

三河湾における浚渫窪地修復事例と実現に至る経過

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Abstract

Mikawa Bay is a typical estuary with an approximate area of 600 km², and very shallow water at an average depth of 9 m. Usually, shallow sea water is abundant in dissolved oxygen and rich in benthic fauna such as bivalves. However, Mikawa Bay has faced a serious environmental problem recently. In and around *Rokujou-gata* which is one of the most important tidal flats areas of the north-eastern region of Mikawa Bay, very large quantities of the little-necked clam, *Ruditapes philippinarum*, were killed by a bitter tide (*niga-shio*) in the summers of 2001 and 2002. *Niga-shio* occurs when oxygen-deficient water masses in the bottom layer upwell to the shallows due to wind etc. Incidents of mass mortalities of benthic fauna due to the bitter tides were reported in newspapers as a serious public issue. Our research unexpectedly identified two dredged borrow pits from reclamation works as the one of main causes of the oxygen-deficient water mass that led to this biological decimation. In this area of Mikawa Bay, restoration of these dredged borrow pits was carried out within six months of the initial dredging. Generally, restoration like this can't be carried out so quickly, but the regulators of harbor areas could act to rapidly start rehabilitation of the borrow pits. This report demonstrates why restoration was so rapidly put in operation by considering the progress.