

Survey Study on Measures for Water Quality Decontamination in Tokyo Bay

Whole term

2001.12- 2002.12

(Purpose)

Water quality improvement programs have ever been carried out in the ports rivers and the sewerage works for the of public water, and some results of each individual project have been achieved. The water quality of the river which flow into Tokyo Bay has improved with sewerage works. However, the water quality improvement of Tokyo Bay where water receives less exchange and the mechanism of water quality deterioration is complicated has still not progressed. For this reason, each project of the port, river, and sewerage department needs to cooperate closely to each other, and it is needed to implement efficiently the measure for water quality purification in Tokyo Bay.

Therefore, in this project, a survey study on the measures is performed for the efficient and prompt improvement of water quality environment of Tokyo Bay which has less water-exchange property. An action program is proposed based on the coordination of Port and Harbor Department, River Department, and Sewerage and Sewage Purification Department.

(Results)

(1) The setup of the object water area of an action program

"The closed-off section of Tokyo Bay centering on the Odaiba Seaside Park" was selected as a objective area, from the points of view as follows: 1) area characteristics, 2) visitors to waterfront space, 3) the approach to waterfront spaces, 4) immediate affectivities and cost performance, 5) coordination with related departments, and 6) the emergency of projects

(2) The basic policy of the action program

Based on the present condition and the development period (ten years) of the objective water area, the fundamental contents of the measure were compiled as follows.

- The device of the discharge method towards the water cycle improvement of the local Closed Water shed
- Escape prevention of the impurity for improving a waterfront environment
- Outflow control of the organic matter of SS origin which contributes to control of a sediment, etc.

(3) Proposal No.1 for the action program (volume on water-amenity canal)

- 1) Target: reproduction of the canal as an amenity space of high familiarity with water which secures the access to the waterside and the continuity of the waterfront line
- 2) Objective water area: the canal located in the harbor area of the Shibaura treatment plant discharge place in the opposite shore of the Odaiba Seaside Park
- 3) Contents of the project: Contents of the project by the port and harbor department office are the follows: water-amenity space maintenance of revetments, terraces, parks, etc., water quality monitoring and dredging of canals, and collection of suspended matters such as garbage.

The contents of the project of Sewerage and Sewage Purification Department are the follows; the efficient treatment of in-case-of-storm-events sewer and change of the discharge place, and the improvement of the water cycle of the canal which utilized the secondary effluent in the Shibaura treatment plant. These are decided for reduction of impurities and deposition prevention of sediments.

(4) Proposal No.2 for the action program (volume on artificial seashore)

- 1) Target: reservation of the waterfront space where people can play in comfort
- 2) Objective water area: the Odaiba Seaside Park
- 3) Contents of the project: Contents of the project of port and harbor department office are maintenance of the artificial seashore, wreckage collection, etc.

The contents of the project of the Sewerage and Sewage Purification Department are the select of the system and facilities which have high water-quality-conservation effects within the 10km circle from the Odaiba-Seaside-Parks, and the gradual implement of the measure for an improvement of combined sewer, effective use of facilities and lands and the advanced treated water of the Ariake treatment plant.

(5) Proposal No.3 for the action program (volume on Monitoring)

- 1) Target: maintenance of the monitoring organization for clarifying the factor of environmental change
- 2) Objective water area: a water area required in order to grasp the cause of water-environment aggravation of the water area centering on the Odaiba Seaside Park etc.
- 3) Contents of a project: The content of the project of the environment division office is the Monitoring at the environmental-standards points, etc.

The contents of the project of port and harbor department office are monitoring in a sea area, making a database of the data, and concentrating and controlling the data.
The content of the project of river department is the monitoring in each basin system unit.
The content of the project of a Sewerage and Sewage Purification Department is the Monitoring in the basin system unit of sewerage facilities.

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Key words

Reclamation of Tokyo Bay, Coordinated measures, Combined improvement