

Explore Website and Research *Handout*

Part 4 of 4 in the "Exploring the Watershed Atlas" Series

INSTRUCTIONS: Go to the website: Hillsborough County Watershed Atlas (www.hillsborough.wateratlas.org)

Now go to Alice Lake. This 92-acre lake is in the Brooker Creek Watershed (water from this watershed ultimately flows into areas of northern Pinellas County.) Let's see how the water quality is. Once you are at www.hillsborough.wateratlas.org, click on "The Atlas" and choose "Alice Lake" from the drop-down menu.

1. On the Alice Lake page, click on the "Water Quality" tab. What is the latest overall Trophic State Index? _____
2. What was the best value, and when did it happen? _____
3. Click on the 10-year graph of Overall Trophic State Index and print the graph. Click on "Learn More about the Trophic State Index." Read the information. Draw a line across the printed graph to separate values considered Good, Fair, and Poor. Use highlighters to shade those regions in the graph. Add a legend to show what each color means.
4. At the bottom and on the back of the printed graph, write a paragraph about the state of Alice Lake during the last ten years. Give details including the category and expectations for our water bodies.
5. How does dissolved oxygen fit into the picture? At the top of the screen select the Research tab > Data Download > accept disclaimer > Surface Water Quality. On the next page under "by Location" > select Waterbody Name and Water Atlas > under "by Sample Info" select Parameter and click Submit. Type in **Alice Lake** > in the Parameter section select Dissolved Oxygen. Click Submit.
 - a. What is the earliest date mentioned in the list of sites? _____
 - b. Select the data set that is the most recent and has the most data points > Click the button to see the selected data > Click graph the data.
 - c. Remembering what you learned about DO, have there been times when the level of dissolved oxygen might have led to stress or even death for some aquatic organisms (living things in the water)? _____ Have there been times of abundant DO? _____
6. Fun Activity! Go to Alice Lake (Use the entry box in the upper right-hand corner, choose waterbodies under Search drop down and type in Alice Lake.) > Ecology > Macroinvertebrate Data > Learn More About Macroinvertebrate Data. What is a macroinvertebrate and why are they important? (Macro means you can see it without a microscope.)

7. Select one or more of the reports and highlight the name of a macroinvertebrate. Copy and then open Google (Search engine). Paste the name of the organism in the search box and try to identify it. Easy!
8. With the name of the organism pasted in the search, switch from the Web tab to the Images tab on Google and see if you can find a picture. (Open History on the browser toolbar to toggle back and forth between the Atlas and Google or open a new window.)

Name:

Date:

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9. Research two or three macroinvertebrates. What kinds of macroinvertebrates are there in Keystone Lake? (Use common names with the scientific names.)

10. For extra credit, make a picture identification page of some of the macroinvertebrates found in Keystone Lake. Give proper credit for the Internet information and pictures.

Name:

Date: