

# PROTECTING YOUR DRINKING WATER AT ITS SOURCE

## GEOGRAPHIC GROUP SESSION

Saturday, September 17, 2005

Time to start looking at a SWAP report! You can look at the report for your drinking water system or any other system in which you may be interested. Once you have your SWAP downloaded, spend time reviewing it in order to answer the questions that follow.

Here's how to download a SWAP report:

1. Go to the following website: <http://www.deh.enr.state.nc.us/pws/swap/>
2. Click on the following icon:



3. Read the Source Water Assessment Program (SWAP) Limitations screen and then click on OK.
4. In the box in the next screen type in the name of the water system for which you would like to get the SWAP report; click on the 'Get Report' button.
5. In the next window, find your water system among the list of system names (if multiple names come up), and click on document icon corresponding to that water system.
6. After the download process you can begin reviewing the SWAP report!

Before you begin, here are some quick basics on source water:

- Groundwater sources are represented by wells.
- Surface water sources include rivers, lakes, reservoirs.
- Communities that buy water from another water system are called Purchase Water Systems
- Wells (i.e. groundwater systems) typically have smaller, more uniform assessment areas than surface water intakes

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Questions to Answer based on the SWAP report:

1. Using Table 3, determine what the source of your drinking water is:
  - surface water
  - groundwater
2. If groundwater is your source, how many wells supply your drinking water (Table 3)?

3. If surface water is your source, list the names of the water bodies supply your drinking water (Table 3)?

4. Which would you expect to have a larger assessment area (i.e. the area of influence around your drinking water source), a groundwater well or a surface water source?

5. Refer to Section 3 to determine which rating considers the number and location of potential sources of contamination in an assessment area?

- susceptibility rating
- contaminant rating
- inherent vulnerability rating

6. Refer to Section 3 to determine which rating considers physical factors within the assessment area such as geology, well integrity/construction (for groundwater systems), or rainfall, land slope, and land use activities?

- susceptibility rating
- contaminant rating
- inherent vulnerability rating

7. Using Table 2, how many source waters in your drinking water supply have a susceptibility rating of “higher”?

8. Using Table 2, how many source waters in your drinking water supply have a susceptibility rating of “moderate”?

9. Using Table 2, how many source waters in your drinking water supply have a susceptibility rating of “lower”?

10. What does the susceptibility rating tell you about the quality of your drinking water?

11. If a groundwater system, use Table 3 to determine the depth of the deepest well.

12. If a groundwater system, what is the total “yield”, in gallons per minute on all of the supply wells?

13. Using Map 2 or Table 4 (Potential Contaminant Source Attributes) which of the following types of potential contaminant sources occur within the delineated area of your drinking water system?

- |   |   |
|---|---|
| <input type="checkbox"/> Animal operations            | <input type="checkbox"/> Septage Disposal Site  |
| <input type="checkbox"/> CERCLIS Sites                | <input type="checkbox"/> Soil Remediation Sites |
| <input type="checkbox"/> RCRA Gen/Trans Facilities    | <input type="checkbox"/> Solid Waste Facilities |
| <input type="checkbox"/> Non-Discharge Points         | <input type="checkbox"/> Tier II Sites          |
| <input type="checkbox"/> NPDES Permits                | <input type="checkbox"/> RCRA TSD Facilities    |
| <input type="checkbox"/> National Priority List Sites | <input type="checkbox"/> Old Landfill Sites     |
| <input type="checkbox"/> PCB Sites                    | <input type="checkbox"/> UIC Permits            |
| <input type="checkbox"/> Pollution Incidents          | <input type="checkbox"/> UST Permit             |

14. Using Table 4, list the three most commonly occurring Potential Contaminant Sources:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

15. What is the general shape for an assessment area defined for groundwater wells?

16. Is general shape of the assessment area defined for surface water intakes very similar to that of groundwater wells?
  
17. Looking at Map 1 for each of the source waters, the Location Map, can you find your drinking water intake or wellhead? What symbol is used to represent this?
  
18. What does Figure 1 tell you about land use and land cover within the source watershed boundary area? Is it mostly forest, farming, or urban?
  
19. If a groundwater source, does Figure 4 give you enough information on land slope to determine the direction water will flow over the ground surface? Why is that important in considering site vulnerability?
  
20. If you have questions or need additional information, where does the SWAP report direct you?

To look at the SWAP Info mapping application tool:

1. Go to the following website: <http://www.deh.enr.state.nc.us/pws/swap/>
2. Click on the icon the following icon:



3. Read the Source Water Assessment Program (SWAP) Limitations screen and then click on OK.
4. Move your cursor to the Greensboro area and left click to zoom in
5. Scroll down on the left, click Municipal Boundaries, and then click refresh

6. On left, look under Potential Contaminant Sources and select one or two icons. For example, click the two RCRA icons, then click refresh- this shows all the hazardous waste generators and transporters in the source water area.