

WaQuAC-NET Online Panel Discussion

“COVID-19 countermeasures of Waterworks Bureau in Japan”

07 Aug 2020

Acknowledgment:

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Program

◆ Objectives

- ✓ Sharing information on what Japanese water utilities are doing as measures against COVID-19.
- ✓ Sharing these experiences in Japan with overseas members.

◆ Panelists

WaQuAC-NET Japanese members working in water utilities

- ▶ Mr. Watanabe Kazuhiko, [Case of a capital city in a region]
- ▶ Mr. Ono Yoshinobu, [Case of a major city in the metropolitan area]
- ▶ Mr. Fujii Kesuke, [Case of a major city in the Kansai region]
- ▶ Mr. Nagashio Daiji, [Case of bulk water supply authority]

Agenda

Discuss the issues and future responses to be taken in implementing COVID-19 measures in panel discussion. In particular, topics that can be applied to water utility in developing countries would be deepened.

Theme 1 Current Situation of Measures against COVID-19

Theme 2 Customer Service

Theme 3 Impact on Water Supply Business

Theme 4 Future challenges and lessons learned from the Covid-19 response

Theme1 : Current Situation of Measures against COVID-19

- Working condition (Work from home, Staggered working hours, Measures of commute)
- Infection prevention, personal health management (Temperature measurement, rules of fever case)
- Preparation for the case that staff is infected (for the business continuity)
- Cooperation with private company (e.g. contractors)

** The “three Cs” is a concept to prevent the spread of COVID-19, which stands for “closed space, crowded place, dense environment”. Japan's Ministry of Health, Labor and Welfare urged “Avoid 3Cs!”, And WHO later announced this concept to the world.*

<https://www.mhlw.go.jp/content/10900000/000619576.pdf>

Theme1 Current Situation of Measures against COVID-19

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Working condition

Work from home
(Late April to May)

WTP staff and water quality staff form two teams each and work from home alternately. Staff cannot take out data and connect to the Internet due to information security restrictions.

Dispersing working place
(From late May)

Segregate the working place for two teams by use of free space for WTP staff & water quality staff.

Staggered work
(from March)
(From late April)

4 shifts for the person using public transportation (Starting time is between 8:00 and 9:30)

It was applied to all employees with 10 shift patterns (Starting time between 7:00 and 13:00)

Break time
(From June)

Flexible operation of breaks (lunch breaks) to prevent overcrowding of the canteen

Infection prevention, personal health management

- Mask : Late Feb.~ Middle May~ Distributing stockpiled masks to BCP top priority workers (1 piece/person/day)
Distributing masks to all staff members(about 10 pieces/person/month)
- Management of fever case, scheduled ventilation, severer restriction of entry of visitors, wiping with sodium hypochlorite, hand disinfection / wiping with ethanol, installation of a shield at the counter, etc ...

Preparation for the case that staff is infected(for the business continuity)

- Review of BCP(Work prioritization in 4 categories)
- Making list of experienced or retired person→Implementing medical check(requirement of waterworks low clause 21)
- Expansion of support agreements with affiliated organizations(Limited to the case of disaster→unlimited)

Case of a major city in the metropolitan area

Theme 1 Current Situation of Measures against COVID-19
(Case of Water Treatment Plant)

	Staff	Visitors
Prevention (Personal)	<ul style="list-style-type: none">• Hand washing, gargling, coughing etiquette• Use of mask (Distribution to all staff in early April)• Recording health condition (body temperature, etc.) from early April• Permission of leave when feeling bad.• Stay at home request (Governmental declaration of emergency state on 7th April)• Report to superior; in case of getting PCR test for COVID-19, infection, deep contact with patient, staff’s family deep contact with patient	<ul style="list-style-type: none">• Hand washing, gargling, coughing etiquette• Use of mask• Recording health condition (body temperature, etc.) from early April• No entrance who has temperature over 37.5 degree• Stay at home request (Government declared emergency state on 7th April)• Request of report to WTP immediately in case of infection or deep contact with patient
Mitigation (working place)	<ul style="list-style-type: none">• Alcohol disinfection• Cancellation of acceptance of WTP visit tour (from late February)• Suspension or postponing of meetings• Staggered working hours (expanded from early March), permission of vehicle commute (expanded from early April)• Avoid “Three Cs”, (ventilation, etc.)• Dispersing work by use of free space (from early April)	<ul style="list-style-type: none">• Request of alcohol disinfection to visitors• Avoid the “Three Cs”*
BOP (organization)	<ul style="list-style-type: none">• Work from home (2 groups)(from middle of April to end of May)• Central monitor and control room (Shift work)(2 persons a group⇒3 persons a group)(from middle of April to end of June)• Making list of ex-members of the shift work	<ul style="list-style-type: none">• Request for preparing BCP to chemical supply company

Theme1 : Current Situation of Measures against COVID-19

Working Condition

Work from home; from middle of April to end of May → System for WFH has not been established.

Staggered working hours (case of public transportation)

Providing permission of parking in the premises of working place

Infection prevention, personal health management

Hand washing, gargling, disinfection, face mask, ventilation, social distance

Disinfection with sodium hypochlorite diluent

Recording body temperature every morning,

Taking measures when feeling doubt on physical condition (sleep well)

Preparation for the case that staff members are infected (for the business continuity)

Confirmation of prioritized work

Establishing back-up system to continue O&M work and chemicals order

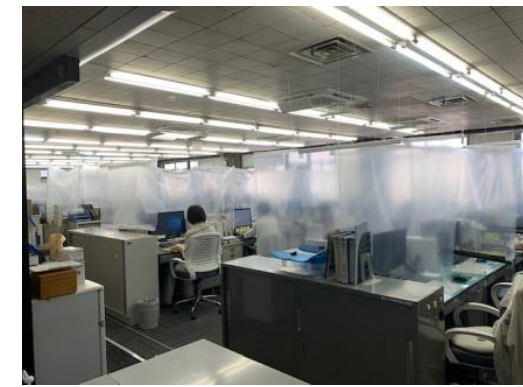
Contractors

Requesting thorough health management of workers,

Confirmation of willingness to suspend work

Case of a bulk water supply authority

Theme1 : Current Situation of Measures against COVID-19



Protective sheet of droplet infection (HQ)



Protective sheet of droplet infection (office)

- Responses based on the existing influenza countermeasure manual
 - Setting up of Emergency Management Office on 28th January and Emergency headquarters on 25th February
 - Alerting prevention of infectious disease
 - Preparing for business continuity at pandemic time, allocation of human resource and logistics
- Working conditions
 - Priority: Safeguard of operation management staff
 - Staggered working hours (3 pattern) , permission of bicycle/ vehicle commute
 - Work from home (especially for the person with severe underlying disease)
 - Dispersing work by use of free space
 - Shift work (partly work from home) ⇒ During the emergency state only
- Infection prevention, personal health management
 - Temperature check and hearing of health condition every morning (and at the starting work time for technical division)
 - Use of mask (always → case of “Three Cs”), hand washing, alcohol disinfection, frequent rehydration, avoidance of “Three Cs”
- Preparation for the case that staff is infected
 - Making a list and prioritizing of experienced person of operation. Making a list of ex-HQ member as well.
 - Making a list of person who is capable for accounting, salary payment.
 - Organizing materials for disinfection, making manuals how to disinfect and providing training on disinfection procedure.
 - Reviewing the conditions of the office attendance suspension, e.g. the case of deep contact.
- Contractors
 - Recording the name of workers at the entrance, temperature check, obligating the report of health condition
 - Minimizing the contacting persons and keeping a record of contact
 - Meeting with contractor was limited only in the rooms specialized for the meeting for the visitors.
 - There were many constructions which might affect the supply condition at the end of the fiscal year, but some constructions were postponed in consultation with the contractor.

Guidance of the cases of getting PCR test, recognizing the infection, deep contact with patient, etc.

Theme2 : Customer Service

- PR (Safety of tap water, activities by water utilities)
- Infection prevention (Distribution of chlorine water etc.)
- Water charge (Reduction or moratorium of water charge etc.)

Theme 2 Customer Service

PR

- Encourage hand-wash habit, PR of safe tap water
- Launch special website on new coronavirus infection
- Make enlightenment poster "New lifestyle"
- Cancel citizen's events ("Water Fair", Observation tour, Water museum)

Water Charge

- Reduction of basic charge for 2 months (for July and August)
Target: All customers (approx.470,000)
Total amount: Estimated JPY 1,150 mil. (inc. tax) borne by the water utility
- Moratorium of payment up to 3 months (upon request basis)
Number of cases: 208, approx., JPY 3,500,000 (2 March ~17 July)

Decrease of contact with customers

- Meter readers avoid direct talk with customers. When notifying customers about leakage or any problems in meter reading, they leave memo or call customers (not face-to-face)
- For some applications, postal or on-line procedure is recommended.
- As for leakage survey, door-to-door survey is suspended within this year

Theme 2 Customer Service

PR

- PR through website regarding safety of tap water (Q&A on tap water quality etc.)
- Notification for restart of operation of receiving tanks at private building
- Warning about frauds related to COVID-19

Infection prevention

- N/A

Water charge

- Moratorium on payment of water/sewage charge up to 4 months (from 1 April)
- No reduction of water charge

Theme 2: Customer Service

▪ PR

PR on safety of tap water.

Request customers visiting our office to prevent further spread of infection of coronavirus

⇒ Using phone, fax, internet for procedure

Giving pre-notice before visit our office

Wearing a mask when visiting our office

▪ Infection prevention

N/A

▪ Water Charge

Moratorium of payment (up to 6 months) was announced in mid May.

*Before the announcement, moratorium was upon each requests.

Reduction of water charge is not considered.

Theme 2 : Customer Service

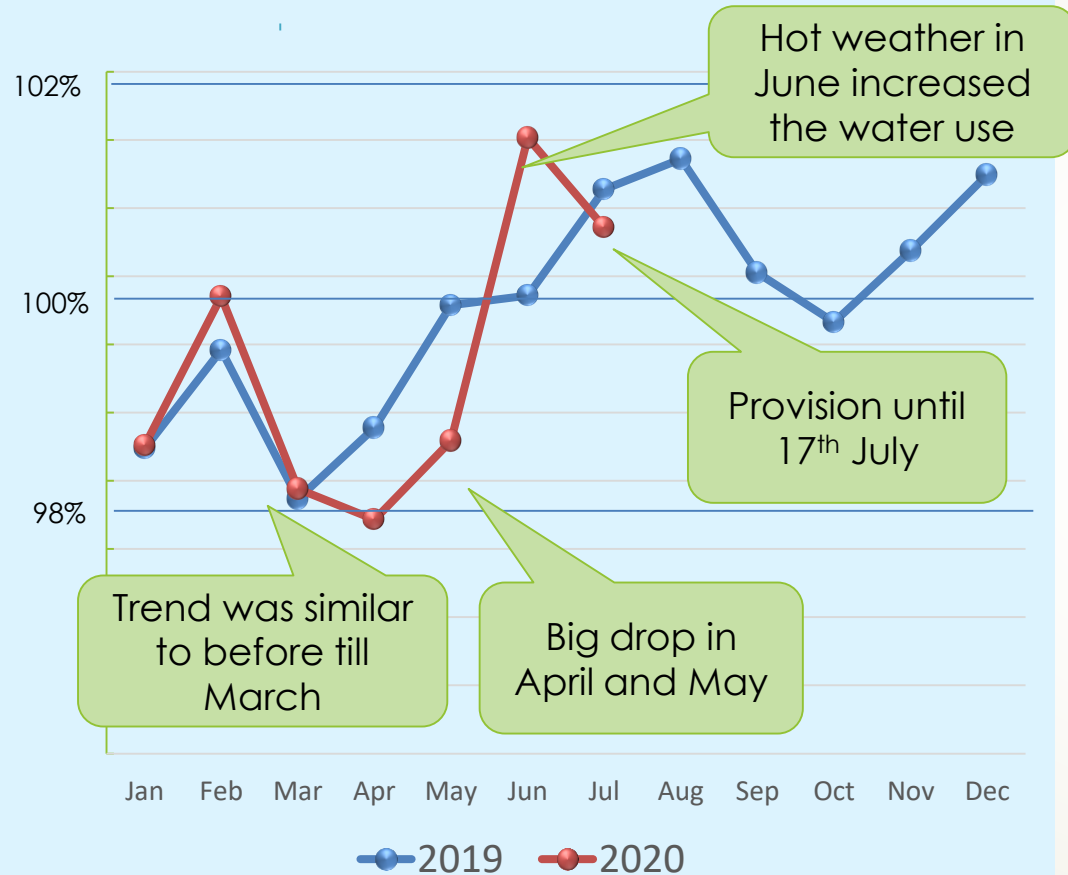
- PR
 - ✓ On website: safety of tap water, measures taken.
 - ✓ On member cities' website: our measures
 - ✓ Observation tour and “open facilities” were suspended.
- Infection Prevention
 - ✓ Residual chlorine in supplied water was increased, responding to the request of member cities. (enhancing disinfection effect in hand-washing.)
- Water Charge
 - ✓ No reduction of water charge
 - ✓ Many of water utilities reduce water charge, influenced by reduction of water charge of neighboring bulk water supplier
 - ✓ The loss of income due to the reduction must be covered by member water utilities in the future.
 - ✓ 2 layers' water tariff was introduced in this fiscal year, which lead to some reduction of water charge from member utilities.
 - ✓ Only one among member cities has not reduced water charge.
- Others... Dialogue with member cities
 - ✓ With all members: TV conference. *After June we restarted face-to-face meeting with each city.

Theme3 : Impact on Water Supply Business

- Impact of COVID-19 on the business of water supply (Change of supply amount, effect on business income, etc.)
- Measures taken for the above issues

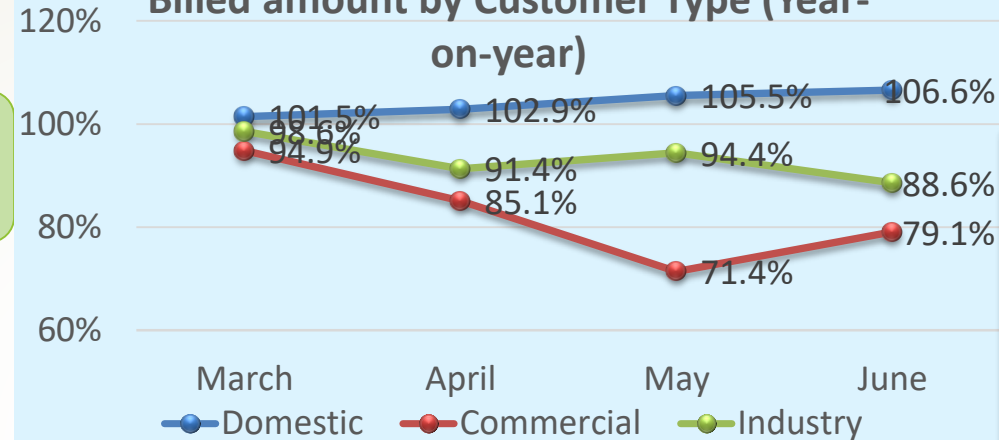
Theme 3 Impact on Water Supply Business

Daily average of supply amount



The vertical axis shows the average daily water supply amount in 2019 (fiscal year) as 100%.

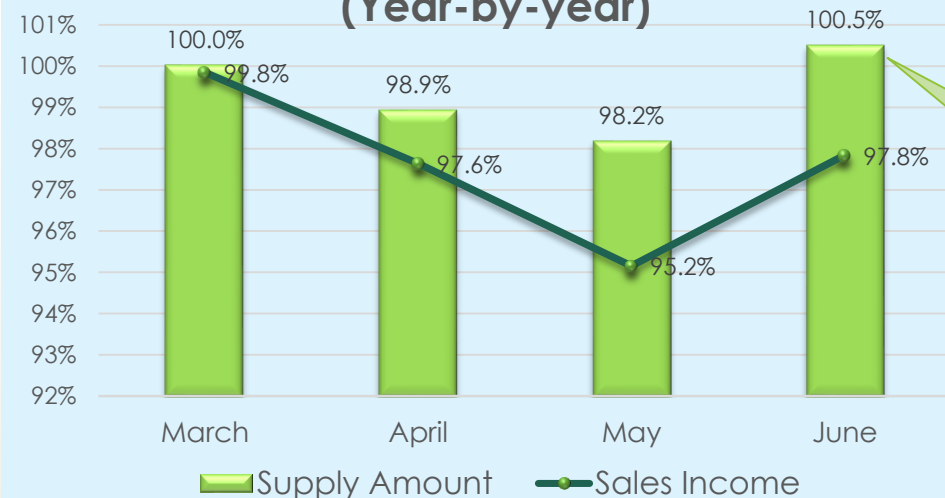
Billed amount by Customer Type (Year-on-year)



Domestic →
Commercial & Industry ↘

Particularly affected businesses (-40% >)
Hotels and Inns
Food service with alcoholic beverages
swimming pool. School
Department store and Market
Entertainment & Amusement Facilities

Supply amount and Sales Income (Year-by-year)



Supply amount was recovered in June, but sales income was still less

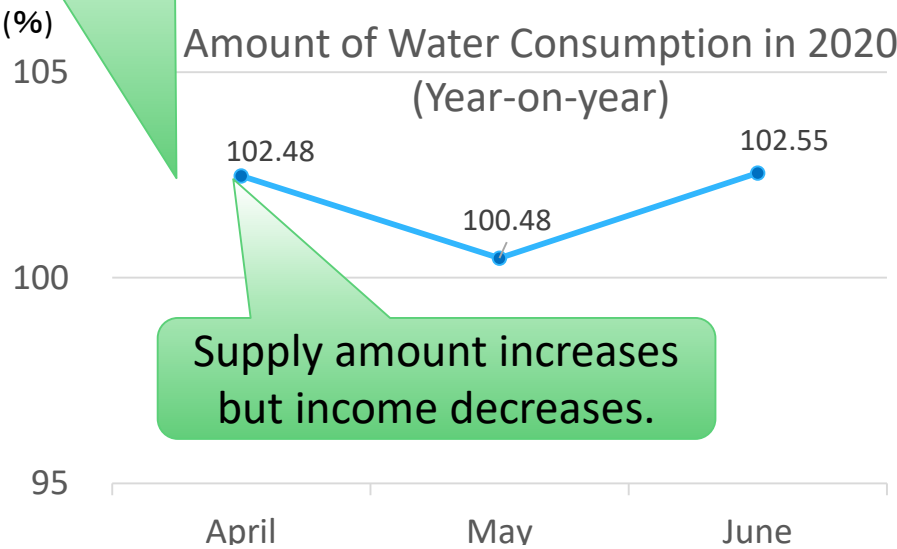
Theme 3

Impact on Water Supply Business

April to June 2020

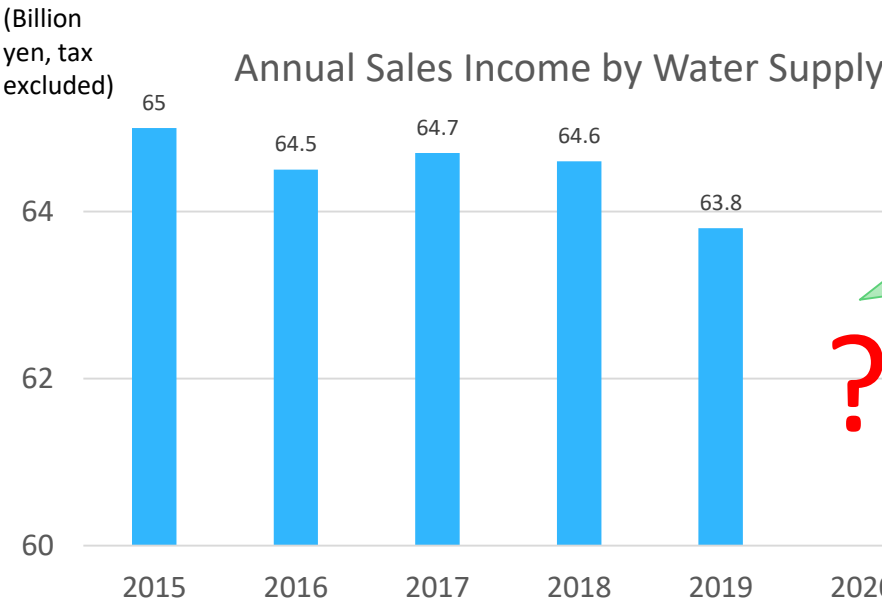
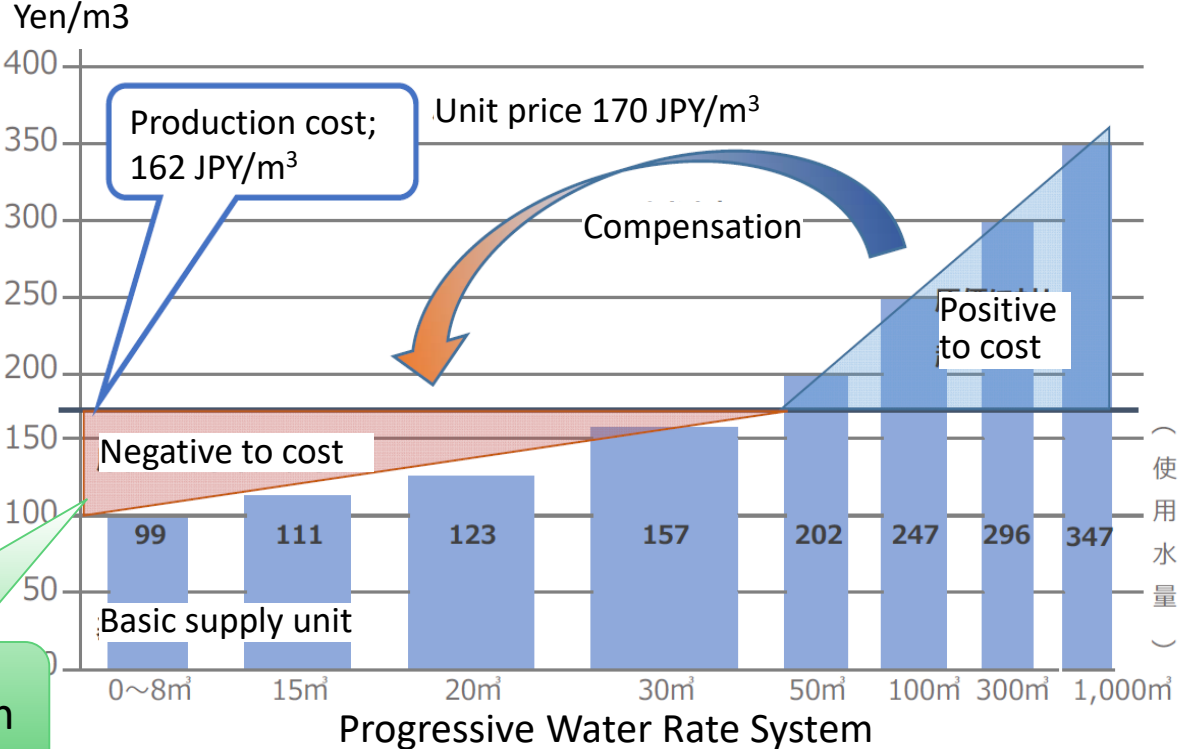
- Water Supply Amount; Increased (year-to-year)
Domestic use: Up ⇒ Residential area: Up
Commercial use: Down ⇒ Commercial area: Down
- Sales income 3.88% down (about 6 million USD decrease)

Supply amount in April to June increases



Supply amount increases but income decreases.

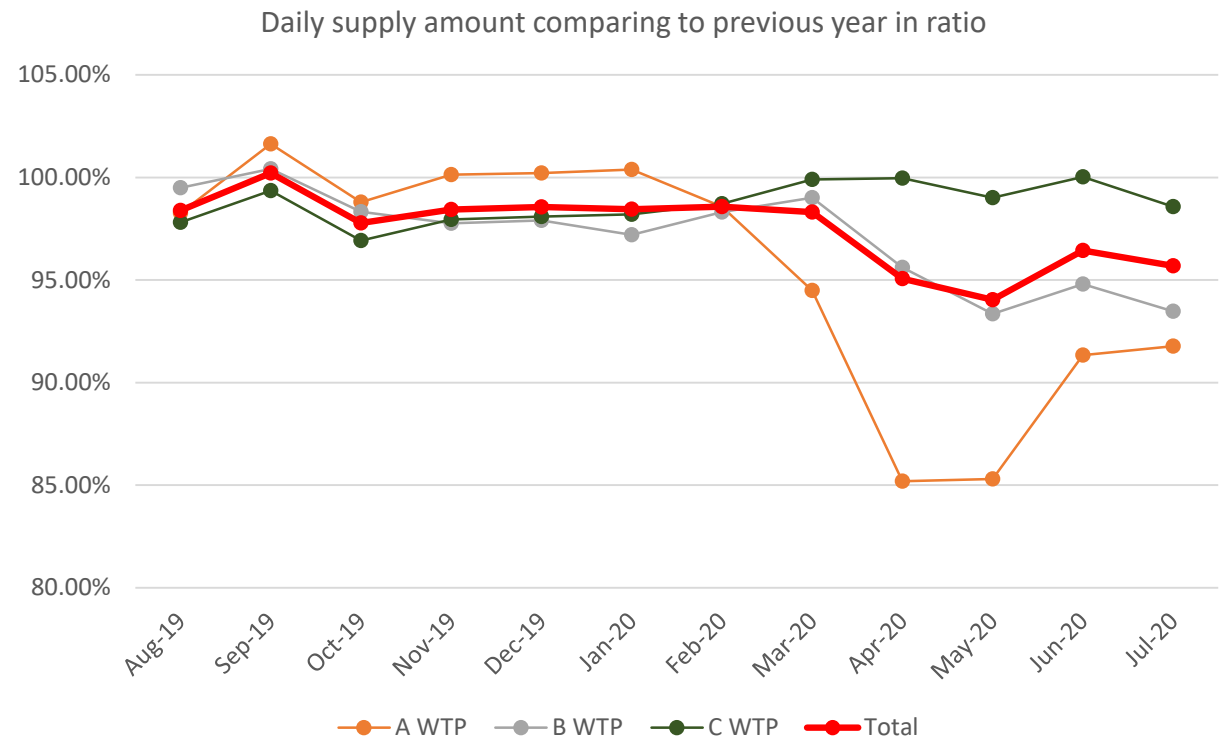
progressive water rates system results in big drop of income



Will income decrease a lot? Big impact may occur on business

Theme 3: Impact on Water Supply Business

- Impact on supply amount is different in supply area
 - Supply amount in urban area dropped a lot.
 - Supply amount in residential area is same as usual



* Major Supply Area A WTP(Urban area) B WTP (Urban & residential area) C WTP(Residential area)

- Impact on income (April to June 2020) (Ratio of year-on-year)
 - Consumption amount: Domestic use increased (+2.8%),
Commercial use notably decreased (-22.1%)
 - Industries with large decline: Hotels, schools, offices
 - Sales income: -6.1 %

Theme 3 : Effect on Water Supply Business

Total supply amount

During the period of Emergency state

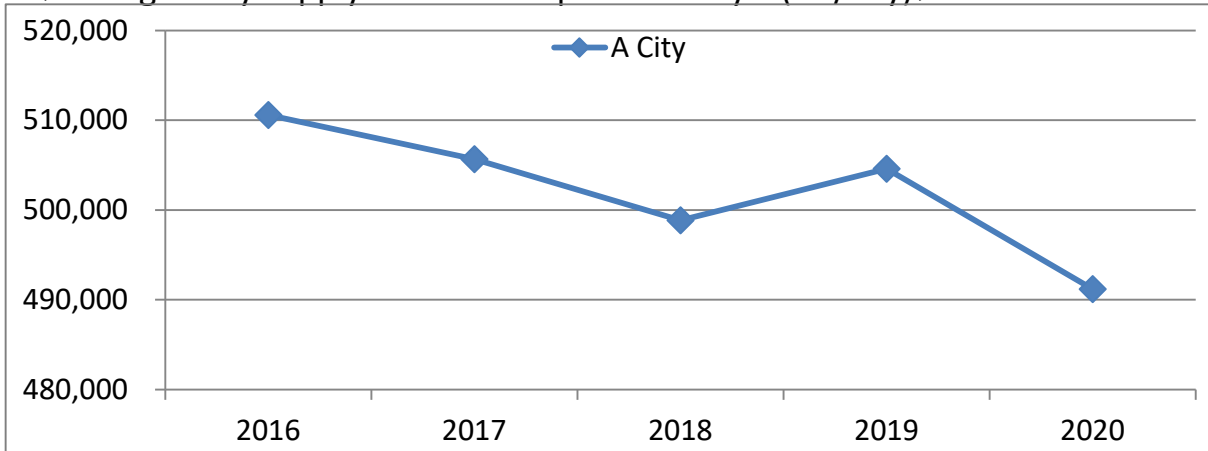
(7th April to 25th May)

-1.1% (year-on-year)

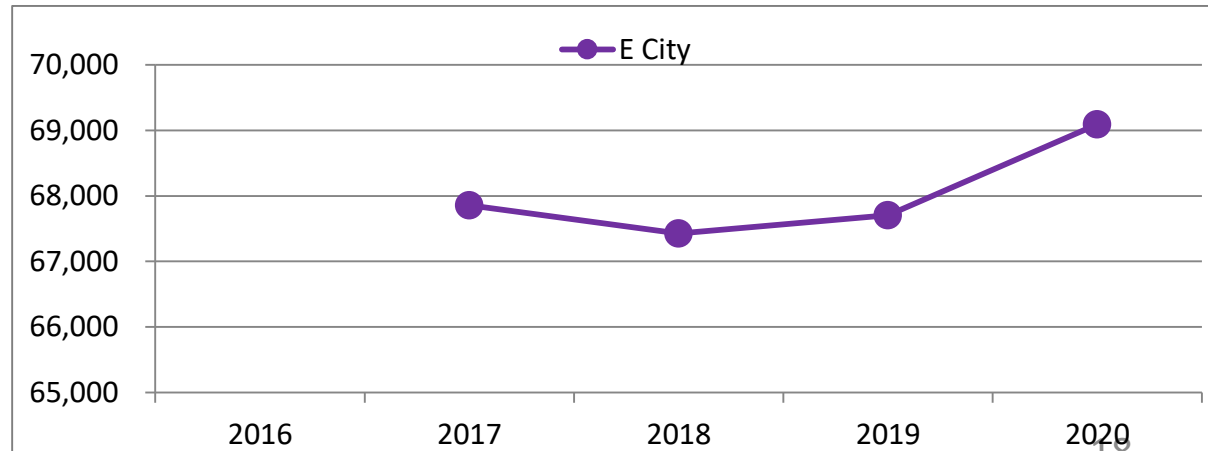
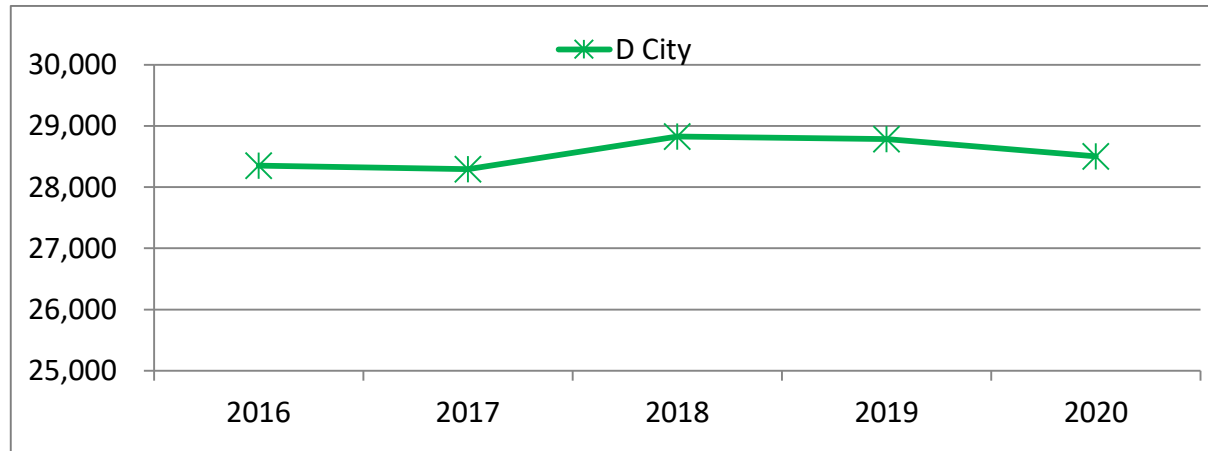
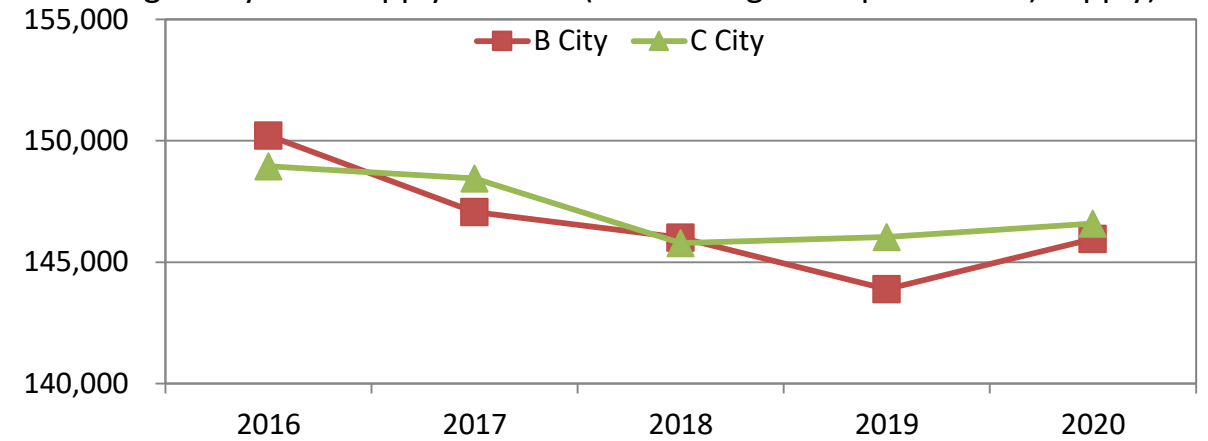
(1st March to 30th June)

-0.7%

<Average daily supply amount in April and May ※(m³/day)>



※Average daily total supply amount (Bulk selling + self production) supply)



Theme 4: Future challenges and lessons learned from the Covid-19 response

- Challenges for Business Continuity (Working system, Strengthening measures against infectious diseases, Response when infection cases are identified in a workplace)
- Steps toward Work Style Reform (Make work online, Simplification of documents)
- Customer relations
- Water supply business in general

Theme 4: Future challenges and lessons learned from the Covid-19 response

Challenges for Business Continuity

- ◆ Regarding BCP, the business priority was set, but the timing and scale of activation were undecided.
- ◆ Novel Influenza countermeasures was applied mutatis mutandis → Preparation of manuals specializing in Covid-19 countermeasures
- ◆ Temperature was self-reported → Introduction of non-contact type equipment such as thermography and implementation of reliable temperature monitoring

Steps toward Work Style Reform

- ◆ Due to information security restrictions, it was difficult to work from home continuously. Remote meeting system has not yet introduced. → Build an internet environment immediately while referring to initiatives of other cities

Customer Relations

- ◆ Response to people who have difficulty in paying → take careful measures to consultation, extending grace period of payments → Impact on water supply suspension operation?

Water supply business in general

- ◆ Decrease in tariff revenue and increase in Covid-19 countermeasure expenses
→ What is the impact on management? → Need for significant revision of business ?
- ◆ Coordination with the mayor's departments (welfare department, economic measures department, finance department)
- ◆ Prolongation → Further reduction of water charges?
- ◆ Impact on mutual support system in the event of a disaster

Theme 4: Future challenges and lessons learned from the Covid-19 response

Challenges for Business Continuity

- Response when infection case is identified in a workplace (Especially there are two shift workers, and the number of experienced people is limited)
- How far should the range of impact be considered when infection case is identified (Range of workers to be suspended from work)

Steps toward Work Style Reform

- Expansion of telecommuting system, improvement of online environment
- Online meetings, online training
- Communication (Consultation with colleagues and bosses, etc.)

Customer Relations

- Moratorium period of payments, support for social studies for 4th grade elementary school students (Water purification plant tour, etc.)

Water supply business in general

- Delay in business such as construction

○Theme 4: Future challenges and lessons learned from the Covid-19 response

- **Challenges for Business Continuity**

 - Operation of Business Continuity Plan (The end of COVID-19 outbreak is unclear)

 - Enhancement of system for teleworking

- **Steps toward Work Style Reform (Make work online, Simplification of documents)**

 - Selection of necessary work and meetings

 - Leading to the improvement of work-life balance

- **Customer Relations**

 - Providing information on the safety of tap water

 - Consider moratorium and reduction of payments

- **Water supply business in general**

 - Impact on business when it is prolonged

 - Dilution of relationships ← Disaster drills, cancellation of events, etc.,

 - Generalization of online meetings

Theme 4: Future challenges and lessons learned from the Covid-19 response

Ensuring adequate stock of personal protective equipment (PPE)

Implementation of training using e-learning, VR, etc.

Standardization and systematization of work in view of teleworking

Introduction of electronic approval

Ensuring experienced operation management staff (Utilization of retired staff)

Balancing infectious disease countermeasures and heat stroke countermeasures

→ Improvement of working environment

Reduction of the number of staff to be suspended from work when infection cases are identified in a workplace

- Promote the significance of water supply as a measure against infectious diseases.
- Is it necessary to change the way to proceed the work which emphasize the trust relationship among people?
- Reflection of risks including infectious diseases in business operations (Cost-effectiveness)