

ESRM 302, etc.

Restoration Design

Designing for Ecological Services Lab

1. Select a site:

- Farmland
- Urban creek corridor
- Grazed desert grassland
- Closed landfill
- Deforested hillslope
- Sunrise campground, Mt. Rainier

2. Assess damage likely done to natural ecosystems at such a location.

- a. What kinds of ecological services were provided before site was changed from its natural state?
- b. What services were lost or diminished?

3. On a landscape scale, how could such ecological service loss be redressed? What might be reasonable and appropriate “program level” goals in regard to restoring ecological services?

4. On a project scale, what might be reasonable and appropriate project goals in regard to restoring ecological services?

5. What would be the functional requirements associated with the project goals? (Broad level first, then more specific levels.)

6. What constraints would you need to be cognizant of in your development of design parameters? (Associate constraints with stakeholders where it makes sense to do so.)

7. Describe the physical characteristics (attributes) of a project site (think post restoration project) in which the functional requirements have been met (and seemingly within the constraint set). State these as design parameters (physical characteristics that can be “called out” by the designer).
8. Now consider what needs to be done in order to attain the physical characteristics (attributes) you have described. Specifically, delineate FR’s, C’s and DP’s related to plant selection, site modification and site conditioning that would allow you to accomplish the project FR’s stated in #5 via the DP’s stated in #7.
9. Repeat #7 and #8 at the next hierarchical level (i.e. attempt to accomplish the most recently specified DP’s).