



# Little Blue Natural Resources District

*“Serving The Public Since 1972”*

## **PROPOSED RULE AND REGULATION CHANGES RELATING TO THE CONSTRUCTION OF NEW HIGH-CAPACITY WATER WELLS IN THE LITTLE BLUE NRD GROUNDWATER MANAGEMENT AREA.**

The Little Blue NRD Board of Directors took action in June 2017 to impose a temporary stay on the construction of new high-capacity wells (those which pump over 50 gallons per minute). The stay expires on December 13, 2017. In order to address the development of new high-capacity wells when the stay is lifted, the following changes in the District’s Groundwater Management Rules and Regulations are being proposed for the purpose of controlling irrigation well development in marginal water areas, protecting domestic water supplies in those areas and reducing potential conflicts between water users. Changes are shown either as a crossed-out section or highlighted red letter additions to the existing well construction rules of Chapter 2.

The aquifer score referred to herein, is obtained by assessing the saturated thickness of the aquifer, aquifer transmissivity and specific yield for the proposed well location as documented in the Little Blue NRD Hydro-Geologic Study (July 14, 2011).

The Public Hearing to receive testimony on this rule change is scheduled for Tuesday, November 14, 2017 at 7:00 PM at the Little Blue NRD Office, 100 East 6<sup>th</sup> Street, Davenport, Nebraska.

### **CHAPTER 2**

#### **LEVEL I DISTRICT-WIDE CONTROL MEASURES**

The entire Little Blue NRD is in a Level I Management area. After the effective date of these Rules and Regulations, groundwater users located within the Little Blue NRD are required to comply with the following:

##### **A. WELL CONSTRUCTION**

- 1) 1. Any person who intends to construct a high capacity water well in a groundwater management area on land which he or she owns or controls shall, before commencing construction, apply for a permit with the District in which the water well will be located. No new high-capacity irrigation wells shall be permitted in the areas identified in the Little Blue NRD Hydro-Geologic Study as “Aquifer < 10 Feet”. (See Appendix Figure 1- Risk Map, and Figure 2 - Stay Area Map.) Permits are required for any new high capacity water well, or series of water wells, intended to pump 50 gallons per minute or more. Permits are required for replacement wells. Exemptions to this rule are: No permit shall be required for test holes or dewatering wells with an intended use of ninety days or less and No permit shall be required for a single water well designed and constructed to pump fifty gallons per minute or less. The following rules are established to properly permit a new water well construction and to assure that: Proper well spacing regulations are met; The District has adequate time to evaluate each

permit before construction of the water well; Other undesirable site conditions, potential conflicts between groundwater users or environmental hazards are avoided; and All other applicable rules and regulations of the District are followed.

- a. All applications for a new high capacity water well shall be submitted on forms provided by the District.
  - b. The application form shall be accompanied by an aerial photo of the site with a distinctive mark, and if available, GPS coordinates, locating the proposed new well, and an outline of the acres to be irrigated from the well.
  - c. All well applications must be signed by the landowner, a person holding power of attorney, or a pending landowner as evidenced by an instrument such as a signed purchase agreement, a copy of which shall be provided to the District at the time the application is submitted.
  - d. The application shall include the fee specified in Neb. Rev. Stat. §§ 46-735. The fee for a new well permit is \$50 per application; a late fee permit is \$250.
  - e. The District will review the application form, examine aerial photos, topographic maps, and other relevant information and is authorized to do a physical on-site inspection if deemed necessary.
  - f. The permit will be issued only after District staff has determined:
    - a. that the proposed well and irrigation development meets a minimum standard as set forth in the District's Policy of Land Use Conversion to Irrigation, and a minimum aquifer score of 80 points calculated using the Little Blue NRD Hydro-Geologic Study.
    - b. A permit may also be approved if it fails to meet the requirements above, but has meet the test prescribed in Section 2 of this chapter for wells in "Very High Risk" or other areas of the District and satisfied the District that the impacts of such a well to existing groundwater users and the water resource are minimal.
  - g. All permits shall be issued, with or without conditions attached, or denied not later than thirty (30) days after receipt by the district of a complete and properly prepared application. (Neb. Rev. Stat. §§ 46-736)
  - h. Each water well constructed shall be registered with the Nebraska Department of Natural Resources within 60 days of completion or the well will be considered an illegal well.
  - i. If the permit for a new well construction lies within 1 mile of the city limits of a municipality, the municipality will be notified of the pending permit to assure all local rules and ordinances are considered.
  - j. No more than one high capacity well shall be allowed per eighty acres of land within the "Very High Risk Areas". See Appendix Figure 1 for a map from the Little Blue NRD Hydro-Geologic Study which identifies these areas. This rule is in force regardless of ownership or lack of adequate water for the irrigation system. Any wells installed prior to the October 11, 2011 adoption date of this rule at a development level greater than 2 wells per quarter section of land, are grandfathered and may continue to be operated.
2. Any applicant for a high capacity irrigation well ~~which would lie in the "Very High Risk" area~~ **in the District** is required to file for a pre-application for a permit. If the pre-permit score assigned to the well location is equal to or greater than ~~80~~ **100** 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~~ **100** points, the applicant will be required to supply additional hydrogeologic, water quality and well capacity information for evaluation by the District. The information shall include:
- a. A well hole log and physical material sample summary of the well site;

- b. A 24-hour pump test of the well ~~at the design capacity; the minimum pump output after 24-hour test must be at least 300 gallons per minute,~~ **will be required between August 1 and September 30 and the well must maintain a 400 gpm output or more throughout the 24-hour period,** verified by the District;
- c. A water quality sample collected at the end of the pump test and submitted to a qualified laboratory for analysis including: nitrates, sodium, chloride, pH, and total dissolved solids;
- d. The static water level drawdown shall be measured **during the test pump** by the pump installer or well driller on the new well drilled, **and reported to the District.** ~~and~~ The NRD may gather drawdown information for other water wells located within 2,640' of the subject well for a better understanding of the aquifer's characteristics and response to pumping.

When the District is satisfied that the location, hydrology, pump test data and water quality data reflect conditions sufficient to justify permit approval, the applicant will be instructed to file for a formal water well permit.

~~When~~ **If** a well fails to meet the ~~300~~ **400** gpm requirement, the well shall be abandoned or, at the option of the landowner, it may be registered as a domestic or livestock well and equipped only for those purposes.