

Waterworks Date

Waterworks Operations

Commence of Operations

November 13, 1895
(the fourth modern water system in Japan after those of Yokohama, Hakodate, and Nagasaki)

Population Served

2,690,214 (As of April 1, 2015)

Number of Households Served

1,536,275 (As of March 31, 2015)

Water Supply Coverage

100%

Daily Water Supply Capacity

2,430,000m³

Annual Water Supply

426,432,700m³ (FY 2014)

Maximum Daily Supply

1,286,700m³ (FY 2014)
(The largest maximum daily supply recorded in 1970)

Average Daily Supply

1,168,309m³ (FY 2014)

Average Domestic Daily Water Consumption per Person

243ℓ (FY 2014)

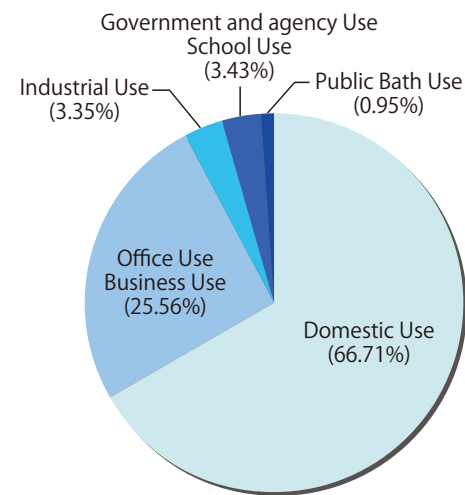
Total length of aqueduct, water pipe and distributing pipe

5,230km (As of March 31, 2015)

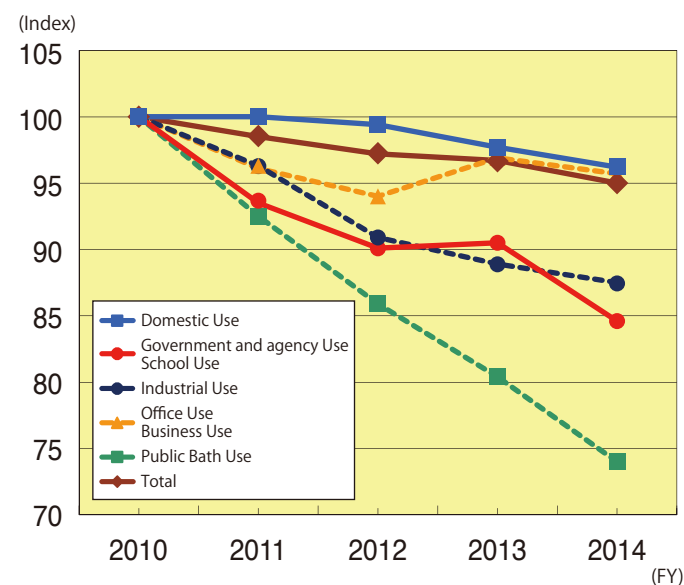
Annual Waterworks Budget

99,977,000,000 yen (Budget for FY 2015)

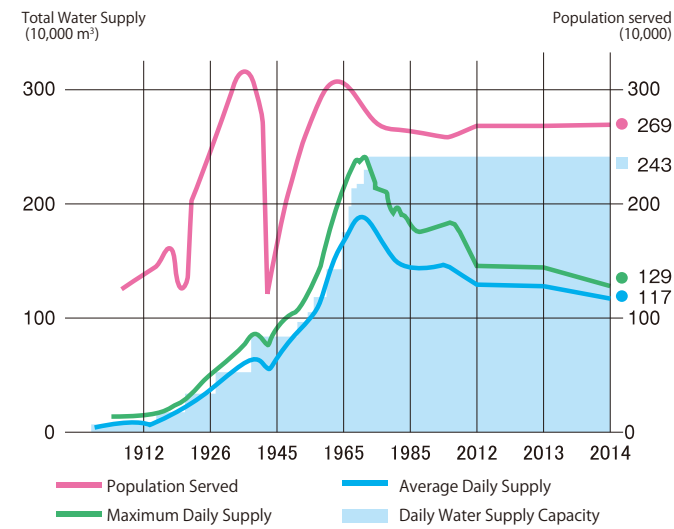
Settled Water Consumption Rates by Business Category for FY 2014



Settled Water Consumption Index by Business Category

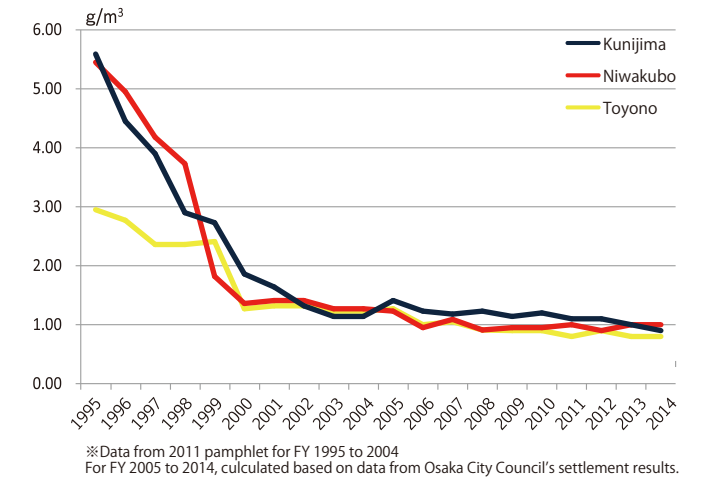


Population Served / Total Water Supply / Changes in Water Supply Capacity



Reduction of Chlorine Dosage Rate at the Purification Plants

The amount of chlorine used in the chlorination process has been greatly reduced by improvements in river water quality and the introduction of advanced water purification treatment.



※Data from 2011 pamphlet for FY 1995 to 2004
For FY 2005 to 2014, calculated based on data from Osaka City Council's settlement results.

Results of FY 2014 Osaka City Water Quality Testing

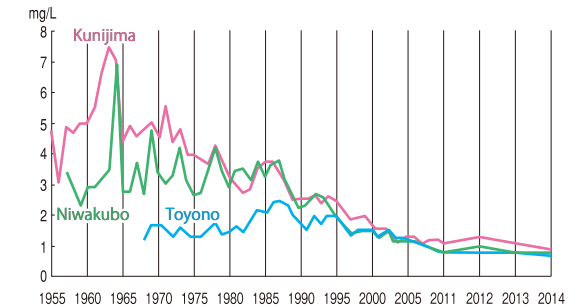
Item	Standard value	Drinking water (average value)
1. Viable bacteria	Number of colonies formed in 1 ml sample must be 100 or less	0/ml
2. E. coli bacteria	Must not be detected	Not detected
* 3. Cadmium and its compounds	0.003mg/l or less	less than 0.003 mg/l
* 4. Mercury and its compounds	0.0005mg/l or less	less than 0.0005 mg/l
* 5. Selenium and its compounds	0.01mg/l or less	less than 0.001 mg/l
6. Lead and its compounds	0.01mg/l or less	less than 0.01 mg/l
* 7. Arsenic and its compounds	0.01mg/l or less	less than 0.0005 mg/l
8. Hexavalent chrome and its compounds	0.05mg/l or less	less than 0.005 mg/l
9. Nitrite nitrogen	0.04mg/l or less	less than 0.004 mg/l
10. Cyanide ion and cyanogen chloride	0.01mg/l or less	less than 0.001 mg/l
11. Nitrite nitrogen and nitrate nitrogen	10mg/l or less	0.9 mg/l
12. Fluoride and its compounds	0.8mg/l or less	0.08 mg/l
* 13. Boron and its compounds	1.0mg/l or less	0.02 mg/l
* 14. Carbon tetrachloride	0.002mg/l or less	less than 0.0001 mg/l
* 15. 1,4-dioxane	0.05mg/l or less	less than 0.0005 mg/l
* 16. Cis-1,2-dichloroethylen and trans-1,2-dichloroethylen	0.04mg/l or less	less than 0.0004 mg/l
* 17. Dichloromethane	0.02mg/l or less	less than 0.001 mg/l
* 18. Tetrachloroethylen	0.01mg/l or less	less than 0.0001 mg/l
* 19. Trichloroethylen	0.01mg/l or less	less than 0.003 mg/l
* 20. Benzene	0.01mg/l or less	less than 0.001 mg/l
21. Chloric acid	0.6mg/l or less	0.026 mg/l
22. Chloroacetic acid	0.02mg/l or less	less than 0.002 mg/l
23. Chloroform	0.06mg/l or less	0.001 mg/l
24. Dichloroacetic acid	0.04mg/l or less	less than 0.001 mg/l
25. Dibromochloromethane	0.1mg/l or less	0.005 mg/l
26. Bromic acid	0.01mg/l or less	0.001 mg/l
27. Total trihalomethane	0.1mg/l or less	0.011 mg/l
28. Trichloroacetic acid	0.2mg/l or less	less than 0.001 mg/l
29. Bromodichloromethane	0.03mg/l or less	0.003 mg/l
30. Bromoform	0.09mg/l or less	0.002 mg/l
31. Formaldehyde	0.08mg/l or less	less than 0.002 mg/l
32. Zinc and its compounds	1.0mg/l or less	less than 0.1 mg/l
33. Aluminum and its compounds	0.2mg/l or less	less than 0.01 mg/l
34. Iron and its compounds	0.3mg/l or less	less than 0.03 mg/l
35. Copper and its compounds	1.0mg/l or less	less than 0.1 mg/l
36. Sodium and its compounds	200mg/l or less	17 mg/l
37. Manganese and its compounds	0.05mg/l or less	less than 0.001 mg/l
38. Chloride ion	200mg/l or less	13 mg/l
* 39. Calcium, magnesium etc. (hardness)	300mg/l or less	41 mg/l
* 40. Evaporated residue	500mg/l or less	102 mg/l
* 41. Anionic surfactants	0.2mg/l or less	less than 0.001 mg/l
42. Geosmin	0.00001mg/l or less	less than 0.000001 mg/l
43. 2-Methyl-isoborneol	0.00001mg/l or less	less than 0.000001 mg/l
* 44. Nonionic surfactants	0.02mg/l or less	less than 0.002 mg/l
* 45. Phenols	0.005mg/l or less	less than 0.0005 mg/l
46. Organic substances (TOC)	3mg/l or less	0.7 mg/l
47. pH value	5.8~8.6	7.6
48. Taste	Must not be abnormal	No abnormalities
49. Odor	Must not be abnormal	Chlorine odor
50. Color	mg/l or less	less than 0.5
51. Turbidity	mg/l or less	less than 0.1

1) Asterisked items show values measured in the purification plant outflow. All other values were measured at 21 tap locations within the city.
2) The value of total trihalomethanes is the total concentration value of chloroform, dibromochloromethane, and bromoform.

BOD

[Biochemical Oxygen Demand (BOD)]

BOD is a biochemical procedure for determining the amount of oxygen required to decompose organic matter by microorganisms in a volume of water. A larger BOD figure signifies that a larger volume of organic substances is present, thus indicating greater contamination.



Ammonia nitrogen

[Ammonia Nitrogen]

Ammonia nitrogen is a compound found in industrial effluents and raw wastewater. Its concentration in water is used as an indicator of water contamination and higher concentrations indicate higher water contamination values. High concentrations of ammonia nitrogen in the source water at purification plants require larger doses of chlorine for disinfection.

