KAJIAN STATUS TINGKAT PENCEMARAN AIRTANAH DI PERMUKIMAN DI LEMBAH SUNGAI CODE DAN SEKITARNYA DI KOTA YOGYAKARTA

oleh

Noveriza Agrista Risky

INTISARI

Permukiman lembah Sungai Code merupakan salah satu wilayah di Kota Yogyakarta yang menujukkan gejala-gejala perkembangan wilayah urban yang semakin pesat. Berkembangnya suatu wilayah dan meningkatnya tingkat kepadatan penduduk membawa konsekuensi yang serius terhadap kualitas airtanah. Tujuan penelitian ini adalah mengetahui di mana letak sumber pencemar dan menentukan status tingkat pencemaran airtanah, serta merumuskan strategi pengelolaan lingkungan pada permukiman lembah Sungai Code. Lokasi sumber pencemar dianalisis berdasarkan hasil identifikasi penggunaan lahan dan pengumpulan data kuesioner mengenai kondisi pola penggunaan airtanah dan sanitasi lingkungan setempat. Status tingkat pencemaran airtanah ditentukan melalui metode Indeks Pencemaran, serta strategi pengelolaan lingkungan dirumuskan dengan metode matrik hubungan berdasarkan hasil analisis berbagai data serta perpaduan seluruh informasi yang diperoleh di lapangan. Hasil penelitian menggambarkan potensi pencemaran pada permukiman lembah Sungai Code secara umum berasal dari aktivitas manusia yaitu kegiatan domestik dan pertanian. Status tingkat pencemaran airtanah menunjukkan hampir keseluruhan sampel airtanah di titik pengamatan tergolong cemar ringan yaitu Titik 1 di Cokrodiningratan, Titik 2 di Terban, Titik 3 di Gowongan, Titik 4 di Suryatmajan, Titik 5 di Ngupasan dan Titik 7 di Sorosutan yang memiliki nilai Indeks Pencemaran paling rendah diantara titik pengamatan lainnya. Parameter fosfat diketahui jauh melebihi standar baku mutu air bersih di setiap titik pengamatan. Strategi rekomendasi pengelolaan lingkungan dianjurkan untuk dititikberatkan pada upaya pengembangan jaringan air limbah terpusat atau komunal, dan perbaikan sarana pengolahan air limbah yang berasal dari usaha/industri, bengkel, dan sejenisnya. Selain itu, kesadaran masyarakat setempat mengenai sanitasi pada permukiman juga perlu ditingkatkan.

Kata kunci: pencemaran airtanah, permukiman, limbah domestik, strategi pengelolaan lingkungan

ASSESSMENT OF GROUNDWATER POLLUTION LEVEL IN CODE RIVER VALLEY AND THE SURROUNDING AREAS IN YOGYAKARTA CITY

by

Noveriza Agrista Risky

ABSTRACT

Settlement of the Code River valley is one of the areas in the city of Yogyakarta that shows the symptoms of the rapid development of urban areas. The expansion of an area and increasing of dense population bring serious consequences to groundwater quality. The purpose of this research was to know the location of pollutant source and determine the status of groundwater pollution level, and to formulate the strategy of managing the ground water environment in the settlement of Code River valley. The location of pollutant sources was analyzed based on the results of land use identification and questionnaires data collection regarding the condition of groundwater use patterns and local environmental sanitation. The level status of groundwater pollution was determined by the Pollution Index method, and the environmental management strategy was formulated by the relationship matrix method based on the results of various data analysis and the combination of all information obtained in the field. The results of the study indicated that the potential for pollution in the settlements of Code River valley generally comes from human activities such as domestic and agricultural activities. Groundwater pollution level status indicates that almost all groundwater samples at observation points are classified as light pollutants, i.e. Point 1 in Cokrodiningratan, Point 2 in Terban, Point 3 in Gowongan, Point 4 in Suryatmajan, Point 5 in Ngupasan and Point 7 in Sorosutan which has the lowest Pollution Index value among other observation points. Phosphate parameters are known to exceed the standard of clean water quality at each observation point. The recommendation strategy for the management of groundwater environment is that to focus on the development of centralized or communal wastewater network, and improvement of wastewater treatment facilities coming from business/industry, repair shop, and the others alike. In addition, local people's awareness on the sanitation of the settlement environment also needs to be improved.

Keywords: groundwater pollution, settlement, domestic wastewater, environmental management strategy