endeavors," she said. "This is an exciting, dynamic time for the coalition and our partners. We are seeing so much positive movement and benefit for our communities."

Agendas for the two events will be distributed in mid-October.

SLAUGHTERHOUSE GULCH RESTORATION

Prescott Creeks Preservation Association receives \$375,000

The Arizona Department of Environmental Quality (ADEQ) recently announced a grant award of \$374,394.00 to Prescott Creeks Preservation Association (PCPA) to implement a plan for restoration and water quality improvement of Slaughterhouse Gulch.

According to a news release provided by ADEQ, the project is one of seven awarded throughout the state awarded funding as part of the Water Quality Improvement Grant program.

Over the two-year project period, PCPA, in partnership with the Yavapai-Prescott Indian Tribe (YPIT) and Upper Verde River Watershed Protection Coalition (UVRWPC), will continue with implementation of the Upper Granite Creek Watershed Improvement Plan through channel restoration and enhancement, and wetland improvement within Slaughterhouse Gulch.

The project, wholly located on YPIT Reservation land, addresses the riparian corridor that has been heavily degraded due to urbanization, grazing and historic gravel mining. Project components include finalization of engineering for restoration construction; water quality, vegetation and photo monitoring; acquisition of permits and clearance from the Arizona State Historic Preservation Office; outreach and education; and construction of channel improvements.

Michael Byrd, PCPA Executive Director, will serve as project manager. Peter Bourgois, tribal planner and member of the UVRWPC Technical Advisory Committee, will provide technical advice and oversight of activities.

According to Bourgois, the tribe has been collaborating with PCPA since 2004. Watson Woods Riparian Preserve in the City of Prescott, which is managed by PCPA, borders tribal land.

“Tribal technical and scientific personnel have led the project planning process, and the YPIT has contributed significant resources to its development,” he wrote in a letter to ADEQ supporting the grant application. “The project is on tribal land, and improvements made with grant funding will be maintained by the tribe.”



Other project advisers include members of the UVRWPC Technical Advisory Committee; Civil Engineer Rich Shroads; and Dr. Archie Dickey, president of Biozone, Inc.

The project is slated to start on September 1. Regular updates on project progress will be included in WaterSmart News. Byrd and Bourgois will also provide updates to the UVRWPC Executive Board, Technical Advisory Committee and Watershed Taskforce. A special section on Slaughterhouse Gulch will be developed for and posted on the UVRWPC website, yavapaiwatersmart.org.



EQUIPMENT DEMONSTRATION

Final production, cost numbers available in final report

A demonstration of cut-to-length forestry equipment in early 2016 has yielded information that has the potential to support forest restoration activities and development of markets for use of low-value woody biomass generated from treatment of Pinyon-Juniper (PJ) woodlands.

The project, conducted on three ranches in Yavapai County, was designed to determine if use of forestry equipment, that traditionally only works in the timberlands,



is feasible for treatment of PJ. The cut-to-length forestry equipment was provided by the Ponsse company whose North American headquarters is based in Rhinelander, WI. After consultation with local natural resource managers, Ponsse developed a prototype cutting head specifically for shearing woodlands type vegetation. Termed the “Arizona” processing head, it traveled to Arizona on a Ponsse brand forestry harvester. A Ponsse brand forwarder also was shipped out for the project. The harvester and processor work in tandem with the harvester shearing the trees and the forwarder moving the sheared material to central consolidation sites for further processing.

According to the final report provided by DR Systems and Southwest Forestry, the harvester, with the specially designed “Arizona” head, and forwarder are more efficient than traditional methods. In comparison, the equipment is engineered to have negligible ground disturbance and an overall lower environmental impact. On the ranches in Yavapai County, the harvester was able to produce 9 tons of cut material per hour and harvest between ½ and 1 acre per hour. Working behind the harvester, the forwarder was measured as being able to move up to 15 tons of material per hour and mitigate ground disturbance behind the harvester.

According to Dr. Patrick Rappold, Wood Utilization and Marketing Specialist for the Arizona Department of Forestry and Fire Management (ADFFM), the efficiency of Ponsse equipment comes with a caveat. It is more expensive than methods traditionally used to thin PJ.

“The low-impact machinery is kinder to the environment, and harvested material can be forwarded to a roadside landing that is more accessible for pickup and delivery to a grinder” he said. “Thinned material is also cleaner since the forwarder lifts the woody biomass and does not drag it across the ground where it picks up debris and rocks.”

John Munderloh, Water Resources Manager for the Town of Prescott Valley, chairs the Upper Verde River Watershed

Protection Coalition (UVRWPC) Technical Advisory Committee.

“As we move forward in reinvigorating the forest products industry in Yavapai County, it is essential that we learn as much as possible about available technology, and compile data and information that supports economic development and use of woody biomass,” he said.

Forest health was identified as a priority in the UVRWPC Watershed Restoration and Management Project Plan completed in 2014.



Implementation of the Ponsse demonstration project was a partnership between the ADFFM, UVRWPC and area ranchers. A presentation of the findings is scheduled for the October 26 during the UVRWPC Executive Board meeting at 2 p.m. in the City of Prescott

Council Chambers. The final report is available for download from the UVRWPC website at www.yavapaiwatersmart.org under documents. A video of the equipment operating in Yavapai County can be found at the Department of Forestry and Fire Management’s YouTube video site; <https://www.youtube.com/watch?v=IVwL07ZkUPI>

Support

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NEPA (National Environmental Policy Act) clearance and expediting completion of archaeological surveys on federal lands

“We must find a way to complete these surveys in a timely fashion, so that we can protect watersheds from catastrophic wildfire and attract private investment to reinvigorate our forest products industries. It is absolutely critical that we find solutions to sustainably manage our forests.

“Developing a robust forest products industry to use the byproducts of forest thinning activities not only supports forest and watershed health, but also provides jobs and improves our rural economy,” Nye said in comments after the meeting.

The resolution also includes facilitating a federal designation of biomass as a renewable energy resource, support for cooperative agreements with federal and state agencies, communicating the need to fund watershed management activities on federal lands, assigning a liaison to the UVRWPC watershed taskforce, support for UVRWPC federal grant requests, and assistance with addressing transportation and distribution issues related to development of a forest products industry.

According to the John Munderloh, chair of the UVRWPC Technical Advisory Committee (TAC), the resolution has been forwarded to Congressman Gosar’s office.

“Members of the TAC are responsible for implementing direction from the executive board,” he said. “We will take the next steps to work with the congressman to address these issues and report back on our progress during the October executive board meeting.”

All Hands,

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The goal is to improve ecological function with expected benefits including *higher infiltration rates for groundwater recharge, reduced soil movement, and improved water quality.*

Implementation of the Rural Conservation Partnership Program grant, in cooperation with Arizona Game & Fish and the Prescott Valley office of the USDA Natural Resource Conservation Service, is proceeding according to schedule.

In November, the Coalition, Arizona Department of Forestry and Fire Management, and Chino Winds and Triangle Natural Resource Conservation Districts are hosting an event to celebrate our successes, honestly discuss our challenges, and chart a future direction.

All hands, all lands; partners in watershed management, says it all. The continuing partnership, work and commitment of all stakeholders – public and private – will yield positive results for our watershed including reduced risk of catastrophic

wildfire, improved long-term water supply sustainability and an environment that is healthy and balanced for people and wildlife.

I would also like to take this opportunity to welcome two new partners to our Watershed Taskforce – the USDA Agricultural Research Service (ARS) and Arizona Commerce Authority. They bring scientific and business expertise that is essential to the success of our future endeavors.

EXECUTIVE BOARD

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