PEOPLE KNOWLEDGE

Section B
Vocabulary Review

Fill in the blank using the words below.

1. A ________________________________ is where fish eggs are taken to provide suitable habitat for hatching.

2. The process by which contaminants fall to the ground in rain or snow after traveling long distances in air currents is called ________________________________.

3. ________________________________ can be accelerated by human activity and damage fish spawning habitat when loose soil is carried into a waterbody.

4. PCBs are called ________________________________ because they do not break down in the environment.

5. When communities consider the long-term environmental and cultural effects of their land use decisions, they are designing for ________________________________.

6. ________________________________ is the build-up of substances, such as pesticides or other toxins, in an organism.

7. An action or agent that negatively affects an organism is called a ________________________________.

8. The process by which fish habitat is deliberately improved by land managers and concerned citizens is called ________________________________.

9. Dams can ________________________________ fish habitat and communities by blocking fish movement between the above dam and below dam areas.

10. Water (rain and snowmelt) that flows over land into a water body is called ________________________________.

Word Choices

- sustainability
- persistent organic pollutants
- erosion
- fragment
- weathering
- bioaccumulation
- hatchery
- atmospheric deposition
- restoration
- runoff
- enduring chemicals
- stressor
Section Assessment

Return to the scenario given at the beginning of PEOPLE KNOWLEDGE to apply the concepts covered in this section in a discussion: “Something is wrong with the Sparkling River. What was once a clear, clean, diverse body of water has become a sluggish, murky eyesore. The residents who moved into the new development along the river are angry that their beautiful riverfront homes are now worth less than when they bought them. Anglers are upset with declining water quality in what used to be an excellent trout stream. The city has asked you, a fish biologist and expert on degraded ecosystems, to come and speak to the angry residents and anglers about what has gone wrong with the river and offer suggestions on how to fix the problems. What do you think could be wrong? What types of surveys would you need to conduct in order to find the culprits? How could the locals solve the problems you discover?”

Students should realize that erosion (due to the removal of shoreline vegetation) and runoff pollution could be major factors in the changes observed in the river. Students should recognize that the habitat demands of trout are very particular and differ from those of a catfish, and that the change in fish populations indicates a change in the river’s temperature and dissolved oxygen content. Students should consider using a shoreline survey to find where erosion is likely occurring and a water quality survey to determine temperature and dissolved oxygen content. Local residents could work to stabilize riverbanks with vegetation.

Section Assessment Activity

Divide students into teams of two or three. Have each team research one or more local water quality or aquatic habitat concerns relating to nonpoint source pollution, exotic species, or shoreline development. Each team should write newspaper articles describing the problem, its biological or ecological roots, and management decisions that are affecting the issue either positively or negatively. Each article should end with a short description of what the reader can do about the concern. Once all articles are turned in and edited, a newspaper could be created and distributed to other classes.

PEOPLE KNOWLEDGE

Vocabulary Review

Answer Key

1. hatchery
2. atmospheric deposition
3. Erosion
4. persistent organic pollutants
5. sustainability
6. Bioaccumulation
7. stressor
8. restoration
9. fragment
10. runoff