

ABSTRAK

Penelitian ini bertujuan untuk menganalisis kualitas perairan sungai dengan memanfaatkan data kualitas air dan sistem informasi geografi di Desa Jangkar. Pengambilan data dilakukan pada bulan Juni sampai Agustus 2017 dan dilanjutkan bulan November sampai Desember 2017. Pengambilan data kualitas air dengan memakai alat YSI *Water Quality Checker* dan pengambilan data citra satelit dengan aplikasi SAS Planet. Peengolahan data menghasilkan keluaran berupa gabungan data kualitas air dan citra satelit. Hasil penelitian menunjukkan bahwa setiap parameter kualitas air tidak merata melainkan cenderung dominan pada satu tempat. Setiap parameter kualitas air memiliki sebaran spasial. Nilai kualitas air di tambak dan sumur yaitu oksigen terlarut di tambak antara 2,95 dan 9,6 mg/l dan oksigen terlarut di sumur antara 1,4 dan 6,1 mg/l, salintas di tambak antara 6,56 dan 28,28 ppt dan salinitas di sumur antara 5,9 dan 17,79 ppt. pH di tambak antara 6,73 sampai 8,12 dan pH di sumur antara 6,76 sampai 7,89, suhu di tambak berada di rentang 27,85°C hingga 31,95°C sedangkan suhu di sumur antara 28,4°C hingga 30,77°C.

Kata kunci : Desa Jangkar, Citra Satelit, Kualitas Perairan, Sistem Informasi Geografi, Sebaran Spasial.

ABSTRACT

This study aims to analyze the quality of river waters by using remote sensing data and geographic information system in the Jangkaran Village. Data collections were conducted June to August 2017 and from November to December 2017. Water quality parameters were measured using YSI Water Quality Checker and satellite imagery data were collected using SAS Planet application. Data processing produces a combination of water quality data and satellite imagery. The results showed that each parameter of water quality is uneven but tend to be dominant in one place. Every water quality parameter has a spatial distribution. The water quality values of dissolved oxygen and salinity in ponds range from 2,95 to 9,6 mg / l and from 6,56‰ to 28.28‰, whereas the values of dissolved oxygen and salinity in wells range from 1.4 to 6.1 mg / l and from 5.9‰ to 17.79‰. pH in ponds between 6.73 to 8.12 and pH in wells between 6.76 to 7.89, the temperatures in the pond are in the range of 27.85°C to 31.95°C while the temperature at wells ranges from 28.4 to 30.77°C.

Keyword : Jangkaran village, Geographic information system, Satellite image, Spatial distribution, Water quality.