SUMMARY

The increase in population and the development of the construction sector in the Jakarta area resulted in the utilization of the need for residential land originally serves as a catchment area turns into a watertight area. Changes in land use functions that do not pay attention to environmental aspects may cause flooding or inundation. Cempaka Putih subdistrict is one of the sub-districts in Central Jakarta the dense settlement. The condition of the drainage channel system infrastructure in Cempaka Putih subdistrict has not been able to overcome problems of flooding or inundation occurred in every rainy season. Efforts for the Cempaka Putih subdistrict free from flooding or inundation is the drainage system. The aim of this study is to evaluate the capacity of the drainage channel to accommodate runoff in overcoming flood or inundation and if the evaluation activities of the channels are not able to overcome this, it is necessary recommendation.

Drainage is one way of disposal of unwanted excess water in an area. Drainage channel is said to function well if able to drain rainwater runoff quickly, fit debit and can flow by gravity.

The method used in this research is descriptive quantitative method. This research was conducted with several stages of data collection and data processing. The collection of data in the form of secondary data. Data processing consists of several stages of the design flood discharge, wastewater debit of residents and drainage evaluation consists of several parameters.
Results of evaluation studies of drainage canal system in the district of Cempaka Putih Central Jakarta is a drainage channel per subdistrict in Cempaka Putih subdistrict in 10 years to come still be able to accommodate the discharge of rain.

Keywords: Subdistrict Cempaka Putih, Drainage Channel System, The Capacity of Drainage channel