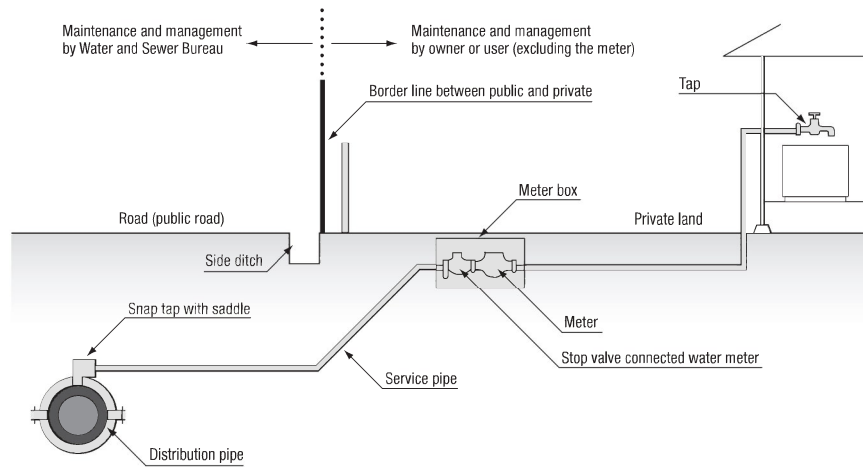
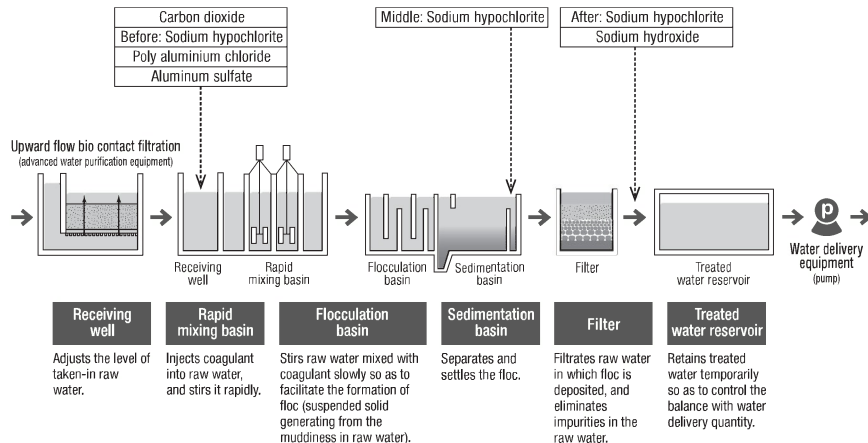


## 1. Standard drawing of water service installation



## 2. Water purification mechanism (rapid sand filtration method)



## 3. Terminology

- **Waterworks**  
The Waterworks Law defines as "waterworks indicates an integration of facilities which supply water suitable for drink for human beings by use of conduit pipes and other equipment."
- **Water right**  
The right to use flowing water in rivers, streams continuously and exclusively, which is classified into one that is granted by the permission of the river administrator, and one that would have been granted through conventional use.
- **Reservoir (dam)**  
A facility to retain raw water, constructed by closing rivers, streams or hollows, etc. between mountain, including estuary weirs.
- **Intake station**  
A facility to take in water, including grit chambers and those which have a function of primary treatment.
- **Water conveyance facility**  
A facility to lead taken-in raw water to a water purification plant, including water conveyance pipes, water conveyance channels, etc.
- **Water purification plant**  
An integration of facilities to purify taken-in raw water so far as to meet the water quality standards as stipulated in the Waterworks Law: These facilities are mainly classified into those adopting a rapid sand filtration method, and those adopting a slow sand filtration method, depending on the methods of water purification, and in case of Kitakyushu City, Ano, Ideura and Honjo water purification plants belong to the former, and Dobaru water purification plant belongs to the latter.
- **Sedimentation basin**  
A pond to settle suspended solid in the raw water deposited, which are broadly classified into the plain sedimentation basin and the chemical sedimentation basin: The former is installed in the water purification plants adopting the slow sand filtration method, and has the suspended solid deposited by spontaneous sedimentation, on the other hand, the latter is installed in the water purification plants adopting the rapid sand filtration method, and has the floc (suspended solid) which are formed through the processes of chemical dosing, mixing and coagulation separated and deposited.
- **Filter**  
A pond to purify water by using filter media (mainly sand), which are classified into the slow filtration basin and the rapid filtration basin: The former adopts the water purification method which has the filter media passed through the water at a comparatively slow speed, captures impurities in the water and causes an bio-oxidation in the impurities by the microorganism which would be proliferated in the sand layers, on the other hand, the latter adopts the water purification method which has comparatively coarse sand layers passed through the water at a fast flow speed, conducts a coagulation sedimentation in advance and eliminates impurities in the water by having the floc which could not have been eliminated by the sedimentation attached to the filter layers, etc.
- **Treated water reservoir**  
A facility of water purification plant to retain treated water temporarily in order to adjust the amounts of treated water and water to be delivered.
- **Upflow biological contactor filtration equipment (sophisticated water purification plant)**  
This is the equipment utilizing natural purification by microorganisms which can effectively remove manganese and ammonia nitrogen, etc. causing abnormal odor or taste and black water due to musty odor materials, etc. to create safe and high-quality water. This equipment is introduced in Anoh Water Purification Plant and Honjo Water Purification Plant.
- **Residual chlorine**  
Residue in the water after chlorine treatment, classified into effective free chlorine and effective combined chlorine: The amount of residual chlorine contained in the water from purified water to be hygienically safe without any contamination by pathogenic organisms, it is obligated to disinfect purified water without fail. As the disinfection methods, there are methods by ozone, etc. besides chlorine, however, because it is stipulated in the notice of the Ministry of Health, Labor and Welfare that "water shall be disinfected by chlorine", any materials other than chlorine agent are not allowed to be used as a disinfectant currently.
- **Transmission pipe**  
A pipeline to transmit treated water from water purification plant to distribution reservoir and pump station, from pump station to distribution reservoir.
- **Distribution reservoir**  
A facility to retain treated water temporarily in order to facilitate a smooth water service.
- **Distribution pipe**  
A piping, mainly starting from a distribution reservoir, to distribute treated water to coverage area of water supply.
- **Fire hydrant**  
A water faucet for fire fighting prepared in distribution pipelines, which are installed at such places as convenient for fire fighting activities, such as at road intersections, junctions, etc.: Each fire hydrant is prepared at intervals of 100 to 200 meters depending on the conditions of buildings and the density of houses along a road if it is installed on the way of the road.