

## Major Water Pollutants and Their Sources

Create an illustration, flow chart, diagram, graphic organizer, etc. that includes *color, pictures, is concise, and on one side of a 8 ½ x 11 sheet of paper.*

1. Summarizes all of the key water pollutants, their sources, and consequences.
2. Summarizes the Clean Water Act as well as the Safe Drinking Water Act.

Extra Credit will be awarded to the top two in each class.

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**Table 20-1** Major Water Pollutants and Their Sources

Type/Effects	Examples	Major Sources
Infectious agents (pathogens) <i>Cause diseases</i>	Bacteria, viruses, protozoa, parasites	Human and animal wastes
Oxygen-demanding wastes <i>Deplete dissolved oxygen needed by aquatic species</i>	Biodegradable animal wastes and plant debris	Sewage, animal feedlots, food-processing facilities, paper mills
Plant nutrients <i>Cause excessive growth of algae and other species</i>	Nitrates ( $\text{NO}_3^-$ ) and phosphates ( $\text{PO}_4^{3-}$ )	Sewage, animal wastes, inorganic fertilizers
Organic chemicals <i>Add toxins to aquatic systems</i>	Oil, gasoline, plastics, pesticides, fertilizers, cleaning solvents	Industry, farms, households, mining sites, runoff from streets and parking lots
Inorganic chemicals <i>Add toxins to aquatic systems</i>	Acids, bases, salts, metal compounds	Industry, households, mining sites, runoff from streets and parking lots
Sediments <i>Disrupt photosynthesis, food webs, other processes</i>	Soil, silt	Land erosion from farms and construction and mining sites
Heavy metals <i>Cause cancer, disrupt immune and endocrine systems</i>	Lead, mercury, arsenic	Unlined landfills, household chemicals, mining refuse, industrial discharges
Thermal <i>Make some species vulnerable to disease</i>	Heat	Electric power and industrial plants