

# IMPACT OF DOMESTIC WASTE POLLUTION ON RIVER QUALITY IN YOGYAKARTA

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## ABSTRACT

Yogyakarta City is crossed by 3 (three) rivers, namely Gajah Wong, Code, and Winongo Rivers. The city of Yogyakarta as the center of the economy with the solid population can't be separated from the problem of river water pollution because of the contaminant input, one of them is domestic waste. This study aims to determine: (1) impacts on river water quality in Yogyakarta due to domestic waste pollution, and (2) efforts to overcome river water pollution due to domestic waste pollution.

This research is a descriptive research. The research was carried out by taking samples of river water in the northern river segment (TP1) as well as the southern river segment (TP2) from the three rivers that crossed Yogyakarta City, including Gajah Wong, Code and Winongo Rivers, then tested in PIPBPJK, Yogyakarta. Further laboratory test results are compared with the second class water quality standard as the allotment of waters and fisheries, based on DIY Governor Regulation no. 20 Year 2008.

The results of this study are as follows: (1) the condition of the river water passing through Yogyakarta (Gajah Wong, Code, and Winongo Rivers) does not meet the predefined second-class water criteria. The third condition of river water (TP1 and TP2) was identified to have been polluted with BOD, nitrite, feces coli bacteria, total coliform bacteria exceeding the requirements threshold for waters and fisheries, while total fatty oil content exceeded the threshold in TP2 Code River and TP1 Winongo River, (2) efforts to overcome river water pollution in Yogyakarta city due to domestic waste pollution recommended are: (a) development of communal wastewater network, both off site system and on site system, (b) raising public awareness in maintaining river sustainability (c) empowerment of the community up to the RT level in weekly work so that the river is clean from waste, (d) monitoring and supervision of water pollution control, including law enforcement for the offender, (e) accompaniment of Forsidas Gajah Wong, Pemerti Code, and FKWA by Yogyakarta City Government in planning aspect (BPDAS Opak-Oyo-Progo under the Ministry of Forestry, BBWS Serayu-Opak under the Ministry of Public Works, Dinas PUP-ESDM of DIY Province, Bappeda, BLH, and other relevant agencies under the Provincial Government and District/City Government).

Kata Kunci: *impact, domestic waste, pollution, river water quality, Yogyakarta*