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Governor



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Acting Director

ARIZONA DEPARTMENT OF WATER RESOURCES

Water Resources Development Commission (HB 2661) Environmental Conditions Subcommittee – Notes: January 21, 2011 Meeting

IN ATTENDANCE:

Aaron Citron (ALWT; by phone)
Val Danos (AMWUA)
Rebecca Davidson (SRP)
Santiago Garcia (USBR)
Amelia Homewytewa (GRIC)
Doug Kupel (Phoenix)
Joanna Nadeau (WRRC; by phone)
Jim Renthall (BLM)
Dennis Rule (CAWCD; by phone)
Linda Stitzer (ADWR; subcommittee lead)
David Weedman (AZGFD)

INTRODUCTIONS:

Attendees introduced themselves and agenda items were reviewed.

DISCUSSION OF REVISED FORMAT AND CONTENT OF ENVIRONMENTAL CONDITIONS COMPENDIUM:

- Joanna Nadeau gave a presentation on the Statewide Water Needs Assessment Project and how it might be used for the work of the Commission. The study will be published in February and will consist of a guidebook of existing methodologies and identification of information gaps. The guidebook contains a summary of 93 Arizona environmental flow studies that are identified by groundwater basin and includes recommendations for future analysis and a decision tree on which process to select. The study found that riparian habitats are better studied than aquatic needs and their locations have been mapped. Studies related to flow needs by taxa may be particularly useful. It was mentioned that this study may be of most value as a supplement to information already compiled, including ET rate data, and for the floodflow narrative and description of the broad benefits of environmental flow for the report. Joanna offered to continue to work with the subcommittee on the compendium and report
- The format of the compendium has been revised since the previous meeting. Notable changes include:
 - Separation of instream flow from Federal/State designations
 - Showing only instream flow certificates and permits in the body of the table and footnoting any pending applications.
 - Organization of data by groundwater basin with a listing of associated groundwater subbasins, sub-watershed and county.
 - Addition of a column recognizing where there was an important floodflow component
 - Color coding headings to better distinguish environmental resource values from current environmental flow and to indicate those columns that are additive.

- There was discussion of managed floodflow and inclusion of floodflow management plans (e.g. on the Bill Williams) in the “other considerations” section in the head notes and to explain opportunities for managing floodflows in the report.
- There was discussion of how to address the quantification of instream flow rights where there are multiple rights on a watercourse. It was decided to list the certificates in the compendium and to include a reference to a separate instream flow table that lists the volume associated with each application.
- To avoid confusion between reservoirs for which there is a storage volume v. those with only a surface water area, it was suggested that this column be split and show more clearly the associated number of reservoirs
- Information on the amount of water stored in reservoirs for different purposes will not be displayed but will be explained in the report along with a discussion of reservoir storage variability.
- The mapping subcommittee will provide the wildlife counts and perennial flow miles for input to the table
- Effluent information sources were discussed. Rebecca will follow up with Kristine Uhlman on effluent dependent streams and wetlands. It was recommended that the table also list where there are discharges to watercourses. Although there is no associated volume readily available for these, it is important to describe their potential value and in addition, future uncertainty related to the continuing availability of effluent.
- Due to the number of stockponds, complexity of the database, and uncertainty regarding storage volumes, it was decided to list only the number of registered stockponds in a basin, not show an associated volume and not map them
- It was suggested that the compendium include a master glossary defining terms
- The mapping subcommittee has queried federally designated lands and those other public lands with a perennial reach and will provide the list to Linda for input to the table.
- Rebecca is drafting the general format and content of the head notes with the help of AZGF but needs others to provide the input. It was suggested that the focus be on the most environmentally critical basins. The riparian council will be approached for assistance with this effort
- Joanna will provide a list of economic studies and work with Rebecca on the floodflow description for the headnotes.
- The subcommittee was reminded to include unique waters and wild and scenic river designations
- The definitions were not discussed but the group was asked to review and provide comments to Linda

DISCUSSION OF FINAL REPORT OUTLINE:

- An outline has been developed and will be distributed for discussion at the next subcommittee meeting

NEXT MEETING:

- Monday, January 31st from 1:00 to 2:30 at the ADWR office



Water Resources
Research Center

College of Agriculture and Life Sciences

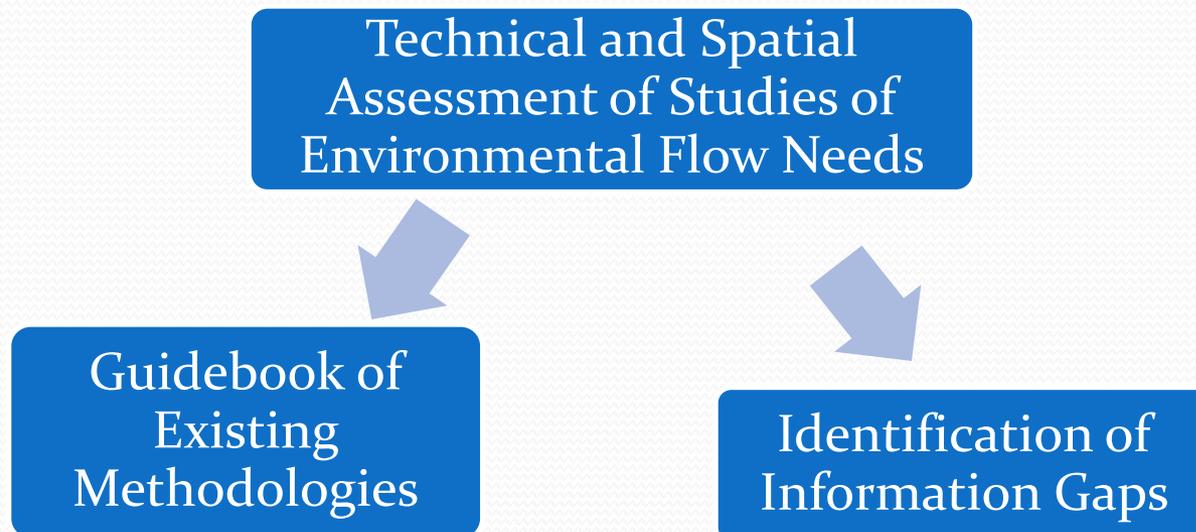
Arizona's
**Statewide
Environmental Water
Needs Assessment**

WRDC Environment Conditions
Subcommittee Meeting

January 21, 2011

Main Products

- ❑ Statewide Environmental Water Needs Assessment project funded by Nina Mason Pulliam Charitable Trust (2010)
- ❑ Compiled studies of environmental flow needs and responses
- ❑ Resulted in the creation of a Guidebook and an Assessment (available February 2011)



Information of Interest to WRDC

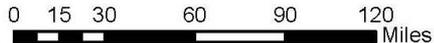
- ❑ The Assessment and Guidebook contain:
 - ❑ A summary of 93 Arizona environmental flow studies including
 - ❑ Study type and location
 - ❑ Including flows valuation
 - ❑ Study findings
 - ❑ Information gaps
 - ❑ Recommendations for the future
 - ❑ Proposed research agenda/recommended areas for analysis
 - ❑ Evaluation of e-flow methods used in Arizona

SEWNA Inventory: Extent of Aquatic Studies

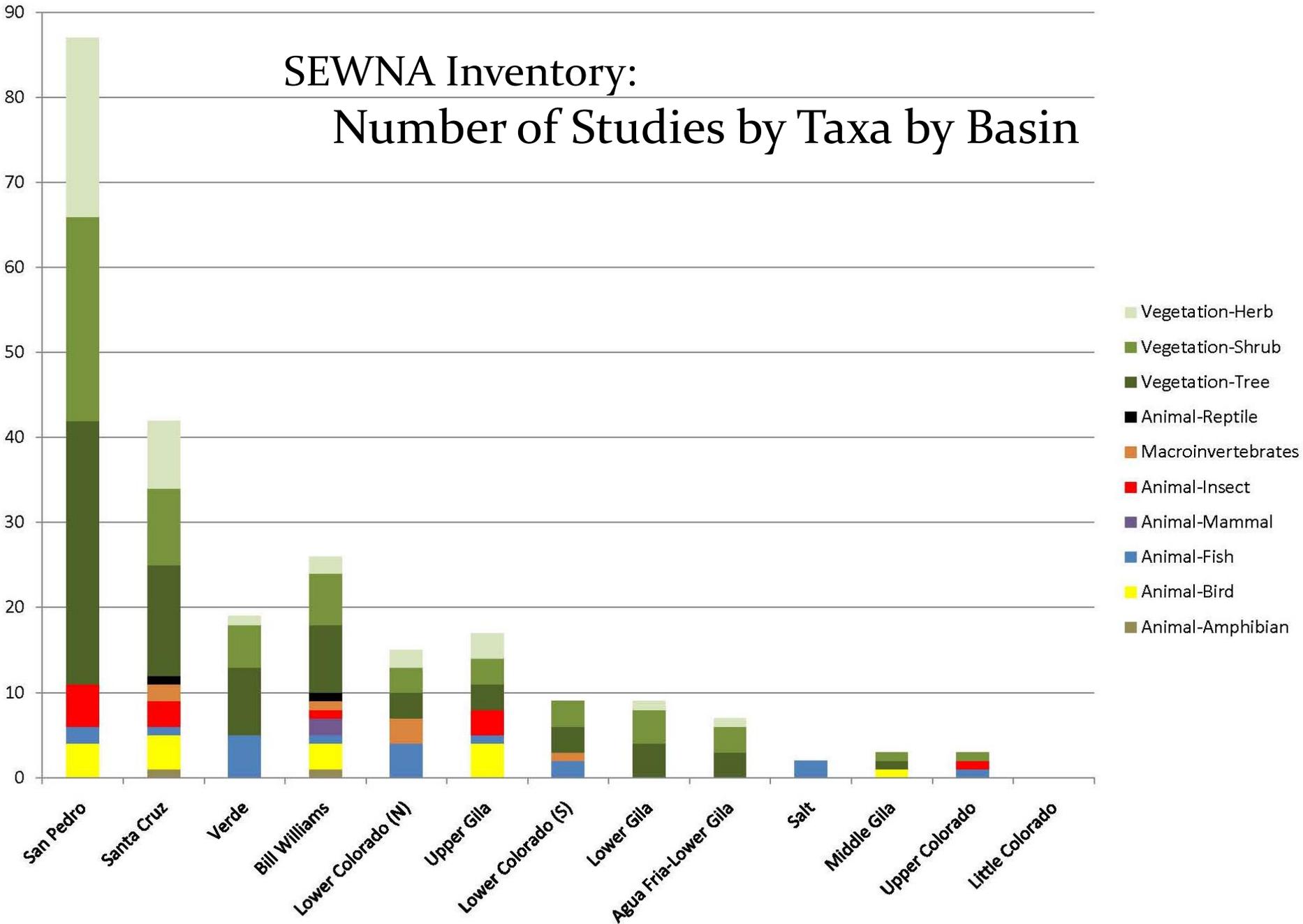


Legend

-  Aquatic
-  SEWNA Inventory



SEWNA Inventory: Number of Studies by Taxa by Basin



SEWNA Inventory: Flow Needs Information by Taxa

	<i>Flow Need</i>	<i>Flow Response</i>	<i>Both</i>	<i>Total # Quant. Studies</i>
<i>Animal-Amphibian</i>	2	1	1	2
<i>Animal-Bird</i>	5	7	3	9
<i>Animal-Fish</i>	9	8	5	12
<i>Animal-Mammal</i>	1	1	0	2
<i>Animal-Insect</i>	3	6	2	7
<i>Invertebrates</i>	3	6	3	6
<i>Animal-Reptile</i>	2	1	1	2
<i>Vegetation-Tree</i>	31	36	15	52
<i>Vegetation-Shrub</i>	21	28	12	37
<i>Vegetation-Herb</i>	17	18	9	26

Information for WRDC

The final Assessment and Guidebook will also contain:

- ❑ Tables of water needs quantified by species, such as
 - ❑ Evapotranspiration rates for riparian plants
 - ❑ Flow levels for Aquatic animals

