



Dave Heineman  
Governor

# STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES  
Ann Bleed  
Acting Director

IN REPLY TO:

March 8, 2006

John Thorburn (Tri-Basin Manager)  
Dan Smith (Middle Republican NRD)  
Jasper Fanning (Upper Republican NRD)  
Mike Clements (Lower Republican NRD)

Dear NRD Managers:

In an effort to provide an accurate report of water use as efficiently as possible to satisfy the Republican River Compact water use reporting requirements, I am providing the following description of data-reporting procedures for reporting the 2005 ground water use data gathered in your NRD. The following narrative provides the information for reporting the annual water use for irrigation in accordance with our inter-local agreements. There is a short message about municipal and industrial well reporting at the end. A separate letter will be forthcoming that will address municipal and industrial water use. Unless I hear from you that there is an insurmountable problem with what is described below, I will expect you to follow these procedures.

Your staff may use the normal transfer procedures that we have used to transmit electronic data files, but I am requesting a copy of the electronic data on a compact disc (CD) with a signed transmittal letter to accompany it. In addition to the data file described below, I am asking each District to provide a full copy of the meter database(s) on the CD that is (are) used to generate the information in the reporting spreadsheet.

Your inter-local agreement requires you to report the water use by March 15. I have received interim copies of each database, but additional work needs to be done in some NRDs. For the purpose of getting the most complete required data, I decided to let the date slide a little this year. Department of Natural Resources (Department) staff will need the final reporting to be completed and returned to us by March 29, 2006.

## Irrigation Well Use Reporting

The Excel spreadsheet (ActiveDBase05\_Export.xls) contains the framework for sharing 2005 water meter data for irrigation wells. It is too large for e-mail, so you may download it from: <http://www.dnr.state.ne.us/download/RRNRD/>. I am using an Excel spreadsheet for ease of sharing. There is a tab for each NRD and a list of all active wells on the first tab of the spreadsheet. I would like you to provide six additional columns of information for your respective NRD. The six columns should be 1) Volume\_Pumped 2) Acres\_Irrigated 3) Volume\_Notes 4) Acres\_Notes 5) Added\_Well 6) System\_Type. The "Added\_Well" column is

for you to populate if you have to add a well not shown on our list. Just put an "A" in that cell if you add a row for a missing well. This will help the Department keep data sorted properly when we import the returned data into our database. The volumes should be reported in acre-feet. The acres should be actual irrigated acres.

There are several considerations when supplying volume and acres information to the Department. The first consideration is that some wells are grouped together via a manifold system. You may handle that by splitting the volume among several wells or assigning the volume to a single well in the group. You will need to specify which method you chose when submitting the data. Either way, a manifold group of wells should have information in the notes column that explains how the reports are being handled. If you lump the volume and report it on only one well in a group, then the wells with blank volume cells should have a note in the 'Volume\_Notes' field listing the well that has the volume reported. If one well in a manifold group has all the volume, its "Volume\_Notes" field should list the other wells. Likewise, acres can be lumped or split and you may use the 'Acres\_Notes' field to explain the relationships.

The next consideration is that we have different sets of unique well identifiers. The most common cause for this issue is due to well replacements. If the Department has not received well abandonment papers on a replaced well, the new well will be placed in the "suspense" category of the "well status" column. We only provided wells listed as "active", therefore it is possible that your NRD already has the new well in the database. This situation would cause the NRD and the Department to have different "WellId" values. The "RegCD" or registration number and "replacement" fields should clear this up. If our "WellID" field doesn't match yours because of a replacement, please put the volume, acres and notes on the corresponding well on the reporting spreadsheet. The converse case could exist too, where the NRD has the old well and the Department has the replacement well on our list. We'll straighten out the status of the replacement well later.

Other possible causes of mismatches are related to inaccurate "Use" and "Status" codes, since we only provided the list of active irrigation wells from the Department's registration database. If you have wells that were pumped in 2005, but are not on the reporting spreadsheet, please provide information on these wells and add them to the spreadsheet, so we can update our registration database. It is possible that wells listed in our database as inactive have been activated without our knowledge. Please add additional lines to the end of the list as needed, so we get the most comprehensive list possible. It is imperative that the Department's database and individual NRD databases both contain the most accurate and up-to-date information possible. Significant effort will be made to achieve this necessity. By Compact procedure we can only use and report legal wells. An irrigation well must be properly registered to be considered legal.

The final situation I can think of is the case of a "missing" well. If the Department has registered wells in the registration database that should be shown as abandoned, the first step would be to get an indication of that fact on the reporting spreadsheet in the "Volume\_Notes" column. We can then have our registration staff send a letter to the landowner to gather additional information. Please offer alternate solutions if you would prefer this handled differently. The ultimate goal is to keep our registered well database as up-to-date as possible.

The system type should be one of the following: Ditch/Flood, Gated Pipe, Pivot, Other Sprinkler, and Sub-surface Drip. "Other Sprinkler" includes sideroll, dragline, volume gun. Gated Pipe includes gated pipe that is controlled by a surge valve. If there is more than one system served by a well, then list the system that serves the most acres. If system type is not available, then put

"Unavailable". If there is a manifold well serving the system you only have to list the system once. It will be apparent from the notes fields if it is a manifold system.

To sum up what we need from you please read the following sentences carefully. 1) We need a volume or note explaining the lack of volume information on every row of the reporting spreadsheet. 2) We need you to add any wells that were used, but are not on our current list of active irrigation wells, to the end of our list with the discussed "A" qualifier in the 'Added\_Well' column. 3) If there is not a 1-to-1 relationship between the water meter and a well, it should be evident from the 'Volume\_Notes' field. 4) We need the acres for each well. 5) We need the delivery system type for each well. Nothing in this paragraph precludes the instructions above.

It may be easier to import the reporting spreadsheet list for your NRD into Access and do the data population there. That is fine. You should make sure to populate the "Added Well" field with an "A" for new records. This is very important. If you do import the data into Access, please export it to a spreadsheet with all the original fields plus the six new ones before sending it back to the Department.

### Municipal and Industrial Well Use Reporting

We will also need the municipal pumping for each community and industrial pumping totals for each well. Municipal pumping may be reported as an aggregate or by well, whichever is more convenient. If the municipal well field is a significant distance from the community, please make us aware of that. If industrial wells are measured and reported as a group, please list the individual wells in that group. Please use any convenient format to report that data to us.

Thank you for your assistance.

Sincerely,

*Mike Thompson*

Mike Thompson  
Republican River Coordinator

msl

cc: Ann Bleed  
Paul Koester  
Steve Gaul