

Study on satellite wastewater treatment facility in river basin sewerage system of the Sagami River

Whole term

1997.9 ~ 1999.3

(Purpose)

This study was conducted to examine the fundamental vision about installation of satellite wastewater treatment facility as a measure to promote conservation and recovery of water cycle and environment in regional sewerage system of the Sagami River taking into consideration the change in social situations.

The research was conducted to select 25 candidate sites of wastewater treatment facility by evaluating three viewpoints; i.e. improvement of water cycle in basins, saving of water resource, and disaster prevention in 1997. Based upon these results, projects for recycle and reuse of treated wastewater and outline facility designs were summarized as the case studies in 1998.

(Result)

In 1998, the case studies such as outline facility designs, estimation of project expenses, and arrangement of issues in getting in operation were conducted to install facilities at two candidate sites getting highly comprehensive evaluation.

(1) Arrangement of fundamental requirements for wastewater treatment facility

The requirements (quality and quantity of treatment water for reuse, systematic problems) were arranged and examined to concretely consider installation of treatment facilities.

(2) Examination of projects for recycle and reuse of treated wastewater in treatment facilities

The candidate sites of treatment facilities were selected considering various characteristic factors in the basin, and the case studies of the following items about projects for recycle and reuse of treated wastewater were conducted.

Establishment of the objectives for the reuse of treated wastewater

Setting of the quality and quantity of recycled wastewater for the reuse of treated wastewater

Examination of various conditions in the routes and facilities used for reclaimed water transport and water conveyance

Development of improvement scenario

(3) Outline design for treatment facilities

The outlines of treatment facilities were designed on the basis of projects for recycle and reuse of treated wastewater stated in the section (2) in candidate sites.

(4) Estimation of project cost

The project cost of treatment facilities were estimated based on the results from (2) and (3) in candidate sites.

(5) Qualitative evaluation of installation of treatment facilities

Based upon the results as discussed above, influence, effect and challenges of installation of treatment facilities were summarized.

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Keywords

purification facility, reuse of sewage treatment water