	<b>Student</b>	<b>Exam</b>	Number:	
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## Final Exam

ENVIRONMENTAL LAW (COURSE #5390)

Prof. Hester - Fall 2019

## **EXAM INSTRUCTIONS**

YOU MUST RETURN THESE QUESTIONS AT THE END OF THE EXAM.

This exam has three separate essay questions.

Please write your *exam number* in the blank on the top of this page.

If you are *handwriting* your exam, write your exam number on the cover of *each* of your bluebooks. Also number the bluebooks to indicate how many in total you turn in and the correct order. For example, if you use four bluebooks, they should be labeled "1 of 4", "2 of 4", "3 of 4", and "4 of 4". Use <u>ONE SIDE</u> of a page only and try to write legibly. Also, remember to leave yourself some space in between answers so that you can come back to an answer if you want.

If you are using a *computer* to take the exam, you must use the Law Center's exam software. Treat each *question* of the exam as a separate question in your answer; do not answer subparts of questions as independent questions.

This exam is open-book and you may use any materials assigned for this class or prepared by you (either individually or with others). You may not use any third-party or outside materials stored on computer or disk or any electronic materials. You are bound by the Law Center's Honor Code and must sign the Pledge with your exam number at the end of these instructions. We also will ask you to affirm your attendance at the end of these instructions.

Below is the percentage each section will count towards your final exam grade and the time you should allow to answer each section. You will have **three hours** to complete the examination.

Section Number	Question Type	Number of Questions	Estimated Points Value	Estimated Minutes to Spend per Question
	<b>Essay Questions</b>	3	30 points per	60 minutes per
			essay question	essay question
Total			90 points	3 hours

For the issue-spotting essays, your job is to analyze the facts in each question. Do not make up facts or law or fight the facts given. If you need more information to resolve a difficult question, state what information you would need and how it would affect your answer. Read carefully. Think before you write. Good organization, clear statement, and avoiding irrelevancies are all appreciated. A longer test answer will not necessarily translate to a better score. In fact, sometimes the opposite is the case.

Please take time to answer all questions on the test. You are much better off answering all sections of the test with less attention than you might desire instead of failing to answer all the questions asked. Note that I tend to give some points just for effort, so don't leave a blank section.

At the end of the exam, you <u>MUST</u> turn in the exam questions, your answer sheet, any scrap paper, and your bluebooks (if handwritten).

<u>HONOR CODE</u>. It is a violation of the Honor Code to use any <u>UNAUTHORIZED</u> aid in connection with this exam; to fail to report any such conduct on the part of any other student that you observe; to retain, copy, or otherwise memorialize any portion of the exam; or to discuss its contents with any student in this class who has not yet taken it. *Do not discuss this exam with anyone that is not a member of this class. Do not discuss this exam with any student in the class without first asking such student whether he or she has taken the exam.* 

## **ESSAY QUESTIONS**

Answer <u>ALL</u> of the following questions. Please provide concise legal opinions supported by relevant case law, statutes, regulations, and examples discussed in class or in the readings, <u>not</u> broad policy discussions.

## **Question 1 (30 points):**

Congratulations! Upon graduating from the UH Law Center, you have landed a prestigious position as a staff attorney with Gaia Guardians, a new environmental advocacy group dedicated to protecting coastal ecosystems and resources from excessive development and industrial pollution. The general counsel, after briefly welcoming you to the team, has given you a major new assignment.

Because of increasingly severe hurricanes, the Galveston coastline faces greater dangers from storm surges and coastal flooding that will worsen with sea level rise and growing climate change effects. After enormous damage wreaked by Hurricane Ike and Tropical Storms Allison and Harvey, a consensus has emerged that the federal, state, and local governments should team up to build extensive protective infrastructure to shield residents, industry, and natural ecosystems from future extreme storms. The U.S. Army Corps of Engineers would construct the barrier using federal funding.

Normally, Gaia Guardians would view such a large coastal infrastructure project with great suspicion and alarm. The issue before you, however, is more complicated because your general counsel instead needs to choose between two competing coastal barrier proposals that Gaia Guardians may wish to support.

The first proposal relies on concrete and steel. It requires the construction of an enormous concrete barrier along a 30-mile stretch of the Galveston coastline. The dike would be 10-feet high, and would be built under an existing coastal highway. Given this location, the dike would lie behind the existing rows of beach-front housing. These houses, as a result, would have no protection from future storms and would face a greater risk of coastal beach erosion as well as an immediate reduction in their economic value. The dike would also cut off views of the beach from any ground-level houses located on the landward side of the wall.

This proposal would also include a large gate across the mouth of Galveston Bay that would swing closed when a storm approached. The foundations and pilings of the gate, however, would partially constrain the flow of coastal waters even in calm weather. This proposal would protect land north of the dike, including Clear Lake and the Houston Ship Channel, but it would cause enormous disruption during construction and result in the placement of a huge amount of permanent infrastructure. The total cost of this proposal would likely exceed \$30 billion.

In addition to the completed dike's impacts on the environment, the construction effort will also disturb environmental and ecological resources. In particular, the construction plans will call for the generation of large amounts of debris and waste materials (including paints, solvents and scrap metals), vast quantities of sludge and wastewater from cement mixing and dust suppression, and noise and light from round-the-clock construction. To expedite construction, the U.S. Army Corps of Engineers also intends to build concrete batch plants and steel re-fabrication mills at key locations along the dike's route to

provide key construction materials. None of these local plants, however, will emit enough air pollutants to qualify as a major source under any federal Clean Air Act program.

By contrast, the competing proposal relies on dirt and distance. This alternative, dubbed the Wetland Wall, would rely on the creation of a large swath of constructed coastal wetlands to absorb storm surges. This proposal would also include a smaller stormwall, but it would run through part of Galveston Bay immediately south of the Houston Ship Channel. As a result, the Wetland Wall would require far less constructed infrastructure, and would only cost \$3 billion. It would also not include large gates at the mouth of Galveston Bay. The proposal, however, would require the conversion of far more currently occupied land into constructed wetlands, and those lands would have to remain solely as wetlands in perpetuity. While building the Wetland Wall would require less disruption than the full-scale dike, its construction would also generate lesser amounts of debris, wastes, sludges, wastewaters, noise, and light.

Gaia Guardians has not yet decided whether it will oppose either project. As an initial step, the general counsel has asked you to compare the two projects and advise her on which project is more vulnerable to environmental legal challenges by the government, by Gaia Guardians, or by upset residents. For purposes of your analysis, assume that (1) all current federal environmental laws apply and no federal legislation would exclude the new coastal infrastructure from existing compliance obligations, and (2) for purposes of this analysis, Texas state environmental laws and regulations mirror federal requirements. Be sure to identify any additional facts or questions that you need to resolve before you can provide a full answer to the question, and briefly explain why they're relevant to your analysis.