The purpose of this field trip is to examine efforts to manage a river with multiple conflicting uses. The Cedar River is the source for more than half of the drinking water supply for the City of Seattle and surrounding communities. It provides habitat for several species of salmonids including three that are federally protected (Chinook salmon, steelhead, and bull trout). And it is home to thousands of people, including parts of the cities of Renton and Maple Valley and a large portion of rural, unincorporated King County.

**Site I: Cedar River Weir (10 points)**

# 1. The City of Seattle’s Habitat Conservation Plan (HCP) for its Cedar River Watershed and the associated 2006 Seattle/Muckleshoot Tribe Settlement Agreement contain a variety of provisions that relate to flows and other conditions in the lower Cedar River, below Seattle’s Landsburg Dam. Name the three most important provisions. (2 points for all three, 1 point for two, 0.5 point for one)

# 2. Beside flows and conditions in the lower Cedar River, what are the other two main components of Seattle’s HCP? (1 point, 0.5 points each)

# 3. What is the purpose of the fish collection weir on the lower Cedar River (i.e., what species of salmon is collected there and why)? (1 point)

# 4. Why does the City of Seattle provide funding for a sockeye hatchery program on the Cedar River? (1 point)

5. What recreational and tribal interest is served by the sockeye hatchery? (1 point)

6. Identify two concerns that opponents have raised about the potential effects of the hatchery on natural origin sockeye in the Cedar River. (1 point, 0.5 points each)

7. What other species of salmon pass through the weir site in significant numbers? (1 point)

8. Identify one concern that has been raised about possible impacts of the weir on these other salmon species. (1 point)

9. Identify at least two actions that weir managers have taken to address those concerns? (1 point, 0.5 points each)

**Site II: Ron Regis Park (5 points)**

10. What kind of salmon restoration project did the City of Renton built in the floodplain at this site, before the landslide moved the main channel through that same location? (1 point)

11. Identify two major reasons why the area where the restoration project was located arguably provides better habitat now than it did before the landslide.  (2 points; both answers must substantively relate to the habitat and/or the species that use it, not just that it is “natural” rather than “man-made.”)

a. (1 point)

b. (1 point)

12. Identify two reasons why King County placed large woody debris (LWD) along the edge of the riverbank in this location. (1 point)

a. (0.5 point)

b. (0.5 point)

13. What recreational interest has opposed the placement of LWD along the edges of rivers in King County? (1 point)

**Site III: Ricardi (Cedar Rapids) Restoration Project (5 points)**

# 14. King County altered levees along the Cedar River in two distinct ways to restore natural processes at this site, which allowed the river to create habitats. What were these two distinct actions? (1 point, 0.5 points each)

15. In the time since King County took these actions, how has the river created new habitats at this site? (1 point)

16. The natural processes of rivers destroy habitats as well as create them. Since King County altered the levees, how has the river destroyed habitats at this site? (1 point)

17. In addition to this project’s effects on habitat, identify two other goals of King County’s flood hazard management plan that it has served. (1 point, 0.5 points each)

18. What benefits are provided by the adjacency of the Cedar Rapids (Ricardi), Cedar Grove, and Jones Reach natural areas that go beyond what each area provides separately? (1 point)