Water users association supports UVRWPC effort

The Northern Arizona Municipal Water Users Association (NAMWUA) has declared its support for the UVRWPC forest restoration effort and biomass industry development in central Yavapai County.

NAMWUA is a government partnership of northern Arizona municipal water providers that "cooperate as a collective voice for water policy." Three municipal members of the UVRWPC; the City of Prescott and Towns of Prescott Valley and Chino Valley, are also members of NAMWUA.

In the NAMWUA letter to Governor

Doug Ducey, dated January 15, 2016 and in working toward resolving our forest signed by Town of Payson Mayor Kenny Evans, members agreed that development

of forest-based enterprises is critical to the sustainability of forest restoration efforts.

"Our organization of cities and towns in northern Arizona supports the efforts being coordinated the Upper Verde River Watershed Protection Coalition, a group of local governmental jurisdictions in central Yavapai County, to assist the timber industry concerns," as written in the letter.



Ponsse equipment demonstration

SAVE THE DATE!

Two demonstrations each date at 10 a.m. and noon Friday, March 11- Cross-U Ranch 20 miles north of Prescott Thursday, March 17 – K4 Ranch 26 miles north of Prescott Friday, March 25 - Double O Ranch 8 miles west of Seligman Light refreshments provided Contact: John Munderloh, jmunderloh@pvaz.net

EXECUTIVE BOARD

Lora Lee Nye, Chair **Town of Prescott Valley Council Member**

Steve Blair, Member City of Prescott Council Member

Craig Brown, Member Chair, Yavapai County Board of Supervisors

Ernie Jones, Sr., Member President, Yavapai-Prescott **Indian Tribe**

Chris Marley, Member Mayor, Town of Chino Valley

Governor Support Continued from page 1

"In particular, we recommend that:

- 1. The Arizona Department of Transportation expand the Healthy Forest Initiative to include Yavapai County.
- 2. The state continues support of the Arizona Commerce Authority's Health Forests Enterprise Incentive Program.
- 3. The state increases the competitive advantage of private industry by allowing additional contractors to work in the Four Forest Restoration Initiative area, and throughout Arizona."

Elected officials added they are confident that collaboration and focused efforts will lead to "positive changes to our landscapes and to our water supply security while increasing economic opportunities throughout Arizona."

The second letter to the governor, unanimously approved by the UVRWPC Executive Board during its Wednesday,

January 27 meeting and signed by Chair Lora Lee Nye, emphasizes transportation challenges associated with establishment of a biomass industry in central Yavapai

"The forest products industry in Arizona must be revitalized and reinvigorated for forest restoration efforts to succeed. We will simply not be able to address the scale of this problem through only government-based solutions," she wrote.

According to Nye, low-cost transportation of biomass over state highways and via railroad is critical to the success of forest-based industries.

"We would appreciate support from the Governor's Office to address these issues; specifically we request that a panel including the Arizona State Forester, Director of the Department of Transportation and your Natural Resource Advisor work to address biomass transportation issues with Burlington, Northern and Santa Fe Railway and use of State and County roads," she wrote.

PROTECTION COALTION

928-759-5510 · info@yavapaiwatersmart.org

Water Smart NEWS

UPPER VERDE RIVER WATERSHED PROTECTION COALITION

January - February 2016

Protecting the watershed, an absolute necessity

By Lora Lee Nye, Executive Board Chair

A local effort is afoot to breathe life into the forest products industry in central Yavapai County. This is necessary to what many refer to as watershed "restoration." For me, much of the effort is really about watershed protection and preservation; without this effort our woodlands and water supplies face a devastating future.

Our watersheds contain forests and woodlands at the higher elevations and grasslands in the valley floors. Natural, low-intensity fires controlled the vegetative growth in these watersheds since time began until humans started fire suppression efforts about 100 years ago. Now the dense woody vegetation feeds high-intensity wildfires like the one that overtook the Granite Mountain Hotshots in Yarnell on June 30, 2013. The effects of high-intensity wildfire on the environment are also appalling. After high intensity fire, organic material that would normally hold soil together and capture moisture is baked into charcoal. Water sheets off of the soil like tar paper when the first rains come and the soil is easily eroded from the high velocity runoff. The Doney Park flooding near Flagstaff after the Shultz Fire is a prime example of this effect. The remaining soil contains few viable seeds and has been burnt to the point of being unproductive.

See Protecting Watershed, page 6

Coalition, elected officials seek governor assist with biomass effort

Four million acres of forest

land and 13 million acres

of woodlands throughout

- Arizona State Forestry

the state are in need of

restoration.

implementing a comprehensive biomass are in "dire" need of restoration efforts.

program and establishment of a forest products industry cluster in Yavapai County.

In two letters to Governor Doug Ducey signed by state and local elected officials,

the UVRWPC asked for help in addressing challenges currently faced by industries and rural communities.

Calling the problem "immense" in

The Upper Verde River Watershed the the first letter, dated October 12, Protection Coalition (UVRWPC) and 2015, officials cited the four million its partners are looking to the state acres of forest land and 13 million acres capitol for support and assistance in of woodlands throughout the state that

> "Rural communities are particularly affected by this condition because not only are forests and woodlands our primary source of water, but we are also often directly impacted by high intensity wildfire," they wrote.

Specific areas where officials consider the governor's help as critical were

See Governor Support, page 8

Funding supports \$1 million brush management project

The UVRWPC was one of nine organizations recently awarded funding through the Secure Rural Schools Act 2008-2011 reauthorization (Act).

According to information provided by the Prescott National Forest (PNF), projects selected are located on or have demonstrable benefits to national forest

of Resource Advisory Committees (RAC) in counties with national forest lands. Interested Yavapai County organizations compete for funding through an annual grant process. RAC committee members review grant proposals and make

funding recommendations to the Forest Supervisor for the coinciding national forest jurisdiction.

Funds awarded to the UVRWPC will support completion of archaeological surveys on federally leased agriculture land that is included in the brush management area to be treated with \$1 million in funding from the United The Act authorized establisment States Department of Agriculture National Resource Conservatio n Service (NRCS) through the Regional Conservation Partnership Program (RCPP).

> "The RCPP project could not be fully implemented without completion

> > See Funding Support, page 6

Vegetation management impact on recharge

This is a key issue for the Upper Verde River Watershed Protection Coalition (Coalition) as it and many partners move forward on a number of projects to return area watersheds to more historic conditions.

The US Geologic Survey determined that less than two percent (2%) of the total precipitation received



Unnamed Wash

in the Upper Verde Watershed found its way into the regional aguifers (Blasch, et.al, 2006). Another one to two percent (1-2%) runs off during big storms leaving the largest majority of our precipitation to be consumed by plants and through evaporation from the soil surface.

Over one hundred years of fire suppression has led to overgrowth of woody vegetation in woodlands and invasion of woody plants into historic grasslands. The Coalition is working to reduce the density of woody species while restoring native grass habitat to protect the soil and slow runoff. The most immediate need is to protect watersheds from high-intensity wildfires that sterilize soils and lead to disastrous floods. Lora Lee Nye, Chairman for the Coalition, has explained: "Watershed restoration is water preservation".

What is not clear is if reducing woody vegetation will increase water supplies. To address this question, the Coalition conducted two systematic literature reviews that focused on natural recharge and the potential water benefits from vegetation management in pinyon/juniper (PJ) and chaparral woodlands. Although individual studies contained findings about specific environments, once taken as a body of work, they were either contradictory or so specific as to not be applicable to the Upper Verde River Watershed study area. The only conclusion that could be drawn from these literature reviews is that the case is still open on whether aquifer recharge will increase due to vegetation restoration efforts, and more applied scientific investigation is required.

Two very important elements of previous studies not considered in the literature being reviewed were seasonal variability and weather pattern oscillation. Another way to put this is significant aquifer recharge only occurs in the Upper Verde River Watershed during the occasional wet winter. Winter is also when native grasses are dormant, but evergreen woodland species are still using water. Long-term annual averages

were used to draw conclusions in the literature reviewed. Previous studies did not take into account the variable nature of precipitation specific to this region, information that is critical to understanding the impact of vegetation management on recharge in the Upper Verde River Watershed.

How does aquifer recharge work?

Groundwater recharge occurs when water saturates the soil profile to a depth below plant roots and influence from soil evaporation. However, where grasslands and woodlands are rooted in deep soils, it is nearly

impossible to fill the dry soil profile, meet plant water demands and still have water percolate below the root zone. In this type of wet soil environment, additional rainfall tends to run off rather than infiltrate. Instead, most recharge originates as runoff into the various ephemeral washes where water is concentrated for a period of time. Washes also contain coarse material like sand and gravel which allows for faster percolation. For example, the Prescott Active Management Area (PrAMA) Groundwater Flow Model (Nelson, 2014) shows that most of the aguifer recharge originates from sustained runoff in major washes like Granite Creek and Lynx Creek. According to the model, runoff in washes contributes about 75 percent (%) of the total recharge, even though these washes may only run once every 10 years, while the remaining 25 percent (%) occurs at the mountain fronts during periods of snow melt. The model indicates that virtually no recharge occurs from the grasslands located throughout the PrAMA basin. So why would more grass lands and less woodlands provide additional aquifer recharge?

Natural recharge mechanisms are simple to understand and only require water, a place for it to accumulate and time for it to infiltrate. Recharge from vegetation management likely will not occur directly beneath grasslands. However, dormant winter grass cover will allow for a wetter soil (compared to evergreen woodlands) that will increase the volume of runoff while the grass itself slows the release of that runoff and increases the total volume available and the opportunity time for recharge to occur.

> This is hypothesized to yield benefits to Upper Verde River Watershed aquifers. Ultimately, this is the normal functioning condition that existed in our watersheds before the mix of vegetation was altered by human activities.

Williamson Valley

Grasslands restoration takes priority



A partnership designed to improve the health and habitat of central Arizona grasslands is moving forward.

The collaboration between the Upper Verde River Watershed Protection Coalition (UVRWPC), USDA Natural Resource Conservation (NRCS), and Arizona Game & Fish Department began with their participation on the UVRWPC Watershed Taskforce in 2012.

Completion of the Watershed Restoration and Management Project Plan in 2014 led to further cooperation on the federal NRCS Regional Conservation Partnership Program (RCPP) grant of \$1.5 million.

John Munderloh, chair of the UVRWPC Technical Advisory Committee and facilitator for the Watershed Taskforce, said the project addresses the forest health priority identified in the Watershed Plan.

"Forest health and grasslands restoration were also included as one of the original six priorities identified by the Coalition Technical Advisory Committee when the group was established in 2006," he added.

Marques Munis, acting district conservationist for the Prescott Valley NRCS field office told UVRWPC Executive Board Members, during their regularly scheduled meeting

application which was funded to the tune on Wednesday, January 27, that NRCS personnel are forging ahead with the RCPP implementation which includes treatment of overgrowth on and encroachment of juniper on private and federally leased agriculture grasslands.

According to Munis, approximately 4,500 acres of juniper are slated for removal, and NRCS is actively seeking partnerships with additional agriculture producers in the watershed to increase the number of acres treated with RCPP funding.



Coalition receives grant for wood supply study

Arizona State Forestry notified the Upper Verde River Watershed Protection Coalition (UVRWPC) on February 15 that it had been awarded grant funding to complete a Biomass Feedstock Supply Assessment for Yavapai County.

According to Lora Lee Nye, chair of the UVRWPC Executive Board, the grant supports the forest health priority established in the group's Watershed Management and Restoration Project Plan completed in September 2014.

"Working with our partners to restore historic grasslands and improve the health of our forests is a Coalition priority," she said. "To effectively treat the overgrowth, we must develop an industry base to utilize the by-products of restoration activities."

Numerous industries have approached the UVRWPC with interest in sourcing Yavapai County feedstock, but a lack of investment grade data necessary to attract business investment is hampering forward progress. In an October 2, 2015 meeting, hosted by the UVRWPC, industry representatives identified

acquisition of investment-grade data as the number one priority.

Identified markets with a high potential of sourcing feedstock from Yavapai County forest and woodlands include: industrial wood heating pellets, feedlot bedding, soil amendments, WoodStrawTM, wood wool cement board, soil amendments, and wood composite panels.

According to the grant application, encroachment of pinyon pine and juniper on woodlands has created an overload of hazardous fuel leading to a high risk of catastrophic wildfire, and there is a lack of commercial markets in Yavapai County that can utilize by-products of forest management activities, but high interest in sourcing feedstock exists among entrepreneurs.

TSS Consultants, the firm selected to complete the study, has three decades of experience completing feedstock analyses and working with grant-funded projects. The final feedstock report will include key findings, biomass feedstock market analysis, current and future competition and risk analysis, and delivered cost analysis.

The grant was awarded through the Arizona Biomass Enterprise Team, a United States Department of Agriculture Forest Service funded program managed by Arizona State Forestry. Program objectives include:

- 1. Promote commercially proven wood energy systems that utilize woody biomass from public lands and other land ownerships, in Arizona;
- 2. Expand markets that convert woody biomass into energy or higher value products to support wildfire mitigation, forest restoration, and other forest management goals on public lands and other land ownerships, in Arizona;
- 3. Expand cluster development of forest enterprises, in Arizona, that are complimentary to one another, and diverse enough to weather market dynamics.

The wood supply study is expected to be complete by late summer or early fall

Water groups expand communication effort

Collaboration between the Upper the public about the ADWR 4th Verde River Watershed Protection Management Plan, and provide water Coalition (UVRWPC), and Prescott conservation information. Active Management Area (PrAMA) Groundwater User's Advisory of the UVRWPC Technical Advisory Committee (GUAC) is designed to Committee (TAC), this effort is increase education

and outreach to water users in the

PrAMA portion of the Upper Verde organizations to realize the most River Watershed.

The GUAC is a governor appointed committee comprised of local scientists, municipal managers, elected officials and private citizens charged shed," he said. "The UVRWPC and with advising the Arizona Department GUAC will jointly develop collateral of Water Resources on issues specific print support material, utilize the to water management in the PrAMA.

awareness of the GUAC and its conservation, and work cooperatively responsibilities in the PrAMA, expand communication with the business community and homeowners, educate

According to John Munderloh, chair

another example of Water Smart how the UVRWPC is partnering with

benefit from taxpayer resources.

"Our executive board members directed the UVRWPC TAC to conduct outreach throughout the water-UVRWPC WaterSmart program Outreach is designed to build to provide information on water to expand communication to business and property owners."



Forest Action Plan Continued from page 5

National Priorities Section.

To complete the required Forest Action Plan update, Arizona State Forestry will begin concentrated work with partner organizations and Arizona stakeholders in early 2016. The expectation is to develop and implement appropriate work processes and complete Arizona's plan revision as required.

"The Forest Action Plan is part of our strategic push to work collaboratively among all stakeholders and across all landscapes, using the best science, to make meaningful progress towards resilient landscapes, fire adapted communities and safe and effective wildfire response," Whitney said.

For more information see: https: //azsf.az.gov/forestry-communityforestry.

Funding Support

Continued from page 1

of the archaeological surveys," John Munderloh, chair of the UVRWPC Technical Advisory Committee, said. "We estimate it will require about six months to complete the required surveys or by the end June 2016."

A partnership between the UVRWPC and Arizona Game & Fish Department resulted in receipt of RCPP funding in late 2014. Implementation of the five-year project is being managed through the Prescott Valley NRCS office.

Munderloh added that forest health and vegetation management are identified as priorities in the UVRWPC Watershed Restoration and Management Plan completed in September 2014.

More information on the RAC process is available at: http://www.fs.usda.gov/main/ prescott/workingtogether/ advisorycommittees.

Protecting Watershed, **Continued from page 1**

In 2012 the Upper Verde River Watershed Protection Coalition (Coalition) started work on watershed restoration efforts to address fundamental imbalances within our watersheds. Only about 2 percent (%) of the precipitation on our watersheds reaches the groundwater table. The vast majority of our precipitation is consumed by plants as a result of the over-grown condition of our woodlands. Past studies that examined the relationship between vegetation density and water supplies provided mixed results and weren't conducted for our specific conditions. We believe that hydrologic conditions specific to our area warrant a more thorough and broader-based examination of the potential water supply benefits. Creating better recharge conditions by restoring the historic plant density is a Coalition goal, protecting the watershed from catastrophic loss is a necessity.

The scale of watershed restoration in Arizona is immense, totaling around four million acres of ponderosa-type forests and 14 million acres of pinyon-juniper and chaparral woodlands on Federal, State and Private Lands. In general terms, it takes about \$200 per acre to treat vegetation. To reduce costs to taxpayers and create investment opportunities and jobs, the Coalition is providing local leadership and coordination so that private industry will invest in watershed restoration through harvesting woody vegetation and creating value added products. Biomass energy products and wood mulch are examples of products being explored. We simply must preserve our watersheds from devastation, and we cannot accomplish this task alone.

Timeline of Water Events

DATE EXPLANATION

- Gold rush near Prescott, water appropriations begin, including Del Rio Springs for first territorial government and military
- 1864 Prescott established
- 1864 First State Water Code (Howell Code) passed by Territorial Legislature in Prescott
- Camp Verde established, irrigation in Verde Valley begins 1865
- Jack Swilling and miners from Prescott start irrigating in Salt River Valley to raise crops for Prescott-area miners and settlers
- Shallow wells dug on courthouse square for fire fighting
- Miller Creek and Mt. Vernon reservoirs constructed for fire protection 1884
- Prescott passes bond for Potts and Aspen Creek reservoir (but were never built). President McKinley designates Prescott Forest Preserve for watershed protection for the City reservoirs.
- Prescott downtown burns down, main town well was out of service and unavailable for fire-fighting
- Pumping from Del Rio Springs to Prescott begins
- Newlands Reclamation Act initiates SRP and Roosevelt Dam
- 1911 Roosevelt Dam Completed
- Hassayampa Canal Company formed, construction begins on Granite Creek Dam (Watson Lake) to irrigate in Chino Valley 1916
- State Water Code enacted 1919
- Colorado River Compact Arizona refused to ratify until 1941
- 1929 Prescott builds lower Granite Creek infiltration gallery well for municipal supply, pumping from Del Rio is discontinued
- 1931 Southwest Cotton case begins – first groundwater/surface water decision
- 1933 Prescott constructs Goldwater Dams for Municipal water supply
- Large-scale groundwater pumping begins, Big and Little Chino
- Critical Groundwater Basins delineated, registration of agricultural wells implemented
- Prescott drills deep wells in Chino Valley for municipal water supply. Replaces surface water sources near Prescott
- Arizona v. California decision in Supreme Court determines Arizona's right to CAP water
- 1966 Prescott Valley Inc. begins selling lots in Prescott Valley
- Central Arizona Project (CAP) authorized by US Congress for Central Arizona
- Town of Chino Valley is incorporated
- Adequate Water Supply Rules initiated as a result of land fraud cases throughout Arizona
- Construction begins on CAP to bring Colorado River water to Maricopa, Pinal and Pima Counties
- SRP files a petition to adjudicate water rights on the Verde River system
- President Carter puts CAP funding on hold
- 1977 Prescott begins looking to Big Chino for water supply
- Town of Prescott Valley is incorporated
- 1980 Groundwater Management Act, ADWR established, CAP funding ensured
- ADWR allocates CAP water to Prescott and Yavapai Prescott Indian Tribe 7,667 af
- 1985 First CAP water delivered to Harquahala Valley Irrigators
- Prescott purchases Dugan Ranch and Weber Ranch in Big Chino for importation project
- Arizona Legislature passes Groundwater Transportation Act codifies rights to import water from Big Chino Sub-basin to Prescott AMA
- Municipal water use exceeds water use for Agriculture in Prescott AMA
- ADWR declared Prescott AMA to be in a state of groundwater, moratorium placed on new subdivisions using groundwater
- Prescott purchases Big Chino Water Ranch, forms partnership with Prescott Valley 2004
- Upper Verde River Watershed Protection Coalition formed to help reach Safe Yield and protect flows in Upper Verde River
- 2009 Prescott prevails in challenges to Big Chino water rights, final decision is 8,067 af in 45-555(E)
- 2010 SRP, Prescott and Prescott Valley sign settlement agreement on water rights to the Big Chino
- SRP, Prescott and Prescott Valley sign supplemental agreement to increase hydrologic monitoring network in Big Chino Subbasin and to correct the USGS regional groundwater model.

3

- Upper Verde River Protection Coalition launches the Watershed Restoration Initiative
- ADWR releases update of Prescott AMA Groundwater Model
- ADWR releases Fourth Management Plan for Prescott AMA
- Upper Verde River Protection Coalition receives grant for watershed restoration efforts in Big Chino Sub-basin

6

THE POWER OF PARTNERSHIPS

The importance of partnerships at all levels cannot be understated. Members of the Upper Verde River Watershed Protection Coalition (UVRWPC) have been successful in developing relationships and building partnerships that are leading to positive results for the watershed and central Yavapai County communities.

Since 2012, with passage of the Watershed Initiative by the Executive Board, planning across the watershed and engagement of public and private stakeholders to write and implement a project based plan for Upper Verde River Watershed protection, restoration and management have been the priorities. The list of partners and collaborators

serving on the Watershed Task Force is impressive.

A scenario planning effort in 2014 brought together the best and brightest from around the state working in the field of natural resource management to refine elements of the watershed plan. Complete late in 2014, the Upper Verde River Watershed Restoration and Management Project Plan is the UVRWPC guiding document. The word project is important. Task force members wanted to ensure the plan was a document that could be followed and lead to "boots on the ground" work to protect and restore the watershed.

Positive results from this effort were almost immediate with receipt of a more than \$1 million grant awarded by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) for brush management in the watershed. The grant was written in partnership with Arizona Game & Fish, a member of the Watershed Taskforce. It is being implemented through the NRCS Prescott Valley office, also a member of the Watershed Taskforce.

During the same timeframe, UVRWPC members, recognizing the occurrence of a catastrophic wildfire in the forest and wood lands will cause irreparable damage to the watershed, signed on as a member of the Arizona State Forestry led Woody Biomass Team. Arizona State Forestry (ASF) is a member of the Watershed Taskforce. The biomass team is tasked with assisting organizations throughout the state in acquiring the data and engineering required to establish forestbased enterprises in their regions, including central Yavapai County. Restoration of the Upper Verde River Watershed is complex, and developing an industry base to utilize the byproducts of forest thinning activities is critical to continued progress and sustainability of efforts. Successful invigoration of a forest products industry will also provide a significant boost to the local economy.

A Biomass Committee, an offshoot of the Watershed Task Force and with ASF support, was established in October 2015. Committee participation spans the spectrum including entrepreneurs representing the forest products industry, transportation professionals, natural resource managers, economic developers, foresters and elected officials. Members are forging ahead with implementation of the forest health and vegetation management project included in the Watershed Restoration and Management Project Plan.

With a modest budget and honor-

ing the taxpayer investment in its

work, the UVRWPC is using the

power of partnerships to tackle

what many consider the most

pressing issues facing the region

- high risk of catastrophic wildfire

in the watershed and the result-

ing long-term damage a major fire

will have on water supplies.

In a recent letter to Arizona Governor Doug Ducey, facilitated by the UVRWPC and signed by state and local elected officials, the undeniable link between water supply security and forest health was aptly cited.

"Rural communities are particularly affected because not only are forests and woodlands our primary source of water, but we are also often directly impacted by high intensity wildfire," they wrote.

With a modest budget and honoring the taxpayer investment in its work, the UVRWPC is using the power of partnerships to tackle what many consider the most pressing issues

facing the region - high risk of catastrophic wildfire in the watershed and the resulting long-term damage a major fire will have on water supplies.

Forest health is not the only arena where collaboration and the sharing of resources are making a difference. UVRWPC members, with approval from the Executive Board, recently entered into a partnership with the Prescott Active Management Area (PrAMA) Groundwater User's Advisory Committee (GUAC) for outreach and education. The GUAC is a governor appointed committee comprised of local scientists, private citizens, elected officials and municipal managers charged with advising the Arizona Department of Water Resources on water management issues specific to the PrAMA. Communication is designed to build awareness of the GUAC role in the PrAMA, provide information on the PrAMA 4th Management Plan, conduct outreach to the business community and residents, and forward water conservation education through the UVRWPC WaterSmart program.

Without the commitment, guidance and assistance from UVRWPC partners, the exciting work that is unfolding in the watershed would not be possible.

NEWS FROM OUR PARTNERS

Arizona State Forestry releases Forest Action Plan review and update

The 2008 Cooperative Forestry Assistance Act, commonly referred to as the Farm Bill, prompted the develop ment of Arizona's Forest Action Plan requiring states, in order to qualify for federal funds, to complete a statewide assessment of forest resources and develop a statewide forest resource

Currently, Arizona State Forestry receives federal dollars to protect communities from wildfire, assist private forest landowners, promote healthy forest practices and assist communities with their urban forests.

State Forester Jeff Whitney appointed a task group with diverse representation to work with agency staff to develop the final Arizona Forest Resource Assessment and Arizona Forest Resource Strategy, completing both documents in June 2010.

Recent direction from the USDA Forest Service and the National Association of State Foresters requires that each state forestry agency review and report on highlights of the state plan implementation from the past five years, add a new National Priorities Section to the state plan, and plan for completion of a state plan update at least every 10

The plan review and update summarizes the implementation of Arizona's Forest Action Plan since the plan development in 2010. It provides an overview of the implementation summarized by the three National Priorities, which is incorporated as an addendum to Arizona's current Forest Action Plan, thus provides the required

See Forest Action Plan page 6



ADVISORY GROUP ADDS TO STREAM MONITORING NETWORK

Additional stream gages in the Prescott Active Management Area (PrAMA) will yield data essential to understanding recharge.

According to John Munderloh, chair of the UVRWPC Technical Advisory Committee (TAC) and water resources manager for the Town of Prescott Valley, the PrAMA Groundwater Users Advisory Committee (GUAC) supports stream gages installed at Lynx Creek Levee, Fain Dam, Willow Dam and North Granite Creek.

"We are testing the Arizona Department of Water Resources (ADWR) groundwater model results for the PrAMA that predict 75 percent of our recharge occurs in ephemeral streams from Lynx Creek to Granite Creek." he said.

The \$20,000 cost, including \$10,000 for purchase and installation and \$10,000 for flow analysis, will be paid with ADWR Water Augmentation and Assistance Funds.

"The Fund is supported by water providers that pay an annual fee per acre pumped to ADWR," Munderloh said. "We pay \$2 per acre foot."

Gages will also be synced with the Yavapai County Flood Control District early warning system, and will be maintained by the District after installation.

