

Development of a Best Practice Guidance for the Handling of Wastewater in Ports

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The Baltic Sea - first MARPOL Annex IV Special Area

Eutrophication caused by excessive input of nutrients to the marine environment is one of the main threats to the biodiversity of the Baltic Sea. Sewage from shipping is contributing to eutrophication. From 2000 to 2014, the number of cruise passengers in the Baltic Sea has increased by almost 250%, cruise ship calls by 53%. As a consequence, the Baltic Sea has been designated as first MARPOL Annex IV Special Area. Passenger ships intending to discharge sewage have to comply with more stringent regulations on nitrogen and phosphorous removal. Requirements can be met by either installing advanced wastewater treatment systems on board or discharging the sewage to port reception facilities (PRF), a challenge for Baltic ports, shipping companies and municipal wastewater treatment plants.

The “Best Practice Guidance for the Handling of Wastewater in Ports” aims at providing information and concrete guidance for involved parties and HELCOM member states. It will be presented at the 18th meeting of the HELCOM MARITIME Group in 2018.

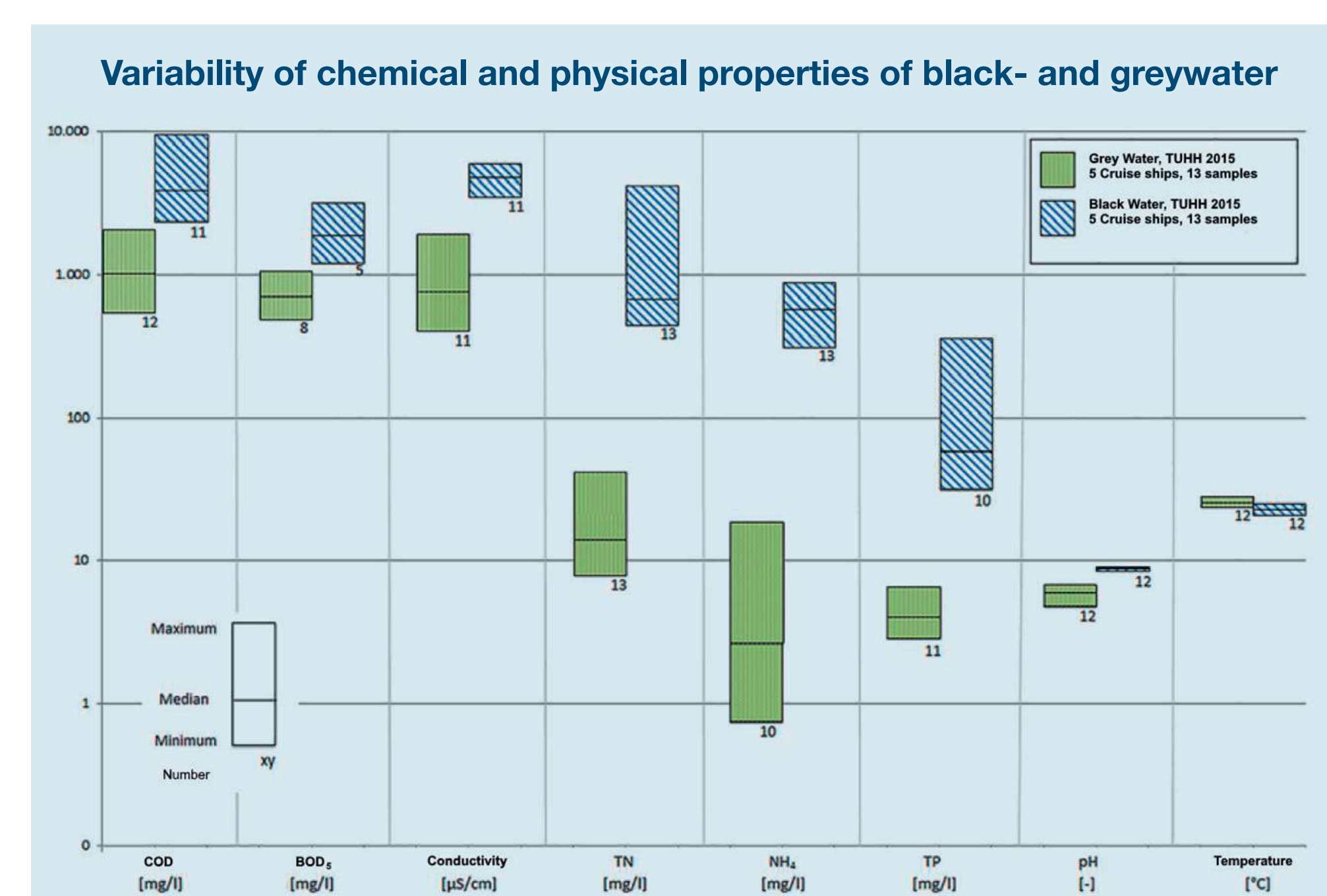
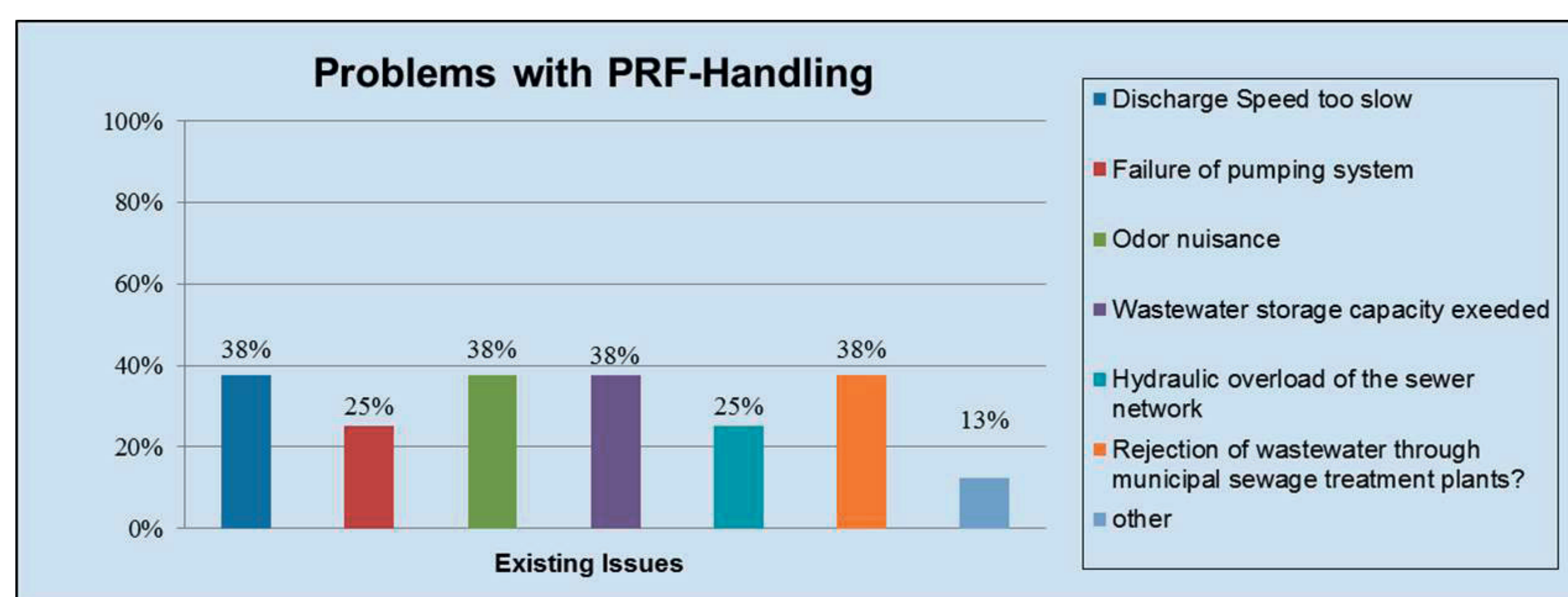
Best Practice Guidance

The development of the Best Practice Guidance comprises the following steps:

1. Comprehensive collection and generation of INFORMATION
 - review of existing reports and literature
 - generation of new data from surveys conducted within the project
2. Evaluation and assessment of INFORMATION to identify CHALLENGES
 - the current state of PRFs within the HELCOM area
 - the needs of ports, shipping industry, sewage treatment plants and other stakeholders
3. Recommendations for practical SOLUTIONS and approaches



Examples for CHALLENGES



Köster et al. 2016

Examples for SOLUTIONS



Tank trucks, a possible mobile solution for small ports



Solution at the Port of Kiel: PRF installation including analysis and pre-treatment for odor elimination and pH adjustment



Fotos: Port of Kiel and M. Joswig

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