

# Application of ecosystem principles for the location and management of offshore dumping sites in SE Baltic Region

## ecodump



Photo by E.Visakavičius

### Partners

Klaipeda University Coastal Research & Planning Institute (Lead Partner)

Maritime Institute in Gdansk

### Associated organizations

Maritime Office in Gdynia

Atlantic Branch of P.P. Shirshov Institute of Oceanology of Russian Academy of Sciences

SE Klaipeda state seaport authority

Ministry of Infrastructure of Poland

Port of Gdynia Authority S.A.

Szczecin and Swinoujscie Seaports Authority



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# Why ECODUMP is necessary?

## Sediment deposition at offshore dumping sites

Non-contaminated sediments dredged from port areas and navigational channels are often deposited at offshore dumping sites.

## Need for new dumping sites

Development and maintenance of new ports will imply dredging of several million cubic meters of sediments in coming years, thus the need for new dumping sites should be considered.

## Lack of detailed principles of dumping site location and management

Current dumping practices have a negative impact on marine ecosystems and sediment balance in the coastal areas.



Dredging of sediments in Klaipeda port (photo by E.Visakavičius)

## What will be addressed?

ECODUMP promotes the idea of beneficial use of dredged material in order to sustain the good ecosystem quality and improve sediment balance in the coastal areas of South-eastern Baltic Sea.

## How?

### Applying Maritime Spatial Planning (MSP) and ecosystem principles

ECODUMP will perform detailed environmental and socio-economic conflict assessment for the location of new dumping sites and use ecosystem based approach in order to sustain the sediments balance in the nearshore zone and improve the state of the degrading coasts in South-eastern Baltic Region.



## Effective decision support tools for proper management of the offshore dumping sites

ECODUMP will prepare detailed guideline for proper location and recommendations for adequate management of dumping sites including their monitoring strategy to be used as a decision support tool among relevant organizations. Achieved results will be communicated to HELCOM in order to have a Baltic Sea wide importance and application.

## Project activities

### I. Legislation, monitoring and current state of dumping sites in South-eastern Baltic region

- analysis of legal framework for the location of dumping sites
- mapping of existing dumping sites (sediment amounts, types, characteristics and contamination)
- modelling of pollution spreading during the deposition of sediments in dumping sites
- preparation of monitoring and control programme for dumping sites
- preparation of guideline for the location of new dumping sites using ecosystem based approach



Dumping activities posing potential threat to marine habitats (photo by M. Sapota)

## II. Pilot studies

### Lithuania

- environmental investigations and modelling of sedimentary patterns in Lithuanian territorial waters
- identification of suitable locations for new dumping sites for Sventoji port
- implementation of full scale Environmental impact assessment (EIA) study for the selected site

### Poland

- development of methodological tools, concerning the way of fixing the dumping sites
- assessment of the ecological risks at the dumping sites (on the example of Gdynia dumping site)
- pilot studies for the verification of the dispersion model in the dumping sites

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## Project duration

June 2011 – September 2014

## Expected results

- Maps of existing dumping sites in SE Baltic including the information on the types of sediments, their amount and characteristics
- Monitoring and control programme for the existing dumping sites
- Guiding tools for the location and management of new dumping sites
- Environmental impact assessment study for new dumping site in Lithuania
- Pilot model of pollution scatter in dumping sites

## Further information

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Photo by E.Visakavičius