

Conductivity in the Alafia River - Advanced Student Handout

INSTRUCTIONS:

1. Go to the website: www.Pinellas.WaterAtlas.org. Go to the bottom where it says New Near Real Time Data Mapping Application. You are looking at the sites where live data is collected in Pinellas County.
2. On the left pane you will see options to filter the view of the Atlas data stations. Filter by atlas for all atlases. Click Filter. You should now see the entire state of Florida with many stations.
3. On the Hillsborough County side of Tampa Bay, find the area of the map labeled Gibsonton. You may have to zoom in and center the page to see the stations.
4. Click on the green bubble for "Alafia River at Gibsonton FI-02301721". Observe the data available to you (map of site, type of data recorded, links available, etc.), and answer the following questions:
 - a. What data does this station record? _____

 - b. Open a new window, type in the address bar www.hillborough.wateratlas.org. Look under the search engine at the top right of the page click HELP, then select the link for Glossary and search for Specific Conductance. What is specific conductance?

 - c. Click the link "Salinity Learn More". Under the salinity heading, click the link "learn more about salinity". How does specific conductance relate to salinity?

 - d. Now close that window and go back to the Datamapper. How often is the data updated at the Gibsonton station? _____
 - e. When was the last data recorded? _____
5. Click on the 24-hour, 7-day, and 31-day graphs and answer the following questions:
 - a. What are the high and low values on the 24-hour conductivity graph? _____

 - b. Do you see a pattern in the 7-day graph for conductivity? What are the possible causes?

 - c. What are the values for the highest and lowest days for both the 7 day and the 31 day conductivity graph? _____

Name:

Date:

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Student Handout-Take Home Portion

INSTRUCTIONS:

Now you will compare the Alafia Gibsonton station to another station in Tampa Bay.

In the pop-up data box for each station you will see a series of four tabs. You want to view the last 24 hours of data recorded for elevation.

COMPARE ROOSEVELT & ALAFIA STATIONS:

1. For the Alafia at Gibsonton station, in the DATA tab select the button for “show me the last 24 hours”. Fill in the first column in the table below.
2. Close the station pop-up box.
3. Now find on the map, I-275 and the Howard Franklin Bridge. Looking northwest of where the bridge enters Pinellas County, find the Roosevelt Station, click on the bubble, and fill in the second column according to the directions you followed for the Alafia station.
4. Answer the questions below the table.

Elevation Comparison Table		
Time	Alafia River Station Elevation (ft.)	Roosevelt Canal Station Elevation (ft.)
8:00 am		
10:00 am		
12:00 pm		
2:00 pm		
4:00 pm		
6:00 pm		
8:00 pm		
10:00 pm		
12:00 am		

- a. Based on the elevation data you recorded what time is high tide at the Alafia station? _____
- b. What time is high tide at Roosevelt? _____
- c. Are they different? If so, by how much time? _____
- d. Zoom out and look at the aerial of the map by clicking Satellite in the top right corner. Describe the geography of both stations. What do you see? Why do you think the tides are different? _____

- e. How is this information useful and to whom? _____

Name:

Date: