COPY

REGENT SUKOHARJO
PROVINCE OF CENTRAL JAVA

SUKOHARJO REGENCY REGULATIONS
NUMBER 37 OF 2018

ABOUT

DOMESTIC WASTEWATER MANAGEMENT

BY THE GRACE OF GOD ALMIGHTY

REGENT SUKOHARJO,

Considering:

a. that the increase in population and increasing development in Sukoharjo Regency has resulted in an increase in the amount and type of domestic wastewater;

b. that domestic wastewater management must be carried out in a synergistic, sustainable and professional manner, in order to control the discharge of domestic wastewater, protect the quality of groundwater and surface water, increase efforts to preserve environmental functions, especially water resources;

c. that based on Law Number 23 of 2014 concerning Regional Government, in the government sub-affairs in the field of public works and spatial planning, it is mandated that the management and development of domestic wastewater systems in district/city areas;

d. that based on the considerations as intended in letters a, b and c, it is necessary to stipulate a Regent's Regulation on Domestic Waste Water Management;

Remember : 1. Law Number 13 of 1950 concerning the Establishment of Regency Areas within the Province of Central Java;

2. Law Number 11 of 1974 concerning Irrigation (State Gazette of the Republic of Indonesia of 1974 Number 65, Supplement to State Gazette of the Republic of Indonesia Number 3046);

3. Law Number 26 of 2007 concerning Spatial Planning (State Gazette of the Republic of Indonesia of 2007 Number 68, Supplement to State Gazette of the Republic of Indonesia Number 4725);

4. Law Number 32 of 2009 concerning Environmental Protection and Management (State Gazette of the Republic of Indonesia of 2009 Number 140, Supplement to State Gazette of the Republic of Indonesia Number 5059);

5. Law Number 12 of 2011 concerning the Formation of Legislation (State Gazette of the Republic of Indonesia of 2011 Number 82, Supplement to the State Gazette of the Republic of Indonesia Number 5234);

6. Law Number 23 of 2014 concerning Regional Government (State Gazette of the Republic of Indonesia of 2014 Number 244, Supplement to the State Gazette of the Republic of Indonesia Number 5587) as amended several times, most recently by Law Number 9 of 2015 concerning the Second Amendment to the Law. Law Number 23 of 2014 concerning Regional Government (State Gazette of the Republic of Indonesia of 2015 Number 58, Supplement to State Gazette of the Republic of Indonesia Number 5679);

7. Government Regulation Number 82 of 2001 concerning Water Quality Management and Water Pollution Control (State Gazette of the Republic of Indonesia of 2001 Number 153, Supplement to State Gazette of the Republic of Indonesia Number 4161);

8. Government Regulation Number 122 of 2015 concerning Drinking Water Supply Systems (State Gazette of the Republic of Indonesia of 2015 Number 345, Supplement to State Gazette of the Republic of Indonesia Number 5802);

9. Government Regulation Number 2 of 2018 concerning Minimum Service Standards ((State Gazette of the Republic of Indonesia of 2018 Number 2, Supplement to State Gazette of the Republic of Indonesia Number 6178);

10. Presidential Regulation Number 87 of 2014 concerning Implementing Regulations of Law Number 12 of 2011 concerning the Formation of Legislative Regulations (State Gazette of the Republic of Indonesia of 2014 Number 199);

11. Presidential Regulation Number 185 of 2014 concerning the Acceleration of Drinking Water and Sanitation Provision (State Gazette of the Republic of Indonesia of 2014 Number 389);

12. Regional Regulation of Central Java Province Number 10 of 2004 concerning Waste Water Quality Standards (Regional Gazette of Central Java Province of 2004 Number 45 Series E Number 6, Supplement to Regional Gazette of Central Java Province Number 41) as amended by Regional Regulation of Central Java Province Number 5 of 2012 concerning Amendments to Central Java Province Regional Regulation Number 10 of 2004 concerning Waste Water Quality Standards (Central Java Province Regional Gazette of 2012 Number 5, Supplement to Central Java Province Regional Gazette Number 41);

13. Sukoharjo Regency Regional Regulation Number 14 of 2011 concerning Sukoharjo Regency Regional Spatial Planning for 2011-2031 (Sukoharjo Regency Regional Gazette 2011 Number 14, Supplement to Sukoharjo Regency Regional Gazette Number 192);

14. Sukoharjo Regency Regional Regulation Number 6 of 2013 concerning Environmental Protection and Management (Sukoharjo Regency Regional Gazette of 2013 Number 6, Supplement to Sukoharjo Regency Regional Gazette Number 207);

15. Regulation of the Minister of Public Works Number 16/PRT/M/ 2008 concerning National Policy and Strategy for the Development of Residential Waste Water Management Systems (KSNP-SPALP);

16. Regulation of the Minister of Environment Number 1 of 2010 concerning Procedures for Controlling Water Pollution;

17. Minister of Home Affairs Regulation Number 80 of 2015 concerning the Establishment of Regional Legal Products (State Gazette of the Republic of Indonesia of 2015 Number 2036);

18. Regulation of the Minister of Environment and Forestry Number: P.68/Menlhk/Setjen/Kum.1/8/2016 concerning Domestic Wastewater Quality Standards (State Gazette of the Republic of Indonesia of 2016 Number 1323);

19. Regulation of the Minister of Public Works and Public Housing 04/ PRT/M/2017 concerning the Implementation of Domestic Waste Water Management Systems (State Gazette of the Republic of Indonesia of 2017 Number 456);

DECIDE:

To stipulate: REGENT'S REGULATION CONCERNING DOMESTIC WASTEWATER MANAGEMENT.

PIG

GENERAL REQUIREMENTS

article 1

In this Regent's Regulation what is meant by:

1. The region is Sukoharjo Regency.
2. Regional Government is the Regent as the organizing element of Regional Government which leads the implementation of government affairs which are the authority of the autonomous region.
3. The Regent is the Regent of Sukoharjo.
4. The Public Works and Spatial Planning Service, hereinafter abbreviated to DPUPR, is the Sukoharjo Regency Public Works and Spatial Planning Service.
5. Domestic wastewater is wastewater originating from businesses and/or residential activities, restaurants, offices, commerce, apartments and dormitories.
6. Domestic Waste Water Management System, hereinafter abbreviated as SPALD, is a series of domestic waste water management activities in one unit with domestic waste water management infrastructure and facilities.
7. Implementation of SPALD is a series of activities in carrying out the development and management of infrastructure and facilities for domestic wastewater services.
8. Local SPALD, hereinafter abbreviated as SPALD-S, is a management system carried out by processing Domestic Wastewater at the source location, after which the processed sludge is transported by means of transport to the Fecal Sludge Treatment sub-system.
9. Centralized SPALD, hereinafter abbreviated as SPALD-T, is a management system carried out by channeling Domestic Wastewater from sources collectively to a centralized processing sub-system for processing before being discharged into surface water bodies.
10. Fecal Sludge Treatment Installation, hereinafter abbreviated as IPLT, is a wastewater treatment installation designed to only receive and process fecal sludge originating from the local processing sub-system.
11. Domestic Wastewater Treatment Installation, hereinafter abbreviated as IPALD, is a water structure that functions to process Domestic Wastewater.
12. Fecal sludge suction is a procedure for removing fecal sludge from a septic tank through suction.
13. Scheduled suction system is a fecal sludge suction system that is carried out periodically.

14. An unscheduled suction system is a fecal sludge suction system at the customer's request.
15. Waste water quality standards are a measure of the limits or levels of pollutant elements and/or the amount of pollutant elements that are allowed to exist in waste water that will be disposed of or released into water sources from a business and/or activity.
16. A septic tank is a watertight tank for treating waste water which is equipped with a lid, baffle, inlet/outlet pipe and ventilation which functions to change the properties of waste water so that waste water can be disposed of into the ground without disturbing the environment.
17. Transport Vehicle is a transport vehicle which is equipped with a holding tank and a sludge suction device and is given a special identification mark.
18. *Grease trap* is a waste water processing unit to separate fat and oil from waste water.
19. A control tank is a hollow tank complete with a lid on top which generally needs to be placed at a bend or in a closed channel every few meters in length which functions to facilitate maintenance and prevent blockages in the water channel.
20. *Manhole* is a hole for checking or repairing channels at the top of a septic tank which is covered and can be opened for septic tank maintenance purposes.

CHAPTER II

PURPOSE AND OBJECTIVES

Section 2

(1) The purpose of this Regent's Regulation is:

a. increase awareness and concern of the Regional Government, business world and society to participate in environmental conservation efforts; And

b. protect and improve the quality of ground water and surface water in order to meet the need for clean water and preserve the environment.

(2) The purpose of this Regent's Regulation is to:

a. controlling domestic wastewater discharge;

b. protect groundwater and surface water quality;

c. increasing efforts to preserve environmental functions, especially water resources;

d. improve the level of public health; And

e. as a guideline for implementing waste water management domestic.

CHAPTER III

DOMESTIC WASTEWATER MANAGEMENT TARGETS

Article 3

Domestic wastewater management targets every business and/or activity that produces domestic wastewater.

CHAPTER IV

TYPES OF DOMESTIC WASTEWATER

Article 4

Domestic wastewater consists of:

a. toilet waste water *(black water);* And

b. non-toilet waste water *(grey water).*

Article 5

(1) Toilet waste water *(black water)* as referred to in Article 4 letter a, is waste water originating from biological waste, in the form of human feces, or other waste in the form of liquids or other biological waste carried by domestic waste water.

(2) Non-toilet waste water *(grey water)* as referred to in Article 4 letter b, is waste produced from water used from bathing, washing clothes and liquid waste from the kitchen.

CHAPTER V

SPALD

Part One

General

Article 6

(1) SPALD consists of:

a. SPALD-S; And

b. SPALD-T.

(2) The selection of the SPALD type as intended in paragraph (1) at least considers:

a. population density;

b. depth of groundwater table;

c. slope of land;

d. the soil's ability to absorb water *(soil* permeability); And

e. financing capabilities.

The second part
SPALD-S
Article 7

SPALD-S components consist of:

a. local processing sub-system;

b. transport sub-system; And

c. fecal sludge processing sub-system.

Paragraph 1
Local Processing Sub-System
Article 8

(1) The local processing sub-system as intended in Article 7 letter a, is the means and infrastructure for collecting and processing domestic wastewater at the source location.

(2) The local processing sub-system as intended in paragraph (1), based on processing capacity consists of on:

a. individual scale; And

b. communal scale.

(3) The individual scale as intended in paragraph (2) letter a is intended for 1 (one) residential unit.

(4) The communal scale as intended in paragraph (2) letter b is intended for:

a. 2 (two) to 10 (ten) residential units and/or buildings; and/or

b. Toilet Washing Bath (MCK) which can be permanent and non-permanent *(mobile toilet).*

(5) Domestic wastewater processing as intended in paragraph (1) is carried out using biological treatment.

(6) Domestic wastewater processing in individual scale local processing sub-systems as intended in paragraph (2) letter a can be in the form of twin cisterns, septic tanks, biofilters and fabricated wastewater treatment units listed in Appendix I which is an inseparable part of the Regulations this Regent.

Paragraph 2
Transport Sub-system
Article 9

(1) The transportation sub-system as intended in Article 7 letter b, is a means for moving fecal sludge from the local processing sub-system to the fecal sludge processing sub-system.

(2) The facilities as intended in paragraph (1) are in the form of transport vehicles equipped with holding tanks and sludge suction equipment and given special identification marks.

(3) The transport vehicle as intended in paragraph (2), can be a sludge truck and/or a three-wheeled motorbike that has been modified to transport sludge.

Article 10

(1) Moving fecal sludge as intended in Article 9 paragraph (1) begins with desludging activities.

(2) Fecal sludge suction can be carried out by DPUPR or business entities that have permits.

(3) The fecal sludge suction activity referred to in paragraph (1) is carried out using the system:

a. scheduled suction system; And

b. unscheduled suction system.

(4) Implementation of the scheduled suction system as intended in paragraph (3) letter a is carried out no later than once in 3 years.

(5) The implementation of the unscheduled suction system as intended in paragraph (3) letter b is carried out at the request of the public.

(6) The costs of desludging and/or transporting fecal sludge are borne by the public as users of fecal sludge suction services in accordance with statutory provisions.

Paragraph 3

Fecal Sludge Treatment Sub-System

Article 11

(1) The fecal sludge processing sub-system as intended in Article 7 letter c, is the facilities and infrastructure for processing fecal sludge in the form of IPLT.

(2) IPLT as intended in paragraph (1), is equipped with the following facilities and infrastructure:

a. main infrastructure; And

b. supporting facilities and infrastructure.

(3) The main infrastructure as intended in paragraph (2) letter a, includes:

a. mechanical or manual filtering unit, functions to separate or filter coarse objects in fecal sludge;

b. equalization unit, functions to collect fecal sludge from fecal sludge suction vehicles before entering the next processing unit;

c. concentration unit, functions to separate solids from the liquid contained in fecal sludge, so that the solid concentration will increase or become thicker;

d. stabilization unit, functions to reduce the organic content of fecal sludge, both anaerobically and aerobically;

e. the sludge drying unit functions to reduce the water content of the processed sludge, either by relying on physical processes and/ or chemical processes; And

f. The dry sludge processing unit functions to process sludge that has stabilized from the results of previous sludge processing for later use.

(4) Supporting facilities and infrastructure as intended in paragraph (2) letter b, includes:

a. *platform (dumping station)* which is a place for the fecal suction truck to dump *(unloading)* fecal sludge into the *imhoff* tank or collection tank *(equalization);*

b. office;

c. warehouse and work workshop;

d. laboratory;

e. road infrastructure in the form of driveways, roads operational and inspection roads;

f. monitoring wells, to monitor groundwater quality in around IPLT;

g. clean water facilities;

h. maintenance tools;

i. Occupational Safety and Health (K3) equipment;

j. guardhouse;

k. guardrail;

l. exhaust pipe;

m. support plants; And

n. source of electrical energy.

Article 12

IPLT facilities and infrastructure as intended in Article 11 paragraph (1) must obtain permission from the Regional Apparatus in charge of licensing matters in accordance with the provisions of statutory regulations.

Part Three

SPALD-T

Article 13

(1) The scope of SPALD-T services consists of:

a. urban scale;

b. settlement scale; And

c. specific regional scale.

(2) Urban scale service coverage as intended in paragraph (1) letter a, for urban and/or regional scope with a minimum service of 20,000 (twenty thousand) people.

(3) Settlement scale service coverage as referred to in paragraph (1) letter b, for settlements with services from 50 (fifty) to 20,000 (twenty thousand) people.

(4) Service coverage on a certain area scale as intended in paragraph (1) letter c, for commercial areas includes trade areas, people's markets, shopping centers and apartment areas.

Article 14

(1) New houses and/or buildings that are within the scope of SPALD-T services at urban scale, residential scale and certain built area scales, must be connected to SPALD-T.

(2) Houses and/or buildings that are not included in the scope of SPALD-T services on an urban scale or built-up residential scale must make SPALD.

Article 15

SPALD-T components consist of:

a. service sub-system;

b. collection sub-system; And

c. centralized processing sub-system.

Paragraph 1

Service Sub-system

Article 16

(1) The Service Sub-system as intended in Article 15 letter a, is the means and infrastructure for channeling domestic waste water from the source via pipes to the Collection Sub-system.

(2) Facilities and infrastructure as intended in paragraph (1), consist of:

a. fecal pipe;

b. non-fecal pipes;

b. grease and oil traps from the kitchen;

c. parcel pipe;

d. control tub; And

e. inspection hole

Paragraph 2

Collection Sub-system

Article 17

(1) The Collection Sub-system as intended in Article 15 letter b, is the means and infrastructure for channeling domestic waste water through pipes from the Service Sub-system to the Centralized Treatment Sub-system.

(2) Facilities and infrastructure as intended in paragraph (1), consist of:

a. reticulation pipe;

b. main pipe; And

c. complementary facilities and infrastructure.

(3) Reticulation pipe as intended in paragraph (2) letter a, consisting of:

a. the lateral pipe functions as a domestic waste water collection channel from the Service Sub-system to the service pipe; And

b. The service pipe functions as a domestic wastewater collection channel from the lateral pipe to the main pipe.

(4) The main pipe as intended in paragraph (2) letter b, functions to collect domestic wastewater from the reticulation pipe and distribute it to the Centralized Treatment Sub-system.

(5) Complementary facilities and infrastructure as intended in paragraph (2) letter c, function to support the distribution of domestic waste water from the source to the Centralized Treatment Sub-system, including:

a. control hole *(manhole);*

b. flushing buildings;

c. cleaning terminal *(clean out);*

d. crossing pipe *(siphon);* And

e. pump station.

(6) The collection sub system for domestic waste water processing as intended in paragraph (1) is listed in Appendix II which is an inseparable part of this Regent's Regulation.

Paragraph 3

Centralized Processing Sub-system

Article 18

(1) The Centralized Processing Sub-system as referred to in Article 15 letter c, is the facilities and infrastructure for processing domestic wastewater that flows from the source through the Service Sub-system and Collection Sub-system.

(2) Facilities and infrastructure as intended in paragraph (1) in the form of IPALD include:

a. city IPALD for urban scale service coverage; and/or

b. IPALD settlements for service coverage on a residential scale or certain area scale.

Article 19

(1) IPALD as intended in Article 18 paragraph (2), consists of:

a. main infrastructure; And

b. supporting facilities and infrastructure.

(2) Main infrastructure as intended in paragraph (1) letter a, includes:

a. waste water treatment building;

b. sludge processing building;

c. mechanical and electrical equipment; And

d. dry sludge processing unit.

(3) Supporting facilities and infrastructure as intended in paragraph (1) letter b, includes:

a. office building;

b. warehouse and work workshop;

c. road infrastructure in the form of entrance roads, operational roads and inspection roads;

d. Portable measurement tool

e. monitoring well;

f. clean water facilities;

g. maintenance tools;

h. Occupational Safety and Health (K3) equipment;

i. guardhouse;

j. guardrail;

k. exhaust pipe;

l. support plants; and M. source of

electrical energy.

Article 20

IPALD facilities and infrastructure as intended in Article 19 paragraph (1) must obtain permission from regional officials in charge of licensing matters in accordance with the provisions of statutory regulations.

Article 21

(1) Domestic wastewater treatment process in the Subsystem Centralized Processing is carried out by:

a. physical processing;

b. biological processing; and/or

c. chemical processing.

(2) Physical processing as intended in paragraph (1) letter a is done by:

a. flotation, filtering, and/or settling for domestic wastewater; And

b. thickening *and /* or drying *(dewatering)* for sludge.

(3) Biological processing as intended in paragraph (1) letter b, is done by:

a. aerobics;

b. anaerobic;

c. combination of aerobic and anaerobic; and/or

d. anoxic.

(4) Chemical processing as intended in paragraph (1) letter c, can be carried out by adding chemicals to domestic wastewater and sludge.

CHAPTER VI

OPERATION, MAINTENANCE AND REHABILITATION

Part One

General

Article 22

(1) Operation, maintenance and rehabilitation of SPALD is carried out with the aim of ensuring the continuity of SPALD functions according to planning.

(2) Operation, maintenance and rehabilitation of SPALD

as intended in paragraph (1), is the responsibility of the SPALD Organizer and is carried out in accordance with the Standard Operational Procedures for SPALD management.

(3) The implementation of operation, maintenance and rehabilitation of SPALD as intended in paragraph (1), must pay attention to at least:

a. environmental management system; And

b. occupational safety and health management system (SMK3).

Article 23

(1) Maintenance is a routine and/or periodic maintenance activity for SPALD components.

(2) Routine maintenance as referred to in paragraph (1) is maintenance activities carried out routinely to maintain the service life of SPALD components without replacing equipment/spare parts.

(3) Periodic maintenance as referred to in paragraph (1) is maintenance activities carried out periodically to extend the service life of SPALD components with or without replacement of equipment/spare parts.

(4) In the event that SPALD maintenance is being carried out as intended in paragraph (1), domestic waste water management services to the community will continue to run as they should.

The second part

SPALD Operation and Maintenance

Article 24

SPALD Operation and Maintenance includes:

a. operation and maintenance of SPALD-S; And

b. operation and maintenance of SPALD-T.

Paragraph 1

SPALD-S Operation and Maintenance

Article 25

(1) Operation of SPALD-S is a series of operations in the Local Processing Sub-system, Transportation Sub-system, and Faecal Sludge Processing Sub-system.

(2) SPALD-S maintenance includes maintenance of the Local Processing Sub-system, Transportation Sub-system, and Faecal Sludge Treatment Sub-system.

Article 26

(1) The operation of the Local Processing Sub-system as intended in Article 25 paragraph (1) on an individual scale is carried out in each residence to ensure that biological processing can take place.

(2) The operation of the Local Processing Sub-system as intended in Article 25 paragraph (1) on a communal scale is carried out by Community Groups to ensure that biological processing can take place.

Article 27

(1) Operation of the Transportation Sub-system as intended in Article 25 paragraph (1) includes the activities of:

a. desludging;

b. transportation of fecal sludge; And

c. fecal sludge disposal.

(2) Sludge suction as referred to in paragraph (1) letter a, must be carried out periodically no later than once every 3 (three) years on an individual scale.

(3) Sludge suction as referred to in paragraph (1) letter a, must be carried out periodically no later than once every 2 (two) years on a communal scale.

(4) Transportation of fecal sludge as intended in paragraph (1) letter b, is carried out by transport vehicles equipped with storage tanks and fecal sludge suction equipment and given special identification marks.

(5) Disposal of fecal sludge as referred to in paragraph (1) letter c, must be carried out at the IPLT.

Article 28

(1) The operation of the Fecal Sludge Processing Sub-system as intended in Article 25 paragraph (1) is carried out at the IPLT, including the following activities:

a. fecal sludge collection:

b. filtering coarse objects in fecal sludge;

c. discrete particle separation;

d. concentration of fecal sludge;

e. stabilization of fecal sludge; and/or

f. drying fecal sludge.

(2) Water from processing at IPLT that is discharged into surface water bodies must meet domestic wastewater quality standards in accordance with statutory provisions.

Article 29

(1) Maintenance of the Local Processing Sub-system as intended in Article 25 paragraph (2) is carried out by preventing the entry of waste or other objects that could interfere with the distribution and processing process in the septic tank.

(2) Maintenance of the Transportation Sub-system as intended in Article 25 paragraph (2) takes the form of maintenance of transportation facilities, equipment and fecal suction pumps to maintain their condition.

(3) Maintenance of the Fecal Sludge Processing Sub-system as intended in Article 25 paragraph (2) includes the following activities:

a. removal of rubbish, mud and sediment;

b. maintenance of IPLT infrastructure and facilities; And

c. maintenance of electrical mechanical equipment.

Paragraph 2

SPALD-T Operation and Maintenance

Article 30

(1) SPALD-T operations are a series of operations in the Service Sub-system, Collection Sub-system, and Centralized Processing Sub-system.

(2) SPALD-T maintenance includes maintenance of the Service Sub-system, Collection Sub-system, and Centralized Processing Sub-system.

Article 31

Operation of the Service Sub-system as intended in Article 30 paragraph (1) includes the activities of:

a. operation of fat and oil catch basins;

b. final control body operation; And

c. operation of inspection holes.

Article 32

Operation of the Collection Sub-system as intended in Article 30 paragraph (1) includes the activities of:

a. operation of reticulation pipe networks and main pipes; and

b. operation of complementary infrastructure and facilities.

Article 33

(1) Operation Sub-system Centralized Processing as intended in Article 30 paragraph (1) carried out at IPALD includes the following activities:

a. operation of waste water treatment buildings;

b. operation and/or sludge processing building;

c. operation of dry sludge processing units.

(2) Water from processing at IPALD that is discharged into surface water bodies must meet domestic wastewater quality standards in accordance with statutory provisions.

(3) In the event that the main infrastructure at the IPALD as intended in Article 19 paragraph (1) letter a is not equipped with a mud processing building, the resulting sludge must be transported and processed at an IPALD that has a mud processing building or processed at an IPLT.

Article 34

Maintenance of the Service Sub-system as intended in Article 30 paragraph (2) includes activities:

a. cleaning of grease catch basins;

b. final control basin cleaning; And

c. inspection hole cleaning.

Article 35

Maintenance of the Collection Sub-system as intended in Article 30 paragraph (2) includes activities:

a. maintenance of reticulation pipes; And

b. maintenance of infrastructure and complementary facilities.

Article 36

Maintenance of the Centralized Processing Sub-system as intended in Article 30 paragraph (2) includes activities:

a. maintenance of waste water treatment buildings; And

b. maintenance of sludge processing buildings.

Part Three

Rehabilitation

Article 37

(1) Rehabilitation is carried out so that SPALD components can function again according to plan through physical repair activities/replacement of part or all of the equipment/spare parts.

(2) Partial replacement as intended in paragraph (1) is carried out if one of the components in the SPALD unit experiences a decline in technical function and requires repair or replacement of spare parts.

(3) Complete replacement as intended in paragraph (1) is carried out if one or all of the SPALD units experience a decline in technical function and/or have exceeded their technical age.

Article 38

(1) Partial rehabilitation as intended in Article 37 paragraph (1) for individual scale includes:

a. replacement of leaking pipes;

b. repair of walls of wastewater storage/treatment buildings and/or septic tanks; And

c. repair of control tank cover.

(2) Overall rehabilitation as referred to in Article 37 paragraph (1) for individual scale includes:

a. complete pipe replacement;

b. replacement of waste water storage/treatment buildings and/or septic tanks; And

c. replacement of control tank cover.

Article 39

(1) Partial rehabilitation as intended in Article 37 paragraph (1) on a communal scale includes:

a. replacement of leaking pipes;

b. repair of walls of wastewater treatment buildings;

c. replacement of control tank cover; And

d. replacement of some mechanical equipment and electrical.

(2) Overall rehabilitation as referred to in Article 37 paragraph (1) for the communal scale includes:

a. repair of wastewater treatment building foundations;

b. replacement of pipe networks and equipment; And

c. replacement of pumps and power sources that have exceeded their technical life.

Part Four

Maintenance and Rehabilitation Responsibilities

Article 40

(1) Maintenance and rehabilitation of SPALD-S on an individual scale is carried out by individuals.

(2) Maintenance and rehabilitation of SPALD-S on a communal scale is carried out by groups/communities.

(3) Maintenance and rehabilitation of SPALD-T is carried out by groups/ community and DPUPR.

Article 41

(1) Maintenance and rehabilitation of Urban Scale SPALD-T is the responsibility of the Regional Government.

(2) Maintenance and rehabilitation as intended in paragraph (1) is carried out by DPUPR.

Article 42

(1) Maintenance and rehabilitation of the SPALD-T Settlement Scale is handed over to the group/community and is the which responsibility of the group/community.

(2) Maintenance and rehabilitation of SPALD-T Settlement Scale owned by the Regional Government which is the responsibility of the group/ community includes latrines, fecal pipes, non-fecal pipes, *grease traps* and control tanks.

(3) Maintenance and rehabilitation of SPALD-T Settlement Scale owned by the Regional Government is the responsibility of the Regional Government including main pipes and communal IPAL.

(4) Maintenance and rehabilitation as intended in paragraph (3) is carried out by DPUPR.

Article 43

(1) Maintenance and rehabilitation of SPALD-T on a certain area scale in the form of flat areas is the responsibility of the Regional Government.

(2) Maintenance and rehabilitation as intended in paragraph (1) is carried out by the Housing and Settlement Area Service.

CHAPTER VII

UTILIZATION

Article 44

(1) The results of domestic wastewater treatment can be in the form of:

a. fluid;

b. solids; and/or

c. gas.

(2) The results of domestic wastewater processing in liquid form as referred to in paragraph (1) letter a, can be used for, among other things, flushing toilets, air conditioning equipment, fire hydrants and watering plants.

(3) The results of domestic wastewater processing in solid form as intended in paragraph (1) letter b, can be used to mix fertilizer and/or compost mix for non-food plants and/or building materials.

(4) The results of processing domestic wastewater in the form of gas as intended in paragraph (1) letter c, can be utilized as a renewable energy source.

(5) Utilization of domestic wastewater processing results as intended in paragraph (2), paragraph (3), and paragraph (4), is carried out in accordance with the provisions of statutory regulations.

CHAPTER VIII

CLOSING

Article 45

This Regent's Regulation comes into force on the date of promulgation.

So that everyone is aware, this Regent's Regulation is ordered to be promulgated by placing it in the Regional Gazette of Sukoharjo Regency.

Stipulated in Sukoharjo on
June 26 2018

REGENT SUKOHARJO,

signed

WARDOYO WIJAYA

Promulgated in Sukoharjo on
June 26 2018

REGIONAL SECRETARY
SUKOHARJO DISTRICT,

signed

AGUS SANTOSA

REGIONAL NEWS SUKOHARJO DISTRICT
YEAR 2018 NUMBER 37

APPENDIX I

SUKOHARJO REGENCY REGULATIONS
NUMBER 37 OF 2018

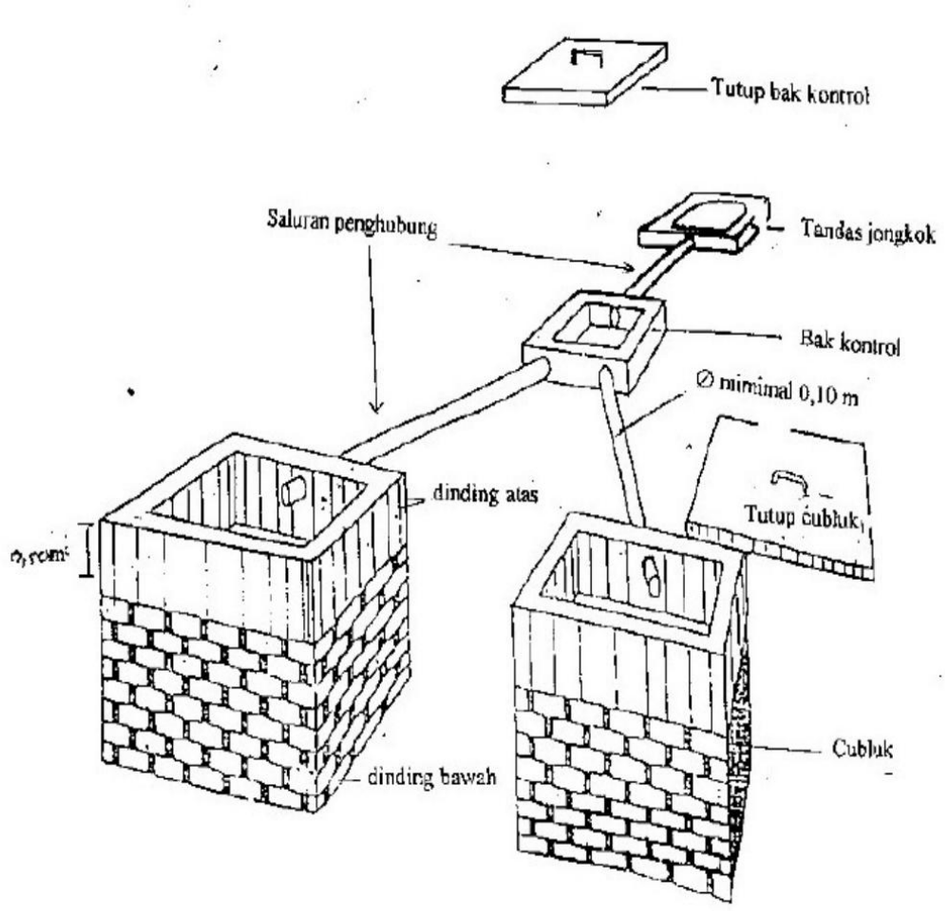
ABOUT

DOMESTIC WASTEWATER MANAGEMENT

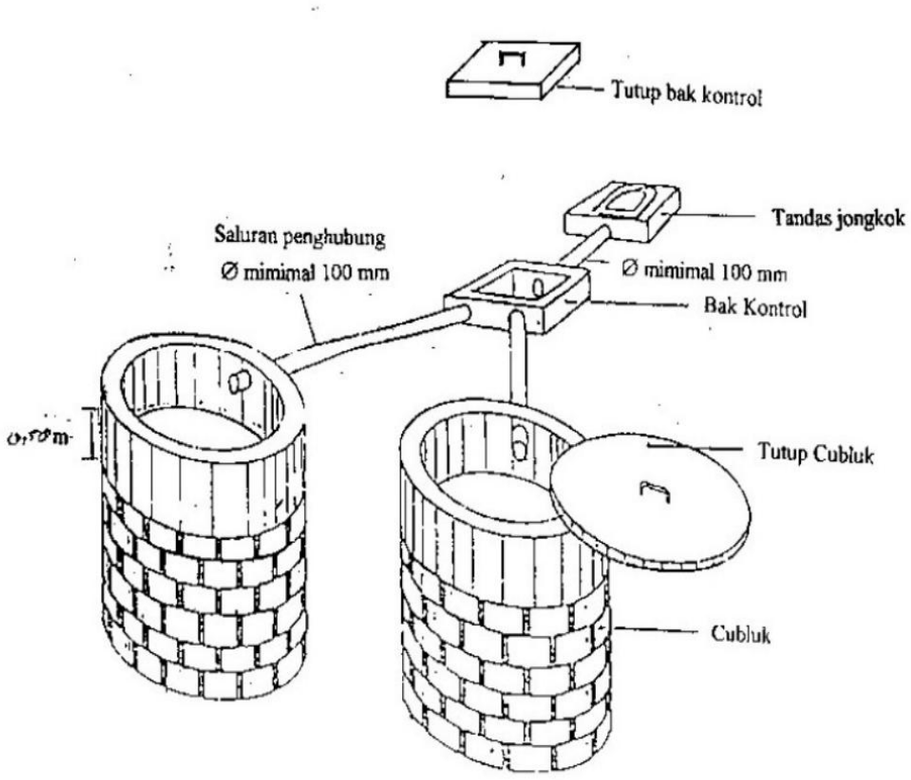
TWIN CUBLIC MODEL

Cubluk is the simplest local processing unit of SPALD-S. Consisting of a manually dug hole equipped with a water seepage wall made from hollow bricks, this system functions as a place for deposition of feces and also as a medium for absorbing incoming fluids. The cubluk system is

equipped with a gooseneck toilet to prevent odors from spreading and the breeding of flies and other insects in the piping or cubluk room. An example of a technical drawing of a twin cubluk is as follows:



Technical Drawing of Twin Cubluks in Square Shape



Technical Drawing of Cylindrical Twin Cubluks

The procedure for calculating the dimensions of twin buckets is as follows:

a. The volume of the bucket can be calculated with the following equation:

$$V=1.33\ K \times P \times N$$

Information:

V = cube volume (M3)

K = cubluk planning capacity (M3/person/year)

K for dry cubluk = 0.66 M3/person

K for wet cubluk = 0.04 M3/person/year

P = number of people using the toilet

N = Number of years the bucket was used before draining

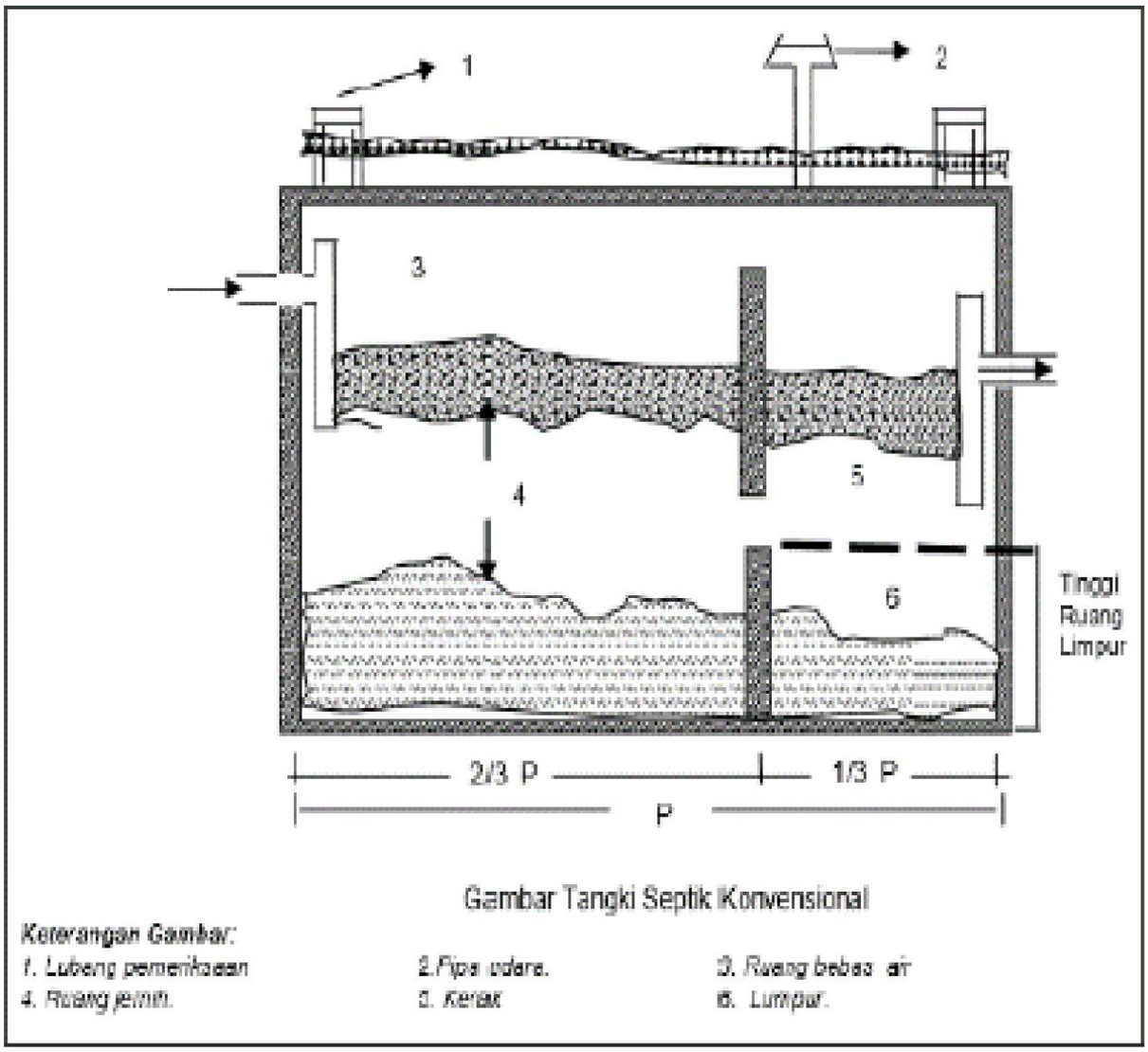
b. Reference dimensions for twin cylindrical buckets based on the number of users, that is:

Amount User (Soul)	Period Drain (Year)	Effective Size		Close Thick Cubluk (mm)	Information
		Diameter (M)	Depth (M)		
	2	1.0	1.5	50	Soil absorption capacity 900 L/m2/day For holes minimum drain ø 1 m is divided into 2 part Tight wall height 0.5m
5	2	1.0	1.5	50	
10 15	2	1.25	1.65	50	
20	2	1.40	1.65	50	

c. Reference dimensions for rectangle twin cubes based on number users, namely:

Amount User (Soul)	Period Drain (Year)	Effective Size Cubluk / Unit		Information
		Side (m)	Depth (m)	
	2	0.9 1.5	0.9 1.5	Soil absorption capacity 900 L/m2/day Impermeable cold height 0.5 m
5	2	1.65		
10 15	2	1.0		
20	2	1.25	1.65	

SEPTIC TANK MODELS



Gambar Tangki Septik Konvensional

Keterangan Gambar:

1. Lubang pemeriksaan *2. Pipa udara.* *3. Ruang bebas air*

4. Ruang jernih. *5. Kerikil* *6. Lumpur.*

A. Mixed System Septic Tank

The size of the mixed system septic tank with a 3 year draining period can be seen in Table 1.

Table 1. Mixed Septic Tank Dimensions

No	Amount User i (KK)	Zone Basah (M3)	Zone Paralyzer (M3)	Zone Ambang (M3)	Panjang Tank (M3)	Wide Tank i (M3)	Tall Tank i (M3)	Volume Total (M3)
1	1	1.2	0.45	0.4	1.6	0.8	1.6	2.1
2	2	2.4	0.9	0.6	2.1		1.8	3.9
3	3	3.6	1.35	0.9	2.5	1 1.3	1.8	5.8
4	4	4.8	1.8	1.2	2.8	1.4	2	7.8
5	5	6	2.25	1.4	3.2	1.5	2	9.6
6	10	12	4.5	2.9	4.4	2.2	2	19.4

Source: SNI 03-2398-2002

B. Separate System Septic Tank

Separate system septic tank size with drain period 3 year can be seen in Table 2.

Table 2. Separate Septic Tank Dimensions

No	Amount User i (KK)	Zone Basah (M3)	Zone Paralyzer (M3)	Zone Ambang (M3)	Panjang Tank (M3)	Wide Tank i (M3)	Tall Tank i (M3)	Volume Total (M3)
1	2	0.4	0.9	0.3		0.8	1.3	1.6
2	3	0.6	1.35	0.5	1 1.8	1	1.4	2.45
	4	0.8	1.8	0.6	2.1		1.5	3.2
3 4	5	1	2.6	0.9	2.4	1 1.2	1.6	4.5
5	10	2	5.25	1.5	3.2	1.6	1.7	8.7

Source: SNI 03-2398-2002

BIOFILTER MODEL

BIOFILTER ANAEROBIK (UP FLOW BIOFILTER) - KAPASITAS 5 0RANG

Spesifikasi Alat :

Jumlah Orang : 5 orang

Debit perkapita : 250 liter

Debit Air Limbah : 1250 liter per hari

Beban BOD per hari : 0,31 kg BOD

BOD Inlet : 250 mg/l

BOD Outlet : 50 mg/l

Efisiensi Penghilangan BOD : 80 %

Waktu Tinggal rata-rata : 2 hari

Dimensi

- Panjang Efektif : 200 cm
- Lebar Efektif : 100 cm
- Kedalaman efektif : 125 cm

Tinggi Ruang Bebas : 25 cm

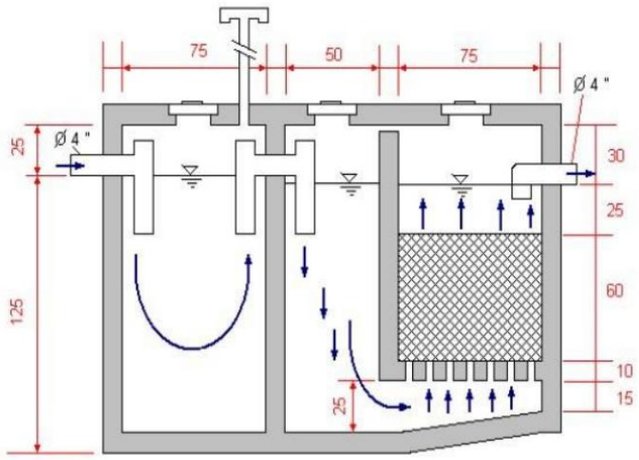
Diameter Inlet / Outlet : 4 “

Volume Media Biofilter : 0,45 m3

Tipe media : Bioball, media plastik sarang tawon, batu apung , batu pecah (split) .dll.

Bahan : Pasangan batu bata, beton dll.

Lebar Bak : 100 cm



Unit : cm

FABRICATION MODEL

FORM	CELLINDER
Dimensions	Diameter 130 height 146 cm
Amount	1 Unit
Volume	1.8 m3
Detention Time	2 days
Drain Time	3 years
User	1 KK (mixed system)
Note: Suitable for implementation in clay/sandy/rocky soil conditions Low or high groundwater levels require moderate land, because they are made from concrete requires higher costs for product mobilization from factory to factory installation location	

REGENT SUKOHARJO,

signed

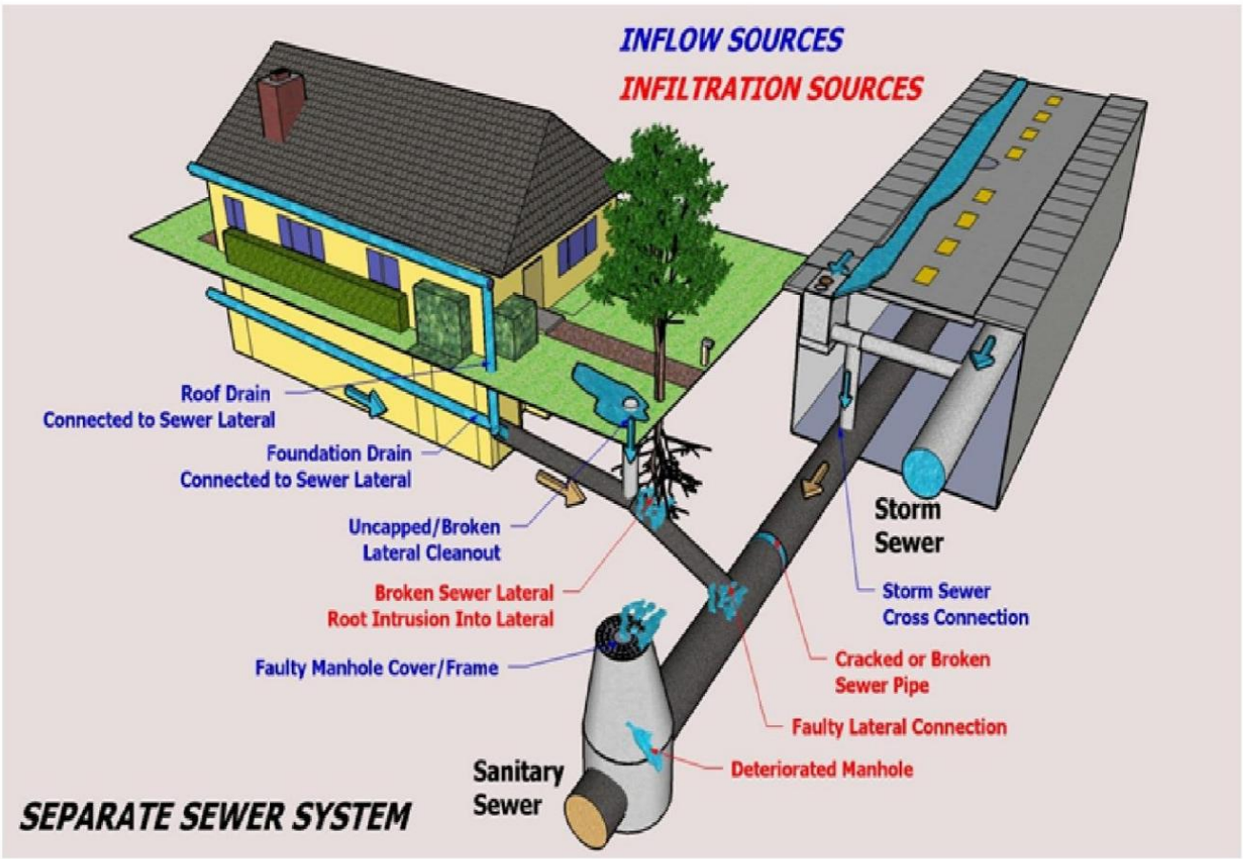
WARDOYO WIJAYA

APPENDIX II
SUKOHARJO REGENCY REGULATIONS
NUMBER 37 OF 2018
ABOUT
DOMESTIC WASTEWATER MANAGEMENT

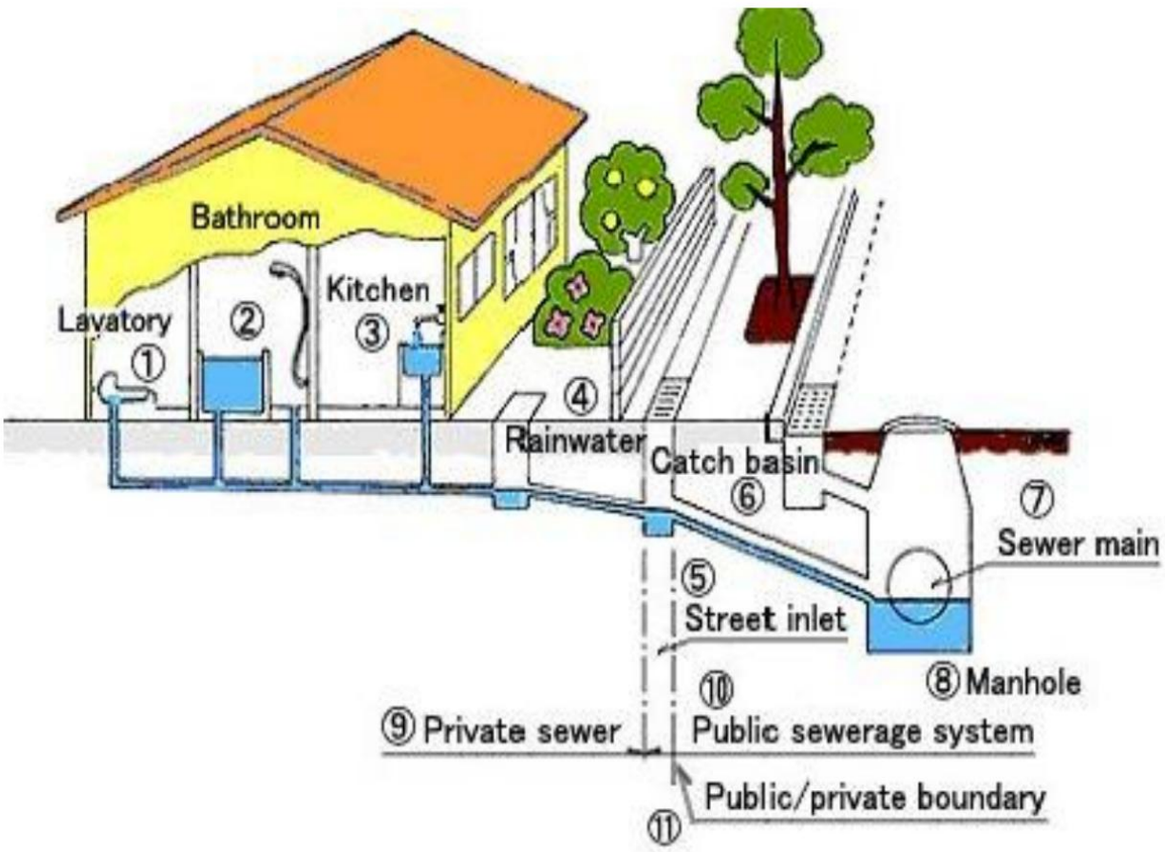
COLLECTION SUB SYSTEM IN WATER TREATMENT

DOMESTIC WASTE

A. SEPARATE SYSTEM URBAN SCALE WWTP



B. MIXED SYSTEM URBAN SCALE WWTP



REGENT SUKOHARJO,

signed

WARDOYO WIJAYA