

5. Determine whether the system has adequate capacity to meet household water needs at the pressures and flow rates of water you receive from your water operator.
6. Understand the maintenance requirements and decide if you are capable of performing the routine maintenance operations. Also understand how to ensure that the equipment is functioning properly.

## BOTTLED WATER

While there is increasing demand for bottled water in recent years, below are the few things that consumers should be aware of.

Consumers should be able to differentiate between Natural Mineral Water (NWM) and Packaged Drinking Water (PDW).

Natural Mineral Water is defined as ground water obtained for human consumption from underground water resources. It contains various minerals such as Magnesium, Calcium, Fluoride, Sodium and Sulphate. Therefore, all NMW must comply with the standards as prescribed in Schedule 26 (Regulation 360A (7)), Food Regulations 1985. *(by the Food Quality and Control Division, Ministry of Health)*

Packaged Drinking Water shall be potable water or treated potable water other than natural mineral water that is sealed in bottles or other types of packaging and is for human consumption. The source for this PDW can be from public water supply, surface water or underground water.

The simplest way to differentiate between these two types of bottled water is by the colour of the bottle cap.

- ☞ Multicoloured bottle caps are given for Natural Mineral Water
- ☞ White bottle caps are only for Packaged drinking water

Other than the colour of the cap, consumers are also advised to READ THE LABEL carefully to ensure the approved licence number is written on the label of the bottled water.

## USEFUL CONTACT INFORMATION



**Water Supply Department,  
Ministry of Energy, Water and  
Communications (MEWC)**  
Block E4/5 Parcel E  
Federal Government  
Administration Centre  
62668 Putrajaya Malaysia  
Telephone: 03 8883 6321  
Website: <http://www.jba.gov.my>



**Federation of Malaysian Consumers  
Associations (FOMCA)**  
No 1D-1, Bangunan SKPPK,  
Jalan SS9A/17  
47300 Petaling Jaya, Selangor  
Telephone: 03 7876 2009  
Fax : 03 7877 1076  
Website: <http://www.fomca.org.my>  
Email : [fomca@fomca.org.my](mailto:fomca@fomca.org.my)



**National Consumer Complaint  
Center (NCCC)**  
No 1C-1, Bangunan SKPPK,  
Jalan SS9A/17  
47300 Petaling Jaya, Selangor  
Telephone: 03 7877 9000  
Website: <http://www.nccc.org.my>  
Email: [nccc@nccc.org.my](mailto:nccc@nccc.org.my)



**Food Safety and Quality Division  
Ministry of Health**  
3rd Floor, Block E7, Parcel E  
Federal Government  
Administration Centre  
62590 Putrajaya, Malaysia  
Telephone: 03 8883 6321  
Fax : 03 8889 3815  
Website: <http://www.moh.gov.my/fsq/>  
Email : [fsq-division@moh.gov.my](mailto:fsq-division@moh.gov.my)

# DRINKING WATER QUALITY



## NATIONAL WATER CONSERVATION CAMPAIGN JULY 2006 – JUNE 2008



**MINISTRY OF ENERGY, WATER  
AND COMMUNICATIONS (MEWC)**

with



**FEDERATION OF MALAYSIAN  
CONSUMERS ASSOCIATIONS  
(FOMCA)**

## PROTECT YOUR DRINKING WATER

### Don't Contaminate!

- Reduce paved areas: use permeable surfaces that allow rain to soak through, not run off.
- Reduce or eliminate pesticide application: test your soil before applying chemicals, and use plants that require little or no water, pesticides, or fertilizers.
- Reduce the amount of trash you create: reuse and recycle.
- Recycle used oil: 1 quart of oil can contaminate 2 million gallons of drinking water. Take your used oil and antifreeze to a service station or recycling center.
- Take the bus instead of your car one day a week: you could prevent 33 pounds of carbon dioxide emissions each day.



### Be Observant!

- Form and operate a citizen's watch network within your community to communicate regularly with law enforcement, your public water supplier and wastewater operator. Communication is key to a safer community!
- Be alert. Get to know your water/wastewater utilities, their vehicles, routines and their personnel.
- Become aware of your surroundings. This will help you to recognize suspicious activity as opposed to normal daily activities. Look around your watershed for activities that may pollute your drinking water.

### Get Involved

- Attend public hearings on new construction, storm water permitting, and town planning.
- Keep your public officials accountable by providing inputs to their environmental impact statements.
- Ask questions about any issue that may affect your water source.
- Participate with your government and your water system as they make funding decisions.
- Volunteer or help recruit volunteers to participate in your community's contaminant monitoring activities.
- Help ensure that local utilities that protect your water have adequate resources to do their job.

## WATER QUALITY

Water the benefactor of life, is also the bringer of death. Polluted water and air causes more death than any other environmental problems including asbestos, dioxin and nuclear waste.

In the recent days, the quality of the piped water in Malaysia is increasingly deteriorated. This is due various reasons such as conventional treatment systems which are not appropriate for the increasingly polluted water, the silt, sand and other particles collected during distribution caused by the old asbestos cement underground pipes and the main contributor is the pollution of our water resources especially the RIVERS.



Water is a life sustaining substance and a healthy adult needs to consume 8 glasses (1.5 liters) of water daily. Thus water security is an important aspect to be looked into. Therefore, in Malaysia the food and safety division has adopted the "Drinking Water Quality Standards" as the guidelines for water operators on the quality of water supplied to consumers.

However, some of the issues and problems of water supply occurred recently, has contributed towards lack of consumer confidence on the pipe water supply which instead encouraged many consumers to install domestic water purification systems and also increase in the consumption of bottled water.

Consumers should be educated about water treatment system and bottled drinking water to ensure water security for consumers, thus consumers should take the ownership of the water resources to embark on water conservation and pollution prevention at all times.

**Stop Wasting, Start Saving**  
**Because Water is The**  
**Most Precious Resource**

## GUIDE TO SELECT MOST SUITABLE WATER TREATMENT SYSTEM FOR YOUR HOUSE?

1. Identify the water quality problem that you need to address for your house. Knowledge on which contaminants may be present in the water should be checked. This can be done by monitoring the activities around your residential area. Eg. Industrial pollution, Sewage treatment plants and etc
2. Determine the type of treatment, whether whole-house (Point of Entry: POE) or single tap (Point of Use: POU) required for your household. Most nuisance problems such as iron, manganese, hardness or odour suggest whole house (POE) treatment while POU treatment will only be necessary if there are possible health effects due to contaminants such as nitrate or ammonia. POU treatment can be replaced with boiling the water before consumption.
3. Determine the type of treatment that will effectively remove or reduce contamination. The table below gives you some idea about the different types of water purification treatments and their functions.

TREATMENT DEVICE	WHAT IT DOES TO WATER	TREATMENT LIMITATIONS
<b>Activated Carbon Filter</b> <small>(includes mixed media that remove heavy metals)</small>	<ul style="list-style-type: none"><li>✓ Adsorbs organic contaminants that cause taste and odor problems.</li><li>✓ Some designs remove chlorination byproducts;</li><li>✓ Some types remove cleaning solvents and pesticides</li></ul>	<ul style="list-style-type: none"><li>Is efficient in removing metals such as lead and copper</li><li>Does not remove nitrate, bacteria or dissolved minerals</li></ul>
<b>Ion Exchange Unit</b> <small>(with activated alumina)</small>	<ul style="list-style-type: none"><li>✓ Removes minerals, particularly calcium and magnesium that make water "hard"</li><li>✓ Some designs remove radium and barium</li><li>✓ Removes fluoride</li></ul>	<ul style="list-style-type: none"><li>If water has oxidized iron or iron bacteria, the ion-exchange resin will become coated or clogged and lose its softening ability</li></ul>
<b>Reverse Osmosis Unit</b> <small>(with carbon)</small>	<ul style="list-style-type: none"><li>✓ Removes nitrates, sodium, other dissolved inorganics and organic compounds</li><li>✓ Removes foul tastes, smells or colors</li><li>✓ May also reduce the level of some pesticides, dioxins and chloroform and petrochemicals</li></ul>	<ul style="list-style-type: none"><li>Does not remove all inorganic and organic contaminants</li></ul>
<b>Distillation Unit</b>	<ul style="list-style-type: none"><li>✓ Removes nitrates, bacteria, sodium, hardness, dissolved solids, most organic compounds, heavy metals, and radionuclides</li><li>✓ Kills bacteria</li></ul>	<ul style="list-style-type: none"><li>Does not remove some volatile organic contaminants, certain pesticides and volatile solvents</li><li>Bacteria may recolonize on the cooling coils during inactive periods</li></ul>

4. Select reputable dealer, check with others who have used the equipment, ensure that the equipment has been certified or validated for the target functions.