

I History of Water Utility

I | Water utility and industrial water supply business

Water utility during the times of former five cities

The Water Utility in Kitakyushu City has a history that has spanned 100 years since the former Moji City started a part of water supply in 1911. During this period, the former cities: Wakamatsu, Kokura, Yahata and Tobata established Water Utilities one after another along with the development of each city, and have responded to the water demand of the customers through unique management.

Water Utility in the former Moji City

The former Moji City, which had thrived from early times as an international city since it was designated as a specific open port in 1889, was municipalized in 1899 earliest among the former five cities; however, the city was deficient in water in terms of geographical features, which had caused the prevalence of epidemics year after year. For this reason, the city was pressed to install water supply service, and embarked upon the construction of water conveyance, water purification and water distribution facilities, etc., commencing with Fukuchi reservoir in 1909. As a result, a part of water supply was started in 1911, and a full water supply in the next year, 1912. Thereafter, along with the development of the city, Kagumeyoshi, Matsugae reservoirs, etc. were constructed through the execution of the expansion, improvement works from 1st stage to 4th stage.

Water Utility in the former Wakamatsu City

The former Wakamatsu City used to be a deserted village by the middle of 1880s; however, since the city was endowed with a natural good harbor, namely Dokai Bay and further was located near the Chikuhō Coal Field, it had thrived as a center of the shipment of coal and was municipalized in 1914. However, a further development could not be expected because the city had peninsula-like geographical features and was deficient in water. In addition, since there was a great deal of damage from epidemics and fires, a water purification plant was constructed in Makiyama in the former Tobata City, and the water supply was started in 1912 by installing the submarine transmission pipe across Dokai Bay. Thereafter, Shobudani reservoir, Hatadani and Fujinoki water purification facilities were constructed through the execution of the 2-staged expansion works.

Water Utility in the former Kokura City

The former Kokura City, which used to thrive as a castle town of the Ogasawara Clan, had developed as a mercantile and military city in line with the establishment of a railroad in 1891 and the foundation of the Headquarters of the 12th Division of the former Army of Japan in 1898, and was given city status in 1900. The city, which was pressed for the necessity of waterworks along with the increase in the population, constructed Dobaru reservoir and a water purification plant in 1913, and started water supply in May of the same year. Thereafter, Kuzumaki, Imamachi and Jono water resources were established respectively through the execution of the expansion works from 1st stage to 3rd stage.

Water Utility in the former Yahata City

The former Yahata City, where the state-owned "Yawata Steel Works" with western style blast furnace began operation in 1901 for the first time in Japan, had become a big industrial city in line with the foundation of large or small affiliated companies. The city, which was municipalized in 1917, constructed Yamanokami

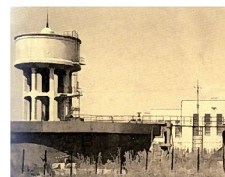
water purification plant because of the increase in the population and the development of these companies, and started water supply in 1930 upon receiving the divided water from Kawachi Reservoir and the water transmission pipe of Onga River of Yawata iron- and steel-making works. Thereafter, Yamanomisaki water purification plant and Hata Dam were completed through the execution of the 3-staged expansion works.

Water Utility in the former Tobata City

The former Tobata City used to be a fishing village; however, since the iron- and steel-making works was founded in the former Yahata City locating adjacent to the city, and the affiliated factories were constructed one after another therein, it had developed as an industrial city and was municipalized in 1924. In those days, the city had still received water supply from Wakamatsu, however, it constructed Otani water purification plant in order to dissolve such condition and started water supply in 1931. Thereafter, Otani water purification plant, and the water supply facilities for ship water and industrial water were reinforced through the execution of the expansion works.

Kitakyushu Water Supply Association (1952-1964)

Each of the former five cities had developed so far as to be mentioned as one of the 4 biggest Industrial districts in Japan, that is to say, the Kitakyushu Industrial area, while making use of respective geographical conditions. However, since the water resources on which each of the former cities had to depend were mostly limited to the Onga River, it was extremely difficult for each city to solve water supply problems independently in terms of the water rights and financial bearing capacity. In order to facilitate the establishment of sound finance as well as to drastically dissolve such water supply problems and to ensure the water resources, taking advantage of the designation as a specific area under the Comprehensive Development of the National Land in 1951, the Kitakyushu Water Supply Association was established in April 15 of the next year, 1952 upon consultation between the 4 cities (excluding the former Moji City) and Fukuoka Prefecture.



Construction work of installation of distribution pipe in the former Tobata City Jono Water Resource of the former Kokura City

The Kitakyushu Water Supply Association sought the Onga River for the water resource and embarked upon the expansion project immediately after its establishment. Isaza intake treatment plant and 1st Tonda reservoir had been already constructed as the prefectural water supply project; however, 2nd Tonda reservoir and Ano water purification plant were completed through this project. As a result, the capacity of water supply, which had been 156,000 m³ per day as of the establishment of the association, increased up to 288,000 m³ per day.

In addition, the 1st industrial water supply was completed and started water supply to Yawata iron- and steel-making works and other 10 companies in 1960. Thereafter, the association embarked upon the 2nd stage expansion project and 2nd industrial water supply, however, which were taken over by Waterworks Bureau of Kitakyushu City along with the inauguration thereof.

Water Utility of Kitakyushu City (1964~)

In January 1, 1964, the next year of the birth of Kitakyushu City, when the Water Supply Department of former Moji City and the Kitakyushu Waterworks Agency (Kitakyushu Water Supply Association was renamed as such in April, 1962) were consolidated, and at the same time, Waterworks Bureau of Kitakyushu City was inaugurated and Fukuoka Prefecture withdrew from the consolidation.

With the consolidation, Kitakyushu City had come to have a maximum capacity of water supply of 395,000 m³ per day with the major water resources in the Onga River, Rikimaru Dam, etc. However, the city was obliged to restrict the water supply for about 2 months totally because of a second straight year of drought in 1967 and 1968. (A service restriction of 170 days totally in the drought in 1978)

Then, the city held up the water resource development as one of its most important policies in order to respond to "water shortage" and an "increase in the water demand along with the development of the city", and had positively advanced such development, which resulted in the construction of Aburagi Dam in FY 1971, Masubuchi Dam in FY 1973 and the estuary weir of the Onga River in 1983, etc.

In addition, the city participated in the development of Yabakei Dam in Oita Prefecture beyond the prefectural boundary in 1977, which led to the flotation of the 5th stage expansion project.

Yabakei water conveyance channel as being a main of the project was completed in March, 1998, and the city facilitated the stabilization of the capacity of water resource by starting water passing from the water conveyance channel to Ideura water purification plant in Kokura-Minami Ward from April of the next year, 1999 prior to the completion of the water purification plant.

The expansion work of the Ideura water purification plant was completed at the end of FY 1999, which led to a maximum water supply capacity of 769,000m³ per day starting in FY 2000, consequently, our main issue was changed from "expansion" to "maintenance", because we had enough capacity and facilities for the water supply.

In October, 2006, the city established a water wholesale business to supply purified water to 1 city, 1 town and 1 association by making use of the circulated water of the North Fukuoka Emergency Transmission Pipe, and started supplying purified water to Munakata City and Shinguu Town since April, 2011. Also, the city started the supply to Okagaki Town in April, 2015, also started supply to Fukutsu City and Koga City in April, 2016, and to Kawara Town in April, 2017. In addition, the city integrated the water utility business of Ashiya Town in October, 2007 and that of Mizumaki Town in October, 2012. Other approaches to the expansion of regional cooperation in the water utility business were made, such as implementation of the entrustment agreement with the Munakata Region Service Association in regards to the overall services for the water utility business in April, 2016.

In April 2012, in order to improve the services for citizens and to facilitate business efficiency, the organization of the Waterworks Bureau was consolidated with that of the Sewer Section of the Construction Bureau, and the Water and Sewer Bureau was inaugurated.

Concerning the industrial water supply, the city integrated the 1st, 2nd and 3rd industrial water supplies, and the supply for Coal mining Areas in April, 2008.

History of the project after the inauguration of Kitakyushu City

(As of September 1, 2019)

Category	Name of project	Commencement year/month	Completion year/month	Capacity of water supply (m ³ /day)	Main construction works	
Main Water Utility	Water supply utility	2nd stage expansion Continued from the Kitakyushu Water Supply Association.	April, 1960	March, 1967	395,000	Construction of Rikimaru Dam Expansion of Ano Water Purification Plant
		4th stage expansion Water Supply Department of former Moji City	April, 1966	March, 1976	609,000	
		3rd stage expansion	January, 1975	March, 1984	710,000	
		4th stage expansion	January, 1977	March, 2008	769,000	
	Water wholesale	Establishment (Targets for water supply: Munakata District Association, Koga City and Shinguu Town)	November, 2006	March, 2011 (water supply started on Apr. 1, 2011.)	20,000	Installation of North Fukuoka Emergency transmission pipe Construction of Tarumi Balancing Reservoir
		Expansion project in the south of the city (Kawara Town)	April, 2014	March, 2017	21,000	Yobuno booster pump preparation project
		Onga River watershed expansion project (Okagaki Town)	—	—	23,000	—
Industrial water service	1st industrial water supply facilities	April, 1957	May, 1960	70,000	Construction of water intake from the Onga River (Isaza) Construction of Hatakedo Water Purification Plant	
	2nd industrial water supply facilities	April, 1960	March, 1969	112,000	Construction of Hikino Water Purification Plant, & Rikimaru Dam Raising the top level of Tonda Reservoir	
	1st, 2nd industrial water supply facilities	April, 1972	May, 1977	—	Construction of wastewater treatment facilities in the existing water purification plants	
	3rd industrial water supply facilities	July, 1971	August, 1983	47,000	Construction of the estuary weir of the Onga River Construction of Honjo Water Purification Plant, Odake Water Distribution Reservoir	
	Project for development of industrial water supply for coal mining areas	April, 1969	August, 1983	25,000	Same as above	
	Total	—	—	—	254,000	—