

Treasure Every Drop



Water and the Earth



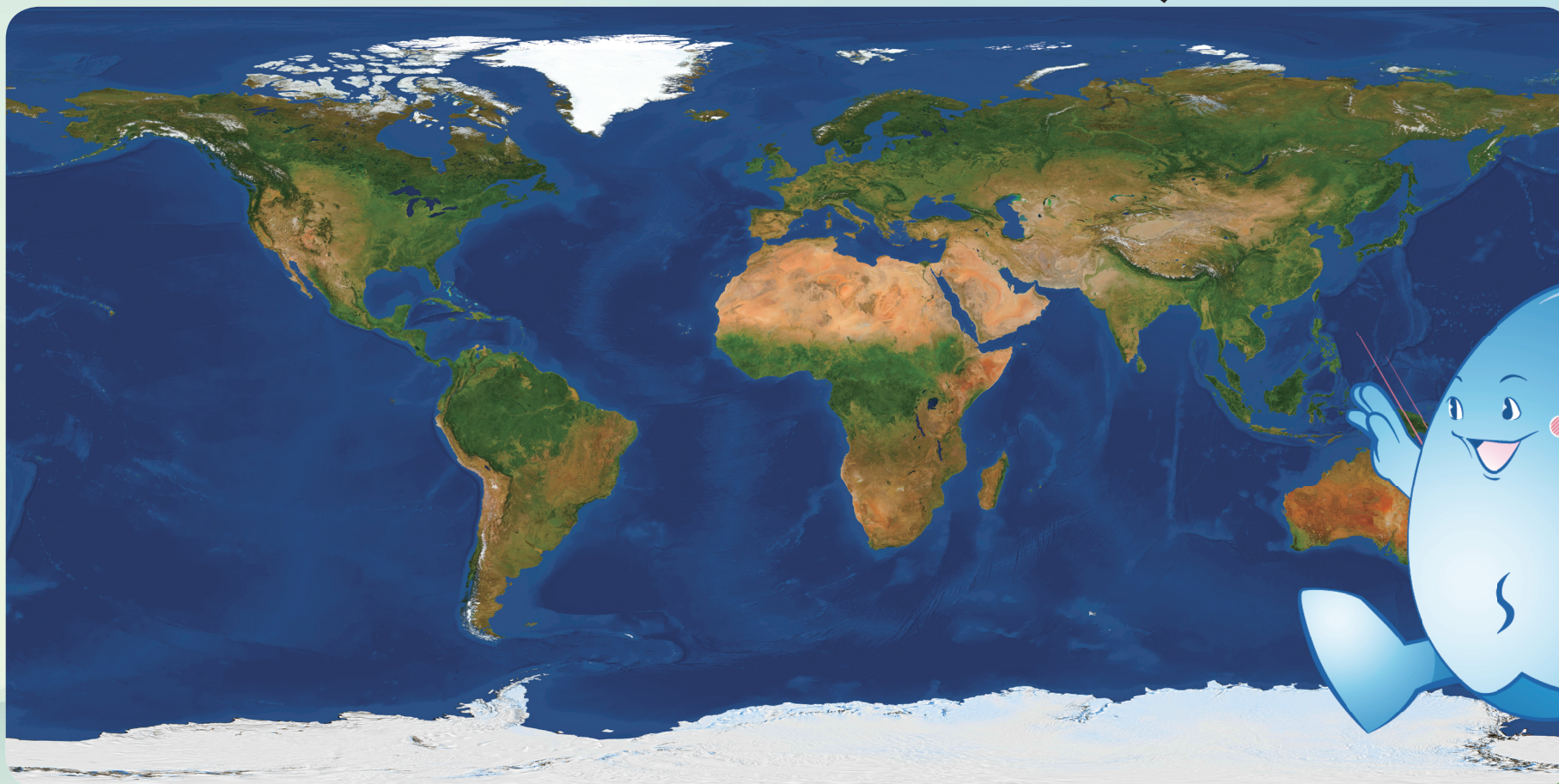
The Earth - The Blue Planet



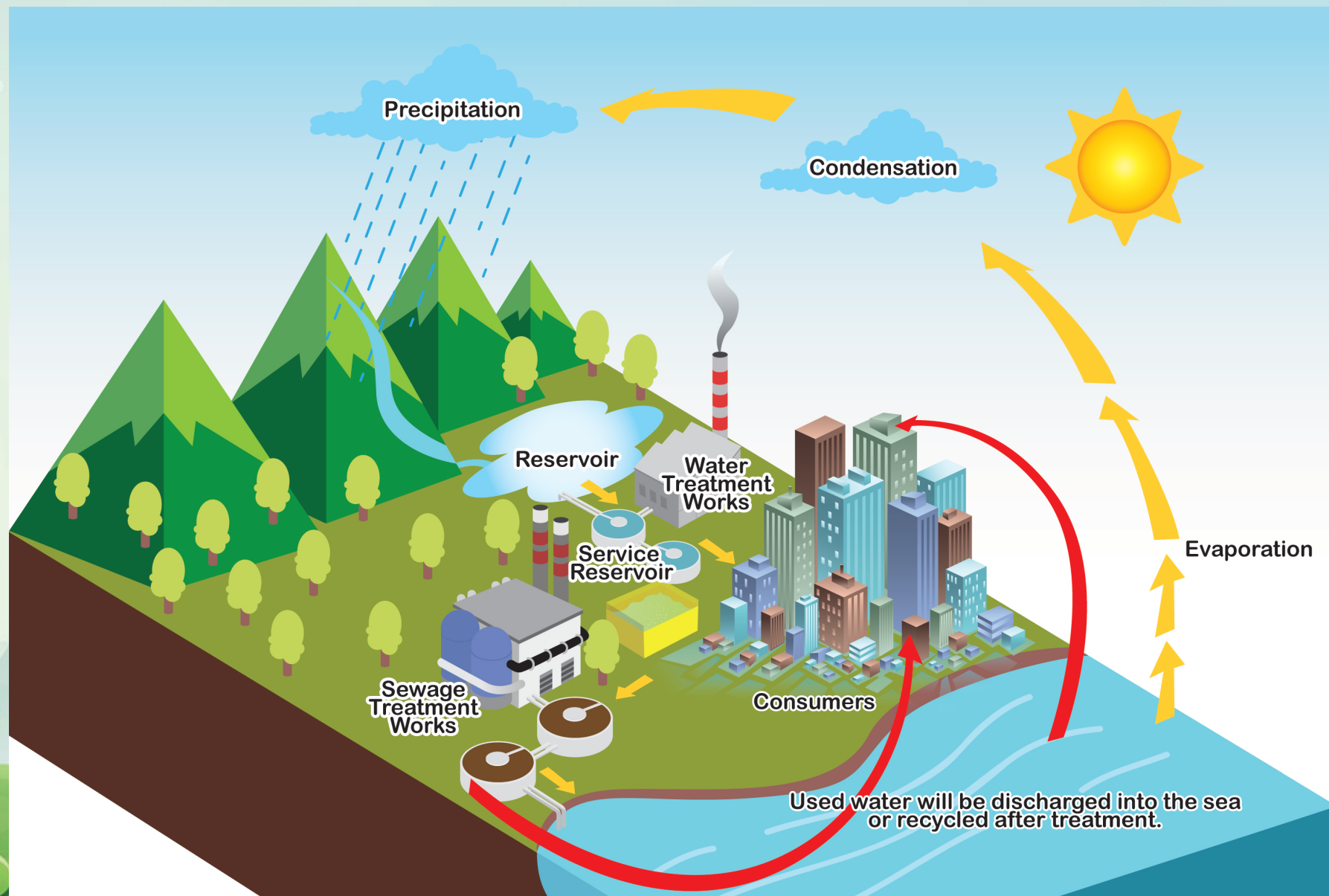
From outer space, the Earth looks blue



Since over 70% of the surface is covered by water



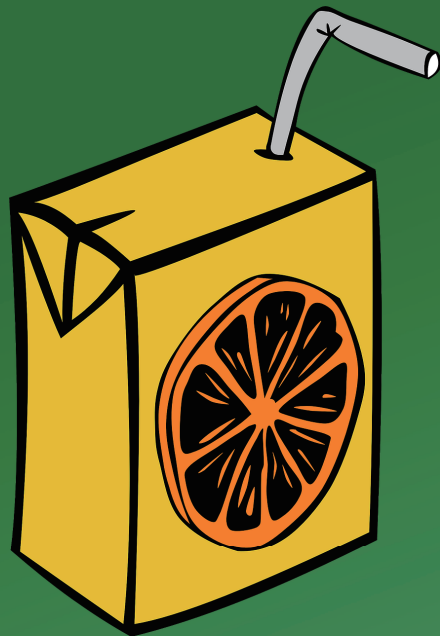
Water Cycle



Unit of Measuring Water



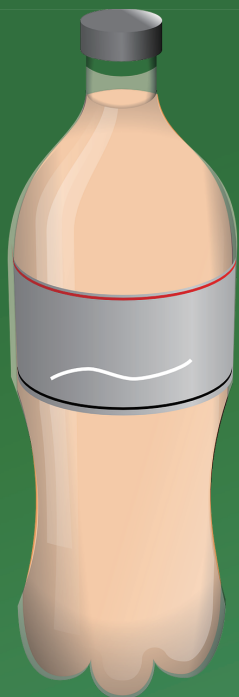
Unit of Measuring Water: Millilitre (mL)



1 paper-packed
drink:
About 250 mL



Unit of Measuring Water: Litre (L)



$1\text{ L} = 1,000\text{ mL}$
1 large bottle of
soft drink: About 2 L

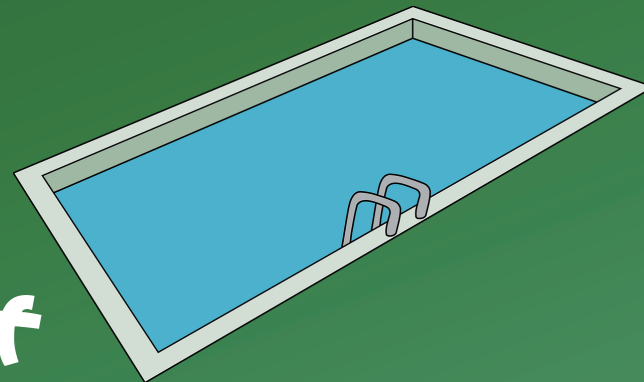


Unit of Measuring Water: Cubic metre (m^3)

$$1 \text{ m}^3 =$$

$$1,000 \text{ L}$$

The capacity of
a standard swimming
pool is around $2,500 \text{ m}^3$





The "Arithmetical" Formula



The "Arithmetical" Formula



The "Arithmetical" Formula

100%
Global water
resources



The "Arithmetical" Formula

97.5%
Salt water
Mostly
seawater



2.5%
Fresh water
Including icebergs,
glaciers, rivers,
lakes, ponds, etc.

**Only fresh water is
suitable for human
consumption**

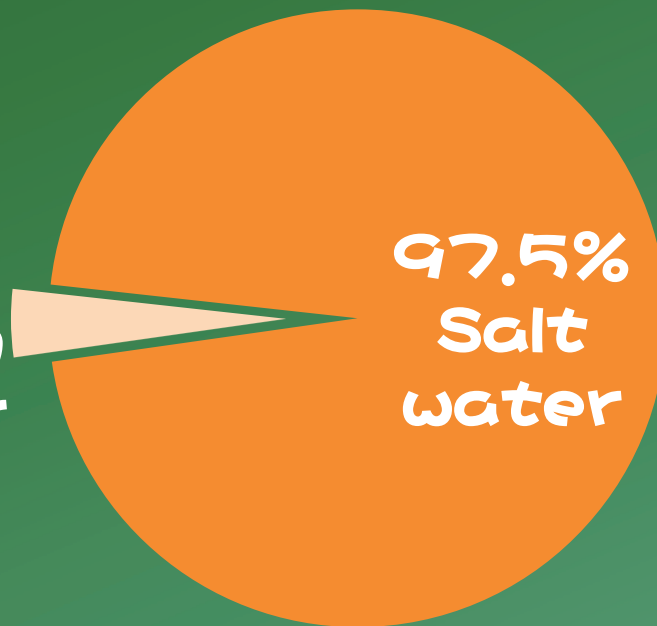


The "Arithmetical" Formula

Global water
resources

2.5%
Fresh
water

97.5%
Salt
water





The "Arithmetical" Formula



The "Arithmetical" Formula

100%
Water
Supply



55%
Domestic
Uses



45%
Industrial uses,
commercial uses
and government
establishments, etc.



***Using Hong Kong as an example**



The "Arithmetical" Formula



The "Arithmetical" Formula



Dripping tap*
annual water
wastage



*based on one drop per second

The "Arithmetical" Formula



4 L
(daily water
wastage)



365
days



Annual
Water Wastage:
1 460 L





The "Arithmetical" Formula



The "Arithmetical" Formula

Average daily water
consumption per capita



The "Arithmetical" Formula

520 L
(average
daily water
consumption of
a HK family)



4
family
members



Average daily water
consumption per capita:
130 L

*based on a 4-member household

**Water scarcity is
a global threat.
We need to
save water!**





**Snow capping Mount
Kilimanjaro in Africa is
disappearing**

Friday, July 26, 2019, 16:43

Thailand faces worst drought in decade

Friday, July 26, 2019, 16:43

By Xinhua



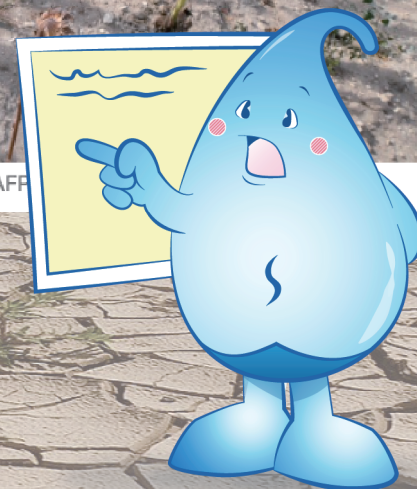
Source: China Daily

Drought in France: One third of the country is now in a "crisis situation"



Drought hits sunflower fields in France. Photo credit: AFP

Source: The Local



**Clean drinking
fresh water is
very precious.
Let's save
water in our
daily lives!**



Water and Hong Kong



Where does Hong Kong's water supply come from?

- **Local yield:**
20-30% comes from local rainfall
- **Dongjiang water:**
70-80% from imported Dongjiang water
(Through a 60-km supply network; HK shares water with other cities in China)



Where does Hong Kong's water supply come from?

- Hong Kong imports 60 million cubic metres of Dongjiang water per month on average (which could fill around 24,000 standard swimming pools)



- Water scarcity is a global threat.
We need to save water!

When there is not enough fresh water.....



**Water rationing :
from early 60's to early
80's**

*** For the most serious water
rationing: water was supplied
once every 4 days,
4 hours each time**

**Clean drinking fresh
water is very precious.
Let's save water in our
daily lives!**



Water and Us



Water is essential to human

- Water makes up around 70% of the human body!
- Water is the origin of life!



Other household usages for water include:



- Cooking
- Showering/
face washing
- Watering
plants/ filling
aquariums
- Cleaning
- Flushing
toilets
- Other uses



Clean drinking fresh water
is very precious. Let's save
water in our daily lives!

Total Water Management (TWM)



"Containing Demand, Strengthening Supply"

- Emphasis on containing the growth of water demand through water conservation
- Strengthening the management of water supply

What can I do to save water?



- Take a shower instead of a bath
- Shorten shower time

What can I do to save water?



- Wash dishes in a basin rather than under running water

What can I do to save water?



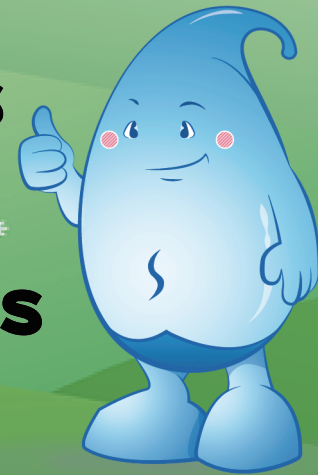
- Run washing machines with a full load



What can I do to save water?



- Reuse the water used for washing fruits and vegetables to water your plants



What can I do to save water?



- Help your parents to check leakage
- Ask your parents to fix dripping taps immediately

What can I do to save water?



Water saving taps



Dual flushing cisterns



Water saving showerheads



Water saving washing machines

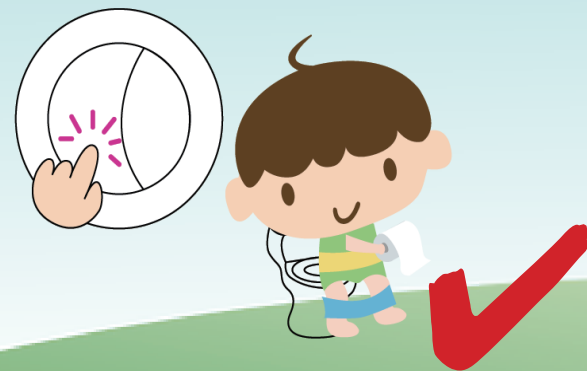
. Use water saving devices

What can I do to save water?

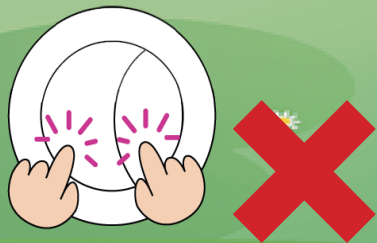
• Right way to flush the toilet



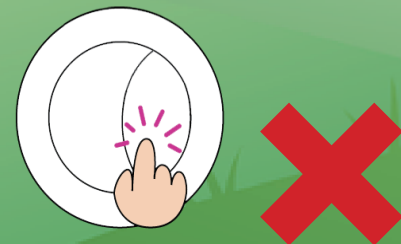
Push the "small flush" button for flushing wee-wee



Push the "big flush" button for flushing poo-poo



Do not push two buttons together



Do not flush unnecessarily

Water Efficiency Labelling Scheme

- Indicate the level of water consumption and efficiency rating of plumbing fixtures and appliances
- Water efficiency label has 4 grades. Grade 1 is the most water-efficient!



Water tariff - How to read the water meter?

Lid

Reading

Meter No.



- The unit of water meter is m^3
- Readings of domestic water meters contain 8 digits (4 digits before the decimal point and 4 after the decimal point)
- The digits before and after the decimal point are indicated by white and red background respectively



Water tariff - How to read the water meter?

Decimal point “.”

Thousands

Hundreds

Tens

Units

Ten-
Thousandths

Thousandths

Hundredths

Tenths

Reading: 10.8770 m³



How to calculate the water tariff?

Domestic water tariff is billed at 4-month intervals

Fourth Tier
Consumption
exceeding 62 m³

HK\$9.05
per cubic metre

Third Tier
Next 19 m³

HK\$6.45
per cubic metre

Second Tier
Next 31 m³

HK\$4.16
per cubic metre

First Tier
First 12 m³

Free



How to calculate the water tariff?

***A four-member family water tariff**

Consumption period: from 1 Aug to 30 Nov

Total water consumption: 100 m³

Tier	Water Consumption (m ³)	Rate (HK\$)	Water Tariff (HK\$)
First	12	0	0
Second	31	4.16	128.96
Third	19	6.45	122.55
Fourth	Remaining = 38	9.05	343.90
Total	100		595.41

Water tariff = HK\$595.41

Average daily water consumption

Details of water charges and sewage charges

水務署
Water Supplies Department

發出日期: 06/05/2005

付款通知書

陳大文
告士打道888號
灣仔

繳款單編號 **8366212XXXX**
應繳總額 **\$844.10**
請在此日期或之前繳付 **26/05/2005**

用戶編號: 8366212XXXX

上次繳款日期	上次繳款金額	現存按金款額	爭議金額	分期付款金額
27/01/2005	\$800.00	\$400.00	\$0.00	\$0.00

收費說明:

出水樓宇地址
告士打道888號
灣仔

現有水錶編號: ABC98888888

水錶編號	日期	度數	日期	度數
ABC98888888	21/12/2004	2,741	26/04/2005	2,856

耗水量	每日平均耗水量
126日	0.913立方米
115 立方米	

本期未繳款額承前		排水費	
水費	\$ 1.01	21/12/2004 - 26/04/2005	123.08
21/12/2004 - 26/04/2005		小計	123.08
12.43 立方米 @ \$0.00	0.00	收費總額	944.15
32.111 立方米 @ \$4.16	133.58	餘額	0.05
19.681 立方米 @ \$6.45	126.94	應繳款額	844.10
50.778 立方米 @ \$9.05	459.54		
小計	720.07		

以上述用水樓宇的繳單附註:

本帳單所示耗水量, 是根據貴帳戶或你所屬客戶類別以往耗水量的記錄作出估計的。

有關此帳戶的帳單附註:

- 如閣下使用繳費器, 銀行自動櫃員機, 或網上繳費, 而需要選擇賬單類別的話, 請選擇賬單類別01(WATER & SEWAGE CHARGES)以繳交各種費用, 包括水費按金。
- 由於實施全新的發單系統, 貴戶的用戶編號已由 (XX-12212463-601-4) 轉為 (8366212XXXX)。不便之處, 敬請原諒。

如以支票付款, 請把本郵寄付款回條連同支票寄上。

發出日期: 06/05/2005

有關款額如未能在上述日期繳付, 本署可加徵附加費。

繳款單編號	應繳總額	在往日期後加徵5%附加費	應繳款額 (連5%附加費)
8366212XXXX	\$844.10	26/05/2005	\$886.25

節省用水 -- 節省金錢

870XX131000000000000000010420058366212XXXX0

編號: 000170

CRC602 (1/1/2004)

CRC131

總數2頁的第1頁

Conclusion

The facts...

- **Water scarcity is a global threat**
- **The source of water in Hong Kong mainly comes from the Mainland China, which is very precious**
- **Water is the origin of life**

Therefore...

- **We need to *save water***