



CE4214 Hydrology

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EXERCISE #2

1. An existing manufacturing facility is located near the Pasig River in Makati City. The facility is major supplier of electronic components in the country since 1995. As part of its environmental compliance, the Pollution Control Officer submits monthly report of the wastewater analysis to the Department of Environment and Natural Resources (DENR) Central Office. The sample was taken at the outlet of the existing wastewater treatment plant (WWTP) and the results of the water analysis are as follows:

CLASS C: Pasig River = PASSED 4; F=4; not compliant

pH = 7.5 P	Cyanide = 0.15 mg/L P	Lead = 0.50 mg/l F	COD = 100 mg/L P	BOD = 80 mg/L F
Total Coliform = 10,000 MPN/100ml P		Oil/Grease = 10 mg/L F	Total Suspended Solids = 2,000 mg/L F	

The treated water from the WWTP is directly discharged to Pasig River as classified as CLASS “C” inland receiving water. *QUESTION: Determine if the manufacturing facility is compliant with DAO 35/DAO2016-08. Show your assessment.*

2. The Municipality of Odiongan approved a financial assistance to Romblon State University in managing Bongoy River as one of the sources for drinking water. Unfortunately, no previous water quality assessment conducted in the past. To determine the current condition of Bongoy River and the type of treatment to be used, a water sample was analysed in the laboratory and the results are as follows:

BONGOY RIVER: CLASSIFICATION? CLASS AA AND A THEREFORE, BONGOY RIVER FALLS UNDER CLASS “A” CATEGORY.

pH = 6.9 AA/A	Dissolved Oxygen = 25 mg/L AA/A/B	BOD = 3 mg/L A	Total Suspended Solids = 30 mg/L A
Surfactants = nil AA/A	Oil/Grease = nil AA/A/B	Total Coliform = 1,000 MPN/100 mL F	Lead = 0.01 mg/L AA/A

QUESTION: What water classification did Bongoy River fall? Can it be used for drinking water or other purposes?