

EXAM # _____

FINAL EXAM
ENVIRONMENTAL LAW, FALL 1998
CAPITAL UNIVERSITY LAW SCHOOL
Professor Hirsch

Professor's Instructions: Read Carefully

1. At the beginning of this exam you should have the following: (a) a scantron form sheet for the multiple choice questions; (b) a scantron instruction sheet; (c) a #2 pencil to mark the scantron sheet and a pen for writing the narrative portions of the exam; (d) answer books.
2. This is a three-hour examination. It consists of a multiple choice section and two essays. I recommend that you spend 45 minutes on the multiple choice section, 75 minutes on Essay I, and 60 minutes on Essay II. Points will be allocated in proportion to these recommended time allocations. Manage your time wisely. Be sure to reserve sufficient time to answer all parts of the exam fully.
3. This is a semi-closed book examination. While taking this exam, you may refer only to the following materials: (1) an outline of the course that you (or you and others) prepared; and (2) your copy of Environmental Law Statutes.
4. Write all your narrative answers on the colored answer books. Begin each essay with a new answer book. If you write more than one answer book for a given essay, number the books sequentially (e.g. Essay I, book 2). Answers written on the exam packet itself will not be considered.
5. *Be sure to write your exam number on your envelope, the exam packet and on each of your answer books.*
6. *At the conclusion of the exam, please insert your exam packet, answer books, and scantron sheet into the envelope. Then return the envelope to me. If you finish your exam early, you can bring it to me in Room 535. Otherwise, I will come to collect your exam at the end of the exam time. **You may not make a copy of the exam packet.***

MULTIPLE CHOICE QUESTIONS

(45 minutes)

1. Under RCRA, a “characteristic waste” is deemed “hazardous” if it exhibits one of four characteristics. These four characteristics are:
 - A. Toxicity, corrosivity, ignitability and carcinogenicity.
 - B. Carcinogenicity, ignitability, reactivity and corrosivity.
 - C. Toxicity, reactivity, ignitability and corrosivity.
 - D. Corrosivity, toxicity, ignitability and explosivity.
 - E. Reactivity, corrosivity, toxicity and flammability.

2. Under NEPA, which of the following would *not* have to be considered in determining whether a major federal action will "significantly affect" the quality of the human environment.
 - A. The degree to which the action may adversely affect a threatened species.
 - B. The degree to which the project may increase noise, crime or traffic problems in a neighborhood.
 - C. The fact that the action's effects are likely to be highly controversial.
 - D. The fact that the action will take place near a civil war battlefield.
 - E. All of the above must be considered.

3. The Endangered Species Act does *not prohibit* which of the following actions with respect to endangered plants:
 - A. Any “taking” of any endangered plant species whether on federal, state or local land.
 - B. The importing of endangered plant species into the United States.
 - C. The exporting of endangered plant species out of the United States.
 - D. The selling of endangered plant species in interstate commerce.
 - E. The malicious damaging of endangered plant species on federal land.

4. In establishing primary National Ambient Air Quality Standards for criteria pollutants, the EPA is *not* authorized to do which of the following:
 - A. Take into consideration the adverse health effects on particularly sensitive populations such as the elderly, where the majority of citizens would experience no health effects at all.
 - B. Take into consideration whether it will be technologically feasible for regulated entities to achieve the standard that EPA sets.
 - C. Take into consideration debatable health effects that have not been shown to be clearly harmful.
 - D. Fail to consider any health consequences of unemployment that the setting of a stringent standard might cause.

5. Which of the following would not constitute a "discharge of a pollutant" under section 301 of the Clean Water Act:
 - A. Using a pipe to carry water pollutants from a factory to a riverbed, where the riverbed is dry except for a one-month rainy season.
 - B. Employing a ditch to collect the pollutant-containing run-off from an industrial facility and channel it into a lake.
 - C. Using a conveyor belt to carry pollutants in the form of solid waste from a facility and deposit it into a river.
 - D. Employing a lab technician to carry buckets of liquid toxic chemicals out of a facility and dump them into a stream.
 - E. All of the above would constitute the "discharge of a pollutant" under section 301 of the Clean Water Act.

6. On March 1, 1998, the United States Forest Service issued a permit to the Double Diamond Ranch to graze 200 head of cattle in the Targee National Forest. On April 15, 1998, the Service issued an oil and gas lease to Exxon Corporation that will allow the company to conduct limited drilling operations in the Targee National Forest. Double Diamond's grazing activities will cause soil erosion and will add to the sedimentation of rivers in the Forest, thereby potentially harming salmon populations. Exxon's mining operations will cause noise and aesthetic effects but will have no impacts on soil erosion or the health of the Forest's rivers and fish. The Friends of Targee (FOT), a public interest environmental group, has brought an action in U.S. District Court asserting that,

under NEPA, the Forest Service must complete an Environmental Impact Statement before proceeding with the timber sale and oil and gas lease. If FOT loses its suit, it will be because:

- A. Federal agencies whose mission is to protect natural resources need not comply with NEPA requirements.
 - B. Federal agencies need not comply with NEPA when their role is limited to issuing a permit or leasing land for a project to be carried out by a private actor.
 - C. Considered separately, neither Double Diamond's grazing activities nor Exxon's exploratory drilling will significantly affect the human environment.
 - D. Considered together, Double Diamond's grazing activities and Exxon's exploratory drilling will not significantly affect the human environment.
 - E. For NEPA purposes, agencies must consider separately actions that occur six weeks apart.
7. Hazco discards Waste A and Waste B, both of which are solid wastes. Waste A is listed as a RCRA hazardous waste. Waste B exhibits the toxicity characteristic as defined under RCRA. Before discarding these wastes, Hazco mixes each of them separately with another solid waste, Waste C. Based only on the above facts, which of the following is not positively identifiable as a RCRA "hazardous waste"?
- A. Waste B.
 - B. The mixture of Waste A and Waste C.
 - C. The mixture of Waste B and Waste C.
 - D. All of the above can positively be identified as RCRA hazardous wastes
8. The "God Squad" is:
- A. A hit television show popular in the 1970s.
 - B. A body of federal, state and local officials that determines which endangered species are entitled to protection.
 - C. A group of Fish and Wildlife Service officials that reviews actions of federal agencies to determine their biological consequences.

- D. A group of Cabinet-level federal officials and at least one state official who can allow federal actions to proceed even where they will jeopardize an endangered species.
 - E. A group of environmentalists, government officials and industry representatives, appointed by the President, which determines whether endangered species shall live or die.
9. The main reason(s) that the Clean Water Act regulates point sources and not non-point sources is that:
- A. Non-point source pollution is not significant from an environmental standpoint.
 - B. Land use control has typically been handled on the local level and there is political resistance to the federal government's getting involved in this area.
 - C. It is easier to establish effluent limitations and to design control technology for point sources than for non-point sources.
 - D. Both A and C.
 - E. Both B and C.
10. Which of the following is the most accurate description of the relationship between the federal and state governments under the Clean Air Act:
- A. The federal government establishes how clean the air has to be, and the state governments then decide how they are going to achieve this goal within their state.
 - B. The state governments have some discretion in determining how clean the air their citizens breathe should be, but the federal government plays a more important role.
 - C. The federal government has "devolved" control over air pollution standards and their implementation back to the states.
 - D. The federal government establishes ambient air quality standards for criteria pollutants, and the states and the federal government then work together to determine how to implement and achieve these standards.
 - E. The federal government establishes ambient air quality standards for criteria pollutants, and the states then decide, subject to federal approval, how to go about achieving these goals.

11. Which of the following is the major difference between the Endangered Species Act (ESA) requirements for determining whether a federal action will “jeopardize” an endangered species, and the NEPA requirements for determining whether a federal action will “significantly affect” the quality of the human environment:
- A. Under NEPA, a federal agency makes the determination itself, whereas under the ESA it must consult with another federal agency.
 - B. Under NEPA, the agency need not consider how the action may impact on endangered species since it need only concern itself with impacts on the “human environment.”
 - C. Under NEPA, the agency prepares an environmental impact statement *in the course of* determining whether the action will “significantly affect” the human environment, whereas under the ESA the agency need only prepare a “biological assessment” *after* the jeopardy determination has been made.
 - D. Under NEPA, the agency can consider effects on species habitat, whereas under the ESA the agency is limited to considering direct harm to individual members of the species.
12. Trashco has four different waste streams that it discards from its facility. The first of these is a gas that Trashco seals in air-tight containers before discarding. The second is a liquid waste that Trashco hauls off to a landfill in sealed barrels. The third is a toxic gas that Trashco emits through its smokestack. The fourth is a liquid waste that an individual worker occasionally carries out of the facility in buckets and pours onto the ground behind the facility. Which of these waste streams would not qualify as a RCRA "solid waste"? (For the purposes of this question, assume that none of these waste streams are regulated under a Clean Water Act NPDES permit.)
- A. The gas in the air-tight containers.
 - B. The liquid waste discarded in sealed barrels.
 - C. The toxic gas emitted through the smokestack.
 - D. The liquid waste carried out in buckets and poured onto the ground behind the facility.
 - E. None of the above would qualify as a "solid waste" under RCRA.
13. Assuming that it is infeasible for the EPA to develop effluent limitations to govern every category of source regulated under the Clean Water Act’s NPDES permitting program, which of the following alternative strategies is the Agency nonetheless *precluded* from adopting:

- A. Issuing permits that replace numerical effluent limitations with qualitative commands such as to “take reasonable care” that pollutants are not discharged.
 - B. Issuing “hollow” permits that contain no substantive requirements at all.
 - C. Exempting a small number of sources from the permitting requirement.
 - D. Issuing “general” permits.
 - E. Issuing “area” permits.
14. Development, Inc. is preparing to build residential housing in a 1000-acre tract of old growth forest in New Jersey. Friends of Wildlife (FOW), a public interest conservation group, has discovered that the red-throated warbler, an endangered species, lives only in old growth forest in the Northeastern United States and that there is little of this type of forest land remaining. FOW has brought suit in federal district court under Section 9 of the Endangered Species Act to stop Development, Inc. from cutting down the 1000-acre tract of old growth forest. Which of the following pieces of evidence--standing alone and without any other supporting evidence--would be least helpful to FOW's efforts?
- A. Evidence that the cutting down of the 1000 acres of old growth forest would degrade the habitat of the red-throated warbler.
 - B. Evidence that the cutting down of the 1000 acres of old growth forest would directly result in the deaths of only three red-throated warblers.
 - C. Evidence that the cutting down of the 1000 acres of old growth forest would have a detrimental effect on the breeding capability of the red-throated warbler.
 - D. Evidence that the cutting down of the 1000 acres of old growth forest would have a detrimental effect on the warbler's ability to build its nests.
15. In one of the most significant environmental rulemakings of the decade, the EPA recently increased the stringency of which of the following standards:
- A. The National Ambient Air Quality Standards for ozone and sulfur dioxide.
 - B. The New Source Performance Standard for Portland Cement Plants.
 - C. The Clean Air Act's offset sanction.
 - D. The New Source Performance Standards for ozone and sulfur dioxide.

E. The National Ambient Air Quality Standards for ozone and particulate matter.

ESSAY I
(75 minutes)

In the late 1940's, Chemco, a manufacturer of industrial chemicals located in the State of Iho, generated a great deal of Chemical A as a by-product of its chemical manufacturing operations. Knowing of no market for this chemical by-product, and having no use for Chemical A itself, Chemco stored its growing inventory of Chemical A in vast storage tanks and even thought about discarding it. In 1950, Renewco purchased a "greenfield" plot of land in the State of Iho and built a facility there for the purpose of recycling Chemical A and turning it into a marketable product. Renewco had discovered that by mixing Chemical A with Chemical B it could create a new chemical, Chemical C, which could be used in many industrial processes and for which a strong market existed. Renewco arranged to purchase large amounts of Chemical A from Chemco for \$.05/gallon. It then arranged to purchase smaller amounts of Chemical B from Synco, another chemical manufacturer in Iho, for \$5.00/gallon. Renewco mixed the two to form Chemical C. It sold Chemical C to a national market at a substantial profit.

Renewco knew that it lost money for every gallon of chemical spilled and therefore exceeded the prevailing industry standards for care in handling chemicals. Nonetheless, during the course of handling Chemicals A, B, and C, Renewco inevitably spilled some of these chemicals onto the ground. Representatives of Chemco and Synco, who were often at the Renewco plant, witnessed some of these spills and knew that they were a relatively common and unavoidable part of the production process. Chemical A, Chemical B and Chemical C were all added to the list of CERCLA hazardous substances in 1983.

Renewco continued its operations until early 1962, at which time the market for Chemical C dried up. In that year, Renewco tore down its buildings, sold its equipment to Chemco, and sold its property to Toolco, a manufacturer of farming implements that already had a large plant in Iho. Toolco used the former Renewco plant site as a dumping ground for its the waste products, including bits of scrap metal and hundreds of barrels of used solvent (both of which are CERCLA hazardous substances). It employed Moveco, a waste hauler, to transport the waste materials from the Toolco plant to the former Renewco Site, and renamed the site the Toolco Landfill. Moveco deposited all such trash at the Toolco Landfill, as instructed by Toolco, and spread it evenly over the Landfill Site. To raise some extra cash, Toolco allowed Smallco and Littleco to dump small amounts of waste at the Landfill for a fee. Toolco's records indicate that, over the course of three years, Smallco sent thirty-two barrels of unspecified waste to the site. Littleco sent only twelve barrels of waste to the site, but Toolco's records note that these barrels "contain arsenic, as marked on container."

In 1969, Toolco decided to close its Iho plant. With the plant closed, the company no longer needed the landfill. It covered all visible trash and barrels with soil, planted grass as a ground cover, and divided the property into two parcels. It sold the largest parcel to Tiger Woods, a former foreman at the Toolco plant who had worked there for 30 years, knew all aspects of the operation, and had been to the Toolco Landfill many times. Through some creative landscaping, Woods turned his portion of the site into a golf course which he operated

under the name the Woods Hole Golf Club. Toolco sold the second parcel to the Tree Nursery, Inc., which opened an outdoor nursery on the parcel selling trees, shrubs and other plants. Prior to the purchase, the owners of the Tree Nursery, Inc. walked over the grounds but were unable to see any of the trash or barrels buried there since Toolco had covered them over. They asked Toolco what it had used the site for. Toolco told them that the land had never been used for industrial purposes, that it had never used the parcel itself, and that it had been holding the land as an investment.

In 1986, Tree Nursery, Inc. sold its parcel of land to Buckeye Hardware, which opened a store and warehouse on the property. Buckeye asked Tree Nursery about prior uses of the site and was told all that Tree Nursery knew, *i.e.* that the site had had no prior industrial use and had been held by Toolco for investment purposes. Buckeye made no further inquiry. In 1989, the Woods Hole Golf Club became short on cash and was unable to pay its taxes. The City of Columbo gained title to the golf course property due to this tax delinquency.

In January, 1993, EPA was informed that numerous people living near the former Toolco Landfill Site were complaining of nausea and other symptoms. It tested the wells in the area and found them to be heavily contaminated. Upon further investigation, EPA found that CERCLA hazardous substances were leaching from the Site into the groundwater. Much, but by no means all, of the contamination was found to come from the barrels of solvent that Toolco had deposited at the site and that had been corroding and leaking since the time that they were placed there. EPA placed the Site on the National Priorities List, cleaned it up using monies from the Superfund, and then brought suit under CERCLA section 107 against Toolco for reimbursement of EPA's response costs. Toolco has recently settled the suit, agreeing to pay EPA \$10 million to cover the cost of the cleaning-up the Site.

* * *

Toolco has just hired you as its outside environmental counsel. It wants you to help it recover as much as possible of the \$10 million from other parties that are liable under CERCLA. Write a memo to the general counsel of Toolco in which you identify the statutory provision(s) of CERCLA that the company might use to bring such cost recovery suits, and in which you discuss Toolco's chances of recovering against each of the following parties: Chemco, Synco, Renewco, Moveco, Smallco, Littleco, the Woods Hole Golf Club, Tree Nursery, Inc., the City of Columbo and Buckeye Hardware. Where applicable, cite to specific statutory provisions and/or cases to support your conclusions. Assume that all the CERCLA cases that you were assigned in the Percival, Miller casebook are binding authority in this jurisdiction.

ESSAY II
(60 minutes)

In this course we have examined a number of federal environmental regulatory programs, each of which focuses on a specific set of regulatory **targets** (e.g. individuals, corporations, governments, etc.), is rooted in a regulatory **basis** (e.g. health-based, technology-based, balancing approach, etc.), and employs one or more regulatory **methods** (e.g. command-and-control, liability system, prohibitions, etc.) Many of our readings and class discussions have focused, in one way or another, on the strengths and weaknesses of these regulatory approaches. In an essay, choose four of the environmental statutes that we have examined this semester. Describe how they differ in terms of their choice of target, basis and method. Then discuss the advantages and/or disadvantages of these various approaches, illustrating your analysis with cases and/or other materials from the course. Which of these statutory approaches do you believe works best and makes the most sense? Which poses the most difficult or troublesome issues? Explain.