

# Water

1. Illustrate the water cycle to explain the connection between groundwater and surface water, detailing how groundwater moves through the lithosphere. (Emphasize the processes of evaporation and infiltration in the conceptual diagram of the hydrologic cycle.)		
2. Explain river systems including NC river basins, aquifers, and watersheds.		
3. Explain how flood events might be affected by groundwater levels.		
4. Explain various water uses by humans and evaluate for benefits and consequences of use (ex. wells, aquifer depletion, dams and dam removal, agriculture, recreation).		
5. Explain consequences of aquifer depletion including subsidence and salt-water intrusion on the coast.		
6. Evaluate the effects of population growth on potable water resources. Infer future effects		
7. Explain how pollutants might flow through a watershed and affect inhabitants that share the same watershed.		
8. Evaluate issues of ground and surface water pollution, wetland and estuary degradation, and salt water intrusion.		
9. Analyze how drinking water and wastewater treatment systems impact quantity and quality of potable water.		
10. Evaluate water quality of NC streams (chemical, physical properties, biotic index).		
11. Analyze non-point source pollution and effects on water quality (sedimentation, stormwater runoff, naturally and human induced occurrences of arsenic in groundwater).		
12. Evaluate conservation measures to maximize quality and quantity of available freshwater resources.		
13. Conclude the best location for various types of development to reduce impacts by geohazards and protect property.		
14. Explain precautions that can be made to protect life from various geohazards and include meteorological hazards. Some examples include landslides, earthquakes, tsunamis, sinkholes, groundwater pollution, and flooding		

