

Brushwood boxes at Hullen, Section B



Federal Waterways Engineering and Research Institute

Key Data

| | |
|------------|---------------------|
| Measure-ID | Elb703li_01_01 |
| Estuary | Elbe |
| Waterway | Lower Elbe (0701) |
| Chainage | Km 703.15 - 703.515 |
| Bank side | Left |

Contact

WSA Elbe-Nordsee, branch office Cuxhaven
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Available documentation

Inspection reports for the structures, photos

DESCRIPTION OF THE MEASURE

Dead wood protection measure

Double pile row

Bank protection required due to:

Bank protection: bank erosion with erosion edge reaching up to vegetation border; sediment trap

Development and maintenance of measure

The measure was installed by the Lower Saxony Water Management, Coastal and Nature Protection Agency (NLWKN). The measure's development can be assessed as positive since sediment buildup is good and vegetation has spread. The objective of bank protection has been achieved. The maintenance interval required for the measure is 1-2 years; the replacement interval is > 10 years.

MATERIAL

Material input

Not specified

Fascine material

Willow, birch, oak
Origin: national

Pile material

Pine, spruce, larch
Origin: national

Other construction materials

Artificial stone, natural stone, slag
Origin: national

EXPENDITURE

| | |
|---------------------|---------------|
| Work days/person | not specified |
| Number of persons | not specified |
| Construction period | 2003 |

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)

Nature conservation area

Lower Saxony Elbe estuary (ni_NSGLÜ 00336)

Legally protected biotopes
(Bundesnaturschutzgesetz)

Tidal flats

Specially protected flora species

Not specified

Specially protected fauna species

Not specified

CHARACTER OF THE RIPARIAN ZONE

River bend

Undercut 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

Natural bank wall/aggradation

Vegetation

Reed, salt marsh

Land use

Grassland use: extensive

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 | Yes |