## North Carolina Department of Environment and Natural Resources Division of Water Quality - Aquifer Protection Section

# APPLICATION FOR A PERMIT TO CONSTRUCT A WELL REQUIRING A VARIANCE TO THE TITLE 15 A NCAC 2C .0100 WELL CONSTRUCTION STANDARDS

1.	Name of well/property owner:					
	Mailing Address:					
	Telephone Number(s):					
2.	Location of proposed well:  (road, community, subdivision, lot number, etc.)  Address:					
	County: Parcel ID Number:					
3.	Purpose (circle one): private drinking water supply / irrigation / public supply / other					
1.	Name of Certified Well Contractor & Company:  Certificate No.: Telephone Number(s):  Address:					
5.	Reason for Variance Request (cite setback or section of 2C that will be varied from):					
Pro	ovide the following information as attachments to this application:					
1.	A map showing general location of the property (include road names, NC State Route number, distances, any key landmarks) 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.	For sites in counties with a well permitting and inspection program, submit a copy of the local well permit application and site evaluation map.					
1.	Any other information relevant to the variance request (i.e. a well construction diagram showing proposed well liner or atypical construction materials/methods or Public Water Supply Section well site approval letter).					
Sig	rnature of Well/Property Owner Date  County Health Dept Representative (if county has well program)					

By 15A NCAC 2C .0118, the Division of Water Quality 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 to the request within 30 days of receipt. If the applicant is dissatisfied with the variance decision, it may be contested by filing a petition under G.S. 150B-23 within 60 days after receipt of the decision.

Approval of a variance will require that additional construction requirements beyond those specified in 15A NCAC 2C .0107 be met. Minimum additional construction requirements for Coastal Plain and Piedmont and Mountain region wells are referenced on Attachment A and B. Approval of a variance will not be considered in cases where the specified minimum additional construction requirements can not be met.

#### **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	MINIMUN	1 SEPARATION	DISTANCE (ft)	MINIMUM ADDITIONAL REQUIREMENTS			
FOTENTIAL FOLEOTION SOUNCE	Standard	Single Family	Variance	Casing Type	Casing Depth	Grout Depth	
septic tank and drainfield	100	50					
other subsurface ground absorption waste disposal system	100	100		PVC			
other sewage and liquid-waste collection or transfer facility	100	100	50				
cesspools and privies	100 50			>20 feet below land	To the first significant		
animal feedlots or manure piles	100	100	1		surface or as specified by the Director	clay greater than 20 feet below land surface or to the source aquifer	
Surface water (GW recharge)ponds, lake	50	50	SITE SPECIFIC				
other surface water bodiescreeks, river	25	25	SITE SPECIFIC				
water tight sewage or liquid-waste collection or transfer facility	50	25	SITE SPECIFIC	PVC <sup>1</sup>			
animal barns	100	50	SITE SPECIFIC				
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					
non-hazardous waste storage, treatment or disposal lagoons	100	100	SITE/SOURCE SPECIFIC	SITE/SOURCE SPECIFIC			
industrial/municipal sludge-spreading or wastewater-irrigation site	100	100					
aboveground or underground heating oil storage tanks	50	50					
all other potential sources of groundwater contamination	50	50					
sanitary landfills	500	500	<u>'</u>				
chemical or petroleum fuel underground		300					
storage tanks regulated under 15A NCAC	50	50	DO NOT ISSUE				
2N with secondary containment chemical or petroleum fuel underground			DO NOT ISSUE				
storage tanks regulated under 15A NCAC 2N w/o secondary containment	100	100					

<sup>&</sup>lt;sup>1</sup>Double 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

Standard   Single Family   Variance   Standard		MINIMUM SEPARATION DISTANCE (ft)			MINIMUM ADDITIONAL REQUIREMENTS				
septic tank and drainfield other subsurface ground absorption waste disposal system other sequated indiverse ground absorption waste disposal system other sequated point of transfer facility cesspools and privies animal feediots or manure piles Surface water foldiescreeks, river water tight sewage or liquid-waste collection or transfer facility animal plans building foundations(excluding well house)  fertilizer, pesticide, herbicide or other chemical storage areas other non-hazardous waste storage, treatment or disposal lagoons other non-hazardous waste storage, treatment or disposal lagoons all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NGAC 2N with secondary containment chemical contains and contains and contains and contains and contains a	POTENTIAL POLLUTION SOURCE				Casing Type	Casing Depth	Grout Depth		
other subsurface ground absorption waste disposal system of the subsurface and liquid-waste collection of transfer facility cesspools and privies animal feedlots or manure piles Surface water (GW recharge)ponds, lake other swage or liquid-waste collection or transfer facility animal feedlots or manure piles Surface water bodies creeks, river 25 25 35 SITE SPECIFIC SITE SP						<u> </u>			
disposal system 100 100 50 100 50 STEEL GALVANIZED STEEL	septic tank and drainfield	100	50			If Bedrock depth is <50 feet: the			
disposal system other sewage and liquid-waste collection of transfer facility cesspools and privies animal feedlots or manure piles 100 100 50 50 50 50 50 50 50 50 50 50 50 50 5	other subsurface ground absorption waste	400	400	1					
transfer facility	disposal system	100	100			feet below land surface			
transfer facility cesspools and privies animal feedlots or manure piles Surface water(GW recharge)ponds, lake other surface water bodiescreeks, river  water tight sewage or liquid-waste collection or transfer facility animal barns	other sewage and liquid-waste collection or	400	400	50	GALVANIZED	If bedrock depth is 50-100 feet: 10	full length		
100   50   100	transfer facility	100	100			feet into bedrock	ı		
Surface water(GW recharge)ponds, lake other surface water bodiescreeks, river  water tight sewage or liquid-waste collection or transfer facility animal barns building foundations(excluding well house)  fertilizer, pesticide, herbicide or other chemical storage areas other non-hazardous solid waste landfill non-hazardous solid waste landfill non-hazardous solid waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination  50	cesspools and privies	100	50		SIEEL	•	or casing		
STE SPECIFIC   Water tight sewage or liquid-waste collection or transfer facility animal barns   100   50   25   25   25   25   25   25	animal feedlots or manure piles	100	100						
water tight sewage or liquid-waste collection or transfer facility animal barns building foundations(excluding well house)  fertilizer, pesticide, herbicide or other chemical storage areas other non-hazardous solid waste landfill non-hazardous waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination  Sanitary landfills  chemical or petroleum fuel underground storage tanks regulated under 15A NCAC  25  SITE SPECIFIC  PVC or GALVANIZED STEEL  The greater of 40 feet below land surface or 5 feet into bedrock  100  100  100  100  100  SITE/SOURCE SPECIFIC  SITE/SOURCE SPECIFIC  SITE/SOURCE SPECIFIC  DO NOT ISSUE	Surface water(GW recharge)ponds, lake	50		SITE SPECIFIC					
collection or transfer facility animal barns building foundations(excluding well house)  fertilizer, pesticide, herbicide or other chemical storage areas other non-hazardous solid waste landfill non-hazardous waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary contaminent chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100 100 100 100 100 100 SITE SPECIFIC  SITE SPECIFIC  SITE SPECIFIC  The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land surface or 5 feet into bedrock  100 100  100 100  SITE SPECIFIC  SITE SPECIFIC  SITE SPECIFIC  SITE SPECIFIC  The davage of 50 feet into bedrock  SITE SPECIFIC  The davage of 50 feet into bedrock  The greater of 40 feet below land surface of 50 feet into bedrock  100 100  10	other surface water bodiescreeks, river	25	25	SITE SI EGII IO					
collection or transfer facility animal barns building foundations(excluding well house)  fertilizer, pesticide, herbicide or other chemical storage areas other non-hazardous solid waste landfill non-hazardous waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100 100 100 100 100 100 SITE SPECIFIC  SITE SPECIFIC  SITE SPECIFIC  The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land full length of casing¹ The greater of 40 feet below land surface or 5 feet into bedrock  In the greater of 40 feet below land surface or 5 feet into bedrock  In the greater of 40 feet below land surface or 5 feet into bedrock  In the greater of 40 feet below land surface or 5 feet into bedrock  In the greater of 40 feet below land surface or 5 feet into bedrock  In the greater of 40 fee	water tight cowage or liquid wasts					Г	<u> </u>		
animal barns building foundations(excluding well house)  fertilizer, pesticide, herbicide or other chemical storage areas other non-hazardous solid waste landfill non-hazardous waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100 100 100 100 SITE/SOURCE SPECIFIC SITE/SOURCE SPECIFIC  SITE/SOURCE SPECIFIC  DO NOT ISSUE		50	25		PVC or		full length		
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chemical storage areas other non-hazardous solid waste landfill non-hazardous waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100  SITE/SOURCE SPECIFIC  SITE/SOURCE SPECIFIC  DO NOT ISSUE	fertilizer, pesticide, herbicide or other	400	400						
non-hazardous waste storage, treatment or disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination    Site	chemical storage areas	100	100						
disposal lagoons industrial/municipal sludge-spreading or wastewater-irrigation site aboveground or underground heating oil storage tanks all other potential sources of groundwater contamination    SITE/SOURCE   SPECIFIC	other non-hazardous solid waste landfill	100	100						
SITE/SOURCE   SPECIFIC	non-hazardous waste storage, treatment or	100	100						
industrial/municipal sludge-spreading or wastewater-irrigation site  aboveground or underground heating oil storage tanks  all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NCAC  2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100 SPECIFIC SPECIFIC  SPECIFIC  DO NOT ISSUE	disposal lagoons								
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storage tanks all other potential sources of groundwater contamination  sanitary landfills chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100	wastewater-irrigation site								
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chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 100 100	1 3 3	"							
storage tanks regulated under 15A NCAC   100   100									
		100	100						
	2N w/o secondary containment	'55							

<sup>&</sup>lt;sup>1</sup>A 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 tremmie pipe is acceptable if the space to be grouted is free of obstruction