Norwich Western Link

Environmental Statement

Chapter 10: Biodiversity

Appendix 33: Biodiversity Net Gain Technical Report

Sub Appendix E: RCA Indicators

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1   Indicators Derived from Desk Study and Morph5 Survey

1.1.1   Indicators derived from desk study and the MoRPh5 field survey that contribute to assessing the river type and function are shown in Table 1-1. The source, associated code, indicator name and description are presented in each row. River condition indicators extracted from MoRPh5 field surveys are shown in Table 1-2.

Table 1-1 Indicators derived from desk study and MoRPh5 field survey that contribute to assessing the river type and function.

Source	Code	Name	Description
Derived from desk-based survey (maps or aerial images)	A1	Braiding Index (BI)	Assesses whether the river reach is single, generally single, or multi-threaded.
Derived from desk-based survey (maps or aerial images)	A2	Sinuosity index (SI)	Assesses if river reaches show a single thread (BI < 1.1). SI is the ratio of the river reach length along the centre line of the (main) river channel divided by the length of the broad river or valley course
Derived from desk-based survey (maps or aerial images)	A3	Anabranching index (AI)	Assesses for multi-thread reaches, how many threads are typically separated by well-vegetated areas (islands) into distinct channels, rather than flowing around bare or sparsely vegetated bars.
Derived from a desk-based survey (maps or aerial images)	A4	Level of confinement	Estimation from the approximate proportion of the river reach's bank length that is in contact with (proximity to) valley side slopes or ancient terraces.
Derived from a desk-based survey (maps or aerial images)	A5	Valley gradient	The difference in elevation between the start and end of the river reach is divided by the length of the broad valley course.
Riverbed material	A6	Bedrock reaches	Where bedrock is observed as 'extensive' (i.e. > 33 % cover) in at least 3 survey modules or is 'extensive' in 2 modules and 'present' (i.e. 5 to 33 % cover) in the remaining 3 modules of the sub-reach.
Riverbed material	A7	Coarsest bed material size class	Records the coarsest bed material size class that is observed as present or extensive in any module in the sub-reach (i.e. clay, silt, sand, gravel, cobble, boulder, and bedrock).
Riverbed material	A8	Average alluvial bed material size	Class is a weighted average of the alluvial bed material size classes (i.e. excludes bedrock) recorded as present or extensive in all 5 modules within the sub-reach (clay, silt, sand, gravel, cobble, boulder).

Table 1-2. River condition indicators extracted from MoRPh5 field surveys (Positive indicators underlined, negative indicators in italics).

Location	Code	Name	Description
Bank Top	B1	Bank top vegetation structure	This indicator is a count of the presence of 5 vegetation structural types that are recorded on the bank tops (mosses/ lichens, short/ creeping herbs / grasses, tall herbs/ grasses, scrub/ shrubs, saplings/ trees) of the 5 surveyed modules.
Bank Top	B2	Bank top tree feature richness	This indicator is a count of the of 5 tree features that are recorded on bank tops (fallen trees, leaning trees, j-shaped trees, tree/shrub branches trailing into the river channel, large wood) of the 5 surveyed modules.
Bank Top	B3	Bank top water-related features	The indicator value is the total abundance and connectivity of bank top related features (ponds, side channels, wetland, and their characteristic vegetation).
Bank Top	B4	*Bank top NNIPS (= non-native invasive plant species) cover*	This indicator combines the number and extent of 6 NNIPS on each bank.
Bank Top	B5	*Bank top managed ground cover*	This indicator assesses the potential severity (likely pressure on the river ecosystem) and extent of the dominant and sub-dominant artificial / managed ground cover types observed on each bank.
Bank Face	C1	Bank face riparian vegetation structure	This indicator is a count of the presence of 5 vegetation structural types that are recorded on the bank faces (mosses / lichens, short /creeping herbs / grasses, tall herbs / grasses, scrub / shrubs, saplings / trees) of the five surveyed modules.
Bank Face	C2	Bank face tree feature richness	This indicator is a count of the presence of 7 tree features that are recorded on bank faces (fallen trees, leaning trees, j-shaped trees, tree/shrub branches trailing into channel, large wood, exposed tree roots, discrete organic accumulations) of the five surveyed modules.
Bank Face	C3	Bank face natural bank profile extent	A maximum of 2 natural bank profile types are recorded on each bank. The indicator is the sum of the abundance of natural profiles.
Bank Face	C4	Bank face natural bank profile richness	The indicator is a count of 7 different natural bank profile types along either bank of any module within the MoRPh5 sub-reach.

Location	Code	Name	Description
Bank Face	C5	Bank face natural bank material richness	Count of 10 different natural bank material types that are recorded as dominant in the upper or lower parts of any of the bank profiles within the sub-reach.
Bank Face	C6	Bank face bare sediment extent	The indicator value is the total abundance of bare sediment on the bank face across both banks along the sub-reach.
Bank Face	C7	Bank face artificial bank profile extent	A maximum of 2 artificial profile types from a possible set of 5 are recorded on each bank. This indicator is based on the total extent of all artificial profiles recorded across both banks within a single MoRPh module.
Bank Face	C8	Bank face reinforcement extent	The indicator represents the vertical and horizontal extents of bank reinforcement.
Bank Face	C9	Bank face reinforcement material severity	The indicator represents the sum of the severity level of the dominant reinforcement type observed on each bank.
Bank Face	C10	Bank face NNIPS cover	This indicator combines the number and extent of up to 6 NNIPS.
Channel – water margin	D1	Channel margin aquatic vegetation extent	This indicator is the accumulated lateral extent of 4 aquatic morphotypes (liverworts/mosses/lichens; emergent broad-leaved; emergent linear-leaved; amphibious).
Channel – water margin	D2	Channel margin aquatic morphotype richness	This indicator is a count of up to 4 aquatic morphotypes (liverworts/mosses/lichens; emergent broad-leaved; emergent linear-leaved; amphibious).
Channel – water margin	D3	Channel margin physical feature extent	This indicator records the total extent of 8 margin physical features (unvegetated side bar, vegetated side bar, berm, bench, stable cliff, eroding cliff, toe, marginal backwater) and 1 that is recorded as a count (tributary junction).
Channel – water margin	D4	Channel margin physical feature richness	This indicator counts the number of 9 different channel margin physical features (unvegetated side bar, vegetated side bar, berm, bench, stable cliff, eroding cliff, toe, marginal backwater) or have a count of at least 1 (tributary junction).

Location	Code	Name	Description
Channel – water margin	D5	*Channel margin artificial features*	The indicator scores pipes and outfalls, jetties, and deflectors according to their number and weights jetties and deflectors according to their size.
Channel Bed	E1	Channel aquatic morphotype richness	The indicator is a count of all aquatic plant morphotypes recorded on the channel bed.
Channel Bed	E2	Channel bed tree features richness	The indicator is a count of 6 tree features on the channel bed (vegetation shading channel, submerged tree roots, large wood, discrete accumulation of organic material) or have a count of > 1 (large wood dam, fallen tree).
Channel Bed	E3	Channel bed hydraulic features richness	The indicator is a count of 8 possible water surface flow types (free fall, chute, broken standing waves, unbroken standing waves, upwelling, rippled, smooth, no perceptible flow).
Channel Bed	E4	Channel bed natural features extent	The indicator is based on 11 features (exposed bedrock, exposed unvegetated boulders, exposed vegetated boulders, unvegetated mid channel bars, vegetated mid-channel bars, islands, cascades, pools, riffles, steps, waterfalls).
Channel Bed	E5	Channel bed natural features richness	This indicator is a count of a possible 11 physical features (exposed bedrock, exposed unvegetated boulders, exposed vegetated boulders, unvegetated mid channel bars, vegetated mid-channel bars, islands, cascade, pools, riffles, steps, waterfalls)
Channel Bed	E6	*Channel bed material richness*	The indicator is a count of the 9 possible mineral and organic materials (peat, organic, clay, silt, sand, gravel-pebble, cobble, boulder, bedrock on the channel bed.
Channel Bed	E7	*Channel bed siltation*	The indicator is the sum of the weighted abundances of any patchy silt and continuous overlying silt, across the bed.
Channel Bed	E8	*Channel bed reinforcement extent*	The indicator is the extent of bed reinforcement.
Channel Bed	E9	*Channel bed reinforcement severity*	The indicator is the severity of the dominant bed reinforcement type observed in a MoRPh module.

Location	Code	Name	Description
Channel Bed	E10	*Channel bed artificial features severity*	The indicator incorporates 7 artificial bed features which are assigned scores to reflect the relative severity of their impact.
Channel Bed	E11	*Channel bed NNIPS extent*	This indicator combines the number and extent of up to 6 NNIPS on the channel bed and any exposed in-channel features such as islands and bars.
Channel Bed	E12	*Channel bed filamentous algae extent*	The indicator is the extent of filamentous algae on the channel bed.

2   Baseline RCA Indicator Scores

2.1.1   The Baseline RCA Indicator Scores for Foxburrow Stream and River Wensum MoRPh5 Surveys are presented in Table 2-1 and Table 2-2 respectively.

Table 2-1 Baseline RCA Indicator Scores for Foxburrow Stream MoRPh5 Surveys. Asterisk (*) represents indicators that could be enhanced through BNG improvement works.

Indicator Location	Indicator Code	Indicator Name	Positive (P) or Negative (N) Indicator	Foxburrow1 - score	Foxburrow1 - enhancement opportunities	Foxburrow2 - score	Foxburrow2 - enhancement opportunities	Foxburrow3 - score	Foxburrow3 - enhancement opportunities
Bank Top	B1	Bank top vegetation structure	P	2	*	2	*	2	*
Bank Top	B2	Bank top tree feature richness	P	0	*	0	*	0	*
Bank Top	B3	Bank top water related features	P	2	*	0	*	0	*
Bank Top	B4	Bank top NNIPS	N	0		0		0	
Bank Top	B5	Bank top managed ground cover	N	-3	*	-2	*	-2	*
Bank Face	C1	Bank face riparian vegetation structure	P	3	N/A	2	*	2	*
Bank Face	C2	Bank face tree feature richness	P	0	*	1	*	0	*
Bank Face	C3	Bank face natural bank profile extent	P	2	*	1	*	2	*
Bank Face	C4	Bank face natural bank profile richness	P	2	*	2	*	2	*
Bank Face	C5	Bank face natural bank profile material richness	P	4	N/A	1	*	1	*
Bank Face	C6	Bank face bare sediment extent	P	4	N/A	4	N/A	4	N/A
Bank Face	C7	Bank face artificial bank profile extent	N	-4	*	-4	*	-4	*
Bank Face	C8	Bank face reinforcement extent	N	0	N/A	0	N/A	0	N/A

Indicator Location	Indicator Code	Indicator Name	Positive (P) or Negative (N) Indicator	Foxburrow1 - score	Foxburrow1 - enhancement opportunities	Foxburrow2 - score	Foxburrow2 - enhancement opportunities	Foxburrow3 - score	Foxburrow3 - enhancement opportunities
Bank Face	C9	Bank face reinforcement severity	N	0	N/A	0	N/A	0	N/A
Bank Face	C10	Bank face NNIPS cover	N	0	N/A	0	N/A	0	N/A
Channel – water margin	D1	Channel margin aquatic vegetation extent	P	2	*	2	*	1	*
Channel – water margin	D2	Channel margin aquatic morphotype richness	P	3	N/A	2	*	2	*
Channel – water margin	D3	Channel margin physical feature extent	P	1	*	2	*	2	*
Channel – water margin	D4	Channel margin physical feature richness	P	1	*	1	*	1	*
Channel – water margin	D5	Channel margin artificial features	N	0	*	0	*	0	*
Channel Bed	E1	Channel aquatic morphotype richness	P	3	N/A	3	N/A	3	N/A
Channel Bed	E2	Channel bed tree features richness	P	1	*	1	*	1	*
Channel Bed	E3	Channel bed hydraulic features richness	P	1	*	0	*	1	*
Channel Bed	E4	Channel bed natural features extent	P	0	*	0	*	0	*
Channel Bed	E5	Channel bed natural features richness	P	0	*	0	*	0	*
Channel Bed	E6	Channel bed material richness	P	3	N/A	3	N/A	3	N/A

Indicator Location	Indicator Code	Indicator Name	Positive (P) or Negative (N) Indicator	Foxburrow1 - score	Foxburrow1 - enhancement opportunities	Foxburrow2 - score	Foxburrow2 - enhancement opportunities	Foxburrow3 - score	Foxburrow3 - enhancement opportunities
Channel Bed	E7	Channel bed siltation	N	-3	*	-1	*	-2	*
Channel Bed	E8	Channel bed reinforcement extent	N	0	N/A	0	N/A	0	N/A
Channel Bed	E9	Channel bed reinforcement severity	N	0	N/A	0	N/A	0	N/A
Channel Bed	E10	Channel bed artificial features severity	N	-4	*	0	N/A	0	N/A
Channel Bed	E11	Channel bed NNIPS extent	N	0	N/A	0	N/A	0	N/A
Channel Bed	E12	Channel bed filamentous algae extent	N	0	N/A	0	N/A	0	N/A

Note – Foxburrow1, Foxburrow2 and Foxburrow3 recorded as 'N/A' due to proposed culvert location within MoRPh5 location.

Table 2-2 Baseline RCA Indicator Scores for River Wensum MoRPh5 Surveys. Asterisk (*) represents indicators that could be enhanced through BNG improvement works.

Indicator Location	Indicator Code	Indicator Name	Positive (P) or Negative (N) Indicator	Wensum 1 - score	Wensum 1 – enhancement opportunities	Wensum 2 - score	Wensum 2 - enhancement opportunities	Wensum 3 - score	Wensum 3 - enhancement opportunities	Wensum 4 - score	Wensum 4 - enhancement opportunities	Wensum 5 - score	Wensum 5 - enhancement opportunities
Bank Top	B1	Bank top vegetation structure	P	2	N/A	1	*	2	*	1	*	1	*
Bank Top	B2	Bank top tree feature richness	P	1	N/A	1	*	1	*	1	*	1	*
Bank Top	B3	Bank top water related features	P	2	N/A	0	*	0	*	0	*	0	*
Bank Top	B4	Bank top NNIPS	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Bank Top	B5	Bank top managed ground cover	N	-2	*	-2	*	-2	*	-3	*	-3	*
Bank Face	C1	Bank face riparian vegetation structure	P	2	*	2	*	2	*	2	*	2	*
Bank Face	C2	Bank face tree feature richness	P	1	*	1	*	1	*	0	*	0	*
Bank Face	C3	Bank face natural bank profile extent	P	2	N/A	3	N/A	3	N/A	2	*	2	*
Bank Face	C4	Bank face natural bank profile richness	P	4	N/A	4	N/A	4	N/A	4	N/A	4	N/A
Bank Face	C5	Bank face natural bank profile material richness	P	1	*	2	*	2	*	2	*	2	*
Bank Face	C6	Bank face bare sediment extent	P	1	*	2	*	2	*	2	*	2	*
Bank Face	C7	Bank face artificial bank profile extent	N	-4	*	-4	*	-2	*	-3	*	-3	*
Bank Face	C8	Bank face reinforcement extent	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Bank Face	C9	Bank face reinforcement severity	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Bank Face	C10	Bank face NNIPS cover	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A

Indicator Location	Indicator Code	Indicator Name	Positive (P) or Negative (N) Indicator	Wensum 1 - score	Wensum 1 – enhancement opportunities	Wensum 2 - score	Wensum 2 - enhancement opportunities	Wensum 3 - score	Wensum 3 - enhancement opportunities	Wensum 4 - score	Wensum 4 - enhancement opportunities	Wensum 5 - score	Wensum 5 - enhancement opportunities
Channel – water margin	D1	Channel margin aquatic vegetation extent	P	2	N/A	3	N/A	3	N/A	3	N/A	3	N/A
Channel – water margin	D2	Channel margin aquatic morphotype richness	P	2	N/A	2	*	1	*	2	*	2	*
Channel – water margin	D3	Channel margin physical feature extent	P	3	N/A	2	*	1	*	2	*	2	*
Channel – water margin	D4	Channel margin physical feature richness	P	2	N/A	2	*	2	*	2	*	2	*
Channel – water margin	D5	Channel margin artificial features	N	-1	*	0	*	0	*	0	*	0	*
Channel Bed	E1	Channel aquatic morphotype richness	P	3	N/A	2	*	2	*	2	*	2	*
Channel Bed	E2	Channel bed tree features richness	P	2	*	0	*	0	*	0	*	0	*
Channel Bed	E3	Channel bed hydraulic features richness	P	1	*	1	*	1	*	2	*	2	*
Channel Bed	E4	Channel bed natural features extent	P	0	*	1	*	0	*	0	*	0	*
Channel Bed	E5	Channel bed natural features richness	P	0	*	1	*	0	*	0	*	0	*
Channel Bed	E6	Channel bed material richness	P	3	N/A	1	*	1	*	1	*	1	*
Channel Bed	E7	Channel bed siltation	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Channel Bed	E8	Channel bed reinforcement extent	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Channel Bed	E9	Channel bed reinforcement severity	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A

Indicator Location	Indicator Code	Indicator Name	Positive (P) or Negative (N) Indicator	Wensum 1 - score	Wensum 1 – enhancement opportunities	Wensum 2 - score	Wensum 2 - enhancement opportunities	Wensum 3 - score	Wensum 3 - enhancement opportunities	Wensum 4 - score	Wensum 4 - enhancement opportunities	Wensum 5 - score	Wensum 5 - enhancement opportunities
Channel Bed	E10	Channel bed artificial features severity	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Channel Bed	E11	Channel bed NNIPS extent	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Channel Bed	E12	Channel bed filamentous algae extent	N	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A

Note – Wensum 1, Wensum 2, Wensum 3, Wensum 4 and Wensum 5 recorded as 'N/A' due to proposed culvert location within MoRPh5 location.

3   Enhancement RCA Indicator Scores

3.1.1 Enhancement RCA indicator scores for Foxburrow Stream and River Wensum MoRPh5 surveys are shown in Table 3-1 and Table 3-2 respectively.

Table 3-1 Enhancement RCA indicator scores for Foxburrow Stream MORPH5 surveys.

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Foxburrow1 - score	Foxburrow2 - score	Foxburrow3 - score
Bank Top	B1	Bank top vegetation structure	P	3	N/A	3
Bank Top	B2	Bank top tree feature richness	P	3	N/A	3
Bank Top	B3	Bank top water related features	P	4	N/A	4
Bank Top	B4	Bank top NNIPS	N	0	N/A	0
Bank Top	B5	Bank top managed ground cover	N	0	N/A	0
Bank Face	C1	Bank face riparian vegetation structure	P	4	N/A	3
Bank Face	C2	Bank face tree feature richness	P	1	N/A	2
Bank Face	C3	Bank face natural bank profile extent	P	2	N/A	2
Bank Face	C4	Bank face natural bank profile richness	P	2	N/A	3
Bank Face	C5	Bank face natural bank profile material richness	P	4	N/A	1
Bank Face	C6	Bank face bare sediment extent	P	4	N/A	4
Bank Face	C7	Bank face artificial bank profile extent	N	0	N/A	0
Bank Face	C8	Bank face reinforcement extent	N	0	N/A	0
Bank Face	C9	Bank face reinforcement severity	N	0	N/A	0
Bank Face	C10	Bank face NNIPS cover	N	0	N/A	0
Channel – water margin	D1	Channel margin aquatic vegetation extent	P	2	N/A	1

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Foxburrow1 - score	Foxburrow2 - score	Foxburrow3 - score
Channel – water margin	D2	Channel margin aquatic morphotype richness	P	3	N/A	2
Channel – water margin	D3	Channel margin physical feature extent	P	1	N/A	2
Channel – water margin	D4	Channel margin physical feature richness	P	1	N/A	1
Channel – water margin	D5	Channel margin artificial features	N	0	N/A	0
Channel Bed	E1	Channel aquatic morphotype richness	P	3	N/A	3
Channel Bed	E2	Channel bed tree features richness	P	4	N/A	3
Channel Bed	E3	Channel bed hydraulic features richness	P	1	N/A	1
Channel Bed	E4	Channel bed natural features extent	P	0	N/A	0
Channel Bed	E5	Channel bed natural features richness	P	0	N/A	0
Channel Bed	E6	Channel bed material richness	P	3	N/A	3
Channel Bed	E7	Channel bed siltation	N	-3	N/A	-2
Channel Bed	E8	Channel bed reinforcement extent	N	0	N/A	0
Channel Bed	E9	Channel bed reinforcement severity	N	0	N/A	0
Channel Bed	E10	Channel bed artificial features severity	N	-4	N/A	0
Channel Bed	E11	Channel bed NNIPS extent	N	0	N/A	0
Channel Bed	E12	Channel bed filamentous algae extent	N	0	N/A	0

Note – Foxburrow2 recorded as 'N/A' due to proposed culvert location within MoRPh5 location.

Table 3-2 Enhancement RCA INDICATOR SCORES FOR River Wensum MORPH5 SURVEYS

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Wensum 1 - score	Wensum 2 - score	Wensum 3 - score	Wensum 4 - score	Wensum 5 - score
Bank Top	B1	Bank top vegetation structure	P	2	2	2	2	2
Bank Top	B2	Bank top tree feature richness	P	3	1	1	1	1
Bank Top	B3	Bank top water related features	P	4	0	0	0	0
Bank Top	B4	Bank top NNIPS	N	0	0	0	0	0
Bank Top	B5	Bank top managed ground cover	N	0	0	0	0	0
Bank Face	C1	Bank face riparian vegetation structure	P	2	2	2	2	2
Bank Face	C2	Bank face tree feature richness	P	2	1	1	0	0
Bank Face	C3	Bank face natural bank profile extent	P	2	3	3	3	3
Bank Face	C4	Bank face natural bank profile richness	P	4	4	4	4	4
Bank Face	C5	Bank face natural bank profile material richness	P	1	2	2	2	2
Bank Face	C6	Bank face bare sediment extent	P	1	2	2	2	2
Bank Face	C7	Bank face artificial bank profile extent	N	0	0	0	0	0
Bank Face	C8	Bank face reinforcement extent	N	0	0	0	0	0
Bank Face	C9	Bank face reinforcement severity	N	0	0	0	0	0

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Wensum 1 - score	Wensum 2 - score	Wensum 3 - score	Wensum 4 - score	Wensum 5 - score
Bank Face	C10	Bank face NNIPS cover	N	0	0	0	0	0
Channel – water margin	D1	Channel margin aquatic vegetation extent	P	2	3	3	3	3
Channel – water margin	D2	Channel margin aquatic morphotype richness	P	2	2	1	2	2
Channel – water margin	D3	Channel margin physical feature extent	P	4	2	1	2	2
Channel – water margin	D4	Channel margin physical feature richness	P	3	2	2	2	2
Channel – water margin	D5	Channel margin artificial features	N	-1	0	0	0	0
Channel Bed	E1	Channel aquatic morphotype richness	P	4	2	2	2	2
Channel Bed	E2	Channel bed tree features richness	P	3	0	0	0	0
Channel Bed	E3	Channel bed hydraulic features richness	P	2	1	1	2	2
Channel Bed	E4	Channel bed natural features extent	P	3	1	0	0	0
Channel Bed	E5	Channel bed natural features richness	P	2	1	0	0	0
Channel Bed	E6	Channel bed material richness	P	4	1	1	1	1
Channel Bed	E7	Channel bed siltation	N	0	0	0	0	0

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Wensum 1 - score	Wensum 2 - score	Wensum 3 - score	Wensum 4 - score	Wensum 5 - score
Channel Bed	E8	Channel bed reinforcement extent	N	0	0	0	0	0
Channel Bed	E9	Channel bed reinforcement severity	N	0	0	0	0	0
Channel Bed	E10	Channel bed artificial features severity	N	0	0	0	0	0
Channel Bed	E11	Channel bed NNIPS extent	N	0	0	0	0	0
Channel Bed	E12	Channel bed filamentous algae extent	N	0	0	0	0	0

4   Comparing the RCA Indicator Scores of the enhancement against the baseline

4.1.1 Scores of the enhancement scenarios compared against the baseline condition for Foxburrow Stream and River Wensum are shown in Table 4-1 and Table 4-2 respectively.

Table 4-1 Scores of the enhancement scenarios against the baseline condition – Foxburrow Stream

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Foxburrow1 - score	Foxburrow2 - score	Foxburrow3 - score
Bank Top	B1	Bank top vegetation structure	P	1	N/A	1
Bank Top	B2	Bank top tree feature richness	P	3	N/A	3
Bank Top	B3	Bank top water related features	P	2	N/A	4
Bank Top	B4	Bank top NNIPS	N	0	N/A	0
Bank Top	B5	Bank top managed ground cover	N	3	N/A	2
Bank Face	C1	Bank face riparian vegetation structure	P	1	N/A	1
Bank Face	C2	Bank face tree feature richness	P	1	N/A	2
Bank Face	C3	Bank face natural bank profile extent	P	0	N/A	0
Bank Face	C4	Bank face natural bank profile richness	P	0	N/A	1
Bank Face	C5	Bank face natural bank profile material richness	P	0	N/A	0
Bank Face	C6	Bank face bare sediment extent	P	0	N/A	0
Bank Face	C7	Bank face artificial bank profile extent	N	4	N/A	4
Bank Face	C8	Bank face reinforcement extent	N	0	N/A	0
Bank Face	C9	Bank face reinforcement severity	N	0	N/A	0
Bank Face	C10	Bank face NNIPS cover	N	0	N/A	0
Channel – water margin	D1	Channel margin aquatic vegetation extent	P	0	N/A	0

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Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Foxburrow1 - score	Foxburrow2 - score	Foxburrow3 - score
Channel – water margin	D2	Channel margin aquatic morphotype richness	P	0	N/A	0
Channel – water margin	D3	Channel margin physical feature extent	P	0	N/A	0
Channel – water margin	D4	Channel margin physical feature richness	P	0	N/A	0
Channel – water margin	D5	Channel margin artificial features	N	0	N/A	0
Channel Bed	E1	Channel aquatic morphotype richness	P	0	N/A	0
Channel Bed	E2	Channel bed tree features richness	P	3	N/A	2
Channel Bed	E3	Channel bed hydraulic features richness	P	0	N/A	0
Channel Bed	E4	Channel bed natural features extent	P	0	N/A	0
Channel Bed	E5	Channel bed natural features richness	P	0	N/A	0
Channel Bed	E6	Channel bed material richness	P	0	N/A	0
Channel Bed	E7	Channel bed siltation	N	0	N/A	0
Channel Bed	E8	Channel bed reinforcement extent	N	0	N/A	0
Channel Bed	E9	Channel bed reinforcement severity	N	0	N/A	0
Channel Bed	E10	Channel bed artificial features severity	N	0	N/A	0
Channel Bed	E11	Channel bed NNIPS extent	N	0	N/A	0
Channel Bed	E12	Channel bed filamentous algae extent	N	0	N/A	0

Note – Foxburrow2 recorded as 'N/A' due to proposed culvert location within MoRPh5 location.

Table 4-2. Scores of the enhancement scenarios against the baseline condition – River Wensum

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Wensum 1 - score	Wensum 2 - score	Wensum 3 - score	Wensum 4 - score	Wensum 5 - score
Bank Top	B1	Bank top vegetation structure	P	0	1	0	1	1
Bank Top	B2	Bank top tree feature richness	P	2	0	0	0	0
Bank Top	B3	Bank top water related features	P	2	0	0	0	0
Bank Top	B4	Bank top NNIPS	N	0	0	0	0	0
Bank Top	B5	Bank top managed ground cover	N	2	2	2	3	3
Bank Face	C1	Bank face riparian vegetation structure	P	0	0	0	0	0
Bank Face	C2	Bank face tree feature richness	P	1	0	0	0	0
Bank Face	C3	Bank face natural bank profile extent	P	0	0	0	1	1
Bank Face	C4	Bank face natural bank profile richness	P	0	0	0	0	0
Bank Face	C5	Bank face natural bank profile material richness	P	0	0	0	0	0
Bank Face	C6	Bank face bare sediment extent	P	0	0	0	0	0
Bank Face	C7	Bank face artificial bank profile extent	N	4	4	2	3	3
Bank Face	C8	Bank face reinforcement extent	N	0	0	0	0	0
Bank Face	C9	Bank face reinforcement severity	N	0	0	0	0	0
Bank Face	C10	Bank face NNIPS cover	N	0	0	0	0	0
Channel – water margin	D1	Channel margin aquatic vegetation extent	P	0	0	0	0	0
Channel – water margin	D2	Channel margin aquatic morphotype richness	P	0	0	0	0	0
Channel – water margin	D3	Channel margin physical feature extent	P	1	0	0	0	0
Channel – water margin	D4	Channel margin physical feature richness	P	1	0	0	0	0
Channel – water margin	D5	Channel margin artificial features	N	0	0	0	0	0
Channel Bed	E1	Channel aquatic morphotype richness	P	1	0	0	0	0
Channel Bed	E2	Channel bed tree features richness	P	1	0	0	0	0
Channel Bed	E3	Channel bed hydraulic features richness	P	1	0	0	0	0
Channel Bed	E4	Channel bed natural features extent	P	3	0	0	0	0
Channel Bed	E5	Channel bed natural features richness	P	2	0	0	0	0
Channel Bed	E6	Channel bed material richness	P	1	0	0	0	0
Channel Bed	E7	Channel bed siltation	N	0	0	0	0	0

Indicator Location	Indicator Code	Indicator Name	Positive or Negative Indicator	Wensum 1 - score	Wensum 2 - score	Wensum 3 - score	Wensum 4 - score	Wensum 5 - score
Channel Bed	E8	Channel bed reinforcement extent	N	0	0	0	0	0
Channel Bed	E9	Channel bed reinforcement severity	N	0	0	0	0	0
Channel Bed	E10	Channel bed artificial features severity	N	0	0	0	0	0
Channel Bed	E11	Channel bed NNIPS extent	N	0	0	0	0	0
Channel Bed	E12	Channel bed filamentous algae extent	N	0	0	0	0	0