

Study Survey to Enact a Comprehensive Earthquake Countermeasure Plan (Otsu City)

Year of Research

2012

Promotion of earthquake disaster prevention

(Purposes)

Otsu City enacted the Sewerage System Earthquake Countermeasure Emergency Improvement Plan in FY2007, and has begun to implement the plan with the project period set as 2009 to 2013, but because it must continue taking disaster mitigation countermeasures on other important trunk lines, it will enact the Comprehensive Sewerage System Earthquake Countermeasure Plan. This survey will prioritize the countermeasures and verify the cost investment effects etc. and revise the earthquake countermeasures of the sewerage system in order to request the said plan. And the method of reconstructing the now deteriorated Otsu Water Restoration Center to sustain its sewerage treatment functions was studied.

(Results)

Figure 1 is the study survey flow chart. The following items were revised through this survey.

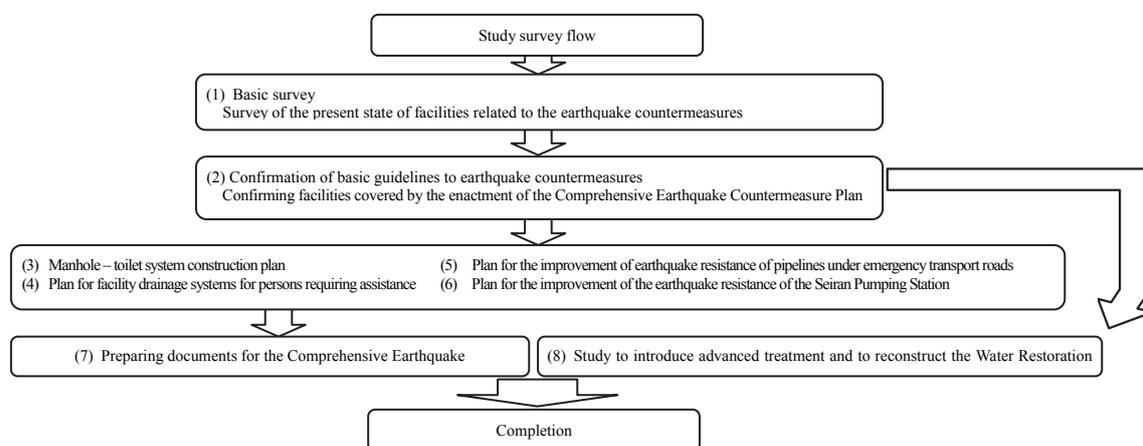


Figure 1. Study Survey Flow Chart

- (1) Selecting facilities important for the earthquake countermeasures and planning the construction of the manhole and toilet system.

For wide area evacuation sites positioned in the regional disaster prevention plan, the required number of sites was established and the works required to improve the earthquake resistance of the manhole-toilet system and sewerage system pipes on the downstream side were classified as those improved and those not yet improved.

- (2) Abstracting facilities for persons requiring assistance

Names and addresses etc. of facilities for persons requiring assistance added as essential conditions for new subsidization were abstracted.

- (3) Planning the improvement of earthquake resistance of pipelines under emergency transport roads

Improved sections and unimproved sections of important pipelines were abstracted to summarize the cost of each project.

- (4) Planning improvement of overall earthquake resistance of the Seiran Pumping Station

Proposals for the improvement of the earthquake resistance of the pumping stations were abstracted and their economic efficiency compared to select the best proposal.

- (5) Organizing documents to enact the Otsu City Comprehensive Earthquake Countermeasure Plan

The priority of the facilities was studied to abstract the works that can be achieved in a period of approximately 5 years.

(6) Planning improvement of overall earthquake resistance of the Otsu City Water Restoration Center

A study of the application of an advanced treatment method considering saving space was studied to present a method of performing reconstruction inside the existing site.

(Summarization Method)

Based on the results of (1) and of (3) to (5), the request for the Otsu City Sewerage System Comprehensive Earthquake Countermeasure Plan was compiled. Regarding the results of (2), this was postponed as objects of the work under the plan, but if the fact that one purpose of a sewerage system is to improve public hygiene is considered, in order to reduce the risk of a secondary disaster such as the spread of communicable disease among persons requiring assistance, the challenge is to study a way to implement a project to improve the earthquake resistance of the pipelines of the object facilities in the next five year plan.

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Key words

Earthquake countermeasures, Plan revision, reconstruction