

# **Application of Computational Hydrodynamics Models for Studying Deepwater Discharges of Treated Wastewater in Marine Water Areas During Ice-Covered Periods**

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**Keywords:** wastewater discharge; ice cover; marine water areas.

**Abstract:** Results of applying computational hydrodynamics models to solve applied problems related to determining the most favorable regimes for discharging treated wastewater into marine water areas during ice-covered periods are presented. Based on the modeling results of currents in the vicinity of the deepwater discharge, a calculated dependence was obtained, which allows establishing optimal characteristics of discharge devices and discharge regimes, thereby minimizing negative impacts on the marine environment at the discharge site.