(Purpose)
We have made an investment of more than 80 trillion yen in maintained sewerage, and done almost 380,000km total extension of the sewer pipes and the number of the places of sewerage treatment plant amounts to about 2,000. Henceforth we will manage the wastewater infrastructure appropriately. In order to be showed its function, we need to invest in Maintenance and Rehabilitation/Renewal. With increasing facilities, we expect, those expense also rise. Therefore, under rigidly financial restrictions, we will manage the increasing sewerage facilities appropriately to secure sewerage service stably, get this management systematically such as prolonging the life length of building, leveled investment in Rehabilitation/Renewal. The premeditated approach is required.

This study, about the range of the stock management which shows Fig.1, has considered following items with the aim of examining for technology to enact “the fundamental proposal for the stock management in sewerage works” which is got hold of an unified sequence of maintenance process that is from constructing to maintaining such as prolonging the life length of building, leveled investment of Rehabilitation/Renewal.
1 Goal setting approach of facilities management plan
2 Inspection plan
3 Maintenance repair and reconstruction plan

(Results)
1. About setting essential goals when carrying out the stock management; Goal A which is determined in consideration of superior plans, service levels and a budget. Goal B which is the aim of achieving goal A in each facility. We have put together these relationship and case study.
2. We have put together the method for evaluating the present condition of facilities quantitatively and with its evaluated result the approach of soundness prediction to think ahead to the future facilities condition.
3. We have put together the thought on leveling of works by year in consideration of the computation of works by year and kinds of facilities and the budget constraint.

Based on the research result above, we have disposed of “the method of introducing the stock management in sewerage works” at “committee for the stock management in sewerage works”. And when introducing the stock management to each local government, our future issues are to show the concrete methods such as the method of gradual review procedure, quantitative condition evaluation, leveling of works.

(Future study)
Hereafter we will examine for the accounting considering stock evaluation, using fund, raising fund and for using method of the facilities that we now have. And we need to carry out the research, “asset management in sewerage works”.

Research funded by Ministry of Land, Infrastructure, Transport, and Tourism.
Contact: Toshiaki Shimizu, Hiroyuki Shigemura, Hirokazu Kondo, Ken Yoshida

Key words
Stock management, aims, condition assessment technology, leveling of investment

<table>
<thead>
<tr>
<th>Year of Research</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study on the methods of the stock management in sewerage works</td>
<td></td>
</tr>
</tbody>
</table>

Fig.1 - Range of the stock management