Item 6 - WAC Priority Projects – 2007

Science:

U.S. Geological Survey Northern Arizona Regional Groundwater Flow Model [Coordinator/TAC]

Hoyt Johnson, scenario development (for use in model) [TAC/Coordinator]

Verde Valley Surface Water Study (scoping phase) [TAC/Coordinator]

Persistent Chemicals (rework proposal) [Coordinator/TAC]

Other data gaps (e.g. water budget related (gages, wells)) [TAC/Coordnator]

Other watersheds: identify needs and opportunities [Coordinator/TAC]

Other: (e.g. "information-transfer as needed") [Coordinator/TAC]

Management

Conservation

Updated WAC Report [Coordinator/Conservation Subcommittee]
Coordination with other groups (ADWR, Reclamation, CYWCP) [Coordinator]

Management Comparison/Options Report [Coordinator]

Pilot Management Project (work with Clarkdale) [TAC/WAC/Coordinator]

Legislation [WAC/Coordinator]

"Questions" Document (what we know; what we recommend) [Coordinator/WAC]

Local Drought Impact Group (LDIG) [Coordinator/ "LDIG subcommittee"]

Education and Outreach

Project WET in Yavapai County (cost share with ADWR) [Coordinator/Outreach Subcommittee]

Water festivals [Outreach Subcommittee]

Outreach/Education subcommittee activities (newsletter, website, water quality, etc)

Reports to Councils and Supervisors [Coordinator/WAC]

Database/Clearing House for water resource studies, data, "information" [TAC/Coordinator/Outreach subcommittee]

Liaison with other groups and track of other projects (i.e. NAMWUA, Coconino WAC, Coalition, Partnership, Agua Fria Partnership) [Coordinator]

Agenda Item 6 continued: Questions of the WAC

February, 2007

The WAC agreed to consider and bring to the February WAC meeting some of the key questions that the WAC members, councils and communities have that they would like the work of the WAC to answer. The following email was sent to WAC members (italics below). Some responses were sent and are included below the italics.

In general, the questions fall into two categories: knowledge and recommendations:

(1) What do we know about the hydrologic/water resources system?
(2) How can and should we use this information for planning and management?

Email: This email serves as a reminder and a call for your water resource related questions (e.g. the questions of your councils and mayors). What do you need to know? What do you want the various studies to tell you?

As you know, it is important to know what questions we are trying to answer. I realize we all basically have an idea of the key questions and even the questions that need to be answered to address the key questions. However, we need to be explicit. As per the previous WAC meeting, we will discuss the list of questions at the next WAC meeting. So, prior to the next meeting, please email me any water related questions you can think of that would be valuable to your community. Or bring your list to the meeting.

Some examples of questions I have heard include:
How much water is there?
Where is the water?
Do we have enough water for projected growth?
Where can we get more water?
What are the consequences of extracting water?
What is the "safe-yield" amount?
How can we achieve efficient use of the existing supplies?
What does "regional management" mean and how does the WAC help?
How can we best use the information the WAC has gathered, what is its value?

Some Responses:

I would like to know the answers to all of the questions that you raise in [your] email. [Plus]

How much water, where is it, how does that amount fit into the Verde Valley/Cottonwood's general plan and plans for growth and build out?

How do we assess Verde Valley concerns about our growth impact on the river?

"How can we have a strong, robust economy— would it be wise to find ways to create a sustainable and diversified economy—with a diversified economic base and not one built singularly on homebuilding and growth—just in case water becomes as severe an issue as some predict in the next 20 to 25 years. Many scientific studies and governmental agencies indicate water will be an issue in the West with continued growth. Nobody wants to see a dead economy. Nobody wants to dry up the few remaining rivers we have in Arizona. The economy is really at the crux of the water debate.

How do we grow a vibrant, sustainable economy and create sustainable water resources for people and businesses?

How do we get people not to "shut down" when we mention the word sustainable?

What is sustainable? It can mean a dozen different things to as many people.

How much water do we have in storage (aquifers)?
How much do we need for projected growth?
Will consumption impact neighbors...as in immediate neighbors being affected by exempt wells, and also neighboring communities being impacted by upstream pumping/diversion?
Will pumping impact river/how can we mitigate?
How does drought affect water supply?
Is there a way of capturing/storing/recharging rain/snowmelt that SRP would not claim?
How much impact to rivers, streams aquifers can we accept?
What is our minimum GPCD that we can live with?
Can we legally limit growth in our communities to protect quality of life and environment?
Do we really want to do way with AG/ranchlands, or can we protect these for the safeguards they are?

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1. How much water can we economically access from area X with minimal impact on other wells and ecosystems?
2. Where is the most economically advantageous place to drill a municipal well in my municipality's area?
3. What is the water quality I can expect from a well drilled in area X?
4. What is the maximum sustainable withdrawal rate from well X?
5. WHERE IS THE WATER?
6. What is a reasonable GPCD target for the municipality of the future? 30?
50? 75? 90?

7. What is the best way to achieve that goal? Rates? Conservation ordinances? Infrastructure improvements? Education?
8. What ordinances need to be in place in order for our municipality to set strict consumption targets for new development?
9. How much water are the "exempt wells" in my area using?
10. How can we create an equitable and palatable program of exempt well monitoring?
11. How can we best educate the public to the need to conserve water in Arizona?
12. What would be the impact of going to "direct reuse" of effluent?
13. What is the minimum gpcd a household can use and still remain safe and healthy?
14. Is it cheaper to build pipelines than it is to conserve?
15. What will it take for the communities on the east and west sides of Mingus mountain to drop their distrust of each other and work together for a common goal?
16. How can we continue to allow rapid growth in our watershed and at the same time serve that increased population with an appropriate level f service vis a vis water?
17. What is the appropriate level of service for potable water in Yavapai County?
18. What is the eventual impact of recharging our aquifers with water that contains chemicals that have been added to it by wastewater but not removed by wastewater treatment?
19. How can we minimize or eliminate that impact?
20. What is the public willing to pay for a clean, sustainable, ecologically friendly water supply?
21. What is the predicted long-range outcome if the public is not willing to pay whatever the cost is?
22. More to follow, probably!

Questions for USGS:

Is there hydrologic connection of all springs at higher elevations to aquifers below them?

Could there be draw-down/drying up of springs as a result of depletion of aquifers below?

Questions for other entities:

Is there a possibility that state could mandate water rates, or will communities be able to maintain control over that?

Could state mandate that one community (who has managed its resources according to what it has) be required to share its water with another community, even though that community continues to grow beyond their water resources?