

PENGARUH PERLETAKAN KOLAM RETENSI TERHADAP BANJIR

Imam Safii

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Telah dipertahankan di depan Dewan Penguji

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ABSTRACT

One of the ways in efforting ground water conservation and runoff (flood) control is making retention pond. Concerned with runoff control, the real quantity effect of retention pond is needed. Up till now, only qualitative effect of retention pond is known, meanwhile study of its quantitative effect has never been done. Purpose of this research is studying the function of retention pond to control runoff. This research is done to find out how much effect of retention pond in various sizes at each placement toward runoff reduction.

Research is done by simulating and exploring various sizes of retention ponds at each placement to find flood design with retention pond. Effect of retention pond toward runoff can be found by comparing flood design with and without retention pond. Concerned with simulation at each placement of retention pond, Coyo Basin is divided into 7 subbasins, where the control point of each subbasin will alternatively be located with retention pond.

The result of this research shows that with same size of retention pond, the placement of retention pond at upstream area gives more runoff reduction than its placement at downstream area. That means that the placement of retention pond at upstream area is more effective than its placement at downstream area.

Key words :

retention pond, runoff reduction.