

“ ”

가 가

가
10km

가 .

5 (, , ,)

COD_{Cr}, COD_{Cr}, SS, TN, TP, pH 1 , BOD,

(, , , ,) 가

가 3 SS 가
2 , 5
(BOD, COD_{Cr})

가

가

가

SUMMARY

I. Title

“ The study of effects on ecology and water quality of Jinwi Stream by development of Namsa-myeon Industrial Zone ”

II. Objectives and Importance

Yongin-si encounters conflicts with Pyeongtaek-si, because of the promotion of Namsa Industrial Zone by Yongin-si. Yongin-si claims that their property right has been damaged by restricting development of Namsa-myeon because which serves as the water supply source for Pyeongtaek-si, and that construction of Namsa Industrial Zone is essential for restructuring of the city. On the contrary, Pyeongtaek-si sets against construction of Namsa Industrial Zone for contamination of water supply source of Pyeongtaek-si, even through it is possible to ensure water supply security. Therefore, Yongin-si persuades Gyeonggi-do to adopt scientific rational countermeasures and to present proprieties of discharge in Resource Protection Area by forecasting of water quality when the Namsa industrial city is established. In this study, a scientific basis and politic alternative plan was proposed for discharge of Resource Protection Area and construction of Namsa Industrial Zone.

III. Research scope

For the discharge in Water Resource Protection Area, ecological security assessment on Jinwi Stream was performed, and wastewater discharge status on Jinwi Stream was evaluated by analyzing water quality and comprehensive assessment. Moreover, the forecasting method of water quality, when the Namsa Industrial Zone is established, was presented based on scientific basis of discharge in Water Resource Protection Area.

. Results

Total 5 sampling points which distribute in the upstream-downstream of Jinwi Stream were selected, and water quality analysis and ecological assessment were performed. According to legal standard, no excess of heavy metals were detected. The values of SS, COD and BOD, were fluctuated depending on weather conditions, but all the values were far lower that legal standard. Based on the investigation, no special pollution sources were found around Jinwi stream. Discharge standard of water quality could be satisfied, if the wastewater treatment facilities are properly constructed, and their treatment loads are well controled, as other regions.

. Application plan

The results will be applied as reference to decide the direction of policy about Namsa industrial zone.

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