

Puspitasari, D.P., 2015. Pemetaan Kualitas Air Sungai Ciliwung Berbasis Sistem Informasi Geografis (SIG). Skripsi ini di bawah bimbingan Da. Thin Soedarti, CESA. dan Prof. Dr. Ir Agoes Soegianto, DEA. Program Studi S-1 Ilmu dan Teknologi Lingkungan, Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga.

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## ABSTRAK

Tujuan dari studi ini adalah untuk mengetahui kisaran tingkat kualitas air Sungai Ciliwung dari ke 10 titik pantau, untuk memberikan informasi mengenai kisaran tingkat kualitas air Sungai Ciliwung yang tercemar berat, dan untuk mengetahui kualitas air Sungai Ciliwung berbasis Sistem Informasi Geografis (SIG). Metode pembuatan peta ini terdiri dari kualitas air dengan parameter yang digunakan untuk menilai tingkat pencemaran yaitu BOD, COD, DO, pH, TSS, dan total coliform, peta Rupa Bumi Indonesia wilayah Sungai Ciliwung, pembuatan penilaian dari data yang didapat, kemudian pembuatan peta dengan menggunakan software ArcGIS versi 10.1. Hasil kisaran kualitas air Sungai Ciliwung berdasarkan Peraturan Pemerintah Nomor 82 Tahun 2001 termasuk tercemar ringan dan tercemar sedang dan tercemar berat.

**Kata Kunci:** kualitas air sungai, SIG, Sungai Ciliwung

Puspitasari, D.P., 2015. *Distribution Mapping of The Ciliwung River Water Quality Based on Geographic Information System (GIS)*. This work was supervised by Dra Thin Soedarti, CESA. and Prof. Dr. Ir Agoes Soegianto, DEA. Environmental Science and Technology, Department of Biology, Faculty of Science and Technology, Airlangga University.

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### **ABSTRACT**

*The purpose of this paper is to determine distribution of water quality along the Ciliwung River had been monitored on 10 point, to provide information about the range of the Ciliwung River water quality levels are heavily polluted, and to determine the Ciliwung River water quality based on Geographic Information System (GIS). The method of making these maps consist of water quality parameters to be used to assess the level of contamination that is BOD, COD, DO, pH, TSS, and total coliform, visual map of the earth Indonesia of the Ciliwung River basin, manufacture assessment of data obtained, then making a map with using ArcGis software version 10.1. Results the Ciliwung River water quality based on Government Regulation No. 82 of 2001 includes a light polluted (Class II) and polluted moderate (Class III). 10<sup>th</sup> the Ciliwung River monitoring points there are not polluted (Class I) to fit or meet the raw material for drinking water. The Ciliwung River water quality in 2013 the mapping based on Geographic Information System that is contaminated with mild to severe polluted.*

**Keyword :** *Ciliwung River, GIS, water quality of the river*