

ABSTRACT

KHAIRUL UMAM. 2021.*Planning for Drinking Water Supply System in Padike Village, Talango District, Sumenep Regency.* Skripsi, Civil Engineering Study Program, Faculty of Engineering, Wiraraja Madura University. (Supervisors: **SUBAIDILLAH FANSURI, ST., MT. and DEDI FALAHUDDIN, ST.,MT.**)

In Padike Village, there is no drinking water service provided by the Sumenep Regency PDAM due to the location of the village which is an island area. So that people choose to use raw water sources in the form of bore wells and springs. In this case, the quality and quantity of available water cannot be guaranteed.

The method used in this research is descriptive and quantitative analysis methods. Descriptive techniques are used to plan distribution, design of Public Hydrants and House Connections. While quantitative techniques are used to calculate population projections, projections of socio-economic facilities, and total drinking water needs.

The results obtained in the form of the total demand for drinking water is 8.81 L/second, where the amount of domestic water needs is 8.4 L/second and the number of non-domestic water needs is 0.41 L/second, the number of public hydrants is 91 units until 2040, with gravity distribution system, and house connection design plan using $\varnothing \frac{3}{4}$ inch pipe with a total length of 12 meters.

Keywords : Drinking water, public hydrants, house connections.

ABSTRAK

KHAIRUL UMAM. 2021. *Perencanaan Sistem Penyediaan Air Minum Desa Padike Kecamatan Talango Kabupaten Sumenep.* Skripsi, Program Studi Teknik Sipil, Fakultas Teknik, Universitas Wiraraja Madura. (Pembimbing: **SUBAIDILLAH FANSURI, ST., MT.** Dan **DEDI FALAHUDDIN, ST., MT.**)

Di Desa Padike, belum tersedia layanan air minum oleh PDAM Kabupaten Sumenep dikarenakan letak desa yang merupakan daerah pulau. Sehingga masyarakat memilih memanfaatkan sumber air baku berupa sumur bor, dan sumber mata air. Dalam hal ini, kualitas dan kuantitas air yang tersedia tidak dapat terjamin. Sehingga sangat dibutuhkan Perencanaan Sistem Penyediaan Air Minum tersebut.

Metode yang dipakai dalam penelitian ini yaitu metode analisis deskriptif dan kuantitatif. Teknik Deskriptif digunakan untuk merencanakan distribusi, desain Hidran Umum dan Sambungan Rumah. Sedangkan teknik kuantitatif digunakan untuk menghitung proyeksi penduduk, proyeksi fasilitas sosial ekonomi, dan kebutuhan total air minum.

Hasil yang diperoleh berupa kebutuhan total air minum yaitu 8,81L/detik, dimana jumlah kebutuhan air domestic yaitu 8,4L/detik dan jumlah kebutuhan air non domestik yaitu 0,41L/detik, jumlah hidran umum 91 unit hingga tahun 2040, dengan sistem pendistribusian secara gravitasi, dan rencana desain sambungan rumah menggunakan pipa Ø ¾ inch dengan total panjang 12 meter.

Kata Kunci : Air minum, Hidran Umum, Sambungan Rumah.