

Case	Comprehensive Outsourcing Scheme of Water Supply in the Hakone District		
Water utility	Kanagawa Prefectural Public Enterprises Agency		
General information of the utility (2019)			
*Upper low: Entire Kanagawa Prefectural Water Supply / Lower low: Hakone District Water Supply (part of upper low)			
Operation type	Public (retail supply)	Service area (km ²)	808 33
Population served	2,820,981 5,101	Distribution (m ³ /d)	871,031 6,954
Service coverage (%)	99.8 88.9	Pipe length (km)	9,333,986 90,272
NRW (%)	9.0 -	Number of staff	639 -
Number of water sources	Surface water (7), Groundwater (2), Others (subsoil x 3, wholesale received x 2) Surface water (0), Groundwater (0), Others (spring water 3)		
Water rates (JPY)	1,990	(in case of 10m ³ of water use per month for residential customers)	
Summary	<p>The Kanagawa Prefectural Public Enterprises Agency (Agency) has contracted out the whole operation of water supply in the Hakone district to private companies to help them acquire an operational know-how and build a track record in water services operation.</p> <p>Since the first phase of the project (FY2014-2018), the contractors have been smoothly operating the water supply in the district.</p> <p>Through the first phase of the project, the Agency has been able to establish its own (although a basic) public-private partnership model.</p> <p>The conditions surrounding water supplies in Japan are becoming increasingly difficult, and a comprehensive operational outsourcing to a private sector can become one of the most effective ways to bring solutions to small and medium-sized water utilities.</p>		
Current Status & Challenges	<p>In Japan, many small and medium-sized water utilities are facing not only sluggish growth in water rate revenues, but also rising renewal costs for aging water facilities as well as a decreasing number of experienced personnel due to retirement and the consequent degradation of operational expertise.</p> <p>To cope with these issues, some municipalities are considering a regional collaboration and the use of public-private partnerships.</p>		
Measures & Solutions	<p>Under these circumstances, the Agency has made efforts to build a new public-private partnership model called "Kanagawa Method," in order to foster new undertakers of water supply and make sustainable water services.</p> <p>As part of this initiative, the Agency has outsourced the whole operation of water supply in the Hakone district from source to tap to the collection of water</p>		

bills, in order to help private companies build expertise and track record in operating water supplies.

This is a comprehensive operational contract with a private sector, including operation and maintenance of related facilities, water bill collection, risk management, and design, construction and inspection required for facility renewal, while the Agency continues to manage the water supply and own the facilities as the water supplier.

The characteristic of this contract is that it combines a "general contract method" that had been carried out previously by the Agency and the "third-party contract system as defined by the Waterworks Act". By utilizing the third-party contract system, the contractor will bear the responsibility stipulated by the Waterworks Act. This allows the contractor to utilize advanced technologies on its own responsibility, thus enabling efficient operations.

Upon the start of the contracted work, the Agency established a proper monitoring system and now supervising the Hakone district's operation based on the pre-determined performance requirements.

Since the first phase of the contract (FY2014-2018), the contractors have been proactively responding to a wide range of tasks, from normal operations to unexpected events, and has been smoothly operating the water supply in the district.

In the final evaluation conducted in FY2019, the contractors received a generally favorable evaluation for having provided a safe and reliable water supply. It can be said therefore that the Agency has been able to establish its own (although a basic) public-private partnership model through the Hakone initiative.

On the contractor's side, they appropriately carried out tasks such as risk management, facility renewal and operational manual development, which they would not have been able to do under the conventional individual contract method. As such, they were able to acquire experience and build expertise in operating water supplies.

One of the contractors' responses to unexpected events was to address the consequences of the volcanic activity in Owakudani that started in May 2015. The contractors promptly consulted with the Hakone Town Office and obtained permission to carry out necessary work in an off-limits zone, thereby smoothly responding to the sudden crisis. The Agency believes that this was a valuable experience for them that enhanced their risk management.

	<table><tr><td></td><td>Before contract</td><td>After contract</td></tr><tr><td rowspan="9">Agency's work</td><td>Planning of water supply</td><td>Planning of water supply</td></tr><tr><td>Supervising contracted work</td><td>Supervising contracted work</td></tr><tr><td>Others</td><td>Others</td></tr><tr><td>Counter service</td><td>Counter service</td></tr><tr><td>Asset management</td><td>Asset management</td></tr><tr><td>Risk management</td><td>Risk management</td></tr><tr><td>Water quality management</td><td>Water quality management</td></tr><tr><td>Construction design & supervision</td><td>Construction design & supervision</td></tr><tr><td>Service line application examination & inspection</td><td>Service line application examination & inspection</td></tr><tr><td rowspan="7">Contractor's work</td><td>Mains construction</td><td>Mains construction</td></tr><tr><td>WTP & pumping stations construction</td><td>WTP & pumping stations construction</td></tr><tr><td>Outsourcing maintenance of treatment facilities</td><td>Outsourcing maintenance of treatment facilities</td></tr><tr><td>Outsourcing leakage inspection</td><td>Outsourcing leakage inspection</td></tr><tr><td>Outsourcing meter reading</td><td>Outsourcing meter reading</td></tr><tr><td>Outsourcing unpaid water bills collection</td><td>Outsourcing unpaid water bills collection</td></tr><tr><td>Outsourcing other tasks</td><td>Outsourcing other tasks</td></tr></table>		Before contract	After contract	Agency's work	Planning of water supply	Planning of water supply	Supervising contracted work	Supervising contracted work	Others	Others	Counter service	Counter service	Asset management	Asset management	Risk management	Risk management	Water quality management	Water quality management	Construction design & supervision	Construction design & supervision	Service line application examination & inspection	Service line application examination & inspection	Contractor's work	Mains construction	Mains construction	WTP & pumping stations construction	WTP & pumping stations construction	Outsourcing maintenance of treatment facilities	Outsourcing maintenance of treatment facilities	Outsourcing leakage inspection	Outsourcing leakage inspection	Outsourcing meter reading	Outsourcing meter reading	Outsourcing unpaid water bills collection	Outsourcing unpaid water bills collection	Outsourcing other tasks	Outsourcing other tasks	Comprehensively outsourced
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Future Plans	<p>Conditions surrounding the water supply in Japan are becoming increasingly difficult. The challenges include a declining demand for water due to a shrinking population, aging facilities, and a serious shortage of workers. Comprehensive outsourcing through public-private partnerships is considered to be one of the most effective ways to bring solutions to small and medium-sized water utilities.</p> <p>The Agency will develop this public-private partnership model into a more general-purpose public-private partnership model so it can be easily introduced at small and medium-sized water utilities, and contribute to the construction of their sustainable water supply.</p>																																						
	References	<p>The Phase 1 Final Evaluation Report is scheduled to be published on the website of the Water Treatment Division of the Agency.</p>																																					