**Water Information and Data Subcommittee**

**Data Exchange Template Workgroup (Workgroup #3)**

Minutes – March 27, 2012

**Attendees**: Steve Tessler (USGS), Laura Paeglis (NE), Jeff Hogan (NE), Dave Cole (UT), Steve Malers (Riverside), Sara Larsen (WSWC), Dharhas Pothina (TX), Dwane Young (WSWC-WestFAST)

**Next Call:**  Either April 20th or week of April 23rd, with the exception of April 27th

**Administrative:** The minutes were approved. Action Item #10 was closed.

**Draft Data Elements and Data Services Discussion:** The group discussed the data elements diagram and the data elements definitions document. Dwane showed the high level design and led a discussion on the data elements. All of the data would be organized under an ‘Organization’. The organization is the owner of the data (i.e. TCEQ). Organization also has a suite of contact information data elements. Under Organization is the concept of a report. A report allows you to group information by time. For example, it could be all of the data for a given year. Also after discussions with TWDB, the report could also include planning data, but in that case the time frame for the report would be sometime in the future (i.e. 2020).

The summary data would be grouped under a reporting unit. It is any spatial unit by which the state groups their summary data. It could be a county, it could be a HUC, or it could be a state defined polygon. A state would provide one of the location components (either a HUC, County, or their own state defined polygon). One of the other things that the WSWC has discovered when talking to the states is that the states may have different reporting units for the various types of summaries. Dwane said that this was ok, and that we’d used GIS to pull all the information together.

Summaries -

Water Availability Summary: Summary of the water available within that reporting unit. The states are taking two different approaches here. Some give a volume of water available, others use a relative metric. The schema would accommodate both approaches. Each water availability would also have a time frame associated with it. The time frame could be by month, or by year. There would also be an element to allow someone to indicate whether the availability number represents fresh water or salt water or both.

Allocation Summary: Data are summarized by beneficial uses. There are some additional data elements that we’d try to capture as well, including things like acres irrigated, population served, energy generated. One issue is trying to determine if we need a time frame for the allocations. We are currently thinking that we would not need a time frame for allocations, but rather it would be assumed that it is an annual summary.

Consumptive Use Summary: Similar structure to allocations. All information is organized by beneficial use. The same additional data elements (acres irrigated, population served, etc.).

Water Supply Summary: Allows for the states to report their summary on the supply of water in the individual reporting unit. Question: How would this be broken up? Would there be just one number? Or would it be broken up by various sources (i.e. amount of water available as flow in the stream, water available in reservoirs, water available in snowpack, etc.). Steve Tessler stated that NJ breaks the data out. Nebraska said that for them it depends on the basin. Steve Malers stated that in Colorado, that you get into the issue of what the storage is used for. For example if it’s drought storage, that may be treated differently from water that is stored for operational storage. Dave stated that in Utah there are a lot of areas where the demand exceeds supply. Does supply need a time frame? Steve Tessler stated that time frame should be added. This data element will be added to water supply summary.

Regulatory Summary: Allow for us to capture which areas have specific restrictions on new water allocations. Examples could be special management areas, or groundwater management areas. Steve Tessler stated that this information may not be time bounded. Laura asked if this would also include compacts or decrees with other states. Dwane answered that there is the potential for that, but it would depend on the compact. For those compacts that are more operational, that wouldn’t be a good fit for this, but if there is a compact that does result in specific management restrictions then it would be a fit. An example here would be the Rio Grande in Texas where a compact is resulting in a special management area.

Detail data: All the data are still organized under a report. All the data is organized under an allocation. Dwane stated that TX groundwater is not managed by allocations, and so this might be difficult to fit under an allocation. Dwane defined an allocation as an amount of water that is allocated to a specific individual for a specific use for a specific time. It could be a permit, but doesn’t have to be. Allocations have diversions (and it can be multiple diversions). Each diversion can have their own locations. Consumptive uses are also associated with an allocation. Consumptive uses also have their own locations, and can be polygons. Allocations also can have return flows with their own specific locations.

Steve Tessler said that we may need to change the term ‘metered flow’ because it’s not always metered, it sometime is reported, or estimated. Perhaps we change the term to ‘diverted flow’. We could then add a method, or similar data element to indicate whether the value is reported, estimated, or metered. Steve Malers suggested that we change the data element ‘Approved Flow’ to ‘Allocated Flow’. Steve also cautioned how specific we get on the methods for coming up with the estimated values.

Consumptive Use: Water is diverted under an allocation. We’re not that interested in how the water got from the diversion point to the Consumptive Use location, we just care where it is consumed. A consumptive use could be a polygon or a point. The WSWC has discovered that not many states have this data. We’re also trying to capture acres irrigated, energy produced, population served. States would report whatever uses the state has. Steve Tessler said that this is where we need to come up with a common domain for uses. Dwane said that we’d probably need grouping level domains that would map state uses to a common language. The question came up whether we’d need to also capture crop type. Nebraska does currently store crop type. The group decided to include crop type as an optional data element.

Return Flow: This allows states to identify where the return flows happen. Dwane stated that he wasn’t expecting a lot of states to have this information, but we want to model for it. Return flows could have a unique identifier that could map back to something like a NPDES permit.

Next Steps: the WSWC will continue working on the detail data elements document and repost to Google Docs. Dwane said that for the next call, he would try to build the XML schema, and how it fits into a data model.

**Action Item: WSWC will make changes to the data elements as discussed on this call.**

**Action Item: WSWC will draft a schema and data model based on these data elements for the next call.**

Dwane asked the group to look at the services document, and then think through how the data that we just discussed fit into the services.

**Action Item: Workgroup members review the services document with the data elements in mind.**

We’ll keep the two workgroups combined for now.

**Call Schedules:**  Next call will be either April 20th, or the week of April 23rd, with the exception of Friday the 27th.

**Other Items:**  None