

## Study on Establishment of Guideline Draft for Rain Water Cycle Sewerage System

Whole term

1998.3 ~ 1999.6

### (Purpose)

This study aimed at establishing the guideline draft for the rain water cycle sewerage system compiling the information concerning planning method, strategy for ensuring security, and method for grasping impact of the system. This will enable control of rain water runoff by actively installing on-site infiltration and storage facilities and off-site storage facility in urban development area as well as comprehensive assessment of the added value of sewerage systems with environmental conservation, generating amenity, and water utilization.

The preliminary study was done in 1997 based on the achievement of multi-water recycling system and sewerage development research group in 1996. The guideline draft was established in 1998 based on the results.

This guideline draft became the ultimate report through discussion at a panel including academic experts.

### (Results)

In this study, two institutional aspects were investigated. One was engineering aspect of the system concerned with the site planning of system components and hydrological and hydraulic planning, and another was strategy for ensuring security of facilities installation and the sustainability. The guideline draft was finally formulated through the discussion in the panel.

The content of the guideline draft is shown as follows.

#### Section 1 The guideline draft of the rain water cycle sewerage system planning in the urban development

1. Summary
2. Stormwater runoff control facilities and site planning
3. On-site infiltration and storage facilities and hydrological and hydraulic planning
4. Storm trunk sewer designing for control of stormwater runoff sewerage
5. Off-site storage facilities and hydrological and hydraulic planning
6. System evaluation
7. Installation of on-site infiltration and storage facilities and hydrological and hydraulic planning
8. Maintenance

#### Section 2 Case study of the rain water cycle sewerage system (draft)

1. Planning of distributed detention reservoirs (Southern area of Yoshikawa Station)
2. Impact estimation of the on-site infiltration and detention reservoir facilities (Development region along New Jyouban line)
3. Designing storm trunk sewer considering the installation of the on-site infiltration and reservoir-style facilities

#### Section 3 Reference (draft)

1. Relevant subsidy systems
2. Relevant technical guidelines
3. Preliminary study on infiltration capacity
4. Maintenance
5. Relevant material for security strategy of facility
6. Case study

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Keywords

Rain water cycle sewerage system, On-site infiltration and storage facilities, Distributed detention reservoir