Land Use Activity *Handout*

Students will examine possible correlations between land use patterns and water pollution.

INSTRUCTIONS:

1. Access the website www.Pinellas.WaterAtlas.org, go to THE ATLAS and choose a watershed from the drop down menu.
2. Look for the section called LAND USE and LAND COVER. Create a bar or pie chart illustrating how land in this watershed is utilized.
3. Under FIND A SPECIFIC WATERBODY click on the link for a list of all water bodies in this watershed.
4. Select two (or more) lakes and find the TROPHIC STATE INDEX for each.
5. Repeat steps 1-4 with two other watersheds.
6. Use this data to rank in order, from high to low, the watersheds and their specific land use parameters.
5. Now compare by watershed the trophic index of the chosen lakes the same way.
6. Construct bar or pie graphs in this comparison using the terms of the web site.

QUESTIONS:

1. Is there a relationship between dissolved oxygen, fecal bacteria, and the % of agricultural land in the watersheds?

- To find information on dissolved oxygen, fecal bacteria, and other factors, click on DIGITAL LIBRARY to read articles.
- Dissolved Oxygen (DO) and fecal coliform data can be accessed through www.Pinellas.WaterAtlas.org > Research tab > Data Download. Select Surface Water Quality and Filters: Water Body Name, Date Range, and Parameter.
- Follow the directions. Use the summary of steps at the top to go back to a particular section. Not all lakes will have data on all parameters. Select the water quality data in columns and on an Excel Spreadsheet. Either create the graphs in Excel, or return to the Research Documents page and download graphs of data locations with dates that have the information you seek.

2. Is there a relationship between trophic index and the percentage of built lands in the watershed?

3. Is the overall health of the watershed related to a high percentage of land being conserved?

4. Investigate the number of lakes in a particular watershed. Is there a correlation between the number of bodies of water and the overall health of the watershed?

Name: Date: