

AP ENVIRONMENTAL SCIENCE Water Pollution WEBQUEST

- Use the links provided to find your answers. If it says GOOGLE – then do a general web search since there are many sources of information for this particular topic.

I. TYPES AND SOURCES OF POLLUTION:

A. Infectious Agents in the water: Use the following link to start your search for the following questions. [EPA DRINKING WATER CONTAMINANTS](#)

1. What does MCL stand for?
2. What is Chryptosporidium?
3. What is the most effective way to control Chryptosporidium?
4. What are fecal coliforms?
5. How does fecal coliform get into the water?
6. If water is being used for consumption, what is the acceptable level of coliforms in the water? [WHO GUIDELINES FOR DRINKING WATER](#) (go to page 25 of the pdf document)
7. What are RWI's? [CDC Healthy Swimming](#)
8. [Outbreak Remediation in Swimming Pools:](#)
What are the 3 Steps to remediating a Chryptosporidium outbreak in a swimming pool?

B. Oxygen Demanding Wastes: (Google Search)

9. What are oxygen demanding wastes?

10. What is BOD?

11. How is BOD measured?

C. Inorganic Chemicals: [EPA DRINKING WATER CONTAMINANTS](#)

12. How can Arsenic get into a drinking water supply?

13. What health risks are associated with arsenic consumption in drinking water?

14. What health risks are associated with lead poisoning?

15. How can lead get into the drinking water supply?

16. What type of diet can help block the storage of lead in child's body?

D. Organic Chemicals: EPA DRINKING WATER CONTAMINANTS

17. What do the following organic chemicals have in common?

Glyphosphate , Lindane, 2,4- D, Chlordane

18. What state has released the greatest quantity of TRICHLOROETHYLENE?

19. What type of manufacturing is most responsible for TCE releases?

E. Thermal Pollution:

20. What is thermal pollution?

21. What is the greatest source of thermal pollution?

22. How can thermal pollution be controlled?

F. Radioactive Pollution:

23. What is the most common long-term health effect from radioactive poisoning in the water supply?

G. BIOINDICATORS:

24. What is a [Bioindicator](#)?

25. List 3 examples of bioindicators.

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II. Sources of Pollution:

POINT SOURCE POLLUTION:

26. What is a PLUME?

27. What are Volatile Organic Compounds?

III. Water Pollution:

28. Explain why oxygen levels drop when organic pollutants enter a stream system.

OXYGEN SAG CURVE

29. What is Biomagnification?

30. What are the “Terrible Twelve”?

IV. Preventing and Reducing Water Pollution:

31. What is the CLEAN WATER ACT? (Google)

32. What part of the Clean Water Act specifically deals with destruction of wetlands?

33. What is Cultural Eutrophication? (GOOGLE)

34. What happened on the Youghiogeny River in Elizabeth Township, regarding sewage discharge? (GOOGLE)

35. What is a septic system? [Click Here...](#)

If you wanted to obtain a permit to have a septic system installed on your property, go to the following site and answer the following questions.

http://www.jonestownship.com/permits/obtaining_a_septic_system_permit.htm

36. What is the minimum distance it must be located away from a well or spring?

37. What is a sand mound used for?

38. What is the percolation (PERC) test?

39. What are [BIOSOLIDS](#)?

40. What are some environmentally friendly ways to use sewage sludge?

[SEWAGE TREATMENT:](#)

41. Which level of sewage treatment is needed for a community that has had a significant problem with fertilizer discharges getting into the local streams and rivers?