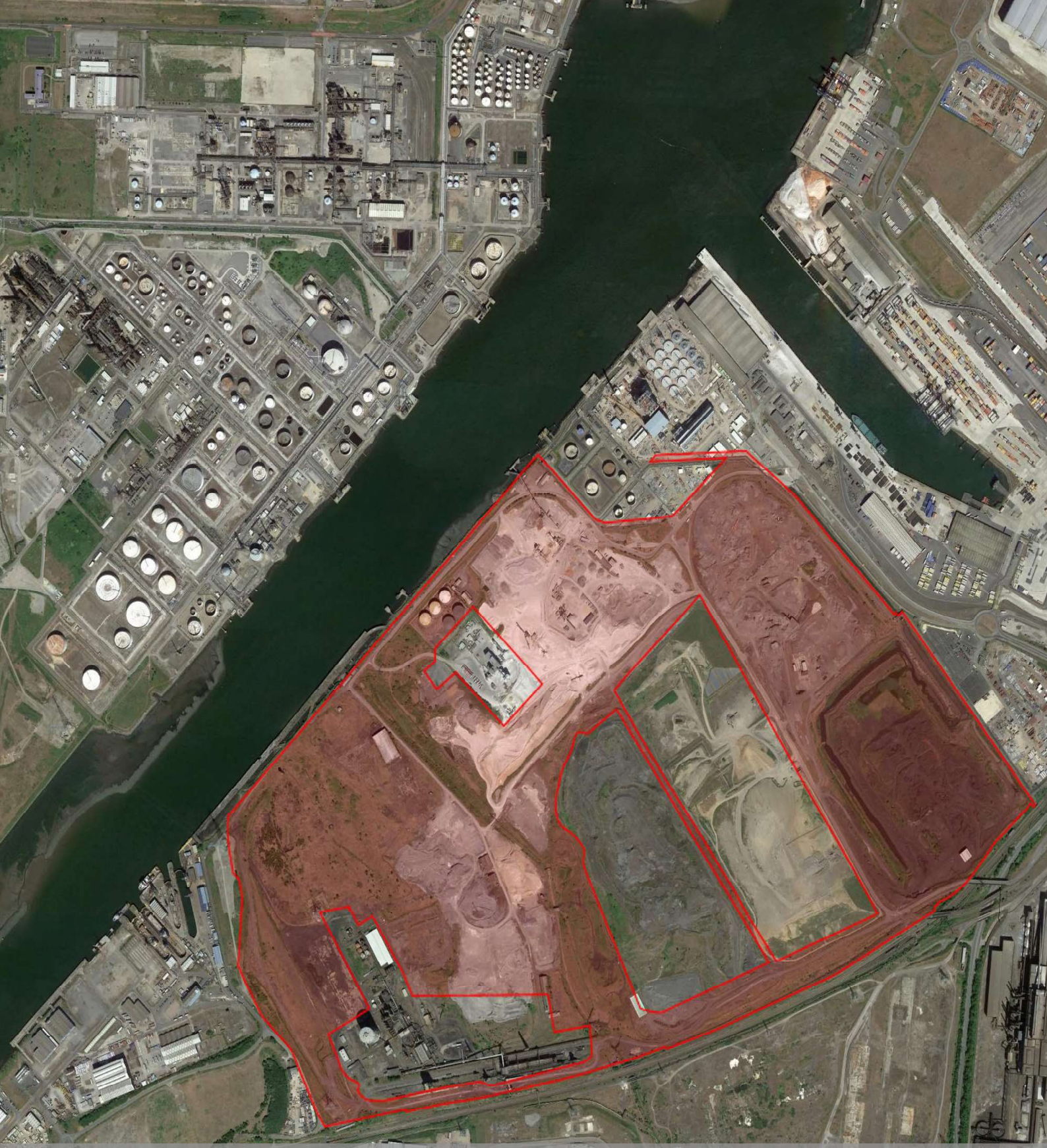
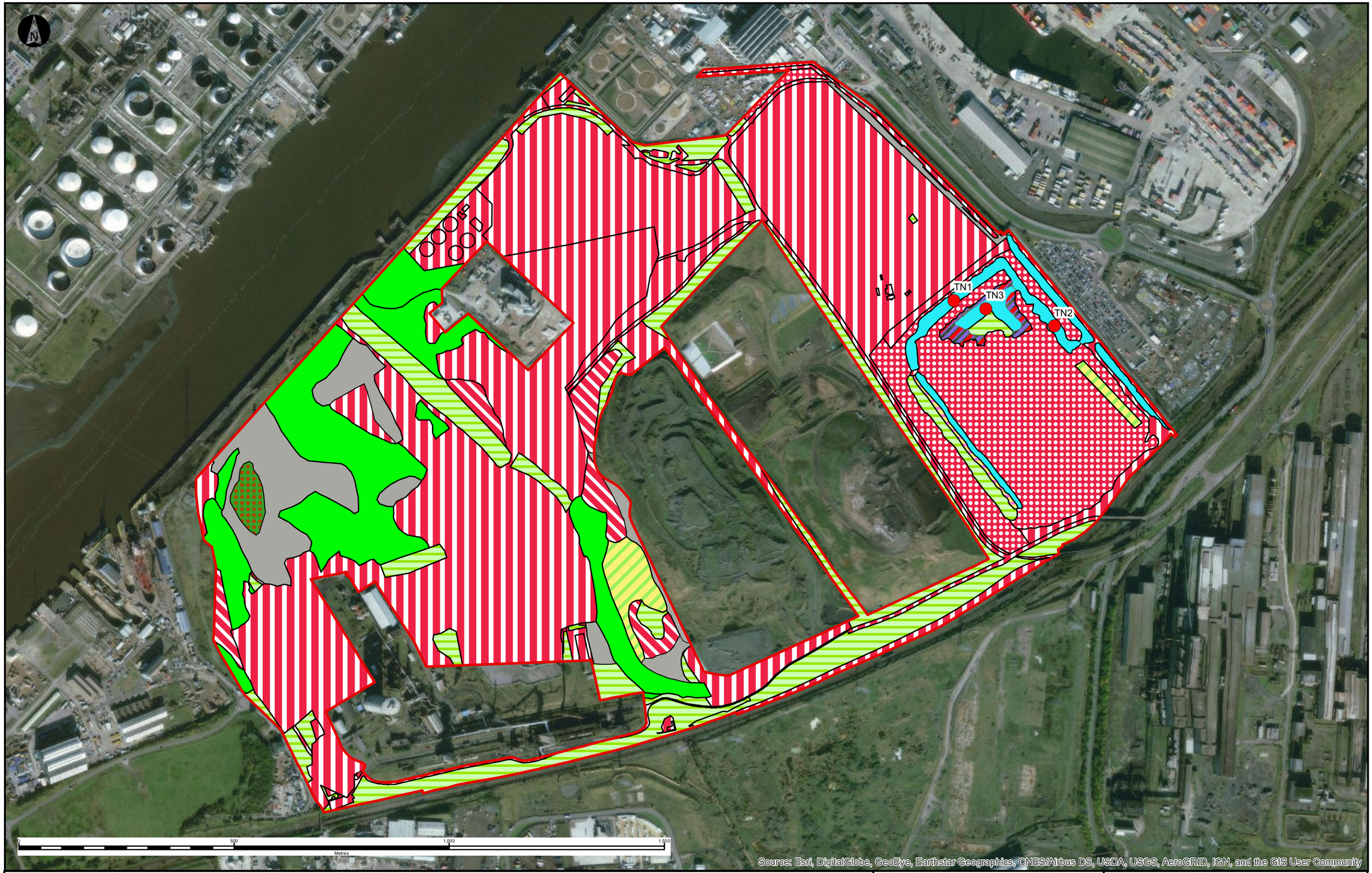


South Industrial Zone

Supplementary Environmental Statement
September 2020
Volume 3: Technical Appendices
(Section 4 Biodiversity and Ecology)

Appendix 4.1
Updated UK Habitat Classification Habitat Survey Map



Legend

South Industrial Zone Red Line Boundary

Habitats

- g2 - Lowland calcareous grassland
- g4 - Modified grassland
- g3c - Other neutral grassland
- h3h - Heathland and shrub - Mixed scrub
- r1a6 - Open waters - oligotrophic
- w1g - Other woodland, broadleaved
- s - Sparsely vegetated land - Ruderal/Ephemeral
- u1c - Urban - Artificial unvegetated, unsealed surface
- u1b - Urban - Developed land; sealed surface
- u1a - Urban - Open Mosaic Habitats on Previously Developed Land
- u - Urban - Vacant/derelict land/ bareground
- f2e - Wetland - Reedbeds
- Target note

Map Name
UK Habitat Classification Habitat Survey Map

Map Number
Appendix A

Project Title
South Industrial Zone

Date:02/09/2020

Scale at A3: 1:8,000

South Tees
Development Corporation

Redheugh House, Teesdale South, Thornaby Place,
Stockton on Tees, TS17 6SG
Tel +44 1642 356 590 | www.arup.com

Appendix 4.2
Updated Habitat Data Sources

0 187.5 375 750 1,125 1,500
Meters

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- South Industrial Zone Red Line Boundary
- INCA 2011 Survey
- INCA 2020 Survey
- INCA 2019 Survey

Map Name: Habitat Data Sources

Map Number: Appendix E

Project Title: South Industrial Zone

Date:01/09/2020

Scale at A3: 1:8,000

South Tees Industrial Zone

Redheugh House, Teesdale South, Thornaby Place, Stockton on Tees, TS17 6SG
Tel +44 1642 356 590 | www.arup.com

ARUP

South Tees Development Corporation

Appendix 4.3
Sediment Sampling

Zoe Webb
Arup
Central Square
Forth Street
Newcastle Upon Tyne
NE1 3PL
United Kingdom

19th August 2020

Dear Zoe

RE: The Slems Sediment Samples

The Slems sediment samples have been processed using a 0.5 mm net sieve. All remaining material from the initial sediment samples have been sorted to identify any living organisms contained within the sample. There were no living faunal material identified in any of the samples provided.

The samples appeared to be clay like in nature and anoxic. All of the remaining material was comprised of woody fragments, and gravely shale like stone, with some halophyte vegetation.

With best wishes

Dr Heather Sugden
Director
Ecoteknica UK Ltd

Appendix 4.4
Bird Surveys

Information Note INCA 20-05

Waterbird Surveys – The Slems

INCA undertook a series of non-breeding bird surveys of the Slems in July and August 2020. The surveys were timed to coincide with the key period when passage Redshank *Tringa totanus*, uses the Tees Estuary. Passage Redshank is one of the interest features of the Teesmouth and Cleveland Coast SPA. While the primary purpose of the surveys was to ascertain whether Redshank were using The Slems at this time of year it also recorded the use of The Slems by other waterbird species. Another of the interest features of the SPA is the assemblage of wintering waterbirds and while these surveys were outside of the key periods for wintering waterbirds, they give an indication of the potential for use by wintering waterbirds.

The results of the surveys are given in Table 1. Counts were not kept of gull species although with the presence of an active tip adjacent to The Slems some gulls are always present and they use The Slems either for loafing on the terrestrial areas or bathing in the watercourses. It is not unusual for gulls at The Slems to number into three figures.

No Redshank or other waders were seen on any survey and it is assumed that the sediment does not provide any feeding opportunities for them. Ducks were always present with several species represented in small numbers. Five fish eating species from a variety of taxa were present, with successful fishing observed on one occasion. It is now known that the watercourses at The Slems do support fish, as also attested by the presence of Otter spraint on 14th July.

Table 1. Waterbird numbers

	14/07/20	28/07/20	05/08/20	11/08/20	18/08/20
Mallard	5	5	13	12	10
Shelduck	4	3	2	0	0
Teal	0	0	4	3	4
Gadwall	1	0	1	0	2
Little Grebe	0	0	1	0	0
Grey Heron	1	0	0	0	1
Little Egret	0	0	0	2	0
Moorhen	1	7	0	5	6
Kingfisher	0	1	0	0	1
Cormorant	0	1	0	0	0

Appendix 4.5
Salinity Testing

LICHFIELDS

Briefing Note

Date 26 August 2020
To STDC
From Neil Westwick

Subject Water Body Sampling - Salinity Test

1.1 On the 24th June 2020 sampling of the water body identified by Arup and Inca was undertaken in order to test its salinity.

1.2 Three samples were collected using clean receptacles from varying locations across the water body. The water samples were taken from below the surface of the water.

1.3 The samples were then tested using a digital salinity tester (HI98319). The testing device met the requirements of ISO 9001.

1.4 Prior to testing each of the samples, the salinity tester was calibrated with the manufacture approved Salinity Calibration Solution. The test was then undertaken in line with the manufactures testing methodology.

1.5 The above methodology was agreed with JBA Consulting before testing.

1.6 The results from the testing are set out below:

- Sample 1 – 4.9 ppt
- Sample 2 – 5.0 ppt
- Sample 3 – 5.1 ppt