



## **ARIZONA DEPARTMENT OF WATER RESOURCES**

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### **Water Resources Development Commission (HB 2661) Environmental Mapping Subcommittee – Notes: January 4, 2011 Meeting**

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#### **IN ATTENDANCE:**

Rebecca Davidson (SRP, Subcommittee lead)  
Nicole Eiden (AZGF)  
Rob Marshall (TNC)  
Doug Kupel (City of Phoenix)  
Jim Renthal (BLM)  
Val Danos (AMWUA)  
Aaron Citron (ALWT, by phone)  
Karen Henrikson (ADWR)  
Linda Stitzer (ADWR)

#### **REVIEW GIS LAYERS STORED ON THE FTP AND IDENTIFICATION OF MISSING LAYERS:**

- Layers stored on the FTP have been pulled together into one project and were displayed and the various data layers were discussed.
- Still working on pulling in the Southwest ReGAP data
- Discussion of including certain landownership classes and areas designated as national parks, wildlife refuges, national conservation areas, wilderness areas, Important Bird Areas (IBA), etc. Rather than displaying all areas, specific areas could be selected based on the presence of a perennial stream.

#### **DISCUSSION OF THE BEST APPROXIMATION OF PERENNIAL WATERS AND RIPARIAN VEGETATION:**

- The wetlands inventory will be compared to the AZGF riparian data to see how they match up.
- AZGF will compare the sportfish model to perennial flow reaches
- The sub-committee identified the ADEQ\_USGS Perennial Waters dataset as the best, most current dataset depicting perennial flow in AZ. Perennial flow reaches will be identified utilizing this dataset.

#### **DISCUSSION OF MAPPING GEOGRAPHIES AND HOW BEST TO DISPLAY INFORMATION:**

- Need to decide how we want to map the data at a scale that will best display the message that we want to convey.
- Do we have time or is it desirable to develop a map for each groundwater basin?
- Some water features span groundwater basin and county geographies, which must be taken into consideration.
- Instream flow applications will be distinguished based on their application status (as was done in the Arizona Water Atlas)

#### **DISCUSSION OF DATA QUERIES BASED ON SPATIAL DATA DETS:**

- Some of the data queries will be used to populate the Environmental Conditions table

- SRP is working with AZGF on the SWAP species distribution model and using the information to conduct a species count per groundwater basin (or other geographic boundary). Since these counts are based on modeled species distributions, it was suggested that Heritage data be used instead. It was noted that Heritage data has gaps because it is based on observation at certain locations, and not comprehensive, systematic surveys throughout Arizona.

#### **IDENTIFICATION OF PARTIES WILLING TO CREATE MAPS AND QUERY DATA**

- SRP will query perennial stream reaches by basin
- SRP will query federally designated lands within basin, and which intersect with perennial stream reaches.
- SRP, with others, will begin to analyze riparian habitat spatial data layers.
- AZGF will identify water-obligate species and threatened and endangered species in each basin, both for the SWAP species distribution models, as well as for the HDMS occurrence data.
- AZGF is tracking down additional datasets, and providing to SRP for incorporation into a consolidated GIS
- ADWR will map minor springs
- SRP will be able to assist in generating the maps for the Workgroup report

#### **NEXT STEPS AND MEETING DATE:**

- For the Workgroup meeting on January 11<sup>th</sup>, the subcommittee identified the following work:
  - revise the Environmental Conditions table
  - identify miles of perennial flow
  - conduct species distribution comparison
  - identify the intersect of federal, state protected areas and IBAs with perennial flow
  - map minor springs
  - develop a floodflow description example
  - discuss mapping scales and products for final report
  - **(see attached email on status)**
- Next meeting Friday, January 21<sup>st</sup>, 1:00-3:00 pm at the ADWR office

**From:** Davidson Rebecca F [mailto:Rebecca.Davidson@srpnet.com]  
**Sent:** Thursday, January 06, 2011 3:08 PM  
**To:** Linda S. Stitzer  
**Cc:** Nicole Eiden; Rob Marshall; Bredimus Lynn G; Davidson Rebecca F  
**Subject:** re: prep for full Environmental Meeting

Linda,

I wanted to follow up with you and let you know what we plan to accomplish before our next meeting on Tuesday.

Nicole has been coordinating with me, and has provided additional datasets for our GIS mapping project, including wildlife waters and wildlife refuges. Nicole is trying to track down the Audubon Important Bird Areas. Nicole will also be working to get me AZGFD lands intersecting with perennial waters (based on the ADEQ Perennial Waters dataset). Everything Nicole is able to provide will be added and ready to go for our meeting next week.

In the meantime, Lynn and I are working on the following for next week:

1. Updating the GIS maps with additional datasets as discussed; landownership (ALRIS), wildlife waters, wildlife refuges, AZGFD lands, IBAs, other mitigation lands.....
2. Table showing the miles of perennial waters (based on the ADEQ Perennial Waters dataset) in each Groundwater Basin.
3. Intersect between perennial waters and federal, special status land designations. These will be mapped as a subgroup of ALL federal land designations, and put in tabular format so we know which designated lands (that intersect with perennial waters) are in which Groundwater Basins.
4. We are also working on color-coding Instream flow filings, such that those with certificates (given a certificate date in the attribute table) will be colored differently than those that are "submitted, or pending".

Regarding our discussions of species counts per GW Basin....Using the species habitat models vs. using HDMS occurrence records to count the number of riparian/marsh obligate species (and others) that may be found in each GW Basin. I think either way we choose we are going to have to explain (or caveat) the data; if we use the habitat models, we will have to explain that the numbers may be overestimated (and that it is based on the SWAP – species of greatest conservation need); if we use the occurrence records we will have to explain that the numbers may not account for all species, surveys were not done systematically for all species (and that it only includes "special status species", and not all those considered under the SWAP effort).

Lynn and I can run the counts for species habitat models per GW Basins when we get the data sharing stuff worked out. Nicole – if you can look at the occurrence data and let us know how easily that might be queried, that would be great.

\*\*\*One thing I will need help with is keeping track of all the assumptions and steps we are taking to qualify the data.

Karen and Linda will work together to map Minor Springs – these will be considered for mapping purposes.

One last thought....I spoke to Lynn today about the final output maps. She can assist our efforts to create the maps that will go along with our report, whether they are by County or some other geography. If, for instance, we wanted to provide a finer scale map (say at the GW Basin level), she can auto-generate each of those based on whatever criteria we select. These 51 GW Basin maps MAY be something we can provide electronically or online, and that can show in greater resolution environmental/riparian resources.

Besides these follow-up notes/action items, I didn't have a lot in terms of "meeting notes".  
Linda – any suggestions?

Thanks,  
Rebecca

**Rebecca Davidson**  
Salt River Project  
Water Rights and Contracts  
602-236-6617 (office)  
602-515-2455 (cell)  
[rebecca.davidson@srpnet.com](mailto:rebecca.davidson@srpnet.com)

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