

# 我が国における浚渫跡地の現状と修復

中村由行<sup>\*1</sup>

\*1 (独) 港湾空港技術研究所, 〒239-0826 横須賀市長瀬3-1-1

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## Abstract

Sandmining for commercial construction aggregate and for landfilling projects has left borrow pits on the bottom of several coastal regions of Japan. A nation-wide survey revealed that these borrow pits can be classified geomorphologically into two types: flattened-out or a local depression. Most of the sandmining pits in the Seto Inland Sea, which are classified as the flattened-out type, are estimated to have caused loss of eelgrass beds and habitat for economically valuable fishes. However, these areas seemed to have less oxygen depletion. On the contrary, borrow pits that are the local depression type often cause severe deterioration of water quality that can manifest as anoxia and blue tides. The local depression type of borrow pit are widespread in Tokyo Bay, Osaka Bay, Mikawa Bay and other eutrophic embayments of Japan. Recontouring (raising the bottom) is expected to be an effective method to restore damaged ecosystems. Although only a few geomorphological restoration projects have been implemented to date, actions to recontour the borrow pits and assess their effectiveness, including monitoring activities, have started in Mikawa Bay. In order to promote effective restoration and to minimize negative effects, we conducted several research tasks including an evaluation of: the procedures for assessing the effect of restoration on water quality and coastal ecosystems; and the technical methods available to prevent the dispersion of turbid water masses produced by placing material into borrow pits. We also assessed the effects of fine chemicals contained or accumulated in the borrow pits, and the methods available to manage dredged sediment and/or develop material other than dredged sediment.