02 NCAC 09C .0703 SOURCE APPROVAL

(a) If the proposed source is from an existing approved public water supply system, the provisions of Paragraphs (b), (c), and (d) of this Rule shall not apply.

(b) If the proposed source is a well, the provisions of 15A NCAC 18C, Rules Governing Public Water Supplies, shall apply. Copies are available upon request from the Public Water Supply Section.

(c) If the proposed source is a spring, source approval is reviewed in a two step process. The first step is approval of the spring site. A representative of the Department of Environmental Quality shall conduct an initial site investigation. Consideration shall be given to spring location, potential for surface water influence, hydrological and geological features, proximity of potential sources of pollution, and site ownership and control.

(1) If the investigation reveals influence by surface water or other factors which render the site unsuitable for development as a safe water source, the investigation shall be terminated.

(2) If the investigation does not reveal influence by surface waters, and all other factors as set forth in this Rule are considered satisfactory for site development, the provisions of Paragraph (d) of this Rule shall apply.

(3) If the investigation reveals factors set forth in this Rule which warrant further investigation, the Department of Environmental Quality may require, as a condition for continued investigation, evaluation of the site or specific factors influencing the site by a geologist or engineer licensed to practice in North Carolina. If the Department of Environmental Quality determines that the investigation and report illustrate that the questionable factors do not hinder the suitability of the site to produce a safe water source, the provisions of Paragraph (d) of this Rule shall apply.

(d) In the second step of the spring investigation, spring water shall be sampled and data collected to determine the capability of source water to meet current North Carolina drinking water quality standards under the most severe anticipated environmental conditions. The following requirements shall apply to the water sampling and data collection process:

(1) Sampling and data collection shall be conducted by the spring owner or his representative for the following parameters:
   (A) Flow in gallons per minute (on-site measurement);
   (B) Precipitation in inches (on-site measurement);
   (C) Temperature (on-site measurement);
   (D) pH;
   (E) Conductivity;
   (F) Turbidity;
   (G) Coliform bacteria; and
   (H) Microscopic analysis for organic debris, larvae, animal or insect parts, algae, diatoms, rotifers, coccidia and giardia cysts.

(2) The minimum sampling and data collection period shall be six consecutive months. The period shall also include a minimum of two storm events (two or more inches of rainfall in a 24-hour period). It is the owner's responsibility to monitor rainfall in the vicinity of the spring site.

(3) Water samples for parameters (1)(A) through (1)(F) of this Paragraph shall be collected and analyzed at least weekly on the same day of the week before a storm event occurs. After a storm event occurs, water samples for parameters (1)(A) through (1)(F) of this Paragraph shall be collected and analyzed within 24 hours and then twice a week for two weeks. Water samples for parameter (1)(G) of this Paragraph shall be collected and analyzed at least monthly and an additional sample shall be collected and analyzed within 24 hours after each storm event. Water samples for parameter (1)(H) of this Paragraph shall be measured at least two times during the sampling period. The first analysis of water samples for parameter (1)(H) of this Paragraph shall be conducted during the first month of the sampling period, and at least one of the samples shall be collected within 24 hours of a storm event.

(4) The owner may develop or begin to develop a spring before beginning the process of sample collection and analysis. Unfavorable sample results shall not be discounted on the basis of inadequate spring development at the time of sample collection. If the owner intends to develop the spring in its final form before monitoring, he shall complete the requirements of Paragraph (e) of this Rule prior to construction.

(5) Water sample collection and analysis shall be conducted in accordance with the recommendations of the current edition of "Standard Methods for the Examination of Water and Wastewater" which is adopted by reference at 02 NCAC 09B .0116(n), including subsequent amendments and

editions. Water sample analyses for parameters (1)(D) through (1)(H) of this paragraph shall be conducted by a laboratory certified by the State of North Carolina. . All measurements and sample results (with attached laboratory analysis reports) shall be kept in a tabular form and submitted to the Department of Environmental Quality at the end of the monitoring period. Upon review of the data, sample results and sample analysis, the Department of Environmental Quality shall determine the capability of the source to meet current North Carolina drinking water quality standards. If the water source is determined to be unsatisfactory, the investigation shall be terminated. If the source is determined to be satisfactory, the provisions of Paragraph (e) of this Rule shall apply.

(e) Plans and specifications for construction of the source, protective covering, piping, and storage facilities shall be submitted to the Department of Environmental Quality by an engineer licensed to practice in the State of North Carolina for review and approval prior to beginning construction or letting a contract for construction. For spring sources, the plans and specifications may be presented by the licensed engineer at any point during the process outlined in Paragraph (d) of this Rule. Springs shall not be developed in their final form until plans and specifications for the spring have been approved.

(f) Neither the bottling of water nor the selling of water for bottling shall begin until compliance with this Section has been completed and the Department of Environmental Quality receives certification from an engineer licensed to practice in North Carolina that the project has been constructed in accordance with the approved plans and specifications.

History Note: *Authority G.S. 106-139;*
Eff. April 1, 1992;
Readopted Eff. May 1, 2017.