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**Exercise 9: WATERSHEDS**  
**REQUIRED** 

Due date: **February 23, 2018**. Late submission will be penalized.

**PURPOSE:** This exercise acquaints you with the surface water resources within regions of NYS and to any problems that may exist within these areas.

**INTRODUCTION:**

The United States Environmental Protection Agency (<http://epa.gov>) 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 NYS DEC 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:* <https://www3.epa.gov/safewater/kids/>

**PART I (Attach all Part I “PRINT” pages to the answers in Part II.**

1. Go to <http://www.dec.ny.gov/chemical/74997.html>. **READ:** *We All Live in a Watershed*. (Read the EPA description at <http://water.epa.gov/type/watersheds/whatis.cfm>.
  - a) Go to NYS Watersheds at <http://www.dec.ny.gov/lands/26561.html>.
  - b) Click on a NYS watershed on the map or use the links in the left column to find information about: characteristics and facts about each watershed, general assessment of water quality, and links to other reports about the watershed.
  - c) Select one watershed that exists in each of your counties to study (total of three watersheds). Locate your counties on the colored watershed map of NYS. Click on the watershed. The names of all counties within that watershed will be listed in the pop-up. *NOTE: If your county is not listed, try the adjacent watershed.*
  - d) **READ** about your watersheds. *Be sure to write down their names and ID numbers so you don't have to repeat the search.*
2. Go to the EPA New York Watershed page at <http://cfpub.epa.gov/surf/state.cfm?statepostal=NY>.
3. Scroll down to “**Counties: 62.**” Click on **62** to call up all NYS counties; then click on each of your three counties.
4. **PRINT** the locator map for each county.
  - a) Select the **one watershed** chosen in **1c above**. (*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: 57” located above the “Counties: 62” link.*) Click on the locator code to view the watershed profile.
  - b) **PRINT** the watershed profile with map for each of the 3 watersheds selected.
5. Go to the NYSDEC website <http://www.dec.ny.gov/chemical/8459.html> for recent Water Quality Monitoring, Assessment and Planning information. **Note:** “Impaired” means that there is some sort of issue with the quality of the water.

6. At [http://www.dec.ny.gov/docs/water\\_pdf/305bexecsumm10.pdf](http://www.dec.ny.gov/docs/water_pdf/305bexecsumm10.pdf) see the summary of the **2016** water quality report.
7. The *2016 Assessment Data for the State of New York* is the most recent official water quality document available. Get it at <http://www.dec.ny.gov/chemical/66532.html>. See appendix at the end of the report for water assessment within your counties. Use the “**SELECT A WATERSHED**” search box to see updated information about the watersheds you selected. Note the status of the water.
  - a) Go back to <http://www.dec.ny.gov/lands/26561.html> (1a above) and click on each of your three major watersheds.
  - b) 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 <http://www.dec.ny.gov/chemical/36730.html>.) Look over the other reports listed.
  - c) Read the **BASIN ASSESSMENT** portion of the report.
8. Periodically watersheds experience an excess of water from rainstorms and snow melt. This may have an adverse affect on local water quality. DEC floodwater concerns are addressed at <http://www.dec.ny.gov/chemical/69240.html>. **READ** about flood plain management at <http://www.dec.ny.gov/lands/24267.html> and NYS flood protection projects at <http://www.dec.ny.gov/lands/4994.html>.

#### PART II – ASSIGNMENT (do all 5 sections):

1. From the NYSDEC group of 17 drainage basins, **list the names of all the major watersheds** found in each of your 3 counties.
2. For each county, **identify by name and the EPA’s locator code one minor watershed** within their borders. Use these three to do your assessment/comparison. For the current list of rivers, streams and lakes go to <https://www.epa.gov/tmdl/new-york-impaired-waters-list>.
3. Go to <http://www.dec.ny.gov/chemical/36730.html> to access the WI/PWL reports for the 17 drainage basins. **REMEMBER TO WRITE DOWN THE NAME OF THE COUNTY THE NAME OF THE WATERSHEDS YOU WILL BE DISCUSSING.**
4. **Assess the watershed’s water quality** from the information collected in PART I.
  - 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 (5a, 5b or 5c) to assess flooding, flood protection and water quality:**
  - a. Go to <http://www.dec.ny.gov/lands/59934.html> to view the **Flood Protection Project** map. Identify and explain a flood protection project in **one** of your counties.
  - b. Go to <http://www.rampp-team.com/ny.htm> and scroll down to **one** of your counties. If there is a Flood Insurance Survey for **one** of your counties, read it and describe the risk.
  - c. If 5a or 5b does not provide information, **use Google or another search engine** to look for “flood hazard, XX County, NY” or “flooding, XX County, NY” or “flood protection project, XX County, NY” and describe the flooding situation in **one** county.

**>>> Remember to Attach the “PRINT” maps from Part I to your Exercise <<<**

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