

CLIENT:	AESC UK
PROJECT:	AESC Plant Three
SUBJECT:	Appendix 12.18 River Morphological Report
JOB NO.:	NT15821
DATE:	15 th April 2024
PREPARED BY:	Ryan Evans – Senior Ecologist and Tosha Allen – Technical Director (Ecology)
REVIEWED	Tosha Allen – Technical Director (Ecology)
AND	
APPROVED BY:	

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 Wardell Armstrong LLP (WA) was commissioned by AESC UK in April 2024 to undertake a River Condition Assessment of a site proposed for an industrial development scheme in Washington, Sunderland. The site is located along Washington Road, Sunderland (approximate central Ordnance Survey (OS) grid ref: NZ 32934 58939) here after referred to as the 'Site'.

1.2 Site Context

- 1.3 The Site comprises a series of formerly arable fields covering approximately 62 ha (both AESC Plant Two and AESC Plant Three, including intersecting areas). The Site comprises multiple grassland fields, the majority of which are other neutral grassland with some being modified grassland, with boundary hedgerows and wet/dry ditches. Smaller parcels of ruderal/ephemeral vegetation, dense scrub, bare ground, artificial unvegetated; unsealed surface and developed land; sealed surface (in the form of roads, tracks and buildings) are also present.
- 1.4 The Site is bounded by north and to the west and west by arable grasslands. A number of industrial parks are present to the south, with industrial facilities at a lower density to the west. The A1290 lies to the immediate south of the Site. Residential housing is present around the wider landscape to the east, south and west, with vast arable land to the north.



1.5 There are multiple statutory and non-statutory designated sites within 10km of the proposed development, including the Durham Coast Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), the Northumbria Coast Special Protection Area (SPA) and RAMSAR, and 17 Local Wildlife Sites (LWS) designations. Notably, the Usworth Burn lies parallel to the northern boundary, and the River Don LWS lies 0.41km north of the Site.

2 METHODOLOGY

2.1 River Condition Assessment

- 2.1.1 The River Condition Assessment (RCA) method combines the MoRPh¹ field surveys with a desk study (River Type) to generate a final condition score based on the evaluation of 32 Condition Indicators (CIs) which represent positive and negative attributes of the fluvial river reach under investigation.
- 2.1.2 One watercourse was assessed during the MoRPh¹ field surveys and the Desk study. This was the Usworth Burn along the northern boundary of the Site, which is a triburary to the River Don. The location and extent of the watercourse surveyed, and the baseline condition scores are displayed on drawing 'NT15821/ Figure 12.6 Rev A' MoRPh Survey Results. For the purposes of the RCA, the watercourse has been split into four sub-reaches to ensure a minimum of 20% of the watercourses are surveyed. Each sub-reach was subject to a MoRPh 5 survey, in which 5 consecutive MoRPh modules were assessed. The MoRPh¹ field surveys were undertaken by a Certified Ecologist on 10th and 11th April 2024. The desk study (River Type) was undertaken on 12th April.

2.2 Quality Assurance & Environmental Management

2.2.1 The surveys have been undertaken by a certified ecologist the report checked and verified by an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM), who is bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in British Standard (BS) 42020², and as stated within specialist guidance, as appropriate and referenced separately.

¹ Modular River Survey (2022). The MoRPh Survey Technical Reference Manual

² British Standards (BS) Institute (2013) Biodiversity – Code of Practice for Planning and Development. BS 42020:2013.



2.3 Limitations and Caveats

2.3.1 The MoRPh survey was undertaken in April 2024 following high rainfall which restricted the visibility of the bed however this was not considered to be a significant limitation of the results of the survey.

3 RESULTS

3.1 **Desk Study**

- 3.2 The River Type desk study aims to assess the degree to which the river is displaying the expected form and dynamics and the degree to which its form and dynamics reflect human pressures and interventions by assigning the river reach, river type.
- 3.3 Discrimination of these river types is based mainly upon a reach-scale desk study regarding the shapes of both the river and the valley which it is contained and supported by the bed material information gained from the MoRPh 5 field surveys.
- 3.4 Table 1 details the findings from the Desk Study.

Table 1: Desk Study Results

Rivers and Streams Reference	River Type
Usworth Burn	F - Straight/sinuous, coarsest CO, average GP



3.5 Modular River Physical Habitat Survey

3.5.1 The final condition of each watercourse is calculated following the desk study, and the MoRPh 5 field surveys. The results of which are detailed in Table 2 below.

Table 2: MoRPh Survey Results

Rivers and Streams Reference	Description	Grid Reference (Start/End)	Over Deep (Y/N)	Final Baseline Condition Assessment Result
Usworth Burn — Sub reach 1	Situated along the northern boundary of the Site, with a moderate to fast flow, and very turbid water, with the main flow type consisting of unbroken standing waves. Trees and saplings are present mainly along the left bank, with a trace on the right.	NZ 32551 59267/ NZ 32584 59258	N	Moderate
Usworth Burn – Sub reach 2	Situated along the northern boundary of the Site, with a moderate to fast flow, and very turbid water, with the main flow type consisting of unbroken standing	NZ 32638 59234/ NZ 32676 59219	N	Moderate



	waves and ripples. Trees and saplings are present mainly along the left bank, with a trace on the right.			
Usworth Burn – Sub reach 3	Situated along the northern boundary of the Site, with a moderate to fast flow, and very turbid water, with the main flow type consisting of smooth flow, with riffles also present. The bank top and face are more open with only a trace amount of saplings and trees on both banks across the MoRPh 5 area.	NZ 32836 59232/ NZ 32867 59244	N	Moderate
Usworth Burn – Sub reach 4	Situated along the northern boundary of the Site, with a moderate to fast flow, and very turbid water, with the main flow type consisting of unbroken standing waves and rippled,	NZ 32942 59268/ NZ 32984 59274	N	Moderate



with riffles also		
present. A bench is		
present along the		
left bank, making up		
the entire length of		
the MoRPh 5 area.		

4 SUMMARY

- 4.1.1 The baseline condition of all four sub-reaches of the watercourse is 'Moderate'. The river type was assessed as cobble/gravel straight sinuous.
- 4.1.2 Should the proposed development impact on the watercourses or land within 10m of the watercourses, additional assessments will be required to determine the condition scores post development. Should this be required, this technical note will be updated.

Appendix 1a – Raw Survey Data – MoRPh Data

Appendix 1b - Raw Survey Data - MoRPh 5 Data

Appendix 1c - Raw Survey Data - River Condition

Appendix 1d – Raw Survey Data – River Type

Appendix 2 – NT15821/ Figure 12.6 Rev A MoRPh Survey Results



Appendix 1a

Raw Survey Data - MoRPh Data



Watercourse					
Reference	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
longitude	-1.493604	-1.493495	-1.493324	-1.493262	-1.49309
latitude	54.927034	54.927042	54.926979	54.92696	54.926951
easting	432551.0185	432557.9974	432569.0067	432572.9953	432584.0253
northing	559267.0488	559267.9896	559261.0582	559258.9727	559258.0509
	NZ 32551	NZ 32557	NZ 32569		
ngr	59267	59267	59261	NZ 32572 59258	NZ 32584 59258
status	approved	approved	approved	approved	approved
	598b68a7-	7cbe854d-			
	b73a-47d3-	081c-4f7b-	8f3e749a-daff-	7108ff0d-f4a9-	f816d089-b728-
	8c7d-	8833-	4da6-9ae7-	43cd-83f3-	4d7a-8446-
surveyld	7d3cdd17ea58	10758d4712cb	544f49374083	e05855b2ee25	7246876f7f0b
	2024-04-	2024-04-	2024-04-	2024-04-	2024-04-
timestamp	10T14:18:00Z	10T14:03:00Z	10T13:38:00Z	10T22:00:00Z	10T22:00:04Z
	60504cd2-	60504cd2-	60504cd2-		
	0d4a-40eb-	0d4a-40eb-	0d4a-40eb-	60504cd2-0d4a-	60504cd2-0d4a-
	956b-	956b-	956b-	40eb-956b-	40eb-956b-
photographs	b5b4b0c87f82	b5b4b0c87f82	b5b4b0c87f82	b5b4b0c87f82	b5b4b0c87f82
riverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
reachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
	Usworth Burn,	Usworth Burn,	Usworth Burn,		
subreachName	1	1	1	Usworth Burn, 1	Usworth Burn, 1
moduleNumber	1	2	3	4	5
projectName	LD10890	LD10890	LD10890	LD10890	LD10890
projectCode	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib
surveyType	pre-project	pre-project	pre-project	pre-project	pre-project
index1	1	1	1	2	1
index2	UW	UW	UW	UW	UW



				T	1
index3	1	1	1	1	1
index4	CO	SI	SI	SI	SI
index5	-5.9565215	6.5	6.5	6.5	6.5
index6	GP	SI	SI	SI	SI
index7	0	6.7	6.7	6.7	6.7
index8	0.8333333	0.8333333	0.8333333	1.25	0.8333333
index9	0	0	0	0	0
index10	2.5	2.0833333	3.452381	2.9047618	2.1190476
index11	3	3	2.5	2	3
index12	3	3	3	3	3
index13	0	0	0	0	0
index14	0	0	0	0	0
himalayanBalsam	Α	Α	Α	Α	Α
japaneseKnotweed	Α	Α	Α	Α	Α
giantHogweed	Α	Α	Α	Α	Α
floatingPennywort	Α	Α	Α	Α	Α
Watercourse					
Reference	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
longitude	-1.49225	-1.492095	-1.491924	-1.491784	-1.491644
latitude	54.92674	54.926677	54.92664	54.926631	54.926603
easting	432638.0276	432648.0117	432659.0003	432667.9797	432676.9744
northing	559234.9609	559228.0223	559223.9844	559223.048	559219.9973
	NZ 32638	NZ 32648	NZ 32659		
ngr	59234	59228	59223	NZ 32667 59223	NZ 32676 59219
status	approved	approved	approved	approved	approved



	Γ	T	T		I
	15aea125-	13de807f-	85336b99-		
	5488-46c1-	198c-4827-	e5eb-472d-	8d0e1789-e64a-	2f14697f-d3a7-
	b835-	b9ee-	b5f2-	4de3-a6ee-	46ab-8b94-
surveyld	1c2f8deffae7	1acf20ebec5c	3242baf70d1b	5265d2c32857	03e14a1b7c1f
	2024-04-	2024-04-	2024-04-	2024-04-	2024-04-
timestamp	10T14:39:21Z	10T14:52:00Z	10T15:03:00Z	10T15:13:00Z	10T15:23:00Z
	9da67d32-	9da67d32-	9da67d32-		
	ff92-440e-	ff92-440e-	ff92-440e-	9da67d32-ff92-	9da67d32-ff92-
	a64f-	a64f-	a64f-	440e-a64f-	440e-a64f-
photographs	7ab1194f8ef5	7ab1194f8ef5	7ab1194f8ef5	7ab1194f8ef5	7ab1194f8ef5
riverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
reachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
	Usworth Burn,	Usworth Burn,	Usworth Burn,		
subreachName	2	2	2	Usworth Burn, 2	Usworth Burn, 2
moduleNumber	1	2	3	4	5
projectName	LD10890	LD10890	LD10890	LD10890	LD10890
projectCode	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib
surveyType	pre-project	pre-project	pre-project	pre-project	pre-project
index1	1	2	2	2	1
index2	UW	UW	RP	UW	UW
index3	1	1	1	2	1
index4	SI	SI	SI	CO	SI
index5	3.38	5.0238094	6.5	-0.5833333	6.5
index6	SA	SI	SI	SA	SI
index7	1.9	1.9	1.9	1.9	1.9
index8	0.8333333	1.25	2.0833333	1.6666666	0.8333333
index9	0	0	2	1	0
index10	1.6666666	1.6666666	1.6666666	1.6666666	1.6666666



index11	2	2.5	3	3	3
index12	3	3	3	3	3
index13	0	0	0	0	0
index14	0	0	0	0	0
himalayanBalsam	Α	Α	Α	Α	Α
japaneseKnotweed	Α	Α	Α	Α	Α
giantHogweed	Α	Α	Α	Α	А
floatingPennywort	Α	Α	Α	Α	Α
Watercourse					
Reference	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
longitude	-1.489161	-1.489067	-1.488942	-1.488786	-1.488661
latitude	54.926709	54.926727	54.926745	54.926762	54.926815
easting	432836.0146	432842.0241	432850.0202	432860.0039	432867.9716
northing	559232.9506	559234.9976	559237.0591	559239.0238	559244.9801
	NZ 32836	NZ 32842	NZ 32850		
ngr	59232	59234	59237	NZ 32860 59239	NZ 32867 59244
status	approved	approved	approved	approved	approved
	43a6fa8a- e3d3-49b1- ab08-	781b10b7- 12f2-41cf- 9adb-	8f0dbb9d- caec-4099- 9d91-	e361e4c4-170a- 447f-a896-	518a6557-42bd- 49c5-8783-
surveyld	1cdf3dcab67b	c16545601560	3a94f9f3ecc9	9c7b6687ee36	d52dd2d06259
	2024-04-	2024-04-	2024-04-	2024-04-	2024-04-
timestamp	11T08:59:00Z	11T09:14:00Z	11T09:30:00Z	11T09:53:00Z	11T10:07:00Z
	541caa43- 4fa7-4c35- 9524-	541caa43- 4fa7-4c35- 9524-	541caa43- 4fa7-4c35- 9524-	541caa43-4fa7- 4c35-9524-	541caa43-4fa7- 4c35-9524-
photographs	6b74094ee2c7	6b74094ee2c7	6b74094ee2c7	6b74094ee2c7	6b74094ee2c7
riverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn



reachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
	Usworth Burn,	Usworth Burn,	Usworth Burn,		
subreachName	3	3	3	Usworth Burn, 3	Usworth Burn, 3
moduleNumber	1	2	3	4	5
projectName	LD10890	LD10890	LD10890	LD10890	LD10890
projectCode	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib
surveyType	pre-project	pre-project	pre-project	pre-project	pre-project
index1	1	1	1	2	2
index2	SM	SM	SM	RP	RP
index3	1	1	1	1	1
index4	SI	SI	SI	SI	SI
index5	6.5	6.5	6.5	6.5	6.5
index6	SI	SI	SI	SI	SI
index7	6.7	6.7	6.7	6.7	6.7
index8	1.25	0.8333333	1.25	1.25	1.25
index9	0	0	0	0	0
index10	1.9523809	2.5714285	2.5714285	2.9880953	2.8214285
index11	3	5	5	4.5	3.5
index12	3	3	3	3	3
index13	0	0	0	0	0
index14	0	0	0	0	0
himalayanBalsam	Α	Α	Α	Α	Α
japaneseKnotweed	Α	Α	Α	Α	Α
giantHogweed	Α	Α	Α	Α	Α
floatingPennywort	Α	Α	Α	Α	Α



	I	I	I	I	_
Watercourse					
Reference	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
longitude	-1.487503	-1.487268	-1.487112	-1.486941	-1.486832
latitude	54.927026	54.927079	54.927078	54.927096	54.927077
easting	432942.0113	432957.0282	432967.0264	432977.9703	432984.9712
northing	559269.0024	559275.0105	559274.9724	559277.0557	559274.9925
	NZ 32942	NZ 32957	NZ 32967		
ngr	59269	59275	59274	NZ 32977 59277	NZ 32984 59274
status	approved	approved	approved	approved	approved
	6e11f3df-	01557732-	ce28a65c-		
	edc0-4165-	2cd1-4cc2-	4128-4f92-	2b97d542-b379-	40e33c48-cea4-
	b50a-	a36d-	937e-	4ee1-8b70-	4e5e-8893-
surveyld	ef4dfc9eef89	8b1f62bd7703	0e8f8c9ed015	68fab6d45ec0	c032a139ea6c
	2024-04-	2024-04-	2024-04-	2024-04-	2024-04-
timestamp	11T10:22:00Z	11T10:41:00Z	11T11:01:00Z	11T11:15:00Z	11T11:23:00Z
	fc91d7c3-	fc91d7c3-	fc91d7c3-		
	42ec-4ea7-	42ec-4ea7-	42ec-4ea7-	fc91d7c3-42ec-	fc91d7c3-42ec-
	b436-	b436-	b436-	4ea7-b436-	4ea7-b436-
photographs	e98dda46709f	e98dda46709f	e98dda46709f	e98dda46709f	e98dda46709f
riverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
reachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
	Usworth Burn,	Usworth Burn,	Usworth Burn,		
subreachName	4	4	4	Usworth Burn, 4	Usworth Burn, 4
moduleNumber	1	2	3	4	5
projectName	LD10890	LD10890	LD10890	LD10890	LD10890
projectCode	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib
surveyType	pre-project	pre-project	pre-project	pre-project	pre-project
index1	2	1	1	2	2
index2	UW	UW	UW	UW	UW



		1	1		1
index3	1	1	1	1	1
index4	SI	SI	SI	SI	SI
index5	6.5	6.0774646	6.210145	6.210145	6.0774646
index6	SI	SI	SI	SI	SI
index7	6.7	6.7	6.7	6.7	6.7
index8	2.0833333	1.6666666	1.25	1.6666666	1.6666666
index9	0	1	1	1	1
index10	0.5	1.7380953	2.3333333	2.5714285	2.5714285
index11	3	4	3.5	4.5	4
index12	3	3	3	3	3
index13	0	0	0	0	0
index14	0	0	0	0	0
himalayanBalsam	Α	Α	Α	Α	Α
japaneseKnotweed	Α	Α	Α	Α	Α
giantHogweed	Α	Α	Α	Α	А
floatingPennywort	Α	Α	Α	Α	Α



Appendix 1b

Raw Survey Data – MoRPh 5 Data



		T	T	T
id	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
longitude	-1.49335	-1.491953	-1.488907	-1.487169
latitude	54.926988	54.926646	54.926749	54.927078
easting	432567.362	432657.1409	432852.2692	432963.3631
northing	559262.0937	559224.6677	559237.5016	559274.9863
ngr	NZ 32567 59262	NZ 32657 59224	NZ 32852 59237	NZ 32963 59274
status	approved	approved	approved	approved
	2024-04-	2024-04-	2024-04-	2024-04-
timestamp	10T14:18:00Z	10T14:39:21Z	11T08:59:00Z	11T10:22:00Z
riverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
reachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
subreachName	Usworth Burn, 1	Usworth Burn, 2	Usworth Burn, 3	Usworth Burn, 4
projectName	LD10890	LD10890	LD10890	LD10890
projectCode	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib
surveyType	pre-project	pre-project	pre-project	pre-project
scenarioName				
moduleNumbers	1 to 5	1 to 5	1 to 5	1 to 5
preliminaryConditionScore	0.72469634	0.74493927	0.64777327	1.1174089
shape	0.6296296	0.78125	0.7692308	4.175824
averageWidth	1.7	2.5	1.5	3.8
PositiveIndexAverage	1.2631578	1.0526316	1.2631578	1.5789474
NegativeIndexAverage	-0.53846157	-0.30769232	-0.61538464	-0.46153846
A6	FALSE	FALSE	FALSE	FALSE
A7	CO	CO	SI	SI
A8	SI	SI	SI	SI
B1	1	1	2	1
B2	0	0	0	1



	Г			
B3	0	0	2	0
B4	0	0	0	0
B5	-2	-2	-2	-2
C1	2	2	2	3
C2	1	0	1	1
C3	3	3	3	2
C4	4	2	2	3
C5	1	1	1	1
C6	4	1	2	3
C7	0	0	-1	0
C8	0	0	0	0
C9	0	0	0	0
C10	0	0	0	0
D1	1	1	1	2
D2	0	1	0	1
D3	2	0	2	2
D4	2	0	1	2
D5	-1	0	0	0
E1	0	1	0	0
E2	0	1	0	2
E3	1	2	1	2
E4	0	1	2	2
E5	0	1	1	1
E6	2	2	1	1
E7	-4	-2	-4	-4
E8	0	0	0	0
E9	0	0	0	0



E10	0	0	-1	0
E11	0	0	0	0
E12	0	0	0	0



Appendix 1c

Raw Survey Data – River Condition



:4	Liance while Drown	Llaveranth Derma	Llaveranth Derm	Llaveranth Derm
id	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
longitude	-1.49335	-1.491953	-1.488907	-1.487169
latitude	54.926988	54.926646	54.926749	54.927078
easting	432567.362	432657.1409	432852.2692	432963.3631
northing	559262.0937	559224.6677	559237.5016	559274.9863
ngr	NZ 32567 59262	NZ 32657 59224	NZ 32852 59237	NZ 32963 59274
status	approved	approved	approved	approved
	c5250195-			
	b571-41d4-	c5250195-b571-	c5250195-b571-	c5250195-b571-
	8e9e-	41d4-8e9e-	41d4-8e9e-	41d4-8e9e-
surveyld	32c178cfe79a	32c178cfe79a	32c178cfe79a	32c178cfe79a
	2024-04-	2024-04-	2024-04-	2024-04-
timestamp	12T11:00:00Z	12T11:00:00Z	12T11:00:00Z	12T11:00:00Z
riverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
reachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
projectName	LD10890	LD10890	LD10890	LD10890
projectCode	AESC Don Trib	AESC Don Trib	AESC Don Trib	AESC Don Trib
wfdWaterBodyld				
riverCategory	Other	Other	Other	Other
a1	1	1	1	1
a2	1.0619469	1.0619469	1.0619469	1.0619469
a3	1	1	1	1
a4	Unconfined	Unconfined	Unconfined	Unconfined
a5	0.007079646	0.007079646	0.007079646	0.007079646
a6	FALSE	FALSE	FALSE	FALSE
a7	CO	CO	CO	CO
a8	SI	SI	SI	SI
calculatedRiverType				



overriddenRiverType	F	F	F	F
finalRiverType	F	F	F	F
multiMorphRiverName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
multiMorphReachName	Usworth Burn	Usworth Burn	Usworth Burn	Usworth Burn
subreachName	Usworth Burn, 1	Usworth Burn, 2	Usworth Burn, 3	Usworth Burn, 4
moduleNumbers	1 to 5	1 to 5	1 to 5	1 to 5
surveyType	pre-project	pre-project	pre-project	pre-project
scenarioName				
shape	0.6296296	0.78125	0.7692308	4.175824
averageWidth	1.7	2.5	1.5	3.8
preliminaryConditionScore	0.72469634	0.74493927	0.64777327	1.1174089
finalConditionClass	Moderate	Moderate	Moderate	Moderate



Appendix 1d

Raw Survey Data – River Type



id	Usworth Burn
longitude	-1.49901
latitude	54.925241
easting	432205.9987
northing	559065.0333
ngr	NZ 32205 59065
status	approved
	c5250195-b571-41d4-8e9e-
surveyld	32c178cfe79a
timestamp	2024-04-12T11:00:00Z
riverName	Usworth Burn
reachName	Usworth Burn
projectName	LD10890
projectCode	AESC Don Trib
wfdWaterBodyld	
riverCategory	Other
a1	1
a2	1.0619469
a3	1
a4	Unconfined
a5	0.007079646
a6	FALSE
a7	CO
a8	SI
calculatedRiverType	
overriddenRiverType	F
finalRiverType	F



Appendix 2

NT15821/ Figure 12.6 Rev A MoRPh Survey Results

