



## **HIF Banwell Bypass and Highways Improvements Project**

# **Environmental Statement Update Report**

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# 1 Chapter 1 Purpose of this Report

## 1.1 Background and purpose

1.1.1 The applicant submitted the Banwell Bypass and Highway Improvement Scheme (the Scheme, as defined further below) planning application on 18 July 2022 (ref: 22/P/1768/R3EIA). During the Local Planning Authority (LPA) consultation on the application, comments and submissions were received from statutory consultees and the public and considered by the applicant accordingly.

1.1.2 In response, the applicant has prepared and submitted written responses and supporting information to the LPA, which has been made available to the public via the LPA website<sup>1</sup> where appropriate. A list is provided in Table 1 and Table 2 of the separate supporting Planning, Design and Access Update Report for convenience.

1.1.3 In considering and responding to comments, some changes have been made to the Scheme. In summary the key changes to the planning application are:

- a) Additional bat mitigation
- b) The changes have been discussed and agreed with Natural England and the North Somerset Council Ecologist, taking into account relevant submissions on bat mitigation. This involves increasing the land required for the Scheme to provide additional essential bat mitigation.
- c) Additional speed control measures and revised speed limit extents
- d) The changes have been discussed with the Highways and Transport Development Management department of North Somerset Council, taking into account relevant submissions on highway safety and access. This involves reducing the extents of speed limit changes and providing additional speed control interventions and reducing the extents of speed limit changes as part of the proposed wider mitigation measures.

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<sup>1</sup><https://planning.n-somerset.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=RFBMQJLP01600>

- e) Additional replacement playing fields for Banwell Football Club
- f) The changes have been discussed and agreed with Banwell Football Club, taking into account relevant submissions from the club, Sport England, and others on the matter of replacement playing fields and associated impacts.
- g) This involves increasing the land required for the Scheme and helping ensure the replacement playing fields are as usable as the existing arrangement.
- h) Further clarification has also been provided about the proposed mitigation during construction, involving temporary alternative off-site provision.

1.1.4 The applicant considers it appropriate to undertake, with the agreement of the LPA, a supplementary consultation during the application determination period. This would provide a minimum 30-day (in accordance with The Town and Country Planning (Environmental Impact Assessment) Regulations 2017) consultation period, allowing any individual or organisation an opportunity to comment on the proposed changes to the Scheme.

1.1.5 To assist the undertaking of a supplementary consultation, the applicant is submitting three overarching additional planning application documents to the LPA to summarise the key design changes and present updated planning policy and environmental assessments as appropriate. The additional documents include the following:

- a) **Planning, Design and Access Update Report:** providing a summary of the changes to the Scheme, describing and consolidating relevant additional information submitted to the LPA since validation, with an updated assessment against relevant planning legislation, policy and guidance.
- b) **Environmental Statement Update Report:** providing a supplementary EIA document, outlining relevant addenda, technical notes and other relevant information prepared or submitted to the Local Planning Authority since validation, and assessing and concluding the significance of any different or new impacts on the environment.
- c) **Plans and Drawings Update:** providing a schedule with associated revised documents subject to the design changes, including the Red Line Boundary Plan, Highway Drainage Drawing, Private Means of Access Visibility Plan, Wider Mitigation General Arrangement Plans, Environmental Masterplans, and General Arrangement Drawings.

- 1.1.6 The three documents outlined above should be read in conjunction with each other for a full understanding of the changes to the application, and their associated impacts.
- 1.1.7 This document is the Environmental Statement Update Report. The report takes into consideration the assessment reported in the Environmental Statement to include the Technical Report (Volume 1), Figures (Volume 2) and Technical Appendices (Volume 3).

## 1.2 Environmental Statement Update

- 1.2.1 The remainder of this report considers the changes made to the application and undertakes an updated assessment where appropriate. This is informed by (and should be read alongside) the written responses and supporting information already submitted to the LPA in support of the application, which has been made available to the public via the LPA website where appropriate (see Table 1 and Table 2 of the separate supporting Planning, Design and Access Update Report for details).
- 1.2.2 This Environmental Statement Update has been undertaken on a topic-by-topic basis to reflect the structure of the Environmental Statement in support of the original application, which remains valid in light of the revised application, notwithstanding this update report.

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## 2 Chapter 2 - Scheme Description

### 2.1 Change to application description

2.1.1 The Scheme description has been updated to take into account the design changes and to address the comments made on the application by stakeholders. This change is detailed in the separate supporting Planning, Design and Access Update Report section 1.2. For convenience an extract it is copied in 2.2 of this report.

### 2.2 Updated Scheme Description

2.2.1 Following the design changes, the Scheme comprises the following distinct elements (additions are underlined for convenience):

- a) a bypass of the village of Banwell (referred to as the “Banwell Bypass”);
- b) a route connecting the A371 at Castle Hill and the A368 at East Street (referred to as the “Southern Link”); and
- c) Mitigation and enhancement measures, which broadly consist of the following:
- d) Environmental mitigation and enhancement measures in connection with the Banwell Bypass and the Southern Link, examples of which include (but are not limited to) flood compensation areas, planting and habitat creation including for but not limited to bat mitigation, attenuation basins, replacement playing fields;
- e) Placemaking improvements within Banwell, comprising mitigation and enhancement measures to the public realm; and
- f) Traffic mitigation in connection with the Banwell Bypass and the Southern Link, including improvements to the wider local road network.

2.2.2 Together, these elements comprise the “Scheme”. Each element as listed is described in more detail in the Planning, Design and Access Update Report.

## **2.3 Outline of Changes to Assessment Conclusions**

- 2.3.1 Changes to the assessments have been identified in the topic chapters of this document.
- 2.3.2 There is no change required to Chapter 2 of the Environmental Statement.

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## 3 Chapter 3 - Alternatives considered

- 3.1.1 There is no change required to Chapter 3 of the Environmental Statement.
- 3.1.2 Notwithstanding this, for clarity, the applicant has provided written responses to comments received on the application where concerns or suggestions have been made in relation to alternatives. This is considered in section 2.5 of the separate supporting Planning, Design and Access Update Report, to provide points of clarification in support of the assessment of alternatives, which remains valid and accurate.
- 3.1.3 Changes to the design are not considered to have changed the assessment conclusions in Chapter 3 of the Environmental Statement.

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## 4 Chapter 4 - Planning framework

4.1.1 There is no change required to Chapter 4 of the Environmental Statement.

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## 5 Chapter 5 – Air Quality

### 5.1 Introduction

5.1.1 Environmental Statement Chapter 5 identified no significant effects with respect to air quality during construction, subject to following mitigation measures during the construction phase. Effects from the operational phase were not significant.

### 5.2 Background

5.2.1 In the North Somerset Council Environmental Health Officer (EHO) response on the planning application, dated 26 October 2022, it was stated that they were satisfied with the conclusions of ES Chapter 5 Air Quality.

5.2.2 The EHO noted that it would be beneficial if monitoring for particulate matter can also be undertaken, to confirm existing concentrations within Banwell and allow for comparison following development of the Scheme if approved. Particulate monitoring in Banwell will be secured through an appropriate planning condition.

5.2.3 Responses were provided to the LPA on 7 October 2022 that a construction management plan will be prepared at the detailed design stage to minimise the impacts of human receptors in the vicinity of the proposed construction works, should the Scheme proceed.

5.2.4 The speed control measures and speed limit changes within the villages of Churchill, Sandford and Winscombe are limited in speed change and spatial extent and do not materially alter the scope of the Scheme which was originally assessed. This is unlikely to cause a significant change in average speeds or traffic flows on the assessed road network therefore it is considered there is no change required to the Environmental Statement conclusion on air quality impacts.

### 5.3 Outline of Changes to Assessment Conclusions

- 5.3.1 No further changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.
- 5.3.2 There is no change required to the conclusion of Chapter 5 of the Environmental Statement.

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## 6 Chapter 6 – Cultural Heritage

### 6.1 Introduction

- 6.1.1 Environmental Statement Chapter 6 identified an overall beneficial effect on the historic environment in Banwell as a result of the Scheme.
- 6.1.2 The overall beneficial effect was determined to outweigh the localised adverse effects arising from the Southern Link and the interruption of views to and from designated heritage assets from the adjacent, formerly enclosed, moors.
- 6.1.3 The construction of the carriageway, compounds, flood attenuation ponds and other elements of the Scheme would have an impact on the buried archaeological resource. The geophysical surveys indicated that significant archaeological remains were not present. At the time of writing the Environmental Statement, neither the archaeological trench evaluation, nor the geoarchaeological investigation, had taken place.

### 6.2 Background

- 6.2.1 Following publication of the Environmental Statement for the Scheme, comments on the planning application were received from NSC Archaeologist (NSCA), in correspondence dated 19 August 2022; NSC Conservation and Heritage Officer (NSCCHO) in correspondence dated 20 August 2022 and Historic England (HE) in correspondence dated 9 September 2022. These are outlined below.
- 6.2.2 The NSCA response included the following:
  - a) Changes in hydrology within the wider landscape as a result of the Scheme may result in de-watering of waterlogged deposits.
- 6.2.3 Environmental Statement Chapter 6 Cultural Heritage should be updated to reflect the conclusions of the recently submitted Hydraulic Modelling Report, particularly in areas where rhynes are to be blocked off and diverted into flood mitigation areas.

6.2.4 This has been addressed in ES Chapter 6 Addendum 1 – Hydrology which concluded that dewatering did not appear to be an issue away from the carriageway itself, and that upslope ponding of groundwater might actually benefit buried organic remains at the Scheduled Roman villa site in Banwell.

6.2.5 The NSCCHO response included the following:

6.2.6 The NSCCHO acknowledged the identified beneficial and adverse effects of the Scheme on the setting of the Conservation Area and individual designated heritage assets.

6.2.7 The bypass will be visible from the Grade II listed Banwell Monument and the Unregistered Park and Garden at Banwell Bone Caves which do not appear to have been assessed as part of the submitted Cultural Heritage chapter. This has been addressed in ES Chapter 6 Addendum 3 – Assessment of Banwell Monument and Bone Caves. The addendum concluded that the effect of the Scheme was negligible adverse and therefore not significant with mitigation.

6.2.8 The HE response included the following:

- a) The response acknowledged the identified beneficial and adverse effects of the Scheme on the setting of the Conservation Area and individual designated heritage assets but requested further confirmation in the form of additional photographs or photomontages. This requirement was addressed in a meeting held with the visualisation team on 15 November 2022, and site visit(s) at Banwell on 2 December 2022.
- b) HE raised a concern regarding the construction technique of surcharging and the potential for dewatering areas of the Holocene sequence. This has been addressed in ES Chapter 6 Addendum 1 – Hydrology, refer to 6.2.2.
- c) The only element where the fabric of the conservation area will be directly altered by the Scheme is where the Southern Link connects to the existing road network at the top of Castle Hill and Dark Lane. A stretch of mortared stone wall will be removed that forms the edge of the Conservation Area. The effect on this wall and the wider Conservation Area was assessed in ES Chapter 6 Addendum 4 - Proposed Demolition of part of a Boundary Wall at 25 Castle Hill and likely Impact on the Banwell Conservation Area.

6.2.9 During a site visit with HE on 2 December 2022 it was confirmed that the gate piers are identical to the gate piers at the entrance to Banwell Abbey off East Street, except for the latter lack the projecting armorial plaques), which would strongly suggest they can be linked to Bishop Laws and are therefore probably later than the styling would suggest. Although the section of wall under consideration is addressed in the ES Volume 1 Chapter 6 Tables 6.2 – 6.4, it was assessed as a component part of the Deer Park and the Conservation Area, rather than specifically. The results of the assessment contained in Chapter 6 Addendum 4 confirm that there would be no change to the overall results of the conclusions in the ES.

6.2.10 Changes and amendments to the wider mitigation are outlined in the Plans and Drawings Update Report. The proposed changes, specifically relating to Sandford and Churchill, have been reviewed.

6.2.11 The revised design is within the existing carriageway, and thus archaeological impacts will be confined to modern or recently disturbed ground. Most of the proposed changes to signage or road markings do not take place in close proximity to any of the designated and non-designated heritage assets assessed.

6.2.12 The relocation of 20mph (northbound) and 30mph (southbound) signs to the northern end of Hilliers Lane would be located within the Churchill Conservation Area.

6.2.13 Additionally, the three new raised tables (including the proposed Puffin Crossing), and new gateway feature on Dinghurst Road are in the Churchill Conservation Area.

6.2.14 This will not change the assessment for Churchill Conservation Area, although the Conservation Area Appraisal specifically mentions the general absence of modern street furniture, and states that future traffic signage should be kept to a minimum to avoid clutter.

6.2.15 The detailed design and placement of the signage would be considered in this context. The amendments to the wider mitigation do not constitute a significant change that requires an update to Environmental Statement Chapter 6.

6.2.16 The applicant provided a robust and comprehensive response to matters associated with cultural heritage on 2 December 2022, including:

- a) Response to North Somerset Council Archaeologist (NSCA) comments
- b) Response to NSC Conservation and Heritage Officer comments
- c) Response to Historic England comments
- d) Evaluation Trenching Report
- e) Geophysical Survey Report
- f) Visualisations requested by Historic England
- g) ES Chapter 6 Addendum 1 – Hydrology
- h) ES Chapter 6 Addendum 2 – Evaluation Trenching Summary
- i) ES Chapter 6 Addendum 3 – Assessment of Banwell Monument and Bone Caves
- j) ES Chapter 6 Addendum 4 - Proposed Demolition of part of a Boundary Wall at 25 Castle Hill and likely Impact on the Banwell Conservation Area
- k) ES Chapter 6 Addendum 5 – Palaeoenvironmental Assessment Report

6.2.17 The archaeological trench evaluation had not been carried out prior to the publication of the Environment Statement for the Scheme. Analysis was carried out following the geoarchaeological sampling, which was carried out at the same time as the trenching. The results of this work have been summarised and assessed in the following:

- a) ES Chapter 6 Addendum 2– Evaluation Trenching Summary
- b) ES Chapter 6 Addendum 5 - Palaeoenvironmental Assessment Report

6.2.18 To summarise, the trench evaluation uncovered evidence for possible Roman settlement in Fields 11-14 but very limited evidence for settlement activity at the wetland/dryland interface in Fields 15-18.

6.2.19 The geoarchaeological analysis, overall, determined the palaeoenvironmental significance of the Tidal Flat Deposits (TFD) below the Scheme was low overall and did not merit further investigation.

6.2.20 Some areas of the Scheme, including the Moor Lane to Riverside link and the eastern compound, were not included in the original geophysical surveys carried out prior to the publication of the Environmental Statement. These areas are covered in the Geophysical Survey Report. No additional archaeological sites were identified by this survey.

### **6.3 Outline of Changes to Assessment Conclusions**

6.3.1 No further changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application. These have all been addressed through the ES Chapter 6 Addenda Nos. 1-5.

6.3.2 There is no change required to the conclusion of Chapter 6 of the Environmental Statement.

## 7 Chapter 7 - Landscape

### 7.1 Introduction

7.1.1 Environmental Statement Chapter 7 outlined the landscape and visual impact assessment for the Scheme. The results of these assessments were reported during construction and operation in year 1 (opening year) and year 15 (design year). The Scheme would result in adverse effects on both the landscape and visual amenity, although the scale and significance of these changes would be reduced through the proposed mitigation measures.

### 7.2 Background

7.2.1 Following publication of the Environmental Statement for the Scheme, comments and queries pertinent to the assessment of landscape were received from the North Somerset Council Tree Officer, members of the public, and landowners.

7.2.2 The Mendip Hills AONB Authority responded, on 26 September 2022, in support of the planning application, and the applicant is committed to working with the AONB Authority as appropriate through the detailed design, construction and aftercare phases of the Scheme implementation, should the Scheme proceed.

7.2.3 Historic England, in their response dated 9 September 2022, and the North Somerset Council Senior Archaeological Officer, in their response dated 19 August 2022, raised issues of the visual setting to the Conservation Area, Listed Buildings and Scheduled Monuments. These are addressed in the Cultural Heritage section, refer to Chapter 6 of this report. After carefully considering their comments, no change is proposed to the planting for the Scheme.

7.2.4 Natural England in their response dated 2 September 2022 raised concerns with regards the amount of mitigation provided for bats, especially in association with the North Somerset and Mendip Bats Special Area of Conservation (SAC).

7.2.5 This has been discussed during consultation with Natural England, North Somerset Council Ecology team and the

outcome is the inclusion of additional land for bat mitigation as part of the application, including amendments to the planting as described and shown on the Environmental Masterplans (EMP) Sheets 1-5 submitted as part of the separate supporting Plans and Drawings Update Report. Refer to Chapter 8 of this report for further details.

7.2.6 In their response Natural England requested that where the additional land would be immediately available to be managed as mitigation for impacts on Horseshoe bats, for example, the orchard to the east of Riverside and the field to the rear of the Police House planting or appropriate management occur at the start of construction or ahead of construction if possible. This has been accepted and details will be included in the Landscape and Ecology Management Plan (LEMP).

7.2.7 Natural England also noted that where the additional land is to be used for the storage of soil from the Scheme throughout the construction period, it will be reinstated to grassland with scattered orchard trees, for example, the land at Court Farm, 2.6ha).

7.2.8 In this case, they strongly recommended a wide grassy margin is retained around the site boundaries of the soil storage areas and that the existing hedgerows are bolstered with additional planting in any gaps and with the addition of hedgerow trees (mature specimens) at the earliest possible opportunity following commencement of construction. This principle should apply across the Scheme, wherever land is being used as construction storage areas. This has been accepted in principle dependent upon access and storage constraints.

7.2.9 In addition, some minor amendments have been made to address the utilities requirements for low height planting associated with the utilities easements. This has resulted in some changes in design from woodland planting to scrub, woodland edge or grassland to ensure that the requirements are adhered to.

7.2.10 Information received from the Utilities companies has confirmed that planting of hedgerow species is acceptable, but they should not include tree species. for further information refer to the response to Natural England on 1 December 2022.

7.2.11 This is also shown on the Environmental Masterplans submitted as part of the separate supporting Plans and Drawings Update Report. The overall areas covered by the landscape elements has not significantly changed, instead the outline of the plots have been slightly amended. As a result of the amendments there is no change to the landscape functions of the plots.

7.2.12 It should be noted that the Environmental Masterplans at this preliminary design stage are illustrative and are intended to show the overarching Scheme proposals. Further changes may be required during detailed design to allow for amendments to the Scheme design and landscape management and maintenance operations in accordance with the submitted plans, to be secured by an appropriate planning condition.

### **7.3 Outline of Changes to Assessment Conclusions**

7.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.

7.3.2 The applicant will work closely with the Mendip Hills AONB Authority to ensure that there is no change to the setting of the AONB based on these or any further changes as the detailed design progresses, should the Scheme proceed.

7.3.3 There is no change to the conclusion of Chapter 7 of the Environmental Statement.

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## 8 Chapter 8 - Biodiversity

### 8.1 Introduction

8.1.1 Environmental Statement Chapter 8 identified an overall neutral effect on the majority of ecological receptors for both the construction and operational phases once mitigation was considered (looking at individual habitat types as well as the protected species on site). However, the residual impacts of the Scheme were considered to have slight adverse effects for:

- a) North Somerset and Mendips Bat Special Areas of Conservation (SAC)
- b) Bats
- c) Dormice

### 8.2 Background

8.2.1 Following publication of the Environmental Statement for the scheme as part of the planning application, comments specific to the Biodiversity Chapter were received from:

- a) Natural England (NE) in correspondence dated 2 September 2022, following a site meeting on 21 October and correspondence received on 10 November and 1 December 2022
- b) Samuel Olney, acting as Ecologist for North Somerset Council LPA, in correspondence dated 17 October, 10 November and 5 December 2022

### 8.3 North Somerset and Mendip Bats SAC

8.3.1 Natural England, in their comments:

- a) Requested additional Scheme wide bat survey data.
- b) Requested an update to the Habitat Evaluation Procedure (HEP).
- c) Requested a modification of the proposed mitigation, taking a more precautionary approach to potential noise impacts and landscape permeability.
- d) Requested additional information regarding grazing proposed as part of future management.

8.3.2 The ecologist representing NSC LPA, in his comments requested the following:

- Additional Scheme wide bat survey information.
- Information relating to current land and proposed land use within the Scheme boundary and adjacent to the Scheme.
- Details of proposed culverts to ensure they are sufficient to mitigate loss of key bat flight lines (crossing points).
- That land proposed for Biodiversity Net Gain (BNG) be clearly shown in figures as separate to land proposed for the HEP/bat mitigation.
- Further information on roosting bats in trees.

8.3.3 In response, the applicant submitted the following to the LPA on 1 December 2022 to address the requests for further information and clarify assessment on biodiversity:

- Bat Survey – Crossing Point and Transect Survey Technical Note
- Bat Survey Results Summary Note
- Draft Conservation Grazing Review of Feasibility Technical Note
- Draft HEP and BNG Technical Note, including Habitat Evaluation Procedure (HEP) Plans Sheet 1-5 (which incorporate a 20m habitat buffer to account for noise impacts)
- 2022 Bat Crossing Point Survey Summary Results

8.3.4 On 12 December 2022 the applicant submitted a further response to Natural England, alongside a response to the North Somerset Council Ecologist and Avon Bat Group, including:

- Conservation Grazing Review of Feasibility Technical Note
- HEP and BNG Technical Note, including Habitat Evaluation Procedure (HEP) Plans Sheet 1-5 (which incorporate a 20m habitat buffer to account for noise impacts)

8.3.5 It is intended that a Bat Tree Climbing Survey Results and a Bat Crossing Point Survey Results Report will be provided to the LPA prior to determination.

## 8.4 Outline of Changes to Environmental Assessment

8.4.1 The HEP calculation presented in the Environmental Statement has been updated, with the new results detailed in the HEP and

BNG Technical Note. The original HEP calculation was only carried out for Habitat Loss with risk multipliers applied, as this was interpreted as the correct process from the relevant supplementary planning document. The results of the original HEP calculation showed that 25.68Ha was required as habitat mitigation. Total mitigation for the scheme was presented as 38Ha which was more than the 25.68Ha required from the initial calculation in the Environmental Statement.

8.4.2 The updated HEP has calculations for both Habitat Loss and Mitigation Provided with risk multipliers applied to the latter, has been included. The output for the new Habitat Loss calculation is 13.31Ha of mitigation required (minimum requirement). The Mitigation Provided calculation has an output of 17.31Ha (equivalent) mitigation being provided, which is more than the minimum required.

8.4.3 The Environmental Masterplans (EMPs) which form part of the Plans and Documents Update report have been reviewed and updated to reflect the agreed additional mitigation, which provide the greatest benefits to bats associated with the SAC including an additional 7.7ha of land and additional hopovers for safe bat crossing points.

8.4.4 These additional land parcels would reinforce the wider approach to mitigation requested by Natural England. As such they would reduce the linearity of mitigation proposed along the Scheme, provide enhanced connectivity and permeability for bat species across the wider landscape, especially to the north and east of the Scheme and follow a precautionary approach to assessing the effect on the SAC.

8.4.5 The additional land is as follows:

- Court Farm = 2.6ha as shown on EMP Sheet 2. This area is included in the CPO for temporary storage during construction. It is located in a key area for commuting and foraging horseshoe bats and would allow for bat hopovers to link the north and south of the Scheme in the vicinity of Wolverishill road. Additional tree planting would be carried out and it would return to grazing land through a management agreement.
- Traditional Orchard = 1.1ha as shown on EMP Sheet 3. The current use would continue and additional trees would be added. This location along Banwell River would ensure the

long term provision of valuable grazing land with a veteran fruit tree mosaic thus retaining important connectivity and foraging for horseshoe bats in this area, in perpetuity. It would be managed through a management agreement with the existing landowner or would be retained by the applicant for ongoing conservation management.

- c) North of A368 = 0.4ha as shown on EMP Sheet 4. This area is located directly north of the SAC. It would be planted with a mix of tree and hedgerows species to reinforce connectivity ensuring retention of current known horseshoe bat crossing points from Banwell Woods and provide links to the wider landscape especially to the east and north.
- d) Eastermead Farm = 3.6ha as shown on EMP Sheet 5. This area is located in close proximity to the Special Area of Conservation (SAC) and currently provides a key point of connectivity and a valuable source of foraging which would be retained through some additional tree and hedgerow planting and grazing.

8.4.6 Following the inclusion of the additional land and the revisions to the HEP calculation identified above the applicant can confirm that Biodiversity Net Gain (BNG) calculations contained in the ES Volume 3 Appendix 8.P – Biodiversity Net Gain Report remain as a minimum: Habitat units 41.06%; hedgerow units 40.34% and river units 75.79%. The BNG calculations will be updated as part of detailed design in 2023 and will reflect the changes and the additions to the Scheme that are discussed in this document.

8.4.7 Management plans will be developed for the land identified through the HEP as bat mitigation, in particular for grazing management to be secured by an appropriate planning condition.

8.4.8 This commitment will be included in the Register of Environmental Actions and Commitments which will be a live document should the application be consented.

8.4.9 The applicant will work closely with Natural England and North Somerset Council Ecology team as the detailed design progresses, should the Scheme proceed.

8.4.10 There is no change required to the conclusion of Chapter 8 of the Environmental Statement.

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## 9 Chapter 9 – Geology and Soils

### 9.1 Introduction

9.1.1 Chapter 9 of the Environmental Statement identified overall slight adverse effects with respect to geological receptors and land contamination issues subject to mitigation measures, as reported in the Environmental Statement. The Scheme would however result in significant effects on soil resources due to permanent sealing of agricultural land.

### 9.2 Background

9.2.1 Following publication of the Environmental Statement for the Scheme, comments and queries regarding planning application 22/P/1768/R3EIA Banwell Bypass were received from North Somerset Council in correspondence dated 26 August 2022. The following query was made specifically with respect to the Geology and Soils chapter:

- a) The undertaking of a further intrusive ground investigation, a piling works risk assessment, and a verification plan to assess the suitability of imported and site-won soils.

9.2.2 The response was provided in an Arup letter dated 7 October 2022.

- a) The area of historical landfill will be further investigated to better characterise the potential sources of contamination and the extent of the landfill within the Scheme footprint. This will include soils and groundwater sampling, and ground gas monitoring. The results will inform a foundation works risk assessment. This will be undertaken at the detailed design stage.
- b) The foundation works risk assessment will be prepared for the proposed piling works as part of the detailed design stage. This will ensure that the works do not result in unacceptable risks to the controlled waters receptors and human health and inform the materials management during the piling works.
- c) As part of the construction management plan, which will be prepared at the detailed design stage, a soil management plan will be derived for the Scheme. The plan will present a verification plan for materials use within the construction.

d) In addition, it will set out acceptance criteria for use of materials sourced from the Scheme and imported materials. This will be implemented with the Specification for Highway Works Series 600 Earthworks.

9.2.3 Consultation with Banwell Football Club in relation to replacement land, and Natural England, the North Somerset Council Ecologist and Avon Bat Group in relation to additional bat mitigation, resulted in additional land being included within permanent land take to allow for compensation for impacts on biodiversity. All land included in the additional land take is currently agricultural land.

9.2.4 The Agricultural Land Classification (ALC) of the additional land is presented below. The classification is based on the classification of land parcels/fields (as set out in the ES Appendix 9.D) in the nearest vicinity of the additional land areas. The areas included are as follows:

- a) Traditional Orchard (1.1 ha) – ALC Grade 3a (BMV)
- b) Land north of The Old Police House property (location of main site compound) (2.7 ha) – ALC Grade 3b and Grade 4
- c) Additional strip of land east of Banwell East Junction (0.4 ha) – ALC Grade 3b
- d) Land east of Wolvershill Junction (2.6 ha) - ALC Grade 4
- e) Banwell Football Club land (0.2 ha) - ALC Grade 4

9.2.5 The change to ALC area impacted by the Scheme is presented in Table 9.1. The assessment was carried out in accordance with the Design Manual for Roads and Bridges (DMRB) LA109 Geology and Soils and the Construction Code of Practice for Sustainable Use of Soils on Construction sites (DEFRA) as outlined in ES Chapter 1 Volume 9 sections 9.3 and the assessment method outlined in section 9.4.

9.2.6 The increased areas of each impacted ALC grade class do not exceed assessment thresholds and therefore there is no change to the completed assessments.

Table 9 - 1 Revised agricultural land affected by the construction of the Scheme (permanent land take)

ALC grade	Description		Area (ha)	Revised Area (ha)
			Total Scheme	Total Scheme
Subgrade 1	Excellent (BMV)		-	-
Subgrade 2	Very good quality (BMV)		-	-
Subgrade 3a	Good quality (BMV)		4.4	5.5
Subgrade 3b	Moderate quality		17.8	19.6
Grade 4	Poor quality		24.5	28.7
Grade 5	Very poor quality		-	-
<b>Total agricultural land affected</b>			46.7	53.7

### 9.3 Outline of Changes to Assessment Conclusions

- 9.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.
- 9.3.2 There is no change required to the conclusion of Chapter 9 of the Environmental Statement.

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## 10 Chapter 10 – Material Assets and Waste

### 10.1 Introduction

10.1.1 The Environmental Statement Chapter 10 identified slight or neutral adverse effects with respect to material assets and waste during construction, subject to embedded mitigation measures. Effects from the operational phase were scoped out of assessment due to assumed negligible resource consumption or waste production from routine repair and maintenance.

### 10.2 Background

10.2.1 No comments on the planning application were received in relation to material assets and waste that require changes to the design or updated assessment of the Scheme.

### 10.3 Outline of Changes to Assessment Conclusions

10.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.

10.3.2 There is no change required to the conclusion of Chapter 10 of the Environmental Statement.

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# 11 Chapter 11 – Noise and Vibration

## 11.1 Introduction

11.1.1 The Environmental Statement Chapter 11 assessed the potential noise and vibration impacts of the construction and operation of the Scheme.

11.1.2 The Chapter set out that during construction there are predicted to be a total of 125 dwellings that would experience likely significant adverse effects. During operation there are predicted to be a total of 48 dwellings that would experience likely significant adverse effects, whereas a total of 333 dwellings (including those on East Street) and three noise sensitive non-residential properties would experience significant beneficial effects, demonstrating that there is a net noise benefit from the proposed Scheme.

## 11.2 Background

11.2.1 North Somerset Council officers in commenting on the application have raised queries in relation to noise and vibration. The applicant's responses were provided to the LPA on 7 October, 21 October and 6 December 2022.

11.2.2 In summary:

- Noise predictions presented in Chapter 11 of the ES and Appendix 11.D are based on full three-dimensional noise modelling and thus take into account the influence of the raised noise source.

11.2.3 The proposed noise fence barrier along the western edge of the Southern Link will result in significant adverse effects at properties on Dark Lane and south of East Street.

- Mitigation options in the form of noise fence barriers were explored at other locations but were found to be not effective and/or not sustainable. In addition, they would be located along the top of the embankment and would block long views both to the Scheme and to the wider landscape impacting on the cultural and landscape setting of the Scheme.

- b) Trees are generally not effective in providing substantive, consistent noise mitigation. Dense foliage of at least 10m depth and consistent for the full height of the vegetation would be required.
- c) With respect to the concerns raised about the high AONB ground to the south of East Street reflecting noise back towards the village, reflection effects are accounted for in the modelling, but this is limited to where there are substantial, hard reflecting surfaces on the opposite side of the carriageway. Taking into account the absorbent nature of the ground and the distance between the receptors, the Southern Link and the slope of the opposite hillside, sound reflection effects would be negligible.
- d) Noise fence barriers in locations other than the one proposed for the Southern Link have been assessed and found to not meet the requirements of the tests in ES Volume 1 Chapter 11 paragraph 11.9.7.
- e) With regard to noise control during construction, further detailed assessment and design of noise mitigation measures will be undertaken by the contractor and included in the Construction Environmental Management Plan (CEMP) and any Section 61 applications, as the planning of the construction works progresses. The CEMP will be a live document that will be developed throughout detailed design, should the Scheme proceed.
- f) The CEMP will provide information regarding measures to control noise from works on the site and also the vibration during piling works.
- g) Significant beneficial effects are predicted for all properties on East Street, including in the vicinity of Eversleigh, in the ES Chapter 11 Noise and Vibration.
- h) Receptors on Eastermead Lane and Old Police House (identified as 3 Towerhead) were assessed in the ES Chapter 11 Noise and Vibration. Significant adverse noise effects were predicted during operation. However, the predicted noise levels are just over the LOAEL (lowest observed adverse effect) threshold for receptors facing the new bypass/east junction and noise barriers were not judged to be an effective or sustainable solution for these receptors. Significant adverse construction noise effects were also predicted (represented by construction noise receptor no. 11 in Table 11-13 of ES Chapter 11). These effects will be managed via best practicable means as set out in the CEMP.
- i) Concerns have been expressed about the forecasted increase in vehicular traffic along the proposed Southern Link and associated noise and visual impacts. The proposed edge

of carriageway will be realigned further south of The Old Police House property to help alleviate these impacts.

- j) Changes in noise levels would be relevant to the impact on the quality of life. A likely operational significant adverse effect was reported in the ES Chapter 11 – Noise and Vibration at the Old Police House property (assessed as '3 Towerhead, Banwell, BS29 6PG'). The predicted significant effect is on the north-west façade facing the main bypass section of the scheme. A significant effect was not identified on the façade facing the Southern Link (which is in closer proximity to the property).
- k) The horizontal alignment of the bypass section has been designed to avoid built-up areas including noise sensitive receptors as far as possible. Additionally, noise mitigation, in the form of noise fence barriers, has been designed to reduce noise levels at noise sensitive receptors where it is effective and sustainable to do so.
- l) Due to the distance and orientation of the main bypass section in relation to the Old Police House property, a noise barrier would not be effective nor sustainable to reduce noise impacts to the northern facades of the property.
- m) The predicted noise levels at the Old Police House property, with Scheme, are 56 dB(LpA)18,18h facade at the façade facing north and 64 dB(LpA)18,18h facade at the façade facing the Southern Link, which do not meet nor exceed the threshold level to be eligible for noise insulation under the Noise Insulation Regulations.

11.2.4 The speed control measures and speed limit changes within the villages of Churchill, Sandford and Winscombe are limited in speed change and spatial extent and do not materially alter the scope of the Scheme which was originally assessed. This is unlikely to cause a significant change in average speeds or traffic flows on the assessed road network therefore it is considered there is no change required to the Environmental Statement conclusion on operational noise impacts.

### 11.3 Outline of Changes to Assessment Conclusions

- 11.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.
- 11.3.2 There is no change required to the conclusion of Chapter 11 of the Environmental Statement.

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## 12 Chapter 12 – Population and Human Health

### 12.1 Introduction

- 12.1.1 The Environmental Statement Chapter 12 reported on the assessment of Land Use and Accessibility and the Health Impact Assessment.
- 12.1.2 There are negative effects for some receptors during construction which relate to the changes in access and potential disruption to travel routes. The operation phase would largely bring positive effects. These mainly derive from the reduced traffic flows through the centre of Banwell, improvement to the active travel routes and wider mitigation measures that would result in safer travel routes and access to key community facilities.

### 12.2 Background

- 12.2.1 Comments on the application were received from North Somerset Council Highways & Transportation Development Management department with regards the lighting strategy and additional measures to achieve vehicle speed compliance and lengths of 20mph speed restrictions.
- 12.2.2 The change involves providing additional speed control interventions and reducing the extents of speed limit changes as part of the proposed wider mitigation measures. In summary, the following changes have been made to the Scheme, which are shown on the updated plans as described and appended to the separate supporting Plans and Drawings Update report.
- 12.2.3 These have been reviewed and whilst beneficial to people and human health they would not result in any changes to the assessment of conclusions of the ES Chapter 12.
- 12.2.4 Sport England and Banwell Football Club provided representation about the proposed replacement playing fields.
- 12.2.5 In response, a proposed amendment has been agreed to the

replacement land as outlined in the response dated 7 October 2022. This is shown on the Environmental Masterplan sheet 4 of 5 submitted as part of the Plans and Drawings Update report.

- 12.2.6 The Neighbourhood Policing Support Team provided comments about the provision of natural surveillance, appropriate landscaping and signage, lighting, access and links in association with the proposed shared use path. These were addressed in the response dated 27 October 2022.
- 12.2.7 Savills on behalf of landowners submitted comments about the land required for the Scheme that is agricultural land and associated with other proposed developments. No amendments relating to Chapter 12 were identified as part of the response dated 7 October 2022.
- 12.2.8 Comments from stakeholders including Natural England in their response of 2 September 2022 and North Somerset Council Ecology Team dated 17 October 2022 requested further information on the proposed grazing of the land holdings that would be acquired to deliver the Scheme, with a view to enhancing biodiversity. A Conservation Grazing Review of Feasibility Technical Note has been prepared and submitted as part of the separate supporting Plans and Drawings Update.

### **12.3 Outline of Changes to Assessment Conclusions**

- 12.3.1 Taking into account the design changes and stakeholder responses to the above comments (as detailed in Table 1 and 2 of the separate supporting Planning, Design and Access Update Report), no changes to the assessment are considered to be necessary.
- 12.3.2 There is no change required to the conclusion of Chapter 12 of the Environmental Statement.

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## 13 Chapter 13 – Road Drainage and Water Environment

### 13.1 Introduction

13.1.1 Chapter 13 of the Environmental Statement identified overall slight adverse effects with respect to groundwater resources and groundwater dependent features subject to mitigation measures.

### 13.2 Background

13.2.1 Comments and queries on the planning application pertinent to road drainage and the water environment were received from Bristol Water (BW) in correspondence dated 19 August 2022, and North Somerset Council officers in correspondence dated 26 August 2022.

13.2.2 The following queries or requests were specifically made with respect to hydrogeology:

- a) The inclusion of further information detailing the effects of the Scheme on private water supplies within the proximity of the Scheme.
- b) A hydrogeological impact assessment to gain a full understanding of the proposed scheme on the Banwell Spring. The assessment should assess the impacts in two flow scenarios, 1 in 500 dry year annual average and normal year annual average.
- c) In the event that the Banwell Bypass is constructed, ongoing monitoring to ensure there is no detrimental effect on either the groundwater yield or water quality.

13.2.3 Full responses were provided to the LPA on 14 November 2022. In summary:

- a) A hydrogeological impact assessment was undertaken to support the Environmental Impact Assessment as presented in the Environmental Statement (ES) Volume 1 Chapter 13 – Road Drainage and Water Environment.
- b) Further investigations have been undertaken and monitoring of wells targeting the artesian groundwater is ongoing. (See Artesian Ground Water Ground Investigation results and interpretation, issued to the LPA on 17 November 2022)

- c) The hydrogeological impact assessments would support an application for an abstraction licence, which would regulate the removal of groundwater from the aquifer. The detailed hydrogeological impact assessments would set out monitoring requirements (including the duration and responsibilities), which would be incorporated into the Environmental Management Plan for the Scheme.

### **13.3 Outline of Changes to Assessment Conclusions**

- 13.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.
- 13.3.2 There is no change required to the conclusion of Chapter 13 of the Environmental Statement.

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## 14 Chapter 14 - Climate

### 14.1 Introduction

- 14.1.1 Chapter 14 of the Environmental Statement identified that the GHG emissions caused by the Scheme have been assessed against the ability of the UK Government to meet its carbon targets and the effect is considered to be not significant.
- 14.1.2 In addition, North Somerset Council has local and regional aspirations for transport to be carbon neutral by 2030 and the Scheme is unlikely to materially affect these.
- 14.1.3 The Climate Change Resilience assessment identified medium climate change risks to the Scheme. These would be mitigated further where possible through detailed design, should the Scheme proceed.

### 14.2 Background

- 14.2.1 Comments and queries on the planning application pertinent to climate were received, largely challenging the sustainability of the Scheme in principle. In addition, North Somerset Council LPA consultants provided a Greenhouse Gas Emission Review, received 30 September 2022. This included a suggested sensitivity test. On 7 October the applicant provided a response that clarified to the LPA that assessment standard DMRB LA114 was followed, and the assessment was done appropriately and therefore do not consider there to be a need to carry out a sensitivity test.
- 14.2.2 The speed control measures and speed limit changes within the villages of Churchill, Sandford and Winscombe are limited in speed change and spatial extent and do not materially alter the scope of the Scheme which was originally assessed. This is unlikely to cause a significant change in average speeds or traffic flows on the assessed road network, therefore it is considered there is no change to the Environmental Statement conclusion on climate.
- 14.2.3 The land use change relating to the additional land acquired for

the Scheme for bat mitigation, refer to Chapter 8 section 8.3.5 would result in 48.5 tCO<sub>2</sub>e, 0.27% of the total construction emissions. As such, minor changes to the habitat mitigation are considered to have a negligible impact to the outcomes reported in the Environmental Statement.

### **14.3 Outline of Changes to Assessment Conclusions**

- 14.3.1 Land use change would result in 48.5 tCO<sub>2</sub>e, 0.27% of the total No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.
- 14.3.2 There is no change required to the conclusion of Chapter 14 of the Environmental Statement.

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## 15 Chapter 15 – Cumulative Effects

### 15.1 Introduction

15.1.1 Environmental Statement Chapter 15 included an assessment of the potential for in-combination effects associated with the Scheme on specific receptors and the potential for cumulative effects with other developments.

### 15.2 Background

15.2.1 Comments on the planning application pertinent to cumulative effects included the following:

15.2.2 Natural England in their response of 2 September 2022 included a suggestion that it would be pragmatic for North Somerset Council to take account of the strong possibility of significant future development in the area to the east of the M5 and therefore the importance of maintaining strong landscape links for Horseshoe bats at this stage.

15.2.3 A suggestion that the mitigation proposals do not encroach on land known to fall under the Local Plan development proposals, and that the Scheme should not be seen to be pre-determining the Local Plan development, and mitigation for future development should not be included in the separate Compulsory Purchase Order application associated with the Scheme.

15.2.4 Responses have been provided to the LPA on the above matters. In summary:

- a) The mitigation proposals for the Scheme are shown in the original EMPs Sheets 1 – 6 and are mostly south of the Scheme. At the time of writing, the applicant's mitigation proposals do not encroach on land known to fall under the Local Plan development proposals.
- b) The Scheme cannot be seen to be pre-determining the Local Plan development and mitigation for future development cannot not be included in the CPO as part of the Scheme.
- c) ES Volume 1 Chapter 15 – Cumulative Effects Section 15.7.16 – 15.7.19 outlines the Cumulative Effects approach to the Local Plan development.

### **15.3 Outline of Changes to Assessment Conclusions**

- 15.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.
- 15.3.2 There is no change required to the conclusion of Chapter 15 of the Environmental Statement.

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## 16 Chapter 16 – Environmental Management

### 16.1 Introduction

16.1.1 Chapter 16 of the Environmental Statement outlined the environmental management requirements and signposted relevant documents.

### 16.2 Background

16.2.1 Relevant comments on the planning application were received from Natural England who stated the following:

16.2.2 In some cases, the land will be immediately available to be managed as mitigation for impacts on Horseshoe bats, for example, the orchard to the east of Riverside and the field to the rear of the Police House. In this case, Natural England would expect planting or appropriate management to occur at the start of construction or ahead of construction if possible.

16.2.3 In other cases, (for example, the land at Court Farm, 2.6ha), we note that the land is to be used for the storage of soil from the Scheme throughout the construction period, after which it will be reinstated to grassland with scattered orchard trees.

16.2.4 Natural England strongly recommend that the soil storage area leaves a wide grassy margin around all the site boundaries and that the existing hedgerows are bolstered with additional planting in any gaps and with the addition of hedgerow trees (mature specimens) at the earliest possible opportunity following commencement of construction. This principle should apply across the Scheme, wherever land is being used as construction storage areas.

### 16.3 Outline of Changes to Assessment Conclusions

16.3.1 No changes to the assessment are necessary as a result of the design changes and stakeholder responses to the application.

16.3.2 The following amendments will be made to the Register of Environmental Actions and Commitments (REAC) which will be a live document and will form an appendix to the Construction Environmental Management Plan (CEMP), and other planning conditions will also be added as appropriate:

- a) A construction management plan will be prepared at the detailed design stage to minimise the impacts of human receptors in the vicinity of the proposed construction works.
- b) Review location of signage, especially that relating to the Wider Mitigation Measures during detailed design to ensure that there is no impact on the Conservation Area.
- c) Consultation with the Mendip Hills AONB Authority to be carried out during the detailed design stage especially in relation to the AONB.
- d) Consultation with Natural England and the NSC Ecology team during detailed design in relation to protected species especially bats.
- e) A buffer will be left around the existing hedgerows and field boundaries wherever feasible and details will be included in the Landscape and Ecological Management Plan (LEMP).
- f) Enhancement planting will be implemented as soon as possible in the construction programme but would depend upon access and storage constraints.
- g) Management plans will be developed for the land identified through the HEP as bat mitigation, in particular for grazing management to be secured by an appropriate planning condition.
- h) A foundation works risk assessment will be prepared for the proposed piling works as part of the detailed design stage.
- i) A soil management plan will be prepared at the detailed design stage.
- j) A hydrogeological impact assessment will be carried out to support an application for an abstraction licence, which would regulate the removal of groundwater from the aquifer.
- k) There is no change required to the conclusion of Chapter 16 of the Environmental Statement.

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## 17 Chapter 17 - Conclusion

- 17.1.1 The Environmental Statement Chapter 17 reports the conclusions of the Environmental Impact Assessment undertaken for the Scheme.
- 17.1.2 The Environmental Statement has highlighted adverse and beneficial effects associated with the Scheme under a number of environmental topic headings and also described how any adverse impacts could be avoided, mitigated or compensated as appropriate.
- 17.1.3 This Environmental Statement Update Report has considered the additional information and application documents listed in the Planning Statement, and Design and Access Statement Update report.
- 17.1.4 There are no significant changes to the summary of assessment of likely significant effects outlined in Environmental Statement Chapter 17, Table 17-1.
- 17.1.5 Each of the elements assessed has been reviewed in respect of the Scheme and its likely impacts, considering compliance with the Scheme objectives, national and local planning policy, and the transport, economic and environmental case for the Scheme.
- 17.1.6 There are no significant changes to how the Scheme objectives are met outlined in Environmental Statement Chapter 17, Table 17-2; the National Planning Policy Assessment as shown in Environmental Statement Chapter 17, Table 17-3; or the Local Policy Assessment outlined in Environmental Statement Chapter 17 Table 17-4. It is therefore considered that the policy tests have been met.
- 17.1.7 Given the information presented in this Environmental Statement Update Report and the supporting documentation contained in the Planning, Design and Access Update Report and the Plans and Drawings Update Report, the conclusions made in the Environmental Statement remain