

### Threatens Sea-Birds

The oil from spills coats the feathers of birds reducing their waterproofing and insulating qualities. As a result birds die from exposure to cold water and air.

The effects of water pollution are not always immediate or always seen at the point of contamination. Sometimes these effects are never known by the person responsible for the pollution.

### Steps you can take to prevent water pollution

- Conserve water; the less water you use, the less will flow into drains and gutters, carrying pollutants with it.
- Avoid using plastics when possible.
- Dispose of garbage in a bin or by composting.
- Do not wash animal waste into nearby drains and gutters.
- Use pesticides and fertilizers appropriately or as recommended so as to prevent run off into water systems.
- Clear clogged drains, this would prevent the likelihood of flooding and of mosquitoes breeding.
- Desists from breaking water mains so as to prevent contamination from nearby gutters and surface runoff, which can severely impact our health . Breaking water mains is an offence also.

### Authorities to inform if there is a water pollution problem

- **Environmental Protection Agency (EPA)**  
Environmental Management and Permitting Division (EMPD)  
Water Quality Unit  
Ganges Street, Sophia.  
Tel# 225 0506, ext 296 or 235
- **Guyana Water Incorporated (GWI)**  
Vlissengen Road & Church Street, Bel Air Park, Georgetown, Guyana.  
Tel: 225-0471/6
- **Nearest Town Council or RDC or NDC**
- **Guyana River and Sea Defense Board**  
( Only for pollution on river reserve)  
Oranapai Towers, Wight's Lane, Kingston, Georgetown.  
Tel# 226-5951
- **Ministry of Health** ( if pollution will have a major impact on the health of persons)  
1 Brickdam, Stabroek, Georgetown.  
Tel# 226-5861- 5
- **Guyana Geology and Mines Commission (GGMC)** - In case of pollution from mining activities.  
68, Upper Brickdam, Georgetown.

Environmental Protection Agency  
Ganges Street, Sophia  
Georgetown, GUYANA  
Tel: (592) 225-6044/ 6048 / 2062  
Fax: (592) 22-5481  
E-Mail: epa@epaguyana.org  
www.epaguyana.org



# Water Pollution

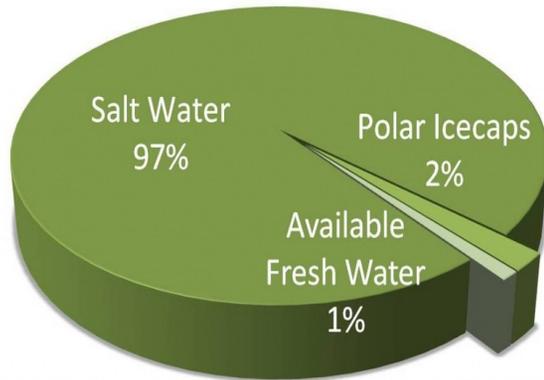
## Causes and Effects



## Water - the driving force of nature

Water, often called the liquid of life, is vital in sustaining life on Earth. It covers about 70% of Earth's surface and is the most valuable resource for people and the environment. Even though water is recycled naturally, it is also scarce, for only a very small amount exists as fresh water available for human use. The pie-chart below shows how Earth's water is distributed.

Water on Earth

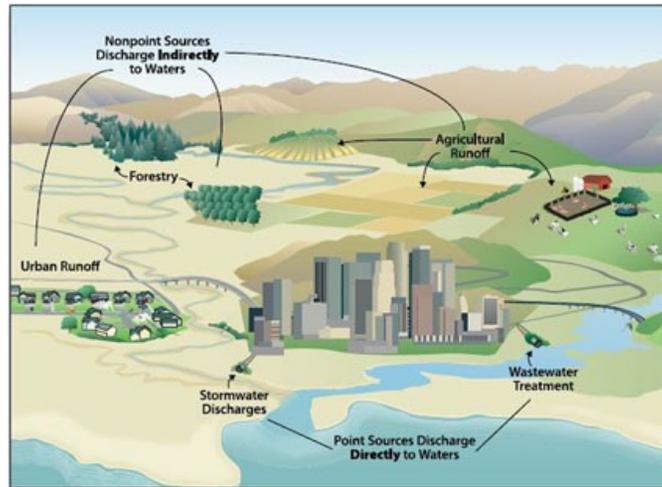


## Water Pollution

Water pollution results from the contamination of natural water bodies by pollutants. These pollutants may enter rivers and lakes either directly or indirectly e.g. as runoff from activities that occur on land. Any change in the properties of water that can cause any harmful consequences to living things and the environment is considered water pollution.

## Point and Non-point Sources of Water Pollution

Water pollution may stem either from easily identified or *point sources* or less traceable *non-point sources*. Factories, wastewater treatment facilities, septic systems are examples of *point sources* that are clearly discharging pollutants into water sources. *Non-point* sources are more difficult to identify, since they cannot be easily traced to a particular location. *Non-point* sources include runoff including sediment, fertilizer, chemicals and animal wastes from farms, fields, construction sites and mines. Landfills can also be a *non-point* source of pollution, if substances leach from the landfill into water supplies.



## Effects of Water Pollution

### Spreads Disease

Polluted water is dangerous to human health. People who drink polluted water can become infected by waterborne diseases such as cholera or typhoid.

### Affects Vital Body Organs

Harmful chemicals in polluted water prevent the proper working of vital body organs such as the heart, brain and kidney.

### Causes Toxic Buildup in the Food Chain

Harmful chemicals such as pesticides from agriculture and heavy metals like lead and mercury from industries can build up in the food chain, where they reach toxic levels in fish and other sea animals.

### Kills Aquatic Life

Polluted water kills fish, shrimp other aquatic life and coastal vegetation e.g. mangroves. This means fewer fish to eat and the loss of livelihood for many.

### Causes Flooding

When soil is washed into the waterways, this not only causes aquatic life to perish but can also result in flooding when it rains.

### Causes Algal Bloom

Wastes such as urea, animal manure, vegetable peeling provide food for tiny plants called algae. The more waste there is the more algae grows, this is called algal bloom. Bacteria feed off rotting algae and in the process use up the oxygen in the water. Fish, crabs, shrimp and other aquatic organisms then die because of an inadequate supply of oxygen in the water for them.

