

JBA
consulting



Tees Estuary Intertidal Habitat Creation

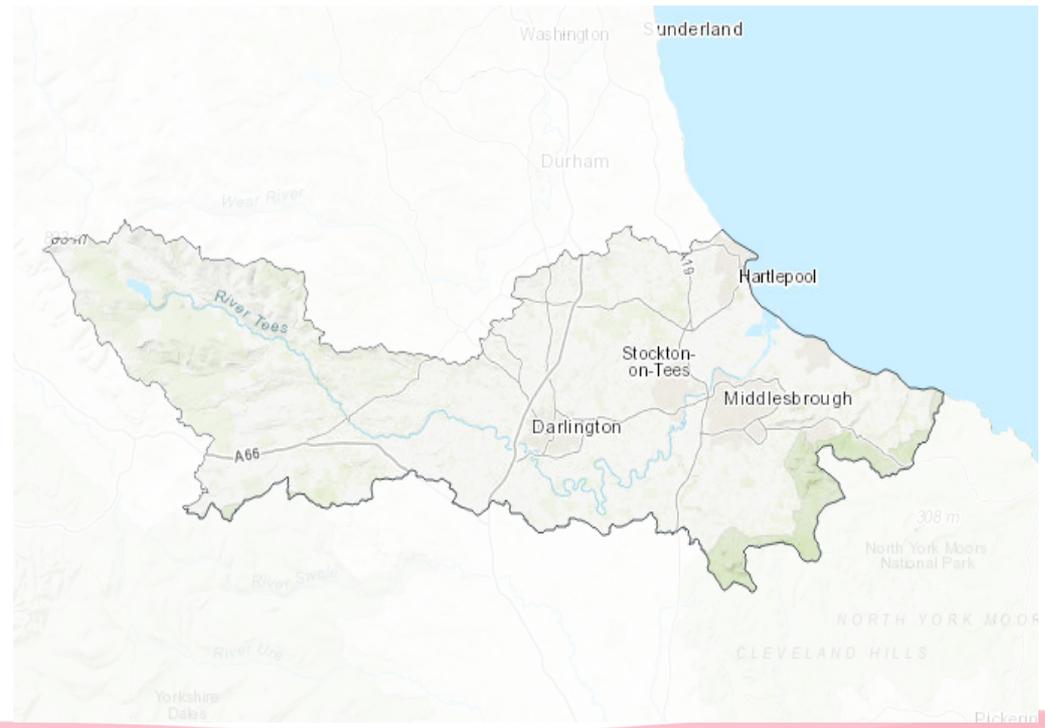
Ben Lamb- Tees Rivers Trust





The Tees Catchment

Length 198km
Area 1789km²
Population 700k











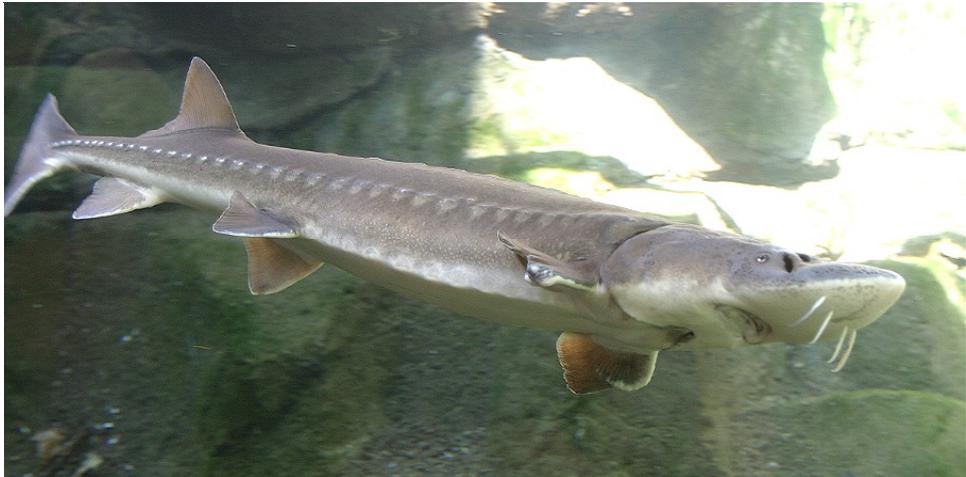
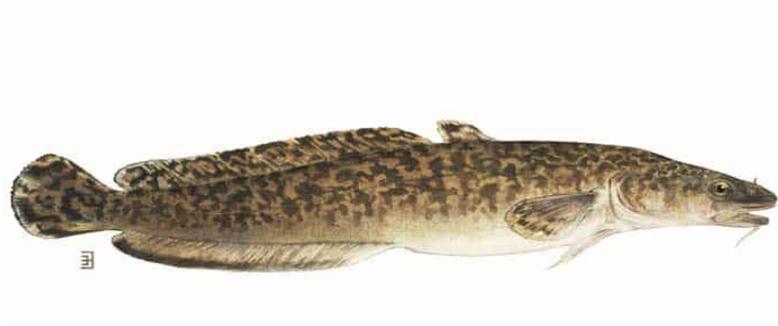
That the Bpp has the royalties of the river of Tease, as Whales, Sturgeon, Purposes, or the like, taken on that side the river next the county of Durham, within the manor of Stockton, and all wracks of the sea, but know not what they are worth:—not 5*l.* per ann.—*Survey of Stockton Manor, taken when the Parliament sold the possessions of the see.*

At this day “not one shilling” possibly would be a more correct return. Whales we have none, the porpoises uselessly gambol near the sandbanks at the river’s mouth, and a sturgeon is a rarity. A remarkably large one, caught below Yarm, was exhibited alive at Darlington, in 1848; it measured 7 *ft.* 5 *in.* in length, and weighed about 8½ *st.* In former days this “Royal Fish” would very probably have grieved the pious soul of good old Cosin. The charges of catching and curing five sturgeon at his manor of Howden, in 1662, what with dill and rosemary, eleven gallons of white wine at 2*s.* 8*d.* the gallon, 16½ gallons of vinegar at 1*s.* 8*d.* the gallon, and one thing and another, came to 5*l.* 17*s.* 1*d.*, which the Bishop reasonably thought rather a costly matter, as the fish were chiefly given away to my Lord Clarendon, my Lady Gerard, &c. So he desired his Howden steward to catch no more sturgeons, and sharply adds “you need not have item’d me for your dill and rosemary.” For the first assizes after this prelate’s consecration, held at Durham, Aug. 12, 1661, when all men’s hearts were full of joy at the restoration, we have the following charges :

The Tees abounds with fishes of the salmon kind, consisting in popular diction, of *sparling*, brandling, trout, salmon-trout or scurves, summer-cock, and salmon. The convent of Durham occasionally procured their fresh water fish from the Tees.

History and Antiquities of Darlington - 1864











➤ Alerts flagging sewage overflow on Teesside beaches return to normal

➤ 'Loud noise' expected tonight as another part of steelworks razed

➤ Calls for Government to help crisis-hit steel industry

➤ 'Something for everyone': International superstore opens in Linthorpe

➤ 150-year-old Teesside law firm Archers bought in £5.2m deal



News ▶ Teesside News ▶ Northern Agenda

'We're creating thousands of jobs on Teesside but little Jimmy on the South Bank needs the right skills to get one of them'

Mayor says skills shortage is biggest challenge facing Teesworks

Leaders hope to create 18,000 jobs at the old Redcar Steelworks, which was relaunched as Teesworks last year five years on from SSI entering liquidation, marking the end of iron and steelmaking on Teesside.

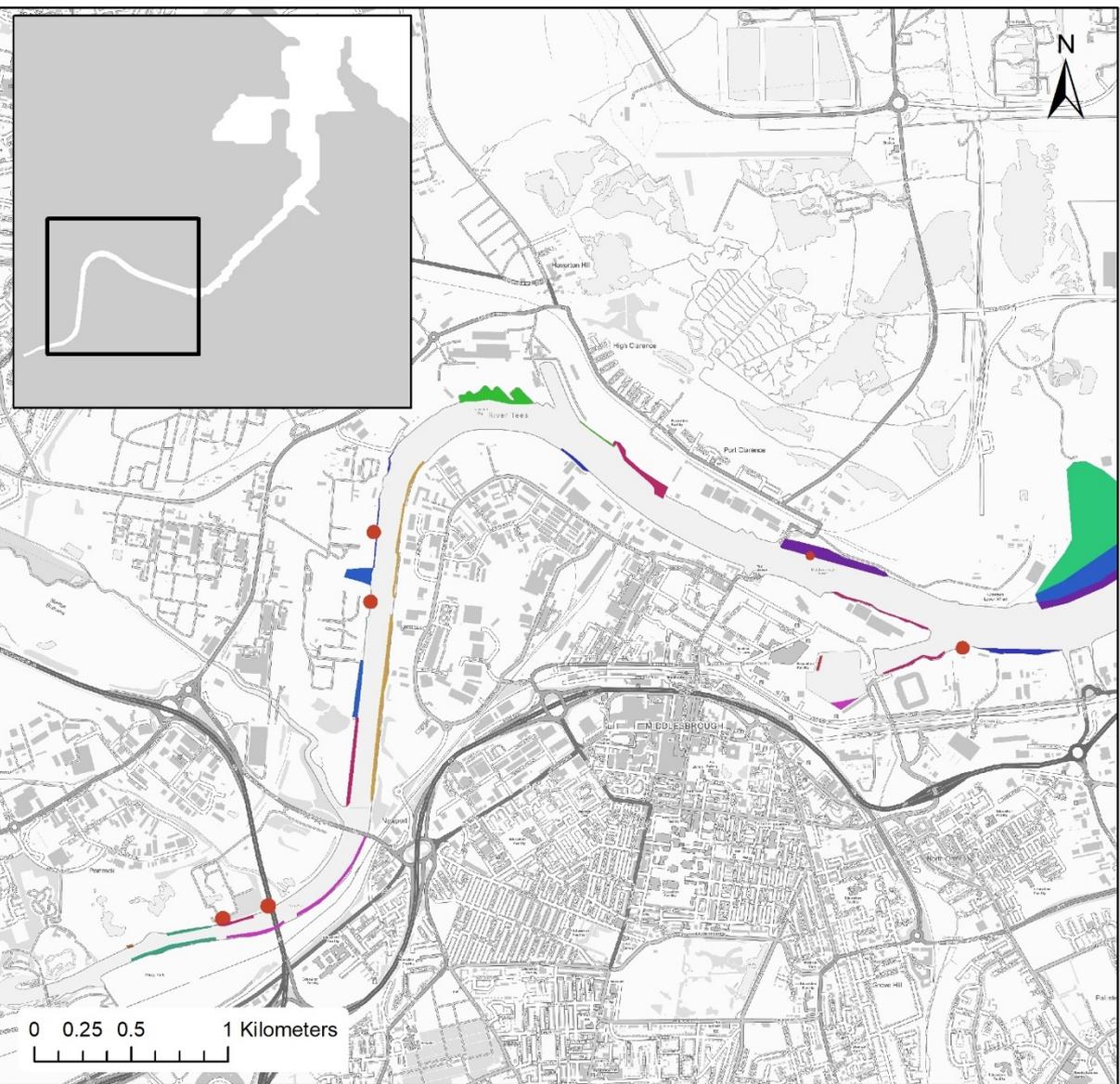


Tees Estuary IMMERSE Project

Year 1: Pre works monitoring report, design, permits,
permissions

Year 2: ph1 Intertidal Habitat Creation works

Year 3/4: ph2 Post works monitoring report



Legend

- Create new training wall
- Extend existing training wall
- Fish Refuge Box
- Opportunities for grab ropes, chains and fish refuge boxes where they would not interfere with operational quaysides
- Opportunities to use existing timber infrastructure for raising the intertidal profile and planting
- Re-grading of shoreline and planting at high water
- Realign the bank (large scale)
- Realign the bank (small scale)
- Recreate muddy embayments
- Recreate zonation (mudflat to high marsh)
- Regulated Tidal Exchange (RTE) device
- Reprofile by terracing
- Surface texture enhancements e.g. holes, grooves, Vertipools
- Tern raft
- Vegetated pontoons
- Vertical greening of walls and fish refuge boxes
- Vertical greening of walls, wooden cladding, fish refuge boxes and plant pots
- Vertical greening of walls, wooden cladding, fish refuge boxes and plant pots on new quay

**Tees Estuary Edges
Enhancement Study**

Report to Tees Rivers Trust
and Environment Agency

Institute of Estuarine and Coastal Studies

University of Hull

Author(s): S. Boyes, N. Cutts & S. Thomson

Report: YBB378-D1-2018

Estuary Edges Guidance for Developers



Environment Agency

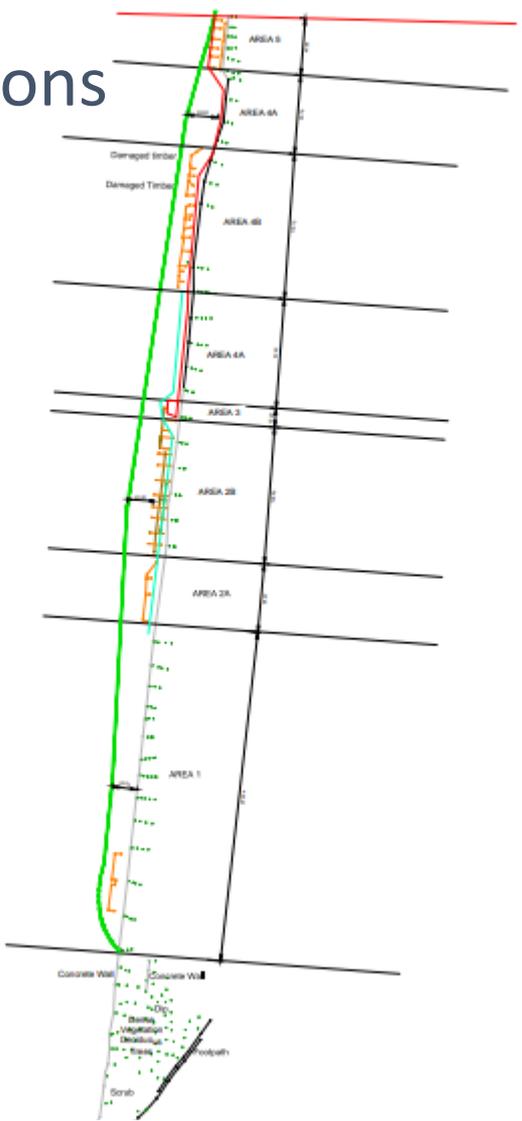
Estuary Edges:
Ecological Design Guidance

A circular graphic with a white background and a green bottom half. The top half features a stylized illustration of green reeds against a light blue sky. In the center, there are two logos: a blue and white wave icon on the left and the Environment Agency logo on the right. The text "Estuary Edges: Ecological Design Guidance" is written in white on the green bottom half.



Estuary Edge Designs

- JBA Consulting
- Non-uniform site
- Multiple solutions



adhering to Pollution Prevention Guidelines.

- All works affecting flood defences, main watercourses and/or ordinary watercourses will be subject to Consent for Permanent and Temporary Works under the Land Drainage Act 1971.
- A detailed utility search has been undertaken for the site (Ref: CEN12101, March 2019) and should be referenced with this drawing. The Contractor will confirm the location of any services prior to the commencement of any works. The electronic model of this drawing is not to be used for setting out.
- How total area distances and calculated areas are indicative and subject to change further to details surveyor site visitations.

LEGEND

- SITE LIMITS
- LOW INTER TIDAL HABITAT AREA
- MEDIUM INTER TIDAL HABITAT AREA
- HIGH INTER TIDAL HABITAT AREA

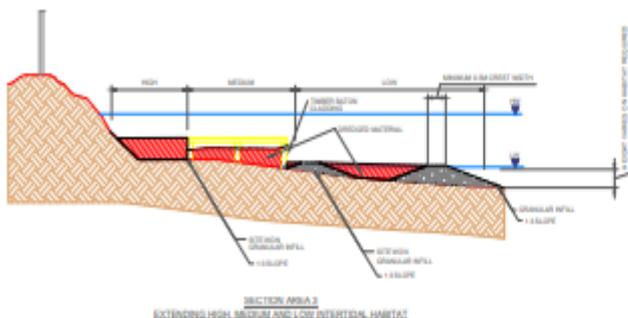
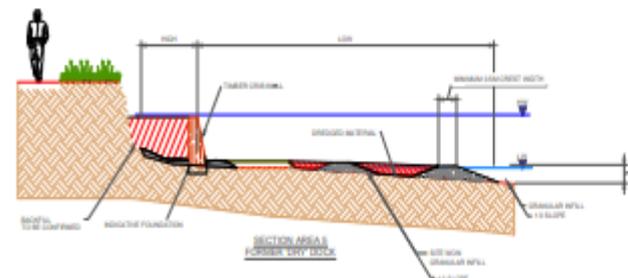
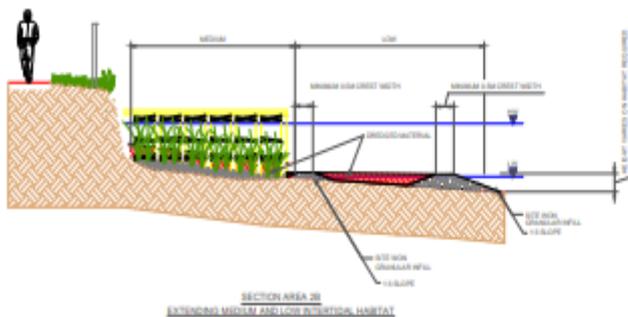
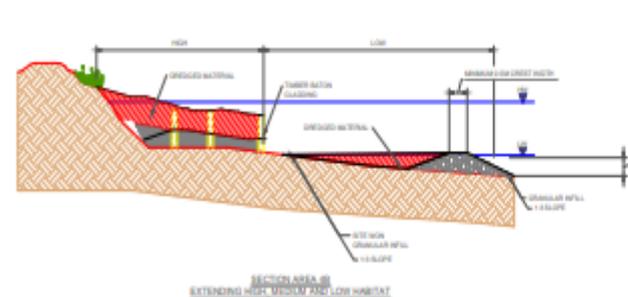
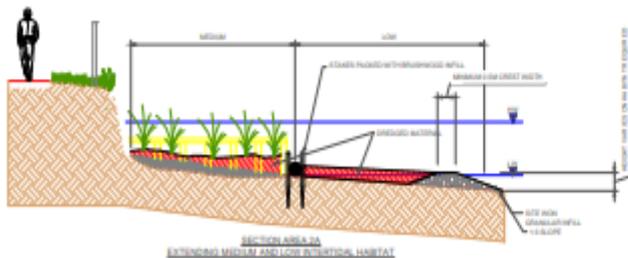
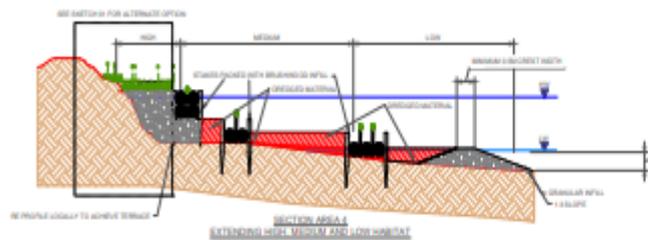
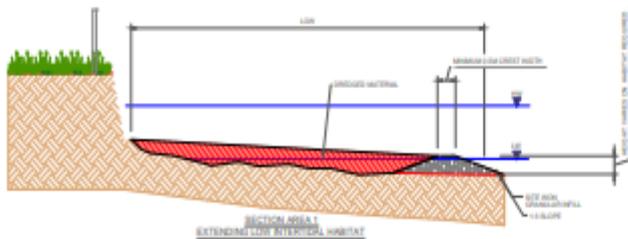
AREA	AREA (SQ)			LENGTH
	LOW	MED	HIGH	
1	0.79			206.96
2A	0.20	4.00		66.87
2B	0.20	4.00		109.83
3	0.20	0.99	2.70	19.22
4	4.40	4.79	2.70	130.81
6B	0.20		4.83	176.12
6	0.22		5.96	95.86

LOWER INTER TIDAL HABITAT AREA = 88.98SQ
 MEDIUM INTER TIDAL HABITAT AREA = 78.99SQ
 HIGHER INTER TIDAL HABITAT AREA = 12.38SQ

Plot 1
 Maybank House
 21/22 George Street
 Newcastle upon Tyne
 NE1 1LE
 T: +44 (0)191 233 0707
 E: info@jbaconsulting.com
 www.jbaconsulting.com
 Twitter @JBAConsulting



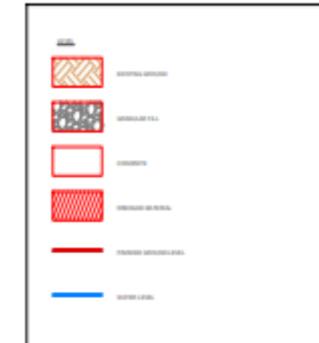
Tees Estuary Enhancement



1. Working near existing wall and lowering materials to the level of the bedrock. In the later trial zone and in areas at risk of being cut off from the access point.
2. Contact with unknown services - gas survey recommended prior to construction.
3. Working near existing timber structures. These contain rotting timber and things, sharp edges and may be unstable.
4. Details and waste on the bank may include hazardous materials (e.g. asbestos).

No.	Construction Risk	Maintenance Risk	Derivation Risk
In addition to the hazards/risks normally associated with the types of work detailed on drawing take note of the above.			

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX



SERVICES INVESTIGATION GUIDE

● DESK STUDY (SERVICES ONLY)
● DESK STUDY AND GPR SURVEY
● DESK STUDY, GPR SURVEY AND TRIAL HOLES

DATE TAKEN: Desk Study: April 2019

File #
 Revision #
 1000 George Street
 Newcastle upon Tyne
 NE1 7JL
 T: +44 (0)191 238 2307
 E: info@jamesandjones.com
 www.jamesandjones.com
 Twitter @J&JConsulting

SKETCH

Tees Estuary Enhancement

PROPOSED BANK SECTIONS
Figure 6: Area Extents





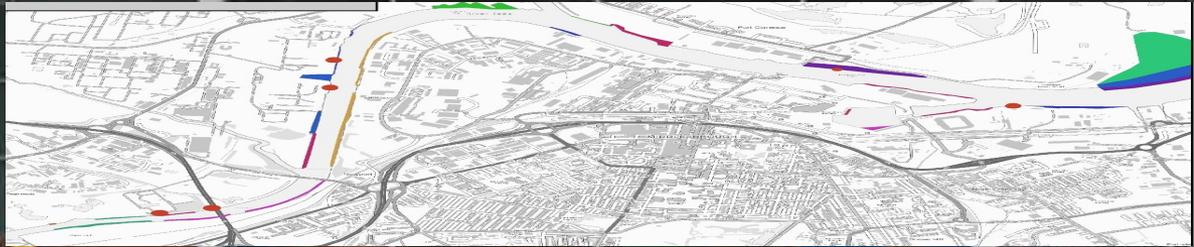




£ ?

TEESCO *extra*

Managers special.. Mudflats..buy some, get stuff free!!!



The shop window is filling up, let panic buying commence.....



Estuary Edges: Replacing metal, concrete and brick tidal walls with a variety of habitats



© Clearwater Photography

Amy Pryor, Thames Estuary Partnership