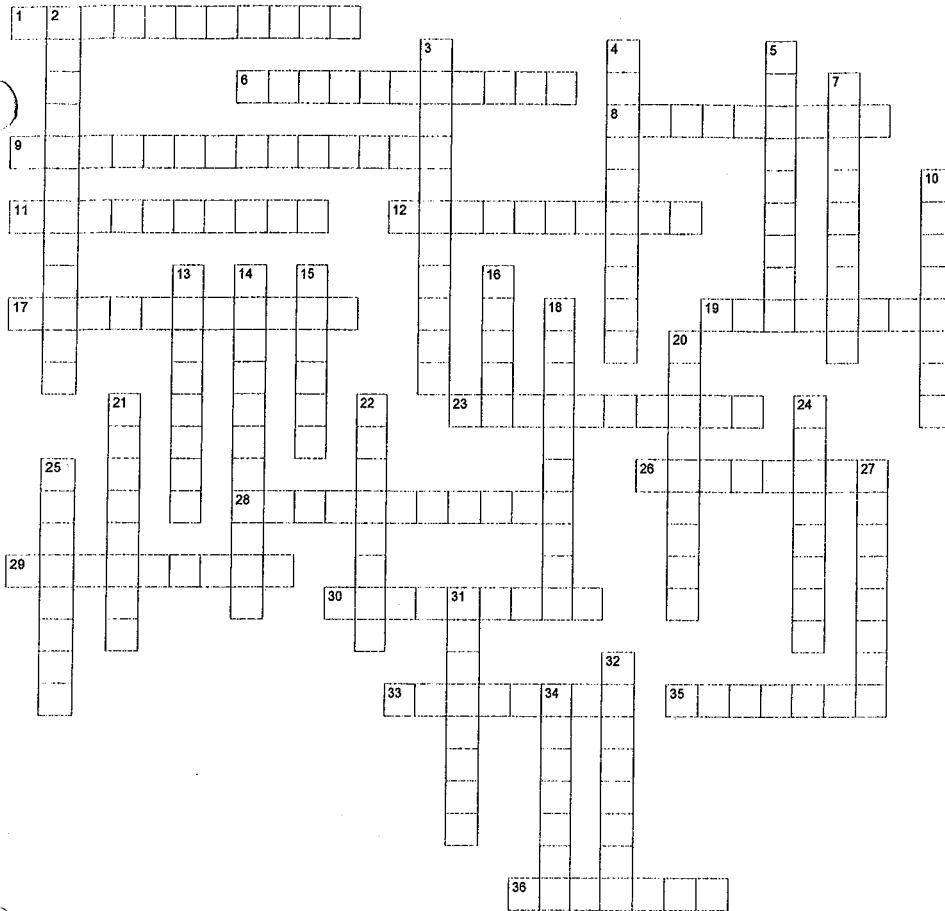


# Ch 15 Freshwater Resources



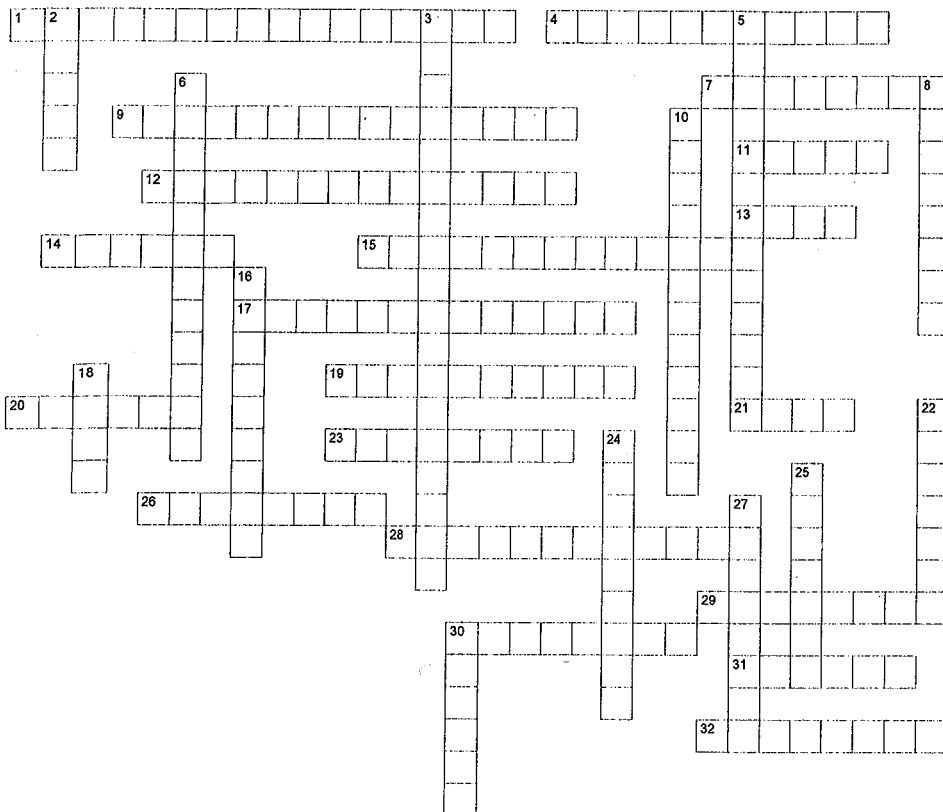
## Down

2. An \_\_\_ lake is one that is low in nutrients and high in oxygen, with clear water.
3. Poorly drained or over-irrigated soil can become \_\_\_ - the water table has risen too high to allow crops to grow.
4. The lower layer of an aquifer that is constantly filled with water is the zone of \_\_\_.
5. A \_\_\_ lake is one that is overly rich in nutrients and low in oxygen, often with thick algae-rich water.
7. In the deeper part of a lake, the \_\_\_ zone is the region that is colder and dark ... light does not penetrate to this region.
10. In secondary treatment of wastewater, \_\_\_ are used along with stirring and aeration to decompose organic matter, removing 90% of suspended solids
13. The \_\_\_ aquifer is the world's largest - stretching across the central plains from South Dakota to Texas.
14. About 20% of fresh water is stored below the earth's surface as \_\_\_.
15. In rural areas, wastewater is commonly disposed of through \_\_\_ systems.
16. A \_\_\_ is a wetland feature where shallow water exists, allowing plants like cattails and bulrushes to grow above the water surface
18. Depletion of ground water can lead to \_\_\_ of land - an extreme example is the formation of a sinkhole.
20. \_\_\_ is one indicator of water quality - it's a measure of the "cloudiness" of the water and often accompanies sediment pollution.
21. \_\_\_ at the Hoover Dam is an example of a reservoir created by dams - the largest in the US
22. About 79% of the fresh water on earth is stored in ice caps and \_\_\_.
24. The upper layer of an aquifer is the zone of \_\_\_ - it is partially filled with water and partly with gases.
25. The \_\_\_ zone of a stream/river is the interface between the river and the surrounding land
27. In the deeper part of the lake, phytoplankton can thrive in the \_\_\_ zone where sunlight penetrates the water.
31. A generic term for surface waters like marshes, swamps, ponds, bogs etc ...
32. Fecal \_\_\_ bacteria are present in water that has been contaminated with animal waste.
34. Porous spongelike rock, gravel or sand below the earth's surface in which groundwater is stored.

## Across

1. \_\_\_ pollution can be traced to a specific location like a pipe, a factory or a spill of some sort.
6. Landscaping using plants adapted to arid conditions - an alternative to green lawns that require extensive watering.
8. A \_\_\_ is a term for a smaller stream/river that flows into a larger one.
9. Examples of \_\_\_ water use include generate hydroelectricity, artificial ponds or fish hatcheries.
11. About 2.5% of all the water on Earth is \_\_\_.
12. The area next to a river that experiences periodic flooding by that river.
17. The \_\_\_ Dam on the Yangtze River in China has the world's largest power station
19. An area where water infiltrates the ground into an aquifer is called an aquifer \_\_\_ zone.
3. Eutrophication is probably caused by excess \_\_\_ - one of the nutrients in fertilizers
26. In a lake, the \_\_\_ zone is shallow near the shore, sunlight to reach the bottom and plants to grow above the surface
28. In the US, the two biggest consumers of fresh water are industry and \_\_\_.
29. The area of land where water drains into a river and its tributaries.
30. Wastewater from activities like hand or dish washing, showers etc ... is called \_\_\_ - it does not contain pathogens.
33. The Hoover and Glen Canyon Dams are both on the \_\_\_ river.
35. The \_\_\_ zone in a lake is the lake's bottom ... extending from shore to shore.
36. During \_\_\_ treatment of wastewater in a treatment plant, solids are allowed to settle - removing up to 60% of suspended solids

# Ch 17 Atmosphere & Air Pollution



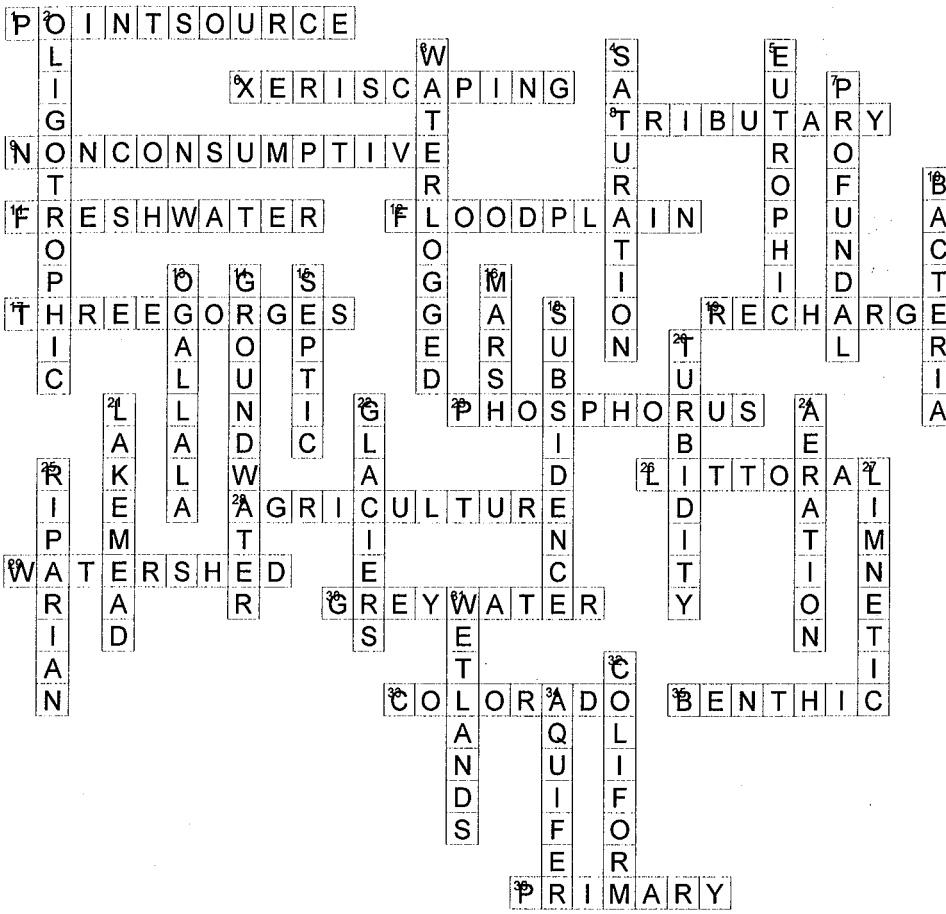
## Down

2. This gas (O<sub>3</sub>) in the stratosphere shields us from harmful ultraviolet radiation
3. CFC
5. \_\_\_ smog forms by light-driven chemical reactions in the air
6. The atmospheric layer above the troposphere
8. A \_\_\_ is used with smokestacks to remove pollutants before they are emitted
10. Solid specks or tiny liquid droplets suspended in the air ... smoke, dust, soot are examples
16. \_\_\_ pollutants are not directly emitted to the atmosphere, but rather are formed when primary pollutants react in the atmosphere
18. Unhealthy mixtures of air pollution that form over urban areas
22. While weather describes short term atmospheric conditions, \_\_\_ describes patterns of atmospheric conditions over large areas over long periods of time
24. A thermal \_\_\_ occurs when a layer of warm air is trapped beneath a layer of cold air. The trapped air is called an \_\_\_ layer. (same word)
25. \_\_\_ pollutants are themselves directly harmful or react to form other harmful substances
27. Sulfur dioxide (often from volcanic eruptions) reacts with water & oxygen to form fine droplets called \_\_\_ that reflect sunlight back to space
30. \_\_\_ cells are large convection air currents near the equator that explain the hot wet conditions found there and deserts ~ 30° N & S of the equator

## Across

1. The \_\_\_ was an international agreement to control the use of CFC's, responsible for stratospheric ozone destruction
4. The layer of the atmosphere closest to the earth's surface, where weather occurs
7. The \_\_\_ effect causes the curving global wind patterns (doldrums, trade winds, westerlies)
9. \_\_\_ gas is often responsible for the reddish-brown colour to smog
11. When found in the troposphere, \_\_\_ is a secondary pollutant - a component of smog
12. A colourless, odourless gas that is produced by incomplete combustion of fuels, binds more strongly than oxygen with hemoglobin in blood
13. \_\_\_-pressure systems tend to bring clear skies and fair weather.
14. \_\_\_ air pollution occurs within homes, schools and buildings that people work in
15. Primarily produced by combustion of coal for electricity - forms sulfuric acid in the air (acid rain)
17. An \_\_\_ precipitator is effective at removing particulates from emissions
19. Acid \_\_\_ is a more encompassing term than "acid rain" - includes snow, fog, particulates etc ...
20. The Northern hemisphere is tilted towards the sun during this season, when the Earth is farthest from the sun
21. The major sources of \_\_\_ (a neurotoxin) in air include piston-engine small aircraft and industrial smelting operations
23. The \_\_\_ Act passed in 1970 dealt with air quality - regulating air pollution, setting emission standards etc ...
26. 78% of the atmosphere is this gas
28. Sources of this indoor air pollutant include new carpets, pressed wood and foam insulation
29. VOC's : \_\_\_ Organic Compounds are found in solvents and many household chemicals as well as emissions from engines
30. Relative \_\_\_ is the ratio of water vapor that a given volume of air contains to the water vapor the same volume COULD contain at a given temp
31. 21% of the atmosphere is this gas
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# Ch 15 Freshwater Resources



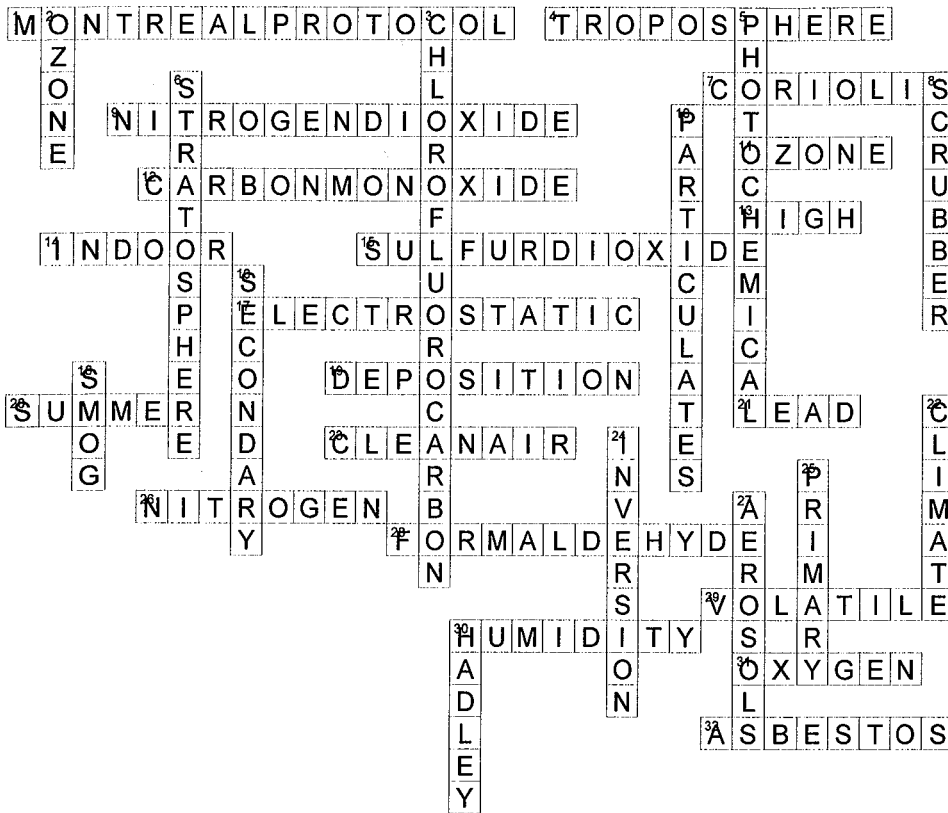
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