

## FLUVIAL MORPHOLOGY AND WATER QUANTITY AT UNAM STREAM, UIRYEONG-GUN IN KOREA

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### ABSTRACT

There has been a recent, increased awareness that the fate of water quantity, quality, and ecological status is strongly dependent on an array of human activities. This study was carried out on the Unam Stream located at Unam-ri, Uirjeong-gun, Gyeongsangnam-do province in Korea. Index of degree of river structure according to the river morphology and river naturalness was analyzed. Transversal & longitudinal sandbars at upper section were eight and velocity of flood was moderate. The low water's edge vegetation and flood way vegetation were shown naturally formed various vegetation communities by natural erosion (sediment exposure) were absent. The average value of biological oxygen demand (BOD) and chemical oxygen demand (COD) were 2.56 mg/L and 2.44 mg/L, respectively. At the Section B, the average values of BOD, dissolved oxygen (DO), and COD were 2.72, 5.69, and 2.56 mg/L, respectively. The average values of BOD and COD at low region were higher than those of at high regions, a and b. Total phosphorus and nitrogen were higher than those of at stations a and b. The value for index of degree of river structure at Sections A, B, and C were a mean of 2.14, 2.86, and 3.29, respectively. The values for index of degree of river naturalness according to the environment factors at Sections A, B, and C were a mean of 2.50, 2.67, and 2.33, respectively.

**Keywords:** BOD, COD, Unam Stream, river morphology, river naturalness.