Name: _____

A Day in the Life of the

BUFFALO RIVER

Using Land Cover Data as a Water Quality Indicator

1. Go to
   http://noaa.maps.arcgis.com/apps/MapSeries/index.html?appid=e7eb6e9decb14c17a2fef4d36fee1714
   or Google "How To Use Land Cover Data as a Water Quality Indicator" and follow the link to the page.

2. Click on "1 Identify Potential Impacts from Impervious Surfaces" on the left side of the page.

3. Zoom in to your school. Click to reveal your watershed.

4. Complete the table below:

Watershed Name	
Total Area (sq mi)	
Total Land Area (sq mi)	
Percent Impervious	
Impervious Area (sq mi)	

5. What is one effect of a high percentage of impervious area? Additional information can be found in the gray box on the left of the screen.

6. Click on "2 Identify Potential Effects of Forest Cover" on the left side of the page. Click to reveal your watershed.

7. Complete the table below:

Percent Forested	
Forested Area (sq mi)	

8. List 3 benefits of having a high percentage of forested land in your watershed. Additional information can be found in the gray box on the left of the screen.

9. Does your watershed have enough forested land to be protective of the river's biological community?

10. Click on "5 Examine Riparian Buffers" on the left side of the page.

11. Based on the map, how would you define "riparian area"? You may have to zoom out to find a body of water.

12. Click the map near your school. Complete the table below:

Percent Impervious in Riparian Areas	
Percent Forest in Riparian Areas	
Percent Agriculture in Riparian Areas	
Percent Bare in Riparian Areas	

13. Based on these maps, list 3 ways your community could improve the water quality in your watershed: