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CHAPTER 3

RULES GOVERNING WELL CONSTRUCTION AND OPERATION FOR DUMT 10,000 WELL SYSTEMS

SECTION I PURPOSE

The rules for construction and operation for DUMT 10K wells systems in this chapter are established for better groundwater management practice to avoid an adverse effect on the public health by protecting groundwater quality and the surrounding water supply wells.

SECTION II APPLICATION

A complete application shall be submitted to the Guilford County Health Director or their designee by any person or entity that intends to construct a DUMT 10K well system, expand or increase an existing DUMT 10K well system, or upgrade an existing well system to meet the definition of a DUMT 10K well system.

- (A) The following items are required of DUMT 10K well systems for the Guilford County Health Director or their designee to process the application:
1. Names, addresses, e-mail addresses, and phone numbers of the proposed well owner and or operator;
 2. Names, addresses, e-mail addresses, and phone numbers of the authorized agent or applicant for the proposed well owner and or operator;
 3. Address and Guilford County Real Estate Identification Number of the property of the proposed well;
 4. Site plan as defined in Chapter 1 Section II (68) of these rules;
 5. Land surface (i.e., pavement, gravel, or grass) and other recharge characteristics of the property;
 6. A tax map showing the property addresses, Guilford County Real Estate Identification Numbers, and property owners within a one-thousand-foot radius of the proposed well, identifying properties where wells are known or suspected to exist;
 7. Proposed diameter of the well;
 8. Proposed depth range of the well;
 9. Gallons per day desired and estimate of required sustainable yield;
 10. Proposed use of water (industrial/commercial processing, irrigation, drinking, bathing, etc.);
 11. Number of employees and number of connections; and, if applicable,
 12. Public Water Supply Section Pre-Drill Investigation Letter, if the well will supply a Community Water System or a Non-Transient Non-Community Water System

SECTION III PERMIT FOR WELL CONSTRUCTION

- (A) After reviewing the application, the Guilford County Health Director or their designee may issue a well permit with or without some modifications for well construction. The well permit is valid for one year from date of issuance. If construction has not commenced within one year from the date of issuance of the well permit, the well permit becomes invalid. When a well permit has become invalid, construction may not be commenced until the well permit has been updated and/or modified by the Guilford County Health Director or their designee or a new well permit is issued. In addition, a site for a Community Water System or a Non-Transient Non-Community Water System governed by these rules shall be approved by a representative of the NC Department of Environmental Quality, Division of Water Resources, Public Water Supply Section, and the Public Water Supply Section Pre-Drill Investigation Letter shall be included with the application.
- (B) The Guilford County Health Director or their designee shall approve the application if he finds that the usage of the proposed well will not adversely affect water quality and/or quantity within 1000 feet, or otherwise pose a threat to public health or the environment.

SECTION IV WELL CONSTRUCTION STANDARDS

Construction of DUMT 10K wells shall comply with all applicable requirements of North Carolina Administrative Code (NCAC) Title 15A Subchapter 2C (WELL CONSTRUCTION STANDARDS), Guilford County Well Rules, and other applicable laws. Any DUMT 10K well which falls under the jurisdiction of NCAC Title 15A, Subchapter 18C (RULES GOVERNING PUBLIC WATER SYSTEMS) shall conform with all applicable requirements of those rules.

SECTION V PUMPING TEST AND GROUNDWATER TESTING

- (A) A single well step drawdown pumping test shall be performed on each DUMT 10K well by a competent and reputable firm with experience in conducting such tests for 24 hours to obtain information on radius and depth of the cone of depression. The pumping test shall begin and end during the normal scheduled working hours of the Guilford County Health Department. Any existing water supply and/or monitoring wells on the property and/or adjacent properties can be used as observation wells during the pumping tests. The Guilford County Health Director or their designee shall also analyze the pumping test results and evaluate the information on radius and depth of the cone of depression from the well owner. When the well owner is not satisfied with the Guilford County Health Director or their designee's determination of the cone of depression or sustainable yield, he may perform a longer pumping test, install observation wells to provide additional information to be evaluated, or provide additional information from an outside consultant for consideration.
- (B) The pumping test may be waived if some or all of the following conditions are met:
1. The well is located within the city limits.

2. There are no water supply wells within a one-thousand-foot radius of the well.
 3. The property and adjacent properties are on municipal water.
- (C) If the new well is located within a one-thousand-five-hundred-foot radius of a known contaminated soil or groundwater site, water samples shall be collected from the well after the pumping test for analyses performed by the North Carolina State Laboratory of Public Health or other laboratory certified by the State of North Carolina for volatile and semi-volatile organic compounds, inorganic compounds, pesticides, and nitrates. These analytical results shall be used to determine the water quality of the well and/or establishing the baseline of water quality.

SECTION VI PERMIT FOR SYSTEM OPERATION

- (A) It shall be unlawful for any person to operate a DUMT 10K well system without a well system Operations Permit issued by the Guilford County Health Director or their designee. The Guilford County Health Director or their designee may assess a penalty or pursue any other remedy allowed by law for enforcement of health rules for violation.
- (B) After reviewing the information from the well owner/operator, the Guilford County Health Director or their designee shall:
1. Issue a system Operation Permit if, based on the provided information, they determine that the operation of the well system shall not adversely affect groundwater quality and water supply to other wells in the area and not otherwise adversely affect the public health.
 2. Issue a system Operation Permit with any of the following restrictions if they determine that the operation of the well system may affect the water supply to other wells in the area:
 - a. A reduction of daily usage
 - b. A requirement to install a water holding tank/pond and to restrict pumping to permitted hours
 - c. The approval of the use of new technology which the Guilford County Health Director or their designee determines will negate the effect on other wells
 3. Issue a system Operation Permit without restrictions if the owner supplies adequate and potable quality water to those users of wells affected by the DUMT 10K well system.
 4. Deny a system Operation Permit if:
 - a. Groundwater quality is not suitable for human consumption if the well is used for drinking purposes and the well owner/operator does not install and

maintain a water treatment system, or

- b. The usage of the well will substantially affect water supply to any other water supply wells within 1000 feet or cause these wells to be unusable and the owner does not mitigate the issue as outlined in Subparagraphs (B)(2) and (B)(3) of this section.

(C) Water meter

1. All DUMT 10K well systems are required to install a spool-piece pipe for a water usage monitoring meter. If the Guilford County Health Director or their designee determines a well system must be monitored for any time period, the Guilford County Health Director or their designee shall install a water meter in the place of the spool-piece section of the pipe. Public water supply wells regulated by 15A NCAC 18C shall be metered according to those rules.
2. If the Guilford County Health Director or their designee determines the daily usage for a well to be restricted, he or she may install a water meter for monitoring, at the owner's cost.

(D) The Guilford County Health Director or their designee may suspend or revoke the system Operation Permit following a ten-day's notice and hearing, if:

1. Any other water supply wells, which were constructed according to the existing well construction standards at the time of construction, are affected substantially due to the operation of a DUMT 10K well system within one year of issuance of the well Operation Permit, and the issue cannot be corrected as outlined in Subparagraphs (B)(2) and (B)(3) of this section; or
2. The use of the well degrades the groundwater quality in the area.

In each case the burden of proof will be placed upon the complaining party by a preponderance of the evidence.

(E) The owner of the DUMT 10K well system shall request a revision of an Operation Permit for an increase in water usage due to the expansion of business, an increase in number of employees, or other reasons. The Guilford County Health Director or their designee may suspend or revoke the Operation Permit if the well owner increases water usage without a revision of the permit.

SECTION VII RECORDS REQUIRED

(A) Reports

1. Any person performing well contractor activities in Guilford County shall submit to the Guilford County Health Director or their designee and to the well owner, a Record of Construction, Repair, or Abandonment to include the well's location, diameter and depth, the casing materials and depth, depth of water bearing zones,

the method of finishing, the method of repairing, or the method of abandoning, formation log, static water level, yield, and date of construction, repair, or abandonment.

2. Any person installing a pump or pumping equipment in a well shall submit to the Guilford County Health Director or their designee and to the well owner, a Record of Construction, Repair, or Abandonment to include the well's location, date of pump installation, depth of pump intake, horsepower rating of pump, gpm rating of pump, and static water level.
3. The reports required in this section shall be submitted within 30 days after completing construction, repair, abandonment, or pump installation.
4. Reports shall be certified by the well contractor completing the construction, repair, abandonment, or pump installation. Certification shall be by signature, including an authorized digital signature.
5. Upon final approval of a new or repaired well, the Guilford County Health Director or their designee shall issue a DUMT 10K well system Operation Permit.
6. Where a DUMT 10K well system is to be a source of water for human consumption, no person shall allow permanent electrical service to a facility upon construction, location, or relocation until the official electrical inspector with jurisdiction as provided in N.C.G.S. 143-143.2 certifies to the electrical supplier that the required permit for well construction and a DUMT 10K well system operation permit have been issued.

