

**MECKLENBURG COUNTY BOARD OF HEALTH RULE
GOVERNING WELLS OTHER THAN DRINKING WATER SUPPLY WELLS**

**CHAPTER I
GENERAL PROVISIONS**

Be it ordained by the Mecklenburg Board of County Commissioners (while exercising the power of a Board of Health, which powers it has assumed and conferred on itself by action pursuant to G.S. 153A-77), that the following Mecklenburg County Board of Health Rule Governing Wells Other Than Drinking Water Supply Wells (hereinafter called the Rule) requiring registration, permitting, sampling and monitoring activities for certain wells in Mecklenburg County for the protection of public health and safety, are hereby adopted pursuant to G.S. 130A-39(a). This Rule shall apply throughout Mecklenburg County, North Carolina.

SECTION I GENERAL PROVISIONS and ADMINISTRATION

- (A) Authorization - The Mecklenburg Board of County Commissioners (hereinafter called BOCC), acting as a Board of Health, is authorized under the provisions of G.S. 130A-39 to adopt appropriate rules and regulations for the protection of the public health.
- (B) Delegation of Authority - The Public Health Director (hereinafter called the Director) may delegate the processing of permit applications, the issuance of permits, the denial of permits, the renewal of permits, and the modification of permits, to the supervisory level that he/she considers appropriate. The Director shall appoint adequate administrative and technical staff to ensure the efficient administration of this Rule.
- (C) Purpose – It is the finding of the BOCC, acting as a Board of Health, that the entire geographical area of Mecklenburg County is vulnerable to groundwater pollution from improperly located, constructed, operated, altered or abandoned wells. Therefore, in order to ensure reasonable protection of the groundwater resource and to be consistent with the responsibility to protect public health, it is declared to be policy of the BOCC to require that the location, construction, repair and abandonment of such wells conform to this Rule.
- (D) Scope - No Person shall construct, repair or abandon or cause to be constructed, repaired or abandoned, any well contrary to the provisions of this Rule and Articles 7 and 7A of G.S. 87. Previously adopted procedures and requirements of the Mecklenburg County Public Health Department (hereinafter called the Department) are superseded by this Rule.
- (E) The provisions of any federal, state or municipal law or regulation establishing standards affording greater protection to the public and groundwater resources shall prevail over standards established by this Rule. If any section or sections conflict

within this Rule or with any other regulation, the more stringent regulation prevails. These rules do not replace North Carolina standards for Permitting and Inspection of Private Drinking Water Wells in 15A NCAC 02C but apply in addition to those standards.

- (F) If any section or sections of this Rule is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.
- (G) All well permit applications must be evaluated by the Director in accordance with this Rule. A well permit or subsurface investigation permit shall be issued in compliance with this Rule. No person shall construct an Irrigation Water Supply Well without first obtaining a well construction permit from the Department. All applications, permitting, construction standards, and sampling requirements will follow the Mecklenburg County Board of Health Rule Governing Private Drinking Water Supply Wells unless that Rule or any applicable part thereof becomes invalid or unenforceable, in which case the applications, permitting, construction standards, and/or sampling for Irrigation Water Supply Wells shall meet the standards set forth in the applicable section of 15A NCAC 02C.
- (H) No Person shall consume water from a newly constructed well or following a permitted repair of an existing well until an inspection by the Director, following notification by the Well Owner, confirms that the well meets all provisions of this Rule. A new potable well serving new construction of a residence, business or place of assembly will require a Certificate of Completion prior to a hold being released on the Certificate of Occupancy.
- (I) No Person shall rent or offer to rent, lease or offer to lease, any residence or place of business which does not have a potable water supply. The Well Owner, when required by the Department, shall provide proof that the water supply meets the construction and water quality standards of this Rule.

SECTION II DEFINITIONS

Abandon	means to discontinue the use of and to seal a well according to the requirements of this Rule.
Abandoned well	means a well whose use or construction has been discontinued, or which is in such a state of disrepair that continued use for obtaining groundwater or other useful purpose is impracticable; a well can be temporarily or permanently abandoned.
Access port	means an opening in a well casing or wellhead installed for the purpose of determining the position of the water level in the well or to facilitate disinfection.
Active	means the status of a well. To be considered active a well must be in use for its intended purpose.
Addition	means any structure, whether free standing or attached to another which is constructed, altered or placed on property.
Agent	means any person who by agreement with a Well Owner has authority to act on his or her behalf in executing applications for permits. The agent may be either general agent or a limited agent authorized to do one particular act.
Annual or Annually	means done or performed every year, yearly.
Annular space	means the space between the casing and the walls of the borehole or outer casing or the space between a liner pipe and well casing.
Approved	means that which is considered acceptable to the State or Director.
Area of Regulated Groundwater Usage or ARGU	means the zone surrounding and including a contamination plume or contamination site according to the requirements of this Rule.
Artesian Flowing Well	means a well in which groundwater flows above the land surface without the use of a pump and, under natural conditions, the static water level or hydraulic head elevation is greater than the land surface elevation.

ASTM	means the American Society for Testing and Materials.
Authorized Agent	means an employee of the Mecklenburg County Public Health Department authorized by the Director to enforce this Rule.
Bedrock	means any consolidated rock which is encountered in the place in which it was formed or deposited, and which cannot be readily excavated without the use of explosives or heavy rock cutting equipment (15A NCAC 02L .0102). Bedrock generally underlies soil or other consolidated, superficial material.
Biennial	means done or performed once every two years.
Biofilm	means a collection of microorganisms which may exist on solid surfaces such as a well casing. This collection includes, but is not limited to, slime-formers, iron-related bacteria, sulfate-reducing bacteria, pseudomonas and coliforms.
BOCC	means The Mecklenburg Board of County Commissioners.
Breakthrough	means in a treatment system, the condition of the treatment media becoming saturated with the contaminant to the point the system is no longer effective at removing the contaminant.
Casing	means the pipe or tubing constructed of materials and having dimensions and weights as specified in this Rule, that is installed in a borehole during or after completion of the borehole to support the side of the hole and thereby prevent caving, to allow completion of a well, to prevent formation material from entering the well, to prevent the loss of drilling fluids into permeable formations, and to prevent entry of contamination.
Certified Laboratory	means a laboratory certified under the requirements of 10A NCAC 42D Section .0200.
Certified well contractor	means a person who has met the requirements of the Well Contractors Commission relating to well contractor activities referenced in 15A NCAC 27.

Clay	means a substance comprised of natural, inorganic, fine-grained crystalline mineral fragments that, when mixed with water, forms a pasty, moldable mass that preserves its shape when air dried.
Community Well	means a well that serves 15 or more connections or at least 25 year-round residents.
Compliance Inspection	means a scheduled or unscheduled visit to a site by the Department for the purpose of inspecting and documenting the physical characteristics of the site, including but not limited to the physical characteristics of wells.
Consolidated Rock	means rock that is firm and coherent, solidified or cemented, such as granite, gneiss, limestone, slate or sandstone, that has not been decomposed by weathering.
Contaminant or Contamination	means the introduction of foreign materials of such nature, quality, and quantity into the groundwaters as to exceed the groundwater quality standards in 15A NCAC 2L .0202 standards, National Primary Drinking Water Regulations, or site-specific standard established by the North Carolina Department of Health and Human Services, Epidemiology Section.
Contamination Plume	means the three-dimensional zone containing a contaminant or contaminants.
Contamination Site	means a parcel(s) of property where contamination has occurred.
County	Mecklenburg County, North Carolina.
Department	means the Mecklenburg County Public Health Department
Design Capacity	means that capacity that is equal to the yield that is specified by the Well Owner or his or her agent prior to the construction of the well.
Director	The Mecklenburg County Public Health Director or his/her authorized agent.
Disinfection	means a process which inactivates pathogenic organisms in water.

Epidemiology Section	means a section under The North Carolina Department of Health and Human Services, Division of Public Health.
Existing Well	means a well constructed prior to January 1, 2005.
Fecal Coliform	means a bacteria consistently found in the intestine of human and other warm-blooded animals which are not normally disease-producing, but serve as indications of recent fecal contamination. They are members of the family Enterobacteriaceae, genus Escherichia, species coli.
Federal	means The United States of America government.
Fee Schedule	means the current schedule of fees as approved by the BOCC.
Filtered	means for a substance, the state of having been passed through or over another substance such that the quality of the first substance is improved.
Formation Material	means naturally occurring material generated during the drilling process that is composed of sands, silts, clays or fragments of rock and that is not in a dissolved state.
Free Product	means a non-aqueous phase liquid which may be present within the saturated zone or in surface water.
GPM and GPD	means gallons per minute and gallons per day, respectively.
Groundwater Remediation Well	means wells that are used for the clean-up of contaminated soil or groundwater to include but not limited to wells used to recover groundwater, treat soil and/or groundwater, or inject additives, treated groundwater, or ambient air.
Grout	means a material approved in accordance with this Rule for use in sealing the annular space of a well or liner or for sealing a well during abandonment.
Hydrogeologic Review	means the consideration of scientific data to evaluate the relationships of geology, groundwater, and fate and transport of contaminants.
Injection Well	means any well as defined in G.S. 87-85 whose depth is greater than its largest surface dimension and that is used, or intended to be used, for the injection of fluids or solids into the subsurface or groundwater.

Inspection	means a visit to a site by the Department to examine and document the construction, installation, abandonment, repair or sampling of new or existing wells.
Irrigation Well	means an excavation that is cored, bored, drilled, jetted, dug or otherwise constructed for the purpose of withdrawing groundwater to be used for agricultural purposes either commercial or residential and will not be used as a potable water supply.
Liner Pipe	means a pipe that is installed inside a completed and cased well for the purpose of preventing the entrance of contamination into the well or for repairing ruptured, corroded or punctured casing or screens.
Monitoring Well	means any well constructed for the primary purpose of obtaining information about physical, chemical, radiological, or biological characteristics of groundwater or other liquids, or for the observation or measurement of groundwater levels. This definition excludes lysimeters, tensiometers and other devices used to investigate the characteristics of the unsaturated zone but includes piezometers, a type of monitoring well constructed solely for the purpose of determining groundwater levels. This definition includes all monitoring well types, including temporary wells and wells using Geoprobe® or direct-push technology (DPT).
NCDEQ	means The North Carolina Department of Environmental Quality.
NCPWS	means The North Carolina Public Water Supply Section.
Non-Community Well	means a well that serves 25 or more transient people 60 days of the year.
Non-Potable Well	means a well that has groundwater containing bacteria, minerals, organic or inorganic chemicals or volatile organic compounds of such quantity as to render the water unsafe, harmful or unsuitable for domestic use.
Non-Transient Non-Community Well	means a well that regularly serves at least 25 of the same persons over 6 months per year.
Orphan Site	means a contamination site where a responsible party has not been identified.
Permit	means a written document and associated plot plan issued by the Department authorizing the construction, abandonment or repair of a well as defined by this Rule.

Person	means any and all persons including individuals, firms, partnerships, associations, public or private institutions, municipalities or political subdivisions, governmental agencies or private or public corporations organized or existing under the laws of this State or of any other state or county.
Pitless Adapters or Pitless Units	are devices specifically manufactured to the standards specified under 15A NCAC 02C .0107 (j) (5) for the purpose of allowing a subsurface lateral connection between a well and plumbing appurtenances.
Place of Business	means a store, warehouse, manufacturing establishment, place of amusement or recreation, service station, office building, or any other place where people work.
Place of Public Assembly	means a fairground, auditorium, stadium, church, campground, theater or any other place where people assemble.
Plat	Survey
Potable Water	means water of such quality that it is suitable for human consumption.
Private Water Supply	means any excavation that is cored, bored, drilled, jetted, dug, or otherwise constructed to obtain groundwater for human consumption.
Public Water System	means a water system as defined in 15A NCAC 18C, which is hereby incorporated by reference, including subsequent amendments.
Pump	means the well pump, pump pipe, pump supply line and any other equipment or materials used or intended to be used for withdrawing or obtaining groundwater.
Raw Water	means water which has not been treated to make it potable.
Recovery Well	means any well constructed for the purpose of removing contaminated groundwater or other contaminants from the subsurface.
Repair	means work involved in deepening or changing depths, reaming, sealing, lining, perforating, screening, cleaning, acidizing, "dry icing", freezing, hydraulic fracturing, or otherwise redeveloping a well excavation or any other work which requires breaking the well seal. Permitting prior to the repair and chlorination after a repair shall meet the standards of this Rule.

Residence	means the place in which one lives, a dwelling.
Responsible Party(s)	means entity(ies) determined by the regulating agency to be responsible for the contamination.
Sample	means a representative portion of a substance collected for analysis.
Sealed	means no detectable leakage under the casing or around the wellhead shall be allowed to enter the bore hole, .
Settleable Solids	means the volume of solid particles in a well-mixed one liter sample that will settle out of suspension, in the bottom of an Imhoff Cone, after one hour.
Site	means the land or water area where any facility, activity or situation is physically located, including adjacent or other land used in connection with the facility, activity or situation.
Site Plan	means a drawing, not necessarily drawn to scale, that shows the existing and proposed property lines with dimensions, the specific location of all structures and proposed structures and appurtenances, including decks, porches, pools, driveways, out buildings, existing and proposed wastewater systems, existing and proposed wells, springs, water lines, surface waters or designated wetlands, easements, including utility easements, and the location of existing or proposed sewer lines and/or sewage disposal systems, and existing or proposed chemical or petroleum storage tanks above or below ground.
Source Area	means that portion or point on a site where a contaminant or contaminants have been released.
Specific Capacity	means the yield of the well expressed in gallons per minute per foot of draw-down of the water level (gpm/ft. dd).
State	means The State of North Carolina government.
Static Water Level	means the level at which the water stands in the well when the well is not being pumped and is expressed as the distance from a fixed reference point to the water level in the well.

Suspended Solids	means the weight of those solid particles in a sample that are retained by a standard glass microfiber filter, with pore openings of one and one-half microns, when dried at a temperature of 103 and 105 degrees Fahrenheit.
Transient Non-Community Well	means a water supply well that provides potable water to a non-community water system that does not regularly serve at least 25 of the same persons over six months per year
Treated Water	means water that has been successfully purified by a system designed to remove contaminants or other unwanted particles from the water by either physical or chemical processes.
Turbidity	means the cloudiness in water due to the presence of suspended particles such as clay or silt that may create laboratory analytical difficulties for determining contamination above 15A NCAC 02L.
Unconsolidated Rock	means those rock formations that are not firm and coherent, solidified or cemented, such as sand rock, sand, clay, shell, saprolite or decaying rock.
Underground Storage Tank (UST)	means any one or a combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connect thereto is 10% or more beneath the surface of the ground (For a full definition, see 15A NCAC 02N .0203).
Vent	means a permanent opening in the well casing or wellhead, installed for the purpose of allowing changes in the water level in a well due to natural atmospheric changes or to pumping. A vent can also serve as an access port.
Water Sample	means a representative portion of groundwater collected specifically for water quality analysis, whether by field or laboratory testing.
Water Supply Standards	means the maximum allowable concentration of any substance or combination of substances in the groundwater, which may be tolerated without creating a threat to human health. These standards include the following: EPA Primary & Secondary Drinking Water Standard, NC 2L Groundwater Standards and the US EPA Health Advisories

Water Supply Well	Means a well, well pump and pipe used in connection with or pertaining to the operation of a water supply, including pressure tank and fittings. An irrigation well is a type of water supply well.
Well	means any excavation that is cored, bored, drilled, jetted, dug or otherwise constructed for the purpose of locating, testing, or withdrawing groundwater for evaluating, testing, developing, draining or recharging any groundwater reservoirs or aquifer, or that may control, divert, or otherwise cause the movement of water from or into any aquifer.
Well Cap	means a watertight, lockable, removable plug used to temporarily seal the well casing to prevent water or other material from entering the well.
Well Contractor	means a person who undertakes to perform a well contractor activity or who undertakes to personally supervise or personally manage the performance of a well contractor activity on the person's own behalf or for any person, firm, or corporation in accordance with the well contractor certification requirements of 15A NCAC 27.
Well Contractor Activity	means the construction, installation, repair, alteration, or abandonment of any well.
Well Cover (water supply well)	means for water supply wells, any structure placed around the Wellhead with the intent of affording protection to the Wellhead.
Well Cover (monitoring well)	means for a monitoring well either flush-mount or above-grade intended to protect the well casing from tampering and damage. Typically flush-mount covers are used in areas of vehicular traffic and have bolt-on lids and a O-ring seal. Above-grade covers are typically used in areas where vehicle traffic does not have the potential to cause damage to the well and have lockable covers.
Wellhead	means the upper terminal of the well including adapters, ports, valves, seals and other attachments.
Well Owner	means entity(ies) who hold the fee or other property rights in the well. A well is real property and its construction on land rests ownership in the landowner in absence of a contrary agreement. A monitoring well is real property and its construction on land rests ownership in the landowner in the absence of contrary agreement in writing.

Yield

means the volume of water or other fluid per time that can be discharged from a well under a given set of circumstances.

CHAPTER II
**CONSTRUCTION, REPAIR, AND ABANDONMENT FOR TRANSIENT NON-
COMMUNITY WATER SUPPLIES**

SECTION I REGISTRATION

- (A) The Owner of a Transient Non-Community water supply well installed prior to January 1, 2005, must register a Transient Non-Community water supply well with the Department by submitting the following information:
 - 1. Names, addresses and phone numbers of the Transient Non-Community water supply well Owner and/or legal agent of the property Owner.
 - 2. Address and tax parcel number of the property for the Transient Non-Community water supply well.
 - 3. Use of water (domestic, irrigation, etc.)
- (B) Transient Non-Community water supply wells must be registered every 12 months. The registration shall be submitted on forms to be supplied by the Department during the period from January 1 to January 31 of each year or such time as the Department designates.
- (C) A non-refundable fee as specified in the fee schedule shall be submitted with each registration.
- (D) The Owner of a Transient Non-Community water supply well installed or repaired after January 1, 2005, must initially register the Transient Non-Community water supply well with the Department by completing the following Application and Permit process.

SECTION II APPLICATION

- (A) A complete application for a permit to construct, repair or abandon a Transient Non-Community water supply well shall be submitted to the Director by an Owner or legal agent of the property Owner who intends to construct a Transient Non-Community water supply well within Mecklenburg County. The following information will be required.
 - 1. Names, addresses and phone numbers of the proposed Transient Non-Community water supply well Owner and/or legal agent.
 - 2. Signature of property Owner and /or legal agent.
 - 3. Address and tax parcel number of the property for the proposed Transient Non-Community water supply well.

4. A plat or site plan as defined in these rules.
 5. Intended use(s) of the property.
 6. Proposed use of water (domestic, irrigation, etc.)
 7. Other information deemed necessary to determine the location of the property and any site characteristics such as existing or permitted sewage disposal systems, easements or rights of way, existing wells or springs, surface water or designated wetlands, chemical or petroleum storage tanks, landfills, waste storage, known underground contamination and any other characteristics or activities on the property or adjacent properties that could impact groundwater quality or suitability of the site for Transient Non-Community water supply well construction.
 8. Any current or pending restrictions regarding groundwater use as specified in G.S. 87-88(a) and
 9. Any Variances regarding well construction or location issued under 15A NCAC 2C.
- (B) Applications for Transient Non-Community water supply well construction repair and abandonment shall be submitted on forms to be supplied by the Department.
- (C) A non-refundable fee as specified in the fee schedule shall be submitted with each permit application.
- (D) An application for a permit shall be submitted by the Owner or his legal agent. In the event that the permit applicant is not the Owner of the property on which the Transient Non-Community water supply well or Transient Non-Community water supply well system is to be constructed, the permit application must contain written approval from the property Owner and a statement that the applicant assumes total responsibility for ensuring that the Transient Non-Community water supply well(s) will be located, constructed, maintained and abandoned in accordance with this Rule.

SECTION III PERMITS

- (A) Transient Non-Community Water Supply Wells
1. It shall be unlawful for any Person to commence any Transient Non-Community water supply well contractor activities in Mecklenburg County without first obtaining a Transient Non-Community water supply well construction permit from the Department. The Transient Non-Community water supply well Owner or their authorized legal agent shall obtain the permit. The permit is valid for one year from date of issuance except that the Department may revoke a permit if it determines that

there has been a material change in any fact or circumstance upon which the permit is issued. The validity of a construction permit or a repair permit is not affected by a change in ownership of the site on which a Transient Non-Community water supply well is proposed to be located. If well excavation by use of powered equipment designed specifically for that purpose and operated by a well contractor, or well repair, is not commenced within one year from the date of issuance of the permit, the permit then becomes invalid. When a permit has become invalid, construction or repairs may not be commenced until a new permit is issued.

2. It shall be unlawful for any person to repair a Transient Non-Community water supply well in Mecklenburg County without first obtaining a Transient Non-Community water supply well repair permit from the Department. The Transient Non-Community water supply well Owner or their authorized legal agent shall obtain the permit. Except a Transient Non-Community water supply well repair permit is not required for maintenance or pump repair or replacement. Disinfection in accordance with 15A NCAC 02C is a maintenance activity that does not require a repair permit.
3. The location of all new proposed Transient Non-Community water supply wells in Mecklenburg County shall comply with this Rule.
4. Before issuing a Transient Non-Community water supply well construction permit the Department shall conduct a field investigation to evaluate the topography, landscape position, available space and potential sources for groundwater contamination on or around the site on which the Transient Non-Community water supply well is to be located.
5. The Department shall issue a Transient Non-Community water supply well construction permit after determining the site can be permitted for a Transient Non-Community water supply well meeting the rules of this Chapter. Notwithstanding the above, the Department shall not issue a construction permit for a Transient Non-Community water supply well with a design capacity of 100,000 gal per day or greater. The construction permit shall include a site plan showing the location of potential sources of contamination and area(s) suitable for Transient Non-Community water supply well construction.
6. The Department shall issue a written notice of denial of a construction permit if it determines a Transient Non-Community water supply well cannot be constructed in compliance with the rules of this Chapter. The notice of denial shall include reference to specific laws or rules that cannot be met and shall be provided to the applicant.
7. The well contractor shall maintain a copy of the Transient Non-Community water supply well construction permit or repair permit on the job site at all times during the construction, repair or abandonment of the Transient Non-Community water supply

well. The Transient Non-Community water supply well contractor shall meet all the conditions of the permit.

8. A Department representative is authorized to witness any portion of the drilling or construction process, repair, or abandonment of any Transient Non-Community water supply well in Mecklenburg County as part of the inspection. Failure of the Owner or contractor to allow inspection of any material or observation of any drilling or construction, repair or abandonment of any Transient Non-Community water supply well in Mecklenburg County will be grounds for the revocation of the permit.
9. Failure to comply with this Rule authorizes the Director to revoke any permits issued pursuant to this Rule.
10. Only Certified Well Contractors shall perform well contractor activities
11. If there is an improperly abandoned well(s) on site, the construction permit shall be conditioned upon repair or abandonment of any improperly abandoned well(s) in accordance with the 15A NCAC 02C.
12. No permit will be issued until all fees have been paid in accordance with Section II (C) of this Chapter.

SECTION IV STANDARDS OF CONSTRUCTION

- (A) Scope - No Person shall construct, repair or abandon or cause to be constructed, repaired or abandoned, any Transient Non-Community well contrary to the provisions of this Rule and G.S. 87-85 (10a) and 15A NCAC 02C. Previously adopted procedures and requirements of the Mecklenburg County Public Health Department (hereinafter called the Department) are superseded by this Rule

SECTION V SAMPLING

- (A) Within 30 days of the TNC completion of the Transient Non-Community water supply well for a newly constructed Transient Non-Community water supply well, the Department shall obtain water samples and submit them to a certified laboratory for analyses or ensure that the water obtained from the Transient Non-Community water supply well has been sampled and analyzed by a certified laboratory, in accordance with this Chapter.
- (B) Samples collected from Transient Non-Community water supply wells pursuant to the rules of this Chapter shall be collected by an employee of the Department, or a certified laboratory. The sample collector shall use aseptic sampling techniques for collection of coliform bacteria and sampling techniques and containers for chemical constituents

following methods described in 40 Code of Federal Regulations 141.23 Inorganic Chemical Sampling and Analytical Requirements and 40 Code of Federal Regulations 143.4 Monitoring, which are incorporated by reference including any subsequent amendments, additions or editions.

- (C) The sample collectors shall be trained in accordance with guidance developed by the Department.
- (D) Water samples shall be collected from the sample tap at the Transient Non-Community water supply well or the closest accessible collection point to the water source with a tap capable of being disinfected, providing the sampling point shall precede any water treatment devices
- (E) It is the responsibility of the Transient Non-Community water supply well Owner to provide access and a source of power for the purpose of collecting the required water sample.
- (F) For all new Transient Non-Community water supply wells , samples for total coliform and fecal coliform bacteria shall be collected after the disinfectant agent has been flushed from the Transient Non-Community water supply well and water supply system. The water shall be determined to be free of disinfectant before collection of samples for bacteria. Required water samples shall not be collected from Transient Non-Community water supply wells that are not constructed and located in accordance with the rules of this Chapter.
- (G) Samples shall be transported to the laboratory following the procedures for sample preservation and within holding times required in 40 Code of Federal Regulations 141.21(f) Analytical Methodology, 141.23 Inorganic Chemical Sampling and Analytical Requirements, and 143.4 Monitoring, which are hereby incorporated by reference including any subsequent amendments, additions or editions.
- (H) Additional or retest samples may be collected if:
 - 1. during permitting, construction and sampling process, information indicates the potential for other contaminants to be present in the groundwater source; or
 - 2. if necessary to confirm initial testing results
- (I) Prior to final approval of a new Transient Non-Community water supply well a water sample from the Transient Non-Community water supply well will be analyzed for a suite of Volatile Organic Compounds (VOC) and a suite of toxic metals to be determined by the Director to document the water quality. Additional analysis may be required if deemed necessary by the Director.

1. If the sample analysis indicates the presence of a VOC or toxic metal at or above the laboratory practical quantification level additional sampling as determined by the director will be required.
 2. If the sample analysis does not indicate a concentration of a VOC or a toxic metal. No further sampling will be required unless warranted by changes in site conditions, land use or determined by the Director to protect human health.
 3. If a sample analysis indicates a concentration above the Groundwater Quality Standards referenced in Chapter III the water must be treated/filtered to remove or lower the contaminant below the Groundwater Quality Standards prior to public use.
- (J) Water samples shall be analyzed in the North Carolina State Laboratory of Public Health or a certified laboratory
- (K) A water sample shall be tested for total coliform bacteria and if present, further analyzed for the presence of fecal coliform bacteria or E. coli.
- (L) A Transient Non-Community water supply well shall be analyzed for Arsenic, Barium, Cadmium, Chromium, Copper, Fluoride, Lead, Iron, Magnesium, Manganese, Mercury, Selenium, Silver, Sodium, Zinc, and pH. The Department shall provide information to the Transient Non-Community water supply well Owner or respective lease holder concerning chemical and biological contaminants exceeding public drinking water MCLs and the need for exposure limitation, remediation and or future sampling.
- (M) In addition to the monitoring required by the NCPWS all existing Transient Non-Community water supply wells in Mecklenburg County will be sampled for a suite of Volatile Organic Compounds (VOC) and a suite of toxic metals to be determined by the Director.
1. If the sample analysis indicates a concentration of a VOC or a toxic metal additional sampling as determined by the director will be required.
 2. If the sample analysis does not indicate a concentration of a VOC or a toxic metal. No further sampling for VOC or toxic metals will be required unless warranted by changes in site conditions, land use or determined by the Director to protect human health.
- (N) In addition to the monitoring required by the NCPWS all existing Transient Non-Community water supply wells within an Area of Regulated Groundwater Usage designated in Mecklenburg County will require:
1. an initial water sample following identification of the contaminant. The water sample must be analyzed for the contaminant(s)-of-concern. A laboratory certified by the

State must perform the analysis. The analysis must be submitted to the Department for review.

2. biennial sampling and analysis for the contaminant(s)-of-concern. The water sample must be analyzed for the contaminant(s)-of-concern. A laboratory certified by the State must perform the analysis. The analysis must be submitted to the Department for review.
 3. the Department may waive or modify sampling requirements on a Transient Non-Community water supply well by Transient Non-Community water supply well basis if:
 - a. it can demonstrated that a non-impacted water supply well of similar dimensions to the subject Transient Non-Community water supply well exist between the contaminant plume and the subject well, or
 - b. a hydrogeologic review of the Area of Regulated Groundwater Usage, conducted by a North Carolina Professional Engineer or a North Carolina Licensed Geologist and presented to the Department, indicates that the Transient Non-Community water supply well is not at risk of being impacted by the contaminant plume. The Department must concur with the findings of the review before modification to the sampling schedule may be granted.
- (O) Fees for sampling services performed by the Department will be charged according to the current fee schedule.
- (P) Records required in this section shall be submitted within 30 days of receipt of laboratory analysis reports.

**CHAPTER III
WATER SUPPLY STANDARDS**

SECTION I STANDARDS

- (A) The Water Supply Standards for the protection of the Water Supply in Mecklenburg County are those specified in subsections (B), (C) and (D) below. They are the maximum allowable concentrations of any substance or combination of substances in the groundwater, which may be tolerated without posing a threat to human health or which would otherwise render the groundwater unsuitable for its use as a water supply.
- (B) The Water Supply Standards are (1) those defined in 40 Code of Federal Regulations 141 and 143 (National Primary Drinking Water Regulations; National Secondary Drinking Water Regulations) (hereinafter called “40 CFR 141,143”), and (2) those contaminants for which no standards are contained in 40 CFR 141,143.
- (C) Those contained in 15A NCAC 2L .0202 (hereinafter called “2L Standard”).
- (D) The Water Supply Standards for contaminants specified in the 2L Standard shall be as listed, except:
1. Where the 2L Standard for a substance is less than the practical quantitation limit, the detection of that substance at or above the practical quantitation limit shall constitute a violation of the Water Supply Standards.
 2. Where substances exist in combination below the 2L Standards, the Water Supply Standard for the substances shall be determined by North Carolina’s Department of Health and Human Services Epidemiology Section to be protective of human health.
 3. Where an interim maximum allowable concentration has been established by the NCDEQ pursuant to 15A NCAC 2L .0202 (c) such concentration shall constitute a violation of the Water Supply Standards.
 4. Except for tracers used in concentrations which have been determined by the Division of NCDHHS Epidemiology Section to be protective of human health, and the use of which has been permitted by the NCDEQ, detectible concentrations of substances which are not naturally occurring and for which no standard is specified shall constitute a violation of the Water Supply Standards.
- (E) Parameters exceeding the concentrations listed in the National Secondary Drinking Water Standards will not constitute a violation of the Water Supply Standards for the purpose of requiring the abandonment of the water supply well or treatment of the raw well water prior to usage.

CHAPTER IV
**CONSTRUCTION, REPAIR, AND ABANDONMENT FOR MONITORING,
INJECTION, RECOVERY AND GROUNDWATER REMEDIATION WELLS**

SECTION I REGISTRATION

- (A) The Owner of a monitoring, injection, recovery or groundwater remediation well installed prior to January 1, 2005, must register the monitoring, injection, recovery or groundwater remediation well with the Department by submitting the following information on forms provided by the Department. A permit must be obtained prior to registering monitoring, injection, recovery or groundwater remediation wells:
1. Names, addresses and phone numbers of the monitoring, injection, recovery or groundwater remediation Well Owner, property owner, permit contact, and legal agent of the Well Owner.
 2. Address and tax parcel number of the property for the monitoring, injection, recovery or groundwater remediation well(s).
 3. Number of monitoring, injection, recovery or groundwater remediation wells located on the property.
 4. Use of the monitoring, injection, recovery or groundwater remediation well (monitoring, injection, recovery etc.).
 5. Violations of the Groundwater Standard referenced in Chapter III of this Rule.
- (B) Registration of monitoring, injection, recovery and groundwater remediation wells must be reviewed every 12 months. The registration shall be submitted on forms to be supplied by the Department during the period the Department designates.
- (C) A non-refundable fee as specified in the fee schedule shall be submitted with each registration if applicable.
- (D) The Owner of a monitoring, injection, recovery or groundwater remediation well installed after January 1, 2005, must register the monitoring, injection, recovery or groundwater remediation well with the Department by completing the following Application and Permit process.

SECTION II APPLICATION

- (A) On or after January 1, 2005, any entity seeking to construct, install, repair, alter or abandon a monitoring, injection, recovery or groundwater remediation well(s) must file

an application, with the Department in order to receive a subsurface investigation permit. The permit must be obtained prior to the start of any Well Contractor Activity.

- (B) Applications for monitoring, injection, recovery or groundwater remediation Well Contractor Activities shall be submitted on forms to be supplied by the Department.
- (C) Monitoring, injection, recovery or groundwater remediation well(s) must be registered with the Department within 30 days by submitting the following information on forms provided by the Department:
 - 1. Names, addresses and phone numbers of the monitoring, injection, recovery or groundwater remediation Well Owner, property owner, and permit contact.
 - 2. Address and tax parcel number of the site property for the monitoring, injection, recovery or groundwater remediation well(s).

SECTION III PERMITS

(A) Subsurface Investigation Permits

- 1. It shall be unlawful for any Person to commence any Well Contractor Activities in Mecklenburg County without first obtaining a permit from the Director. The monitoring, injection, recovery or groundwater remediation Well Owner or their authorized legal agent shall obtain the permit. The permit is valid for one year from date of issuance. If the Well Contractor Activity has not commenced within one year from the date of issuance of the permit, the permit then becomes invalid. When a permit has become invalid, Well Contractor Activities may not commence until a new permit is issued.
- 2. A copy of the permit must be on site during any Well Contractor Activities related to any monitoring, injection, recovery or groundwater remediation well.
- 3. A Department representative is authorized to witness any portion of Well Contractor Activities related to any monitoring, injection, recovery or groundwater remediation well in Mecklenburg County as part of the inspection. Failure of the Well Owner or their authorized legal agent to allow inspection of any material or observation of any Well Contractor Activity related to any monitoring, injection, recovery or groundwater remediation well in Mecklenburg County will be grounds for the revocation of the permit.
- 4. Failure to comply with this Rule authorizes the Director to revoke any permits issued pursuant to this Rule.

SECTION IV MONITORING, INJECTION, RECOVERY AND GROUNDWATER
REMEDIAATION WELLS REGISTRATION

- (A) Monitoring, injection, recovery and groundwater remediation wells are required to be registered with the Department.
1. It shall be the responsibility of the monitoring, injection, recovery or groundwater remediation Well Owner or their authorized legal agent to provide the Department with complete information on the total number of monitoring, injection, recovery or groundwater remediation wells installed, their type, purpose and location.
 2. Registration information must be provided in the manner and format prescribed by the Department including but not limited to the site name, well name, permit number, location, type and date of installation of the monitoring, injection, recovery or groundwater remediation well.
 - a. Number of monitoring, injection, recovery or groundwater remediation wells located for the site investigation.
 - b. Use of the monitoring, injection, recovery or groundwater remediation well (monitoring, injection, recovery etc.).
 - c. Violations of the Groundwater Standard referenced in Chapter III of this Rule.
 3. Registration information must be submitted within thirty (30) days of monitoring, injection, recovery, or groundwater remediation well completion.
- (B) It shall be the responsibility of the monitoring, injection, recovery or groundwater remediation Well Owner or their authorized legal agent to annually update the monitoring, injection, recovery or groundwater remediation well status and changes to Groundwater Quality Standards referenced in Chapter III of this Rule.
- (C) It shall be the responsibility of the monitoring, injection, recovery or groundwater remediation Well Owner or their legal agent to provide the Department with monitoring, injection, recovery or groundwater remediation well construction or abandonment records within thirty (30) days of well installation or abandonment completion.

SECTION V STANDARDS OF CONSTRUCTION

- (A) No monitoring, injection, recovery or groundwater remediation well shall be located, constructed, operated, or repaired in any manner that may adversely impact the quality of groundwater.
- (B) Injection wells shall conform to the standards set forth in 15A NCAC 2C.

- (C) Monitoring, injection, recovery and groundwater remediation wells shall be located, designed, constructed, operated and abandoned with materials and by methods, which are compatible with the chemical and physical properties of the contaminants involved, specific site conditions and specific subsurface conditions. The following general requirements will apply:
1. The borehole shall not penetrate to a depth greater than the depth to be monitored or the depth from which contaminants are to be recovered.
 2. The monitoring, injection, recovery and groundwater remediation well shall not hydraulically connect separate aquifers; or those portions of a single aquifer where known or suspected contamination would occur in separate and definable layers within the aquifer.
 3. The monitoring, injection, recovery and groundwater remediation well construction materials shall be compatible with the depth of the monitoring, injection, recovery or groundwater remediation well and the contaminants to be monitored or recovered.
 4. The monitoring, injection, recovery and groundwater remediation well shall be constructed and maintained in such a manner that water or contaminants from the land surface cannot migrate along the borehole annulus into any packing material or monitoring, injection, or recovery or groundwater remediation well screen area.
 5. Packing material placed around the screen shall extend at least one foot above the top of the screen. Unless the depth of the screen necessitates a thinner seal; a one-foot thick seal, comprised of bentonite clay or other material approved by the Director, shall be emplaced directly above and in contact with the packing material.
 6. Grout shall be placed in the annular space between the outermost casing and the borehole wall from the land surface to the top of the bentonite clay seal above any monitoring, injection, recovery or groundwater remediation well screen or to the bottom of the casing for open end monitoring, injection, recovery or groundwater remediation wells. To provide stability for the monitoring, injection, recovery or groundwater remediation well casing, the uppermost three feet of grout below land surface must be a concrete or cement-type grout.
 7. All monitoring, injection, recovery or groundwater remediation wells shall be secured, with a locking monitoring, injection, recovery or groundwater remediation well cap, to reasonably ensure against unauthorized access and use.
 8. All monitoring, injection, recovery or groundwater remediation wells shall be afforded reasonable protection against damage during construction and use.

9. Any monitoring, injection, recovery or groundwater remediation wells that would flow under natural artesian conditions shall be valved so that the flow can be regulated.
10. The monitoring, injection, recovery or groundwater remediation well casing shall be terminated no less than 12 inches above land surface datum unless both of the following conditions are met:
 - a. Site specific conditions directly related to business activities, such as vehicle traffic, would endanger the physical integrity of the monitoring, injection, recovery or groundwater remediation well; and
 - b. the monitoring, injection, recovery or groundwater remediation well head is completed in such a manner so as to preclude surficial contaminants from entering the monitoring, injection, recovery or groundwater remediation well.
11. Each well shall have securely affixed an identification plate constructed of a durable material and shall contain the following information:
 - a. drilling contractor, name and applicable certification or registration numbers; date monitoring, injection, recovery or groundwater remediation well completed; total depth of monitoring, injection, recovery or groundwater remediation well;
 - b. a warning that the monitoring, injection, recovery or groundwater remediation well is not for water supply and that the groundwater may contain hazardous materials; and depth(s) to the top(s) and bottom(s) of the screen(s).
 - c. depth(s) to the top(s) and bottom(s) of the screen(s).
12. Each monitoring, injection, recovery or groundwater remediation well shall be developed such that the level of turbidity or settleable solids does not preclude accurate chemical analyses of any fluid samples collected.
13. Wells constructed for the purpose of monitoring or testing for the presence of liquids associated with tanks regulated under 15A NCAC 02N (Criteria and Standards Applicable to Underground Storage Tanks) shall be constructed in accordance with 15A NCAC 02N.
14. Wells constructed for the purpose of monitoring for the presence of vapors associated with tanks regulated under 15A NCAC 02N shall:
 - a. be constructed and maintained in such a manner as to prevent the entrance of surficial contaminants or water into or alongside the monitoring, injection, or recovery or groundwater remediation well casing; and

- b. be provided with a lockable cap in order to reasonably ensure against unauthorized access and use.
15. Monitoring, injection, recovery or groundwater remediation wells shall be constructed and abandoned in such a manner as to preclude the vertical migration of contaminants within and along the borehole channel.
16. For sand or gravel packed monitoring, injection, or recovery or groundwater remediation wells, centering guides must be evenly distributed in the borehole.

SECTION VI ABANDONMENT

- (A) Procedures for permanent abandonment of monitoring, injection, and recovery and groundwater remediation wells.
1. All casing and screen materials may be removed prior to initiation of abandonment procedures if such removal will not cause or contribute to contamination of the groundwater. Any casing not grouted in accordance with 15A NCAC 2C .0107(e) shall be removed or properly grouted.
 2. The entire depth of the monitoring, injection, recovery and groundwater remediation well shall be sounded before it is sealed to ensure freedom from obstructions that may interfere with sealing operations.
 3. In the case of gravel-packed monitoring, injection, recovery and groundwater remediation wells in which the casing and screens have not been removed, neat cement, or bentonite grout shall be injected into the monitoring, injection, recovery and groundwater remediation well completely filling it from the bottom of the casing to the top.
 4. Monitoring, injection, recovery and groundwater remediation wells constructed in unconsolidated formations shall be completely filled with cement grout, or bentonite grout by introducing it through a pipe extending to the bottom of the monitoring, injection, recovery and groundwater remediation well which can be raised as the monitoring, injection, recovery or groundwater remediation well is filled.
 5. Monitoring, injection, recovery and groundwater remediation wells constructed in consolidated rock formations or that penetrate zones of consolidated rock shall be filled with cement grout or bentonite grout by introducing it through a pipe extending to the bottom of the monitoring, injection, recovery or groundwater remediation well which can be raised as the monitoring, injection, recovery or groundwater remediation well is filled. The top of the cement grout or bentonite grout shall extend up to land surface.

SECTION VII INSPECTION AND FEES

- (A) The Department shall conduct random inspections of new and existing monitoring, injection, recovery and/or groundwater remediation wells to ensure the conditions of Section V and Section VI of this Chapter are met.
- (D) The Director shall have the right to enter any property for the purpose of identifying the location and to evaluate the condition of existing monitoring, injection, recovery and groundwater remediation wells on the property.
- (E) The Department shall conduct compliance audits to identify the location and evaluate the condition of existing monitoring, injection, recovery and groundwater remediation wells. If the Department identifies a monitoring, injection, recovery and groundwater remediation well that is not registered the monitoring, injection, recovery or groundwater remediation Well Owner and/or property owner shall pay the full registration fee plus a compliance inspection fee within thirty (30) days of notification.
- (F) Following the inspection, the Department shall notify the monitoring, injection, recovery Well Owner and/or property owner of any requirements for repair. The monitoring, injection, recovery or groundwater remediation Well Owner and/or property owner shall have thirty days from the date of notification to conduct any required repairs or to properly abandon the monitoring, injection, recovery or groundwater remediation well(s).
- (G) Monitoring, injection, recovery and groundwater remediation wells in existence prior to January 1, 2005, must pay the appropriate annual registration fee. Registration fees for existing monitoring, injection, recovery or groundwater remediation wells shall be waived until July 1, 2005, if the existing well(s) is registered by July 1, 2005.

Annual registration fees must be paid by the monitoring, injection, recovery or groundwater remediation Well Owner, or their legal agent for all existing monitoring, injection, recovery or groundwater remediation wells. Fees must be paid between October 15 and November 15 of each year the monitoring, injection, recovery or groundwater remediation wells exist.

- (H) Permanent monitoring, injection, recovery and groundwater remediation wells installed by a State or federal entity shall be exempt from registration fee requirements when
 1. acting as the lead at an orphan site
 2. conducting remedial activities at an orphan site, or
 3. investigating a contamination site for purposes of determining the responsible party.

**CHAPTER V
ENFORCEMENT**

SECTION I PENALTIES

- (A) Any Person who violates any of the provisions of this Rule is subject to a criminal penalty. Any Person who willfully violates any provision of this Rule, or any order issued by the Director pursuant thereto, shall be guilty of a misdemeanor pursuant to G.S. 130A-25.
- (B) Any Person, who violates any of the provisions of this Rule is subject to a civil penalty pursuant to G.S. 153A-77. A civil penalty may be assessed from the date the violation first occurs. No penalty shall be assessed until the Person alleged to be in violation has been notified of the violation. The notice of violation shall identify the nature of the violation, set forth those measures necessary to comply with this Rule and provide a specific time period for compliance. The notice may be served by mail, hand delivery or any other means determined to give actual notice. Refusal to accept the notice shall not relieve the violator of his or her obligation to comply with this Rule or to pay such penalty.
- (C) The maximum civil penalty for each violation of this Rule is \$10,000.00. Each day of violation shall constitute a separate violation.
- (D) In determining the amount of a civil penalty, all relevant mitigating and aggravating factors shall be considered including, but not limited to the following: the degree and extent of harm caused by the violation; the cost of rectifying the damage; whether the violator saved money through noncompliance; whether the violation was committed willfully; whether the violator reported the violation to the Department; and the prior record of the violator in complying or failing to comply with this Rule or any other local, or State or federal pollution control ordinance or regulation. The amount of per diem penalty set in paragraph (C) of this Section may vary based on the aforementioned relevant mitigating and aggravating factors. The “Mecklenburg County Groundwater Enforcement Guidance” document as approved by the Director will serve as the guiding document for assessment of penalties.
- (E) The Director shall determine the amount of the civil penalty assessment and shall notify the Person responsible for the violation of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be issued in writing and sent via registered or certified mail or other means of determined to give actual notice to the Person responsible for the violation and shall direct the violator to either pay the assessment or appeal the assessment as described in Section III of this Chapter within thirty (30) days of receipt of notice. If an alleged violator does not pay a civil penalty assessed by the Director within thirty (30) days after it is due, or does not appeal a civil penalty as provided in Section III of this Chapter, the Director shall request the County

Attorney to institute a civil action to recover the amount of the assessment. The civil action shall be brought in Mecklenburg County General Court of Justice or in any other court of competent jurisdiction. A civil action must be filed within three (3) years of the date the assessment was due.

- (F) Civil penalties collected pursuant to this Rule shall be credited to the Mecklenburg County general fund as non-tax revenue, or to such other fund as determined by the Board of County Commissioners.

SECTION II INJUNCTIVE RELIEF

- (A) Whenever the Director has reasonable cause to believe that any Person is violating or threatening to violate this Rule or any term, condition, or provision of an approved permit, the Director may, either before or after the institution of any other action or proceeding authorized by this Rule, authorize the County Attorney to institute a civil action in the name of Mecklenburg County for injunctive relief to restrain the violation or threatened violation. The action shall be brought pursuant to G.S. 130A-18 in Mecklenburg County Superior Court.
- (B) Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter such orders or judgments as are necessary to abate the violation or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this Rule.
- (C) The Director shall also have the authority to exercise those remedies listed in G.S. 130A-17, -19 and -20 as necessary to enforce this Rule or to protect the public health.

SECTION III APPEAL

- (A) Disapproval or modification of well permits
 - 1. The disapproval or modification of any proposed well by the Director may be appealed pursuant to the procedures set forth in G.S. 130A-24.
- (B) Issuance of a Notice of Violation (including the Assessment of a Civil Penalty)
 - 1. The issuance of a notice of violation with an assessment of a civil penalty by the Director may be appealed pursuant to the procedure set forth in G.S. 130A-24.

SECTION IV VARIANCE

(A) The Director may grant a variance from any construction standard under this Rule except those required by State law or regulations. Any variance will be in writing and may be granted upon written application to the Director by the person responsible for the construction of the well for which the variance is sought, if the Director finds facts to support the following conclusions:

1. That the use of the well will not endanger human health and welfare of the groundwater.
2. That construction in accordance with the standards was not technically feasible in such a manner as to afford a reasonable water supply at a reasonable cost.

The Director may require the variance applicant to submit such information as he deems necessary to make a decision to grant or deny the variance. The Director may impose such conditions on a variance or the use of a well for which a variance is granted as he deems necessary to protect human health and welfare and the groundwater resources. The brief findings of fact supporting any variance shall be in writing and made part of the variance.

CHAPTER VI
OTHER PROVISIONS

SECTION I SEVERABILITY

If any provision or clause of this Rule shall be declared invalid, such declaration shall not invalidate any other provisions or clauses of this Rule.

SECTION II PRIOR RULES REPEALED

All ordinances, rules and regulations adopted by the Mecklenburg Board of County Commissioners (acting as a Board of Health) regulating wells other than drinking water wells are hereby repealed.

SECTION III EFFECTIVE DATE

This Rule shall be in full force and effect from and after March 18, 2026.