The reef-lagoon ecosystems of New Caledonia, considered as one of the main biodiversity hotspots in the world, is threatened by climate change and human pressure such as mining activities (Ni extraction) in the Koné Lagoon. To understand the effects of this mining activity, zooplankton, considered as a good indicator of water quality, was studied in relation to environmental characteristics before (2008 to 2010) and after (2018) the implementation of the mining complex (2010). In this study we analyze changes in zooplankton community structure and abundance in relation to changes in hydrodynamics, environmental characteristics (i.e., turbidity, metals, nutrients) and food availability (chlorophyll).