

Survey Study on Formulation of Basic Plan of Sewerage in Yumeshima Area in Osaka City

Whole term

1999. 4-2001. 3

(Purpose)

In recent years, environmental problems of regional level and international level are being focused.

In Yumeshima, which is an artificial island located in the coastal-areas of Hokko Area in Osaka Bay, a new town-planning project based on the human and environmental symbiosis is promoted. The sewer plan of the Yumeshima is created simultaneously with a town planning from a program stage. This is a precious opportunity to design new "town". The sewerage project is required to contribute to the town planning from several perspectives.

In order to establish a concept of the Yumeshima sewerage, and the direction of developing measures, a committee is established and a proposal is created under the cooperative research of Osaka City and the Japan Institute of Wastewater Engineering Technology by foreseeing the expected role of the sewerage in the town planning of the Yumeshima and change of the situation in the sewerage.

(Results)

The project outline of the sewerage and the outline of the proposal document are shown below:

(1) The project data of the sewerage (March, 2001 fiscal year)

Planned-target year: 2025

Planned area: 1,258.0 ha (Yumeshima 380.0 ha, Sakishima 653.0 ha, and Sakishima 225.0 ha)

Planned water quantity: 100,000 m³/day (daily maximum) (Yumeshima: 43,000 m³/day)

(2) The role of the sewerage expected from the town planning of the Yumeshima

The sewerage of the Yumeshima contributes to the following points in a town-planning project.

Environment-friendly town planning, Framework formation of the city focusing on the environment, Town planning tough for disasters, and Realization of a new life style

(3) The fundamental future direction and basic philosophy of the Yumeshima sewerage

The new measure "environmental symbiosis" for the sewerage will be positively taken by living with the nature in the city and aiming at water circulation. Therefore, the basic philosophy of the sewerage of the Yumeshima is considered as "[human-and-environmental-symbiosis high-performance sewerage] - living with water and recreational area and achieving the resources recovery".

To develop measures which perform this basic philosophy the following five ideas are proposed.

Water cycle: Formation of healthy water cycle, and creation of the good water environment which brings people pleasant and comfort.

Zero emission: Formation of the sustainable recycling society and contribution to the protection of human health and ecosystem.

Creation of city nature: Contribution to the framework formation of the city focusing on the natural environment which has abundant water and recreational area, and the healthy ecosystem.

Safe and secure town: Contribution to security of life lines and improvement of disaster prevention.

New life style: Support to people's environmental activities

(4) Toward the implementation of plans

The following items are focused to implement the plans:

Collaboration to other departments, Change of town structure and character to environment-friendly type, Development of new technologies, Roles of sewage treatment plants as ecological facilities, Environmental investment in sewerage systems and its benefits, Comprehensive management of Yumejima

(Future tasks)

In the future, planning and designing of the facilities are required to perform these ideas. In addition, supporting systems are widely required among many other departments.

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Key words

Water cycle, Zero emission, Environmental symbiosis, Resources recycling