Problems faced by Canada's watersheds

Canadian Geography

Lester B Pearson High School

What do you view as problems with our water systems in Canada? (Think & Share)

Issues Faced by Canada's Water Resources

- Water Quality
- Local Water Issues
- Water Quantity (later)

Water Quality

Water quality: Is it good enough for what we want to use it for.

For instance, it may be good enough to swim in it , but not to drink it.

Water Pollution

- Physical – garbage & too many sediments in water

Sediments are floating dirt particles. Soil erosion & run off into the water is caused by things like agriculture, building new subdivisions. The sediments clog fish gills and chokes out water plants.

Water Pollution

- <u>Biological – bad bacteria & viruses in water</u>

Facts:
-57% of Canadian's sewage water is treated in a waste water treatment centre
- Halifax used to dump 200 million liters of sewage of untreated sewage daily into the Atlantic. They got a sewage plant in 2010!

Water Pollution

- <u>Example of biological water disaster: Walkerton, ON</u>

In May of 2000, the town's drinking water became contaminated with a highly dangerous *e.coli* bacteria. 2,500 people were ill, 7 people died.

This issue is not uncommon in other Canadian communities.

Water Pollution

- Chemical – dissolved metals (ex. lead), medications, oils, fertilizers, pesticides & other toxins

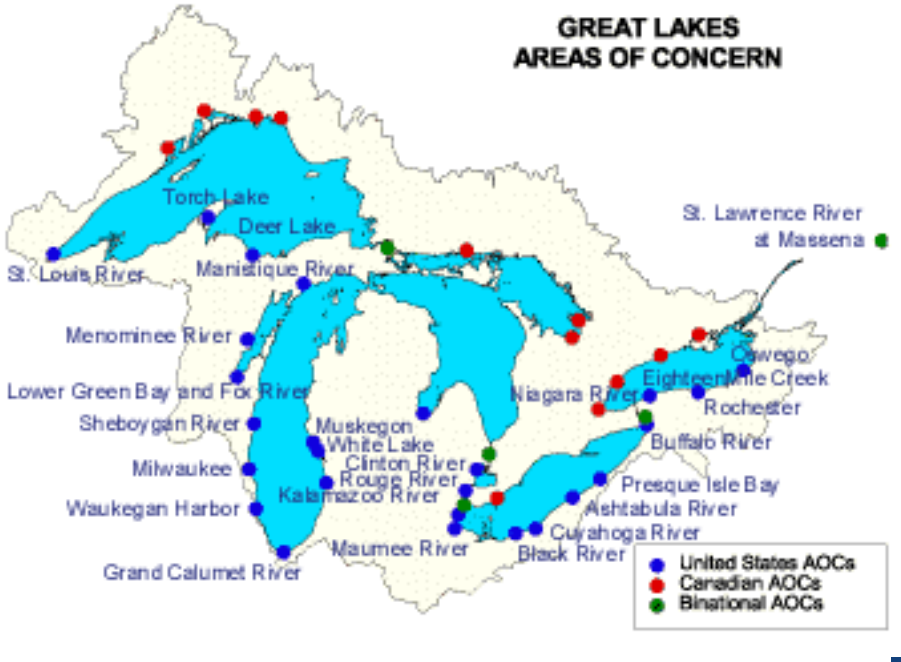
Fact:
-1 drop of oil can make up to 25 liters of water unfit for drinking
-We can't filter-out all the chemical contaminants from our drinking water

Water Pollution

- Great Lake Toxic Hotspots

See pg 484

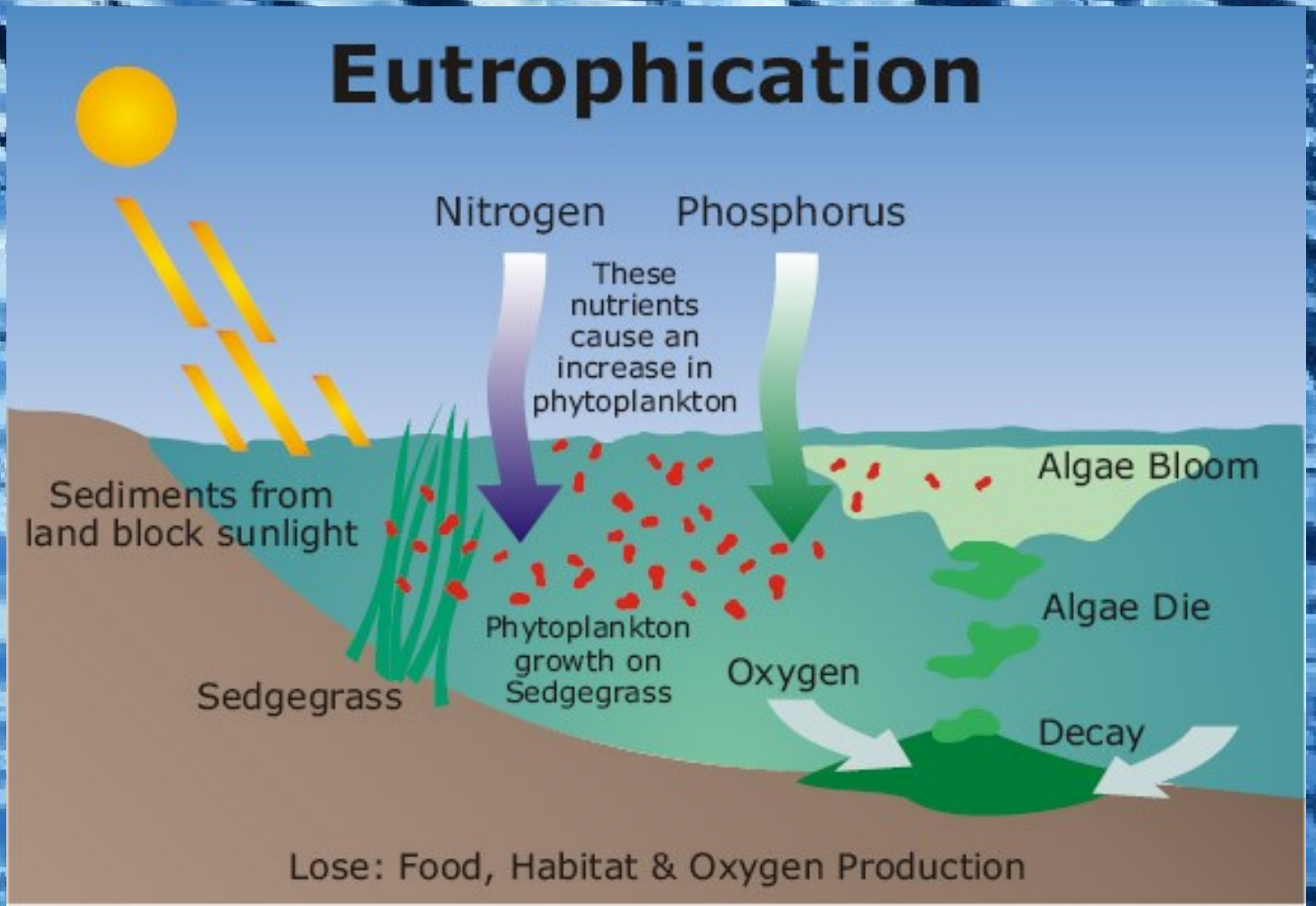
PCB exposure causes bird deformities like the crossed bill in this cormorant.



Water Pollution

- Eutrophication – too much phosphorus & nitrogen (from our soaps or fertilizers) makes algae grow quickly. When it dies, the bacteria that decomposes it pulls oxygen from the water. Fish & other aquatic animals suffocate.

Water Pollution

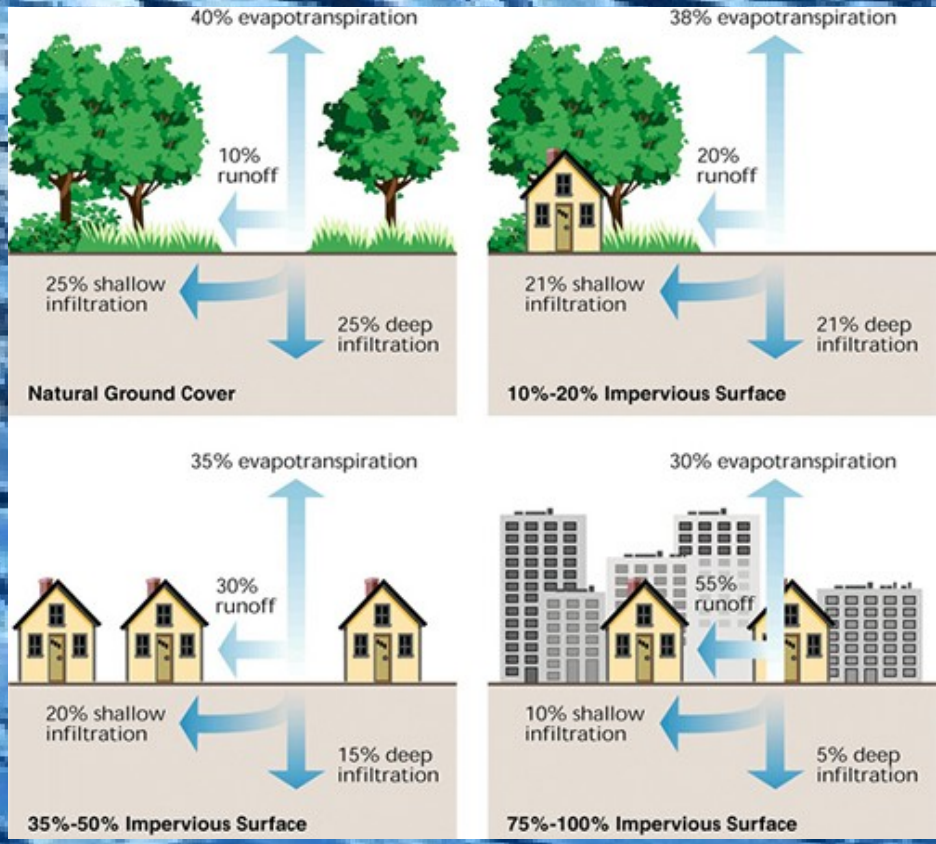


Local Burlington Water Issues

- Urban Run-Off: Rain & snow on streets & parking lots goes into sewage drains & into our creeks. Oil, animal waste, road salt, garbage and fertilizers are carried into the water by this run-off.

Local Burlington Water Issues

- <u>Too many hard surfaces:</u> during rainstorms, if water cannot soak into the ground, then it flows into creeks (runoff) causing them to quickly flood.



Local Burlington Water Issues

- Covered over streams – many of our creeks have been channeled and covered over in the past. Not good for fish or health of streams.

Creek near Mapleview Mall

Local Burlington Water Issues

Our Tuck Creek has been put underground in a few places. It is not good for its health.

The city is no longer allow to place creeks underground like this.