B423 Comparison of water quality at Keungan stream by sewage treatment plant

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This study was performed to compare the water quality in Keongan stream by the construction of sewage treatment system and colllect basic information for the management of Keongan stream. The concentration of items at each sites was 6.9-8.9 in pH, 7.6-13.6ppm in DO, 0.7-17.5ppm in COD, 3.0 - 15.0ppm in BOD, 3.0-66.0ppm in SS. The concentration of SS, COD and BOD at upstream of Keongan was lower than that before the constrution of sewage treatment system but higher at downstream. This is due to Joining of the effluent of Yongin sewage treatment plant which was polluted at high level.

B424 The effect of early rainfall on the water quality in the lower part of the Nakdong River during the summer of 1997

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More than half of the Korea's annual rainfall is concentrated in the early summer and remaining summer season. Even though the water budget and water quality of the reservoir and river are strongly affected by the precipitation during this period, close interval evaluation of the early rainfall (late June to July) has not been carried out. We have measured all basic water quality parameters at Mulgum using an automatic water quality monitoring instrument at every hour from June to September 1997. Simultaneously, some selected limnological variables (turbidity, secchi depth, chl. a etc.) have been manually measured at 2-3 days interval. From the late June to mid July, major rainfall events (over 50 mm of precipitation) in Taegu, Milyang, Jinju and Hapchun were repeatedly recorded 4 times. Due to the first major rainfall between the 25th and 26th of June at the river basin (Taegu-132mm, Jinju-143 Hapchun-138, Milyang-296), almost all water quality parameters at Mulgum were strongly diluted. Even though several following rain events occurred in 5-7 day intervals, changes in water quality was relatively small. However, the change of water level in Mulgum showed a delayed response after the 3rd major rainfall. From this study, it is believed that there is a link between the effect of summer rainfall on the water budget of reservoir and the quality of the river water is strongly tied together. Further study should address any possible relationship between total summer precipitation and water quality in following seasons.