

Joint Study on Reuse of SANBOH WWTP Treated Wastewater (Sakai City)

Year of Research

2007

(Purpose)

Sakai City together with Osaka Prefecture is conducting induction of businesses to construct new urban center in vacant land in Sakai Kita coastal region. A marina, a large commercial center, amusement facilities have already been open, and national soccer training center plan (NTC) and induction of large scale advanced technology businesses are progressing.

On the other hand, Sakai City depend water supplies on Osaka Prefectural water supply business and industrial water whose source are Yodogawa River at the present. It is an urgent and important issue to secure water resource because there is no available water source for Sakai City. In this study, project planning and operation are investigated to put reclaimed water to practical use for the project which use treated water from SANBOH WWTP.

(Results)

(1) water volume and water quality for various reuse

For the purpose of determining proper scale of reclaimed water supply project in relevant area, a survey of [needs for reuse of reclaimed wastewater] on related departments of Sakai City administration and private sectors was carried out. The results of the survey shows that quality needs are divided into two groups, one need to be distributed water which has additional treatment on

advanced treated water and other needs to be distributed advanced treated water and needs to treat additionally onsite. Volume needs of reclaimed water is 34,000 m³/d as advanced treated water, and volume of 1,000 m³/d from reclaimed water, additional treatment including ozonization will be applied.

(2) recycle flow treatment system

Wastewater from large scale business which is one of major user of reclaimed water is treated by RO process, and discharged into the same sewerage system, so that concentration of COD is concerned. To comply with total pollutant load regulation of COD, recycled water is treated through different treatment process from reclaimed water treatment system as shown in Figure 1. So that treatment process is planed that reused water will be transient and COD will never be concentrated.

(3) Feasibility study

Based on investigation into Advanced urban community for the project implementation, outline of project implementation of Sakai City was drafted.

(4) Risk management

Risks relate to the use of reclaimed water was specified and mitigation measures of risks is scrutinized.

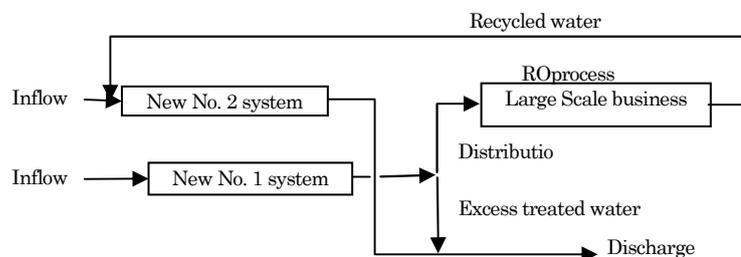


Figure-1 two system treatment process

(Summary)

As [water way] is a concept for Basic policy To achieve Soundness of the Recycle system, the study on using treated wastewater to industrial plans was carried out. The new challenges such as Constant supply to large scale business and recycled water from private advanced treatment of distributed reclaimed water have recognized, and some useful information for countermeasures for the new problems were acquired.

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Key words

Reuse of treated wastewater, water recycle, water way, ozonization