

2.4.1c Local Water Supply Planning (<http://www.ncwater.org/>)

2.4.1c Evaluate the effects of population growth on potable water resources. Infer future effects.

While completing that activity, the kids point out the three river basins where their river basin gets its water using the **N.C. River Basins map**

Questions:

1. What is a watershed?
2. How does a river basin interact with a watershed?
 - a. How are wetlands involved in both watersheds and river basins?
3. What is saltwater intrusion?
4. How does saltwater intrusion affect the aquifer?
5. How do river basins contribute to groundwater?
 - a. Is there an aquifer throughout the state?
 - i. If not, what is used to store the water for public use?
6. Which river basins does the water come from? What percent?
7. What surface source does our water come from?
8. Is the population expected to grow or shrink over the projected time period?
 - a. How much will the population change between now and 2020?
 - b. How much will the population change between now and 2030?
9. How is the change in population expected to impact the water demand?
10. What is the Safe Drinking Water Act?
 - a. How does the Safe Drinking Water Act align with the North Carolina Drinking Water Act?

BONUS:

1. How much water can be stored in the elevated water towers?
2. Does the water system use a leak detection program?
3. What percent of the water is used by residents each day? What percent is used by commercial, industrial, or institutional uses each day?
4. Which months use the most water?
 - a. Why do you think we use more water in these months?
5. What is the job of a waste water treatment plant?
6. Are there plans for additional waste water treatment?
7. In what year will the total demand for water exceed the current available supply?
8. What other areas contributed to water use planning?
9. How many people do you think contributed information to create this water supply plan? List some of their jobs.