Little Blue
Natural Resources District

March 2, 2015

GROUNDWATER RULE SUMMARY

The Little Blue NRD Board of Directors adopted new rules and regulations for groundwater management in the District which became effective on May 12, 2014. The rules are focused on promoting groundwater use efficiency, understanding the long-term water budget of the District (pumpage verses recharge), protecting fragile aquifer areas of the district and providing necessary operator training to assure that the water resources are understood and managed with care and diligence.

Below find an outline of requirements of the new rules and the timeline for implementation.

FLOW METERS – Are required on all high-capacity wells which pump over 50 gpm by March 31, 2017.

The following schedule of installation was adopted.

Wells in the **northeast** quarter section- metered by **irrigation season 2015**

Wells in the **northwest** quarter section- metered by **September 30, 2015.**

Wells in the **southwest** quarter section - metered by **June 30, 2016.**

Wells in the **southeast** quarter section- metered by **March 31, 2017.**

Layout of Legal Survey Section

NW QUARTER 2nd METER REQUIRED by 9/30/15	**NE QUARTER** 2nd METER REQUIRED by 12/31/14
SW QUARTER 2nd METER REQUIRED by 6/30/16	**SE QUARTER** 2nd METER REQUIRED by 3/31/17

Flowmeters must be on the District's Approved Meter List and installed according to District and Manufacturer's Specifications. The Approved meter list can be found on the NRD's web site at: http://www.littlebluenrd.org/Water/flowmeters.html

CERTIFICATION OF IRRIGATED ACRES

The District will begin certifying all groundwater uses and irrigated acres beginning in 2015 with our plans to have those records completed by December 31, 2015. Using county assessors, FSA records or other means, we will provide you with a summary of the recorded acres for your farm(s) by late summer. You will simply have to verify that those acres are correct, or work with us to make the proper corrections. We will also gather water use information from all municipalities, business, industries, livestock, wildlife and recreation users. As an aside, the development of new irrigated acres is not prohibited and a procedure is available for adding certified acres in the future.

REQUIRED REPORT OF WATER USE

All water uses must be reported beginning in 2014. Until water flow meters are mandatory in 2017, you may use any means for determining the water use. You may use a flow meter, energy usage bills, motor hour meter and estimated well output, application rates and circles for a pivot system, or other methods until a meter is installed. For irrigators, if you currently have a flow meter, please record your beginning water meter reading. We will provide all operators a form at the end of the irrigation season to report your total water use. We will also ask for the acres of crops grown so we can better calculate the water needs of our various crops grown in the District.

OPERATOR CERTIFICATION

Beginning in the winter of 2014-2015, the NRD will conduct classes for the certification of all farm operators, whether dryland or irrigated producers. These training activities will provide an opportunity for the District to share information about the state of the water resources of the District, share ideas for water and fertilizer use efficiency, glean ideas from experts and other farmers who successfully implement new technology and conservation practices and visit vendors who can help in your management decisions. **All operators and those who make day-to-day land management decisions must receive training and be certified by April 1, 2018, and every four (4) years thereafter.** The first training event is a mandatory face-to-face type event. Subsequent certifications may be accomplished using other forms of training, joint meetings with other agencies or may include training by Internet.

OPERATORS

The District is compiling the database of owners/operators and, because operators sometimes change, we do not have all operators in that database. **If you are an owner and your operator did not receive this information, please contact the District and provide your operator's name.** This may be done by mail, by phone (402 364-2145) or e-mail lbnrd@littlebluenrd.org

TRANSFERS

All new physical transfers of groundwater off of the quarter section of land where the well is located to another land tract must now receive an approved transfer permit from the District. Existing transfers are grandfathered and may continue. However, if you intend to develop a new transfer of water from one tract to another you must apply for a transfer permit from the District.

WELLS IN FRINGE AREAS OF THE AQUIFER

A new regulation requires that any new proposed high capacity irrigation well in the "Very High Risk Areas" of the District must be at least 1,250 foot from the nearest well and a "pre-permit" must first be applied for from the District. Staff will conduct a cursory review of the well site to determine the aquifer viability based on a Hydrogeologic Study completed in 2011. If the pre-permit score assigned to the well location based on hydrogeologic information is equal to or greater than 80 points, no additional information is required and a formal permit may be filed. However, if the score assigned to the well location is below 80 points, the applicant will be required to supply additional hydrogeologic, water quality and well capacity information for evaluation by the District. A well must be able to pump 300 gpm over a 24 hour test-pump period without interfering with adjacent water wells to be considered viable for development.

A map of the "Very High Risk Areas" is found on Page 4 of this handout and is also available on the Little Blue NRD web site at: www.littlebluenrd.org.

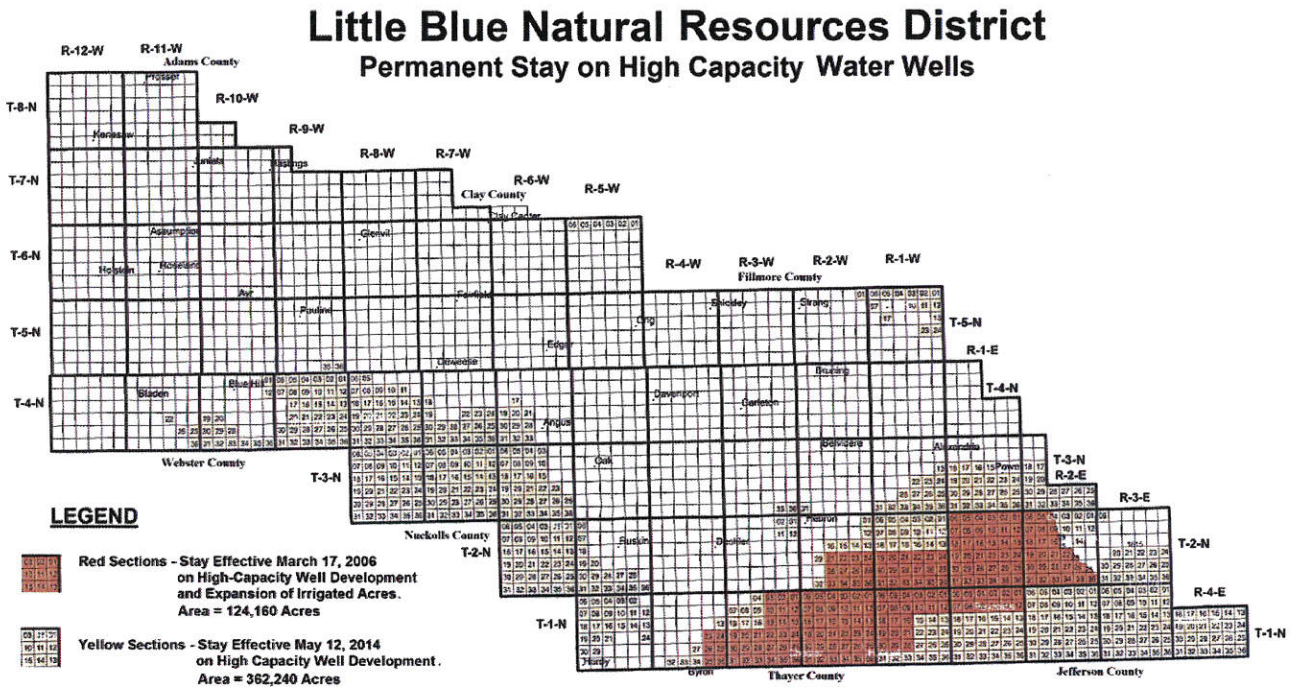
DOMESTIC WATER WELLS

The District has also implemented a 500 foot spacing protection for all domestic water wells. All new high capacity wells must be located no closer than 500 feet to the nearest registered domestic water well. Any existing well in place prior to the effective date (May 12, 2014) of this rule will be grandfathered. A domestic well may be constructed closer than 500' to a high capacity well at the domestic well owner's risk. Many domestic water wells that were installed prior to 1996 were not registered with the state and therefore would not have this spacing protection. If you have a domestic well that you are concerned about, it may be wise to have the well registered with the Nebraska Department of Natural Resources. (402 471-2363) http://www.dnr.ne.gov/

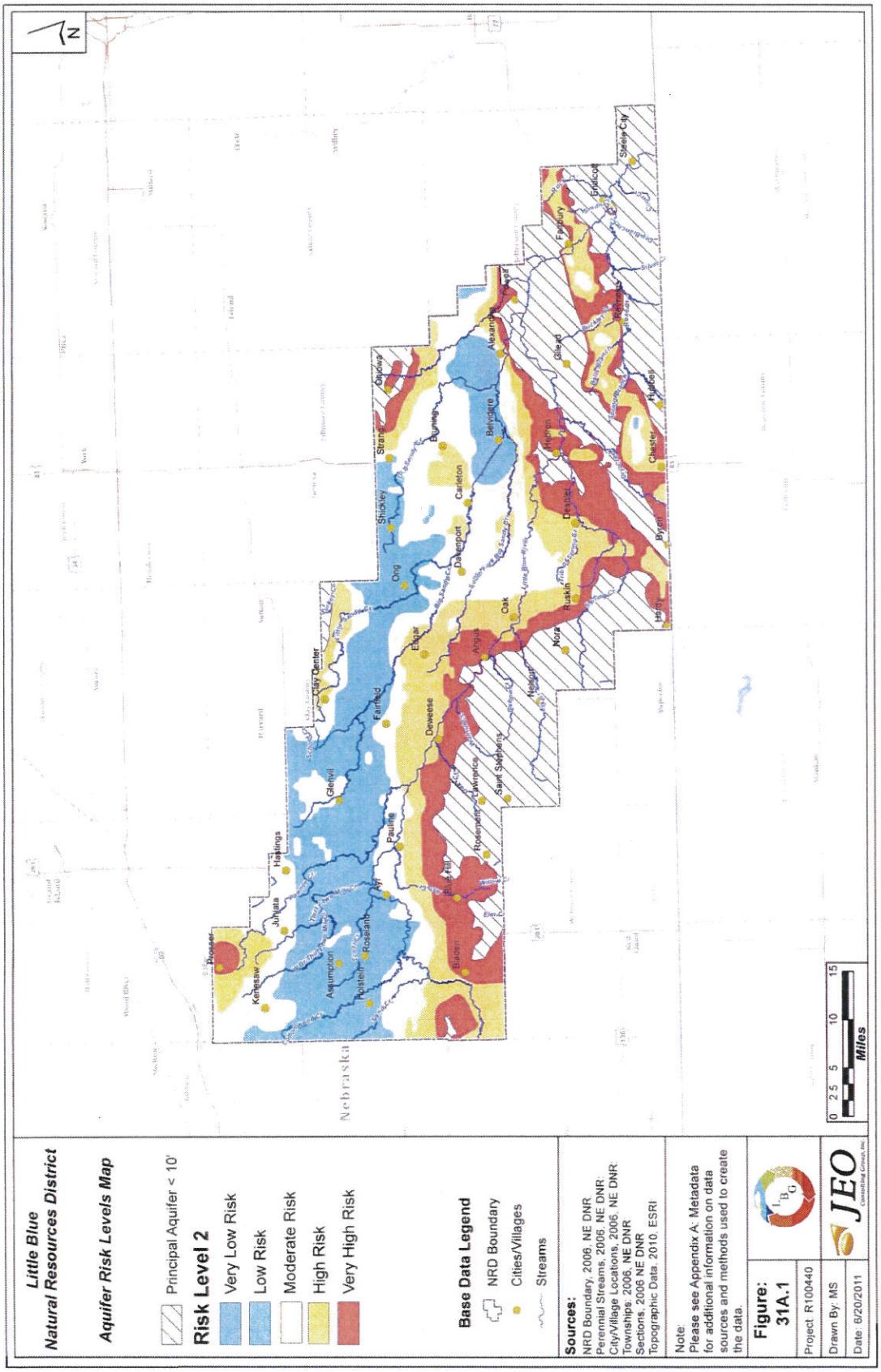
WELL MORATORIUM

The Board has also established a moratorium or "stay" on the drilling of new high capacity irrigation wells in an area identified in the Hydrogeologic Study as areas with "Aquifers < 10 Feet". These areas are found in portions of the District dominated by dryland cropping and grazing lands where predominantly lower capacity water wells are found. However, in order to reduce potential conflicts between groundwater users, including domestic water well owners in these very fragile areas, the Board has taken action to prohibit the construction of high-capacity irrigation wells. Therefore, no new high-capacity irrigation wells permits will be approved for construction in the white crosshatched areas of the Risk Map below.

This stay applies to the entire geographic area designated as Aquifers < 10 Feet, not only the High Plains Aquifer, but also to any potential water baring formation, such as the Dakota Aquifer, that extends below the land surface and underlying the lands so declared. This prohibition shall not apply to high-capacity water wells for domestic and municipal uses, and may apply, at the Board's discretion to other uses.



Aquifer Risk Map

The **Aquifer Risk Map** was developed as a component of the Hydrogeologic Study completed in 2011 by JEO Consulting Group, Inc. of Lincoln, Nebraska in cooperation with Leggette, Brashears & Graham, Inc. (LBG) of Minneapolis, Minnesota. The map shows the qualitative risk areas within the District delineated through several steps using ESRI's Model Builder Tool. The five input datasets included in the model were 1) transmissivity, 2) specific yield, 3) saturated sand thickness, 4) water level change from spring 2000 to spring 2007 (an intense drought period), and 5) recharge as a percent of total precipitation. The first three criteria were weighted at 25% each in the model, the last two criteria were weighted 12.5% each in the model. This process multiplied each reclassified grid by their respective weighted percentage for a total of the weights equal to 100 percent. The output risk map indicates where 1) lower values represent minimal risk from over-production across the District or greater aquifer viability, and 2) higher values represent higher risk from over-production across the District or lesser aquifer viability.

Aquifer Risk Map for the Little Blue NRD