

Student Sheet 1.3-Watershed Analysis Lab



Name: _____ Date: _____ Period: _____



You are taking on the role of Environmental Investigator for the Country Club Creek Ichthyocide. Your job requires that you have knowledge about watersheds, particularly the watersheds in your investigation area.

1. Define watershed: _____



Use the Austin Watershed Map (Student Sheet 1.5) to compare your school's watershed to Country Club Creek watershed.

2. What is the name of your school's watershed? _____

3. Where is Country Club Creek Watershed located?

South West Austin South Central Austin South East Austin

North West Austin North Central Austin North East Austin

4. What direction does Country Club Creek flow? (hint: Austin creeks flow towards the Colorado River) _____

5. Would pollution from this fish kill have an affect on Austin's drinking water? why or why not? (hint: is it near a water treatment plant?) _____

6. Would your watershed get polluted from the contamination in Country Club Creek watershed? Why or why not?



Use the Country Club Creek Watershed Map (Student Sheet 1.4). Identify the one main continuous creek that flows to the Colorado River. This is Country Club Creek. The other smaller creeks are tributaries that contribute water to the mainstem of Country Club Creek.

7. Is the pond part of a tributary to Country Club Creek? _____

8. Is the pond part of the **headwaters** or the **mouth** of the creek? _____

9. In 1979, who should have been concerned about this fish kill? _____

LAB – Mapping Flow Paths



Lab Materials:

- ❑ Maps- Student Sheets 1.2
- ❑ Watershed Model
- ❑ Spray Bottle
- ❑ Food Coloring
- ❑ Pan to catch runoff
- ❑ Colored pencils

DIRECTIONS:

- A. Compare the topographic model of the Country Club Creek Ichthyocide to the Map of Country Club Creek Ichthyocide (Student Sheet 1.2).

- B. Pick a site on the watershed model (Linder Elementary, a house, a storage unit, etc.) Drop red food coloring to represent pollution from that site on the model. Place a bucket below the drainage spout. SLOWLY, pour water over the food coloring (like it's raining) and note where the polluted runoff flows. Use a colored pencil to draw the path of the runoff (flow path) on the Map of Country Club Creek Ichthyocide (Student Sheet 1.2). Make sure the arrows point downhill.

- C. Repeat until you have mapped all the flow paths from all the possible pollution sites.



CONCLUSION

Analyze your results to decide on the possible sources of pollution to the Ichthyocide site based on watershed topography and drainage.

10. List the sites you would investigate to find the source of the pollutant that killed the fish (you will use this information for part 2):
