

SUMMARY

Ida Aditya Wiharsa, Departement of Civil Engineering, Faculty of Engineering, Brawijaya University. December 2016. Planning of Reservoir Building and Pipeline Network for Water Supply Distribution in Randugading Village, Tajinan, Malang. Academic Supervisor : Dr. Ir. M. Ruslin Anwar, M.Si and Ir. Pudyono, MT.

Randugading village, is one of the villages located in the district Tajinan, Malang. In the area there are springs Ngembul used to meet the needs of domestic and non-domestic locals. However, the village Randugading elevation higher than the elevation springs Ngembul. So that the pump is used hydraulic ram pump can transform and distribute clean water from the spring to the house residents.

Before the water can be distributed properly to the home population projection is required domestic demand and non-domestic to know how big the discharge required to meet those needs. It is also planned how the magnitude of the dimensions of the building to accommodate a useful reservoir of clean water before it is piped to the houses and in order to meet the amount of discharge water needs at peak hours. In addition it also planned to pipe water distribution mains in order to clean water that has been accommodated by the reservoir can be used by people around.

Randugading village consists of two settlements, so that in the plan of building a reservoir was built in two different places, each of the residential building is planned to have reservoir in accordance with the amount of water needs at peak hours in each region, which amounted to $0.00153 \text{ m}^3 / \text{sec}$ or at $5.508 \text{ m}^3 / \text{h}$ and $0.00076 \text{ m}^3 / \text{sec}$ or at $2,736 \text{ m}^3 / \text{h}$. As for the planned distribution pipe has a head pipe farthest press of 19.597 meters and 52,598 meters for each region.

Keywords: Water, Randugading, Reservoir, Pipe.

