

FIGURE 1

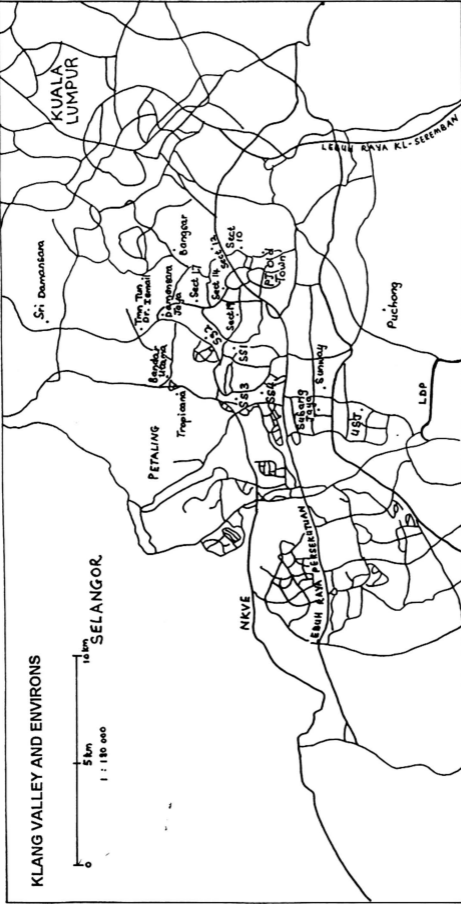


Figure 1 shows the 20 areas highlighted in yellow where the tap water samples were collected

FIGURE 2

SISTEM BEKALAN AIR

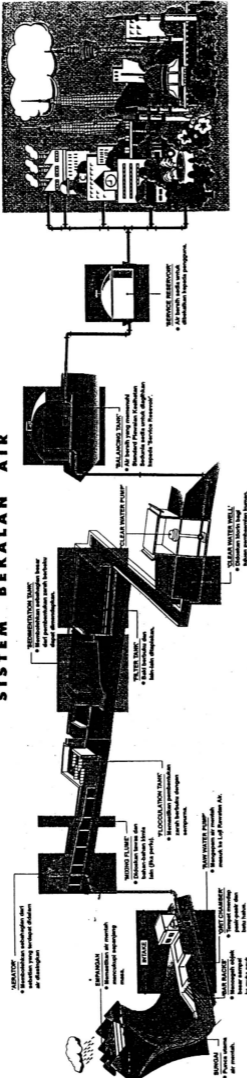


Figure 2 shows the distribution system from the main source to the consumers

APPENDIX 1

Water Use in Different Countries			
Country	Annual Water Use per Capita (Gallons)	Percentage of Total Water Use by Category	
		Residential	Industry/Agriculture*
United States	525,000	10	90
Canada	310,000	13	87
Belgium	221,000	6	94
India	132,000	3	97
China	122,000	6	94
Poland	112,000	14	86
Nicaragua	72,000	18	82
Malta	16,000	100	0

* includes water used for electrical power and for cooling

Source : Van Der Leeden, F.L. Troise, and D.K. Todd. The Water Encyclopedia, Lewis Publishers. Inc., Second Edition, 1990.

Questionnaire on the quality of tap water

1. What do you think of the smell of the tap water in your area?
 - A. Acceptable
 - B. Not acceptable
 - C. Mostly acceptable except on certain days
 - D. Not sure

2. What do you think of the colour of the tap water in your area?
 - A. Colourless
 - B. Mostly colourless except on certain days
 - C. Coloured
 - D. Mostly coloured except on certain days

3. What do you think of the turbidity of tap water?
 - A. Clear
 - B. Murky / Not clear
 - C. Sandy
 - D. Mostly clear but murky on certain days
 - E. Not sure

4. What do you think of the taste of your drinking water based on the tap water as its source?
 - A. Acceptable
 - B. Not acceptable
 - C. Mostly acceptable except on certain days
 - D. Not sure

5. I take my drinking water

- A. straight from the tap without a filter
- B. straight from the tap with a filter
- C. from the tap to the mineral pot without a filter
- D. from the tap to the mineral with filter
- E. from boiled tap water without a filter
- F. from boiled tap water with a filter
- G. from bottled water

6. Do you own a water filter?

- A. No. I don't need it
- B. No. I might get one in the future
- C. Yes. At the main source of the water supply
- D. Yes. At the kitchen sink only
- E. Yes. Throughout the house

7. Please state in numerical order the highest volume of water used in your household.

- Laundry cleaning
- Domestic cleaning
- Cooking, washing up & drinking
- Washing car
- Bathing & toilet flushing
- Gardening
- Others ,

8. Please state in numerical order from the highest to the lowest of your household water consumption at different time of the day.

A. 12 midnight - 7.00 am

B. 8.30 am - 12 noon

C. 12 noon - 2.30 pm

D. 2.30 pm - 6.00 pm

E. 6.00 pm - 8.30 pm

F. 8.30 pm - 12 midnight

9. Are you concerned about the quality of your water supply?

A. Yes

B. No

C. Sometimes

10. Would you pay for better quality water at an additional cost?

A. Yes Why?

No. Why?

Aesthetic quality in drinking water

	WHO Guidelines	Interim National(M'sian) water quality stds.	Average results from the 20 selected areas
pH	-	6.0 - 9.0	7.72
Colour	15 TCU	15 TCU	6.8 TCU
Turbidity	5 NTU	5 NTU	0.86 NTU
Hardness	-	100 mg/l CaCO ₃ /l	65 mg CaCO ₃ /l
Iron	0.3 mg/l	0.1 mg/l	34.7 ug/l
Manganese	0.1 mg/l	0.05 mg/l	1.43ug/l
Copper	2 mg/l	1 mg/l	7.94 ug/l
Sulfate	250 mg/l	200 mg/l	7.0 mg/l
Zinc	3 mg/l	5 mg/l	130.2 ug/l
Residual Chlorine	0.2 - 1.0 mg/l as Cl ₂ /l	-	0.75 mg/l as Cl ₂ /l

Reference:-

Guidelines For Drinking-Water Quality, 2nd Edition, Volume 2. Health criteria & other supporting information. World Health Organisation 1996.

Water Quality Criteria & Standards For Malaysia, Volume 1, Executive Summary, Final Report, 1986.

Chemicals of health significance in drinking water

	WHO guidellines	Interim National (M'sian) water quality stds.	Average results from the 20 selected areas
Barium	0.3 mg/l	1 mg/l	12.1 mg/l
Cadmium	0.003 mg/l	0.005 mg/l	1.33 ug/l
Chromium	0.05 mg/l	0.05 mg/l	1.24 ug/l
Copper	2 mg/l	1 mg/l	7.94 ug/l
Iron	0.3 mg/l	0.1 mg/l	34.7 ug/l
Lead	0.01 mg/l	0.05 mg/l	0.75 ug/l
Magnesium	-	-	469 mg/l
Manganese	0.5 mg/l	0.05 mg/l	1.43 ug/l
Nickel	0.02 mg/l	0.011 mg/l	1.18 ug/l

Reference:-

Guidelines For Drinking-Water Quality, Volume 2, 2nd Edition, Health Criteria & other supporting information. World Health Organisation 1996.

Water Quality Criteria & Standards For Malaysia, Volume 1, Executive Summary, Final Report 1986.