

APES Chapter 22-24 Supplemental Notes

Sustainable Cities, Economics & Politics

- *EIN-2.M. Describe the effects of urbanization on the environment.*
 - Urbanization can lead to depletion of resources and saltwater intrusion in the hydrologic cycle.
 - Urbanization, through the burning of fossil fuels and landfills, affects the carbon cycle by increasing the amount of carbon dioxide in the atmosphere.
 - Impervious surfaces are human-made structures—such as roads, buildings, sidewalks, and parking lots—that do not allow water to reach the soil, leading to flooding.
 - Urban sprawl is the change in population distribution from high population density areas to low density suburbs that spread into rural lands, leading to potential environmental problems.

- *STB-1.B. Describe methods for mitigating problems related to urban runoff.*
 - Methods to increase water infiltration include replacing traditional pavement with permeable pavement, planting trees, increased use of public transportation, and building up, not out.

- *STB-2.J. Describe human activities that result in noise pollution and its effects.*
 - Noise pollution is sound at levels high enough to cause physiological stress and hearing loss.
 - Sources of noise pollution in urban areas include transportation, construction, and domestic and industrial activity.
 - Some effects of noise pollution on animals in ecological systems include stress, the masking of sounds used to communicate or hunt, damaged hearing, and causing changes to migratory routes.

- *ENG-3.B. Describe trends in energy consumption.*
 - Availability, price, and governmental regulations influence which energy sources people use and how they use them.

- *Required Environmental Legislation*
 - Clean Air Act
 - Clean Water Act
 - Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
 - Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
 - Montreal Protocol
 - Kyoto Protocol
 - Endangered Species Act
 - Safe Water Drinking Act (SWDA)
 - Delaney Clause of Food, Drug, and Cosmetic Act
 - Resource Conservation and Recovery Act (RCRA)