VARIANCE APPLICATION FOR 2C .0100 WELL CONSTRUCTION STANDARDS: PRIVATE DRINKING WATER WELLS UNDER 15A NCAC 02C .0300 WATER SUPPLY WELLS UNDER 15A NCAC 02C .0107 All water supply wells not considered "Private Drinking Water Wells" and including irrigation, industrial, and commercial wells. WELLS OTHER THAN WATER SUPPLY UNDER 15A NCAC 02C .0108 Including monitoring and recovery wells. Print clearly or type information. Illegible submittals will be returned as incomplete. DATE: _____, 20____ PERMIT NO.: ______(to be completed by DWQ/DPH) WELL OWNER – For single family residences list the property owner(s). For all others, list name of the business, A. organization, or government agency and person delegated signature authority: Mailing Address: City: _____ Zip Code: County: Day Tele No.: _____ Cell No.: _____ _____ Fax No.:_____ EMAIL Address: PHYSICAL LOCATION OF WELL SITE B. Parcel Identification Number (PIN) of well site: (1)County: Physical Address (if different than mailing address): (2)City: _____ State: <u>NC</u> Zip Code: _____ WELL DRILLER INFORMATION (if known) C. Well Drilling Contractor's Name: _____ NC Well Drilling Contractor Certification No.: Contact Person: ____ Company Name: City: _____ State: _____ Zip Code: County: Day Tele No.: ______

EMAIL Address: _____ Fax No.:_____

D. REASON FOR VARIANCE REQUEST – Include type of well(s) to be constructed; rule for which the variance is being requested; description of how the alternate construction will not endanger human health and welfare and the environment; and reason why construction and/or operation in accordance with the standards is not technically feasible and/or provides equal or better protection of the groundwater.

E. ATTACHMENTS – Provide the following information as attachments to this application:

- (1) A map showing general location of the property (including road names, NC State Route Number, distances, any key landmarks, etc.) sufficient for finding the well location.
- (2) Detailed site map with scale showing location of proposed well relevant to septic system(s), building foundations, property lines, water bodies, potential sources of contamination, other wells, etc.
- (3) Submit a copy of the local well permit application and site evaluation map (if applicable).
- (4) Any other information relevant to the variance request such as a well construction diagram showing proposed well liner or atypical construction materials/methods.

F. OTHER MINIMUM CONSTRUCTION REQUIREMENTS

For water supply wells, approval of a variance will require that additional construction requirements beyond those specified in 15A NCAC 02C .0107 be met. Minimum additional construction requirements for Coastal Plain and Piedmont and Mountain region wells are referenced on Attachments A and B on pages 4 and 5 of this application. Approval of a variance will not be considered in cases where the specified minimum additional construction requirements cannot be met.

G. SIGNATURES

Signature of Person Responsible for Well Construction (typically the well driller)

Print or Type Full Name of Person Responsible for Well Construction (typically the well driller)

Signature of County Environmental Health Specialist

Print or Type Full Name of County Environmental Health Specialist

Per 15A NCAC 02C .0118 the Secretary of the Division of Water Quality or the Division of Public Health may require submittal of information deemed necessary to make a decision on the variance, may impose conditions as part of the decision, and shall respond in writing to the request within 30 days of receipt of the variance request. A variance applicant who is dissatisfied with the decision of the Director may commence a contested case by filing a petition as described in G.S. 150B-23 within 60 days after receipt of the decision.

H. SUBMITTAL INSTRUCTIONS

- (1) For the following types of water supply wells <u>only</u>:
 - (a) Private Drinking Water Wells under 15A NCAC 02C .0300
 - (b) Irrigation Wells under15A NCAC .02C .0107 with a designed capacity of less than 100,000 gallons per day and located on the same property as an on-site wastewater system permitted by a local health department.

Prior to submittal of the variance for these types of wells, please contact your regional environmental health specialist by visiting: <u>http://ehs.ncpublichealth.com/contacts.htm</u>

Submit one copy of the completed variance application to:

North Carolina Department of Health and Human Services Division of Public Health – Environmental Health Section On-Site Water Protection Branch 1632 Mail Service Center Raleigh, North Carolina 27699-1632

- (2) For the following types of wells <u>only</u>:
 - (a) All Water Supply Wells under 15A NCAC 02C .0107 other than the ones listed under (1) above
 - (b) Wells Other than Water Supply under 15A NCAC 02C .0108. If these wells are to be constructed on property not owned by the well owner or applicant, please also attach and submit a completed Application to Construct a Monitoring or Recovery Well System (GW-22MR) found on our website at: <u>http://portal.ncdenr.org/web/wq/aps/gwpro/permit-applications</u>

Submit <u>one</u> copy of the completed variance application to the Division of Water Quality Regional Office serving the area in which the well will be located:



Asheville Regional Office 2090 U.S. Highway 70 Swannanoa, NC 28778 Telephone: (828) 296-4500 Fax: (828) 299-7043

Fayetteville Regional Office

225 Green Street, Suite 714 Fayetteville, NC 28301-5043 Telephone: (910) 433-3300 Fax: (910) 486-0707

Mooresville Regional Office

610 East Center Avenue, Suite 301 Mooresville, NC 28115 Telephone: (704) 663-1699 Fax: (704) 663-6040

Raleigh Regional Office

1628 Mail Service Center Raleigh, NC 27699-1628 Telephone: (919) 791-4200 Fax: (919) 571-4718

Washington Regional Office

943 Washington Square Mall Washington, NC 27889 Telephone: (252) 946-6481 Fax: (252) 975-3716

Wilmington Regional Office

127 Cardinal Drive Extension Wilmington, NC 28405 Telephone: (910) 796-7215 Fax: (910) 350-2004

Winston-Salem Regional Office

585 Waughtown Street Winston-Salem, NC 27107-2241 Phone: (336) 771-5000 Fax: (336) 771-4631

COASTAL PLAIN

Minimum Additional Construction Requirements for Wells Requiring a Variance or a Permit to the Separation Distances in 15A NCAC 2C .0107(a)(2) and .0107(a)(3) - Applicable to areas that are Underlain by Unconsolidated Sediments and Sedimentary Rocks

POTENTIAL POLLUTION SOURCE	MINIMUM SEPARATION		<u> </u>		INIMUM ADDITIONAL REQUIREMENTS			
	Standard	Single Family	Variance	Casing Type	Casing Depth	Grout Depth		
septic tank and drainfield	100	50						
other subsurface ground absorption waste	100	100	50	PVC	>20 feet below land surface or as specified by the Director	To the first significant clay greater than 20 feet below land surface or to the source aquifer		
disposal system	100	100						
other sewage and liquid-waste collection or	100	100						
transfer facility			4 1					
cesspools and privies	100	50	4 1					
animal feedlots or manure piles	100	100						
Surface water (GW recharge)ponds, lake	50	50	SITE SPECIFIC					
other surface water bodiescreeks, river	25	25						
water tight sewage or liquid-waste								
collection or transfer facility	50	25	SITE SPECIFIC	PVC ¹				
animal barns	100	50						
building foundations(excluding well house)	25	25						
fertilizer, pesticide, herbicide or other								
chemical storage areas	100	100						
other non-hazardous solid waste landfill	100	100	SITE/SOURCE					
non-hazardous waste storage, treatment or	400	100 100						
disposal lagoons	100			SITE/SOURCE SPECIFIC				
industrial/municipal sludge-spreading or	100	100						
wastewater-irrigation site	100	100						
aboveground or underground heating oil	50	50						
storage tanks								
all other potential sources of groundwater contamination	50	50						
contamination								
sanitary landfills	500	500						
chemical or petroleum fuel underground			DO NOT ISSUE					
storage tanks regulated under 15A NCAC	50	50						
2N with secondary containment								
chemical or petroleum fuel underground								
storage tanks regulated under 15A NCAC	100	100						
2N w/o secondary containment								

¹Double cased PVC may be required

Attachment A (Form GW-22V)

15A NCAC 2C .0107(d)(4)(B), .0107(e)(1)(A), and 2C .0116 provide for the ability to construct a well to a depth of less than 20 feet where the best source of water exists between a depth of ten and twenty feet below the surface of the land. Because additional minimum construction requirements necessitate that: 1) casing extend to a depth greater than 20 feet below land surface; and 2) grout extend to the first significant clay layer greater than 20 feet below land surface or to the source aquifer, a variance to horizontal separation distances for shallow wells cased to less than 20 feet is not feasible. Well construction information should be provided with the Application for Permit for Variance detailing how minimum additional construction requirements will be satisfied.

PIEDMONT AND MOUNTAINS

Minimum Additional Construction Requirements for Wells Requiring a Variance or a Permit to the Separation Distances in 15A NCAC 2C .0107(a)(2) and .0107(a)(3) - Applicable to areas that are Underlain by Crystalline Bedrock

	MINIMUM SEPARATION DISTANCE (ft)			MINIMUM ADDITIONAL REQUIREMENTS					
POTENTIAL POLLUTION SOURCE	Standard	Single Family	Variance	Casing Type	Casing Depth	Grout Depth			
septic tank and drainfield	100	50			If Bedrock depth is <50 feet: the				
other subsurface ground absorption waste	100	100	50	GALVANIZED STEEL	greater of 15 feet into bedrock or 40				
disposal system	100	100			feet below land surface				
other sewage and liquid-waste collection or	100	100			If bedrock depth is 50-100 feet: 10 full le	full length			
transfer facility					feet into bedrock	of casing ¹			
cesspools and privies	100	50			If bedrock depth is >100 feet: 5 feet into bedrock	or casing			
animal feedlots or manure piles	100	100							
Surface water(GW recharge)ponds, lake	50	50	SITE SPECIFIC						
other surface water bodiescreeks, river	25	25	SITE OF LOT IO						
water tight sewage or liquid-waste									
	50	25		PVC or GALVANIZED STEEL	The greater of 40 feet below land surface or 5 feet into bedrock	full length			
collection or transfer facility animal barns	100	50	SITE SPECIFIC			of casing ¹			
building foundations(excluding well house)	25	25							
building foundations(excluding well house)	25	20							
fertilizer, pesticide, herbicide or other	100	100	SITE/SOURCE SPECIFIC						
chemical storage areas									
other non-hazardous solid waste landfill	100	100							
non-hazardous waste storage, treatment or	100								
disposal lagoons									
industrial/municipal sludge-spreading or	100			SITE/SOURCE SPECIFIC					
wastewater-irrigation site	100	100							
aboveground or underground heating oil	50	50							
storage tanks	50	50							
all other potential sources of groundwater	50	50							
contamination		50							
coniton/ londfillo	500	500							
sanitary landfills chemical or petroleum fuel underground	500	500							
storage tanks regulated under 15A NCAC	50	50							
2N with secondary containment	00	50	DO NOT ISSUE						
chemical or petroleum fuel underground	\vdash				DONOTIOODE				
storage tanks regulated under 15A NCAC	100	100							
2N w/o secondary containment	'''	100							
2N W/o secondary containment									

¹A drill bit with a diameter that is at least 1/3 greater than the diameter of the casing must be used to drill the cased portion of the well. Grout should be installed under pressure. Installation using a tremmle pipe is acceptable if the space to be grouted is free of obstruction

Attachment B (Form GW-22V)