

Steve Gaul

From: Tony Willardson [twillards@wswc.state.ut.us]
Sent: Monday, March 05, 2007 3:39 PM
To: sgaul@dnr.ne.gov
Cc: ableed@dnr.ne.gov
Subject: Fwd: WSWC Water Use/Supply Survey/Matrices

Attachments: Instructions WSWC Water Use-Supply Survey.doc; Water Supply Report Timeline2.doc; Water supply matrix 1.xls; water supply matrix 2.xls; Water supply matrix 3.xls



Instructions WSWC
Water Use-Su...



Water Supply
Report Timeline2....



Water supply
matrix 1.xls (26 ...



water supply matrix
2.xls (24 ...



Water supply
matrix 3.xls (24 ...

Steve -

Sorry; this was undeliverable to sgaul@dnr.state.ne.us. I hope I've got the right address this time.

Tony

>>> Tony Willardson 03/05/07 12:36 PM >>>
Dear All:

If you haven't designated a specific contact person for your state for our water use/supply survey, please do so. I've addressed this to a number of people that I thought should receive it, for those states that haven't designate a lead contact.

INSTRUCTIONS: WSWC Water Use & Water Supply Survey 2007

I apologize for the delay since our February 5 conference call in getting out further instructions for filling out the water use and water supply matrices. Matrix #3 has been revised somewhat. Matrix #1 is only for reference, and presents 2000 USGS numbers.

I've revised the timeline for the task, asking for your product by an April 16 deadline. We will compile the state responses for discussion at the WSWC May 3-5 meetings in Sioux Falls, and present a report with the matrices and state-by-state summaries to the Western Governors* Association at their Annual Meetings June 10-12.

For Matrix #2 - Water Use, we determined it would be best to use the same categories or sectors of use as the USGS circular, presented in million gallons per day (mgd). While 2030 U.S. Census population projections are presented as an initial point of reference, please provide your own population and future water use and water supply projections consistent with your own planning horizon (rather than try to fit your data to 2030).

We will compile all the responses and present the information within a range of dates as appropriate (2030-2060, etc). Please be clear and consistent with respect to your planning horizon.

With regard to the projected water use categories, please use Public Supply for public or private municipal (and commercial) water supplies, and Domestic to cover self-supplied water. I believe the other categories are pretty self explanatory. Again, we hope to be as consistent as possible, using USGS water use report and protocol as a standard.

It is also acceptable to simply state that any particular number -- say projected water use for aquaculture -- is not available. Presenting what we don't know will also be useful.

As illustrated in the last few columns of matrix #1, please summarize total projected water use in both million gallons/day and million acre-feet/year. If possible, also please project percentages of fresh/saline water use, and surface and ground water use.

Further, it was determined that since some explanation of the numbers to be presented in the matrix will be necessary, each state would provide a separate 2-3 page narrative summary. Please explain whether or not the figures represent consumptive uses (as the USGS figures represent only diversions). We also decided to ask each state to provide some measure, qualitative or quantitative, of their level of confidence in their numbers. This narrative may also be used to highlight specific areas of state concern, such as municipal water supply or rural water supply needs, etc.

For Matrix #3 - Water Supply, again please present your population projections, for year 20??, consistent with Matrix #2. Then fill in your estimated aggregate future water supply and water use projections (presented in both millions of gallons per day and million acre-feet/year). Again, the water use numbers should match your answers for Matrix #2. Please calculate the difference between your estimated water supply and water use, and present the difference (in mgd and Maf).

Most of the remainder of the matrix is to be filled in using percentages - i.e., take your projected difference between supply and demand and divide it into each of your projected strategies for meeting future demands.

First, present projected/anticipated changes among or between water uses (including water rights transfers, leases and other similar agreements) as a percentage of the difference between water supplies and water use. For example, if the projected difference between your aggregate water supply and projected water use is one million acre-feet (1 Maf), but you expect 200,000 af to move from agricultural to municipal use, then 20% of the difference would be made up from such water use/water rights changes.

Similarly, please present as a percentage the amount projected to be made up under each of the other various listed strategies to close the gap between water supply and water use, i.e., water conservation, increased surface water storage, increased aquifer storage and recovery, etc.

By using percentages, I hope to keep the size of our Excel spread sheet manageable, but still be able to fairly easily convert to million gallons/day or million acre-feet/year as needed (to report total anticipated Westwide increases in supply from new surface storage, etc.).

Finally, please present any remaining difference between your water supply and water use numbers (after employing the various strategies) in the last column of Matrix #3, recognizing there may or may not be a remaining gap.

Please paint as complete a picture as possible, but I understand there will likely be significant variations in the numbers that can be presented, with any level of confidence, given reasonably available existing information. Use your narrative state summary to explain and provide color and detail to the numbers in the matrices. It may be a rough draft sketch, a Picasso or a Pulitzer Prize winning photograph!

Across states, the amount of detail that can be provided will undoubtedly vary. A particular state may not have a particular water use number or the need for adopting a particular water supply strategy. For example, South Dakota may not expect to see much growth in Public Supply water use needs, may not anticipate any gap in supply and demand, nor the need to adopt water reuse or saline water use strategies or policies. California and Texas on the other hand, have identified serious future water supply needs and may have established targets for water reuse and desalination, etc.

While it is impossible to anticipate every question that may come up, I hope these instructions are helpful. We don't expect a rigorously defensible product, but rather your best professional judgment, given information hopefully already available from existing state studies.

You can use the matrices as worksheets and fax them to me at (801) 255-9642.

Please send me your narrative electronically for use in our summary report.

If you have any questions, further suggestions, or come across a particular problem, as you work on this task, please e-mail me and copy all others.

Hopefully, many of you are already working on your numbers!

I'd like to schedule another conference call for Monday, March 26 at 2:00 p.m. MDT to review progress and answer any further questions that might come up.

Attached is a revised timeline for this task.

Thanks for you help!

Tony Willardson
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