

Research on Network Plan for Sewerage System

Whole term

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(Purpose)

In the city where sewerage system has been constructed at early time, the useful life is approaching in civil works and architectural facilities in addition to the mechanical and electric installations. And the sewerage works have shifted from the spread promotion to the maintenance age. The situation in which the works expense projects is expected by increasing of reconstruction and rehabilitation and generating the works intensively at one period. To cope with the above situation, the work efficiency and management stability are important in the future.

As the means to attempt work efficiency and management stability, sewerage system network with tow or more facilities (wider area coordination and/or cooperation) is focused. Comparison between individual sewerage facility and networked ones is made with respect to economy, crisis-management, and efficiency and evaluated in a long-term work scheme.

(Conclusion)

1. Procedure to prepare a long-term work program (Decision making process)

Irrespective of the network introduction, the procedure that can prepare a long-term work program for each sewerage facility is presented as shown in Figure 1

2. Effect of network and it's evaluation technique (wider area coordination and /or cooperation)

Network examples and expected effect of network are presented. Evaluation items and method of economy, crisis-management, and efficiency of sewerage system by presence of network are described.

3. Evaluation technique for work program by expense frame (leveling of expense)

Examination of managerial validity (execution possibility) is to be made comparing the prospective expenses by fiscal year with the possible expense frame that is derived from the past construction and maintenance costs and the financial picture, etc. In this case, it is assumed that the leveling of the expense is attempted by adjusting the reconstruction time, when the expense projected compared with other fiscal year. Leveling image of the expense in fiscal year is also shown.

4. Outline trial calculation technique to examine possibility of network

When there are two or more sewerage facilities that can be objects for the network, it is desirable to understand the effect of network before detail examination is made. Therefore, the outline expense calculation seat is prepared, which enable to trial calculation upon input of various conditions.

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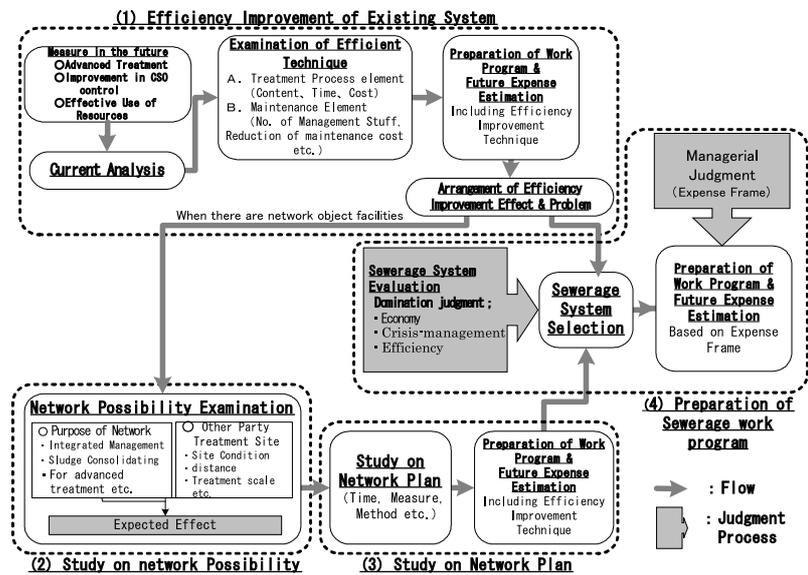


Figure-1 Examination procedure for work program design

key words

Network, Wider area coordination and/or cooperation, Sewerage work Program