

ABSTRACT

Drinking Water Regional Company (PDAM) is a company that produces and distributes water to public. Beside that PDAM has one department that manages cultivation of dirty water. In this case, the dirty water is produced by residential. The service of cultivate dirty water is not used by all society in Bandung, but only a half of all society has been used this service. The number of society that has been used this service is 21033. For maximizing of using the existing of dirty water network, so PDAM give socialization of this service to society. The activity of connecting pipe from house to existing network is called Residential Connection Installation (PSR).

The process of PSR start from customer's request letter to PDAM, then the staff of PDAM will go to customer's area for surveying the condition of area. If the customer qualifies to done a connection, the staff of PDAM would plan a new network. If the customer does not qualify to do a connection, the request letter will be return to the customer. After planning the new network, the next step is drawing the customer location map. After that the staff builds connection from house to existing network. The survey use much cost and the survey make the staff of PDAM can not directly take decision of probability connection.

So, this final project is making a Geographic Information System that can help PDAM in PSR process. With the GIS, the procedure of PSR can be minimize. The Palnning of Goeographic Information System can be start with the first step is Identification of existing system, the second step is identification the user's need, the third step is plan the system and then test the system to user. The output of this system are:

- 1. Visualize the position of customer's house*
- 2. Find and visualize the route of dirty water network from house to existing network.*
- 3. Save the waiting list data that is used to Expansion dirty water network program.*

After the system is tested, the next step is analyze the system. Then we can make conclusion that the output of system according the purpose of this final project.

Keyword : *Residential Connection Installation, Dirty Water Network, PDAM Bandung*