Color Me a Watershed

1. Choose a color to represent each land use area and note the color on each map key.

2. Lightly color each land use area on each map using the colors your team chose above.

Once coloring is complete:

1. Assume an unusual storm dropped 5 cm (0.05 m) of rain evenly across the entire watershed shown on the map. Use the data from the 'Area of Land Coverage' table to calculate the amount of water in cubic meters (m^3) that fell on each watershed land use area in each time period. Record in the chart below.

2. Each land use sheds water at a different rate. Use the hypothetical estimates of runoff to calculate the amount of water in cubic meters (m^3) that will runoff into the stream. Record in the chart below.

Chart for Option 3:
Volume of Rain and Volume of Runoff

Land coverage and % runoff	Map A 100 years ago volume m^3	Map A 100 years ago runoff m^3	Map B 50 years ago volume m^3	Map B 50 years ago runoff m^3	Map C Present volume m^3	Map C Present runoff m^3
Forest 20% runoff						
Grasslands 10% runoff						
Wetlands 5% runoff						
Residential 90% runoff						
Agricultural 30% runoff						
Total runofff						
Total runoff plus stream discharge (5,550,000 m³)						

= Please complete question on the other side =

3. Which land coverage absorbs more water? Why?

4. Which map represents the watershed that is able to capture and store the most water?

5. What problems may arise if water runs quickly over surface materials, rather than moving slow or soaking into the ground?

6. How might water quality be affected by changes in the watershed?