

Lapwai Interdisciplinary Project

Lapwai Creek is a tributary to the Clearwater River just upstream from the confluence with the Snake River. The Creek is located within the Nez Perce Indian Reservation, primarily within Nez Perce County, and within the state of Idaho. In 1855, when the Lapwai Creek watershed was first included within the territory subject to treaty between the United States and the Nez Perce, the watershed provided healthy spawning habitat for Snake River steelhead (*Oncorhynchus mykiss*), now listed as endangered under the federal Endangered Species Act. Although steelhead must run the gauntlet of hydropower dams, harvest of fish, and competition with hatchery fish in their journey from the ocean to Lapwai Creek to spawn, threats to spawning and rearing habitat also exist within the Lapwai Creek basin. Those threats include dewatering, sediment load, river channelization, and increased water temperature related to development within and outside the basin. This project will focus on one source of human-caused threats for steelhead: activity within the floodplain of the creek and its tributaries, including activity that harms steelhead habitat and activity intended to restore that habitat. Issues within the basin are complicated by checkerboard land status. This means that land within the floodplain is held as private fee land, tribal trust land and allotted trust land. The team status in this project is as neutral researchers. You are not an advocate for any party, but are simply trying to help the basin solve its problems.

Team members have already done research within their disciplines for the multidisciplinary project. All of that research and the reports will be available for this assignment and no further research will be required. Instead, the interdisciplinary project is intended to allow teams to explore various approaches to working across disciplines. The endpoint you are working toward is to design an approach to reducing impact on steelhead from human activity in the floodplain. However, the focus (and the primary basis for your grade) should be on developing and applying a process to work across disciplines to achieve that goal. A listing of articles on both the theory of interdisciplinary approaches to solving human-ecological problems, and examples of applied interdisciplinary problem solving will be provided. Each team should try at least two different approaches. The following series of steps is recommended, but not required:

1. Define problem
2. Brainstorm solutions
3. Eliminate any solution with a show-stopper from the viewpoint of any discipline that cannot be mitigated by modifying the solution from the viewpoint of another discipline
4. As a group, determine the next step in research for each discipline and do the research individually for your discipline
5. Based on research, as a group identify limiting factors on remaining solutions and again see if they can be mitigated by modification from the viewpoint of another discipline.
6. Develop a process, approach, tool, method for ranking the remaining solutions

7. As a group, design a process or tool for educating the public on your top ranked solution and why you recommend it over the others

Group Report: You must turn in a team report of 10-20 pages, double spaced, with a citation method agreed upon by your team.

Group Presentation: You must give a group presentation of 20 minutes in which each team member plays a role. Your presentation should summarize your recommendations and describe the process you used as a team.