

Research on life-extension plan and stock management of sewer system

Year of Research

2012

Appropriate stock management

(Purpose)

The stock of sewer facilities increases with progress of the sewer maintenance, and the deterioration facilities increase, too, and the increase of update costs is expected, too. On the other hand, it is demanded that each local government manages the sewer facilities increasing under the severe financial limitation appropriately. It is demanded what each local government works on by efficiency of the investment in life-extension and reconstruction of sewer facilities premeditatedly.

And each local government plans life-extension plan to carry out strategic maintenance in sewer facilities. We examine life-extension plan technique based on stock management technique to optimize the whole sewer facilities to manage the increasing sewer facilities effectively.

(Results)

(1) Rearranging of the problem about stock management and life-extension(Enforcement of the questionnaire)

The sewer business overlooks the whole sewer facilities by practice of the stock management and plans integral optimization of maintenance and the reconstruction, and it is necessary to carry out reconstruction premeditatedly.

However, the reconstruction carrying out based on life-extension system becomes the plan that established the principal objective in the individual facilities. The reconstruction of sewer facilities is the present conditions not to give off with life-extension plan introduced stock management technique.

Based on the above, the main problems about stock management and life-extension were as follows by the enforcement of the questionnaire to the local governments which carried out life-extension business.

- Clarification of the relations of stock management and the life-extension plan
- The choice technique of a range targeted for the life-extension plan is incomprehensible.(efficiency of the work by the screening investigation)
- An investigation method and a plan method are complicated (Simplification of the investigation method).

(2) Development of the life-extension plan guide on the basis of stock management technique

Based on the problem that we stated above, we show below the revision policy of the life-extension plan guide guide.

- ① We made the life-extension plan guide on the basis of stock management to show it in **fig -1**.
- ② We showed plural risk evaluation methods to examine the priority on the basis of stock management technique. And we can examine it, accepted the accumulation situation of the information.
- ③ We made an examination flow, the contents of the rational life-extension plan depending on the characteristic of the management method clear.
- ④ We added the narrowing technique of the screening investigation into sewage pipe camera and investigation into manhole lid method to promote the life-extension plan development.

Because the stock management in the sewer business just began., the life-extension plan of each local government devises a plan on the basis of a simple risk evaluation method. And it is necessary for each local government to plan improvement in stock management by "PDCA"(plan-do-check-action).

In addition, development from stock management to the asset management will be necessary in future because a viewpoint of the management is important to the local government.

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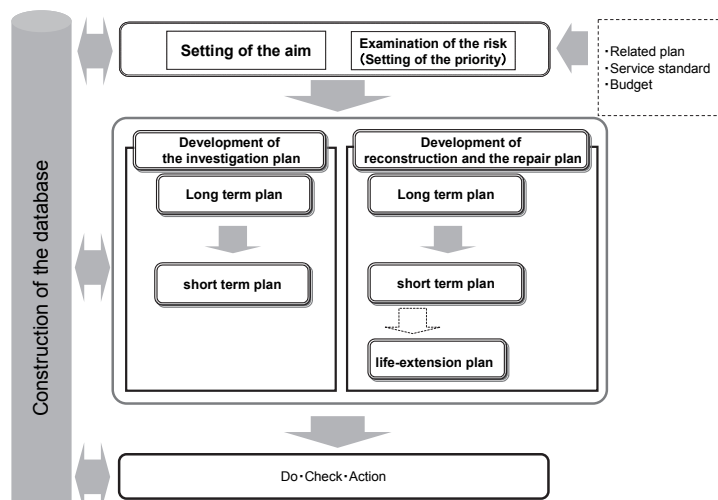


Fig-1 stock management flow

Key words

asset management, stock management, life-extension plan