

Brushwood boxes between the groynes 9 and 11 in Belum



Key Data

Measure-ID	Ost073li_01_01
Estuary	Elbe
Waterway	Oste (3501)
Chainage	Km 73.14 - 73.375
Bank side	Left

Contact

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Available documentation

Photos, monitoring reports for the structures, site plan

DESCRIPTION OF THE MEASURE

Dead wood protection measure

Brushwood box

Reason for implementing the measure

Required under maintenance agreement

Bank protection required due to:

Failure of material, storm surge, ice drift

Development and maintenance of measure

In some areas, loss of fascines due to storm surges and ice drift so that fascines must be replaced annually. In some sections lost fascines were replaced with coir fascines; however, they have not proved suitable; therefore, hardwood fascines were used subsequently. Bank protection is ensured.

The maintenance interval required for the measure is 1-2 years; the replacement interval is 6-10 years.

MATERIAL

Material input

Not specified

Fascine material

Willow, birch, oak, coir fascines
Origin: regional

Pile material

Spruce
Origin: regional

EXPENDITURE

Work days/person	Not specified
Number of persons	Not specified
Construction period	September 2011

Boundary conditions

CHARACTER OF WATER BODY

Type of water body

Main water channel

Characteristic water levels*

Mean tidal range	2.80 m
Mean high water	1.53 m
Mean low water	- 1.27 m

Classification as moderately saline**
mesohaline

* from measurements for the period 02.11.2013-01.12.2019 at the Osteriff MPM gauge
** from measurements for the period 01.04.2001-24.03.2011 at the measuring station LZ 3C - Altenbrucher Bogen

NATURE CONSERVATION

Special Protection Area

Lower Elbe (DE2121401)

Special area of conservation under Habitats Directive

Lower Elbe (DE2018331)

Natural habitat type under Habitats Directive
Estuaries (1130), mudflats and sandflats not covered by seawater at low tide (1140)

Nature conservation area

Hadeln and Belum Outer Dike (ni_NSG LÜ 00100)

Legally protected biotopes

(Bundesnaturschutzgesetz)
No

Specially protected flora species

Not specified

Specially protected fauna species

Not specified

CHARACTER OF THE RIPARIAN ZONE

River bend

Undercut bank, straight bank

Slope inclination

Flat

Dominating soil type

Silt

Pollutant load

Unknown

Natural structures below mean high water

Not specified

Natural structures above mean high water

Not specified

Vegetation

Reed, rushes

Land use

No grassland use

SHIPPING TRAFFIC

Navigation by ships

Cargo vessels, recreational ships

Location in relation to navigation channel

Facing the navigation channel

Speed limit

15 knots

Shipping traffic parameters*

Number of ships/year 43,994

Mean distance between passing ships 1,656 m

Ship dimensions** Length > 225 m
Width > 32 m

*source: AIS data analysis from 2019

**10 % of the largest passing ships

PROPERTY DATA

Land owner (bank)	German Federal Waterways and Shipping Administration (WSV)
Land owner (foreshore)	Federal state
Lease	No