

WASTE WATER TREATMENT IN THE BALTIC SEA REGIONS – BEST PRACTICES OF THE PORT OF HELSINKI

BSPC Working Group on Sustainable Tourism

Kari Noroviita Antti Pulkkinen 21 Mars 2016

| PORT OF | FORWARD TOGETHER |



Total traffic 11,4 million tons

Unized cargo 10,4 million tons

Market share 26% (amount)
Market share 40% (value)

Passenger traffic
11,2 million passengers

Market share 79% Cruise traffic 436 500 passengers Line traffic connections

High frequency, 140 weekly departures
30 Destinations

Turnover 86,9 M€

Organization
150 employees

PORT OF HELSINKI HARBOURS & LOGISTIC ZONE





WASTE MANAGEMENT

Waste management plans for each harbour

Waste guidance for cruise vessels

Waste waters received with no additional cost

All berths have waste water reception facilities

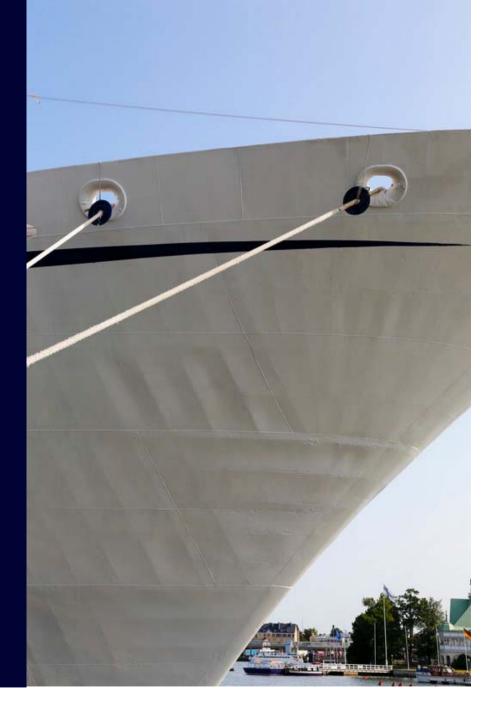
Waste fee based on vessel size but not volumes of waste

Regular line traffic (80 - 90 % of ship calls) manage wastes directly to waste management company (no waste fee), Reseption fasilities of port of Helsinki is used for waste waters



Waste Water Facilities

- Only fixed reception facilities is used
- Pumping capacity varies 30 100 m³/h
- Other modes (trucks possible, barges N/A)
- Max/min per cruise ship –
 686m³/25m3
- Total 2014 63528 m³
- No special fee system waste fee charged based not on the volumes of waste (not benefit to dumping to sea)





Waste Water (black and grey water) quantities 2015

197 cruise ships use waste water reception facilities

Total calls 254

Total volumes 2015 - 52 254 m³

Total 2014 – 63 528 m³ (1 pax generate 0,15 m3 waste water/ sea day > collected waste water quantity same as 423 000 pax sea day)

2014 Total pax 419 000, crew 200 000

Sailing time from last port of call 12 – 24 h

Conclusion: More than 75 % waste water generated after last port of call was collected in Helsinki.



Folie 6

MM1 Marttinen Maria; 20.11.2015

USAGE OF SERVICE AVAILABLE 2015

- Capacity is not an issue (study)
- It can be increased if needed
- The waste water amount produced between the previous port and Helsinki can be handled in Helsinki
- Pressure of 10 mbar can be used in Helsinki
- 25 % of cruise vessels did not leave any waste water
- No special fee system since 2008
- From 2016 a higher waste fee in port of Helsinki for those vessels who do not leave waste water



WASTE WATERS SUMMARY

Waste waters received without additional cost

both black and grey waters

All berths have waste water reception facilities

Handled in a municipal treatment plant

From 2016 discount of 20% from the waste fee, if vessel leave waste waters in the harbour (passenger vessel)



