

Environmental Impact Assessment of the Kiel Canal Hydrological Conditions

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Abstract

The paper describes the hydrological processes which have to be considered in the Environmental Impact Assessment of the Kiel Canal. The Kiel Canal is an old waterway which connects the North Sea with the Baltic Sea. Since the beginning of the 1950s, ship traffic on the Canal has significantly increased. In the 1960s, the number of ships decreased, but ship sizes and the quantity of shipped goods still continued to increase. This development towards larger ships exerted intensive pressure on the Canal bed resulting in bank erosion and damages on bank-protection structure. Consequently dredging activities became necessary.

Therefore, since 1965 a programme of engineering works to improve navigation in the Kiel Canal has been executed. The reach „Rendsburg-East“ of about five kilometers length is the final part of this programme. The Environmental Impact Assessment describes and evaluates the hydrological condition of the initial state and the predicted post-project conditions.