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Fecal Enterococci loading in selected tributaries of the Pampanga River Basin and its relation to land use

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ABSTRACT

The Manila Bay, being an essential source of ecosystem services in the Philippines, is currently afflicted by fecal contamination which endangers the immediate populace greatly dependent on it through a higher risk of gastrointestinal diseases, among other vulnerabilities. The assessment and determination of its extent and potential origin were recommended by former studies to aid in the enactment of scientifically-backed sanitation efforts which can help restore the Bay into pristine condition. This study proposes the following measures to address the said recommendation: fecal enterococci levels across several points representing different land uses of selected tributaries of the Pampanga River Basin, its largest subwatershed, will be quantified and correlated with fecal coliform counts and primary chemical parameters (pH, DO, BOD, temperature, nitrates, phosphates as stipulated in the 2016 DENR-DAO). Expected results will show that the subwatershed's fecal contamination, indicated by high fecal enterococci counts, is directly due to the different anthropogenic land uses.