**Barrons AP Env. Science 2015 Reading**

**RELEVANT LAWS**

WILD AND SCENIC RIVERS ACT (1968): Established a system. of areas distinct from the traditional park concept to ensure the protection of each river's unique environment. It also preserves certain selected rivers that, possess outstanding scenic, recreational, geological, cultural, or historic values and maintains their free-ﬂowing condition.

FOOD SECURITY ACT (1985): Also known as “Swampbuster.” this act contains provisions designed to discourage the conversion of wetlands into non wet-land areas. The act also created a system for farmers to regain lost federal benefits if they restored converted wetlands.

GENERAL MINING LAW (1872): Grants free access to individuals and corporations to prospect for minerals in public domain lands and allows them, upon making a discovery, to stake a claim on that deposit.

MINERAL LEASING ACT (1920): Authorizes and governs leasing of public lands for developing deposits of coal, petroleum, natural gas and other hydrocarbons, phosphates, and sodium in the United States. Prior to the act, these materials were subject to mining claims under the General Mining Act 1872.

SURFACE MINING CONTROL AND RECLAMATION ACT (1977): Established a program for regulating surface coal mining and reclamation activities.

ANADROMOUS FISH CONSERVATION ACT (1965): Authorizes the Secretary of the Interior to enter into other non-federal interests to conserve, develop, and enhance the anadromous fish (fish that migrate from the sea to fresh water to spawn) resources of the United States.

MAGNUSON FISHERY CONSERVATION ACT (1976): Governs marine fisheries' management in United States federal waters. Aids in the development of the domestic fishing industry by phasing out foreign fishing. To manage the fisheries and promote conservation, the Act created eight regional fishery management councils. The 1996 amendment focused on rebuilding overfished fisheries, protecting essential fish habitats, and reducing bycatch.

UNITED NATIONS TREATY ON THE LAWS OF THE SEA (1982): Deﬁnes the rights and responsibilities of nations in their use of the, world’s oceans, establishing, guidelines for businesses, the environment, and the management of marine natural resources.

ENERGY CONSERVATION: Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy. It is designed to protect the environment through energy-efﬁcient products and practices. Programs coordinated through Energy Star saved enough energy in 2005 to avoid greenhouse gas emissions equivalent to 23 million cars and $12 billion in utility bills.

CAFE Standards: Transportation needs consume two-thirds of the petroleum consumption in the United States. This sector of energy consumption is increasing faster than any other sector (1.8% growth per year). Imports of crude oil and other petroleum products are expected to increase 66% by 2020. CAFE (Corporate Average Fuel Economy) standards are the average fuel economies of a manufacturer’s ﬂeet of passenger cars or light trucks. The testing follows the guidelines established by the Environmental Protection Agency. It is estimated that CAFE standards result in savings of over 55 billion gallons (210 billion L) of fuel annually with a substantial reduction in carbon dioxide emissions of approximately 10%. CAFE standards are achieved through better engine design, efﬁciency, and weight reduction. The average CAFÉ standard of 27.5 miles per gallon (l 1.7 km/ L) for automobiles has not increased in the United States since 1996 with SUV standards less than those for light trucks. Signiﬁcant improvements in fuel mileage could be achieved by expanding CAFE standards to include:

* Streamlining
* Reduced tire-rolling resistance
* Engine improvements, especially transitioning to a hybrid technology
* Optimized transmission improvements
* Transition to higher voltage automotive electrical systems
* Performance-based tax credits

AIR POLLUTION CONTROL ACT (1955): The nation's ﬁrst piece of federal legislation regarding air pollution. Identified air pollution as a national problem and announced that research and additional steps to improve the situation needed. to be taken. It was an act to make the nation more aware of this environmental hazard.

CLEAN AIR ACT (1963): The Clean Air Act is designed to control air pollution on a national level. It requires the Environmental Protection Agency (EPA) to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health. The act (amended in 1957, 1977, and 1990):

* required comprehensive federal and state regulations for both stationary (industrial) and mobile sources of air pollution.
* expanded federal enforcement authority.
* addressed acid rain, ozone depletion, and toxic air: pollution.
* established new auto gasoline reformulation requirements.
* was the first major environmental law in the United States to include a provision for citizen suits.

NATIONAL ENVIRONMENTAL POLICY ACT (1970): Created the Environmental Protection Agency (EPA). Also mandated creation of Environmental Impact Statements.

MONTREAI. PROTOCOL (1989): An agreement among nations requiring the phaseout of chemicals that damage the ozone layer.

POLLUTION PREVENTION ACT (1990): Requires industries to reduce pollution at its source. Reduction can be in terms of volume and/or toxicity.

KYOTO PROTOCOL (1997 AND 2001): An agreement among 150 nations requiring greenhouse gas reductions.

NOISE CONTROL ACT (1972): Establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. To accomplish this, the act establishes a means for the coordination of federal research and activities ln noise control; authorizes the establishment of federal noise emissions standards for products distributed in commerce, and provides information to the public respecting the noise emission and noise reduction characteristics of such products.

CLEAN WATER ACT (1972): Established the basic structure for regulating discharges of pollutants into the waters of the United States. It gave the EPA the authority to implement pollution control programs such as setting wastewater standards for industry. The Clean Water Act also continued requirements to set water quality standards for all contaminants in surface waters. The act made it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit was obtained under its provisions. It also funded the construction of sewage treatment plants under the construction grants program and recognized the need for planning to address the critical problems posed by nonpoint source pollution.

SAFE DRINKING WATER ACT (1974): Established standards for safe drinking water in the United States.

OCEAN DUMPING BAN ACT (1988): U5. law which makes it unlawful to dump or transport for the purpose of dumping any sewage, sludge, or industrial wastes into the ocean. However, ocean dumping still occurs illegally and legally by countries that do allow it, everywhere on earth.

OIL SPILL PREVENTION AND LIABILITY ACT (1990): Strengthened the EPA’s ability to prevent and respond to catastrophic oil spills.

RESOURCE CONSERVATION AND RECOVERY ACT (1976): Encouraged states to develop comprehensive plans to manage nonhazardous industrial solid and municipal wastes. Set criteria for municipal landfills and disposal facilities, and prohibited open dumping of solid wastes.

TOXIC SUBSTANCES CONTROL ACT (TOSCA) (1976): Gave the EPA the authority to track industrial chemicals produced within or imported into the United States. Allows the EPA to ban the manufacture or importation of chemicals that pose risks.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA—SUPERFUND) (1980): Provided authority for the federal government to respond to releases or possible releases of hazardous substances that could threaten public health and/or the environment. Established rules for closed and abandoned hazardous waste sites. Established liability for corporations responsible for hazardous waste sites. Created a trust fund for cleanup if responsible parties for contaminated sites could not be found.

NUCLEAR WASTE POLICY ACT (1982): Established federal authority to provide locations for permanent disposal of high-level radioactive wastes and required the operators of nuclear power plants to pay the costs of permanent disposal.

FEDERAL HAZARDOUS SUBSTANCES ACT (1960): Required that certain hazardous household products bear cautionary labels to alert consumers to the potential hazards of these products.

FEDERAL ENVIRONMENTAL PESTICIDES CORTROL ACT (1972.): Required registration of all pesticides in the United; States.

HAZARDOUS MATERIALS TRANSPORTATION ACT (HAZMAT) (1975): Governs the transportation of hazardous materials and wastes. Covers containers, labeling, and marking standards.

GREEN TAXES: Ecotaxes are intended to promote ecologically sustainable activities by providing economic incentives and can complement or reduce the need for regulatory (command and control) approaches. Often, an ecotax may attempt to maintain overall tax revenue by proportionately reducing other taxes (green tax shift). Examples of ecotaxes would be:

* taxes on the use of fossil fuels by greenhouse gases produced.
* duties on imported goods produced by ecologically unsound methods.
* taxes on mineral, energy, and forestry products that were produced by ecologically unsound methods.
* fees for camping, hiking, ﬁshing, and hunting.
* taxes on technologies and products, which are associated with substantial negative externalities.
* waste disposal taxes.
* taxes on efﬂuents, pollution, and other hazardous wastes.

CAP AND TRADE: Also known as emissions trading, is a market approach used to control pollution by providing economic incentives for achieving reductions in the emissions of pollutants. With cap-and-trade policies, the government sets a limit or “cap” on the amount of a pollutant that can be emitted. Companies or other groups are then issued emission permits and are required to hold an equivalent number of allowances or credits, which represent the right to emit a speciﬁc amount of pollutants. The total amount of allowances and credits cannot exceed the cap, limiting total emissions to that level. Companies that need to increase their emission allowance must then buy credits from those who pollute less. The transfer of allowances is referred to as a “trade.” In effect, the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions by more than was needed.

Therefore, those who can reduce emissions more cheaply will do so, achieving pollution reduction at the lowest cost to society.

MULTIPLE USE ACT (1960): Directed that the national forests be managed for timber watershed, range, outdoor recreation, wildlife, and fish purposes.

THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED 5PECIES OF WILD FAUNA AND FLORA (CITES) (1963): An international agreement between governments to ensure that international trade in wild animals and plants do not threaten their survival.

MARINE MAMMAL PROTECTION ACT (1972): Established federal responsibility to conserve marine mammals.

ENDANGERED SPECIES ACT (1973): Provided a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found.