HAZARDOUS WASTE AND TOXICS: REAL DATA FOR REAL PLACES

You should have a good sense from your reading and in-class presentation/discussion how Superfund and the TRI work as part of United States environmental policy. They are premised on very different approaches to environmental threats – one works by "fixing" things and "making the polluter pay"; the other by requiring information disclosure of chemical releases for certain facilities. We would like you get a sense of how information on these two approaches to environmental threats is organized. We will use several sources. Many of these use the data bases but they are provided in different forms and accessed in different ways.

Some of the activities below are DIRECTED. You will also have time to explore on your own and provide a brief report on what you find. As you progress through the activities, be thinking of the readings/class discussion in environmental justice. As we've done with other class activities, we will block out a series of steps.

BLOCK ONE Superfund

Access the Superfund Site at the EPA: http://www.epa.gov/superfund/

Find your way to the **National Priorities List** and check on the status of the list.

A. How many sites are currently reported on the NPL?

When was the list updated?

* Be sure to note the various categories in your report.

B. Find your way to a map of Superfund sites. (there are a number of ways to do this, for the purposes of this exercise, click on the **"Where you Live"** Link on the screen you were just using. Use the Google Maps interface to proceed with the next steps:

1. Find the Superfund site near Carson City, NV.

What is the name of the site?

What is the Hazard Ranking System (HRS) Score for the site?

Click on the Dates tab in the map box. What is **the status** of the site?

Click on the Resources tab, Click on the Site Progress Profile Link, on the resulting screen, find the "More in Depth Site Details" link and follow it. In the space below, answer the following questions:
What pollutant(s) are of highest concern?

How did the pollution at the site occur?

How many potentially responsible parties (PRPs) have been identified?

2. Use the same procedure to find the NPL site at **Fike Chemical in Nitro, WV**.
   Summarize the situation at the site. When was the report on the site last updated? What chemicals are involved? Were any PRPs identified? How does the environmental threat of this site compare to the Nevada site?

3. Using a non-EPA site, find the 2010 population for **the county** in which Nitro is found. Also obtain the Median Family Income for 2010.

   How do these two statistics compare to the statewide data? How about to the U.S. as a whole? [This is to practice finding demographic data – in a later step you will see that EPA provides internal links for the same information but, for now, open an extra window and do it for yourself. [MEGA HINT: Use the Factfinder in the U.S Census]

	POPULATION	Median Family Income
COUNTY:		
STATE:		
UNITED STATES		

BLOCK 2 The TRI Archive

For this block, we will consider the latest TRI data.
Go to the TRI National Analysis site at this address: http://www.epa.gov/tri/tridata/tri11/nationalanalysis/index.htm

1. Watch the short YouTube video to remind yourself of the purpose and use of the TRI.

2. Review the Briefing Slides (just below Additional Information) (18 pages). In the space below, tell us your sense of the trend in toxics from this briefing. Provide a couple of pieces of evidence to support your observation. [Also, make sure you know what **PBT** chemicals are and enter that information below.]

PBT chemicals are:

3. Choose the Fact Sheets link and on that page choose Arkansas and submit to open the state TRI report. When the state report loads (you may have to enable JAVA to allow the interactive map to load), find the county with the highest amount of TRI releases (float over the counties for each). Now click on that county and then click on the link for TRI INDUSTRIES. Which industry or industries which are the big releasers? In the space below, list name of COUNTY, the NAICS code of the largest releasing industry or industries and the substances/materials they release (For the chemicals, you can go back to the map and choose the link for TRI Chemicals for the county). [HINT: Use the sort widgets (at the top of the data columns) to speed things up]

   COUNTY NAME

   NAICS code(s)

   Substances/Materials released and weight of the substances:

4. For **the same county**, using the same interactive map, check the 2010 population of the county and its persons below poverty level percentage [This is very similar information you "went out" and got in an earlier question – on the pop-up that results you should be able to get State and County data and easily obtain the US data as well] You will do this using the link Census (Exit EPA). Complete the table below. Consider how geographies of poverty, income, housing values and other variables which might connect with your thinking about environmental justice.

   As you know, attaching waste/health data to demographic information can sometimes drive environmental justice discussions. Enter your answers below:

	POPULATION	Poverty Rate	Per Capita Income	Median Value of Housing Units
COUNTY:				
STATE:				
UNITED STATES				

5. Go back to the TRI National Analysis page (at the beginning of this section) and Choose the Urban Communities button. Choose the link for **Dallas-Fort Worth**. Briefly characterize the information provided – can you discern a trend or trends in the information?. You can check another metro area and make a comparison if you are interested. Write your information in the space below.

BLOCK 3 Using TOXMAP

TOXMAP is an interactive interface for Superfund, TRI and some other data bases. It links place-based data (SUPERFUND) with data for "releasers" of toxics, census data and the toxicological literature. It's a great place to start if you are interested in linking environmental health with government provided data. You will be exploring data for several of the communities from the preparatory readings and then you will explore on your own.

[There is a 12 minute video on how to use the site but for today's lab, just follow your nose and these instructions and if TOXMAP becomes part of your information set for environmental issues more generally, you can circle back and watch the video – it's not one of ours though so it's not as snappy!]

Go to the TOXMAP site at this address: http://toxmap.nlm.nih.gov/toxmap/main/index.jsp

Click on the map in the center of the screen and explore the site. In the lab, we will demonstrate several ways to explore the data bases linked from this site.

We want you to go to THREE LOCATIONS and look at either the TRI or Superfund information for the community.

LOCATION#1 Addyston, OH (TRI) – look for the named polluter(s) from the Lerner reading on this community. (Lanxess changed its name to Ineos, ABS)

LOCATION#2 Marietta, OH (TRI) – look for the named polluter(s) from the Lerner reading.

LOCATION#3 Ironton, OH (Superfund) Look for the **Allied Chemical and Ironton Coke Site**.

For each place, choose your own strategy to summarize the chemicals released (TRI) or already in the environment (SUPERFUND). For the TRI, check if these releases have been consistent or have been increasing/decreasing. Use the site to link to the likely health impacts from the releases or the materials already in the environment.

Write a short summary of your findings on the following pages. [You can choose to jump out of TOXMAP and use the other sites above if you wish]

When you've completed your work on the THREE locations, choose TWO additional locations – any state, any place but with **both** Superfund and TRI releasers in the area. Use data from TRI and Superfund to provide a brief analysis of the character of the environmental challenges in the area due to the chemicals/pollutants tracked by these two programs.

Provide a brief essay of your results in the space provided below but also provide a 2 PowerPoint slide presentation of your findings (you can use graphics/images from the EPA/NLM sites or go "outside") You will be provided instructions on how to upload your slides into the course management system. Be prepared to describe your findings in our next class session.

LOCATION #1

LOCATION #2

LOCATION #3

LOCATION #4 (YOUR CHOICE) ____

LOCATION #5 (YOUR CHOICE):____