## Hunter College of the City University of New York Department of Geography Geography of New York State EXERCISE 10 - REQUIRED

## WATERSHEDS of NEW YORK STATE

Due by October 25, 2012; late submission will be penalized.

The purpose of this exercise is to acquaint you with the surface water resources of your counties and to any problems that may exist within these areas. The United States Environmental Protection Agency (<a href="http://epa.gov">http://epa.gov</a>) has identified 57 watershed regions in NYS and has labeled each with a unique 8-digit locator code. Using this identifier, they are able to compile data sets and create a profile for each watershed. The NYSDEC has grouped these into 17 major watersheds or drainage basins for the purpose of management, monitoring and assessment. NOTE: the terms "watershed" and "drainage basin" are interchangeable and usually differentiated by size and complexity.

>>>Students in the Education Program check out: <a href="http://water.epa.gov/aboutow/owow/kids.cfm">http://water.epa.gov/aboutow/owow/kids.cfm</a>.

## PART I (Attach all Part I "PRINT" pages to the answers in Part II.

- 1. Go to <a href="http://www.dec.ny.gov/chemical/74997.html">http://www.dec.ny.gov/chemical/74997.html</a>. READ: We All Live in a Watershed. (See the EPA watershed diagram at <a href="http://water.epa.gov/type/watersheds/whatis.cfm">http://water.epa.gov/type/watersheds/whatis.cfm</a>.)
- 2. Go to NYS Watersheds at http://www.dec.ny.gov/lands/60135.html.
  - a) Determine the location of your three counties on the watersheds map.
  - b) Then go to the left sidebar and click on one of the 17 major watersheds in which one of your counties is located. (Some counties may be part of more than one watershed. Each watershed report lists the counties covered in the LOCATION paragraph. If your county is not listed try another watershed!).
  - c) **READ** about your watersheds.
- 3. Go to http://water.epa.gov/type/watersheds/. Click on the Surf Your Watershed icon.
- Click the NY outline on the US map. Quick link: http://cfpub.epa.gov/surf/state.cfm?statepostal=NY.
- **5.** Scroll down to "Counties: <u>62</u>." Click on <u>62</u> to call up all NYS counties; then click on each of your three counties. **PRINT** the locator map for each county.
  - a) Select <u>one</u> watershed from <u>each</u> of your counties. (*Be sure to write down its 8-digit locator code*. You can use that code to go directly to the watershed by clicking on the "Watersheds: <u>57</u>" located *above* the "Counties: <u>62</u>" link.) Click on the locator code to view the watershed profile.
  - **b) PRINT** the watershed profile <u>with map</u> for each of the three watersheds selected
- 6. Go to the NYSDEC website <a href="http://www.dec.ny.gov/chemical/8459.html">http://www.dec.ny.gov/chemical/8459.html</a> for recent Water Quality Monitoring, Assessment and Planning information. CLICK on the paragraph headings on the LEFT SIDEBAR to get detailed information, especially <a href="http://www.dec.ny.gov/chemical/23852.html">http://www.dec.ny.gov/chemical/23852.html</a> Water Quality Assessments and Reporting.
- **7.** At <a href="http://www.dec.ny.gov/chemical/31290.html">http://www.dec.ny.gov/chemical/31290.html</a> see the draft of the 2012 assessment report.
- **8.** The 2010 document is at <a href="http://www.dec.ny.gov/chemical/66532.html">http://www.dec.ny.gov/chemical/66532.html</a>. See appendix at the end of the report for water within your counties.

- a) The 2010 Assessment Data for the State of New York is the most recent official water quality document available. See it at <a href="http://iaspub.epa.gov/waters10/w305b">http://iaspub.epa.gov/waters10/w305b</a> report control.get report?p state=NY.
- b) Use the "SELECT A WATERSHED" search box to see updated information about the watersheds you selected. Note the status of the water.
- **9.** Go back to <a href="http://www.dec.ny.gov/lands/60135.html">http://www.dec.ny.gov/lands/60135.html</a> (#2 above) and click on each of your three major watersheds.
  - a) When you get to the FACTS ABOUT THIS WATERSHED page, scroll down and click the link to the Waterbody Inventory/Priority Waterbodies List (WI/PWL) section for your watersheds. READ each. (It can also be accessed directly through <a href="http://www.dec.ny.gov/chemical/36730.html">http://www.dec.ny.gov/chemical/36730.html</a>.) Look over the other reports listed.
  - **b)** Read the **BASIN ASSESSMENT** portion of the report. Copy and **PRINT** the watershed map included in this section.
- 10. Periodically watersheds experience an excess of water from storms and snowmelt. READ about flood plain management at <a href="http://www.dec.ny.gov/lands/24267.html">http://www.dec.ny.gov/lands/24267.html</a> and NYS flood protection projects at <a href="http://www.dec.ny.gov/lands/4994.html">http://www.dec.ny.gov/lands/4994.html</a>.

## **PART II - ASSIGNMENT:**

- **1.** From the NYSDEC group of 17 drainage basins, **list the names of the major water-sheds** found in each of your counties.
- 2. For each county, identify by name <u>and</u> the EPA's locator code one minor watershed (from PART I #6 above) within their borders.
- **3.** Go to <a href="http://www.dec.ny.gov/chemical/36730.html">http://www.dec.ny.gov/chemical/36730.html</a> to get the WI/PWL reports for the 17 drainage basins. Select **ONE** drainage basin that is in any of your counties. REMEMBER TO WRITE DOWN THE NAME OF THE COUNTY AND THE NAME OF THE WATERSHED YOU WILL BE DISCUSSING.
- **4. Assess the watershed's water quality** from the information collected in PART I. NOTE: For the full list of rivers, streams and lakes go to
- http://iaspub.epa.gov/tmdl\_waters10/attains\_impaired\_waters.impaired\_waters\_list?p\_state=NY&p\_cycle=2010
- a) How is the present water quality in this watershed? Use whatever information is available; just be sure to cite the source and year.
  - b) Summarize the problems. List specific pollutants and impairments found there.
- 5. Do ONE of the following to assess flooding and flood protection:
  - a) Go to <a href="http://www.dec.ny.gov/lands/59934.html">http://www.dec.ny.gov/lands/59934.html</a> to view the Flood Protection Project map. Identify and explain a flood protection project in one of your counties.
  - **b**) Go to <a href="http://www.rampp-team.com/ny.htm">http://www.rampp-team.com/ny.htm</a> and scroll down to **one** of your counties. If there is a Flood Insurance Survey for **one** of your counties, read it and briefly describe the risk.
  - c) If 8a or 8b does not provide information, use *Google* or another search engine to look for "flood hazard, xx county" or "flooding, county" or "flood protection project, county" and briefly describe what the flooding situation in one county.

>>> Remember to attach the "PRINT" maps from Part I to your response <<<