

Survey study on the improvement of combined sewer in Otsu city

Whole term

2001.1-2002.3

(Purpose)

The Otsu treatment area has two treatment areas which contained combined sewer system (Otsu treatment branch area and Zeze including combined sewer area). During the storm event, untreated wastewater from 11 storm outfalls in these areas was discharged into Biwa Lake, which affect to public water quality. Therefore, the improvement of combined sewer is an emergent problem. Wastewater in separate sewer area flowed into combined sewer area in the area of No.6 storm outfall investigated. Therefore, the ratio of wastewater to overflow and the amount of untreated wastewater in storm event became larger, because untreated separated wastewater during storm event overflowed from storm outfall into Biwa lake.

Therefore, it is decided to separate wastewater in separate sewer area which flow into combined sewer area in the area of No.6 storm outfall in order to improve the water quality of untreated wastewater during storm event and decrease the amount of untreated wastewater.

In this investigation, it was aimed at confirming the effect of improvement for the reduction of pollution load after separating wastewater in separate sewer area in the area of No.6 storm outfall.

(Method of investigation)

1. Investigation point

Three points, wastewater conduit flowed into No.6 storm outfall, conduit constructed newly for separated wastewater and manholes of conduit for discharge were investigated.

2. Terms and times of investigation

Investigations were conducted from November 2001 to June 2002 and taken 3 samples during storm event. (Flow quantity was measured for this term.)

3. Measurement items

Measurement items were the amount of rain fall, flow quantity, BOD, COD, SS, coliform group count, fecal coliform group count.

4. Contents of investigation

(1) Investigation points of water quantity and quality

Water quantity was investigated for confirming the effect of installing conduits for separated wastewater in No.6 storm outfall and new conduits for separated wastewater only in storm events in time series. Water quantity was continuously measured in the same points.

(2) Times and interval of sampling

Sampling was conducted 3 times in each sampling points by auto sampler, and water quality was measured every 10 minutes for 2 hours after sampling.

(Future plan)

The data in third rain in Heisei 16 fiscal year was obtained, afterward all three data has been analyzed. It is scheduled to finalize these results and make the report of improvement effect of reduction for pollution loading after separating of separated wastewater in No.6 storm outfall.

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Key words

Otsu city, Improvement of combined sewer