

## OPTIMIZATION OF WATER DISTRIBUTION SYSTEMS IN REDUCING WATER LOSS PDAM SRAGEN SIDOHARJO UNIT

### ABSTRACT

*Water loss is the difference between the amount of water distributed by PDAM with the number recorded in the customer's account. The average of water loss that occurred in PDAM Sidoharjo unit in December 2008 is about 27,22%, it exceeds the reasonable limits water loss which is 20%. Optimization done because the unit process or the system experiences depression of work functions so it needs to be analyzed to optimize its function. Optimization of water distribution system is done within the scope of reducing the level of water loss due to water loss factor in technical and non technical. Technical water losses caused by some damage to the distribution pipes and the amount of water for flushing that is not recorded. While, the non technical water loss caused by inaccuracies customer water meters, water meters damage interconnection, and indiscipline officer meter reader. Optimization done to improve the performance of each unit of the distribution system that minimizes the loss of water include the establishment of the zone distribution services into 4 zones, replacement of customer's water meters that have been damaged, scheduling and recording the amount of water for operation and improvement of management and administrative systems. Based on technical analysis, loss prevention priority is for the establishment of water service zone in distrtibusi making it easier to monitor water use in the zone*

**Keyword:** *water loss, distribution systems, optimization*