

Geol 306/506 Environmental Geology
Assignment #1 -- 25 Points
A Lesson in Observation (?)

Observe as many small-scale features as you can that relate to geological and environmental problems having to do with what we have studied so far (erosion, soils, floods, landslides, and general topics). Write a brief, informal report on your findings.

1. In your notes, record six that seem significant, including location, situation, causes, etc. They can be problems with natural systems or human activities in your hometown (or at least in Idaho), but each entry should include, if possible, the type of problem as well as the observable clues that a problem exists. Here are a few Pocatello examples:

- Leaking Water Main, 3rd and Carter (wasted resource, hydrocompaction & subsidence)
- Foundation and wall cracks, N.A. Van Lines, 2nd and East Halliday (subsidence)
- Large hole in lot, Main St. 2 blks N of Benton (subsidence and/or sinkhole due to excavation/undermining)
- Deep gully beneath "I", several small landslides, etc., S 8th - Red Hill, possibility of sudden failure leading to an "I Slide" (dir. runoff, erosion, slope failure)
- Hillside tracked by Off-Road Vehicles, E Terry (comp. & erosion)
- Unstable slope due to oversteepening and devegetation, Jefferson near Pine St. (soil erosion)
- Residences located in ravine, off Skyline Drive, (flooding, mudslide, slope failure)
- Sediment accumulation due to upstream erosion, Portneuf R. near Stinker Sta. on Garrett Way (intense agricultural use, loss of bank stability)
- 8m x 4m pile of petroleum-based road material in industrial yard, 2nd and Benton (leaching hydrocarbons into GW)
- Stained ground and dead vegetation behind garage, S 6th alleyway between Benton and Bonneville (oil dump, soil pollution)

There are literally hundreds of such problems in any community of this size, so you should not have too much trouble finding a few of them. Remember that any potential problem is appropriate to list, but that the solution may be beyond the current scope of this course.

2. Describe the six problem areas in a couple of sentences each.

3. Select **ONE** of the six items on your list and write **NO MORE THAN** two paragraphs describing in more detail the environmental problem and what you perceive to be the likely cause. Obviously, some problems will be related to subjects that will be covered later in the term, but don't let that keep you from making some effort with it. Include a statement or two that addresses the likely future scenario (e.g. additional problems if this one is ignored) as well as what you think might be possible remedial measures. Perhaps information for your term paper is waiting to be found on the streets, fields, hills, parking lots, etc.

4. Finally, write down the **topic for your term paper**. There is no reason why this entire assignment cannot be done on one or two pages. Handwritten reports are okay if they are neat.

DUE: Two Weeks