

## **CHAPTER I GENERAL PROVISIONS**

Be it ordained by the Mecklenburg County Board of 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 Groundwater Well Regulations requiring registration, permitting and monitoring activities for certain wells in Mecklenburg County for the protection of the public health and safety, are hereby adopted pursuant to G.S. 130A-39(a). These Regulations shall apply throughout Mecklenburg County, North Carolina, including, but not limited to, all cities and towns, whether incorporated or unincorporated.

### SECTION I      GENERAL PROVISIONS and ADMINISTRATION

- (A) Authorization - The Mecklenburg County Board of Commissioners, acting as a board of health, is authorized under the provisions of Chapter 130A, Section 39 of the General Statutes of North Carolina to adopt appropriate rules and regulations for the protection of the public health.
- (B) Delegation of Authority- The 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 considers appropriate, provided this delegation shall not include the authority to revoke, or suspend a permit. The Director shall appoint adequate administrative and technical staff within the Department to assure the efficient administration of this section.
- (C) Purpose – It is the finding of the Mecklenburg County Board of Commissioners, 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 water supply and other wells. Therefore, in order to insure reasonable protection of the groundwater resource and consistent with the responsibility to protect and advance the public health, it is declared to be policy of the Mecklenburg County Board of Commissioners to require that the location, construction, repair and abandonment of wells conform to these regulations which it has determined to be necessary to protect the public health and groundwater resources.
- (D) Scope - No Person shall construct, repair or abandon or cause to be constructed, repaired or abandoned, any well contrary to the provisions of these regulations and standards.

- Previously adopted procedures and requirements of the Mecklenburg County Health Department (hereinafter called the Department) are superseded by these Regulations.
- (E) Conflict with other Laws and Regulations - The provisions of any federal, State or municipal law or regulation establishing standards affording greater protection to the public welfare, safety, health and the groundwater resources shall prevail within the jurisdiction of such agency or municipality over standards established by these Regulations. If any section or sections conflict within these Regulations or with any other regulation, the more strict regulation prevails.
  - (F) If any section or sections of these Regulations is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.
  - (G) Permit – All newly constructed wells must be evaluated by the Director in accordance with these Regulations. A well construction permit shall be issued in compliance with these Regulations.
  - (H) Inspection and final permit – No Person shall consume water from a newly constructed well or following repair of an existing well until an inspection by the Director has determined that the well complies with the provisions of these Regulations. The Director shall make these inspections as soon as practicable after he receives notice that an installation is to be made.

No Person shall occupy a residence, place of business or place of public assembly or place a well into use for a residence, place of business or place of public assembly until a final certificate of inspection for the construction or repair of a well has been issued or authorization has been granted from the Director.

Emergency repairs to an existing well that are made outside normal working hours of the Department, i.e., nights, weekends and holidays, shall require the use of well casing complying with all the provisions of Chapter II, Section IV (D). Location of the well must comply with all requirements of Chapter II, Section IV (A) and a well permit must be obtained on the next regular working day from the Department.

- (I) Responsibilities of Well Owners – It shall be unlawful for any Person to 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 water quality standards of these Regulations.

## SECTION II    DEFINITIONS

Abandon	To discontinue the use of and to seal a well according to the requirements of 15A NCAC 2C .0113.
Abandoned Well	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	An opening in the well casing or wellhead installed for the primary purpose of determining the position of the water level in the well or to facilitate disinfection.
Active	A term denoting the status of a well. To be considered active a well must be in use for its intended purpose in a current and ongoing fashion.
Addition	Any structure, whether free standing or attached to another ( including swimming pools, oil tanks, signs, etc.) which is constructed, altered or placed on property that contains one or more wells. This would not include replacement of existing equipment within the existing footprint of a structure and addresses only those situations for which a building permit is required.
Agent	Any Person who by mutual and legal agreement has authority to act on behalf of a Person. The agent may be either a general agent or a limited agent authorized to do one particular act.
Annual or annually	Recurring, done or performed every year, yearly
Annular Space	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	That which has been considered acceptable to the State or Director
Area of Regulated Groundwater Usage	That zone surrounding and including a contamination plume or contamination site in which construction of new wells may be restricted or modified, and regular sampling and testing for the contaminant of concern may be required for both new and existing wells. The Area of Regulated Groundwater Usage is defined by the Department following a hydrogeologic review.

Artesian Well	A well that taps groundwater under pressure, causing the water to rise above the surface without pumping.
ASTM	American Society for Testing and Materials.
Authorized Representative	A person empowered or designated by the Mecklenburg County Health Director to enforce the provisions of the Mecklenburg County Well Regulations.
Bedrock	Any consolidated rock encountered in the place in which it was formed or deposited and which cannot be readily excavated without explosives or power equipment.
Biannual	Once every two years.
Biofilm	A collection of microorganisms which may exist on solid surfaces within a water well. This collection includes, but is not limited to, slime-formers, iron related bacteria, sulfate reducing bacteria, pseudomonas and coliforms.
Breakthrough	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	Pipe or tubing constructed of specified materials and having dimensions and weights as specified in the Rules of this Subchapter, 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	A laboratory certified under the requirements of NCAC Title 10A Subchapter 42D Section.0100.
Certified Well Contractor	A person who has satisfactorily met the requirements of the Well Contractors Commission relating to well contractor activities referenced in 15A NCAC 27 .0100-.0900.
Clay	A substance comprised of natural, inorganic, fine-grained crystalline mineral fragments which, when mixed with water forms a pasty, moldable mass that preserves its shape when air dried.

Committee	The Groundwater Advisory Committee.
Community Well	A well that serves 15 or more connections or at least 25 year round residents.
Compliance Audit	A scheduled or unscheduled visit to a site and its environs by the Department personnel 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	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	Any substance or combination of substances occurring in groundwater in concentrations exceeding the lower of 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	The introduction of a contaminant into the soil or groundwater.
Contamination Plume	Three-dimensional zone containing a contaminant or contaminants
Contamination Site	Real property where contamination has occurred.
County	Mecklenburg County, North Carolina.
Department	The Mecklenburg County Health Department
Design Capacity	The capacity that is equal to the yield that is specified by the well Owner or his agent prior to the construction of the well.
Director	The Mecklenburg County Health Director or his/her authorized representative.
Disinfection	A process which inactivates pathogenic organisms in water.
Division of Epidemiology	The North Carolina Department of Health and Human Services, Division of Public Health, Epidemiology Section.
Driller	See certified well contractor.

Existing Well	A well constructed prior to January 1, 2005.
Fecal coliform	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 Esherichia, species coli.
Federal	The United States of America government.
Fee Schedule	The current schedule of fees as approved by the Mecklenburg County Board of Commissioners.
Filtered	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	Naturally occurring material generated during the drilling process that is composed of sands, silts, clays or fragments of rock and which is not in a dissolved state.
Free Product	Any accumulation of a substance of greater than or equal to 1/8 inch (0.01 feet) in contact with groundwater or perched on the water table, with a density of less than or greater than water and existing as a non aqueous phase liquid.
Groundwater Advisory Committee	The Committee appointed by the Board of County Commissioners with duties as provided in Chapter VIII of these Regulations.
Grout	Means a material approved in accordance with Chapter II Section IV(E) 3 or Chapter IV Section IV (E)3 for use in sealing the annular space of a well or liner or for sealing a well during abandonment.
Health Department	The Mecklenburg County Department of Public Health.
Health Director	The Director of the Mecklenburg County Department of Public Health or his/her Authorized Representative.

High Risk	<p>For sites where an underground storage tank system is the source of contamination a high risk classification means that any of the following apply:</p> <ul style="list-style-type: none"> <li>a) an existing water supply well, including one used for non-drinking purposes, has been contaminated</li> <li>b) a water supply well used for drinking water is located within 1,000 feet of the source of contamination</li> <li>c) a water supply well not used for drinking water is located within 250 feet of the source of contamination</li> <li>d) the groundwater within 500 feet of the source of contamination had the potential for future use in that there is no source of water supply other than the groundwater</li> <li>e) there exist a serious threat of explosion due to the accumulation of vapors in a confined space as a result of the contamination</li> <li>f) there exist an imminent danger to public health, public safety or the environment, as a result of the release.</li> </ul>
Hydrogeologic Review	<p>The consideration of existing scientific data, the relevancy of which is determined by the Department, that describes the interrelationships of geologic materials and processes with groundwater impacted by a contaminant or contaminants.</p>
Injection Well	<p>Any excavation which is cored, bored, drilled, jetted, dug, or otherwise constructed, whose depth is greater than its largest surface dimension and which is used, or intended to be used, for the injection of fluids or solids into the subsurface or groundwater.</p>
Inspection	<p>A visit to a site and its environs by the Department personnel to examine and document the construction and installation of new or the repair of existing wells.</p>
Intermediate Risk	<p>For sites where an underground storage tank system is the source of contamination an intermediate risk classification means that any of the following apply:</p> <ul style="list-style-type: none"> <li>a) surface water is located within 500 feet of the source of contamination and the maximum groundwater contaminant concentration exceeds the applicable surface water quality standard and criteria found in 15A NCAC 2B. 0200 by a factor of 10.</li> <li>b) the source of contamination is located within a designated wellhead protection area, as defined in 42 USC 300h-7(e).</li> <li>c) the levels of groundwater contamination for any contaminant (except ethylene dibromide, benzene and the aliphatic and aromatic carbon fraction classes) exceed 50 percent of the solubility of the contaminant at 25 degrees</li> </ul>

Celsius or 1,000 times the groundwater quality standard or interim standard established in 15A NCAC 2L .0202.

d) the levels of groundwater contamination for ethylene dibromide or benzene exceed 1,000 times the federal drinking water standard set out in 40 CFR 141.

e) free product is present.

Irrigation well	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 supply.
Liner Pipe	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 screen.
Memorandum of Agreement (MOA)	A written collaborative work agreement between the Mecklenburg County Land Use and Environmental Service Agency (LUESA) and NCDENR.
Monitor Well	Any well constructed for the primary purpose of obtaining samples of groundwater or other liquids for examination or testing, 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 monitor well constructed solely for the purpose of determining groundwater levels.
NCDENR	North Carolina Department of Environment and Natural Resources.
NCPWS	North Carolina Public Water Supply Section.
Non-community Well	A well that serves 25 or more transient people 60 days of the year.
Non-potable well	Water containing bacteria, minerals, organic or inorganic chemicals or petroleum products of such quantity as to render the water unsafe, harmful or generally unsuitable for domestic use.
Non-transient non-community Well	A well that regularly serves at least 25 of the same persons over 6 months per year.
Orphan Site	A contamination site where a responsible party has not been identified or assigned.



Owner	Any person who holds the fee or other property rights in the well being constructed. A well is real property and its construction on land rests ownership in the land Owner in the absence of contrary agreement in writing.
Permit	A written document issued by the Health Department authorizing or allowing the construction or repair of any well as defined by these regulations
Person	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 2c.0107 (I) (5) for the purpose of allowing a subsurface lateral connection between a well and plumbing appurtenances.
Place of business	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	A fairground, auditorium, stadium, church, campground, theater or and other place where people assemble.
Potable Water	Water of such quality that it is suitable for human consumption.
Public Notice	The act of providing information to the persons required. This should take the form of certified mail sent to every occupant and Owner of all buildings, condominiums, office buildings, etc., within the specified area. If the number of correspondents makes certified mail impractical, then the responsible party may post the notice in a prominent place where the occupants are most likely to see it.
Pump	The well pump, pump pipe, pump supply line and any other equipment or materials used or intended to be used for with drawing or obtaining groundwater.
Raw Water	Water which has not been treated to make it potable.

Recovery Well	Any well constructed for the purpose of removing contaminated groundwater or other liquids from the subsurface.
Registered Pump Installer	A person that has fulfilled the requirements of 15A NCAC 2C. 0103.
Repair	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 or opening the well seal. This shall not apply to routine pump maintenance or replacement; However, routine pump maintenance or replacement shall be followed by disinfection of the water system and proper replacement of the seal.
Residence	The place in which one lives, a dwelling.
Responsible Party(s)	Entity(ies) determined by the State to have caused contamination.
Sample	A representative portion of a substance collected for analysis.
Sealed	No detectable leakage under the casing shall be allowed to enter the bore hole.
Seated	A part of the surface on or which another part or surface rests to fix firmly in place to rest or fit into another part.
Settleable Solids	The volume of solid particles in a well mixed one liter sample which will settle out of suspension, in the bottom of an Imhoff Cone, after one hour.
Site	All contiguous property under the same ownership or all contiguous property wherein wells are under the same ownership.
Site Plan	A drawing not necessarily drawn to scale that shows the existing and proposed property lines with dimensions, and 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	That portion or point on a site where a contaminant or contaminants has been released.
Specific Capacity	The yield of the well expressed in gallons per minute per foot of draw-down of the water level (gpm/ft.dd)
State	The State of North Carolina government.
Static Water Level	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	The weight of those solid particles in a sample which are retained by a standard glass micro fiber filter, with pore openings of one and one-half microns, when dried at a temperature of 103 to 105 degrees Fahrenheit.
Temporary Well	A well, other than a water supply well that is constructed to determine aquifer characteristics, and which will be permanently abandoned or converted to a permanent well within five days (120 hours) of the completion of drilling of the borehole.
Transient Non-community Well	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	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	The cloudiness in water, due to the presence of suspended particles such as clay and silt that may create aesthetic problems or analytical difficulties for determining contamination. Turbidity measure in Nephelometric Turbidity Units (NTU) is based on a comparison of the cloudiness in the water with that in a specially prepared standard.
Unconsolidated Rock	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)	Underground Storage Tank means any one or a combination of tanks that is used to contain and accumulation of regulated substances, and the volume of which is 10% or more beneath the surface of the ground.

Vent	An opening in the 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	A representative portion of groundwater collected specifically for water quality analysis, whether by field or laboratory testing.
Water supply	The groundwater that is obtained through a water supply well.
Water Supply Standard	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.
Water Supply Well	A well, well pump and pipe used in connection with or pertaining to the operation of a water supply, including pressure tank and fittings. A irrigation well is a type of water supply well.
Well	Any excavation that is cored, bored, drilled, jetted, dug or otherwise constructed for the purpose of locating, 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 including any and all materials installed to facilitate these actions.
Well Cap	A watertight, lockable, removable plug used to temporarily seal the well casing in order to prevent water or other material from entering the well.
Well Contractor	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	The construction, installation, repair, alteration, or abandonment of any well.

Well Cover	<p>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.</p> <p>For water supply wells, any structure placed around the well head with the intent of affording protection to the well head.</p>
Well Driller	See certified well contractor.
Well Head	The upper terminus of a well including adapters, ports, valves, seals and/or other attachments.
Well Owner	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 land Owner in absence of a contrary agreement.
Well Permit	A document issued by the Department allowing the construction, repair, or abandonment of any well as defined in these Regulations.
Yield	Amount of water or other fluid that can be extracted from a well under a given set of conditions.