

Water Supply Administration

Overview Outline of Water Supply Administration

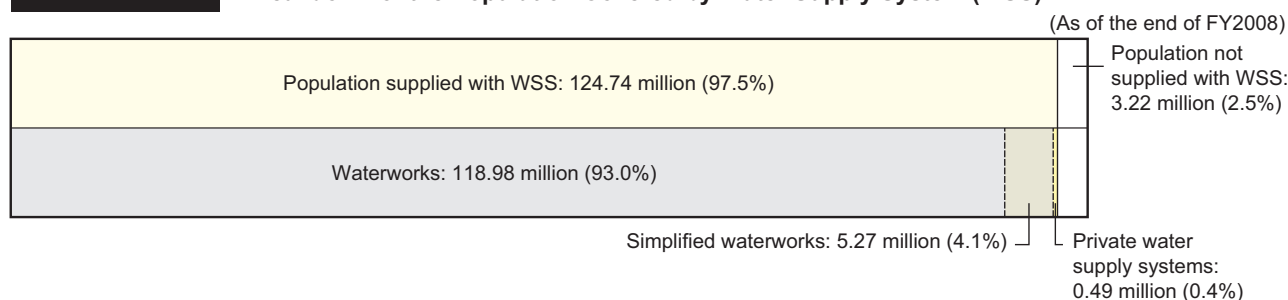
The Water Supply Act sets standards for water quality and water supply facilities and specifies rules for the operation and management of the water supply service to ensure a stable supply of safe water.

Detailed Data 1 Types of Water Supply Systems

Water supply systems	Waterworks (1,519 systems)	<ul style="list-style-type: none"> Supply of water for general needs Managed by municipalities, in principle 	Supply for population of 5,001 and over
	Simplified waterworks (7,152 systems)	<ul style="list-style-type: none"> Requires authorization by the Minister of Health, Labour and Welfare or prefectural governors 	Supply for population of 101-5,000
Bulk water supply systems (101 systems)	Wholesale of purified water to waterworks suppliers. Mostly managed by prefectures or groups of municipalities. Requires authorization by the Minister of Health, Labour and Welfare or prefectural governors.		
Private water supply systems (7,957 systems)	Supply of water for private use with supply for population of 101 or more, or with the maximum daily water supply volume of more than 20m ³ . Requires confirmation of design by the prefectural governor for installation (or report to the Minister of Health, Labour and Welfare for those installed by the government).		
Small scale private water supply systems	Supply of water from tanks installed in office buildings, apartment houses, etc. (effective volume of the tanks being more than 10m ³) where the source is only from waterworks suppliers.		

Source: Waterworks Statistics, 2008 (Waterworks Association)
(Note) The number of systems is of the end of FY2008.

Detailed Data 2 Breakdown of the Population Covered by Water Supply System (WSS)



Source: Waterworks Statistics, 2008 (Waterworks Association)

Detailed Data 3 **Changes in Volume of Water Supply in Waterworks**

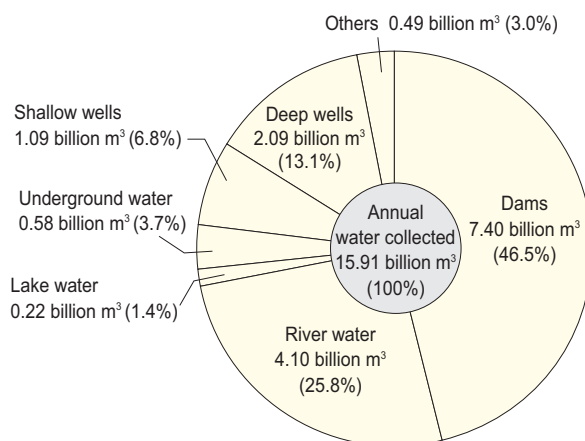
	1975	1980	1985	1990	1995	2000	2005	2008
Total population (thousand persons)	112,279	116,860	121,005	123,557	125,424	126,901	127,709	127,965
Populaton supplied with waterworks (thousand persons)	88,065	97,620	104,135	108,885	112,496	115,533	117,788	118,980
Average volume per day (1,000 m ³)	32,871	35,623	39,498	43,348	44,423	44,350	42,932	41,657
Average volume per day per person (L)	372	361	376	394	391	381	363	349
Maximum volume per day (thousand m ³)	42,211	45,500	50,193	54,149	54,635	53,103	50,054	48,358
Maximum volume per day per person (L)	480	461	477	493	482	457	423	405

Source: Waterworks Statistics, 2008 (Waterworks Association)

Detailed Data 4 **Percentage Distribution of Source of Water Supply**

(Total of waterworks + bulk water supply systems)

(FY2008)



Source: Waterworks Statistics, 2008 (Waterworks Association)

Detailed Data 5
Water Quality Standards Items and Values (Effective as of April 1, 2011)

No.	Item	Standard value
1	Common Bacteria	Number of colonization of 100 or less per 1mL
2	Escherichia coli	Not to be detected
3	Cadmium and compounds	0.003 mg/L or less (volume of cadmium)
4	Mercury and compounds	0.0005 mg/L or less (volume of mercury)
5	Selenium and compounds	0.01 mg/L or less (volume of selenium)
6	Lead and compounds	0.01 mg/L or less (volume of lead)
7	Arsenic and compounds	0.01 mg/L or less (volume of arsenic)
8	Chromium [VI] compounds	0.05 mg/L or less (volume of chromium [VI])
9	Cyanide ion and Cyanogen chloride	0.01 mg/L or less (volume of cyanogen)
10	Nitrate and Nitrite	10 mg/L or less
11	Fluoride and compounds	0.8 mg/L or less (volume of fluoride)
12	Boron and compounds	1.0 mg/L or less (volume of boron)
13	Carbon tetrachloride	0.002 mg/L or less
14	1,4-dioxane	0.05 mg/L or less
15	cis-1,2-Dichloroethylene and trans-1,2-Dichloroethylene	0.04 mg/L or less
16	Dichloromethane	0.02 mg/L or less
17	Tetrachloroethylene	0.01 mg/L or less
18	Trichloroethylene	0.01 mg/L or less (the standard value was reinforced in 2011 from 0.03 mg/L)
19	Benzene	0.01 mg/L or less
20	Chlorate	0.6 mg/L or less
21	Chloroacetic acid	0.02 mg/L or less
22	Chloroform	0.06 mg/L or less
23	Dichloroacetic acid	0.04 mg/L or less
24	Dibromochloromethane	0.1 mg/L or less
25	Bromate	0.01 mg/L or less
26	Total trihalomethane (Total concentration of Chloroform, Dibromochloromethane, Bromodichloromethane and Bromoform)	0.1 mg/L or less
27	Trichloroacetic acid	0.2 mg/L or less
28	Bromodichloromethane	0.03 mg/L or less
29	Bromoform	0.09 mg/L or less
30	Formaldehyde	0.08 mg/L or less
31	Zinc and compounds	1.0 mg/L or less (volume of zinc)
32	Aluminum and compounds	0.2 mg/L or less (volume of aluminum)
33	Iron and compounds	0.3 mg/L or less (volume of iron)
34	Copper and compounds	1.0 mg/L or less (volume of copper)
35	Sodium and compounds	200 mg/L or less (volume of sodium)
36	Manganese and compounds	0.05 mg/L or less (volume of manganese)
37	Chloride ion	200 mg/L or less
38	Calcium,Magnesium(Hardness)	300 mg/L or less
39	Total residue	500 mg/L or less
40	Anionic surface active agent	0.2 mg/L or less
41	(4S,4aS, 8aR)-Octahydro-4,8a-Dimethylenaphtalen-4a(2H)ol (Alias: Geosmin)	0.00001 mg/L or less
42	1,2,7,7-Tetramethylbicyclo [2,2,1]Heptane -2-ol (Alias: 2-Methylisobolneol)	0.00001 mg/L or less
43	Nonionoc surface active agent	0.02 mg/L or less
44	Phenols	0.005 mg/L or less (converted to the volume of phenols)
45	Organic substances (Total Organic Carbon)	3 mg/L or less
46	pH Value	5.8-8.6
47	Taste	Not abnormal
48	Odor	Not abnormal
49	Color	5 degrees or less
50	Turbidity	2 degrees or less

Detailed Data 6

Percentage Distribution of Water Treatment Methods

Disinfection treatment only	Slow sand filtration	Rapid sand filtration	Membrane filtration	Advanced water treatment and others (included)
18.1%	3.6%	77.4%	0.9%	27.0%

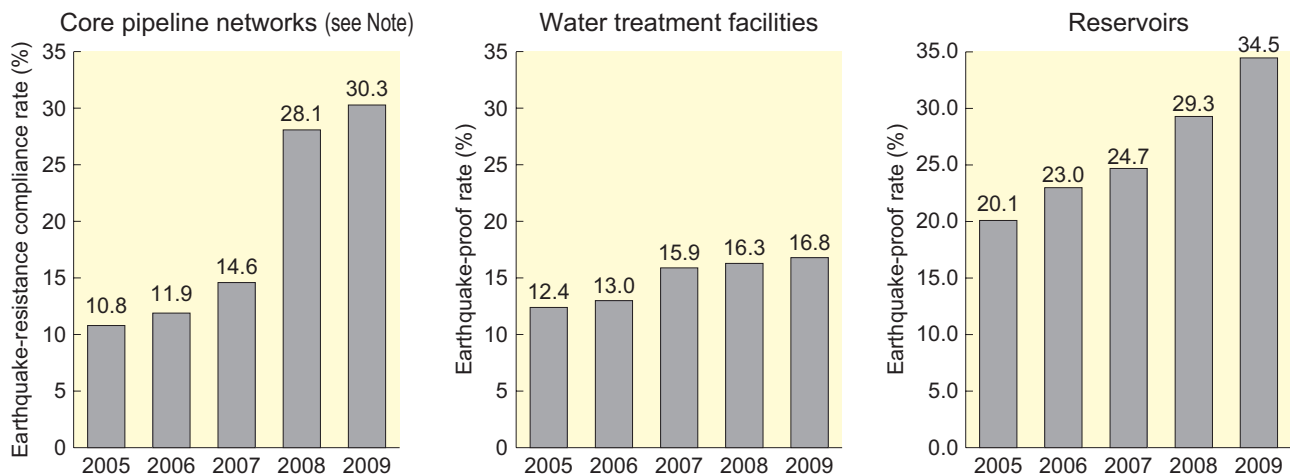
Advanced water treatment facilities are supplementary to disinfection treatment only, slow sand filtration, rapid sand filtration, and membrane filtration facilities and thus the figure is given as a included number. "Advanced water treatment" includes ozonation, activated carbon treatment, biological treatment, and aeration, etc.

(As of the end of FY2008)

Source: Waterworks Statistics, 2008 (Waterworks Association)

Detailed Data 7

Status with Earthquake-Resistance of Waterworks



(Note) The figures indicate the percentage of pipes that were earthquake-resistant (earthquake-proof rate) up to FY2006 and the percentage of pipes that meet earthquake-resistance standards (earthquake-resistant pipes + non-earthquake-resistant pipes but which are situated in better ground and are therefore considered to be earthquake-resistant) (earthquake-resistance compliance rate)