Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Environmental Statement Volume 2: Appendices

Appendix 12.2: Biodiversity Impact Assessment Calculations

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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 Regulation 14

This document forms a part of the Environmental Statement for the Hinckley National Rail Freight Interchange project.

Tritax Symmetry (Hinckley) Limited (TSH) has applied to the Secretary of State for Transport for a Development Consent Order (DCO) for the Hinckley National Rail Freight Interchange (HNRFI).

To help inform the determination of the DCO application, TSH has undertaken an environmental impact assessment (EIA) of its proposals. EIA is a process that aims to improve the environmental design of a development proposal, and to provide the decision maker with sufficient information about the environmental effects of the project to make a decision.

The findings of an EIA are described in a written report known as an Environmental Statement (ES). An ES provides environmental information about the scheme, including a description of the development, its predicted environmental effects and the measures proposed to ameliorate any adverse effects.

Further details about the proposed Hinckley National Rail Freight Interchange are available on the project website:

http://www.hinckleynrfi.co.uk/

The DCO application and documents relating to the examination of the proposed development can be viewed on the Planning Inspectorate's National Infrastructure Planning website:

https://infrastructure.planninginspectorate.gov.uk/projects/east-midlands/hinckley-national-rail-freight-interchange/

Appendix 12.2 ◆ Biodiversity Impact Assessment Calculations

INTRODUCTION

- 1.1. This report presents the Biodiversity Impact Assessment (BIA) Calculations (Annex 1) of the Proposed Development at Hinckley National Rail Freight Interchange (HNRFI).
- 1.2. The BIA has been undertaken using the Department for Environment, Food and Rural Affairs (DEFRA) Biodiversity metric 3.1 (Version date: 21 April 2022)¹, by an ecologist with experience of using such calculators.
- 1.3. The BIA has been produced to objectively assess the net effects of the Proposed Development on biodiversity in line with local and national planning policy and in accordance with BS8683 (Process for designing and implementing biodiversity net gain Specification).
- 1.4. The assessment was undertaken based on the existing habitat information derived from the Extended Phase 1 survey carried out by EDP in July 2021 as shown on Figure 12.3: Extended Phase 1 Survey (document reference 6.3.12.3), a Modular River Physical (MoRPh) field assessment undertaken in January 2023 and proposed habitats detailed on Figure 11.20: Illustrative Landscape Strategy (document reference 6.3.11.20). Plans for post-development habitats are shown in **Annex 2** to this report.
- 1.5. Geographic Information System (GIS) software has been used to accurately calculate areas of habitat to be retained, enhanced and recreated. The Biodiversity Metric 3.1 condition assessment calculator reference sheets have been used to inform the conditions used for existing habitats alongside professional judgement.

ASSUMPTIONS AND LIMITATIONS

- 1.6. It is worth noting that these calculations are based on the Illustrative Landscape Strategy (ES Figure 11.20, document reference 6.3.11.20) (i.e. the 'calculation area') to demonstrate the outline development proposals impact upon biodiversity. This may be subject to variation at the detailed design stage.
- 1.7. Various assumptions have been made for the purposes of the calculations as detailed below. Where appropriate, these have been added to the impact calculation table in the notes column.
- 1.8. Recommendations for ecological enhancements to habitat management and additional planting have been made as part of the River Condition Assessment. It may be possible to

¹ http://publications.naturalengland.org.uk/publication/6049804846366720

enhance the condition further by incorporating physical alterations to the channel bed and banks. Any structural changes must be advised by a hydrologist and additional flood risk assessments must be considered should the function of the watercourse be altered in any way.

Strategic Significance

1.9. Lowland mixed deciduous woodland along the south-eastern boundary and two small strips along the western boundary, which are associated with Burbage Wood and Aston Firs Site of Special Scientific Interest (SSSI), have been entered as 'Formally identified in local strategy' as mentioned in the Leicester, Leicestershire and Rutland Biodiversity Action Plan 2016–2026. Additionally, hedgerows have also been included as 'Formally identified in local strategy' at the request of the council.

Existing Habitats

- 1.10. Habitat data was collected during the Extended Phase 1 survey, however, the site was not formally assessed against Biodiversity Metric 3.1 condition assessment criteria. Those habitats retained within the metric are shown on the Plan within Annex 2.
- 1.11. Improved grassland has been precautionarily entered as 'modified grassland' of 'fairly poor' condition owing to the lack of species diversity, uniformed sward height and intensive grazing from cattle and/or sheep. It is likely that the essential criteria 1 (which is required to achieve moderate or good condition) is failed across the majority of this habitat type. The precautionary assessment is intended to be a worst case should there be a lapse or change in management prior to detailed assessment of the site. The majority of this habitat will be lost, however, a small area within will be enhanced with wildflower grassland mix and/or shade tolerant meadow grassland mix. This has been entered into the calculator as 'other neutral grassland' of 'moderate' condition.
- 1.12. Poor semi-improved grassland has been entered as 'modified grassland' of 'moderate' condition owing to limited species diversity. There were pockets of grassland which supported more diversity within their sward. It is likely that the essential criteria 1 (which is required to achieve moderate or good condition) is failed across the majority of the site dependent on where pockets of increased diversity have been noted. The precautionary assessment is intended to be a worst case should there be a lapse or change in management prior to detailed assessment of the site. Small areas to the north and south will be enhanced with wildflower grassland mix and have been entered into the calculator as 'other neutral grassland' of 'moderate' condition.
- 1.13. The marsh/marshy grassland in the northeast of the calculation area has been entered as 'other neutral grassland' of 'moderate condition' as it does not qualify under the UK habitats classification as one of the marshy grassland communities but would be undervalued to include as modified grassland. It has been inputted as 'moderate' condition owing to its species composition and absence of management. It is likely to achieve essential criteria 1 to be classified as moderate condition but not achieve essential criteria 6 to be classified as good condition.

- 1.14. Broadleaved semi-natural woodland has been entered as 'lowland mixed deciduous woodland' of 'moderate' condition, owing to the limited ground flora and lack of management. This habitat is to be retained in its entirety.
- 1.15. There are several ponds within the calculation area, which have collectively been entered as 'poor' condition as they are mostly shaded and overgrown with poor water quality.
- 1.16. Defunct species-poor hedgerows and intact species-poor hedgerows are entered as 'native hedgerow' of 'poor' and 'moderate' condition respectively. Defunct and intact species-poor hedgerows with trees are entered as 'native hedgerow with trees' of 'poor' and 'moderate' condition respectively. Defunct and Intact species-rich hedgerows are entered as 'native species-rich hedgerow' of 'poor' and 'moderate' condition respectively and intact species-rich hedgerows with trees is entered as 'native species-rich hedgerow with trees' of 'moderate' condition. Hedgerows throughout the calculation area are of varying quality, with the majority intensively managed.
- 1.17. A large proportion of linear hedgerow habitat is to be lost due to the Proposed Development; however, areas of intact hedgerows are to be retained, and the retained defunct hedgerows will be enhanced to 'native species-rich hedgerows with trees' of 'moderate' condition through management and gap planting to increase structural and species diversity, including the establishment of trees; and gap planting with native tree and hedgerow species.
- 1.18. The existing stream corridor has been entered as 'Other Rivers and Streams' of 'Moderate' and 'Fairly Good' condition. A large proportion of the stream will be re-routed to facilitate the Proposed Development and areas of the stream will be culverted at certain points to pass beneath new road. There are also several wet and dry ditches, which have been input as 'Ditches' of 'Poor' condition throughout the Site, of which approximately half will be lost. Those ditches that are being retained will be enhanced.
- 1.19. An area of approximately 11ha to the north of the calculation area has been identified for possible offsite mitigation of the biodiversity loss. This area is under negotiation and has not been formally adopted and therefore is presented within the BIA calculator to demonstrate the possible provision within the local area in close proximity to the Site. This area consists mainly of arable land (entered as 'Cereal Crops'), dense continuous scrub (entered as 'Mixed Scrub' of 'Moderate' condition) and tall ruderal (entered as 'Ruderal/Ephemeral' of 'Good' condition).
- 1.20. The offsite mitigation area is bordered by a stream. Given the stream itself does not fall within the offsite mitigation area, it will not be directly enhanced as part of the proposals. However, the associated riparian and river corridor habitats which do fall within the offsite mitigation area will be subject to improvement, thereby contributing to enhancement of stream habitat.

Habitat Created

1.21. All created habitats are shown on the plan within Annex 2.

- 1.22. Although the majority of the arable land, entered as 'cereal crops', will be lost, with the exception of the retained habitats to the east of the northern road, large areas of wildflower meadow ('other neutral grassland' of 'fairly good' condition), scrub planting ('mixed scrub' of 'fairly moderate' condition) wet woodland planting ('wet woodland' of 'moderate' condition and woodland planting ('other woodland; broadleaved' of 'moderate' condition), will be created within the proposed on-site open space and ecology mitigation areas.
- 1.23. The wet attenuation features will be designed for wildlife and to hold permanent water, in addition to serving drainage needs. These have been assumed to contain 50% of permanent water ('ponds (non-priority)') and 50% wetland wildflower grassland planting ('Sustainable Urban Drainage Feature' with 'moderate' condition targeted), with areas of marginal/aquatic planting being entered as 'reedbeds' of 'moderate' condition.
- 1.24. The calculation assumes the addition of a total of 740 urban trees of which 574 small and 166 medium sized are planted across the Proposed Development. Tree planting according to the Biodiversity Metric 3.1 User Guide (paragraph 7.11) states that size classes for newly planted trees should be classified by projected size at 30 years from planting. Medium sized trees will be sourced and planted as heavy standards of fast-growing species or as semi-mature trees. The condition of the tree stock is likely to vary according to location, therefore 'moderate' condition has been entered as a precautionary approach.
- 1.25. A total of 7.48km of 'native species-rich hedgerow' of 'good' condition will be planted in areas adjacent to buildings and 8.96km of 'native species-rich hedgerows with trees' of 'good' condition will be planted throughout the calculation area.
- 1.26. The re-routing of the stream will account for 3.23km (including 0.98km of culvert under new roads) being reinstated along the south and east of the Proposed Development, allowing for a naturalistic profile and the establishment of vegetation which is currently absent.
- 1.27. The condition of the proposed rerouted stream has been entered as 'Moderate' condition precautionarily, given that it ties in with the existing upstream watercourse, and therefore a number of physical attributes relating to the channel bed/margin could be assumed to naturalise and achieve a similar condition as the existing section to be lost. Culverts have been entered as 'Poor' condition. Annex 3 shows how the condition of the existing river was calculated and the anticipated features which could contribute to the target condition of the reinstated stream section.
- 1.28. Assumptions have been made precautionarily at this stage and will be reviewed later when additional hydrological information is available in a more detailed application. It may be possible to enhance the condition further by incorporating physical alterations to the channel bed and banks, however this must be advised by a hydrologist.
- 1.29. A mosaic of different habitats will be created within the proposed offsite mitigation area. This area would have reduced public access to the area, along with suitable management,

to allow habitats created in this area to achieve 'Good' condition. These habitats will include a large area of wildflower meadow ('other neutral grassland'), wet grassland ('other neutral grassland'), woodland ('other woodland; broadleaved'), wet woodland ('wet woodland'), scrub ('mixed scrub') and wildlife ponds ('ponds (non-priority habitat)'). Those areas being created/enhanced, that are within 10m of the stream running along the boundary of the offsite mitigation area, have contributed to the river assessment calculations.

- 1.30. If the possible area of offsite mitigation land identified was secured, the designated footpaths would be planted with double hedgerows, and thorn scrub, which will serve as a deterrent for public access into the offsite fields and will encourage 'Good' condition habitats to be achieved in these areas. Boundary hedgerows within the offsite land fall mostly outside of the redline boundary identified and have not been included in the calculations. Those boundary hedgerows which do form part of the redline boundary have been measured although they are assumed to be of 'Good' condition and retained in their entirety as they will not be impacted by the enhancement works undertaken in the area.
- 1.31. The BIA calculations do not account for other protected species enhancement measures, for example, the provision of bird and bat boxes and reptile hibernacula, see Figure 12.24 (document reference 6.3.12.24).

RESULTS

- 1.32. Based on the BIA calculations, as provided in Annex 1 of this report, the illustrative proposals for onsite habitat achieves a net loss of habitat and river biodiversity units, and a net gain in hedgerow biodiversity units:
 - Habitat Biodiversity Impact Score = 32.51 biodiversity units (6.18% net biodiversity loss);
 - Hedgerow Biodiversity Impact Score = + 54.60 linear units (36.68% net linear gain); and
 - River Biodiversity Impact Score = 16.56 river units (48.19% net river loss).
- 1.33. With the potential area of offsite compensation, the Proposed Development's biodiversity impact habitat area score has been calculated to achieve an overall net gain of habitat biodiversity units:
 - Habitat Biodiversity Impact Score = + 28.92 biodiversity units (5.50% net biodiversity gain);
 - Hedgerow Biodiversity Impact Score = + 60.51 linear units (40.66% net linear gain); and
 - River Biodiversity Impact Score = -15.65 river units (45.56% net river loss).
- 1.34. Although this does not meet current planning policy requirements and the Environment Act (November 2021) requirements for developments to deliver a 10% net gain in

biodiversity, the additional 23.67 habitat units and 19.09 river units will be achieved through an offsetting scheme, such as the Environment Bank, in order to achieve 10% net gain. Discussions with the Environment Bank have been undertaken and will be progressed.

- 1.35. If the offsite land cannot be secured or an alternative area of suitable offsite mitigation cannot be found then it is envisaged that the Proposed Development would commit to the 10% biodiversity net gain, with any short fall picked up through an offsetting scheme, such as the Environment Bank.
- 1.36. While the Environment Act has now been passed, biodiversity net gain has not yet come into force and there will be a period of transition until it does.
- 1.37. The current calculations are illustrative and give an indication of how the proposals will achieve a 10% net gain. The final biodiversity position will be subject to the detailed design stage and supported by a detailed version of the Defra metric. At that time, further opportunities will potentially be identified to increase the level of biodiversity gain. The BNG strategy will include management of habitats over a 30-year period, in line with standard BNG guidance. The final biodiversity position will be subject to the detailed design stage and opportunities can potentially be identified to increase the level of biodiversity gain.

Annex 1 ◆ Biodiversity Impact Assessment Calculations

Annex 2 ◆ Post-development BIA Plan (edp3267_d178a 18 December 2023 FAI/MNe)



HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

Date:	18-12-2023							
Paper size:		A3						
Scale:			1:1	1,000				
0	100	200	300	400	500 m			

Order Limits

Cereal crops (2.78ha)

Developed land (138.59ha)

Woodland (16.81ha)

Scrub (8.51ha)

Wildflower grassland (29.76ha)

Amenity grassland (19.03ha)

Ponds and SuDS (2.60ha)

Reedbeds (1.01ha)

Habitat Enhancement

Habitat Retention

Enhanced Hedgerow (0.67km)

Retained Hedgerow (3.34km)

Removed Hedgerow (13.51km)

Created Hedgerow (16.43km)

Retained Watercourse (1.79km)

Removed Watercourse (2.19km)

Created Watercourse (1.34km)

▲ TRITAX SYMMETRY

A TRITAX BIG BOX COMPANY

Post-development BIA Plan

APFP Regulation: Document Ref:	5(2)(a)
Drawing Number:	edp3267_d178a
Drawing Status:	FINAL
Revision:	А
Drawn by:	FAI
Approved by:	MNe

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Annex 3 ◆ River Condition Assessment

Positive features in black, Negative features in red.

			Existing	Potential Realignment	
Indices		Assessed Habitats/Features	Average	Target	Potential Routes to Achieve Realignment Target
Bank Top	·				
		Mosses/Lichens, Short/Creeping			Create a mixture of standard and grouped tree planting along
Bank top vegetation		herbs and grasses, Tall herbs and			the bank top, shrubby undertstorey planting, tall grass and
structure	B1	grasss, scrub/shrubs, saplings/trees.	2	3	herbs and short mown grass up to 10m from the bank
		Fallen trees, leaning trees, j-shaped			Plant trees with naturally trailing branches
Bank top tree feature		trees, tree/shrub branches trailing			
richness	B2	into the river channel, large wood	1	2	Plant trees with a tendency to drop branches
		Pond: disconnected, Pond:			
		connected, side channel, Wetland:			
		short non-woody vegetation			
		(mosses/sedges), Wetland: tall non-			
Dank ton water related		woody vegetation (reeds/rushes),			
Bank top water-related features	В3	Wetland: shrubs and trees (e.g. alder/willow carr)	0	1	Creation of alder carr or non-woody wetland vegetation
Bank top NNIPS cover	B4	Non-native invasive species	0	0	Creation of alder carr of fion-woody wetland vegetation
Bank top MMF3 cover	54	Built area, landfill, storage,	0	0	
		pedestrianised,			
		arable/agriculture/allotments,			
		permanently vegetated agriculture			
		(pasture, intensive orchard),			
		permanently vegetated recreation			If pedestrianised footpaths, bridges etc. are going to be located
		(playing fields, gardens, parks),			within 10m of the bank edge then this will impact the score,
Bank top managed ground		plantation woodland, open water			this looks to be proposed only on one bank in a couple of places
cover	B5	(canal, reservoir)	-2	-1	so likely to achieve -1.
Bank Face					
_		Mosses/Lichens, Short/Creeping			Individual tree or patches of large shrub planting on shallow
Bank face riparian		herbs and grasses, Tall herbs and			gradient banks as well as a mixture of tall and short grass
vegetation structure	C1	grasss, scrub/shrubs, saplings/trees.	2	2	management should be achievable

			Evicting	Potential Realignment	
Indices		Assessed Habitats/Features	Existing Average	Target	Potential Routes to Achieve Realignment Target
malecs		Assessed Habitatsy Federics	Average	raiget	Plant trees with naturally trailing branches
					Plant trees with a tendency to drop branches
		Fallen trees, leaning trees, j-shaped			
		trees, tree/shrub branches trailing			Plant trees with tendency to drop leaves that will sink and
		into the river channel, large wood,			accumulate rather than float and be washed away
Bank face tree feature		discreet organic accumulations,			,
richness	C2	exposed tree roots	2	3	Plant trees which will tolerate exposed roots on the bank face
		Vertical, vertical with overhang,	_		
		vertical with undercut, vertical with			
Bank face natural bank		toe, steep (>45 degrees), gentle (>45			
profile extent	СЗ	degrees), Composite	3	3	Create a mixture of sections with vertical bank faces, gentle and
		Vertical, vertical with overhang,			steep slopes
		vertical with undercut, vertical with			
Bank face natural bank		toe, steep (>45 degrees), gentle (>45			
profile richness	C4	degrees), Composite	3	3	
Bank face natural bank		Bedrock, Boulder, Cobble, Gravel,			
material richness	C5	Earth, Sand, Silt, Clay, Peat, Organic	1	1	Unlikely able to influence as dependent on existing geology
Bank face bare sediment		Bedrock, Boulder, Cobble, Gravel,			
extent	C6	Earth, Sand, Silt, Clay, Peat, Organic	4	1	Unlikely able to influence as dependent on existing geology
		Reshaped, Artificial two-stage,			Poached bank would be worn away from regular access by
Bank face artificial bank		Embanked, Set-back embankment,			humans and dogs. Have assumed some poaching will be
profile extent	C7	poached bank	0	-1	present
		Extent of reinforcement in the top,			
Bank face reinforcement		bottom, whole and horizontal			Assumed that some reinforcements will be required for
extent	C8	extents of each bank	0	-1	pipes/outfalls into the channel
		Concrete, brick, stone, piling, rip rap,			
Bank face reinforcement		gabions, planted reeds etc lots of			Concrete is the worst possible material for use in
material severity	C9	options with different weightings	0	-1	reinforcements but precautionarily assumed this will be present
Bank face NNIPS cover	C10	Non-native invasive species	0	0	
Channel Margin					

				Potential	
			Existing	Realignment	
Indices		Assessed Habitats/Features	Average	Target	Potential Routes to Achieve Realignment Target
		Liverworts/mosses/lichens,			
Channel margin aquatic		emergent broad-leaved, emergent			Aim for a mixture of emergent broad-leaved, emergent linear-
vegetation extent	D1	linear-leaved, amphibious	2	3	leaved and amphibious plants in an even mixture across both
					channel margins
		Liverworts/mosses/lichens,			
Channel margin aquatic		emergent broad-leaved, emergent			Need to ensure channel margins are designed to allow an area
morphotype richness	D2	linear-leaved, amphibious	2	3	for vegetation to establish
		Unvegetated side bar, vegetaed side			Aim to achieve creation of a mixture of unvegetated and
		bar, berm, bench, stable cliff,			vegetated side bars?
Channel margin physical		eroding cliff, toe, marginal			vegetated side bars:
feature extent	D3	backwater, tributary junction	2	1	Eroding cliffs are unlikely to be seen positively so some sections
		Unvegetated side bar, vegetaed side			of stable cliff would be preferable instead.
		bar, berm, bench, stable cliff,			
Channel margin physical		eroding cliff, toe, marginal			Marginal backwaters could be possible
feature richness	D4	backwater, tributary junction	2	2	
					Assumed up to 4 outfalls would be present along each 50m
Channel margin artificial					surveyed section, if this is focussed on one area it may be
features	D5	pipes/outfalls, deflector and jetty	-1	-1	possible to reduce negative impacts elsewhere
Channel Bed				T	
		Liverworts/mosses/lichens,			
		emergent broad-leaved, emergent			Aim for a mixture of floating, emergent and submerged plants
		linear-leaved, floating leaved			with a mixture of broad-leaved and linear leaved species
		(rooted), free floating, submerged			
Channel aquatic	E4	broad-leaved, submerged linear-	_		Need to ensure flow rates are appropriate to allow
morphotype richness	E1	leaved, submerged fine-leaved	2	2	establishment of vegetation
		vegetation shading shannel			It should be possible to achieve vegetation shading channel but
		vegetation shading channel,			may be more difficult to guarantee submerged tree roots and
Channel bed tree features		submerged tree roots, large wood, discrete accumulation of organic			discrete accumulations of organic material within the channel bed. If choosing trees that have a tendency to drop braches
richness	E2	material, large wood dam, fallen tree	3	1	then large wood may also be achievable
HUIHESS	EZ	material, large wood dam, fallen tree	5	1	then large wood may also be achievable

				Potential	
Indices		Accessed Ushitests/Factories	Existing	Realignment	Detential Deutes to Ashious Dealisement Towart
indices		Assessed Habitats/Features	Average	Target	Potential Routes to Achieve Realignment Target
					Free fall and chute flows are unlikely to be achieved in a gravel/sand river. Potential to add in areas of larger
					= '
					cobbles/boulders to achieve these hydraulic features?
					Rippled, smooth and no-perceptible flow are most likely to be
		Free fall, chute, broken standing			achieved.
		waves, unbroken standing waves,			
Channel bed hydraulic		upwelling, rippled, smooth, no			Channel bed profile and materials will need to be considered to
features richness	E3	perceptible flow	1	2	achieve unbroken and broken standing waves
		exposed bedrock, exposed			
		unvegetated boulders, exposed			Create a run of riffles and pools so that each one appears more
		vegetated boulders, unvegetated			than once in a single stretch (e.g. back to back - riffle, pool,
		mid channel bars, vegetated mid-			riffle, pool). This would potentially require a coarser gravel river
Channel bed natural		channel bars, islands, cascades,			bed in places to create the riffles and profiling of the channel
features extent	E4	pools, riffles, steps, waterfalls	1	2	bed to achieve the shallower and deeper areas required
		exposed bedrock, exposed			
		unvegetated boulders, exposed			Assuming we can only produce pools and riffles this would
		vegetated boulders, unvegetated			score 1, with the channel width being ~2m it would be
		mid channel bars, vegetated mid-			implausible to create mid-channel bars or islands and given the
Channel bed natural		channel bars, islands, cascades,			sand/gravel river type with a shallow gradient, achieving
features richness	E5	pools, riffles, steps, waterfalls	1	1	cascades, waterfalls and steps would also be implausible
Channel bed material		peat, organic, clay, silt, sand, gravel-			Dependent on what materials will be brought in from upstream
richness	E6	pebble, coble, boulder, bedrock	3	3	by natural flow. Likely to be similar to existing.
					The existing stream does not have any silt issues so this should
		patchy silt or continuous overlying			hopefully be maintained, assuming that no silt deposition
Channel bed siltation	E7	silt layers	0	0	comes from outfalls/pipes or run-off
Channel bed reinforcement					
extent	E8	Extent of channel bed reinforcement	0	0	
Channel bed reinforcement		concrete, brick, stone, piling,			
severity	E9	gabions, rubble, washed out etc.	0	0	

			Existing	Potential Realignment	
Indices		Assessed Habitats/Features	Average	Target	Potential Routes to Achieve Realignment Target
muices		Assessed Habitats/Teatures	Average	Target	Have precautionarily assumed culverts to be present in places
					have precautionarily assumed curverts to be present in places
		large trash, bridge shadow, major			This would be ideal to avoid as it would impact the riparian
Channel bed artificial		weir, intermediate weir, minor weir,			zone encroachment multiplier in the metric but would not
features severity	E10	bridge pier in river bed, culvert	-1	-4	increase the condition assessment into the next category up.
Channel bed NNIPS extent	E11	Non-native invasive species	0	0	
Channel bed filamentous					
algae extent	E12	extent of filamentous algae	0	0	

River Type K	Good	Fairly Good	Moderate
Score (likely maximum 2.4)	>1.9	1.9 - >1.2	1.2 - > 0.2
Average of Target Negative Indicators	-0.69	Average of Target Positive Indicators	2.05
Total Target River Condition Score	1.36	Fairly Good	