District of Kamal is an area which is located in southern part of Bangkalan Regency with height of land 5 meter over sea water surface and has 41.40 km² extensive area with 10 villages. The number of resident in Kamal District was 47,101 people until 2008. From 10 villages at Kamal District, only 8 villages which is included to the water service area with number of resident 39,512 people in 2008. In order to serve the fresh water requirement for projection year 2023, the development of existing network will be done. The development will be done by adding a new reservoir. That new reservoir is planned to be able to serve the requirement in projection year 2023. For the projection year, the service level will be increased from 24.98% to 70% of the total population with 75% SR (House Connections) and 25% HU (Public Hydrant). Epanet 2.0 program will be used to help the network development. Network calculation by using Epanet 2.0 program, in order to get accurate specification of the pipe needed and make the time of data calculation shorter. Total population projection is planned by using Arithmatic Methode. From the data
calculation results, it can be connected that in projection year 2023, total population is 50,267 people with total debit of the fresh water requirement is 78,565 l/s. The development which is done, is pipe diameter changes and addition of the new distribution pipe network.

Key Word: Add new reservoir, Pipe network, Epanet 2.0