

## **ENVIRONMENTAL QUALITY (SEWAGE) REGULATIONS 2009**

**PU(A) 432/2009**

**10 December 2009**

IN exercise of the powers conferred by sections 21, 24, 25 and 51 of the **Environmental Quality Act 1974**[*Act 127*], the Minister, after consultation with the Environmental Quality Council, makes the following regulations:

### **1. Citation**

These regulations may be cited as the **Environmental Quality (Sewage) Regulations 2009**.

### **2. Interpretation**

(1) In these Regulations:-

"**sludge**" means any deposit of particulate matter settled from a liquid, including deposit resulting from physical, chemical, biological or other treatment of sewage;

"**professional engineer**" has the same meaning assigned to it in the **Registration of Engineers Act 1967**[*Act 138*];

"**sewage**" means any liquid waste or wastewater discharge containing human, animal, domestic or putrescible matter in suspension or solution, and includes liquids containing chemicals in solution either in the raw, treated or partially treated form;

"**licence**" means a licence referred to in regulation 8 pursuant to subsection 25(1) of the Act;

"**parameter**" means any of the factors shown in the first column of the Second Schedule;

"**authorized officer**" means any officer appointed under section 3 of the Act or any other officer to whom the Director General has delegated his power under section 49 of the Act;

"**dilution**" means any process making sewage less concentrated by adding water or other liquids from external sources other than liquids or materials used for treating the sewage;

"**performance monitoring**" means the routine monitoring of certain characteristics to provide an indication that a treatment process is functional and capable of treating the sewage;

"**population equivalent**" means the equivalent in terms of a fixed population of a varying or transient population or other activity, for example industrial or commercial contributing to flow to the sewerage treatment system;

**"sewage treatment system"** means any facility designed and constructed for the purpose of reducing the potential of the sewage to cause pollution.

(2) Words and expressions which are not defined in these Regulations shall have the same meaning as assigned to them in the Act.

### **3. Application**

These Regulations shall apply to any premises which discharge sewage onto or into any soil, or into any inland waters or Malaysian waters, other than any housing or commercial development or both having a population equivalent of less than one hundred and fifty.

### **4. Notification for new source of sewage discharge or release**

(1) No person shall, without prior written notification to the Director General, discharge or release or permit the discharge or release of sewage onto or into any soil, or into any inland waters or Malaysian waters.

(2) The written notification to the Director General referred to in subregulation (1) shall be in the form as specified in the First Schedule.

### **5. Provision and proper operation of sewage treatment system**

(1) An owner or occupier of any premises shall operate and maintain a sewage treatment system in accordance with sound engineering practice for the treatment of sewage and ensure that all components of the sewage treatment system are in good working condition.

(2) In this regulation, "sound engineering practice" means the manner by which sewage treatment system is operated where the operational characteristics are maintained within the normal range of values commonly used for the treatment of sewage.

### **6. Competent person**

(1) The operation of a sewage treatment system shall be supervised by a competent person.

(2) A competent person shall be a person who has been certified by the Director General that he is duly qualified to supervise the operation of a sewage treatment system.

(3) An owner or occupier of any premises shall ensure that a competent person is on duty at any time the sewage treatment system is in operation.

### **7. Acceptable conditions of sewage discharge**

(1) No person shall discharge sewage which contains substances in concentration greater than the limits of:-

- (a) Standard A, as shown in paragraph (i) of the Second Schedule, for new sewage treatment systems discharging into any inland waters within the catchment areas as specified in the Third Schedule;
- (b) Standard B, as shown in paragraph (i) of the Second Schedule, for new sewage treatment systems discharging into any other inland waters or Malaysian waters;
- (c) Standard A, as shown in paragraph (ii) of the Second Schedule, for existing sewage treatment systems discharging into any inland waters within the catchment areas as specified in the Third Schedule;
- (d) Standard B, as shown in paragraph (ii) of the Second Schedule, for existing sewage treatment systems discharging into any other inland waters or Malaysian waters;
- (e) Standard A, as shown in paragraph (iii) of the Second Schedule, for existing sewage treatment systems discharging into any inland waters within the catchment areas as specified in the Third Schedule; or
- (f) Standard B, as shown in paragraph (iii) of the Second Schedule, for existing sewage treatment systems discharging into any other inland waters or Malaysian waters.

(2) An owner or occupier of a premises shall submit a program to the Director General and implement such program to ensure that all existing sewage treatment systems, except the communal septic tanks and imhoff tanks:-

- (a) which discharge sewage into any inland waters within the catchment areas as specified in the Third Schedule, comply with the Standard A as shown in paragraph (i) of the Second Schedule on or before 31 December 2016; and
- (b) which discharge sewage into any other inland waters or Malaysian waters, comply with the Standard B as shown in paragraph (i) of the Second Schedule on or before 31 December 2019.

(3) In this regulation:-

- (a) "**new sewage treatment system**" means a sewage treatment built after the date of the coming into operation of these Regulations; and
- (b) "**existing sewage treatment system**" means a sewage treatment system approved between the period after January 1999, until immediately before the date of the coming into operation of these Regulations.

## **8. Licence to contravene acceptable conditions for sewage discharge**

(1) An owner or occupier of premises may apply for a licence under subsection 25(1) of the Act to contravene the acceptable conditions of sewage discharge as specified in regulation 5.

(2) An application for a licence under subregulation (1) shall be made in accordance with the procedures as specified in the **Environmental Quality (Licensing) Regulations 1977**[P.U. (A) 198/1977] and shall be accompanied by:-

- (a) a report on sewage characterization study; and
- (b) a licence fee as specified in regulation 24.

## **9. Method of analysis and sampling of sewage**

- (1) An authorized officer may carry out an in-situ or ex-situ analysis of sewage using any instrument approved by the Director General.
- (2) An analysis of sewage discharged or released onto or into any soil, or into any inland waters or Malaysian waters shall be carried out in accordance with any of the methods contained in the publications as specified in the Fourth Schedule.
- (3) The analysis of sewage referred to in this regulation shall be based on grab samples.
- (4) In this regulation:-
  - (a) "in-situ analysis" means the analysis conducted on a sewage sample that has not been removed from its location or conducted at the site where the sample was taken;
  - (b) "ex-situ analysis" means the analysis conducted on a sewage sample that has been removed from its location and conducted at the different site from the site where the sample was taken; and
  - (c) "grab sample" means a discrete individual sample taken within a period of time of less than 15 minutes.

## **10. Monitoring of sewage discharge**

- (1) An owner or occupier of a premises that discharges sewage onto or into any soil, or into any inland waters or Malaysian waters shall, at his own expense:-
  - (a) monitor the concentration of the parameters specified in the first column of the Second Schedule; and
  - (b) install flow-meters, sampling equipment and recording equipment.
- (2) The owner or occupier of the premises shall maintain a record of sewage discharge monitoring data in the format as specified in the Second Schedule.
- (3) The owner or occupier of the premises shall submit the first record of sewage discharge monitoring data to the Director General within thirty days after the date of the coming into

operation of these Regulations and the subsequent reports shall be submitted within thirty days after the end of the calendar month for the report of the previous month.

(4) The record of sewage discharge monitoring data shall also be made available for inspection by any authorized officer.

## **11. Point of discharge of sewage**

(1) The point of discharge of sewage shall comply with the specifications as specified in the Sixth Schedule and shall be clearly indicated by the owner or occupier of a premises on the layout plans and engineering drawings certified by a professional engineer.

(2) An owner or occupier of the premises shall submit to the Director General the layout plans and engineering drawings referred to in subregulation (1) within thirty days prior to the commencement of the operations at the premises.

(3) Where an owner or occupier of the premises proposes to make any alteration or change to the location or position of the point of discharge or design of the outlet at the point of discharge of sewage, he or it shall notify the Director General within thirty days prior to the making of any alteration or change.

## **12. Prohibition against sewage discharge through by-pass**

(1) No person shall discharge or cause or permit the discharge of sewage onto and into any soil, or into any inland waters or Malaysian waters through a by-pass.

(2) In this regulation, "[by-pass](#)" means any intentional diversion of sewage from any portion of a sewage treatment system.

## **13. Spill or accidental discharge of sewage**

(1) In the event of the occurrence of any spill or accidental discharge of sewage from any premises, which either directly or indirectly gains or may gain access onto or into any soil, or into any inland waters or Malaysian waters, the owner or occupier of the premises shall immediately and not more than six hours from the time of the occurrence inform the Director General of the occurrence.

(2) An owner or occupier of the premises shall, to every reasonable extent, contain, cleanse or abate the spill or accidental discharge of sewage in a manner that satisfies the Director General.

(3) The Director General may in any particular case, if he considers it necessary to do so, specify the manner in which the spill or accidental discharge is to be contained, cleansed or abated and the owner or occupier of the premises shall comply with such specification.

(4) The Director General shall determine any damage caused by any spill or accidental discharge and may recover all costs and expenses from the owner or occupier of the premises.

(5) Where the Director General undertakes to cleanse or abate any spill or accidental discharge, he shall determine the full costs and expenses incurred and may recover such costs and expenses from the owner or occupier of the premises in accordance with the provisions of section 47 of the Act.

#### **14. Prohibition against discharge of sludge into inland waters or Malaysian waters**

No person shall discharge or cause or permit the discharge of any sludge that is generated from any sewage treatment system into any inland waters or Malaysian waters.

#### **15. Restriction on the disposal of sludge onto land**

No person shall discharge, or cause or permit the disposal of, sludge generated from any sewage treatment system onto or into any soil or surface of any land without the prior written permission of the Director General.

#### **16. Application for disposal of sludge onto land**

An application for a written permission of the Director General under regulation 17 shall be accompanied by the prescribed fee of five hundred ringgit.

#### **17. Reporting changes in information furnished for purpose of application of licence**

An applicant for a licence or for the renewal or transfer of such licence shall, within seven days of the occurrence of any material change in any information furnished in his application or furnished in writing pursuant to a request by the Director General under subsection 11(2) of the Act, give the Director General a report in writing of the change.

#### **18. Display of licence**

The holder of a licence shall display his licence, together with every document forming part of the licence, in conspicuous place in the principal building of his or its premises.

#### **19. Continuance of existing conditions and restrictions in case of change in occupancy**

Where a person becomes the occupier of a licensed premise in succession to another person who holds an unexpired licence in respect of such premises, then:-

(a) for a period of fourteen days after the change in occupancy; or

(b) where the new occupier applies within the period specified in paragraph (a) for the transfer of the licence to him, for the period from the change in occupancy until the final determination of his application, the conditions and restrictions of the licence shall be binding on the new occupier and shall be observed by him, notwithstanding that he is not yet the holder of the licence or that the licence may, during the period as specified in paragraph (a) or (b), as the case may be, have expired.

## **20. Maintenance of records**

- (1) An owner or occupier of a premises equipped with a sewage treatment system shall maintain records of the operation, maintenance and performance monitoring of the sewage treatment system.
- (2) The records maintained under subregulation (1) shall be made available for inspection by any authorized officer.

## **21. Personnel training**

- (1) An owner or occupier of any premises equipped with a sewage treatment system:-
  - (a) shall ensure that his or its employees attend training on environmental requirements and on the best practices in the operation and maintenance of sewage treatment systems before they begin work;
  - (b) shall ensure that the training for his or its employees include retraining on updates for new, revised and existing requirements and procedures; and
  - (c) shall maintain records of training which shall include the training date, name and position of employee, training provider and a brief description of the training content.
- (2) The record under paragraph (1)(c) shall be submitted to the Director General upon request and shall be made available for inspection by any authorized officer.

## **22. Provision for inspection**

An owner or occupier of a premises who discharges sewage onto or into any soil, or into any inland waters or Malaysian waters shall, in connection with such discharge, install inspection chambers, flow-meters, sampling equipment, monitoring equipment, and measuring and recording equipment.

## **23. Owner or occupier to render assistance during inspection**

An owner or occupier of any premises shall provide the Director General or any authorized officer every reasonable assistance and facility available at the premises, including labour, equipment, appliances and instruments that the Director General or authorized officer may require for the purpose of taking any action.

## **24. Fee for licence**

- (1) The fee for a licence, including the renewal and transfer of a licence, shall be five hundred ringgit and an additional sewage-related licence fee computed in accordance with the method as specified in the Seventh Schedule.

(2) The fee for a licence including the renewal and transfer of a licence of five hundred ringgit shall accompany the application and shall not be refundable.

(3) The sewage-related licence fee shall not become due until called for.

## **25. Waiver of fee**

(1) If the Director General is satisfied that the research on sewage treatment or disposal that is being or is to be conducted on a licensed premises is likely to benefit the cause of environmental protection, he may, with the approval of the Minister, wholly, or partly, waive any sewage-related licence fee payable by virtue of regulation 24.

(2) In deciding the extent of the waiver, the Director General shall be guided by the consideration of the pollution loading of sewage being discharged or to be discharged.

## **26. Penalty**

Any person who contravenes regulations 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22 and 23 shall be guilty of an offence and shall be liable to a fine not exceeding one hundred thousand ringgit or to a term of imprisonment for a period not exceeding five years or to both and to a further fine not exceeding one thousand ringgit a day for every day that the offence is continued after the notice by the Director General requiring him to cease the act specified in the notice has been served upon him.

## **27. Revocation, transitional and savings provision**

(1) **The Environmental Quality (Sewage and Industrial Effluents) Regulations 1979[P.U. (A) 12/1979]** is revoked (hereinafter referred to as "the revoked Regulations").

(2) Any application made under the revoked Regulations for a licence to contravene the acceptable conditions, renewal or transfer of the licence or written permission which are pending immediately before the date of the coming into operation of these Regulations shall, after the date of the coming into operation of these Regulations, be dealt with under the revoked Regulations and for such purposes it shall be treated as if these Regulations have not been made.

(3) All licences issued or written permission granted under the revoked Regulations shall, after the date of the coming into operation of these Regulations, continue to remain in full force and effect until the licence expires, is amended, suspended or canceled, or the written permission expires or is revoked under the revoked Regulations and for such purposes it shall be treated as if these Regulations have not been made.

(4) The provisions of the revoked Regulations relating to the acceptable conditions for sewage discharge shall continue to apply until twelve months after the date of the coming into operation of these Regulations where on the date of the coming into operation of these Regulations:-

- (a) any work on any construction of any sewage treatment system has not commenced within twelve months from the date of the issuance of the written permission for its construction immediately before the date of the coming into operation of these Regulations;
- (b) any work on any construction of any sewage treatment has commenced but has not been completed immediately before the date of the coming into operation of these Regulations; or
- (c) any work on any construction of any sewage treatment system has been completed but has not begun its operation immediately before the date of the coming into operation of these Regulations.
- (5) Where on the date of the coming into operation of these Regulations, any premises is discharging sewage into any inland waters which is not specified as a catchment area under the revoked Regulations immediately before the date of the coming into operation of these Regulations, the provisions of the revoked Regulations relating to acceptable conditions for sewage discharge shall continue to apply to such sewage discharge until twelve months after the date of the coming into operation of these Regulations.
- (6) Notwithstanding anything contained in these Regulations, upon the date of the coming into operation of these Regulations, in relation to sewage discharge from any sewerage treatment system, other than communal septic tanks and imhoff tanks:-
- (a) the provisions of the revoked Regulations relating to acceptable conditions of sewage discharge as specified in paragraphs (ii) and (iii) of the Second Schedule for Standard A shall apply until 31 December 2016; and
- (b) the provisions of the revoked Regulations relating to acceptable conditions of sewage discharge as specified in paragraphs (ii) and (iv) of the Second Schedule for Standard B shall apply until 31 December 2019.
- (7) Any proceeding, whether civil or criminal, commenced under the revoked Regulations and are pending on the date of the coming into operation of these Regulations shall, on the date of the coming into operation of these Regulations, be continued and concluded under the revoked Regulations and for such purposes it shall be treated as if these Regulations have not been made.

## **FIRST SCHEDULE**

*(Regulation 4)*

### **NOTIFICATION FOR NEW SOURCES OF SEWAGE DISCHARGE OR RELEASE**

#### **SECTION I**

##### **IDENTIFICATION OF PREMISES**

1. (i) Name and address of premises:.....  
.....  
Mailing address of premises (if different from above):.....  
.....  
Telephone number:..... Fax number:.....
- (ii) File reference number of Department of Environment (if applicable):  
.....

## SECTION II

### DESCRIPTION OF PREMISES

2(i) Description of premises/development project

. (Please tick in the relevant box below)

- |   |                          |  |                          |
|---|--------------------------|--|--------------------------|
| (a) Housing/ Residential                | <input type="checkbox"/> | (b) Commercial                             | <input type="checkbox"/> |
| )                                       | -                        |  |                          |
| (c) Industrial Estate                   | <input type="checkbox"/> | (d) Mixed (commercial plus<br>residential) | <input type="checkbox"/> |
| )                                       | -                        |  |                          |
| (e) Mixed (industry plus<br>commercial) | <input type="checkbox"/> | (f) Mixed (industry plus<br>residential)   | <input type="checkbox"/> |
| )                                       | -                        |  |                          |
| (g) Hotel                               | <input type="checkbox"/> | (h) Resort                                 | <input type="checkbox"/> |
| )                                       | -                        |  |                          |
| (i) Others                              | <input type="checkbox"/> |  |                          |
|   | -                        |  |                          |

Please  
describe: \_\_\_\_\_

(ii) Size of premises/development project

(Please describe the size of the premise/development project in terms of population equivalent and other descriptors such as number of units, number of rooms, land area, etc. wherever relevant)

Population equivalent: \_\_\_\_\_

Number of units: \_\_\_\_\_

Number of rooms: \_\_\_\_\_

Land area (acres): \_\_\_\_\_

Other information: \_\_\_\_\_

## SECTION III

### INFORMATION ON SEWAGE TREATMENT SYSTEM

3. (i) Type of treatment system  
(Please tick in the relevant box below)
- (a) Conventional Activated Sludge System \_\_\_\_\_ (b) Oxidation Ponds \_\_\_\_\_  
(c) Extended Aeration Activated Sludge System \_\_\_\_\_ (d) Oxidation Ditch \_\_\_\_\_  
(e) Rotating Biological Contactor \_\_\_\_\_ (f) Trickling Filter \_\_\_\_\_  
(g) Sequencing Batch Reactor \_\_\_\_\_  
(h) Others \_\_\_\_\_
- Please describe: \_\_\_\_\_

## SECTION IV

### DISCHARGE INFORMATION

4. (i) Where is the treated sewage (ie, the final sewage) discharged into?

(Please tick in the relevant box below)

- (a) Watercourse \_\_\_\_\_  
Name of watercourse: \_\_\_\_\_
- (b) Lake \_\_\_\_\_  
Name of lake: \_\_\_\_\_
- (c) Sea \_\_\_\_\_  
Name of sea: \_\_\_\_\_
- (d) Estuary \_\_\_\_\_  
Name of estuary: \_\_\_\_\_
- (e) Others \_\_\_\_\_  
Please describe: \_\_\_\_\_

- (ii) Location of discharge point

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

## SECTION V

### DECLARATION

I, \_\_\_\_\_ hereby declare that all information given in this form is to the best of my knowledge and belief true and correct.

Signature of responsible person:

Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Date: \_\_\_\_\_  
(Affix official seal or stamp of company)

## **SECOND SCHEDULE**

*(Regulation 7)*

## **ACCEPTABLE CONDITIONS OF SEWAGE DISCHARGE OF STANDARDS A AND B**

### **(i) New sewage treatment system**

	Parameter	Unit	Standard
	(1)	(2)	A
	(1)	(2)	B
(a)	Temperature	°C	40
(b)	pH Value	-	6.0-9.0
(c)	BOD5 at 20°C	mg/L	20
(d)	COD	mg/L	120
(e)	Suspended Solids	mg/L	50
(f)	Oil and Grease	mg/L	5.0
(g)	Ammoniacal Nitrogen (enclosed water body)	mg/L	5.0
(h)	Ammoniacal Nitrogen (river)	mg/L	10.0
(i)	Nitrate - Nitrogen (river)	mg/L	20.0
(j)	Nitrate - Nitrogen (enclosed water body)	mg/L	10.0
(k)	Phosphorous (enclosed water body)	mg/L	5.0
			10.0

### Note:

Standard A is applicable to discharges into any inland waters within catchment areas listed in the Third Schedule, while Standard B is applicable to any other inland waters or Malaysian waters.

**(ii) Existing sewage treatment system (approved before January 1999)**

This category refers to all sewerage treatment systems which were approved before the Guidelines for Developers: Sewerage Treatment Vol. IV, 2nd edition and were enforced by the Department of Sewerage Services, Ministry of Housing and Local Government, beginning January 1999. Below are the acceptable conditions for sewage discharge according to type of sewage treatment systems:

(e) Ammoniacal Nitrogen	mg/L	-	-	100	100	80	80	70	70	60	60
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Note:

1. Standard A is applicable to discharge into any inland waters within catchment areas listed in the Third Schedule, while Standard B is applicable to any other inland waters or Malaysian waters.
2. These standards are applicable to the sewerage treatment systems that may have been constructed prior to 1999 based upon approval given by other agency, other than the Department of Sewerage Services, Ministry of Housing and Local Government.

### **(iii) Existing sewage treatment system (approved after January 1999)**

All sewerage treatment systems which were approved after the Guidelines for Developers: Sewerage Treatment Vol. IV, 2nd edition and were enforced by the Department of Sewerage Services, Ministry of Housing and Local Government, beginning January 1999 and up to the date of coming into operation of these Regulations.

	<b>Parameter</b>	<b>Unit</b>	<b>Standard</b>	
			<b>A</b>	<b>B</b>
(a)	BOD at 20°C	mg/L	20	50
(b)	COD	mg/L	120	200
(c)	Suspended Solids	mg/L	50	100
(d)	Oil and Grease	mg/L	20	20
(e)	Ammoniacal Nitrogen	mg/L	50	50

Note:

Standard A is applicable to discharge into any inland waters within catchment areas listed in the Third Schedule, while Standard B is applicable to any other inland waters or Malaysian waters.

## **THIRD SCHEDULE**

*(Regulation 7)*

### **LIST OF CATCHMENT AREAS WHERE STANDARD A APPLIES**

1. The catchment areas referred to in these Regulations shall be the areas upstream of surface or above subsurface water supply intakes, for the purpose of human consumption including drinking water.

2. For the purpose of these Regulations, the water supply intakes shall include the public water supply intakes specified below:

### (1) The State of Johor

<b>Longitude</b>	<b>Location of Water Intake</b>	<b>Name of River/Reservoir/Well</b>	<b>Water Supply Scheme</b>
	<b>(1) Latitude</b>	<b>(2)</b>	<b>(3)</b>
102° 55' 37"	(East) 2° 39' 29"	Sg. Muar	Segamat
102° 03' 10"	(North) 2° 32' 57"	Sg. Segamat	Segamat
102° 03' 10"	2° 28' 02"	Sg. Jauseh	Segamat
102° 03' 10"	2° 28' 02"	Sg. Jauseh	Segamat
102° 39' 57"	2° 25' 29"	Sg. Jementah	Segamat
102° 49' 55"	2° 21' 01"	Sg. Muar	Muar
102° 47' 11"	2° 18' 11"	Sg. Muar	Muar
102° 48' 40"	2° 14' 59"	Sg. Muar	Muar
102° 44' 58"	2° 12' 04"	Sg. Muar	Muar
102° 44' 03"	2° 10' 49"	Sg. Muar	Muar
102° 05' 03"	1° 53' 09"	Sg. Sembrong/Sg. Bekok Transf	Batu Pahat
103° 32' 24"	2° 12' 03"	Sg. Kahang	Kluang
103° 26' 55"	2° 05' 27"	Sg. Kahang	Kluang
103° 40' 14"	2° 35' 15"	Labong Dam	Mersing
103° 47' 31"	2° 30' 22"	Conggok Dam	Mersing
103° 39' 22"	2° 23' 13"	Sg. Lenggor	Mersing
103° 54' 07"	2° 02' 11"	Sg. Sedili Besar	Mersing
103° 51' 16"	2° 16' 27"	Bekas Lombong	Mersing
104° 02' 52"	1° 53' 38"	Sg. Gembut	Kota Tinggi
103° 49' 50"	1° 49' 52"	Sg. Pelebah	Kota Tinggi
103° 43' 19"	1° 48' 01"	Sg. Linggiu	Kota Tinggi
103° 40' 05"	1° 48' 14"	Sg. Sayong	Kota Tinggi
103° 40' 05"	1° 48' 14"	Sg. Sayong	Kota Tinggi
103° 35' 28"	1° 51' 28"	Sg. Penggeli	Kota Tinggi
104° 08' 08"	1° 44' 39"	Sg. Sedili Kecil	Kota Tinggi
104° 12' 13"	1° 32' 30"	Lebam Dam	Kota Tinggi
103° 46' 58"	1° 44' 47"	Sg. Johor	Kota Tinggi
103° 27' 09"	1° 43' 12"	Sg. Pontian Besar	Johor Bahru
103° 54' 43"	1° 33' 22"	Layang Dam	Johor Bahru
103° 50' 14"	1° 44' 07"	Sg. Johor	Johor Bahru
103° 21' 54"	2° 03' 35"	Sg. Sembrong	Kluang
103° 11' 01"	1° 58' 23"	Sembrong Dam	Kluang
103° 17' 47"	1° 49' 33"	Sg. Benut	Kluang
103° 03' 10"	2° 00' 57"	Sg. Bekok Transf	Batu Pahat
104° 03' 12"	2° 00' 54"	Sg. Bekok Transf	Batu Pahat
103° 05' 57"	1° 52' 33"	Sg. Sembrong	Batu Pahat
102° 44' 03"	2° 10' 49"	Sg. Muar	Muar
102° 44' 05"	2° 10' 48"	Sg. Muar	Muar
102° 44' 05"	2° 10' 48"	Sg. Muar	Muar
102° 34' 56"	2° 19' 37"	Ledang Dam	Muar
102° 50' 09"	2° 31' 07"	Sg. Segamat	Segamat
102° 50' 17"	2° 31' 12"	Sg. Segamat	Segamat
102° 49' 59"	2° 30' 55"	Sg. Segamat	Segamat
102° 03' 11"	2° 28' 01"	Sg. Jauseh	Segamat
103° 52' 24"	1° 44' 42"	Sg. Johor	PUB Singapura
103° 39' 40"	1° 33' 30"	Sg. Skudai	PUB Singapura
103° 34' 14"	1° 32' 30"	Pulai Dam	PUB Singapura
103° 44' 24"	1° 33' 00"	Sg. Tebrau	PUB Singapura

**(2) The State of Pahang**

Longitude	Location of Water Intake (1)	Name of River/Reservoir/Well (2)	Water Supply Scheme (3)
<b>(East)</b>	<b>Latitude</b> <b>(North)</b>		
102° 27' 00"	3° 41' 00"	Sg. Pahang	Batu Sawar
102° 37' 00"	3° 26' 00"	Sg. Pahang	Bukit Kertau
102° 36' 00"	3° 30' 00"	Sg. Pahang	Chenor
102° 39' 00"	3° 44' 45"	Sg. Jempol	Ulu Jempol
102° 40' 00"	3° 41' 00"	Sg. Jempol	Jengka 3-7
102° 51' 00"	3° 38' 00"	Sg. Liut	Kg. New Zealand
102° 39' 00"	3° 40' 00"	Sg. Jempol	Simpang Jengka
102° 40' 00"	3° 47' 00"	Sg. Jerik	Sg. Jerik Pump House
102° 56' 00"	3° 20' 00"	Sg. Mentiga	Cini
192° 59' 00"	2° 56' 00"	Sg. Keratung	Paluh Rumbeh
102° 32' 48"	3° 07' 63"	Sg. Aur	Aur
102° 51' 27"	2° 50' 51"	Sg. Keratung	Keratung
103° 23' 00"	3° 30' 15"	Sg. Pahang	Kg. Mengkasar
103° 10' 00"	3° 33' 00"	Sg. Pahang	Lepar/Pulau Manis
103° 26' 00"	3° 08' 00"	Ground Water	Nenasi
103° 23' 30"	3° 30' 54"	Sg. Pahang	Peramu
103° 19' 00"	3° 35' 00"	Sg. Pahang	Sekor
101° 53' 00"	3° 41' 00"	Sg. Bilut	Bilut
101° 45' 00"	3° 44' 00"	Sg. Hijau	Bukit Fraser Pump House
101° 49' 00"	3° 56' 00"	Sg. Cheroh	Cheroh
101° 58' 00"	3° 55' 00"	Sg. Keloi	Dong
101° 49' 00"	4° 19' 00"	Sg. Jelai	Kuala Medang Pump House
102° 01' 00"	3° 42' 00"	Sg. Pertang	Lembah Klau
101° 51' 30"	3° 45' 24"	Sg. Bilut	Raub
101° 59' 00"	3° 44' 30"	Sg. Chalit	Sg. Chalit Pump House
102° 00' 00"	3° 46' 00"	Sg. Kelau	Sg. Klau
101° 48' 30"	3° 44' 00"	Sg. Teras	Teras
101° 47' 45"	4° 12' 30"	Sg. Koyan	Sg. Koyan Pump House
103° 29' 36"	3° 48' 24"	Ground Water	Rompin
103° 26' 35"	2° 37' 15"	Empangan Sg. Anak Endau	Loji Air Seladang
102° 10' 30"	3° 31' 00"	Sg. Semantan	Bukit Damar
102° 18' 00"	3° 18' 00"	Sg. Teriang	Bukit Mendi
102° 30' 00"	2° 18' 00"	Sg. Bera	Bera
102° 33' 00"	3° 24' 00"	Sg. Pahang	Charuk Puting
102° 22' 00"	2° 45' 00"	Sg. Kerau	Jenderak Utara
102° 26' 00"	2° 30' 00"	Sg. Pahang	Lubuk Kawah
102° 23' 00"	3° 31' 00"	Sg. Semantan	Mentakab
101° 24' 30"	3° 14' 30"	Sg. Teriang	Triang (Baru)
101° 55' 00"	3° 29' 00"	Sg. Benus	Bt. 4, Jln. KL/Bentong
101° 53' 00"	3° 20' 00"	Sg. Benus	Janda Baik
102° 03' 00"	3° 26' 00"	Sg. Temelong	Karak
101° 53' 00"	3° 41' 00"	Sg. Bilut	Lurah Bilut
102° 07' 10"	3° 15' 20"	Sg. Gapoi	Sg. Gapoi
101° 54' 00"	3° 39' 00"	Sg. Penjuring	Sg. Penjuring
102° 00' 30"	3° 33' 00"	Sg. Kelau	Sg. Sertik
101° 23' 30"	4° 31' 20"	Sg. Bertam	Brinchang
101° 25' 00"	4° 34' 00"	Sg. Perlong	Kuala Terla
101° 21' 00"	4° 27' 00"	Sg. Jaslin	Lubok Tamang
101° 24' 10"	4° 24' 35"	Sg. Bertam	Takong Empangan Bertam Valley
101° 23' 50"	4° 26' 20"	Sg. Luchut	Takong Empangan Habu
101° 24' 20"	3° 34' 40"	Sg. Ikan	Takong Empangan Kg. Raja
101° 21' 40"	4° 24' 20"	Sg. Ringlet	Takong Empangan Ringlet

101° 25' 3"	4° 30' 02"	Sg. Triangkap	Takong Empangan Tringkap
102° 11' 00"	4° 00' 00"	Sg. Cheka	Batu Balai
102° 21' 42"	3° 57' 30"	Sg. Pahang	Batu Embun
102° 28' 00"	3° 53' 00"	Sg. Tekam	Jengka 8-15
102° 19' 00"	4° 03' 00"	Sg. Retang	Padang Piol
102° 31' 48"	3° 52' 00"	Sg. Tekam	Sg. Tekam
102° 33' 42"	3° 50' 00"	Sg. Tekam	Sg. Tekam Utara
102° 16' 00"	4° 05' 00"	Sg. Jelai	Mela
102° 11' 00"	4° 12' 00"	Sg. Jelai	Bt. 9 Halt
101° 58' 00"	4° 02' 00"	Sg. Lipis	Benta
101° 59' 00"	4° 14' 25"	Sg. Jelai	Bukit Betong
102° 02' 10"	4° 10' 20"	Sg. Lipis	Kuala Lipis
102° 01' 00"	4° 38' 00"	Sg. Merapoh	Merapoh Pump House
102° 06' 00"	4° 19' 00"	Sg. Temau	Sg. Temau Pump House
103° 22' 00"	3° 51' 00"	Sg. Jabor	Alor Batu Pump House
103° 21' 00"	4° 01' 00"	Sg. Ular	Baru Sg. Ular
103° 12' 00"	3° 53' 00"	Sg. Riau	Bukit Goh
103° 15' 34"	3° 49' 42"	Sg. Kuantan	Bukit Ubi/Kg. Kobat
103° 15' 00"	3° 15' 00"	Sg. Kuantan	Kg. Padang
103° 6' 00"	3° 33' 00"	Sg. Lepar	Lepar Hilir
103° 12' 00"	3° 53' 00"	Sg. Kuantan	Pasir Kemudi
103° 13' 00"	3° 53' 00"	Sg. Berkelah	Paya Bungor
103° 21' 00"	3° 50' 00"	Sg. Kuantan	Semambu
103° 02' 00"	3° 56' 0"	Sg. Kuantan	Sg. Lembing

### (3) The State of Kelantan

**Location of Water Intake**                   **Name of River/Reservoir/Well**                   **Water Supply Scheme**

Longitude <b>(1)</b>	Latitude <b>(2)</b>	Name of River/Reservoir/Well	<b>(3)</b>
Longitude <b>(1)</b>	Latitude <b>(2)</b>	Name of River/Reservoir/Well	<b>(3)</b>
102° 14' 40" <b>(East)</b>	6° 06' 50" <b>(North)</b>	Kg. Puteh Wellfield	Kampong Puteh
102° 16' 40"	6° 05' 20"	Kubang Kerian Wellfield	Kubang Kerian
102° 17' 40"	6° 09' 40"	Pengkalan Chepa Wellfield	Pengkalan Chepa
102° 14' 15"	6° 05' 50"	Pintu Geng Wellfield	Pintu Geng
102° 16' 15"	6° 08' 30"	Tg. Mas Wellfield	Tanjung Mas
102° 16' 44"	6° 05' 18"	Kubang Kerian Wellfield	Chicha
102° 15' 57"	6° 03' 53"	Kg. Seribong Wellfield	Chicha
102° 15' 03"	6° 04' 41"	Kg. Chicha Wellfield	Chicha
102° 15' 38"	6° 05' 12"	Kg. Pasir Hor Wellfield	Chicha
102° 16' 48"	6° 04' 01"	Kg. Pasir Tumboh Wellfield	Chicha
102° 15' 44"	6° 04' 29"	Kg. Padang Penyadat Wellfield	Chicha
102° 17' 08"	6° 05' 38"	Kg. Kenali Wellfield	Chicha
102° 05' 20"	6° 12' 30"	Wakaf Bharu Wellfield	Wakaf Bharu
102° 10' 20"	6° 10' 00"	Wakaf Bharu Wellfield	Wakaf Bharu
102° 11' 50"	6° 07' 00"	Kg. Sedar Wellfield	Kg. Sedar
102° 09' 23"	6° 02' 50"	Sg. Kelantan	Kelar
101° 58' 00"	6° 01' 10"	Rantau Panjang Wellfield	Rantau Panjang
102° 08' 31"	6° 02' 15"	Sg. Kelantan	Lemal
102° 20' 40"	6° 02' 30"	Kg. Chap Wellfield	Kg. Chap
102° 23' 10"	5° 00' 50"	Kg. Chap Wellfield	Kg. Chap
102° 24' 00"	6° 02' 50"	Jelawat Wellfield	Jelawat
102° 24' 50"	5° 49' 45"	Sg. Rasau	Wakaf Bunut
102° 13' 08"	5° 31' 17"	Sg. Kelantan	Tualang
102° 13' 40"	5° 28' 20"	Sg. Lebir	Pahi
102° 12' 20"	5° 29' 30"	Sg. Lebir	Manik Urai
102° 08' 40"	5° 41' 50"	Sg. Kelantan	Kg. Bandar Kemubu
102° 05' 45"	5° 55' 50"	Sg. Muring	Kemahang
102° 09' 20"	5° 47' 20"	Sg. Kelantan	Bukit Remah

102° 05' 45"	5° 55' 50"	Sg. Jegor	Bendang Nyior
101° 58' 30"	5° 50' 00"	Sg. Jedok	Batu Gajah
102° 05' 30"	5° 41' 00"	Sg. Kerila	Kuala Tiga
101° 53' 25"	5° 46' 40"	Sg. Lanas	Air Lanas
101° 50' 30"	5° 42' 00"	Sg. Pergau	Jeli
101° 50' 10"	5° 29' 20"	Sg. Terang	Kuala Balah
102° 00' 00"	5° 18' 20"	Sg. Stong	Stong
102° 04' 14"	5° 04' 50"	Sg. Galas	Limau Kasturi
102° 18' 29"	4° 57' 40"	Sg. Lebir	Aring
102° 02' 39"	5° 08' 50"	Sg. Nenggiri	Bertam baru
102° 10' 36"	4° 53' 56"	Sg. Ciku	Ciku
101° 59' 07"	4° 50' 35"	Sg. Ketil	Sg. Ketil
101° 47' 25"	4° 54' 01"	Sg. Betis	Panggung Lalat

#### (4) The State of Perlis

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
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Longitude (1)	Latitude (2)	Water Supply Scheme (3)
Longitude (1)	Latitude (2)	Water Supply Scheme (3)
(East) 100° 09' 14"	6° 20' 11"	Anak Sungai
100° 16' 15"	6° 25' 15"	Telaga Gerek/Mada Canal
100° 19' 00"	6° 31' 25"	Telaga Gerek
100° 12' 00"	6° 42' 30"	Sungai Rasa
100° 12' 00"	6° 34' 00"	Empangan Timah Tasoh
100° 14' 30"	6° 33' 15"	Telaga Gerek

#### (5) The State of Kedah

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
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Longitude (1)	Latitude (2)	Water Supply Scheme (3)
Longitude (1)	Latitude (2)	Water Supply Scheme (3)
(East) 100° 25' 48.3"	6° 12' 20.5"	Ter. MADA Utara
100° 27' 34.8"	6° 13' 11.9"	Sg. Padang Terap
100° 36' 56.0"	6° 14' 48.0"	Kuala Nerang
100° 41' 18.0"	6° 20' 27.5"	Sg. Ahning
100° 45' 10.5"	6° 03' 16.3"	Sg. Muda
100° 29' 2.47"	5° 55' 29.1"	Ter. MADA Selatan
100° 43' 53.8"	6° 00' 05.8"	Sg. Muda
100° 26' 6.2"	6° 23' 48.0"	Sg. Temin
100° 38' 43.4"	5° 54' 26.2"	Sg. Muda
100° 29' 47.3"	5° 34' 13.8"	Sg. Muda
100° 29' 59.6"	5° 34' 13.8"	Sg. Muda
100° 37' 13.8"	5° 49' 26.8"	Sg. Muda
100° 26' 28.3"	5° 46' 04.7"	Gunung Jerai
100° 24' 54.1"	5° 44' 36.6"	Gunung Jerai
100° 41' 37.8"	5° 47' 40.0"	Sg. Chepir
100° 30' 24.5"	5° 34' 15.6"	Sg. Muda
100° 30' 24.5"	5° 34' 15.6"	Sg. Muda
100° 29' 47.3"	5° 39' 39.7"	Sg. Ketil
100° 29' 59.6"	5° 40' 23.0"	Gunung Inas
100° 37' 13.8"	5° 40' 52.4"	Gunung Inas
100° 26' 28.3"	5° 36' 30.6"	Kuala Ketil
100° 24' 54.1"	5° 43' 24.8"	Sg. Muda

100° 29' 47.3"	5° 19' 40.7"	Sg. Kerian	Mahang
100° 29' 59.6"	5° 28' 57.0"	Sg. Sedim	Bikan
100° 37' 13.8"	5° 21' 50.5"	Sg. Kulim	Sg. Ular
100° 26' 28.3"	5° 08' 18.0"	Sg. Krian	Lubuk Buntar
100° 29' 47.3"	6° 22' 45.8"	Sg. Raga	Langkawi
100° 29' 59.6"	6° 22' 47.3"	Sg. Melaka	Langkawi
100° 37' 13.8"	6° 21' 09.4"	Empangan Malut	Langkawi
100° 26' 28.3"	6° 15' 16.5"	Sg. Teluk Bujur	Pulau Tuba
100° 24' 54.1"	6° 20' 24.3"	Ter. MADA, Arau	Langkawi
100° 11' 10"	6° 20' 26"	Mada Canal (Arau	Sg. Baru

#### (6) The State of Perak

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
(1) Longitude  (East)	(2) Latitude  (North)	(3)
100° 55' 15"	4° 56' 25"	Sg. Biong
100° 57' 04"	4° 48' 04"	Sg. Perak
100° 51' 33"	4° 45' 04"	Sg. Kangsar
100° 51' 23"	4° 36' 17"	Sg. Guar
101° 04' 33"	4° 49' 21"	Sg. Kerbau
101° 04' 10"	4° 47' 42"	Sg. Bemban
101° 04' 19"	4° 59' 00"	Sg. Kucha
101° 10' 45"	4° 54' 40"	Sg. Kerbau
101° 01' 09"	5° 42' 36"	Sg. Kuak
101° 00' 20"	5° 45' 33"	Sg. Semangga
101° 04' 11"	5° 42' 00"	Sg. Kuak
101° 01' 02"	5° 38' 08"	Sg. Kajang
101° 08' 03"	5° 31' 51"	Sg. Berok
101° 21' 02"	5° 33' 10"	Sg. Perak-Tasek Temenggor
101° 12' 43"	5° 25' 48"	Sg. Perak-Tasek Bersia
101° 09' 45"	5° 21' 40"	Sg. Perak
101° 03' 11"	5° 18' 55"	Sg. Pulau
101° 00' 41"	5° 11' 43"	Sg. Ibol
100° 57' 38"	5° 06' 55"	Sg. Lenggong
100° 28' 38"	5° 03' 54"	Terusan Besar
100° 39' 06"	4° 57' 38"	Terusan Selinsing
100° 46' 15"	4° 52' 45"	Sg. Ranting
100° 46' 15"	4° 52' 53"	Sg. Anak Ranting
100° 46' 29"	4° 50' 39"	Sg. Batu Teguh
100° 46' 16"	4° 50' 06"	Sg. Tupai
100° 45' 53"	4° 52' 05"	Sg. Air Terjun
100° 49' 23"	5° 14' 47"	Sg. Seputeh
100° 51' 25"	5° 15' 40"	Sg. Selama
100° 52' 30"	5° 09' 10"	Sg. Klian Gunung
100° 50' 30"	5° 00' 55"	Sg. Air Hitam
100° 49' 58"	4° 54' 27"	Sg. Kurau
100° 45' 25"	4° 41' 27"	Sg. Terong
100° 42' 56"	4° 37' 48"	Sg. Wang
100° 46' 07"	4° 37' 38"	Sg. Nyior
100° 46' 10"	4° 36' 32"	Sg. Pulai
100° 46' 13"	4° 48' 47"	Sg. Larut
100° 44' 45"	4° 48' 41"	Sg. Buluh
101° 09' 41"	4° 22' 02"	Sg. Kampar
101° 10' 38"	4° 21' 24"	Sg. Palai
101° 02' 42"	4° 37' 45"	Sg. Tapah
100° 54' 57"	4° 29' 17"	Sg. Perak
101° 12' 03"	4° 40' 07"	Sg. Kinta

100° 53' 00"	4° 19' 19"	Sg. Perak	Teluk Kepayang
100° 53' 00"	4° 24' 19"	Sg. Perak	Kg. Paloh
100° 54' 12"	4° 22' 40"	Sg. Perak	BB Seri Iskandar
100° 47' 00"	4° 31' 11"	Sg. Lichin	Beruas
100° 47' 07"	4° 32' 29"	Sg. Beruas	Beruas
100° 56' 11"	4° 11' 02"	Sg. Perak	Kampung Gajah
101° 19' 40"	4° 17' 25"	Sg. Btg. Padang	Bukit Temoh
101° 21' 45"	4° 13' 04"	Sg. Who	Bukit Temoh
101° 31' 48"	3° 47' 52"	Sg. Behrang	Sg. Dara
101° 16' 27"	3° 56' 38"	Sg. Sungkai	Felda Gunung Besout
101° 25' 39"	3° 57' 17"	Sg. Trolak	Trolak Selatan
101° 25' 39"	3° 57' 17"	Sg. Trolak	Trolak Timor
101° 24' 41"	4° 00' 54"	Sg. Tesong	Felda Sg. Klah
101° 30' 28"	3° 53' 30"	Sg. Gelinting	Tg. Malim (Proton City)

### (7) The State of Penang

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
(1) Longitude  (East)	(2) Latitude  (North)	(3)
100° 16' 10"	5° 24' 00"	Sg. Air Hitam
100° 15' 56"	5° 24' 13"	Sg. Air Itam (Sg. Tepi)
100° 16' 58"	5° 26' 25"	Sg. Air Terjun
100° 14' 41"	5° 26' 53"	Sg. Batu Ferringhi
100° 14' 28"	5° 26' 51"	Sg. Batu Ferringhi
100° 14' 20"	5° 27' 17"	Sg. Batu Ferringhi
100° 14' 42"	5° 26' 52"	Sg. Batu Ferringhi
100° 14' 45"	5° 26' 55"	Sg. Batu Ferringhi
100° 14' 45"	5° 27' 12"	Sg. Batu Ferringhi
100° 14' 45"	5° 27' 27"	Sg. Batu Ferringhi
100° 17' 32"	5° 26' 04"	Highlands
100° 17' 28"	5° 25' 02"	Highlands
100° 16' 23"	5° 27' 39"	Sg. Kecil
100° 16' 18"	5° 27' 44"	Sg. Kecil
100° 16' 37"	5° 27' 23"	Sg. Klean
100° 15' 49"	5° 26' 23"	Talian Kuasa Sg. Klean
100° 13' 33"	5° 24' 15"	Sg. Pinang Barat
100° 13' 40"	5° 24' 16"	Sg. Pinang Barat
100° 14' 17"	5° 28' 15"	Anak Sg. Sebelah 3Vs
100° 16' 33"	5° 27' 41"	Sg. Siru
100° 16' 45"	5° 24' 55"	Anak Sg. Tats
100° 14' 55"	5° 25' 09"	Kolam Air Tiger Hill
100° 15' 51"	5° 23' 46"	Empangan Air Itam
100° 30' 13"	5° 26' 05"	Sg. Kulim
100° 29' 15"	5° 33' 24"	Sg. Muda
100° 29' 52"	5° 22' 33"	Kolam Air Bukit Berapit/Sg Mengkuang
100° 30' 39"	5° 21' 02"	Kolam Air Cherok Tok Kun
100° 32' 11"	5° 09' 35"	Kolam Air Bukit Panchor
100° 17' 00"	5° 25' 00"	Sg. Air Putih
		Pulau Pinang
		Pulau Pinang untuk Kolam Air, Air Itam
		Pulau Pinang
		Pulau Pinang
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang
		Bekalan untuk Kolam Air, Air Terjun
		Pulau Pinang
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang
		Pulau Pinang untuk Kolam Air Guilemard dan Kolam Air Batu Ferringhi
		Pulau Pinang
		Bekalan untuk Kolam Air Balik Pulau
		Pulau Pinang
		Pulau Pinang
		Pulau Pinang
		Pulau Pinang untuk Kawasan Bukit Bendera
		Pulau Pinang untuk Kolam Air, Air Itam
		Seberang Perai Utara
		Seberang Perai Utara
		Seberang Perai Tengah
		Seberang Perai Tengah
		Seberang Perai Selatan
		Pulau Pinang Air Hitam

100° 14' 41"	5° 26' 53"	Sg. Batu Ferringhi	Pulau Pinang
100° 14' 35"	5° 28' 00"	Sg. Batu Ferringhi	Pulau Pinang Batu Ferringhi
100° 34' 00"	5° 10' 00"	Sg. Kecil Hilir	Seberang Perai Selatan
100° 32' 00"	5° 09' 00"	Simpang Hantu	Seberang Perai Selatan
100° 13' 00"	5° 26' 30"	Empangan Teluk Bahang	Pulau Pinang

### (8) The State of Selangor

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
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Longitude <b>(1)</b>	Latitude <b>(2)</b>	Water Supply Scheme <b>(3)</b>
Latitude <b>(East)</b>	Longitude <b>(North)</b>	

101° 04' 48"	3° 43' 48"	Sg. Bernam	Sabak Bernam
101° 40' 06"	3° 27' 54"	Sg. Batang Kali	Hulu Selangor
101° 23' 54"	3° 40' 30"	Sg. Dusun	Hulu Selangor
101° 26' 48"	3° 44' 24"	Sg. Bernam	Hulu Selangor
101° 25' 30"	3° 37' 30"	Sg. Tengi	Hulu Selangor
101° 35' 42"	3° 38' 54"	Sg. Inki	Hulu Selangor
101° 41' 30"	3° 36' 42"	Sg. Gerachi	Hulu Selangor
101° 34' 00"	3° 24' 30"	Sg. Darah	Hulu Selangor
101° 26' 48"	3° 24' 00"	Sg. Selangor/Sg. Tinggi	Kuala Selangor
101° 25' 20"	3° 23' 20"	Sg. Selangor/Empangan Sg. Tinggi	Kuala Selangor
101° 25' 20"	3° 23' 20"	Sg. Selangor/Empangan Sg. Tinggi	Kuala Selangor
101° 25' 20"	3° 23' 20"	Sg. Selangor/Empangan Sg. Tinggi	Kuala Selangor
101° 10' 30"	3° 32' 30"	Sg. Sireh	Kuala Selangor
101° 41' 10"	3° 16' 05"	Sg. Batu/Empangan Batu	Gombak
101° 40' 00"	3° 17' 00"	Sg. Kanching	Gombak
101° 44' 00"	3° 18' 30"	Sg. Gombak	Gombak
101° 36' 50"	3° 14' 15"	Sg. Buloh	Gombak
101° 44' 18"	3° 17' 54"	Sg. Rumput	Gombak
101° 37' 36"	3° 14' 18"	Sg. Keroh	Gombak
101° 33' 00"	3° 01' 05"	Sg. Pusu	Gombak
101° 48' 06"	3° 09' 42"	Sg. Ampang	Gombak
101° 29' 00"	3° 10' 00"	Sg. Subang/Empangan Subang	Kelang
101° 47' 18"	3° 04' 42"	Sg. Langat/Empangan Langat	Hulu Langat
101° 46' 36"	3° 02' 36"	Sg. Langat/Empangan Langat	Hulu Langat
101° 47' 12"	3° 05' 48"	Sg. Serai	Hulu Langat
101° 53' 25"	3° 13' 15"	Sg. Lolo	Hulu Langat
101° 53' 15"	3° 12' 50"	Sg. Pangsoon	Hulu Langat
101° 45' 36"	3° 14' 16"	Sg. Klang/Empangan Klang Gates	Kuala Lumpur
101° 40' 48"	2° 50' 48"	Sg. Langat/Empangan Langat	Kuala Langat
101° 43' 05"	2° 46' 45"	Sg. Labu	Sepang
101° 44' 20"	2° 53' 20"	Sg. Semenyih/Empangan Semenyih	Sepang
101° 25.2' 15.9"	3° 23.2' 19.9"	Batang Berjuntai/Sg. Selangor	Kuala Selangor
101° 26' 20.5"	3° 23' 10.2"	Batang Berjuntai/Sg. Selangor	Kuala Selangor
101° 38' 7.7"	3° 30' 30.4"	Rasa/Sg. Selangor	Kuala Selangor
101° 44' 10"	2° 53' 30"	Sg. Semenyih	Sepang
101° 42' 50"	2° 53' 23"	Sg. Semenyih	Sepang
101° 48' 10"	3° 09' 15"	Sg. Ampang	Gombak
101° 41' 56"	3° 28' 45"	Sg. Batang Kali	Hulu Selangor
101° 20' 05"	3° 40' 50"	Sg. Bernam	Sabak Bernam
101° 26' 48"	3° 44' 30"	Sg. Bernam	Hulu Selangor
101° 31' 42"	3° 24' 24"	Sg. Darah	Hulu Selangor
101° 23' 54"	3° 40' 30"	Sg. Dusun	Hulu Selangor
101° 41' 30"	3° 36' 42"	Sg. Gerachi	Kuala Selangor
101° 44' 00"	3° 18' 30"	Sg. Gombak	Gombak
102° 44' 00"	3° 17' 06"	Sg. Gombak	Gombak
101° 36' 10"	3° 39' 05"	Sg. Inki	Hulu Selangor
101° 40' 18"	3° 16' 24"	Sg. Kepong	Gombak

101° 37' 36"	3° 14' 18"	Sg. Keroh	Sg. Keroh
101° 30' 48"	3° 34' 05"	Sg. Kubu	Kuala Selangor
101° 42" 05"	2° 47' 05"	Sg. Labu	Sepang
101° 40' 48"	3° 50' 48"	Sg. Langat	Kuala Langat
101° 46' 36"	3° 02' 36"	Sg. Langat	Hulu Langat
101° 50' 18"	3° 44' 42"	Sg. Lolo	Hulu Langat
101° 50' 24"	3° 44' 36"	Sg. Pangsoon	Gombak
101° 43' 48"	3° 17' 48"	Sg. Pusu	Gombak
101° 40' 00"	3° 17' 00"	Sg. Rangkap	Gombak
101° 45' 05"	3° 18' 00"	Sg. Rumput	Kuala Selangor
101° 26' 48"	3° 24' 00"	Sg. Selangor	Kuala Selangor
101° 26' 48"	3° 22' 06"	Sg. Selangor	Hulu Langat
101° 47' 12"	3° 05' 48"	Sg. Serai	Hulu Selangor
101° 25' 40"	3° 38' 15"	Sg. Tengi	Kuala Lumpur
101° 45' 36"	3° 14' 16"	Empangan Klang Gates	Gombak
102° 45' 36"	4° 14' 16"	Empangan Klang Gates	Hulu Langat
101° 47' 30"	3° 04' 42"	Empangan Sg. Langat (discharge into Sg. Langat)	Gombak
101° 41' 10"	3° 17' 05"	Empangan Sg. Batu	Kelang
101° 28' 48"	3° 10' 00"	Empangan Tasik Subang	

## (9) The State of Sarawak

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
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Longitude (East)	Latitude (North)	Name of River/Reservoir/Well	Water Supply Scheme
(1)	(2)	(3)	
Longitude	Latitude		
111° 52' 47"	1° 34' 52"	Sg. Batang Rajang	Sibu
111° 52' 27"	2° 15' 51"	Sg. Batang Rajang	Sibu
110° 16' 42"	1° 27' 20"	Sg. Sarawak Kiri	Batu Kitang, Kuching
110° 16' 44"	1° 27' 19"	Sg. Sarawak Kiri	Batu Kitang, Kuching
110° 16' 33"	1° 26' 58"	Sg. Sarawak Kiri	Batu Kitang, Kuching
110° 16' 31"	1° 26' 52"	Sg. Sarawak Kiri	Batu Kitang, Kuching
110° 12' 30"	1° 34' 52"	Empangan Matang	Matang, Kuching
110° 11' 14"	1° 36' 33"	Sg. Cina	Matang, Kuching
110° 12' 53"	1° 34' 56"	Sebubut Basin Intake	Matang, Kuching
112° 02' 05"	4° 18' 18"	Sg. Liku	Miri
114° 02' 05"	4° 18' 19"	Sg. Liku	Miri
114° 06' 05"	4° 18' 18"	Sg. Liku	Miri
114° 01' 58"	4° 18' 06"	Sg. Liku	Miri
114° 07' 40"	4° 11' 37"	Sg. Bakong	Buri
114° 58' 10"	4° 40' 01"	Sg. Berawan	Limbang
115° 02' 27"	4° 37' 07"	Sg. Pendaruan	Limbang
112° 25' 45"	2° 40' 30"	Sg. Krat	Bako
110° 08' 47"	1° 08' 47"	Sg. Sarawak Kanan	Kuching
109° 51' 11"	1° 40' 52"	Sg. Lundu	Kuching
110° 28' 50"	1° 38' 48"	Sg. Selabat	Kuching
110° 24' 04"	1° 17' 28"	Sg. Tapah	Siburan, Tapah and Beratok
109° 47' 44"	1° 47' 41"	Sg. Sebat Besar	Sematan
110° 01' 56"	1° 26' 52"	Sg. Siniawan	Kuching
111° 31' 10"	1° 08' 14"	Sg. Batang Undup	Sri Aman
111° 25' 00"	1° 06' 15"	Sg. Dor	Melugu
111° 37' 10"	1° 17' 08"	Sg. Dor	Skrang
111° 49' 51"	1° 00' 11"	Sg. Batang Ai	Lubuk Antu
111° 38' 13"	1° 07' 53"	Sg. Marup	Engkili
111° 23' 05"	1° 18' 22"	Sg. Seterap	Pantu
111° 10' 16"	1° 21' 05"	Sg. Stugok	Lingga
112° 50' 05"	1° 02' 26"	Sg. Lemanak	Lubuk Antu LDS
111° 32' 16"	1° 24' 31"	Sg. Stumbin	Stumbin/Bijat
113° 06' 33"	3° 12' 32"	Sg. Sibiu	Bintulu

113° 06' 32"	3° 12' 27"	Sg. Sibiu	Bintulu
111° 02' 09"	1° 39' 38"	Sg. Meludam	Meludam
111° 07' 00"	1° 10' 00"	Sg. Batang Layar	Betong
111° 23' 57"	1° 39' 12"	Sg. Obar	Debak
111° 12' 19"	1° 38' 01"	Sg. Dumit	Beladin
111° 17 15"	1° 38' 39"	Sg. Undai	Pusa
111° 19 34"	1° 47' 15"	Sg. Sebelak	Betong
111° 41' 11"	2° 04' 54"	Sg. Bintangor	Bintangor
111° 30' 05"	2° 01' 35"	Sg. Bintangor	Sarikei
111° 40' 45"	1° 53' 35"	Sg. Julau	Pakan
111° 54' 15"	2° 01' 41"	Sg. Julau	Julau
111° 15' 42"	2° 00' 54"	Sg. Kerubong	Selalang
115° 23' 11"	4° 49' 34"	Sg. Gaya	Lawas
114° 55' 48"	4° 49' 34"	Sg. Menuang	Lubai Tengah
115° 19' 17"	4° 50' 32"	Sg. Batang Trusan	Trusan
115° 16' 15"	4° 47' 08"	Sg. Batang Trusan	Sundar
110° 33' 45"	1° 09' 45"	Sg. Sadong	Serian
110° 37' 08"	1° 08' 03"	Sg. Sinyaru	Triboh
110° 47' 61"	1° 22' 03"	Sg. Melanjok	Simunjan
110° 30' 21"	1° 05' 53"	Sg. Kayan	Terbakang
110° 40' 00"	1° 12' 23"	Sg. Batang Krang	Gedong
110° 37' 01"	1° 32' 31"	Sg. Nonok	Samarahan
110° 56' 06"	1° 31' 08"	Sg. Sebuyau	Sebuyau
110° 21' 18"	1° 01' 45"	Sg. Suhu	Tebedu
110° 45' 58"	1° 33' 36"	Sg. Sebangan	Sebangan
110° 48' 26"	1° 03' 04"	Sg. Krang	Balai Ringin
113° 16' 08"	3° 06' 43"	Sg. Sebangat	Sebauh
112° 51' 32"	2° 53' 13"	Sg. Sap Kiri	Tatau
113° 29' 49"	3° 15' 39"	Sg. Batang Kemena	Labang
113° 42' 49"	3° 09' 54"	Sg. Jelalang	Tubau
112° 47' 05"	3° 04' 08"	Ground Water	Bintulu
112° 47' 15"	3° 04' 08"	Sg. Anap	Bintulu
113° 56' 42"	3° 09' 52"	Sg. Koyan	Bakau
114° 19' 06"	4° 10' 40"	Sg. Batang Baram	Miri
114° 24' 43"	3° 45' 56"	Sg. Batang Baram	Long Lama
113° 55' 44"	4° 06' 26"	Sg. Kejapil	Bekenu
114° 06' 15"	3° 58' 02"	Sg. Bakong	Beluru
113° 47' 02"	3° 44' 00"	Sg. Niah	Niah, Subis
112° 11' 26"	2° 46' 08"	Sg. Kanowit	Kanowit
112° 35' 09"	3° 00' 47"	Sg. Mukah	Ulu Mukah
112° 23' 28"	2° 22' 28"	Sg. Ulu Mukah	Ng. Sekuau
112° 04' 19"	2° 52' 26"	Sg. Kanowit	Machan
112° 04' 46"	2° 17' 15"	Sg. Bawang Assan	Sibu
111° 58' 30"	2° 41' 15"	Sg. Ngemah	Ng. Jagau
111° 18' 21"	1° 53' 08"	Sg. Kabah	Ng. Tada
112° 09' 08"	2° 55' 18"	Sg. Ngemah	Ng. Ngungun
112° 56' 15"	2° 00' 51"	Sg. Batang Rejang	Kapit
113° 46' 02"	2° 42' 33"	Sg. Belaga	Belaga
113° 40' 57"	1° 49' 08"	Sg. Batang Baleh	Ng. Entawau
112° 32' 24"	2° 56' 17"	Sg. Suyung	Balingan
112° 09' 05"	2° 05' 57"	Sg. Batang Mukah	Mukah
111° 43' 10"	2° 50' 05"	Sg. Lasai Dagan	Igan
111° 50' 28"	2° 44' 11"	Sg. Nangar	Kut
112° 21' 36"	2° 05' 16"	Sg. Setuan Besar	Kuala Balingian
111° 30' 42"	2° 38' 14"	Sg. Mabun	Kg. Tian
111° 23' 32"	2° 25' 05"	Sg. Muara Serdang	Semup
111° 15' 12"	2° 24' 48"	Ground Water	Paloh
111° 35' 08"	2° 04' 49"	Sg. Batang Jemoreng	Matu
111° 27' 54"	2° 37' 57"	Sg. Daro	Daro
111° 27' 50"	2° 30' 00"	Ground Water	Saai

Location of Water Intake		Name of River/Reservoir/Well	Water Supply Scheme
Longitude	Latitude		
(1) (East)	(North)	(2)	(3)
115° 11' 00"	5° 21' 00"	Sg. Kina Benuwa	Empangan Air Bukit Kuda
115° 10' 00"	5° 19' 00"	Sg. Kina Benuwa	Empangan Air Sungai Pagar
115° 13' 00"	5° 19' 00"	Sg. Kina Benuwa	Empangan Air Kerupang
115° 12' 59"	5° 18' 13"	Sg. Kina Benuwa	
115° 14' 59"	5° 17' 36"	Telaga Tiub Borehole No. A19	
115° 15' 01"	5° 17' 27"	Telaga Tiub Borehole No. M	
115° 15' 02"	5° 17' 19"	Telaga Tiub Borehole No. B	
115° 15' 17"	5° 17' 21"	Telaga Tiub Borehole No. A 21	
115° 15' 26"	5° 17' 24"	Telaga Tiub Borehole No. M 11	
115° 15' 34"	5° 17' 38"	Telaga Tiub Borehole No. B 23	
115° 15' 20"	5° 17' 42"	Telaga Tiub Borehole No. A 12	
115° 15' 16"	5° 10' 05"	Telaga Tiub Borehole No. W 5	
115° 15' 11"	5° 17' 53"	Telaga Tiub Borehole No. A 20	
115° 15' 01"	5° 10' 16"	Telaga Tiub Borehole No. B 24	
115° 15' 01"	5° 10' 01"	Telaga Tiub Borehole No. 10	
115° 14' 59"	5° 10' 30"	Telaga Tiub Borehole No. W 4	
115° 14' 48"	5° 18' 45"	Telaga Tiub Borehole No. W 3	
115° 14' 26"	5° 19' 51"	Telaga Tiub Borehole No. B 27	
115° 14' 26"	5° 19' 52"	Telaga Tiub Borehole No. A 14	
115° 14' 13"	5° 19' 36"	Telaga Tiub Borehole No. A 17	
115° 14' 29"	5° 19' 18"	Telaga Tiub Borehole No. A 13	
115° 14' 38"	5° 19' 28"	Telaga Tiub Borehole No. B 26	
115° 14' 33"	5° 19' 05"	Telaga Tiub Borehole No. W 1	
115° 14' 39"	5° 19' 12"	Telaga Tiub Borehole No. B 25	
115° 14' 40"	5° 18' 56"	Telaga Tiub Borehole No. W 2	
115° 14' 44"	5° 18' 28"	Telaga Tiub Borehole No. A 8	
115° 14' 28"	5° 18' 28"	Telaga Tiub Borehole No. A 15	
115° 15' 09"	5° 17' 32"	Telaga Tiub Borehole No. B 22	
115° 14' 46"	5° 18' 00"	Telaga Tiub Borehole No. A 18	

#### (11) The State of Sabah

Location of Water Intake		Name of River/Reservoir/Well	Water Supply Scheme
Longitude	Latitude		
(1) (East)	(North)	(2)	(3)
116° 09' 24.2"	5° 55' 21.4"	Sg. Moyog	Penampang
116° 11' 16.2"	5° 54' 47.6"	Empangan Babagon	Penampang
116° 06' 33.6"	5° 54' 52.4"	Sg. Moyog	Penampang
116° 00' 00.1"	5° 41' 06.6"	Sg. Papar	Papar
115° 56' 51.9"	5° 42' 52.9"	Sg. Papar	Papar
115° 56' 52.2"	5° 42' 50.2"	Sg. Papar	Papar
116° 02' 12.5"	5° 42' 31.4"	Sg. Papar	Papar
116° 14' 34.3"	6° 08' 49.9"	Sg. Tuaran	Tamparuli
116° 16' 09.9"	6° 07' 54.9"	Sg. Tuaran	Tamparuli
116° 14' 14.3"	6° 09' 12.2"	Sg. Tuaran	Tamparuli
116° 13' 56.6"	6° 08' 24.9"	Sg. Tuaran	Tamparuli
116° 17' 55.7"	6° 11' 20.4"	Sg. Damit	Tuaran
116° 13' 43.2"	6° 10' 26.1"	Sg. Tuaran	Tuaran
118° 06' 49.7"	5° 51' 14.2"	Boreholes	Sandakan
118° 06' 47.9"	5° 51' 22.0"	Boreholes	Sandakan
118° 06' 29.0"	5° 51' 21.4"	Boreholes	Sandakan

118° 06' 12.9"	5° 51' 27.6"	Boreholes	Sandakan
118° 05' 51.5"	5° 51' 21.6"	Boreholes	Sandakan
118° 04' 41.3"	5° 51' 17.0"	Boreholes	Sandakan
118° 03' 45.1"	5° 49' 58.8"	Boreholes	Sandakan
118° 03' 49.1"	5° 50' 04.1"	Boreholes	Sandakan
118° 04' 07.6"	5° 50' 36.7"	Boreholes	Sandakan
118° 04' 14.1"	5° 50' 45.5"	Pond	Sandakan
118° 04' 19.8"	5° 50' 57.5"	Boreholes	Sandakan
118° 04' 31.8"	5° 51' 14.1"	Boreholes	Sandakan
118° 03' 03.6"	5° 50' 36.5"	Boreholes	Sandakan
118° 03' 01.2"	5° 50' 24.9"	Pond	Sandakan
118° 02' 41.5"	5° 50' 13.6"	Boreholes	Sandakan
118° 02' 46.4"	5° 50' 00.0"	Boreholes	Sandakan
118° 02' 50.8"	5° 49' 57.9"	Pond	Sandakan
118° 02' 26.5"	5° 49' 34.2"	Boreholes	Sandakan
118° 02' 24.3"	5° 49' 20.8"	Boreholes	Sandakan
118° 02' 11.6"	5° 49' 59.1"	Boreholes	Sandakan
118° 01' 44.8"	5° 50' 18.7"	Boreholes	Sandakan
118° 01' 56.1"	5° 49' 39.3"	Boreholes	Sandakan
118° 01' 35.2"	5° 49' 30.1"	Boreholes	Sandakan
118° 01' 22.4"	5° 49' 25.5"	Boreholes	Sandakan
118° 01' 19.2"	5° 48' 53.9"	Boreholes	Sandakan
118° 04' 42.1"	5° 51' 16.0"	Boreholes	Sandakan
117° 50' 11.3"	5° 29' 07.2"	Sg. Kinabatangan	Kinabatangan
117° 32' 00"	5° 53' 00"	Sg. Muana	Beluran
117° 52' 48.3"	4° 16' 47.0"	Sg. Tawau	Tawau
117° 53' 52.2"	4° 21' 00.4"	Sg. Tawau	Tawau
117° 46' 31.7"	4° 27' 10.0"	Sg. Merotai	Tawau
118° 10' 09.6"	5° 00' 11.4"	Empangan Sepagaya	Lahad Datu
118° 13' 28.0"	5° 06' 01.2"	Sg. Segama	Lahad Datu
118° 49' 50.8"	5° 04' 24.5"	Sg. Tungku	Lahad Datu
118° 14' 34.7"	4° 28' 52.3"	Sg. Kalumpang	Semporna
118° 11' 04.4"	4° 35' 10.9"	Sg. Kalumpang	Kunak
116° 08' 48.8"	5° 22' 39.9"	Sg. Liawan	Keningau
116° 10' 01.6"	5° 26' 18.0"	Sg. Bayayo	Keningau
116° 20' 04.4"	5° 41' 49.6"	Sg. Tondulu	Tambunan
115° 56' 06.0"	5° 06' 58.7"	Sg. Padas	Tenom
115° 55' 01.8"	4° 53' 38.8"	Sg. Padas	Tenom
116° 25' 59.4"	5° 02' 01.5"	Sg. Panawan	Pensiangan
116° 18' 12.6"	5° 08' 38.2"	Sg. Sook	Sook
115° 46' 10.9"	5° 20' 36.2"	Sg. Padas	Beaufort
115° 34' 37.5"	5° 06' 31.0"	Sg. Lukutan	Sipitang
115° 48' 04.0"	5° 28' 19.7"	Sg. Membakut	Membakut
116° 48' 04.4"	6° 56' 20.5"	Empangan Pinangsoo	Kudat
116° 44' 56.6"	6° 28' 01.1"	Sg. Bandau	Kota Marudu
116° 44' 54.1"	6° 27' 57.1"	Sg. Pengapunya	Kota Marudu
117° 01' 50.1"	6° 40' 45.1"	Sg. Bengkoka	Pitas
116° 26' 05.4"	6° 21' 31.8"	Sg. Tempasuk	Kota Belud
116° 37' 43.4"	5° 57' 16.1	Sg. Liwagu	Ranau
117° 06' 00"	5° 37' 00"	Sg. Maliau	Telupid
116° 59' 00"	5° 16' 00"	Sg. Milian	Tongod
116° 50' 00"	5° 12' 00"	Sg. Melikop	Tongod

**(12) The State of Terengganu**

Longitude (East)	Latitude (North)	Name of Water Intake	Water Supply Scheme
(1)	(2)	(3)	
Longitude	Latitude		

103° 21' 20"	4° 40' 40"	Loji Air Bukit Bauk	Dungun
103° 20' 18"	4° 47' 40"	Loji Air Serdang	Dungun
103° 10' 20"	4° 49' 10"	Loji Air Tepus	Dungun
103° 19' 10"	4° 13' 00"	Loji Air Bukit Sah	Kemaman
103° 11' 50"	4° 06' 35"	Loji Air Cherul	Kemaman
103° 03' 50"	5° 15' 55"	Loji Air Kepong	Kuala Terengganu
103° 05' 40"	5° 17' 37"	Loji Air Bukit Losong	Kuala Terengganu
103° 00' 35"	5° 04' 30"	Loji Air Kuala Berang	Hulu Terengganu
103° 02' 45"	4° 55' 45"	Loji Air Gunung	Hulu Terengganu
102° 58' 05"	5° 09' 10"	Loji Air Telemong	Hulu Terengganu
103° 12' 15"	4° 50' 38"	Loji Air Jerangau	Hulu Terengganu
102° 30' 00"	5° 38' 05"	Loji Air Bukit Bunga (Old and New)	Besut
102° 45' 00"	5° 05' 00"	Loji Air Pulau Perhentian	Besut
102° 45' 00"	5° 31' 50"	Sg. Setiu	Setiu
102° 49' 42"	5° 26' 18"	Sg. Chalok	Setiu
102° 51' 42"	5° 20' 12"	Sg. Nerus	Setiu

**(13) The State of Negeri Sembilan**

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
Longitude	Latitude	
(1)	(2)	(3)
<b>Longitude (East)</b>	<b>Latitude (North)</b>	
102° 20' 32"	2° 34' 06"	Empangan Gemencheh
102° 34' 18"	2° 38' 35"	Sg. Muar
102° 32' 21"	2° 38' 23"	Sg. Muar
102° 21' 10"	2° 40' 14"	Sg. Dangi
102° 23' 49"	2° 36' 16"	Telaga Tiub Bukit Rokan
102° 03' 17"	2° 39' 40"	Sg. Beringin
102° 34' 18"	2° 38' 59"	Empangan Batu Hampar
102° 22' 01"	2° 43' 00"	Sg. Jelai
102° 14' 79"	2° 44' 02"	Sg. Muar
102° 14' 22"	2° 44' 25"	Sg. Muar
102° 04' 3"	2° 42' 44"	Sg. Batang Terachi
102° 08' 51.7"	2° 47' 10"	Empangan Talang/Sg. Muar
102° 24.090'	2° 44' 24"	Sg. Muar
102° 22' 0.05"	2° 48' 59"	Sg. Muar
102° 22' 24.8"	2° 47' 59"	Sg. Muar
102° 0.1' 26.4"	2° 48' 14"	Hutan Simpan Berembun
101° 55' 04.5"	2° 56' 06"	Sg. Broga
101° 59' 43.4"	2° 45' 31"	Sg. Batang Benar
101° 00' 14.3"	2° 45' 33"	Empangan Sg. Terip
102° 14.784'	2° 44' 25"	Sg. Mahang
101° 50.000'	2° 48' 14"	Sg. Ngoi-Ngoi
102° 56.927	2° 36' 12"	Sg. Linggi
102° 03' 59"	02° 56' 13.1"	Sg. Kemin
102° 13' 04.7"	3° 04' 31"	Sg. Triang
102° 06' 40.0"	3° 04' 02"	Sg. Kenaboi
102° 13' 36"	02° 57' 54"	Sg. Pertang

**(14) The State of Melaka**

Location of Water Intake	Name of River/Reservoir/Well	Water Supply Scheme
Longitude	Latitude	
(1)	(2)	(3)

(East)	(North)		
102° 15' 50"	2° 17' 55"	Sg. Melaka	Jasin, Melaka Tengah and Alor Gajah
102° 18' 40"	2° 20' 00"	Empangan Durian Tunggal	Melaka Tengah, Alor Gajah and Jasin
102° 15' 50"	2° 17' 55"	Sg. Melaka	Melaka Tengah, Alor Gajah and Jasin
102° 15' 25"	2° 24' 35"	Sg. Batang Melaka	Alor Gajah, Masjid Tanah and Lubuk Cina
102° 29' 12"	2° 16' 00"	Sg. Kesang	Jasin
102° 28' 15"	2° 11' 50"	Sg. Kesang	Jasin and Merlimau
102° 22' 15"	2° 26' 35"	Empangan Jus	Alor Gajah, Masjid Tanah and Lubuk Cina
102° 35' 16"	2° 24' 23"	Empangan Asahan	Asahan, Simpang. Bekoh, Nyalas and Bukit Senggeh
102° 45' 02"	2° 12' 10"	Sg. Muar	Melaka Tengah, Alor Gajah and Jasin

## FOURTH SCHEDULE

*(Regulation 9)*

### METHODS OF ANALYSIS OF SEWAGE

1. The 21st edition of "Standard Methods for the Examination of Water and Wastewater" published jointly by the American Public Health Association, the American Water Works Association and the Water Environment Federation of the United States of America; or
2. "Code of Federal Regulations, Chapter 40, Subchapter D, part 136" published by the Office of the Federal Register, National Archives and Records Administration, United States of America.

## FIFTH SCHEDULE

*(Regulation 10)*

### MONTHLY SEWAGE DISCHARGE MONITORING REPORT

#### SECTION I

#### IDENTIFICATION

1. (i) Name and address of premises:

.....

.....

Telephone number: ..... Fax number: .....

- (ii) File reference number of Department of Environment (if applicable):

.....

2. (i) Name and address of accredited analytical laboratory:

.....  
Telephone number: ..... Fax number: .....

(ii) Name of analyst:  
.....

3. (i) Reporting year :.....

(ii) Reporting month: .....

## SECTION II

### SEWAGE INFORMATION\*

4. (i) Flowrate

Maximum:..... m<sup>3</sup>/d, Minimum: ..... m<sup>3</sup>/d

(ii) Population equivalent (P.E.): .....

(iii) Quality of sewage discharged

Quality of sewage discharged (unit in mg/L) for new sewage treatment systems

Parameter	First Week	Second Week	Third Week	Fourth Week
	Date:.....	Date:.....	Date:.....	Date:.....
BOD at 20°C				
COD				
Suspended Solids				
Oil and Grease				
Ammoniacal Nitrogen (enclosed water body)				
Ammoniacal Nitrogen (river)				
Nitrate - Nitrogen (river)				
Nitrate - Nitrogen (enclosed water body)				
Phosphorous (enclosed water body)				

Quality of sewage discharged (unit in mg/L) for existing sewage treatment systems

Parameter	First Week	Second Week	Third Week	Fourth Week
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	Date:.....	Date:.....	Date:.....	Date:.....
BOD at 20°C				
COD				
Suspended Solids				
Oil and Grease				

**NOTE:\***

- (a) The flowrate and concentration of sewage at the point of discharge as determined in accordance with the sampling procedure and method of analysis as specified in regulation 9.
- (b) Sewage treatment systems with less than 5000 population equivalent (P.E.) shall conduct sampling once a month only.

**SECTION III**

**DECLARATION**

I, ..... hereby declare that all information given in this form is to the best of my knowledge and belief true and correct.

Signature of responsible person:

.....

Name: .....

Designation: .....

Date: .....

(Affix official seal or stamp of company)

**SIXTH SCHEDULE**

*(Regulation 11)*

**SPECIFICATIONS OF POINT OF DISCHARGE OF SEWAGE**

1. The discharge point is located within the boundary of the sewage treatment system, immediately after its the final unit operation or unit process.
2. The location of the discharge point is easily accessible and does not pose any safety hazards to personnel performing site inspection or sewage sampling.

3. The leachate is discharged through a pipe, conduit or channel to facilitate sewage sampling.
4. The discharge point is physically identified by installing a metal identification sign which reads "Final Discharge Point".
5. The discharge point and its surrounding is properly maintained to be free from any obstruction that may pose difficulty or hazards during site inspection or sewage sampling.

## **SEVENTH SCHEDULE**

*(Regulation 24)*

### **METHOD OF COMPUTING SEWAGE-RELATED LICENCE FEE**

1. For existing sewage treatment systems, the sewage-related licence fee is computed as follows:

<b>Parameter</b>	<b>Fee per kg of contaminant discharged into inland waters as specified in subparagraphs 5(1)(a), (c) or (e)</b>	<b>Fee per kg of contaminant discharged onto any soil or into other inland waters</b>
(i) at BOD 20°C	RM0.50	RM0.05
(ii) Oil and Grease	RM2500.00	RM250.00

2. For new sewage treatment system, the sewage-related licence fee is computed as follows:

<b>Parameter</b>	<b>Fee per kg of contaminant discharged into inland waters specified in subparagraphs 5(1)(a), (c) or (e)</b>	<b>Fee per kg of contaminant discharged onto any soil or into other inland waters</b>
(i) at BOD 20°C	RM0.50	RM0.05
(ii) Oil and Grease	RM2500.00	RM250.00
(iii) Ammoniacal Nitrogen	RM500.00	RM50.00