

# Unit 7A Study Guide

## Chapter 14

1. What is *water pollution*?
2. Be able to distinguish between **point source** and **nonpoint source** pollution.
3. Describe the major **categories** of water pollution.
4. What is **DO**? **BOD**? Who cares?
5. Know the ins and outs of **eutrophication**. Be able to explain the **steps of the process**, what the **causes** are likely to be, and what the **results** are.
6. What is an *indicator species*? What does **fecal coliform bacteria** tell us?
7. Know the **steps and order** of the **sewage treatment** process.
8. Be able to categorize each step as *primary*, *secondary*, or *tertiary*.
9. What are current **challenges** of our wastewater treatment process?
10. How do lead, arsenic, and mercury get into our water? What harm do they do?
11. What is **acid mine drainage**? Is acidic water low or high in pH?
12. Be familiar with the major synthetic organic compound categories.
13. What is the biggest source of **oil pollution**?
14. Be familiar with the Exxon Valdez and Deepwater Horizon case studies.
15. Know some of the techniques to **clean up oil spills**.
16. What is **sediment pollution**?
17. What is thermal pollution?
18. Familiarize yourself with the **Clean Water Act** and the **Safe Drinking Water Act**.

## Chapter 15

19. What is *air pollution*?
20. Know the major **categories** of air pollutants and their major sources/impacts – **SPLONC**!
21. What is the **Clean Air Act**?
22. Be familiar with **natural** and **anthropogenic** sources of air pollution.
23. What **3 human activities** cause most of our air pollution?
24. Be able to explain the difference between and identify examples of *primary* and *secondary* pollutants.
25. What is **photochemical smog**? What are the main components? How does it form?
26. What is a *thermal inversion*? What impact do they have?
27. What is **acid deposition**? Describe how it is categorized and how it forms.
28. How does acid deposition affect *terrestrial and aquatic ecosystems*?
29. Where does acid rain most commonly occur in the United States?
30. What's the **BEST** way to decrease air pollution emissions?
31. Pollution controls mostly deal with **point source** or **nonpoint source** pollution?
32. Be familiar with the various techniques to reduce air pollution – *fluidized bed combustion, catalytic converter, gravitational settling, fabric filter, electrostatic precipitator, scrubber*
33. Explain the concept of a **free-market program** for SO<sub>2</sub>.
34. How can **ozone** be beneficial in the stratosphere but harmful in the troposphere?
35. Be able to explain the process of **stratospheric ozone formation** and **breakdown**.
36. What is to blame for ozone depletion? How does this occur?
37. What are **health** and **environmental concerns** with ozone depletion?
38. What is the **Montreal Protocol**?
39. Know the significant indoor air pollutants and their sources.
40. Compare indoor pollution for *developing vs developed countries*.
41. What is **radon-222**?
42. What are the **consequences** of indoor air pollution and what is **sick building syndrome**?

Now go quiz yourself with the questions on pages **514-515** and **549-551**!