SARI

Potensi bencana longsor pada Desa Banjarasri dan Desa Banjarharjo adalah rendah hingga tinggi. Untuk meminimalisir potensi kerugian dalam pengembangan wilayah pemukiman di kedua desa, pembangunan harus mempertimbangkan kemampuan geologi teknik. Penelitian ini bertujuan untuk memberikan informasi tentang karakteristik geologi teknik umum serta membuat zona kemampuan geologi teknik untuk wilayah pemukiman. Metode dalam penelitian meliputi pemetaan karakteristik geologi teknik seperti geologi teknik dasar, morfologi, kedalaman muka airtanah, dan potensi bencana geologi serta pemetaan zona kemampuan geologi teknik. Terdapat enam satuan geologi teknik pada Desa Banjarasri dan Banjarharjo, satuan lanau pasiran dengan luas pelamparan 47,77% dari total luas kedua desa, satuan batugamping berlapis 10,38%, satuan batupasir karbonatan 3,39%, satuan batupasir 2,52%, satuan batugamping koral 1,1%, dan satuan breksi andesit 34,84%. Terdapat tiga kelompok kemiringan lereng pada daerah penelitian, kemiringan lereng sangat rendah (0° - 8°) yang memiliki luas pelamparan 45%, rendah (8° - 30°) 53%, dan menengah (30° - 70°) 2%. Kedalaman muka air tanah 0 – 5 m mencakup 99% luas daerah penelitian dan kedalaman muka air tanah 5 – 10 m mencakup 1% luas daerah penelitian. Terdapat tiga potensi bencana pada daerah penelitian, bencana longsor, banjir, dan gempa bumi. Zona kemampuan geologi teknik untuk pemukiman pada daerah penelitian terbagi menjadi tiga zona, zona kemampuan geologi teknik rendah dengan luas pelamparan 26%, zona kemampuan geologi teknik menengah dengan luas pelamparan 72% dan zona kemampuan geologi teknik tinggi dengan luas pelamparan 2%.

Kata Kunci: Banjarasri, Banjarharjo, karakteristik geologi teknik, zona geologi teknik, wilayah pemukiman

ABSTRACT

Potential landslide disaster of Banjarasri and Banjarharjo villages ranges from low to high. In order to minimalize risk of loses in development of residential area in both of the villages, the development must also consider the engineering geological capability of the two villages. The purpose of this research is to give information about general engineering geological capability and make engineering geological capability zone. The method used in this research includes mapping of engineering geological characteristic like basic engineering geological, morphology, groundwater depth, and potential geological hazard and the mapping of geological engineering capability zone. There are six engineering geological units in Banjarasri and Banjarharjo villages, sandy silt unit which covers 47.77% of total research area, layered limestone unit which covers 10.38%, carbonate sandstone unit which covers 3.39%, sandstone unit which covers 2.52%, coral limestone unit which covers 1.1%, and andesite breccia unit which covers 34.84%. There are three groups of slope in research area, very low (0° - 8°) which covers 45% of the area, low (8° - 30°) which covers 53%, and medium (30° - 70°) which covers 2%. Groundwater depth ranges from 0 – 5 m cover 99% of research area and groundwater depth ranges from 5 – 10 m covers 1%. There are three potential geological hazard in both of the villages, landslide, flood, and earthquake. Geological engineering capability zone for residential area in research area split into three zones, low zone which covers 26%, medium zone which covers 72% of the area and high zone which covers 2%.

Keywords: Banjarasri, Banjarharjo, geological engineering characteristics, engineering geological capability zone, residential area