



**Lesson 1:
LAND USE AND WATER QUALITY IN YOUR WATERSHED**

PART 1: INTERPRET LAND USE IN YOUR WATERSHED

Directions: Look at the 2000 (Current) Land Use map of your watershed and answer the questions.

1. Estimate which land use is the most common in your watershed.

2. List what kind of water pollutants come from this type of land use (refer to student handout #1).

3. Which land use(s) dominate the:
Headwaters of the watershed? _____

Middle of the watershed? _____

Mouth of the watershed? _____

4. List 4 kinds of water pollutants that come from the land uses you listed in question 3.

Headwaters: _____

Middle: _____

Mouth: _____

5. Look at the watershed statistics in the box on the map. What percentage of land is pervious (allows water to soak in, e.g. parks and yards) and what percent is impervious (does not allow water to soak in, e.g. roads, rooftops, parking lots)?

% Pervious = _____

% Impervious = _____

6. Water quality degrades as impervious cover increases. Generally, when 10% impervious cover is exceeded in a watershed, water quality degrades. How threatened is the water quality of your creek based on the percentage of impervious cover?

Very Low (<10 %) Low (10-25%) Moderate (26-36%) High (37-47%) Very High (48-60%)

7. Natural vegetation can absorb pollutants as water flows through it. Water quality will be protected if a vegetative buffer zone surrounds the creek. Estimate the percentage of your creek that is protected by land that is vegetated (e.g. parks, preserves, and undeveloped areas).

% Vegetated = _____

8. Do you think this has an impact on the creek? Why or why not?

Lesson 1: LAND USE AND WATER QUALITY IN YOUR WATERSHED

PART 2: COMPARE CHANGES IN LAND USE IN YOUR WATERSHED

Directions: Compare the 1990 Land Use to the 2000 (Current) Land Use map of your watershed and answer the questions.

- List the changes that have occurred in your watershed over the past 10 years and explain how you think each change will affect water quality.

Land Use	Estimated %		% Change	Effect on Water Quality
	1990	Current	Increase (+) or decrease (-)	
Example (houses)	20 %	35 %	+ 15%	More houses could mean an increase in fertilizers, trash, etc.
Houses				
Mobile Homes				
Apartments				
Stores				
Office				
Industry				
Schools and Community Centers				
Parks				
Transportation (Roads)				
Undeveloped/Rural				
Utilities				
Water				

- The population growth is projected for the year 2040. How could the projected increase in population affect the watershed and water quality?
