

Final Assignment - Deploying Nature Based Solutions In Novel Scenarios

Due: Dec 6th at 11:59 pm on Canvas

Purpose: The purpose of this assignment is to allow you the opportunity to take the ecological, environmental, and planning knowledge of this course and apply it to a real world environmental scenario that you find interesting (see below for a list of sample scenarios). This assignment will also challenge you to think about urban planning from multiple perspectives, practice argument formation, and introduce you to new formats of writing that you may not have encountered before.

Task: You are an environmental scientist and urban planner who has seen ecological or infrastructural issues around town. Luckily for you, the local government is accepting proposals for solutions from citizens, activists, and consulting groups. **Your task is to create a proposal for the local government explaining how the use of a nature-based solution would be the best way forward in remedying this issue.** You may work alone or with 1-2 other people on this assignment. The final product of this project will be a brief **one to three page proposal** of your nature based solution.

Skills and Knowledge: This assignment has been designed to mimic a very common real world scenario—a call for proposals. Calls for proposals (sometimes called solicitations for proposals) are when an entity like an NGO or governmental agency reaches out to the public asking for ideas on how to solve an issue, invites scientists to do research with them, or alerts consultants to a project that needs to be completed.

You will be asked to draw upon information covered in many of the units of this course and apply it to a real scenario. This assignment is designed to demonstrate that you:

- Are able to refute common misconceptions about green infrastructure
- Understand the categorization of NBSs by their associated ecosystem services and use cases
- Can discern between the best NBS options to use in real world scenarios
- May reasonably project possible socioeconomic and environmental justice impacts
- Are comfortable justifying the use of a NBS in lieu of grey infrastructure in a policy context

Note that these are the main learning outcomes of this course as listed on the syllabus and in lecture 1. All of the assignments and lectures thus far have been designed to guide you in acquiring these skills, so everything you need to complete this assignment can be found by looking back on the lecture, discussion, and homework materials.

Project Instructions:

- 1) Chose your case study: Pick an environmental problem you would like to solve. You can think about issues in your hometown, here in Davis, or issues you have read about online or in articles. If you cannot find an environmental problem that interests you, you can choose one from the list attached to this document. You will submit your choice on Canvas by the end of week 3 (October 7th at 11:59 pm) along with the names of your group members. You may change your case study at any time up to the end of week 5 (October 28th at 11:59 pm).
- 2) Chose your nature based solution: Select which nature based solution(s) you think would do the best job of solving the problem in your case study. For ideas, refer to lecture 3 for a full list of NBS types covered in this course. If there is a kind of NBS that you would like to use that is *not* covered in this course, please email your TA for approval before starting on your final assignment.
- 3) Research your case study and solution:
- 4) Write your proposal: The final product of this project will be a brief one to three page proposal of your nature based solution. Your proposal should include the following:
 - A description of the NBS selected
 - Intent and function of the NBS within your scenario
 - Any expected co-benefits and/or negative side effects of this NBS
 - Defense of its use over traditional grey infrastructure
 - Projected impacts on or benefits for marginalized communities and environmental justice

***Optional* opportunity for extra credit**

- 5) Presentation: If you are interested in presenting your project, you will be eligible for 3 points of extra credit. Presentations must not exceed 2 minutes and will be held on the scheduled date and time of the final exam. There is no penalty for choosing to not present.

Criteria for Success: A rubric has been posted on Canvas under Files.

Resources: Under the Files tab in Canvas you will find a folder called “Final Project Resources”. This is where you can find a copy of this assignment sheet, examples of real world proposals, the rubric for this assignment, and the sample list of case studies. Remember that if you would like some extra guidance, you can always discuss your project with TAs or myself during office hours.

