

# Promotion Scheme Investigation of Cross-jurisdictional Management Using ICT for the Sustainable Wastewater Projects

(Research of FY 2019)

## 1. Purpose

This investigation aims to develop the "Introduction Planning Procedure Draft" to adopt the cross-jurisdictional management and monitoring control system using ICT (Cross-jurisdictional Management System) and consider the data utilization manner by the system.

Japan Sewage Works Agency and NIHON SUIKO SEKKEI CO., Ltd. Jointly carried out the entrusted investigation from the Water and Disaster Management Bureau of MLIT.

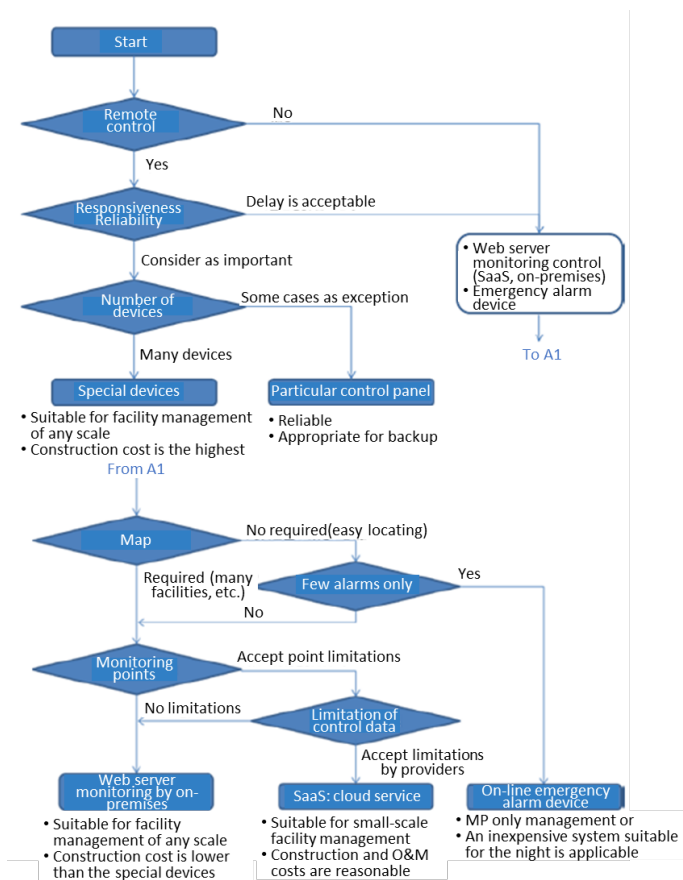
## 2. Outcomes of This Year

(1) The investigation organized the procedures of investigation/ consideration to make the "Introduction Planning Procedure Draft" understandable to people in charge of planning and O&M, and developed system adoption examples. The draft has the following features.

- ① As figure 1 shows, the Introducing planning procedure draft forms a counterpart of the adoption consideration example
- ② "Organizing needs and issues" and "Consideration requirements" has clarified organization items and requirements to make consideration items clear.

Cross-jurisdictional management and monitoring control system planning		
	2 <sup>nd</sup> edition: planning procedure	4 <sup>th</sup> edition: Model case
<b>Organizing needs and issues</b>	<b>Chapter 3, Section 2</b> • Status and issues of target facilities • Organizing people's needs	<b>Chapter 1, Section 1</b> • Organize needs and issues of a model city
<b>Setting consideration requirements</b>	<b>Chapter 3, Section 3</b> • Setting requirements from needs and issues	<b>Chapter 1, Section 2</b> • The model city's requirements for the system
<b>Considering systems</b>	<b>Chapter 3, Section 4</b> • Consideration procedure • From each block to the whole facility	<b>Chapter 1, Section 3</b> • The model city's consideration of the system
<b>Choosing a system</b>	<b>Chapter 3, Section 5</b> • Evaluated the selected system • Conclusion	<b>Chapter 1, Section 4</b> • Conclusion of the model case

Figure 1. System adoption plan procedure



③ "System consideration" has developed a flow diagram (figure 2) from the previously mentioned requirements to define the points of attention at estimations.

④ "System selection" shows evaluation examples to select the optimized plan among the multiple cross-jurisdictional management systems referring to the model plan.

The developed evaluation examples of the model plan helped to confirm the effectiveness of the introduction plan procedure draft.

Figure 2. Flow diagram for system consideration

(2) The investigation organized data utilization examples in academic journals such as the Japan Sewage Works Association journal, recent ministries' actions relating to wastewater projects, and private companies' advanced ICT or data utilization measures.

### 3. Conclusion and Future Issues

A cross-jurisdictional management system is a tool of cross-jurisdictional business strategy. In the future, we expect the time-series accumulation and integration of management resources' data, such as humans, products, and money relating to wastewater projects, to solve wastewater project management issues.

Keywords: **ICT, Cross-jurisdictional management, Monitoring control system**