



## WHAT GOES IN...MUST COME OUT

### Water, Sewage and Waste : the Facts

#### Fact Sheets for Home and School

#### Did you Know... Some astounding FACTS

- Toilets use over 40% more water than needed.
- In Western Countries we use about 135 litres of water each a day.
- Over a year, this is the same as 150,000 cans of coke.
- The average person in the developing world uses 10 litres of water a day.
- A shower uses 30 litres of water every 5 minutes
- A bath uses 90 litres of water.
- Flushing a toilet uses 9 litres of water
- Using a washing machine uses 95 litres of water
- Washing the dishes at the sink uses 15 litres of water.
- Washing the car with a bucket uses 10 litres of water per bucket.
- Cleaning your teeth with the water running uses 6 litres of water.
- A dripping tap can waste 12 litres of water a day.
- Many homes lose more water from leaky taps than they need for cooking and drinking
- The average distance that people in Africa and Asia have to walk to collect water is 3 km.
- 3 billion people in the world do not have access to safe water
- Each year 5,256,000 people die from diseases caused by unsafe water

A young lad looks before he leaps the beach in a broken sewage main on the shores of Lake Managua.

Photo: Tom Stargardter



#### The Water Cycle

When you turn the tap on at home, water comes out and when you flush your toilet, water flows down through the pipes.

Do you know how water gets to your taps? The journey is a circle also called the water Cycle!

1. **Evaporation:** Water is heated by the sun and evaporates.
2. **Condensation:** As it cools, it becomes very small water droplets.
3. **Clouds:** When many water droplets come together, they form clouds
4. **Rain:** When the water droplets become too big, it rains. In some countries this doesn't happen very often.
5. **Rivers:** Rain water looks for the quickest way to the sea and flows into rivers, streams and underground.
6. **Waterworks:** The water we drink has usually gone through a work-works site to be cleaned. It is cleaned by flowing through sand filters to get rid of dirt. Some chemical may be added to keep the water clean
7. **Water distribution:** Clean drinking water is pumped into reservoirs and pipes and flows into the pipes of your house ready for when you turn on the tap.
8. **Sewage Treatment:** The dirty water flows down the sink or toilet to the sewage treatment plant where it is cleaned and then goes back into the rivers.
9. The water flows back into the sea where it evaporates into the atmosphere and the cycle can begin again.

#### The POOEY Truth

- The average person POOs about a ton every year.
- Coprolites – or fossilized dinosaur poo is considered valuable by many humans
- You spend about 3 years of your life on the toilet
- The average person visits the toilet 2500 a year

## Facts on WASTE

Australia is the second most wasteful nation in the world, producing more than 18 million tonnes of waste per year (that's enough waste to cover the state of Victoria to a depth of 10cm).

Each **Australian** disposes on average about six kilograms of steel cans each year

Australians use more than six billion plastic bags per year – if these were tied together they would stretch around the world 37 times.

Plastic bags can take up to 1000 years to break down in the environment.

Australians use around 24 million tonnes of paper or 150 kilograms per person per year

## What Happens to Sewage in other parts of the World...?



Photo by Thomas Hartwell, May 29, 2003

An Iraqi child steps over raw sewage flowing in the street and piles of garbage mount on the streets in central Baghdad on 30 May, 2003.

For more facts on Water ..check out the latest book, " Water...the Amazing Journey " by Caren Trafford, available November 2004.

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## How You Can Help to Reduce Waste.... in your own Home and at School

We can start by reducing the amount of water we use and also by reducing the waste we put into the water.

If we all did our part, we could keep our rivers and oceans cleaner and reduce the cost of treating wastewater.

Here are some ways **YOU** can help:

- Water that goes down the drain is wastewater that has to be collected and treated.
- Take shorter showers. It takes about 32 litres of water for a one minute shower.
- It takes at least 90 litres of water to fill a washing machine. Save water by using your washing machine only with full loads.
- The same applies to your dishwasher - wait until the dishwasher is full before turning it on.
- If used motor oil, antifreeze, paint thinner and other liquid chemical wastes are poured down a drain, these toxic pollutants can kill fish. Recycle or discard them properly.
- Keep a jug of water in the fridge. Every time you run the tap to make sure the water is cold you're creating wastewater.
- Garbage in, garbage out. Don't use the toilet as a trash can. Anything that goes in has to be taken out at the treatment plant. If less goes in, less has to be taken out which means more efficient and less costly treatment.
- Adopt natural gardening practices. That means using natural methods to kill pests and weeds. If you must use fertilizers and pesticides, use them sparingly. Some of them inevitably wash off into storm drains or local streams.
- Replace conventional toilets with low-flow toilets. Conventional models use 29 litres a flush while the low-volume toilets need six litres. As an alternative to replacing your conventional toilet, place a brick in your toilet tank. This displaces water so that you don't use as much when you flush.
- Turn off the tap while you brush your teeth or shave. In the few moments it takes, a running tap could fill 32 x 250 ml glasses.
- Look for technological innovations to help you save water. There is a wide variety of such devices including low-flow shower which can reduce the amount of water used in a household by up to 50 per cent.

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