A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010059

Annex A Approach to the Assessment of Losses and Gains for Watercourses

AFPF Rules 2010 Rule 8(1)(c)

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010

January 2021

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

The A1 in Northumberland: Morpeth to Ellingham

Development Consent Order 20[xx]

Annex A Approach to the Assessment of Losses and Gains for Watercourses

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1 PURPOSE OF THIS DOCUMENT

1.1.1. This document relates to the biodiversity assessment of the A1 in Northumberland: Morpeth to Ellingham Scheme (the Scheme), specifically in relation to the assessment of habitat loss and gains for watercourses (running water) as a result of the Scheme.

1.1.2. Impact assessments for watercourses are presented within **Chapter 9: Biodiversity Part A** [**APP-048**] and **Chapter 9: Biodiversity Part B** [**APP-049**] of the Environmental Statement (ES).

1.1.3. Following submission of the Development Consent Order (DCO) application to the Planning Inspectorate (the Inspectorate) on 07 July 2020, the Applicant has completed a **Biodiversity No Net Loss Assessment Report for the Scheme** (document reference 6.28; issued at Deadline 2, 29 January 2021), which presents an assessment for the Scheme as a whole. This assessment supersedes the separate biodiversity no net loss assessments for Part A [**APP-246**] and Part B [**APP-309**] issued with the DCO application.

1.1.4. The purpose of this annex to the **Biodiversity No Net Loss Assessment Report for the Scheme** (**document reference 6.28**) is to:

a. Provide confirmation of watercourses included within the assessment for habitat loss and gains for Part A, following correction of a transcription error within the Global Information System (GIS) software in the Phase 1 habitat data;
b. Present updated values of loss and gains for watercourses for Part A following reassessment; and
c. Present updated values of loss and gains for watercourses for Part B, following review and reassessment.

1.1.5. **Section 2** below provides an explanation and the reasons for this document and the reassessment that has been conducted. The findings of the reassessment are presented within **Section 3**.

1.1.6. This document forms an annex to the **Biodiversity No Net Loss Assessment Report for the Scheme** (document reference 6.28) issued at Deadline 2. The **Biodiversity No Net Loss Assessment Report for the Scheme** and this document have been produced in response to BIO.1.27 of the Examining Authority's (ExA's) first written questions (as detailed in **BIO.1.27, 7.8 Applicant's Response to ExA's First Written Questions** [**REP1-032**]) and the Relevant Representation made by the Environment Agency (as detailed in **A.2, A.6, A.10, A.11, A.80, A.82 and A.87; 7.9.1 Appendix A Response to RR-04 Environment Agency** [**REP1-064**]).

2 REASONS FOR UPDATE

2.1 PART A – DIGITAL ERROR

2.1.1. During the assessment and production of the **Biodiversity No Net Loss Assessment Report for the Scheme**, a transcription error within the Global Information System (GIS) software in the Phase 1 habitat data for Part A was identified. The error had led to several existing dry channels/ditches being incorrectly mapped on the Phase 1 habitat plan [**APP-105**] as running water. This resulted in the calculation of overinflated values of habitat loss and gain for watercourses for Part A, which were used to inform the impact assessment presented in **Chapter 9: Biodiversity Part A** [**APP-048**] and also the **Biodiversity No Net Loss Assessment Report Part A** [**APP-246**]. This results in a more conservative assessment.

2.1.2. The error in the Phase 1 habitat data for Part A has been corrected and the values of habitat loss and gain for watercourses have been recalculated. The findings of the reassessment are presented in **Section 3.1** and are also reflected in the **Biodiversity No Net Loss Assessment Report for the Scheme** (document reference 6.28; issued at Deadline 2).

2.2 PART B – UPDATED ASSESSMENT

2.2.1. A permanent loss of approximately 976.3m of watercourse was calculated for Part B, with approximately 365.3m reinstated, as detailed in **Table 9-11, Chapter 9: Biodiversity Part B** [**APP-049**]. These values were informed by the calculations of the **Biodiversity No Net Loss Assessment Report Part B** [**APP-309**]. As detailed in **paragraph 2.2.4, Biodiversity No Net Loss Assessment Report Part B** [**APP-309**], "*the extent of losses ... represent a conservative estimate that can be further reduced at the detailed design stage."* In the absence of a plan identifying permanent and temporary habitat loss (which is subject to detailed design), the assessment used the indicative extent of land to be permanently acquired (hereafter referred to as the 'permanent land acquisition boundary') and the Order Limits (shown on **Figure 4.2: Boundary Plan Part B** [**APP-074**]) as a proxy to inform the assessment and ensure a worst-case scenario was assessed. For the purposes of the assessment, permanent habitat loss was assumed to occur for all habitats within the permanent land acquisition boundary and temporary habitat loss was assumed to occur for the remainder of land within the Order Limits. As detailed in **paragraph 2.2.2, Biodiversity No Net Loss Assessment Report Part B** [**APP-309**], it was assumed that all habitats within the Order Limits would be cleared (i.e. lost), except where these are clearly described as retained (with reference to **Figure 7.10: Landscape Mitigation Masterplan Part B** [**APP-144**]).

2.2.2. It was determined that Part B would result in an overall loss[1] of approximately 611m of watercourse (permanent habitat loss minus habitat reinstatement).

2.2.3. Following the Relevant Representation made by the Environment Agency and as part of the **Biodiversity No Net Loss Assessment Report for the Scheme** (**document reference 6.28**), the impact assessment of watercourses has been revisited and reviewed. The Applicant can confirm that loss of watercourse associated with Part B would occur as a result of the extension of existing culverts only. All other sections of watercourse not impacted by culvert extensions would be retained.

2.2.4. The calculations of habitat loss and gain for watercourses has been updated to present a more accurate reflection of the impact of Part B. The findings of the reassessment are presented in **Section 3.2**.

[1] The term “overall loss” has been used within this document rather than “net loss” to avoid confusion with terminology. “Net loss” is a specific term used within biodiversity no net loss assessments.

3 RESULTS AND FINDINGS

3.1 PART A – DIGITAL ERROR

3.1.1. Running water and those existing channels reassigned as dry ditches are presented on **Figure 1**. For clarity, the following features identified on **Figure 9.1: Final Phase 1 Plan Part A** [**APP-105**] have been reassigned as dry ditches to correct the digital transcription error:

a. Cotting Burn
b. Tributary of Earsdon Burn
c. Unnamed ditch (north of Longdike Burn)
d. Tributary of Thirston Burn

3.1.2. The features identified as running water on **Figure 1** remain as identified for the original assessment, as shown on **Figure 9.1: Final Phase 1 Plan Part A** [**APP-105**].

3.1.3. Following the correction of the digital transcription error, the values of habitat loss and creation have been reassessed. **Table 3-1** below provides a summary for comparison between those values stated within **Chapter 9: Biodiversity Part A** [**APP-048**] and the updated values following reassessment.

Table 3-1 – Summary of Changes in the Assessment of Loss and Gains for Watercourses of Part A

	Existing Assessment in Chapter 9: Biodiversity Part A	Following Reassessment
Permanent loss of watercourse (m)	750	271
Watercourse reinstatement (m)	0	0
Watercourse creation (m)	540	138
Overall loss of watercourse (permanent loss minus creation) (m)	**210**	**133**

3.1.4. The values of watercourse loss and creation have been reduced as a result of the corrections made. Watercourse creation for Part A is as a result of the creation of new channels associated with watercourse diversion works (as detailed in **paragraph 9.9.6, Chapter 9: Biodiversity Part A** [**APP-048**]). Due to the digital transcription error, the values of watercourse loss and gains detailed in **Chapter 9: Biodiversity Part A** [**APP-048**]

included the diversion of those features that have now been corrected and reassigned as dry ditches (as listed in **paragraph 3.1.1** above). These dry ditch channels will still be realigned as part of the Scheme. However, the associated habitat loss and creation are no longer part of the watercourse assessment, due to the reassignment as dry ditches. This results in the reduction in watercourse habitat creation shown in **Table 3-1** above.

3.1.5. Following the reassessment, Part A would still result in an overall loss of watercourse as a result of culvert construction and extension (as identified in **paragraph 9.10.8, Chapter 9: Biodiversity Part A** [**APP-048**]). Part A would result in the direct, permanent overall loss of approximately 133 m of watercourse length. This includes the loss of approximately 98 m of watercourses of Local importance and approximately 35 m of watercourse of National importance; Longdike Burn.

3.1.6. Due to the digital transcription error, the loss of watercourses of Local importance was previously calculated as 165 m, as detailed within **paragraph 9.10.8, Chapter 9: Biodiversity Part A** [**APP-048**]. Whilst the value of loss has decreased, it remains that in relation to direct impacts to watercourses of Local importance, Part A would result in a **Slight** direct, permanent adverse effect (**not significant**). As such, the assessment of significance of effect has not changed and the conclusion drawn within **paragraph 9.10.8, Chapter 9: Biodiversity Part A** [**APP-048**] remains valid.

3.1.7. There has been no change to the value of loss associated with Longdike Burn, approximately 35 m. Therefore, the assessment of significance of effect presented in **paragraph 9.10.9, Chapter 9: Biodiversity Part A** [**APP-048**] remains accurate and valid. Part A would result in a **Slight** direct, permanent adverse effect (**not significant**) in relation to the loss of habitat associated with Longdike Burn.

3.1.8. Further to the above, the values of watercourse loss and gain for Part A presented within this document supersede the values stated within the Applicant's responses contained in the below documents. The correct values for each of these documents are as follows:

a. **BIO.1.13, 7.8 Applicant's Response to ExA's First Written Questions** [**REP1-032**] – watercourse creation has reduced from 540 m to approximately 138 m and overall (net) loss of watercourse for Part A has reduced from approximately 200 m to approximately 133 m;
b. **BIO.1.16, 7.8 Applicant's Response to ExA's First Written Questions** [**REP1-032**] – Part A includes approximately 800 m of new or instated channel (rather than watercourse), which includes approximately 138 m of watercourse creation (as per **Table 3-1** above) and approximately 660 m of diverted/realigned channel (ditch system and tributaries of watercourses);
c. **A.5, A.11, A.12 and A.14; 7.9.1 Appendix A Response to RR-04 Environment Agency** [**REP1-065**] – overall (net) loss of watercourse for Part A has reduced from approximately 200 m to approximately 133 m.

3.2 PART B – UPDATED ASSESSMENT

3.2.1. Following the review and refinement of watercourse habitat loss in relation to Part B, the values of habitat loss and creation have been reassessed. **Table 2-2** below provides a summary for comparison between those values stated within **Chapter 9: Biodiversity Part B** [**APP-049**] and the updated values following reassessment.

3.2.2. The values of watercourse loss and reinstatement have been reduced as a result of the refined assessment. Within the existing assessment presented in **Chapter 9: Biodiversity Part B** [**APP-049**], watercourse reinstatement was calculated where the habitat was assumed to be temporarily lost. This included those watercourses located between the permanent land acquisition boundary and the Order Limits, as described in **paragraph 2.2.1**. As detailed in **paragraph 2.2.3**, the Applicant has confirmed that loss of watercourse associated with Part B would occur as a result of the extension of existing culverts only and all other sections of watercourse not impacted by culvert extensions would be retained. As such, those watercourses identified in the assessment presented in **Chapter 9: Biodiversity Part B** [**APP-049**] as reinstated within the existing assessment would in fact be retained. This results in the reduction in habitat reinstatement shown in **Table 3-2** below.

Table 3-2 – Summary of Changes in the Assessment of Loss and Gains for Watercourses of Part B

	Existing Assessment in Chapter 9: Biodiversity Part A	Following Reassessment
Permanent loss of watercourse (m)	976	156
Watercourse reinstatement (m)	365	0
Watercourse creation (m)	0	0
Overall loss of watercourse (permanent loss minus creation) (m)	**611**	**156**

3.2.3. Following the reassessment, Part B would still result in an overall loss of watercourse as a result of culvert extensions (as identified in **paragraph 9.10.4, Chapter 9: Biodiversity Part B** [**APP-049**]). Part B would result in the direct, permanent overall loss of approximately 156 m of watercourses of Local importance.

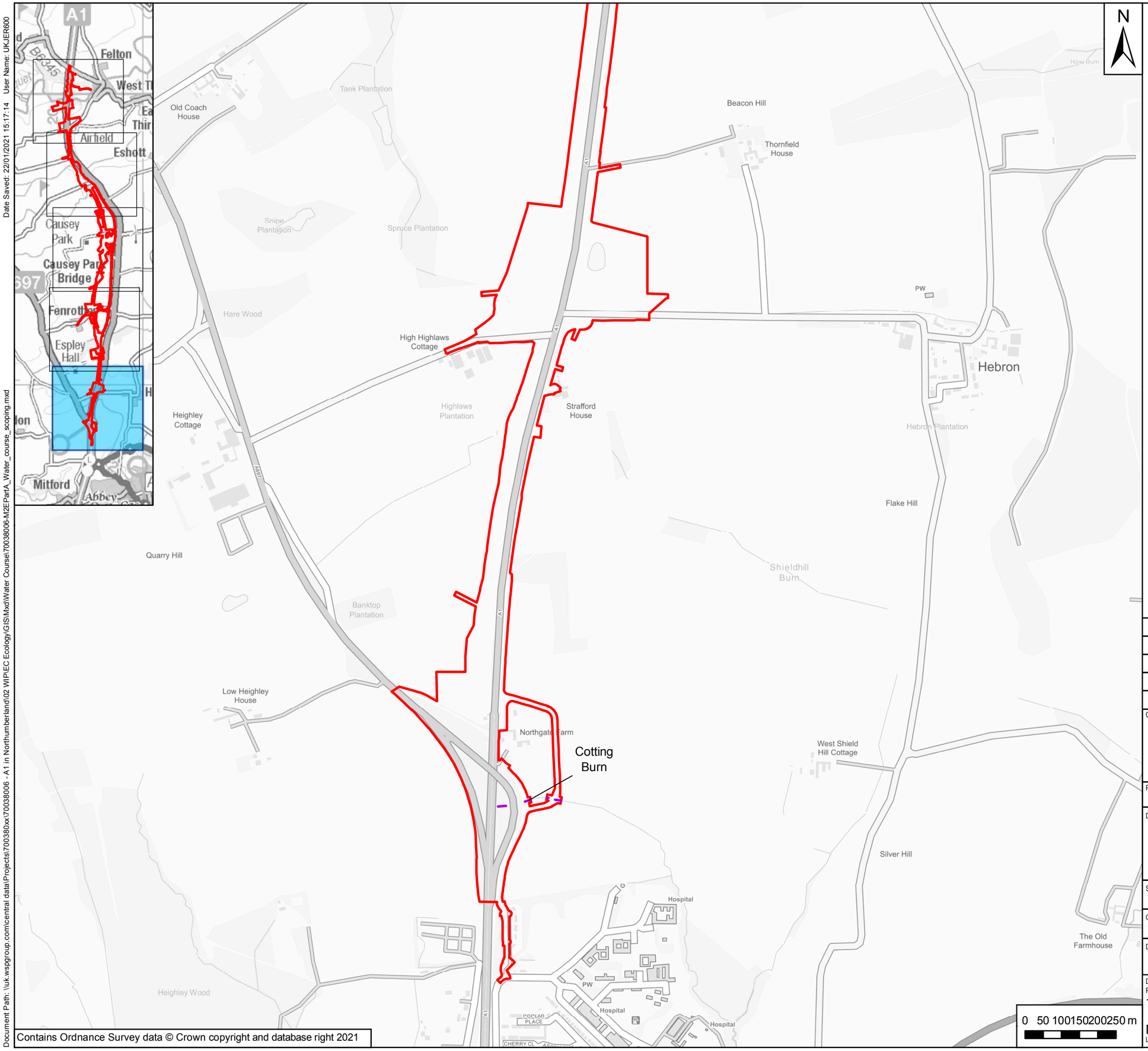
3.2.4. The overall loss of watercourses of Local importance was previously calculated as 611 m, as detailed within **paragraph 9.10.4, Chapter 9: Biodiversity Part B** [**APP-049**]. Whilst the value of loss has decreased, it remains that in relation to direct impacts to watercourses of

Local importance, Part B would result in a **Slight** direct, permanent adverse effect (**not significant**). As such, the assessment of significance of effect has not changed and the conclusion drawn within **paragraph 9.10.4, Chapter 9: Biodiversity Part B** [**APP-049**] remains valid.

4 CONCLUSION

4.1.1. Following the reassessment detailed within this document, the values of habitat loss and gain for watercourse have reduced in comparison to those presented within **Chapter 9: Biodiversity Part A** [**APP-048**] and **Part B** [**APP-049**]. However, the significance of effect to watercourses as a result of habitat loss as a result of the Scheme remains the same.

4.1.2. The updated values of habitat loss and gains for watercourse presented within this document have been used within the **Biodiversity No Net Loss Assessment Report for the Scheme** (document reference 6.28), issued to the Planning Inspectorate at Deadline 2 (29 January 2021).



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Client: highways england

Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title: Confirmation of Running Water Habitat Part A
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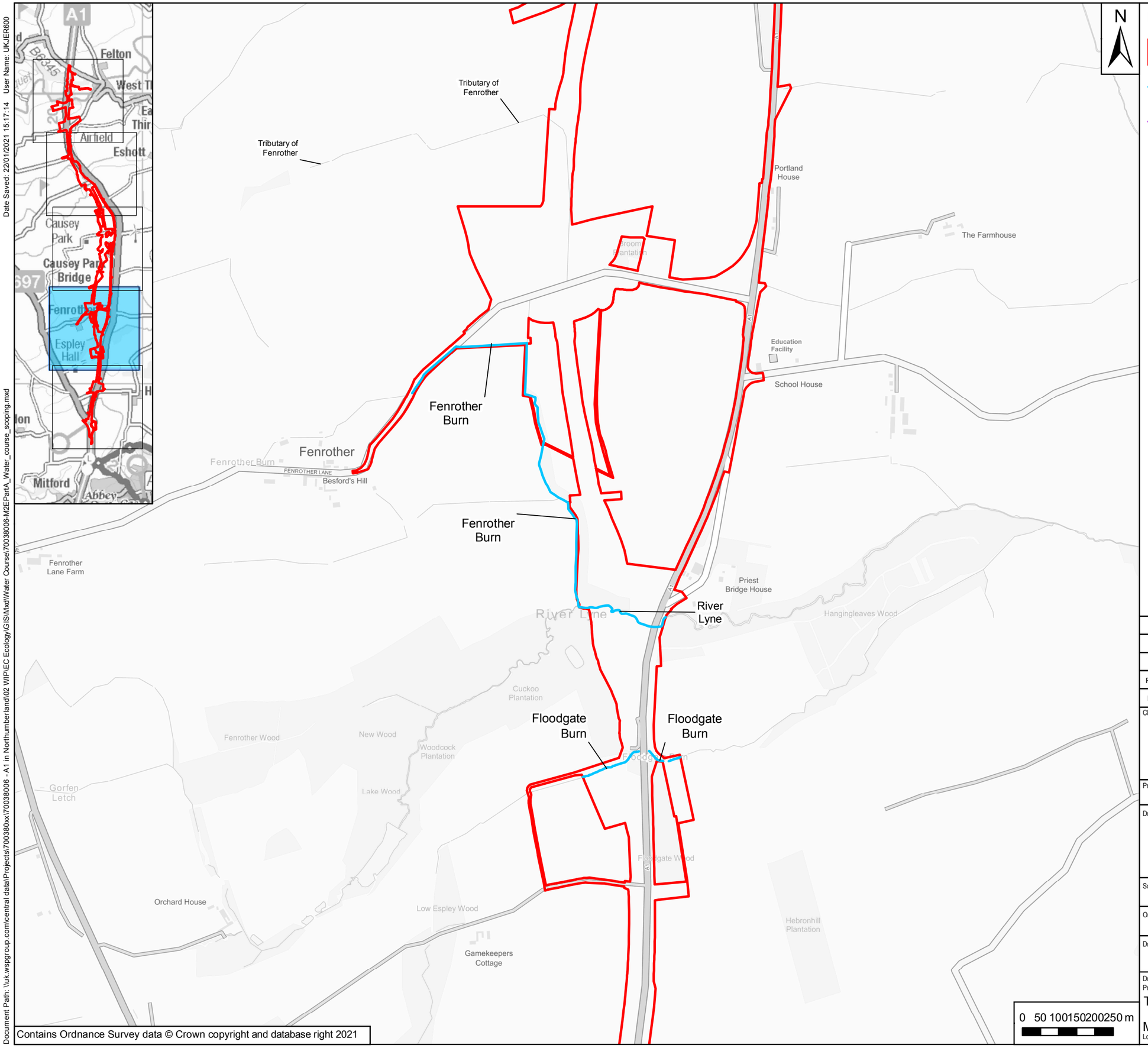

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Drawing Title: Confirmation of Running Water Habitat Part A
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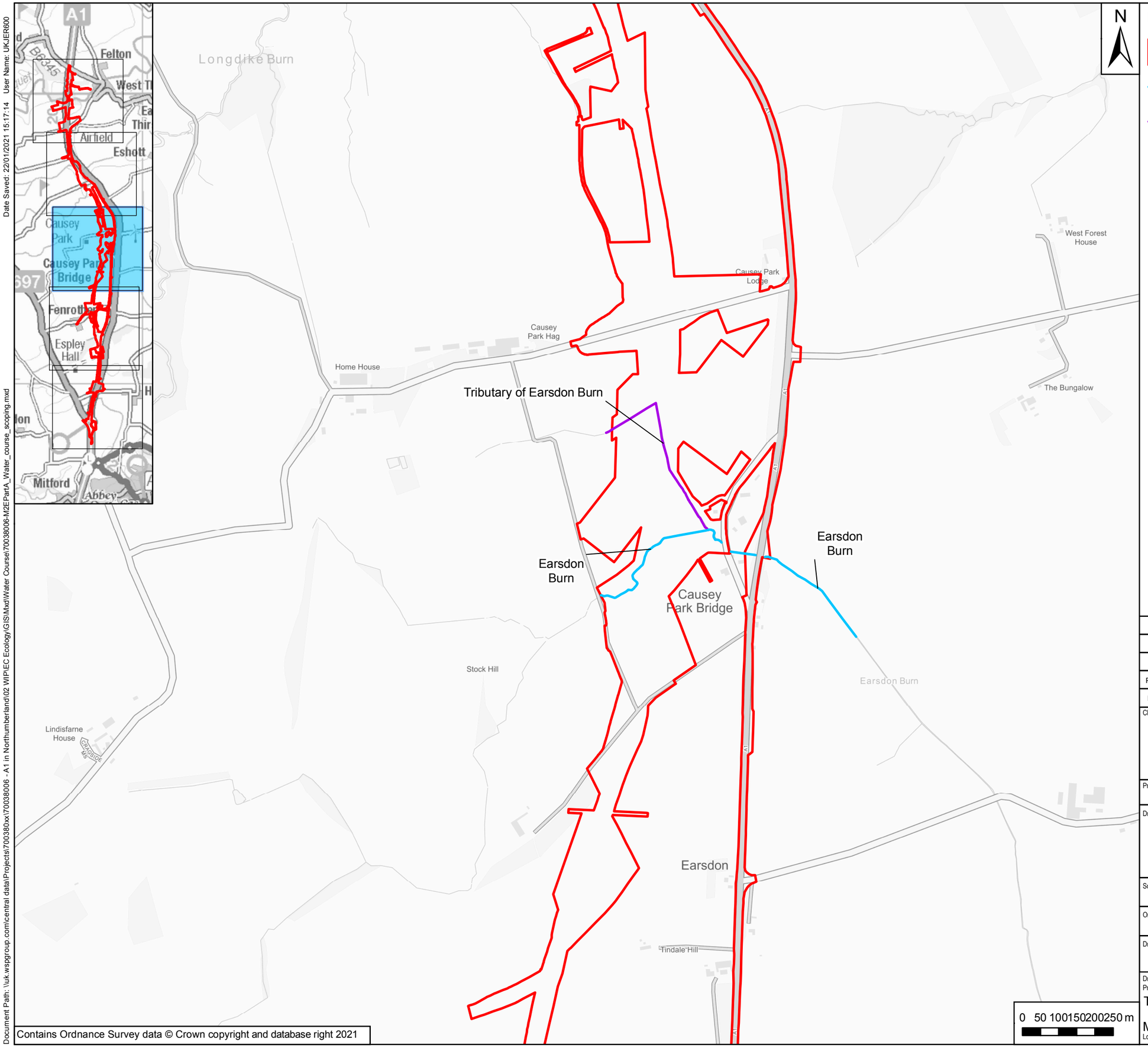

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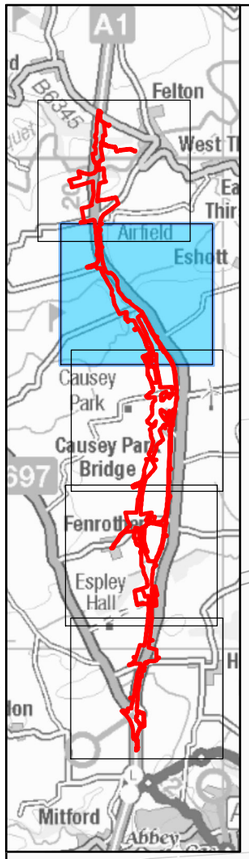

West Moor House
Blackwood Hall
Blackbrook Farm
Unnamed ditch (north of Longdike Burn)
The Paddock
Unnamed ditch (north of Longdike Burn)
Eshottheugh
Longdike Burn
Blow Weary Plantation
Bywell Letch
Burgham
Tank Plantation
Unnamed ditch (east of Longdike Burn)
Home Cottage
Helm Wood
Longdyke
Longdike Burn

N

key

- Order Limits
- Running Water
- Dry Ditch

0 50 100150200250 m

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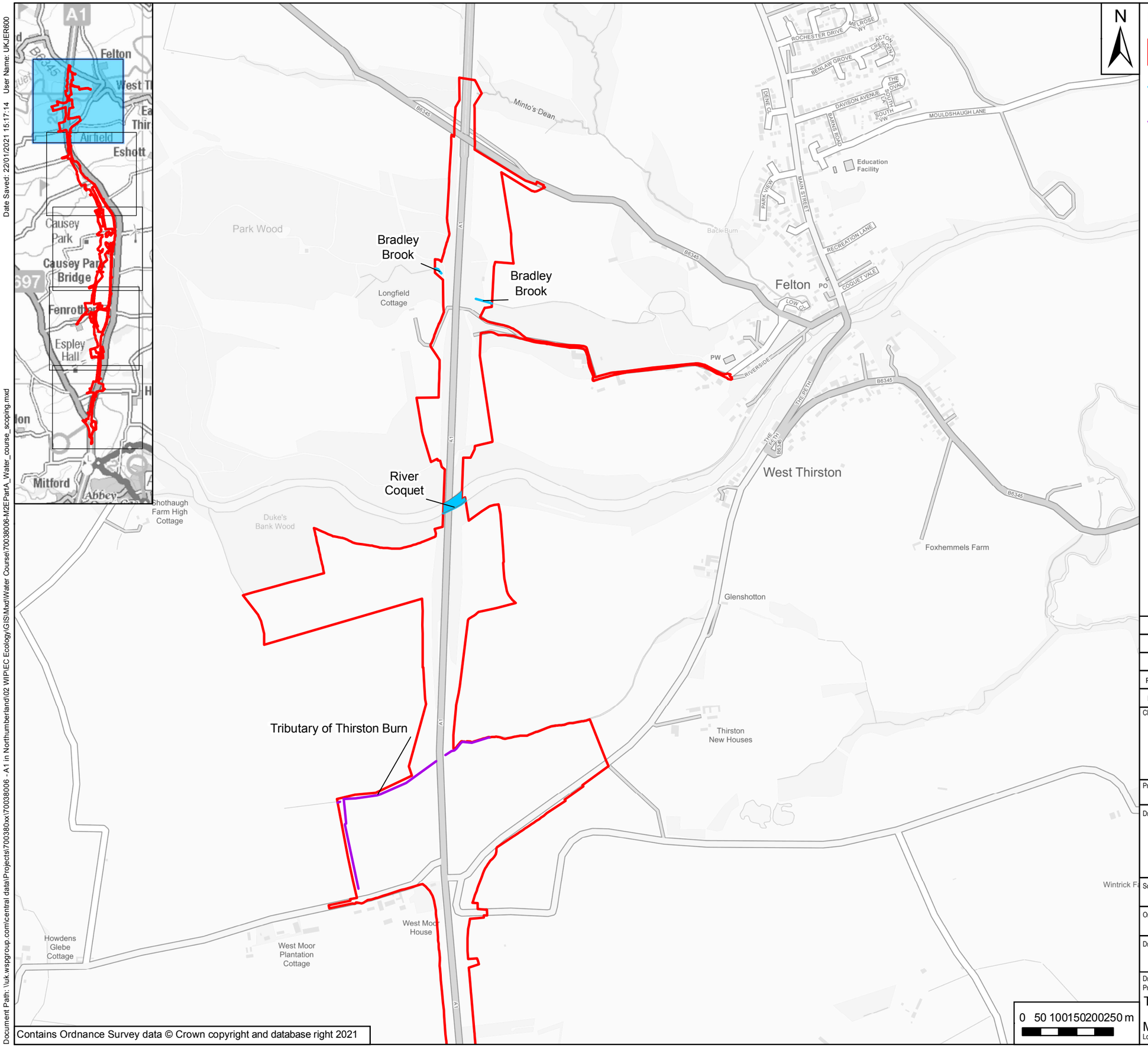

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key

- Order Limits
- Running Water
- Dry Ditch

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Drawing Title: Confirmation of Running Water Habitat Part A
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