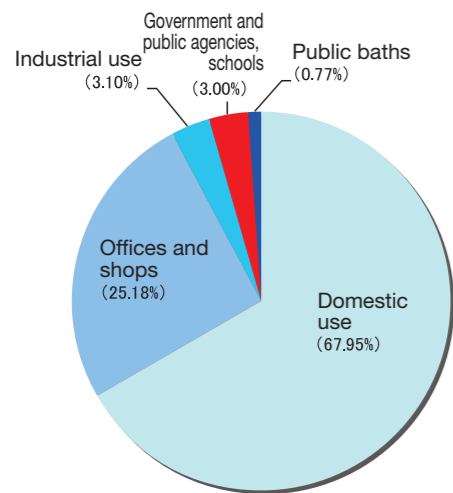


Waterworks Data

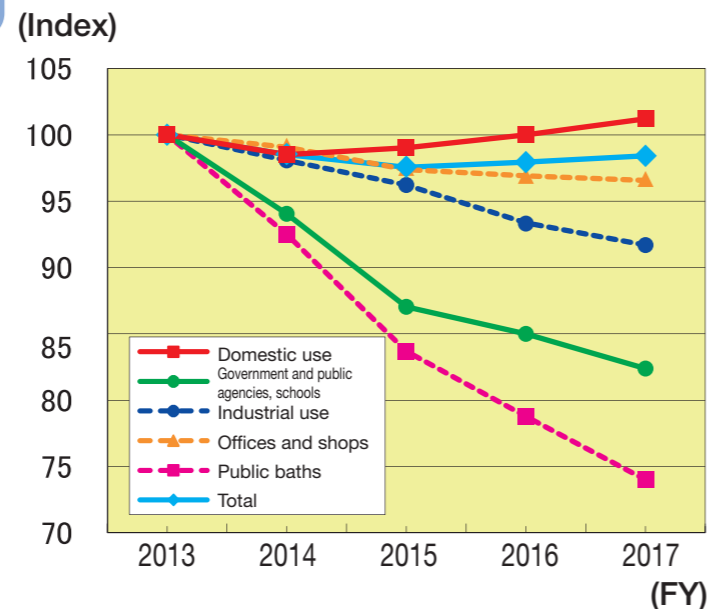
Waterworks business

- Operation start**
November 13, 1895
(The fourth in Japan, following Yokohama, Hakodate, and Nagasaki)
- Population served**
2,716,989 (As of April 1, 2018)
- Number of households served**
1,596,512 (As of March 31, 2018)
- Water supply coverage**
100%
- Daily water supply capacity**
2,430,000 m³
- Annual water supply**
405,103,000 m³ (FY 2017)
- Maximum daily supply**
1,218,100 m³ (FY 2017)
(The largest maximum daily supply was 2,417,700 m³ in 1970.)
- Average daily supply**
1,109,871 m³ (FY 2017)
- Average domestic daily water consumption per person**
241 ℓ (FY 2017)
- Total length of aqueducts, water pipes and distribution pipes**
5,229 km (As of March 31, 2018)
- Annual waterworks budget**
96,956 million yen (budget for FY 2018)

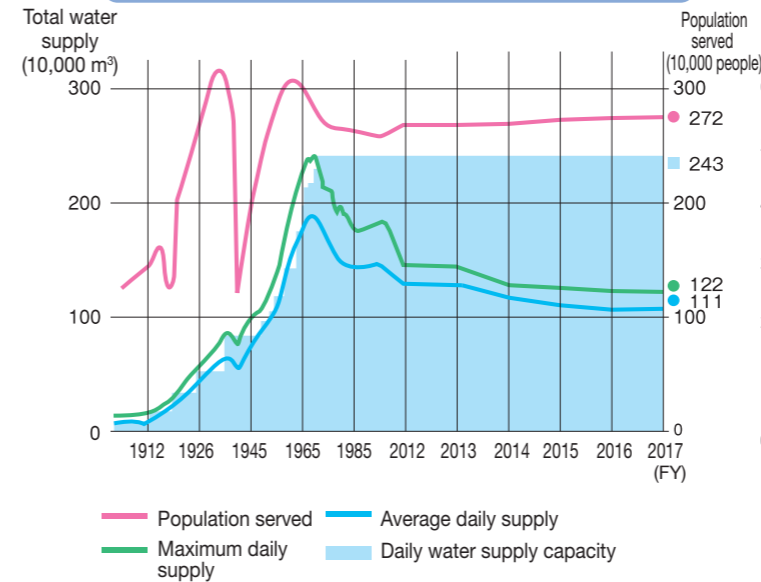
FY 2017 Settled water consumption rates by business category



Settled water consumption index by business category



Changes in population served, total water supply, and water supply capacity

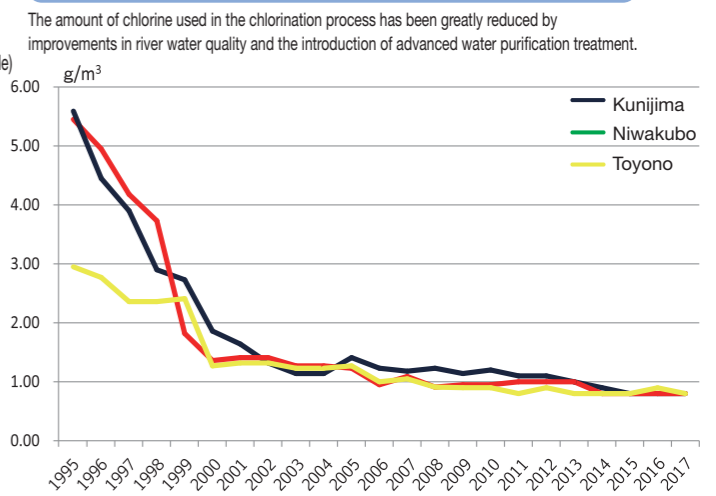


FY 2017 Results of Osaka City water quality testing

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	0.003 mg/l or less	less than 0.003 mg/l
* 4. Mercury and its compounds	0.0005 mg/l or less	less than 0.0005 mg/l
* 5. Selenium and its compounds	0.01 mg/l or less	less than 0.001 mg/l
6. Lead and its compounds	0.01 mg/l or less	less than 0.001 mg/l
* 7. Arsenic and its compounds	0.01 mg/l or less	less than 0.0005 mg/l
8. Hexavalent chrome and its compounds	0.05 mg/l or less	less than 0.005 mg/l
9. Nitrite nitrogen	0.04 mg/l or less	less than 0.004 mg/l
10. Cyanide ion and cyanogen chloride	0.01 mg/l or less	less than 0.001 mg/l
11. Nitrite nitrogen and nitrate nitrogen	10 mg/l or less	0.8 mg/l
12. Fluoride and its compounds	0.8 mg/l or less	0.08 mg/l
* 13. Boron and its compounds	1.0 mg/l or less	0.02 mg/l
* 14. Carbon tetrachloride	0.002 mg/l or less	less than 0.0001 mg/l
* 15. 1,4-dioxane	0.05 mg/l or less	less than 0.0005 mg/l
* 16. Cis-1,2-dichloroethylen and trans-1,2-dichloroethylen	0.04 mg/l or less	less than 0.0004 mg/l
* 17. Dichloromethane	0.02 mg/l or less	less than 0.001 mg/l
* 18. Tetrachloroethylene	0.01 mg/l or less	less than 0.001 mg/l
* 19. Trichloroethylene	0.01 mg/l or less	less than 0.0003 mg/l
* 20. Benzene	0.01 mg/l or less	less than 0.001 mg/l
21. Chloric acid	0.6 mg/l or less	0.027 mg/l
22. Chloroacetic acid	0.02 mg/l or less	less than 0.002 mg/l
23. Chloroform	0.06 mg/l or less	0.001 mg/l
24. Dichloroacetic acid	0.03 mg/l or less	less than 0.001 mg/l
25. Dibromochloromethane	0.1 mg/l or less	0.004 mg/l
26. Bromic acid	0.01 mg/l or less	0.001 mg/l
27. Total trihalomethane ¹⁾	0.1 mg/l or less	0.010 mg/l
28. Trichloroacetic acid	0.03 mg/l or less	less than 0.001 mg/l
29. Bromodichloromethane	0.03 mg/l or less	0.003 mg/l
30. Bromoform	0.09 mg/l or less	0.001 mg/l
31. Formaldehyde	0.08 mg/l or less	less than 0.002 mg/l
32. Zinc and its compounds	1.0 mg/l or less	less than 0.1 mg/l
33. Aluminum and its compounds	0.2 mg/l or less	less than 0.01 mg/l
34. Iron and its compounds	0.3 mg/l or less	less than 0.03 mg/l
35. Copper and its compounds	1.0 mg/l or less	less than 0.1 mg/l
36. Sodium and its compounds	200 mg/l or less	16 mg/l
37. Manganese and its compounds	0.05 mg/l or less	less than 0.001 mg/l
38. Chloride ion	200 mg/l or less	13 mg/l
* 39. Calcium, magnesium etc. (hardness)	300 mg/l or less	41 mg/l
* 40. Evaporated residue	500 mg/l or less	96 mg/l
* 41. Anionic surfactants	0.2 mg/l or less	less than 0.02 mg/l
42. Geosmin	0.00001 mg/l or less	less than 0.000001 mg/l
43. 2-Methyl-isoborneol	0.00001 mg/l or less	less than 0.000001 mg/l
* 44. Nonionic surfactants	0.02 mg/l or less	less than 0.002 mg/l
* 45. Phenols	0.005 mg/l or less	less than 0.0005 mg/l
46. Organic substances (TOC)	3 mg/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	5 degrees or less	less than 0.5 degrees
51. Turbidity	2 degrees or less	less than 0.1 degrees

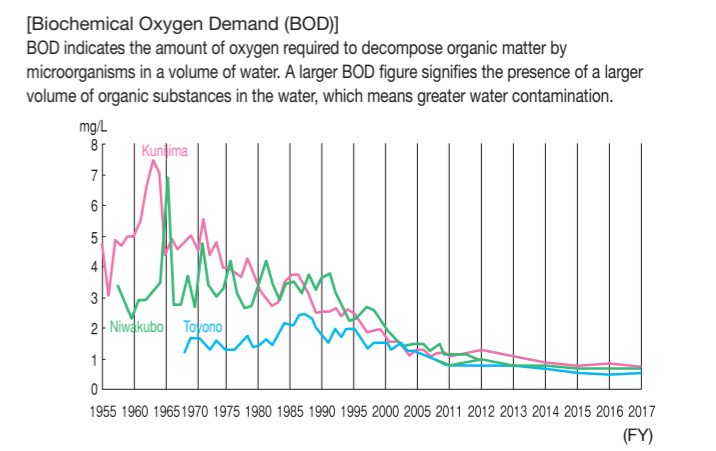
1) Asterisked items show values measured in the purification plant outflow. Other values were measured at 21 tap locations within the city.
2) The value of total trihalomethanes is the total concentration value of chloroform, dibromochloromethane, bromodichloromethane, and bromoform.

Reduction of chlorine dosage rate at purification plants



*Data from 2011 pamphlet for FY 1995 to 2004
For FY 2005 to 2017, calculated based on data from Osaka City Council's settlement results.

BOD



Ammonia nitrogen

