

ABSTRACT

Analysis of Waterlogging Management in Housing in Urban Areas Using Flood Pumps

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Floods that occur in urban areas can cause community activities in the area to be disrupted. One example of flooding that occurs in urban environments is flooding in Pamulang Park Residence. Flooding occurs due to the water level of the lightning river higher than the residential *outfall* so that water from the lightning river enters the housing and pools in the Pamulang Park Residence residential area. The solution that can be done is to make a flood *pump*. From the results of processing rainfall data, rainfall intensity analysis can be carried out using the mononobe equation. The planned flood discharge obtained in this analysis is using a 50-year anniversary (Q50) with a value of 68.712 m³ / second. After that, an existing drainage simulation was carried out using the EPA SWMM 5.2 application to find out whether the waterways were able to accommodate water flow. Flood *pump* with capacity of 0.5m³/s will be made automatic start and *pump* water from housing

Keywords: Hydrological Analysis, Flood, EPA SWMM 5.2, Housing, Flood *Pump*.

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