

ABSTRACT

Faisal Nurdin, 2021. Test of Cadmium (Cd) Heavy Metal Content in Water, Sediment and Fish in Cirata reservoir Waters. Supervised by Drs. H. Ahmad Mulyadi, M.Pd., Dr. drh. Nia Nurdiani, M.Si.

Cirata Reservoir is one of three reservoirs located on the Citarum river. The community utilizes the potential of the waters for the benefit of fish cultivation, especially floating net cages (KJA) and is very helpful for improving the economy of the community around the Cirata Reservoir. This study aims to find out and update information about Heavy Metal Cadmium (Cd) found in Water, Sediment and Fish in Cirata Reservoir Waters. The research method used is descriptive method of sampling using purposive sampling method with three stations. The first location (inlet) is in the Babakan Garut Jetty area, the second station is in the floating net cage (KJA) in the Cirata, Citatah area and the third station (outlet) is in the Cirata Reservoir (BPWC) area. The results of the study of chromium (Cd) in water samples at station I = <0.0001 mg/L, station II = <0.0001 mg/L and station III = <0.0001 mg/L. Samples of chromium (Cd) at station I sediment = 1.1664 mg/Kg, station II = 1.3111 mg/Kg and station III = 0.6740. Samples of chromium (Cd) in fish at station I = 0.0001 mg/Kg, station II = 0.0035 mg/Kg and station III = <0.0001 mg/Kg The data taken were Water, Sediment and Fish analyzed using inductively coupled plasma- optical emission spectrometry (ICP-MS) at the Padjajaran University Laboratory. The results show that the content of heavy metal cadmium (Cd) in water and fish in the waters of the Cirata Reservoir can still be tolerated because it is still below the quality standard for water quality standard of 0.01 ppm and 0.10 ppm for fish. while the sediment cannot be tolerated because it exceeds the specified quality standard limits, especially at station I and station II. It is recommended for periodic research for sediment samples in the area of station I and station II.

Keywords: Heavy Metal Test, Cadmium (Cd), Cirata Reservoir