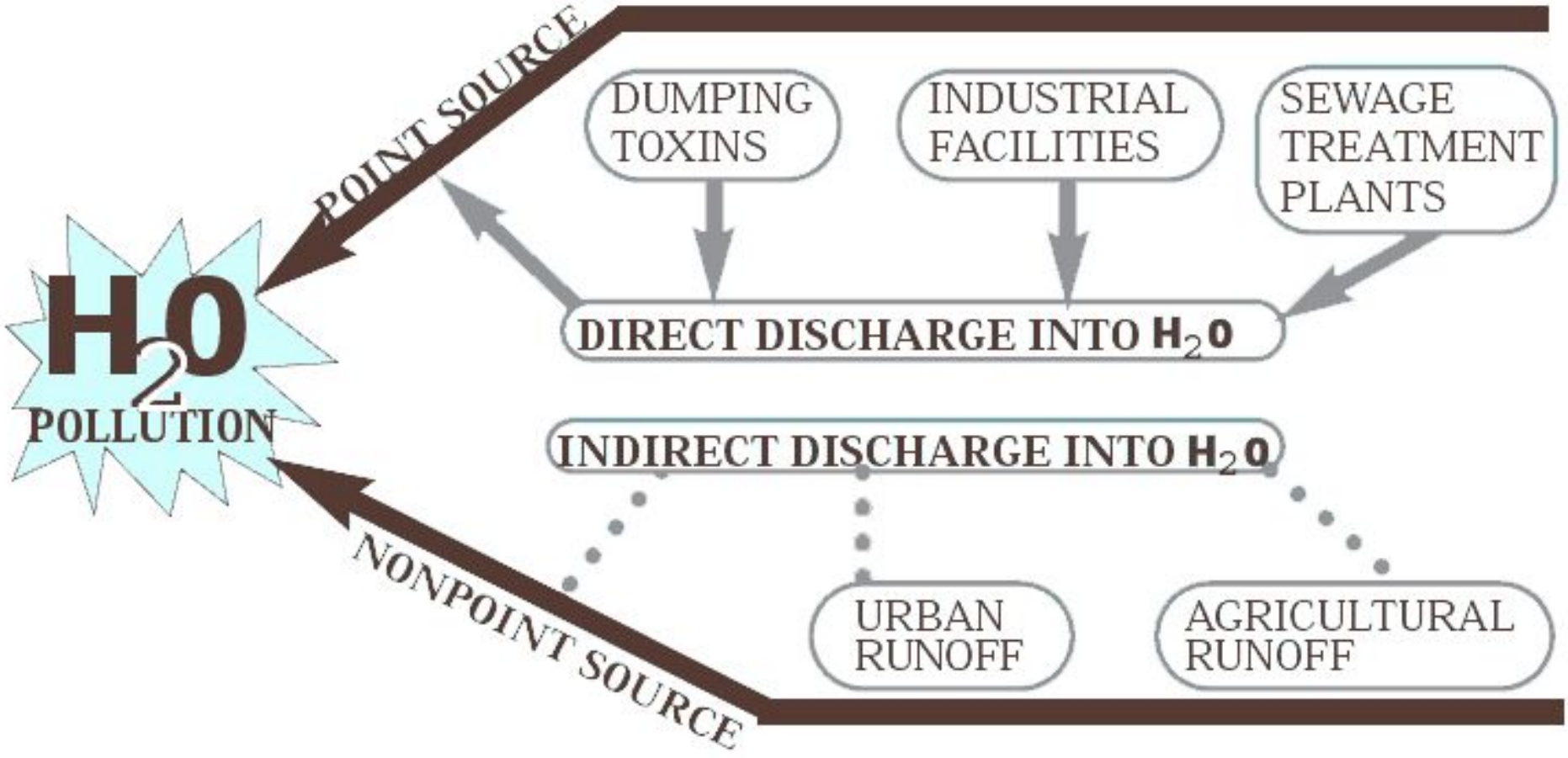
Water Pollution Images


POINT SOURCE
DUMPING TOXINS
INDUSTRIAL FACILITIES
SEWAGE TREATMENT PLANTS
H_2O POLLUTION
DIRECT DISCHARGE INTO H_2O
INDIRECT DISCHARGE INTO H_2O
URBAN RUNOFF
AGRICULTURAL RUNOFF
NONPOINT SOURCE

Time

sunlight

1. **Nutrient load up:** excessive nutrients from fertilisers are flushed from the land into rivers or lakes by rainwater.

5. **Death of the ecosystem:** oxygen levels reach a point where no life is possible. Fish and other organisms die.

algae layer

3. **Algae blooms, oxygen is depleted:** algae blooms, preventing sunlight reaching other plants. The plants die and oxygen in the water is depleted.

decomposers

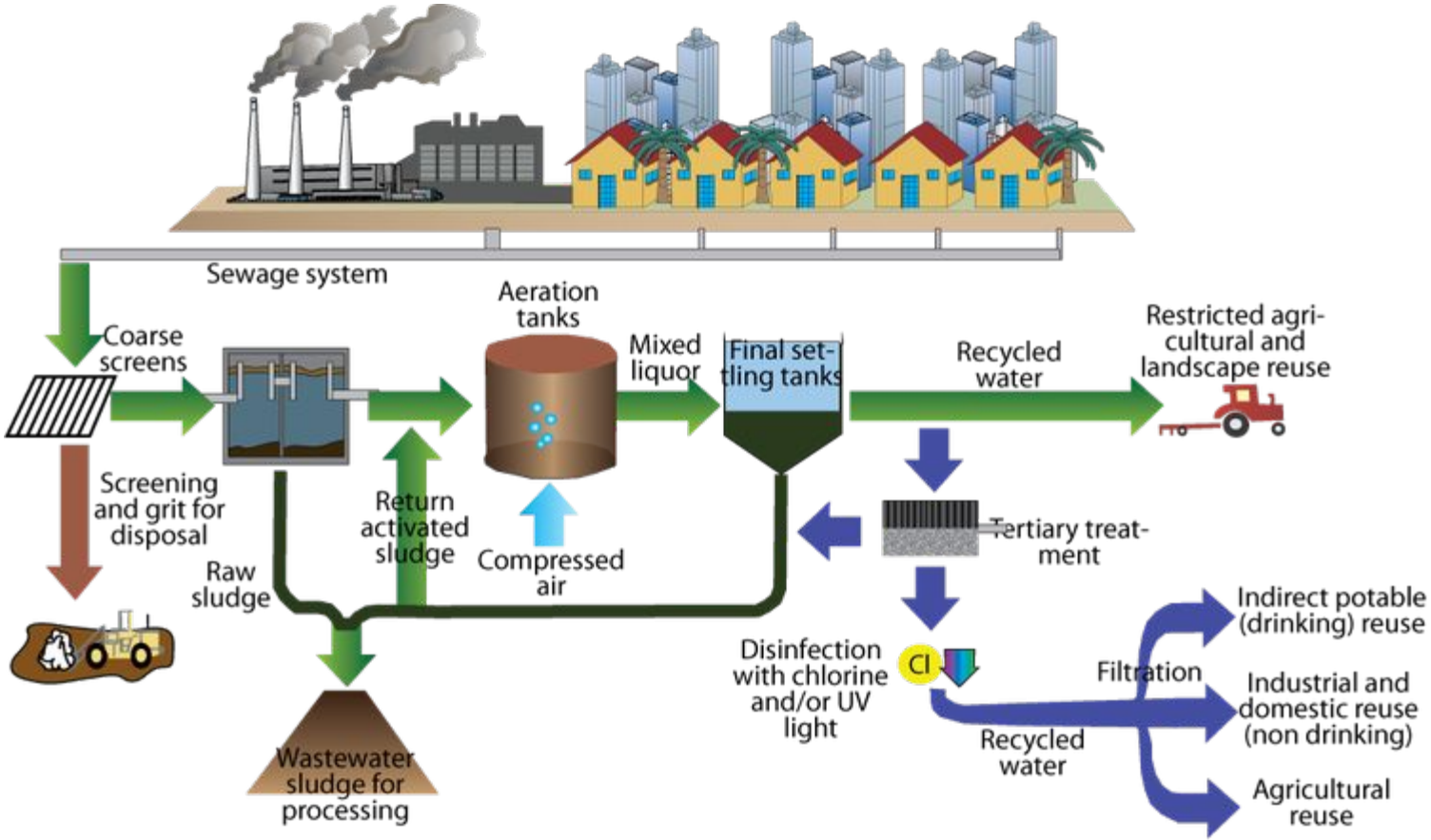
nutrient material

2. **Plants flourish:** these pollutants cause aquatic plant growth of algae, duckweed and other plants.

4. **Decomposition further depletes oxygen:** dead plants are broken down by

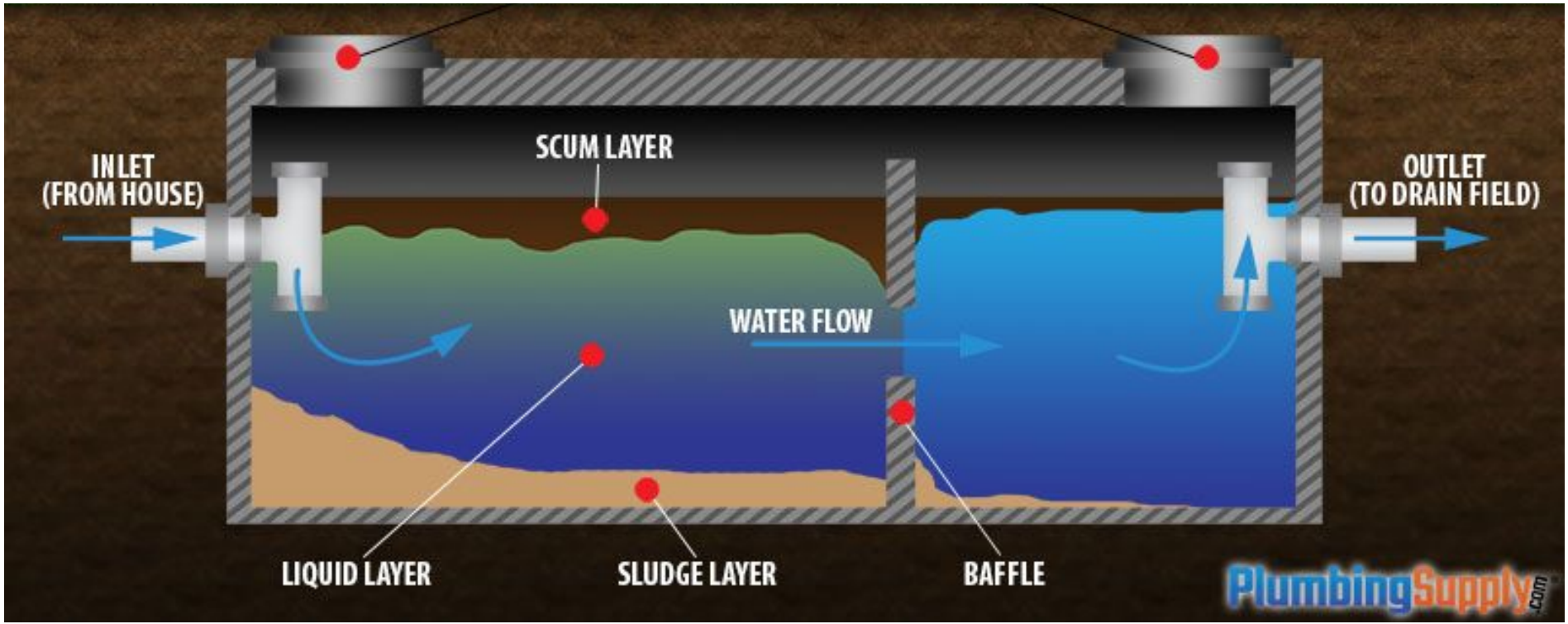
Table 13.2 Major water pollutants, examples and sources

Category	Examples	Sources
1. Affecting health		
Infectious agents	Bacteria, viruses and parasites	Sewage, human and animal excreta
Organic chemicals	Pesticides, plastics, detergents, oil	Agricultural, industrial and domestic wastes
Inorganic chemicals	Acids, caustics, salts, metals	Industrial and domestic effluents
Radioactive materials	Uranium, thorium, radon, etc.	Mining, power plants, natural sources
2. Affecting ecosystem		
Plant nutrients	Nitrates, phosphates, etc	Chemical fertilisers, sewage, manure
Sediments	Silt, soil	Soil erosion
Thermal	Heat	Industries, power plants
Oxygen demanding	Agricultural wastes, manure	Sewage, agricultural runoff



Conceptual diagram illustrating a modern central collection and wastewater treatment plant, which can remove nutrients from wastewater to very low levels (i.e., teritary treatment) and provide recycled water for agricultural and landscape uses.

Diagram courtesy of the Integration and Application Network (ian.umces.edu), University of Maryland Center for Environmental Science. Source: Kruczynski, W.L. and P.J. Fletcher (eds.). 2012. Tropical Connections: South Florida's marine environment. IAN Press, University of Maryland Center for Environmental Science, Cambridge, Maryland. 492 pp.


INLET
(FROM HOUSE)
SCUM LAYER
OUTLET
(TO DRAIN FIELD)
WATER FLOW
LIQUID LAYER
SLUDGE LAYER
BAFFLE
PlumbingSupply.com