



**NOTICE OF PUBLIC MEETING & AGENDA**

**UPPER VERDE RIVER WATERSHED PROTECTION COALITION  
BOARD MEETING**

**Wednesday, July 25<sup>th</sup> – 2:00 PM  
Chino Valley Council Chambers  
202 N. State Route 89, Chino Valley AZ**

**ITEM NO 1. *Call to Public (Chairman)***

*Consideration and discussion of general unscheduled comments from the public: Those wishing to address the Coalition need not request permission in advance. Any such remarks shall be addressed to the Coalition as a whole and not to any member thereof. Such remarks shall be limited to three (3) minutes unless additional time is granted by the Chair. At the conclusion of the unscheduled comments, individual members of the Coalition may respond to the item addressed at the discretion of the Chair, or they may ask Staff to review the matter or ask that the matter be placed on a future agenda.*

**ITEM NO 2. **Discussion & Possible Action – Approval of Board Meeting Minutes - April 25th, 2018 (Chairman)****

**ITEM NO 3. **Presentation, Discussion & Possible Action - Prescott National Forest NEPA Implementation (Dale Deiter, Prescott NF Supervisor)****

**ITEM NO 4. **Presentation, Discussion & Possible Action – Big Chino Pump-Storage Project (ITC)****

**ITEM NO 5. **Presentation, Discussion & Possible Action - Project Updates****

- a. **Wood Innovations (Reifsnyder)****
- b. **Wood Chip Wattles & Playground Cover (Reifsnyder)****
- c. **Juniper Silt Dams (Munderloh)****
- d. **Rainwater Harvesting/Aquifer Recharge (Munderloh)****
- e. **Partner Updates (Others, if available)****

**ITEM NO 6. **Board Communication (Board Members)****

**ITEM NO 7. **Next Meeting Day/Time (October 24, 2018) – Yavapai-Prescott Indian Tribe, location TBA/ Agenda Items (Chairman)****

**ITEM NO 8. **Adjourn Meeting****

MINUTES OF THE UPPER VERDE RIVER WATERSHED PROTECTION COALITION BOARD  
HELD ON APRIL 25, 2018, IN CITY OF PRESCOTT COUNCIL CHAMBERS 201 S. CORTEZ,  
PRESCOTT AZ.

Chairman Nye called the meeting to order at 2:01 p.m.

Members Present:

Board Member Ernie Jones, Yavapai-Prescott Tribe President  
Board Member Craig Brown, Yavapai County Supervisor  
Board Member Steve Blair, City of Prescott Councilor  
Board Member Chris Marley, Town of Chino Valley Representative

Staff Members:

Peter Bourgois, Yavapai-Prescott Indian Tribe  
Leslie Graser, City of Prescott  
Mike Bovee, Town of Chino Valley  
John Munderloh, Town of Prescott Valley  
Melody Reifsnyder (Sage Consulting)

**ITEM NO 1. Call to Public (Chairman Nye)**

No items were brought forward by members of the Public

**ITEM NO 2. Discussion & Possible Action – Approval of Board Meeting Minutes – November 1, 2017**

BOARD MEMBER BROWN MOVED TO APPROVE THE UVRWPC BOARD MINUTES OF JANUARY 24<sup>th</sup>, 2018; SECONDED BY BOARD MEMBER JONES; PASSED 5-0

**ITEM NO. 3 Presentation, Discussion & Possible Action - Project Updates**

**Item 3a – Wood Innovations Grant**

Munderloh presented an update on the USDA-funded Woody Innovations Grant (Feasibility Assessment, Testing, and Site Locations for the Woody Biomass Industry in Yavapai County).

Munderloh stated: We had a significant change to the project since the last meeting. The Grant Project included testing the feasibility of using bio-coal produced from Yavapai County Juniper at Drake Cement. Drake Cement was initially on-board as a partner but they have since pulled out of the agreement. They are now very busy fulfilling orders for making cement – which is a good thing – and don't have the time to run tests. Other Coal users in Northern Arizona also declined the test. So we plan to shift the grant project toward using Bio-Char, used for soil amendments and water filtration. This product can be incorporated in the wattles for post fire and mine-site remediation. We will need to amend the Grant Agreement with USDA to move forward.

Other progress on this project: The consultant (TSS Consultants) has completed a draft for the following portions of the feasibility assessment:

- Task 2 – Facility Site Assessment
- Task 3 – Feedstock Supply Analysis - Draft
- Task 4 – Conversion Technology - Draft
- Task 5 – Economic Analysis – in progress

Chairman Nye stated that it is important to note that our goals are being met on this project regardless of the changes.

### **Item 3b – Juniper Silt Dams**

Munderloh provided an update on the Juniper Silt Dams project: The Coalition has been awarded a second grant for the project and a grant agreement has been approved with the Az Dept of Forestry and Fire Management. Preliminary Engineering is complete with some minor changes and we are currently in the permitting phase to acquire approvals from the U.S. Army Corps of Engineers, the Arizona State Land Department and Arizona State Historic Preservation Office.

### **Item 3c – Rainwater Harvesting**

Munderloh provided an update on the Rainwater Harvesting and Aquifer Recharge Project. The design and coordination are complete, GUAC has approved a grant to help offset costs a construction firm has been hired and a pre-construction site visit scheduled this week. Board Member Brown asked who the contractor is. Munderloh responded that it is ALC Underground. The Coalition has requested from Yavapai County Board for outreach (\$10K) at their recent budget meeting.

### **Item 3d – Water Smart Outreach**

Munderloh: Water Smart has been a long-term water conservation and water resource outreach program sponsored by the Coalition. It has been in place for better than 10 years and the TAC thinks it's a good idea to focus some attention on updating the Water Smart water conservation education materials. This would include add some additional education elements (e.g. rainwater harvesting) and removing some that are outdated. Emphasis would be placed on developing electronic outreach, web updates and mobile apps. Past materials were printed and provided to the public at various public locations such as libraries and government centers.

Chairman Nye commented that the Board's reaction seems to be in agreement that the TAC should move forward on developing the Water Smart updates.

**Item 3e – Partner Updates:** No Partner Updates were provided

## **ITEM 4 – Discussion & Possible Action – 2018 Home and Garden Show**

Leslie Graser commented on the upcoming Home and Garden Show on May 18, 19, 20 at the PV Event Center. The space has been arranged and the TAC and other staff are ready to attend. The show runs from 9:00 to 5:00 on Friday and Saturday and from 9:00 to 3:00 on Sunday. We will

hold a raffle for a rainwater barrel with an “Old West” design. The booth and table will have similar handouts, including rain gages and other water conservation material and items.

Chairman Nye asked where the booth will be located. Graser commented that we will be at booth 78 inside.

## **ITEM 5– Discussion and Possible Action - Juniper Chip Wattles**

### **Item 5a - Incorporating Juniper chip wattles as SWPPP program requirements of Local Government Contracts**

Munderloh reviewed the previous instruction from Board at the January meeting on incorporating Juniper Wattles into future government construction contracts. Conversations are on-going with Yavapai County Public Works Staff and Wattle manufacturers to determine what may be necessary for specifications in such contracts. Other government entities will likely follow the lead from Yavapai County.

### **Item 5b - Proposal for upfront purchase of Juniper chip wattles/cost recovery**

Munderloh: As part of the Juniper Silt Dam project, CDW Consultants will be on-site to construct Wattles under the grant contract. TAC proposes purchasing additional wattles during this time and attempt to sell the wattles at a future time for a cost competitive with straw wattles to recover some of the costs. The TAC proposes spending \$10,000 on Juniper Wattles and hopes to recover 50% of the costs. During the TAC discussions, Yavapai-Prescott Indian Tribe Staff brought up their need for Wattles at a construction project located at the Prescott Resort. This project is visible from Highway 69 and provides a visible interface to the public and an opportunity for education.

Peter Bourgois commented that the project is located at the bottom of Heather Heights up to the Prescott Resort, a 14 inch water line was installed by Fann Construction, and other landscaping up on top. Straw wattles are in place but this provides an opportunity for a comparison by installing additional Juniper Wattles.

Chairman Nye commented that the Juniper Wattles can filter out additional contaminants that straw does not. Also, cattle will kick apart the straw wattles for feed.

Member Brown commented that the Yavapai County Public Works Director is interested in testing Juniper Wattles on upcoming road projects. There is concern that the Juniper Wattles are not absorbent enough and cost is a concern.

Melody Reifsnnyder commented that the early stages of production do result in higher costs, but that the costs will come down as the market demand and production capability increase. That has been the experience in Texas.

Chairman Nye commented that the testing will provide real hard data regarding use.

Munderloh clarified that the proposal is to purchase Juniper Wattles for a cost of up to \$10,000 with a planned cost recovery of 50%.

Chairman Nye called for vote:

Member Blair moved to authorize Coalition to spend up to \$10,000 for Juniper Chip Wattle Market development with a cost recovery of 50%.

Member Brown seconded.

The proposal was unanimously approved.

### **ITEM 6 – Discussion and Recommendations regarding private wells and septic systems**

Munderloh commented that the last Board meeting resulted in several TAC discussions due to some comments and concerns by Member Brown regarding continued construction of exempt wells and septic

systems. The TAC examined the basics information about exempt (i.e. private wells) and produced a summary document included in the TAC meeting notes:

- Based on Arizona Department of Water Resources, the Prescott Active Management Area (AMA) contains approximately 13,000 exempt wells, or roughly 11% of the total for Arizona even though the AMA comprises less than 1% of the State's area.
- We clearly have an issue with exempt wells, but they provide an opportunity for growth as the strict regulations in the Prescott AMA make it harder for planned subdivision growth to occur.
- Yavapai County in total contains 25% of the State's total number of exempt wells.

The TAC reviewed the many attempts made by local and State-wide water-resource groups to address exempt wells through increased regulation. This includes two significant attempts by local parties, including the Coalition's 2010 Safe Yield report. A significant effort was expending on this approach, including developing HB 2661 with ADWR and the Legislature that established a statewide study committee – the Water Resources Development Commission (WRDC). After more than a year's efforts, the WRDC developed a legislative proposal (HB 2338, sponsored by Speaker Andy Tobin) to establish Water Augmentation Authorities. This legislation would have provided a mechanism for exempt well owners to participate in developing long-term water supplies and reaching Safe-Yield in the AMA, the bill was defeated by special interest groups.

Munderloh stated that regulatory attempts have all failed and the TAC concluded that only voluntary approaches will be successful in the future, for example rainwater harvesting and aquifer recharge projects like those currently underway by the Coalition, and other low-impact development approaches.

The TAC also examined the proliferation of private septic systems that typically accompany the exempt wells. The issue is two-fold in that there are both water resource and water quality impacts. High density areas have experienced impacts to groundwater quality due to the large number of septic systems. Some have been addressed, such as the Chino Meadows development which is now on a wastewater collection and treatment system run by the Town of Chino Valley. Other areas have potential to have an economically viable wastewater collection system such as Diamond Valley, Castle Canyon Mesa, North Prescott and Prescott Country Club. Building

codes may be developed that result in better water quality such as bigger septic systems and deeper leach fields. However the TAC did not see that the creation of building codes for septic systems as part of their role.

Chairman Nye commented that past attempts to regulate exempt wells have been met with fierce resistance and have been abandoned.

Munderloh commented that the key word was “regulate” and that the role of the Coalition seems better served through providing a voluntary approach and perhaps future low-impact development building codes.

Chairman Nye asked if we address the exempt well issues will we see the same resistance to change.

Munderloh replied that if first the actions for the existing population are strictly voluntary and they are provided some tools and perhaps grants, and that if new housing construction in rural areas could be required to adhere to a new standard for low impact development then we typically don't see the negative reactions. Overall, the best approach is to provide the real alternative is to provide an alternative to private wells, which is to allow for the construction of planned development. For example, planned development in Prescott Valley returns about 65% of the water delivered to the wastewater treatment plant. That water is treated and put back into the ground. But by law, planned subdivisions need an alternative water supply (not new allocations of groundwater, per the AMA regulations) the alternative water supply could be effluent recharge credits, extinguishment credits or imported Big Chino water. That would be the only way to address this issue in the grand scheme.

Member Marley commented that logistics are an issue. If folks buy in rural areas, it's too expensive to run public water and sewer to the distant areas. Not everybody wants to live in the city and education is an important approach, ideas such as the mobile app could go a long way to educate about water conservation.

Chairman Nye commented that the exempt well community should come to the table and become part of the solution

Member Marley commented that he appreciates the idea of voluntary approaches, including development of new water resources.

Munderloh replied that homes supplied by private wells provide an important economic development model for our county, not everyone can use their property according to the planned development approach. If anyone is interested the TAC can talk to P&Z Boards to provide tools to address the issues. We as TAC are ready to take direction from the Board.

No additional comments from the Board.

### **Item 7 – Board Communication**

Chairman Nye asked Melody Reifsnyder to share a recent development regarding the use of Juniper Chips:

Reifsnyder commented that during her conversations with CDW Consultants regarding supplying Juniper Wattles, she discovered that the company is certified to provide playground cover made from wood chips. CDW has offered to donate a Juniper Chip playground cover for one or two playgrounds in central Yavapai County.

The proposed first installation would be at one of the HeadStart schools. Logistics have yet to be worked out and will probably coincide with the Wattle manufacturing dates for other projects to limit the travel costs. Also being determined is who would spread the chips...the CVW representative or volunteers.

This will be an opportunity to put up a Juniper Works sign with information where the wood came from and how it was used.

Member Marley asked if a location in Chino Valley was on the list for consideration.

Melody Reifsnyder: There will be enough for one or two playgrounds depending on the area of coverage. Chairman Nye is getting information about playground areas from HeadStart. CDW has a wood source and will bring in his equipment. HeadStart was chosen because of its charitable status. The Northern Arizona Council of Governments (NACOG) will make the determination of HeadStart location based on need.

Lora Lee Nye: We are looking at a location in Chino.

Member Brown commented that Strickland Park could use a new cover.

Melody Reifsnyder: We are looking at playgrounds for school. Transportation is an issue (for cost of delivery to proposed sites).

### **ITEM NO 9 Next Meeting Schedule and Host**

**Jul 25<sup>th</sup>, Town of Chino Valley, Chino Valley Town Hall**

**ITEM NO 10 Adjourn Meeting – Meeting adjourned at 2:55 PM**

**NOTICE OF PUBLIC MEETING AGENDA**

**UPPER VERDE RIVER WATERSHED PROTECTION  
COALITION  
TECHNICAL ADVISORY COMMITTEE (TAC) MEETING**

June 6th, 2018 – 3:00 PM  
YPIT Police Department Conference Room  
530 E Merrit St, Prescott AZ

**Meeting Notes**

**Members Present:** Peter Bourgois, Leslie Graser (City of Prescott), John Munderloh (Town of PV)

**Others Present:** Melody Reifsnnyder (Sage Consulting)

**Public Present:** Lois Case

**ITEM NO. 1 Discussion and Possible Action – Project Updates**

**a. Wood Innovations Grant** – Modification to grant agreement is currently in process since the project's original focus on testing Bio-coal is no longer feasible. Project focus changed to testing feasibility of bio-char

**b. Rainwater Harvesting** – Project construction is complete and waiting for results from first rainfall.

**c. Juniper Silt Dams** – Waiting on permits from ASLD, State SHPO, and US ACE 404.

**d. Woody Biomass Wattles-** Demand for this product on various project is ramping up. Currently estimate around 20,000 to 25,000 linear feet required for Juniper Silt Dams project, Mine remediation project, and standing orders from Yavapai County, Yavapai-Prescott Indian Tribe, City of Prescott, etc. Production is no currently possible due to Stage 2 Fire Restrictions.

**e. Biomass Co-op** – Sage Consulting is working toward development of a Biomass Co-op that would include primary producers, material suppliers (e.g. land owners), and end user of woody biomass. This will allow the Coalition to take a step back from being the primary driver on market-based approaches to watershed restoration.

**ITEM NO. 2 Discussion and Possible Action – Outreach Activities**

**a. Yavapai Home and Garden Show Recap** – See attached update

**b. Water Conservation Programs – Water Smart** – TAC working on refreshing the Water Smart outreach materials. New material should include more information about area water supplies. Water Smart APP for mobile phones, Sage is discussing technical aspects with outside vendor. Other information elements should/could include a Rainwater Harvesting Card, Recharge Projects/Facilities, Septic Systems and Exempt Wells, Connection between Forest Health/Watershed Health and water supplies, Information about

Water Rights and Private Property Rights, Frequently Asked Questions and water Terms or Glossary and outreach of above items through newsletter, radio and website. Draft will be developed for above items and to future TAC meetings.

**ITEM NO. 3 Discussion and Possible Action – Grant Activities**

- i. Wood Innovations Grant #2 – Wattles for Mine Remediation -**  
Coalition successfully applied and received a second Wood Innovations Grant from USDA Forest Service. Since the Coalition already has an open grant under this program, the Arizona Department of Forestry and Fire Management will be the Grant Recipient and Grant Manager. The project will focus on use of Juniper Chip and Juniper Bio-Char Wattles for remediation of runoff from mine sites.

**ITEM NO. 4 Communication from Partners – No additional Comments**

**ITEM NO. 5 Communication from Members - No additional Comments**

**ITEM NO. 5 Next Meeting Time / Location / Agenda Items (Next Regular Meeting Date July 4, 2018 - Discuss new meeting date)**  
**\*\*\*Meeting date moved to July 11<sup>th</sup>.**

*Note: Comments from the public will be heard after each agenda item. Any such remarks shall be addressed to the TAC as a whole and not to any individual. Such remarks shall be limited to three (3) minutes unless additional time is granted by the Chair.*

NOTICE OF PUBLIC MEETING AGENDA

UPPER VERDE RIVER WATERSHED PROTECTION  
COALITION  
TECHNICAL ADVISORY COMMITTEE (TAC) MEETING

July 11, 2018 – 3:00 PM  
YPIT Police Department Conference Room  
530 E Merrit St, Prescott AZ

**Meeting Notes**

**Members Present:** Peter Bourgois, Leslie Graser (City of Prescott), Mike Bovee (Town of Chino Valley), John Munderloh (Town of Prescott Valley)

**Others Present:** Melody Reifsnnyder (Sage Consulting)

**Public Present:** Dirk Stringham

**ITEM NO. 6 Discussion and Possible Action – Project Updates**

**a. Wood Innovations Grant** – Grant modifications to shift focus from Bio-Coal to Bio-char continue as the granting agency makes necessary changes. The manufacture of the Bio-char Wattles has also been delayed due to Stage II Fire Restrictions.

**b. Rainwater Harvesting** – First few rain events indicate that the project is working as designed. About 1,000 gallons captured and recharged from 0.55 inches of rain.

**c. Juniper Silt Dams** – Project is awaiting permits from State Historic Preservation Office and State Land Department. Both agencies have had plans or preliminary plans for three months.

**d. Woody Biomass Wattles** – Total orders from multiple agencies and for multiple grant-programs is around 18,500 feet. The first production round is expected to be 3,000 to 4,000 feet, awaiting the lifting of Stage II fire restrictions.

**e. Biomass Co-op** – Natural Resource Conservation Districts are working with area land owners and agricultural producers to determine participation levels.

**ITEM NO. 7 Discussion and Possible Action – Water Smart** – TAC discussed reorganizing existing water resource and water conservation content to post on the [yavapaiwatersmart.org](http://yavapaiwatersmart.org) website, including some reorganization of the website to complement the Watershed Plan.

**ITEM NO. 8 Discussion and Possible Action – Grant Activities**

**i. Wood Innovations Grant #2 – Wattles for Mine Remediation** – Discussion included as part of 1d above. Juniper Chips will be created here, shipped to Missouri to be turned into Bio-char, and brought back to be inserted into wattles.

**ITEM NO. 9 Discussion and Possible Action – Board Meeting Agenda, July 25<sup>th</sup> Chino Valley Town Hall, 202 N. State Route 89.**

Board agenda items include: Project Updates, Grant Updates, NEPA Implementation Update from Prescott National Forest Supervisor, Big Chino Valley Pump Storage Project Update, Playground Cover project for Headstart Facilities.

**ITEM NO. 5 Communication from Members or Partners – No additional comments.**

**ITEM NO. 10 Next Meeting Time / Location / Agenda Items (Next Regular Meeting Date August 1, 2018 ) – Meeting date changed to September 5<sup>th</sup>.**

*Note: Comments from the public will be heard after each agenda item. Any such remarks shall be addressed to the TAC as a whole and not to any individual. Such remarks shall be limited to three (3) minutes unless additional time is granted by the Chair.*