

## Chapter 3.3 Human Impact on Water Systems

### Sources:

Point Sources – sources of pollution that come from a small, specific area

For example: landfill leak, sewage system, oil spill

Non-Point Sources – sources that come from many different sources, not just one

For example: oil from roads washing into storm drains, pesticides/fertilizers on lawns or farmers fields

### The Effects of Water Pollution:

- Humans have a great effect (mostly negative) on the quality of our water supply, and have been dumping our garbage and pollution into the ocean for a long time
- Solid pollution ends up washing up on shorelines
- Plastics and other non-biodegradable materials do not break down and can harm wildlife in the ocean

### Acid Precipitation

- Toxic chemicals that are released into the air from industrial areas combine with water droplets in clouds and form sulfuric and nitric acids
- This acidic precipitation falls back to the ground, harming plant animal life

### Offshore Oil Industry and the Marine Environment

- Most waste oil found in the ocean comes from city and farm drainage, untreated waste disposal and recreational boating, NOT oil spills
- But oil spills are still a concern because any amount of oil is dangerous
- Seismic testing to locate oil deposits under the ocean floor is completed by sending shock waves which can negatively affect marine life (ex: destroying fish eggs)

### Invasive Species

- These are new or foreign species to an area which can disrupt the normal food chain
- Invasive species (such as the Green Crab in Placentia Bay) can be brought from one place to another when trapped in the bilge of a ship
- They compete for resources and can out-compete very quickly if they don't have a natural predator in the new area

### Overfishing

- This occurs when a species of fish is continuously taken faster than it can be replaced by reproduction
- New technologies (ex sonar, trawling) have allowed fishing vessels to catch many more fish than before and large ships called factory freezers can stay out at sea for over a month at a time catching fish continuously before returning to shore

### Aquaculture

- This involves the growing and harvesting of a marine species in a controlled marine area
- The problem is farmed fish can escape into open waters and become an invasive species OR diseases and parasites present in farmed fish can be spread to wild fish damaging natural populations