Chapter 11 Section 3 Notes

Water Pollution – introduction of chemical, physical, or biological agents into water
Point-Source Pollution – pollution from one source; ex) unlined landfill; leaking gasoline tank
Nonpoint-Source Pollution – pollution from multiple sources; ex) runoff from agricultural feedlots

Principal Water Pollutants
animal feces (organic matter); fertilizers (organic chemicals); parasitic worms (pathogen)

Wastewater – water that contains waste from industry or homes
Treating wastewater
Chlorine is added to water during the water treatment process to kill or limit bacterial growth
Alum is added to water during the water treatment process to form flocs that bacteria and other impurities will cling to

Artificial Eutrophication – accelerated build-up of nutrients caused by humans
ex) fertilizer runoff; phosphates in laundry detergent

Thermal Pollution – results in an increase of water temperature

Groundwater Pollution
Cleaning up groundwater pollution is difficult because:
- pollutants cling to the materials that make up aquifers and contaminate the clean water
- groundwater is deep in the ground and dispersed through large areas of rock
- the recycling process of groundwater can take hundreds or thousands of years

Ocean Pollution
Sources of Ocean Pollution (most come from activities on land)
Oil Spills
direct dumping of wastewater
activities on land (*most of the oil that pollutes the ocean comes from runoff from cities and towns)

Water Pollution and Ecosystems
biomagnification – accumulation of pollutants at successive levels of the food chain

Cleaning Up Water Pollution
The Marine Protection, Research, and Sanctuaries Act strengthened the laws against dumping waste in U.S. waters.

1972 Clean Water Act – law designed to improve water quality