Abstract

The building of Ex. Adistana Apartment in Ngagel will be developed into an integrated area that Marvell City. Development in the area of 22,000 m$^2$ in the area which include Hotels, Residential Tower and Apartments, Office buildings, Shopping Mall, Supermarket, Ballroom, Club house/GYM and SPA. Certainly in the development of the region should be supported by means of a good drainage to avoid flooding problems, both within and outside the region. In addition the development will affect the lack of rain water catchment areas which then affects the decrease in the ability of soil to aid infiltration of rainwater. These conditions will also affect the surface water drainage coefficient increases.

The concept of the drainage system in this study are expected by the elevation of the existing land, the development of Marvell City area free from flooding of Kalibokor channel.

From the analysis of the calculations obtained with a width dimension of tertiary channels and 0.40 m height 0.50 m, the primary and secondary channels with a width of 0.80 m and 1.00 m high. The amount of discharge from the Marvell City is 0.239 m$^3$/s in the plan are accommodated in the ponds and canals in the area that serves as a temporary reservoir/long storage.
With the elevation of land which is 7,706 + Marvell City flood-free area of the channel-whitish Kalibokor 2-year return period.

Kata kunci: Marvell City, Drainage System, Kalibokor.