mutuality (3) mutuality This research can be used as a reference for the management of the Lahor reservoir to improve the water quality of the reservoir

tudents Evaluate & Manage Water Quality of r Reservoir

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mutuality (1)

Concerned with the declining water quality in some of Indonesia's reservoirs, three students of Water Resources Engineering (WRE) Faculty of Engineering Universitas Brawijaya (FT-UB) conduct water quality evaluation and formulate conservative management of reservoir that can be implemented by reservoir management to improve water quality. Team Matuality that consist of Indah Tri Wahyuni (WRE'14), Syahrizal Mufrodi (WRE'14), and Ekhsan Zainuri (WRE'16) these three students made the Lahor Reservoir as the object of their research.

The declining water quality of the reservoir is due to the nature of the open access and the common property causing the development of fishery aquaculture activities in the reservoir waters, especially the Lahor reservoir. In addition, land use in the Lahor reservoir water catchment area is dominated by agricultural activities, from which contribute pollutant from fertilizer that runoff from agricultural activities that will enter into rivers and accumulate in reservoir waters.

"The contaminated water reservoir will disrupt the function of the reservoir such as water supply for irrigation, water supply to Sutami Reservoir, and for hydropower. Therefore, we want to evaluate the water quality condition of the dam whether it is polluted or not and to formulate an effective and applicative conservative efforts in improving the water quality of the Lahor dam," said the Matuality team leader, Indah.

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Under the guidance of Ir. Rini Wahyu Sayekti, MS, all three found that the status of the Lahor reservoir has been contaminated by organic and inorganic materials. The trophic status of the Lahor reservoir is the eutroph leading to the hypereutroph which means that the Lahor reservoir is currently highly polluted. The Lahor reservoir is also likely to experience "blooming algae" because its phytoplankton abundance exceeds predetermined limits and is dominated by 1 type of phytoplankton that can damage the water quality of the reservoir if it excess the right amount, that is microsystis.