



## **NOTICE OF PUBLIC MEETING & AGENDA**

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

**Wednesday, August 27, 2008 – 2:00 p.m.  
City of Prescott Town Hall, Council Chambers  
201 South Cortez Street – Prescott, Arizona**

**ITEM NO 1. Introductions, Awards, or Presentations**

**ITEM NO 2. Call to Public**

*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 3. Action – Approval of Minutes for Previous Board Meeting**

**ITEM NO 4. Discussion – Program Manager’s Report**

**ITEM NO 5. Discussion – TAC Meeting Summaries – August 13, 2008**

**ITEM NO 6. Discussion – Coalition Budget Update**

**ITEM NO 7. Presentation, Discussion, & Possible Action – Water Conservation Program Recommendations**

**ITEM NO 8. Discussion – Next Meeting Time / Location / Agenda Items**



**ITEM NO. 3**

**ACTION – APPROVAL OF MINUTES FOR PREVIOUS BOARD MEETING**

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The meeting minutes for the previous Board Meeting held on July 23, 2008, are attached.

**UPPER VERDE RIVER WATERSHED PROTECTION COALITION  
PRESCOTT, ARIZONA  
JULY 23, 2008**

**MINUTES**

A MEETING OF THE UPPER VERDE RIVER WATERSHED PROTECTION COALITION WAS HELD ON JULY 23, 2008 in the Prescott Municipal Building, 201 S. Cortez Street, Prescott, Arizona.

Chairman Fann called the meeting to order at 2:00 p.m.

**ITEM NO 1. Introductions, Awards, or Presentations**

**Members Present:**

Mayor Karen Fann, Town of Chino Valley, Chairman  
Councilman Mike Flannery, Town of Prescott Valley, Vice Chairman  
County Supervisor Carol Springer, Yavapai County  
Mayor Jack Wilson, City of Prescott  
Councilman Floyd Wright, Town of Dewey-Humboldt

**Members Absent:**

Chairman Ernie Jones Sr., Prescott-Yavapai Indian Tribe

**Staff Present:**

Ed Muccillo, Program Manager  
Rick Shroads, Assistant Program Manager  
Mark Holmes, Town of Chino Valley  
Jim Holt, City of Prescott  
John Munderloh, Town of Prescott Valley  
John Rasmussen, Yavapai County

**Guests Present:**

Keith Larson, Water Conservation Consultant  
John Zambrano  
Lou Bellesi  
Thomas Slaback  
Charlie Ester  
Dan Campbell  
Edie Dillan  
Candace McNulty  
Joanne Oellers

**ITEM NO 2. Call to Public**

**ITEM NO 3. Action – Approval of Minutes for Previous Board Meeting**

**VICE-CHAIRMAN FLANNERY MOVED TO APPROVE THE JUNE 25, 2008 MINUTES;  
SECONDED BY MEMBER WILSON; PASSED UNANIMOUSLY.**

**ITEM NO 4. Discussion – Program Manager’s Report**

Ed Muccillo said this last month they did have quite a flurry of TAC meetings with four meetings in one month instead of one. He said they had a workshop on water conservation, a workshop on recharge, the first safe-yield workgroup meeting, and then the regular TAC meeting. He said as far as website management there was posting some of those things. Mr. Muccillo said regarding water conservation, hydrologic monitoring, and recharge mapping they will be updated later in the meeting. He said the monthly financial report is on page 10 of 16 in the packet.

**ITEM NO 5. Discussion – TAC Meeting Summary – July 17, 2008**

Mr. Muccillo said this will be brief because it is an agenda item. He said the main topic discussed at the TAC meeting that was not an agenda item was the program management review. He said he asked for some feedback from the TAC and he will probably be individually asking the Board members for some feedback sometime over the next few weeks. He said this is his seventh month on board as the Program Manager. He said overall it was positive.

**ITEM NO 6. Discussion & Possible Action – Letter of Support for Federal Funding for Verde River Basin Partnership**

Member Wilson said he put this on the agenda so he will start the discussion. He said on July 17, 2008 a letter was written from the Yavapai County Water Advisory Committee to the entire congressional delegation in support of funding for the Verde River Basin Partnership, Exhibit A attached hereto and made a part hereof.

Member Wilson said he is encouraging the same type of letter to be drafted and submitted from this organization in support of this funding to further emphasize the cooperation between the various water groups across this region in hopes of getting federal funding for this effort. He said he understands that the letter that Yavapai County Water Advisory Committee submitted would have to be modified slightly to represent this organization but the initial content of it is what should be brought forward. Member Wilson said they also have a letter of support for that action from Diane Joens, Mayor of Cottonwood.

Member Springer said she an occasion to speak to Mr. Muccillo earlier and asked him to draft something for the Board and the meeting today.

Vice-Chairman Flannery said in conjunction with what the Mayor has said the WAC has emphasized cooperation, coordination and working in conjunction. He said the recognition of the Partnership as the entity responsible for the Title 2 and the funding under the current legislation. He said those were the three components of that and in terms of who it went to it went to the Congressional Delegation, the Governor, and the Director of ADWR.

Member Springer said this is a good step in the right direction. She said obviously there are a number of people who are very optimistic that the potential is there to receive the federal funding. She said anything they can do to further that goal is excellent and then asked Mr. Muccillo to read the letter.

Mr. Muccillo read the draft letter to be sent to Senator John McCain, Exhibit B attached hereto and made a part hereof.

Member Springer said she likes it.

Vice-Chairman Flannery asked referring to the last paragraph "in the spirit of cooperation and collaboration..." if the letter could include the word coordination. He said it may be redundant but he would like to see the three C's in there.

Member Wilson said they need to add the other nine members of the Congressional Delegation, the Governor and the Director of ADWR. The Board agreed to send individual letters to each of the Congressional Delegation.

Chairman Fann asked for clarification on who will be receiving individual letters. The Board agreed to send ten individual letters to the Congressional Delegation, they will CC the Governor, the WAC and the Director of ADWR.

**MEMBER WILSON MOVED TO AUTHORIZE MR. MUCCILLO TO SEND THE LETTER REVISED AS INSTRUCTED BY THE BOARD; SEDONDED BY VICE-CHAIRMAN FLANNERY; PASSED UNANIMOUSLY.**

**ITEM NO 7. Discussion – Update on Water Conservation Programs Task**

Mr. Muccillo said one of the workshops they had last week with the TAC was their second water conservation workshop. He said it was very productive and probably one their best meetings yet. He said he will have the memo with the official recommendation details at the August meeting. Mr. Muccillo said at this time he would like to provide them with a relatively detailed update as to where they are at and what approach they are taking. He said basically a balanced regional approach is where they are driving this task coming down to four general categories:

1. Implement an intensive public information and education effort focused on reducing outdoor landscape water use in the municipal sector.
2. Provide financial incentives for the installation of water-saving technology and turf landscape conversions to xeriscape.
3. Provide water use audits for residential and nonresidential water users.
4. Develop and implement a model regional water conservation ordinance aimed at improving water use efficiency in new residential and nonresidential development and among existing water users.

Mr. Muccillo said public education, incentives, water audits and model ordinances for the members is the four prong approach they are starting out with. He said their current water conservation savings goal is about five percent overall reduction in municipal water use rates within five years of program implementation. He said for the planning level estimate they are estimating about \$386,000 per year for all four of those programs. He said they are hopeful to pursue grants for up to 50%, which leaves the balance at approximately \$190,000 to implement everything listed. Mr. Muccillo said they may need to go to a phased approach. He said the public education, the incentives, and the audits is where there are costs. He said developing a model regional ordinance is financially free, so to speak. He said the TAC also discussed a lot of implementation and administrative alternatives, for example how do financial incentives on a regional basis get implemented or monitored and who handles water audits. Mr. Muccillo said the assumption is some type of staff or hired personnel will need to manage and administer some of these programs. He said there some various ideas listed in the agenda on page 14 of 16 and he just wanted to throw out these four general categories of where they are heading with this before they publish the memo in August.

Vice-Chairman Flannery said this may be a question for Member Springer and asked with an area larger than the area this organization is concerned with how they go about doing an ordinance that would cover a much larger area.

Member Springer said there are several ways they can approach this. She said first of all they are looking at is to determine if they want this to be a coalition effort and she likes Mr. Muccillo's idea of phasing this in particularly because of the current economic issues. She said the way they could approach it is to consider doing an Inter-Governmental

Agreement among all of the entities on the Board that form in a sense a committee. She said several months ago she brought up the idea of a theme or logo, something that would unit all of them in this program and suggests doing an IGA first creating that entity. Member Springer said that would have to go to each of their respective boards for approval. She said within that initial IGA they could establish the education portion and asked how expensive that portion is.

Mr. Muccillo said around \$60,000.

Member Springer said as she understands it there are entities that do have funds set aside for water conservation.

Chairman Fann said Chino Valley has some education stuff going out and she knows Prescott does too.

Member Wilson said Prescott has a full time staff person and a program.

Member Springer said she imagines Dewey-Humboldt probably does not have money set aside for this.

Councilman Wright representing Dewey-Humboldt said he would have to check their budget.

Vice-Chairman Flannery said he is not sure if Prescott Valley actually has money for programs per se. He said they are doing a study that coincides with this and hopefully they are going to dovetail.

Member Springer asked in terms of trying to get this kicked off and to get it going if there is some way that perhaps they could take the appropriate portion of each entity's funding and diverted to this. She said the County does not have designated funds and would have to come up with it. She said they are talking about doing some of the same things and she is trying to figure out a way the others do not have to come up with new money. She said she would suggest that as the first step.

Chairman Fann said she would like to back up and define the exact area that is going to be encompassed. It was agreed they are talking about the watershed area. She asked if they have the landscapers, contractor, and everyone involved with this because they need buy in from the public.

Mr. Muccillo said they have not talked to them specifically but that has been discussed quite a bit, that Shaun from Prescott brought that up that they really need to engage the landscapers. He said that may be the first phase of the education effort is to educate them and have them help in educating everyone else.

Member Springer said Vice-Chairman Flannery brought up an important issue that municipalities have a different issue than the County does in its unincorporated areas. She said she suggests that the agreement recognize the difference. She said for example, under the current law they could not prohibit anyone from irrigating a pasture so if in the future they wanted to encourage people to get rid of lawns that would be pretty difficult to do in the County. She said the County should contribute to the water conservation effort but perhaps they may not be in the same ways as the municipalities.

Chairman Fann said that is a good point because it is not just a County situation and said to look at Dewey-Humboldt and Chino Valley. She said they have either no municipal water system or very little. She asked if this is a one size fits all or have they addressed the differences between those on municipal water systems and/or sewer versus septic

and do they have the more rural guidelines for those on exempt wells or have large acres of pasture for animals.

Keith Larson said the concept behind the regional ordinance would be the development of a model ordinance that would address the differences mentioned and then each entity could take the model regional ordinance and implement those portions that are appropriate for their area. He said if they want to go further than the model regional ordinance adopted by the TAC and the Board they are free to do that in order to deal with their own unique water situation. Mr. Larson said everybody has a different water resource situation and there are characteristics that common to all. He said the overall concept is that they would develop ordinances that go into two categories: limiting what can be done in terms of new development and a portion of the ordinances would deal with existing water users or water waste prohibitions for example no use of hoses without a shut off device. He said these are things that have been done in other municipalities that are common to water waste ordinances. Mr. Larson said in dealing with the ordinances there is room for customization for each municipality in the County.

Mayor Wilson said they had a meeting yesterday of the Regional Achievable Workforce Housing Committee composed of representatives from municipalities as well as the County. He said they are basically facing the same question, which is do they want to come up with a template to support affordable achievable housing across the areas of these components. He said they are going to come up with templates and they are model ordinances so he thinks they are going down the same path on multiple areas right now and they are probably feeling their way because some of this has not been done before.

Chairman Fann asked if a municipality or a county needs to go for lower standards than the model ordinance on some of the items will that be a problem with anybody.

Mr. Muccillo said that is something that could probably be addressed in some type of an IGA as Member Springer mentioned and they would need to consult with the attorneys as they consider the legal issues.

Member Springer said perhaps as they go through this they do not need ordinances to start with because if they just doing educational programs all they need is the IGA and addressing the theme situation. She said as they go into the second and third phase that is where they would get into the ordinance issue. She suggested that as they draft a sample ordinance they have a public hearing or two.

Mr. Muccillo said it will be beneficial when they see the detail in the memo next month as to where the savings is coming from. He said obviously the incentives are the most expensive on the list; they are over \$200,000 of the \$386,000. He said he realizes purely from a fund availability stand point that is probably the first to go. He said as more details come through they will be able to make some better decisions and the main purpose of this update is to drill down to things like phasing, how much money is available and for the Board to provide feedback.

Member Wilson said Prescott has a full blown ongoing educational program. He said if they are working as a Coalition that is all free material. Member Wilson said he noticed the target of five percent reduction in municipal water use and he remembers when Herb Dishlip came in and talked to the City of Prescott about two to three years ago. He said Mr. Dishlip's indicated that getting to safe-yield required a 22% reduction. He said California is trying for 20% reduction and he thinks five percent may be a little on the low side in terms of their targets. He said whenever he has set targets he makes them hard to get to as stretch goals and that five percent is not a stretch goal.

Mr. Larson said 20% certainly is possible. He said it depends on how much money is spent toward providing incentives for technology changeovers. He said it depends on how stringent the ordinances are in terms of what new development can do with landscaping. Mr. Larson said it depends on how effective the education component is. He said in order to achieve 20% reductions, and there are municipalities around the west that have achieved those levels of reductions, a lot of money needs to be spent and some pretty stringent ordinances need to be passed.

Mr. Larson said next month they would like to present to the Board a balanced conservation program. He said they chose the five percent based on looking at specific ordinances and specific technology replacement programs with a mind toward what the budget could bear. He said they could present a program that produces more savings. He said keep in mind the five percent is after five years and the savings will grow over time if ordinances are put in place that restrict water use in new development and as new more efficient housing units are built within the area because new units are considerably more efficient with water saving technology. Mr. Larson said as a starting point it is sort of a phase one goal and they can certainly bring back something more aggressive but 20% is a lot; it is major life style changes and they need to keep in mind they are already at a fairly low level of water use in this area.

Member Wilson said the reason he is really interested in conservation is if they look at the economics of the whole thing the cheapest way to get more water is to conserve water. He said if they go to Big Chino or anywhere else it is going to cost significantly more than it will to do the conservation.

Member Springer said she has a reluctance to set any sort of a goal in terms of a percentage of water use reduction because it is just more bureaucracy, more time to keep track, and more record keeping. She suggested they stop and consider what are their real goals and what are they trying to achieve with this organization. She said within the AMA they are trying to achieve safe-yield so everything they do is going to contribute to that safe-yield and the same thing basically in the rest of watershed. Member Springer said if they are monitoring water use in terms of the aquifers why do they need to shoot for five percent or ten percent when everything they do is going to be contributing to that. She said the problem she sees in setting those kinds of artificial numbers is that they have all of the exempt wells and they are continually making assumptions so why even bother with it.

Chairman Fann said she agreed five percent or whatever the percentage they start pointing fingers as to who is responsible for what five percent. She said she looks at Chino Valley and they have the lowest water use based on their measurable water of anybody in the AMA but that is because the water system is so small and so new with about 1600 people on a municipal water system. She said the vast majority of them are in two of their new subdivisions that were built in the last four years with very strict CC&R's regarding water conservation. Chairman Fann said for them to say they are going to reduce their municipal five percent it is almost impossible for them because they are already at the lowest; however, the vast majority of the rest of their people are on exempt wells.

Mr. Muccillo said the fact that there is a stated goal is not near as important as they had to have a mechanism to sort out what is worth doing and what is not worth doing and when it was all added up it came to five percent. He said he completely agrees and that was more of a decision making criteria.

Member Springer said in looking at the Water Smart program and it is an excellent program. She asked if it would be possible for the coalition to take over this logo and Water Smart. She said part of trying to do behavior modification is peer pressure and suggested if they had this decal to identify homes or businesses as being Water Smart.

Member Wilson said he thinks they stole the concept from the state and they customized it. He said he has always stressed cooperation among all the entities. He said he cannot speak for the Prescott City Council but he would certainly take this forward to the Council because he thinks it is a great idea.

Mark Holmes said Shaun Rydell, the Conservation Coordinator for Prescott, has offered through a cost analysis the use of that logo for all of them. He said from his perspective and Chino Valley finance they could not participate in it the next fiscal year. He said they are looking at sharing that logo and Shaun has always been regional first in the efforts of logo sharing and information sharing. He said if they want to participate it is a matter of whether the Coalition buys the identity of the logo Water Smart and then disseminates it to the municipalities or if each entity wants to fund it.

Member Springer asked what he means by buying it.

Mr. Holmes said the logo is trademarked and the City of Prescott paid for that logo to be created and if they wanted to share they would have to buy into the intellectual property of that and then they have the right to use that on all of their information.

Member Springer asked if it would be necessary to charge everybody that much money.

Member Wilson said he could only speak for himself and he would take it to the Council. He said he would want to know more information about what they paid originally but he is of the mind that he would like to see regional cooperation so whatever he can do from an individual basis he is willing to do.

Jim Holt said he does not have details on the cost of the logo and trademark. He said he knows that Shaun did do some analysis on it. He said he wanted to caution the Board that the regional water conservation program they are trying to develop right now is conceptual. He said they are currently talking in specifics and implementation on such a level of detail but he is not sure this really gets them where they need to be at this time. He said he suggest they focus on the topics of how they are trying to move this in terms of the direction. Mr. Holt said as they have the opportunity to develop some of these details and some of the implementation strategies they can share them in a more intelligent discussion than they can have right now.

Chairman Fann said to clarify it seems they are thinking about breaking this down into phases with Public Education as Phase 1 and they can get going on that as soon as possible. She said while the TAC continues to work on Phases 2, 3 & 4, those components will be based on legal opinions, public input from other municipalities, and gathering more information about how much each of these phases will cost. She asked if she understands this correctly.

Member Springer said she prefers to have a comprehensive information package ready before they go back to their respective boards for an Inter-governmental Agreement. She said she would rather wait a few months until they work out the details regarding the logo, along with more details on the education piece and then seek approval from their respective entities.

Mr. Muccillo said that is exactly the kind of feedback he is looking for because before they publish a final memo they can certainly focus a lot more effort on the details of public education realizing there will be details on the other three pieces that have to be worked out. He said they can focus their thinking over next month and get something going in Phase 1.

Member Flannery asked Mr. Muccillo if he is suggesting that what they will have to take back for approval by their respective councils and boards would be a Phase 1 approach and then later deal with a Phase 2 or will they have Phase 1, 2 &3.

Mr. Muccillo said he was thinking of an IGA with some type of an implementation schedule but there could be some reluctance that there is going to be scheduled commitment of funds in the future which could cause some heartache. He said maybe they should do an IGA with specific details on the education piece and a thumbnail of the other pieces.

Howard Mechanic, 309 Bloom Place, said he participates in these workshops and discussions. He said he agrees with Mayor Wilson that 20% is a good goal to reach. He said he thinks it is necessary under their situation and to protect the Upper Verde River. He said conservation has to be one component of a major plan to achieve these two goals. Mr. Mechanic said it is a little disappointing to cut back on program that has recommended saving 5%. He said the public will be looking at the Board and they are proposing to save 1 or 2 % based on what they can afford to do right now. He said understanding that this is 50/50 match through the Bureau of Reclamation it would be advantageous to come up with those Bureau of Reclamation funds. He said one thing that was discussed is the existing funding and that Coalition members already have funds that they send to the Coalition. Mr. Mechanic said they had projections for the second year programs that would use those funds. He said they also have an existing balance of \$117,000 plus a year's funding. He suggested the Board add up that money and decide how much of that they think is worthwhile for a conservation program instead of thinking how much more do they have to go ask their respective communities to budget because the Board already has funds. Mr. Mechanic said the Board has temporarily decided on what the programs would be for the second year and he thinks they might want to move up conservation. He said according to Member Springer ordinances could come later and he is not clear on why it would be advantageous to delay that process because it is not a funding issue.

Member Springer said her made that suggestion only because she felt they could move more quickly on the education portion and that ordinance drafting might take a little longer.

Mr. Mechanic said the education portion could be kicked off and there already is more detail, which will be coming in the next packet for August. He said the basic issue to be discussed is not to go back to their councils for more money rather he is asking the Board to review their existing second year budget and decide how much they should dedicate on a regular basis to conservation.

Chairman Fann said regarding the funds it is too premature and that is what they are waiting for is for Mr. Muccillo and his team to come back with the specifics regarding cost and funding. She said that will be addressed next month. She said the second thing is for discussion purpose; regardless of the reduction amount who would be responsible for achieving it.

Mr. Mechanic said that was not really discussed rather it was a bulk savings. He said it was a goal for gross savings.

Chairman Fann said if everybody is ok with the percentage being bulk throughout that is fine. She said Mr. Mechanic and herself served on Safe-yield Committee and they know that was a very touchy subject because fingers started getting pointed about who is responsible, especially those with exempt wells.

Mr. Mechanic said when they look at the proposal if there is an incentive proposal and somebody applies for and incentive they will be saving water. He said the people who

will not be applying for incentives will not be saving water. He said the incentives are to try to reach savings around the community. Mr. Mechanic said he is saying they need to see how the \$386,000 is going to fit into their budget and that is per year, which equals \$1,600,000 over the five year period to reach a five percent savings. He said they need to get their priorities straight and he understands that. He said his understanding is that the savings by rate increases is above the five percent and in addition to these programs structured to save five percent there will be savings based on conservation caused by rates.

Chairman Fann asked should they implement an incentive plan with tiered incentives according to the amount of water saved.

Mr. Mechanic said that was not discussed except for commercial ventures. He said estimates are based upon the type of replacement and the savings assumed with that replacement.

Chairman Fann said she thinks that first and foremost is to get Phase 1 of Public Education going and come back next month with information about the financial impact. She said in the meantime they will be working on bullet points 2, 3 & 4 and come up with all the other details about implementation, buy in and the dollars involved. She said at that point they will determine how and over what period of time.

Mr. Mechanic asked if the Board will review their second year plan.

Member Wright said in the educational aspect of this there are three emotional vectors that must be considered in his opinion: watering of trees, gardens and lawns have a high emotional index. He said they need to be careful how they approach that in their educational program.

Member Wilson said from a planning perspective everybody who has done any planning understands that all plans are obsolete as soon as they are written because reality changes; therefore they review things as necessary as things change.

Mr. Muccillo said he knows that the next Board agenda item is recharge and that is something that the Board is going to want to dedicate funds to. He said he thinks it is a an appropriate time to do a scheduled budget.

Joanne Oellers, 11201 Western Sunset Drive in Dewey and representing the Center for Diversity, said she had a couple of resource suggestions. She said she thinks Jeff Schalau, Cooperative Extension Director, is working on some programs that deal with rural water users, possibly those on small acreages, that might be an extension of the master watershed program he already has going. She said another idea she had is that the folks in Sedona have a program called Sedona Water Wise along with John Neville, who runs the Sustainable Arizona organization. She said their community is very responsive and involved on a volunteer basis with helping implement this particular program.

KF  
**ITEM NO 8. Discussion – Update on Recharge Mapping Task**

Mr. Muccillo said they had their first recharge workshop and the two topics they tackled were the natural and the artificial recharge. He said the mapping task that was previously authorized is pretty much done and the map will be ready by the August meeting. He said regarding natural recharge there does not appear to be any imminent threat to areas where natural recharge may be currently occurring and that seemed to have turned out better than they expected. Mr. Muccillo said on artificial recharge that is the 500 pound gorilla they are trying to get their hands around. He said the discussion led to some more

detailed concepts like recharge wells, recharge of excess imported water, how to leverage effluent from sewerage currently unsewered areas or small treatment plants going in with development, and collection of shallow groundwater through some design collection systems that Mr. Doug McMillan has been conceptualizing with Civiltec. He said they also discussed regionalized facilities, requirements for planned communities to recharge effluent or recharge retained storm water, and grassland management. Mr. Muccillo said they wanted to get the mapping established so that they would be able to zero in on areas where they could start looking at projects and when they do come up with them they would have some scientific defense of why they chose the areas they did and why they did not choose other areas.

Member Wilson asked concerning the GIS mapping, where did they get their data from.

Mr. Muccillo said from a multitude of resources including ADWR, USGS, County GIS, Soil Conservation Service and others and confirmed that established resources were used.

Member Wilson asked how they would accomplish the second bullet point:

More detailed mapping could be developed and incorporated in the Yavapai County GIS in order to provide a vehicle to safeguard existing lands where natural recharge may be occurring.

Mr. Muccillo said when they first embarked on this they anticipated finding some areas where there was imminent development with a pretty significant chance that natural recharge was occurring but when they did not find it became a lot less significant. He said the idea there would be to identify areas where natural recharge may be occurring or likely to be occurring, possibly by an ordinance. He said that could trigger some required investigation at the time of a land transfer to protect the area or mitigate it to ensure existing natural recharge is not being lost.

**ITEM NO 9. Discussion – Update on Ad Hoc Discussion Group Regarding Coordination/Assimilation between Verde River Basin Partnership, Yavapai County Water Advisory Committee, and Upper Verde River Watershed Protection Coalition**

Dan Campbell representing the Nature Conservancy said the letter is a result of the Ad Hoc Discussion Group meeting. He said as an active observer he thinks it is the right thing and that there will be a future for all three water groups wanting to work better together. He said he thinks the Coalition and the WAC have taken the first step. Mr. Campbell said the next step will be for the technical groups to work together.

Chairman Fann said at the Partnership meeting one week ago it was proposed to the general membership of the Partnership the possibility of an assimilation sort of thing. She said got the impression there is not a 100% consensus in favor of assimilation.

Mr. Campbell said the news that will go back to the Partnership will be pleasing to a lot of people. He said there may be a need for an IGA type of groups rather than disbanding and that there will need to be another meeting of the Partnership to digest this news.

Chairman Fann said they do have a meeting scheduled Tuesday, August 29, 2008 at 10:00 a.m. at the Prescott Public Library in the Founders' Room.

Mr. Campbell encouraged Chairman Fann to weigh in with Vice-Chairman Flannery to meet one more time so they can have a conversation about how to strengthen the WAC as a result of this.

Member Flannery said one of the things in terms of assimilation or merging they have three groups that have strong identities and they want to continue in the path they are

going. He said the missing link was they needed something that said that they wanted to cooperate and coordinate and they have gotten that from two of the groups. He said it would be nice if they got that back from the Partnership.

Mr. Campbell said he thinks it is a good thing and they each have a niche. He said in terms of biological diversity eco systems that are the most diverse the strongest ones and he thinks it is true in social systems, too.

Member Flannery said the cooperation needed to be strengthened and he is glad that it occurred because of that. He said the bad news is he has informed John Munderloh that he is that cooperation/coordination part of it. He said he is not exactly sure why they are going to meet Tuesday but he will be there.

Member Wilson said in terms of the Verde River Basin Partnership and general membership when the final by-laws were approved they are not a consensus organization, basically they are a majority organization. He said it is his understanding that with three people that were the most vocal at that last general membership meeting he believes they have the will to go forward and then make this happen.

Mr. Muccillo asked if this is to be a monthly discussion agenda item.

Chairman Fann said that was the original plan and asked the Board members if this is this something that they want to keep on the agenda.

Vice-Chairman Flannery suggested added a regular update from the other organizations as to where they are and what they are doing. The consensus was yes only as it relates to the work of the Coalition.

**ITEM NO 10. Discussion – Next Meeting Time / Location / Agenda Items**

Chairman Fann said the next UVRWPC meeting will be Wednesday, August 27, 2008, 2:00 p.m. at Prescott City Hall.

It was determined the agenda items will include conservation, recharge, a budget update/draw schedule, and a report on the Bureau of Reclamation Study and to have Shaun Rydell available to answer questions.

**Meeting adjourned at 3:23 p.m.**

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KAREN FANN, Chairman

ATTEST:

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LORRI CARLSON, Deputy City Clerk



## AGENDA ITEM NO. 4

### DISCUSSION – PROGRAM MANAGER’S REPORT

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#### Task 1 – Program Management

##### **Board Meeting Preparation & Facilitation**

- Facilitate July 23<sup>rd</sup> Board Meeting
- Review of minutes for July 23<sup>rd</sup> Board Meeting
- Preparation of agenda and attachments for August 27<sup>th</sup> Board Meeting

##### **TAC Meeting Preparation & Facilitation**

- Preparation of agenda and attachments for August 13<sup>th</sup> TAC Meeting
- Preparation of agenda and attachments for August 13<sup>th</sup> TAC Safe Yield Workgroup Meeting
- Facilitate August 13<sup>th</sup> TAC Meeting
- Facilitate August 13<sup>th</sup> TAC Safe Yield Workgroup Meeting
- Preparation of summary for August 13<sup>th</sup> TAC Meeting

##### **Other**

- Conduct B&N project team conference calls

#### Task 2 – Website Management

- Posting of agenda and attachments for July 23<sup>rd</sup> Board Meeting
- Posting of agenda and attachments for August 13<sup>th</sup> TAC Meeting
- Posting of agenda and attachments for August 13<sup>th</sup> TAC Safe Yield Workgroup Meeting
- Posting of agenda and attachments for August 27<sup>th</sup> Board Meeting

#### Task 3 – Water Conservation Programs

- Revised Draft Water Conservation Technical Memorandum
- Team conference calls to discuss water conservation task issues
- Presentation to TAC at August 13<sup>th</sup> TAC Meeting
- Prepare Board Update



**AGENDA ITEM NO. 4 (continued)**

**DISCUSSION – PROGRAM MANAGER’S REPORT**

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**Task 4 – Hydrologic Monitoring**

- Task on hold

**Task 5 – Recharge Mapping**

- Completing mapping efforts for natural and artificial recharge
- Conference calls to discuss recharge task issues

**Financial Report**

**Invoices Received**

- An invoice for \$19,145.86 was issued by Burgess & Niple, Inc. on August 13, 2008, for program management work and tasks performed through July 20, 2008.

**Current Balance**

- *Prior to contributions for FY 08/09*, the balance of the Upper Verde River Watershed Protection Coalition prior to the invoice dated August 13, 2008, is \$89,593.61.



**AGENDA ITEM NO. 5**

**DISCUSSION – TAC MEETING SUMMARIES – AUGUST 13, 2008**

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The meeting summary for the TAC Meetings held on August 13, 2008, is attached.

**AGENDA ITEM NO. 6**

**DISCUSSION – COALITION BUDGET UPDATE**

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Discussion about the Coalition budget, including funds spent to date and anticipated available funds for the next year.



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

Monday, August 13<sup>th</sup>, 2008  
Yavapai County Administrative Services Building, Gladys Gardner Room  
1015 Fair Street – Prescott, Arizona

### TAC Meeting – 1:00 p.m.

#### Attendees:

TAC Members: Mark Holmes, John Munderloh, Jim Holt, John Rasmussen  
Program Management Team: Ed Muccillo, Rick Shroads, Keith Larson  
Guests: Howard Mechanic, John Zambrano, Candace McNulty, Louis Bellesi, Daniel Timmons, Steve Conrad, Jabe Wills

#### Discussion Notes:

- **Reviewed Previous Board Meeting Minutes.** No comments from TAC on draft minutes.
  
- **Water Conservation Programs.** A presentation by Keith Larson of Larson and Associates was made to the TAC. This was the draft presentation on water conservation program recommendations scheduled to be presented to the Board on August 27<sup>th</sup>. The TAC concluded that three alternatives would be presented to the Board:
  - Alternative 1 – Implement all Recommended Phase 1 Programs in 2009 (total cost to Coalition after federal grants - \$191,000. Estimated water savings by 2013 = 862 AF/YR (5 % reduction)
  - Alternative 2 – Implement Recommended Phase 1 Education/Information Program, Model Regional Conservation Ordinance, and 50 Percent of Recommended Financial Incentive Program Funding in 2009 (total cost to Coalition after federal grants - \$123,000. Estimated water savings by 2013 = 658 AF/YR or 3.8% reduction.
  - Alternative 3 – Implement only the \$60,000/YR Education/Information Element and develop and implement model regional water conservation ordinance (total cost \$95,000/YR, including \$35,000/YR program development and administration cost). Estimated water savings by 2013 = 580 AF/YR or 3.4%.

Additionally, the TAC concluded that a three-year phased implementation plan would also be presented to the Board. The following approach will be recommended if a phased approach is desired for budgetary reasons. The additional local cost-share funding shown below assumes a 50 percent federal grant is obtained.



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

Monday, August 13<sup>th</sup>, 2008

Yavapai County Administrative Services Building, Gladys Gardner Room  
1015 Fair Street – Prescott, Arizona

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- Year 1 (2009) – Implement Alternative 3 programs (Information/Education Program, ordinance development and implementation); Cost - \$42,500/YR from existing budget
  - Year 2 (2010) – Implement programs in Alternative 2 programs (Information/Education, ordinances, and begin providing incentives); Cost - \$23K/YR additional local cost share
  - Year 3 (2011) – Implement Alternative 1 programs (implement all elements of regional program); Cost - \$91K/YR additional local cost share
- **Coalition Budget Review.** A review of the Coalition funds spent to date and a rough projection of funds scheduled to be expended in the next 12 months was discussed. After a cursory review, approximately \$163,000 is projected to be available for projects and/or tasks through July 2009. A more detailed budget analysis and projection will be prepared for the Board Meeting.
  - **Review Next Board Meeting and TAC Meeting Agenda Items.** Items discussed for the next Board meeting include:
    - Water Conservation Grants
    - Potential Budget Discussion
    - Potential Update on Recharge Efforts

Agenda items proposed for the next TAC Meeting include:

- Water Conservation Programs – Grants & Implementation
- Recharge Efforts



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

Monday, August 13<sup>th</sup>, 2008  
Yavapai County Administrative Services Building, Gladys Gardner Room  
1015 Fair Street – Prescott, Arizona

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### Safe Yield Workgroup Meeting – 2:30 p.m.

#### Attendees:

Workgroup Members: Mark Holmes, John Munderloh, John Rasmussen, Steve Conrad, Dirk Stingham, Jabe Wills, Howard Mechanic, Joanne Oellers

Program Management Team: Ed Muccillo, Rick Shroads

Guests: Gerry Wildeman (ADWR), Daniel Timmons, John Zambrano, Candace McNulty, Louis Bellesi, Doug McMillan

#### Discussion Notes:

- **Active Management Area (AMA) Water Budget Model.** A presentation by Daniel Timmons was made to educate the workgroup members as to the current groundwater situation. The premise of the presentation was to discuss the potential impacts of different scenario combinations of growth and groundwater pumping.
- **AMA History, Rules and Policies.** Gerry Wildeman, from the Arizona Department of Water Resources (ADWR) made a presentation to the workgroup regarding the history of the AMA, current AMA statistics, a policies and procedures.
- **Review Next Workgroup Meeting Agenda Items.** Items discussed for the next workgroup meeting include:
  - Future Meeting Topic Brainstorming Session



#### **AGENDA ITEM NO. 7**

#### **PRESENTATION, DISCUSSION, & POSSIBLE ACTION WATER CONSERVATION PROGRAM RECOMMENDATIONS**

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A presentation and review of the technical memorandum prepared by Larson and Associates with the TAC regarding recommendations for implementing water conservation programs. The technical memorandum is attached.

#### **AGENDA ITEM NO. 8**

#### **DISCUSSION – NEXT MEETING TIME / LOCATION / AGENDA ITEMS**

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##### **Board Meeting**

The next regularly scheduled Board Meeting is on September 24, 2008, at 2:00 p.m., at the City of Prescott Town Hall, Council Chambers, 201 South Cortez Street, Prescott, Arizona. Agenda items proposed for the next Board Meeting include:

- Water Conservation Grants
- Potential Budget Discussion
- Potential Update on Recharge Efforts
- Safe Yield Workgroup – Agricultural Candidate

##### **TAC Meetings**

The next regularly scheduled TAC Meeting is on September 10, 2008, at 1:00 p.m., at the Yavapai County Administrative Services Building, Gladys Garner Room, 1015 Fair Street, Prescott, Arizona. Agenda items proposed for the next TAC Meeting include:

- Water Conservation Programs – Grants & Implementation
- Recharge Efforts
- Safe Yield Workgroup – Agricultural Candidate

The next regularly scheduled TAC Safe Yield Workgroup Meeting is also on September 10, 2008, at 2:30 p.m., at the Yavapai County Administrative Services Building, Gladys Garner Room, 1015 Fair Street, Prescott, Arizona. Agenda items proposed for the next TAC Meeting include:

- Future Meeting Topic Brainstorming Session

# **Larson and Associates**

## **Water Resources Consulting**

### **Memorandum**

**To: Upper Verde Watershed Protection Coalition Board**

**From: Keith Larson, Larson and Associates**

**Subject: Proposed Phase 1 Regional Water Conservation Program Alternatives**

**Date: August 27, 2008**

This memorandum describes a proposed Phase 1 Regional Conservation Program for the Upper Verde Watershed Protection Coalition area. Several alternatives for implementing Phase 1 programs are provided for the Board's consideration. The recommendations are based on an evaluation of conservation program alternatives conducted by Larson and Associates and the input of Technical Advisory Committee (TAC) members and other stakeholders received during two workshops held on June 11 and July 14, 2008. In addition, feedback received from Board members at the July 23, 2008 meeting is addressed. During the workshops, the cost-effectiveness, pros and cons, and implementation issues of various conservation program alternatives were presented by Larson and Associates and discussed in detail by the stakeholders. This memorandum provides a brief summary of the analyses of program alternatives, descriptions of the programs recommended for implementation, the potential water savings from each program, and planning level budget estimates for several program alternatives.

#### **Executive Summary**

The TAC's recommendation is that a first phase of a balanced regional water conservation program be implemented by the Coalition that includes the following elements:

- Implement an intensive public information and education effort focused on reducing outdoor landscape water use in the municipal sector (residential and commercial/industrial).
- Provide financial incentives for the installation of water-saving technology and turf landscape conversions to xeriscape.
- Provide water use audits for residential and nonresidential water users.
- Develop and implement a model regional water conservation ordinance aimed at improving water use efficiency in new residential and nonresidential developments and among existing water users.

Most cities and regions that have reduced overall water use significantly have implemented comprehensive programs comprised of the above elements.

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The water conservation savings goal of the Phase 1 regional program is to achieve approximately a 5 percent overall reduction in municipal water use rates within five years of program implementation. The planning level estimate for the program budget is approximately \$382,000 per year. It is recommended that the Coalition apply for federal grant funding for 50 percent of program costs. Several alternatives are provided for program funding and implementation to mitigate the cost impact to Coalition members. The total projected water savings after five years of implementation of the recommended programs (by the end of 2013 assuming program start-up in 2009) and the estimated annual budget for program is as follows:

<b>Regional Program Summary</b>	<b>Program 5-Year Savings Goal (AF/YR)</b>	<b>Annual Program Budget</b>
Financial Incentives	356	\$213,000
Customer Outreach – Audits	26	\$29,000
Information and Education	340	\$60,000
Ordinances	240	N/A
Program Administration (1 staff position or consulting fees)	-	\$80,000
<b>Conservation Program Totals</b>	<b>962</b>	<b>\$382,000</b>

Two U.S. Bureau of Reclamation conservation grant programs exist: 1) The Water Conservation Field Services Program administered out of the Phoenix office (provides grants up to \$50,000 per year); and 2) the 2025 Challenge Grant Program administered out of the Denver western regional office (provides grants up to \$300,000/year).

Additional water conservation programs beyond those recommended for Phase 1 implementation could be implemented by the Coalition in the future to achieve a 20 percent reduction or more. Additional programs would involve additional implementation costs and potential social and economic impacts within the community. Additional regional programs that could be implemented as part of future phases are described later in this memorandum.

**Recommended Public Information and Education Element**

The regional water conservation survey data collected in 2007 clearly indicated that many homeowners are not irrigating outdoor landscapes efficiently. Many water users are probably over-irrigating by as much as 50 to 100 percent. This is true whether users are irrigating turf, xeriscape landscapes, or native plants. Therefore, the objectives of the regional public information and education element include:

- Provide detailed seasonal information on irrigation budgeting to reduce outdoor water use to homeowners and landscape professionals.
- Provide information on landscape and irrigation design to homeowners and landscape design and maintenance professionals. Work with the nursery and landscape profession in developing appropriate irrigation scheduling information and messaging.
- Publicize the availability of financial incentives to water users in the region.

- Communicate specific regional water savings goals, the need for conservation in the region, and other aspects of the program (such as the availability of audits and ordinances).
- Utilize one regional conservation program “branding slogan,” such as the “Water Smart” brand currently in use by the City of Prescott.

The use of a single conservation brand and a cohesive information and messaging program will be more effective in achieving behavioral changes within the community than having individual conservation programs implemented by Coalition members. Individual programs that differ in content can lead to confusion among water users as to the need for water use efficiency and how to achieve reductions in water use.

A primary objective of the information and education effort is to reduce annual outdoor water use among single family residences by an average of 10 percent. Achieving this goal would result in approximately 340 AF/YR of water savings based on estimated 2007 single family unit outdoor water use within the Coalition area. Additional savings would occur through reductions in nonresidential landscape water use and indoor conservation efforts. The proposed media and communications strategy for conveying conservation messages to all water users in the region includes:

- Develop print material for regional direct mail distribution, bill inserts, and distribution at pay stations, government buildings and community fairs.
- Advertise in local newspapers and regional magazines.
- Focus messaging on specific outdoor irrigation budgeting information appropriate to the season, irrigation system management, and xeriscape design.
- Use the above media to advertise incentive programs.
- Utilize at least quarterly messaging geared to the primary irrigation seasons: Spring/early summer, Monsoon, fall, winter (onset of rains).
- Use radio spots to communicate seasonal irrigation scheduling guidelines, etc.
- Develop a conservation packet to be sold at a nominal cost (e.g. \$10) to homeowners within the area. This packet would include items such as low-flow showerheads, faucet aerators, information on irrigation budgeting, xeriscape design, and rainwater harvesting.

The estimated budget for the information and education program is approximately \$60,000 per year. This is based on the example budget shown below (does not include administrative cost). If the Information and Education element is implemented alone, estimated program development and administration costs are \$35,000 per year. The actual mix of the media used may vary from that presented below and may include other education elements.

<b>Education Program Element</b>	<b>Items per Year</b>	<b>Cost/Item</b>	<b>Annual Cost</b>
Newspaper Ads (3 papers)			
Daily Courier	8	\$834.00	\$6,672
Prescott Valley Tribune	8	\$382.80	\$3,062
Chino Valley Review	8	\$306.90	\$2,455
Smart Card Printing (Glossy)	60,000	\$0.12	\$7,200
Smart Card Printing (non-Glossy)	258,000	\$0.02	\$5,160
Smart Card Production - 6 cards	6	\$650.00	\$3,900
Mailing Costs to Exempt Wells	54,000	\$0.18	\$9,720
Radio Ads	600	\$22.00	\$13,200
Radio Ad Production	6	\$1,000.00	\$6,000
Conservation Packets	300	\$10.00	\$3,000
<b>Education Program Totals</b>			\$60,370

### **Recommended Customer Outreach – Water Use Audit Program**

Providing water use audits to residential and nonresidential accounts has been shown to be a cost-effective means of reducing community water use. It is proposed that the regional program make available indoor and outdoor water use audits targeted to high water use customers. Audits would be conducted by trained auditors employed as staff of the Coalition, by staff of the Coalition members, or by outside vendors. Auditors would examine residences and businesses for leaking toilets and leaking faucets, repair leaks (e.g. install new toilet flapper), install low-flow shower heads and faucet aerators, and review outdoor irrigation uses and make recommendations regarding irrigation scheduling. The estimated cost per residential audit is \$125 per single family home. Commercial facility audits would also be offered at an anticipated average cost of approximately \$1,000 per facility. Anticipated water savings from commercial audits is not predicted here and would be in addition to the estimated savings shown below.

<b>Audit Program Element</b>	<b>Program 5-Year Savings Goal (AF/YR)</b>	<b>Annual Program Budget</b>	<b>Projected Annual # Participants</b>
<b>Customer Audits</b>			
Residential Audits	26	\$25,000	200
Commercial/Industrial Audits	Unknown	\$4,000	4
<b>Total Audit Program</b>	26	\$29,000	204

### **Recommended Financial Incentive Programs**

A number of potential financial incentive programs were analyzed for potential implementation on a regional scale. The programs evaluated include:

- Toilet rebates – Ultra low-flow (ULF - 1.6 gallons per flush [gpf]), High Efficiency Toilets (HEF – 1.3 gpf), and Dual Flush Toilets (0.6 gpf and 1.6 gpf)
- Toilet distribution programs for each of the three types of toilets
- High efficiency washing machine rebates (22 gallons per load or less)
- Hot water recirculation equipment rebates
- Landscape conversion rebates (turf to xeriscape)
- Commercial waterless urinal rebates
- Rain water harvesting equipment rebates (rain barrels)
- Device Giveaways (showerheads, hose nozzles, and faucet aerators)
- Other potential incentives, such as customized commercial rebates and Et-based irrigation controllers.

A spreadsheet was developed that calculated potential program costs and benefits for each incentive program. The following statistics and parameters related to program cost-effectiveness were compiled based on industry studies:

- Assumed cost for each device to either the consumer or the Utility/Coalition
- Device installation cost
- Incentive amount provided
- Annual water savings per customer account
- Potential regional customer base eligible to participate
- Expected annual market penetration percentage and total annual participants
- Customer payback period in years assuming \$4.00/1000 gallons cost of water
- Cost per acre-foot of water saved (to the Utility/Coalition)
- Total potential annual program cost within Coalition area
- Total potential annual water savings after 5 years of program implementation.

Additional considerations impacting the cost-effectiveness of each program were also discussed, such as expected participation rates, percentage of “Free Ridership,” and potential water savings versus program administration cost. Based on this analysis, the consensus of the TAC and other stakeholders was that the Phase 1 regional incentive program should include the incentives listed below. Shown below are the projected 5-year program savings from each element, cost per acre-foot of water saved, the expected number of participants, and the total annual program cost estimate. It is recommended these programs be made available to all residents and businesses within the Coalition area, including well owners and those served by private water companies or small community water systems.

Phase 1 Incentive Program Element	Program 5-Year Savings Goal (AF/YR)	Annual Program Budget	Projected Annual # Participants	\$/AF Water Saved
<b>Incentive Programs</b>				
Single Family Toilet Distribution or Rebate (HET, 1.3 gal./flush, or dual flush)	184	\$84,600	564	\$2,300
Multifamily Toilet Distribution or Rebate (HET, 1.3 gal./flush, or dual flush)	68	\$24,000	192	\$2,300
Single Family Turf Conversion Rebate @ \$0.50/s.f. of turf removed	62	\$70,500	141	\$5,700
Nonresidential Waterless Urinal Rebate	22	\$18,000	90	\$4,000
Custom Commercial/Industrial Rebates @\$4,000/AF Saved	20	\$16,000	2	\$4,000
<b>Total Incentives</b>	<b>356</b>	<b>\$213,100</b>	<b>989</b>	

Incentive Programs Not Selected for Implementation in Phase 1

Several programs were analyzed but not selected for implementation because either: 1) the program has a high cost per acre-foot of water saved, 2) the anticipated water savings per installation is small compared to other programs, or 3) the programs have high expected rates of “Free Ridership.” Incentive programs not selected for implementation in Phase 1 but that could be implemented at a later time by the Coalition if additional water savings are desired include: Hot-water recirculation equipment rebates for single family residences (\$8,000/AF cost), high-efficiency washing machine rebates (\$7,800/AF cost), Et-based irrigation controller rebates for residential use (the high complexity of use is problematic for most homeowners), and rain water harvesting barrel rebates (\$10,000/AF cost).

**Recommended Model Regional Water Conservation Ordinance**

Several concepts were discussed by the TAC related to development of regional water conservation ordinances. The concept for which there was consensus was the development of a model conservation ordinance to be brought to the Coalition Board of Directors for adoption. Through adoption of a regional model ordinance by the Board, each Coalition member agency would agree to adopt the ordinance (or a variation of the ordinance) in its City, Town, or County Code. Individual Coalition members would be able to adopt more stringent conservation ordinances if desired to deal with its unique water resources situation.

Several ordinance approaches adopted by cities in Arizona and other western states were evaluated and discussed. The elements of the model ordinance for which there was consensus among the TAC members and other stakeholders, and the projected water savings for each element after five years of implementation are shown below. Annual water savings from these ordinances would continue to increase beyond 2013 as more new homes and businesses are constructed with water conserving landscapes and interior plumbing.

<b>Recommended Ordinance Element</b>	<b>Water Saved by 2013 (AF/YR)</b>
<b><u>HET Toilet Requirement New Residential and Nonresidential</u></b>	
Ann. Savings per SF Unit (gallons)	
1,205	36
Ann. Savings per MF Unit (gallons)	
1,205	10
<b><u>Turf Restricted to 600 sq.ft. in New Single Family Residential Units</u></b>	
Ann. Savings per Unit (gallons)	
3,500	103
<b><u>Turf Restrictions for New Commercial, Industrial, and Multifamily Develop.</u></b>	Unknown
<b><u>Hot Water on Demand Requirement for New Single Family Units</u></b>	
Ann. Savings per SF Unit (gallons)	
2,000	59
<b><u>Waterless or 0.125 Gal/Flush Urinals in New Commercial/Industrial</u></b>	
Annual Savings per Unit (gallons)	
18,250	32
<b>Total Coalition Area Savings (AF/YR)</b>	<b>240</b>

Water Waste Prohibitions and Other Elements of the Recommended Model Conservation Ordinance

Water conservation ordinances often include provisions for which accurate water savings estimates are not possible, but which most certainly will result in water savings. These requirements are also important in communicating to the community the importance of efficient water use. The water waste prohibitions and education-oriented ordinance components for which there was consensus among the TAC and other stakeholders include:

1. Prohibition on fugitive water leaving the property and running in streets and gutters.
2. Prohibition on spray irrigation during the daylight hours to reduce evaporation losses (currently in place in City of Prescott).
3. Requirement that new multifamily units be individually metered.
4. Car washing and other outdoor water uses allowed only with use of a hose nozzle shutoff.
5. Water recycling requirements for new commercial car washes.











