

## Study and Research to Review Collaborative Measures for Water Quality Improvement of Closed Water Body

Year of research

2010

Establishment of sound water environment

**(Purpose)**

This study summarizes the progress of the Phase II Aquatic Environment Improvement Emergency Action Plan and the Tokyo Bay Restoration Action Plan, projects undertaken as collaborative efforts by related authorities to reduce pollutant loads.

The study also examines approaches to calculating pollutant loads, while taking into account increases or decreases of the sewerage planning areas to be carried out as part of a review of prefectural plans. The study also discusses which approaches to planning pollutant load reduction measures would be optimal for each drainage basin.

**(Outcomes)**

(1) Study of progress made in control methods used as part of measures taken to improve water quality

As part of a follow-up on the implementation of water quality improvement measures taken for the rivers covered by the Phase II Aquatic Environment Improvement Emergency Action Plan, two questionnaire surveys were conducted among the related authorities.

- “Progress made and future development in Seiryu Renaissance II”
- “Items studied and schedule for achievement of targets”

The questionnaire results were compiled to create a database and system that will enable retrievable of outlines of measures, descriptions of progress being made, and concrete examples of steps being taken.

(2) Review of the collaborative approach taken by related authorities for water quality improvement in mainly closed water bodies

Referring to the pollutant reduction load targets set by the Land Area Subcommittee of the Tokyo Bay Renaissance Promotion Conference, a questionnaire survey was conducted on the state of approaches being taken by authorities to reduce pollutant loads. This was intended to summarize the status of pollutant load reduction in fiscal 2009 and 2010. The survey results obtained were used in the summaries included in the materials prepared by the Land Area Subcommittee of the Tokyo Bay Renaissance Promotion Conference.

Calculation of the pollutant load sent to Tokyo Bay from the surrounding land area indicated that progress was made in reducing pollutant loads in both 2009 and 2010 in the effort to achieve targets set for 2012. However, to achieve these targets, it is necessary to intensify the efforts being made to reduce pollutant loads of COD, T-N, and T-P.

(3) Study of the collaborative approaches taken by authorities to reduce pollutant loads in order to optimize them

Also examined was the approach to calculation of pollutant loads for cases under present conditions and under future conditions in which the population and basic units can be expected to be quite different from those used in the current comprehensive basin-wide planning of sewerage systems. In this way, the approaches were studied to develop optimum plans to meet the environmental standard in drainage basin. The aim was to prepare a flow of review activity to select optimal approaches. The review steps are outlined below. (figure1)

- 1) Confirmation of the basic plan
- 2) Review and verification of the future framework
- 3) Calculation of the pollutant load
- 4) Optimization of the pollutant load reduction
  - Review of collaboration policy with related authorities (policies on rivers, environment, etc.)
- 5) Verification of the validity of the plan

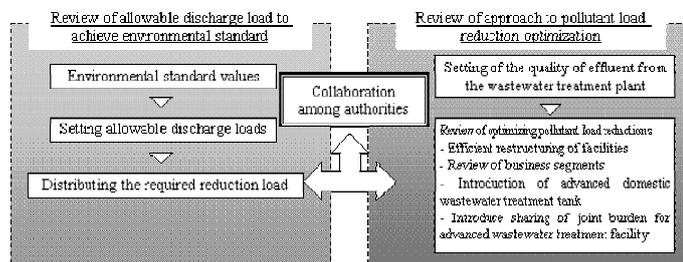


Figure 1 Review of collaborative approach to pollutant load reduction optimization adopted by authorities

Research entrusted by the Ministry of Land, Infrastructure, Transport and Tourism, City and Regional Development Bureau, Sewerage and Wastewater Management Department

Contact: Research Division I, Hiroaki Morita, Hideki Matsuba, Hideaki Komine, Hideaki Yamaga at 81-3-5228-6597

Key words

Closed water body, pollutant load, Seiryu Renaissance, Tokyo Bay Restoration Action Plan