

A66 Northern Trans-Pennine project

TR010062

7.21 National Vegetation Classification Survey Report Supporting Technical Note

Infrastructure Planning (Examination Procedure) Rules 2010

Deadline 3

Planning Act 2008

24 January 2023

Infrastructure Planning

Planning Act 2008


**The Infrastructure Planning
(Examination Procedure)
Rules 2010**

A66 Northern Trans-Pennine project
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**7.21 NATIONAL VEGETATION CLASSIFICATION SURVEY
REPORT SUPPORTING TECHNICAL NOTE**

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This short technical note gives a summary of the scheme status at Model Freeze A

Summary of current scheme status

This short technical note gives a high-level summary of the National Vegetation Classification (NVC) surveys undertaken in summer 2022 which has been provided as confirmatory support of the finding and assessment reported in the Environmental Statement (ES) as set out in section 6.7.36 of ES Chapter 6 Biodiversity (APP- 049). This was agreed with Natural England prior to the submission of the DCO application to ensure the optimal seasonal survey windows for key habitat communities were captured in 2022 (See Evidence Plan, Document Reference 3.4, APP-146). This note also provides a high-level summary for Cumbria County Council and Eden District Council who requested the NVC survey results in their Local Impact Report (See Applicant’s Comments on Local Impact Report – Rev 1, REP2-018, pg 46) . Lastly, this note provides a summary of consultation with Natural England undertaken in December 2022 relating to an area of developing fen identified following the NVC surveys. This note should be read in conjunction with the accompanying NVC survey report (A66 NVC Survey, 2022).

It is also important to note that while both the supplementary NVC survey results and this accompanying technical note further substantiate the assessment presented in the ES, neither are considered to constitute as further environmental information requiring further consultation.


NVC survey summary

Detailed botanical surveys were undertaken in summer 2022, following baseline habitat surveys conducted during 2020, 2021 and 2022, to provide supplementary detail and a continuation of the botanical assessment presented in the Environmental Statement (ES) Chapter 6 Biodiversity (Document Reference 3.2 APP-049) and ES Appendix 6.5: Phase 2 National Vegetation Classification (Document Reference 3.4, APP-158).

A total of 28 different NVC communities were identified within the survey sites. This included communities associated with the broad habitats: heaths (H), mires (M), mesotrophic grasslands (MG), open habitats (OV), swamps and tall-herb fens (S), calcifugous grasslands and montane communities (U), and woodlands (W). The majority of these broad habitats identified are located outside the Order Limits (See NVC Figures 1-15 (A66 NVC Survey, 2022)).

The NVC surveys undertaken further support and substantiate the botanical assessment and key conclusions presented in the ES Chapter 6 Biodiversity (Document Reference 3.2 APP-049). Key points to note include:

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1. Area of developing fen Scheme 9: Stephen Bank to Carkin Moor

The NVC survey results identified an area of emerging fen habitat located at the north-western end of Stephen Bank to Carkin Moor (Scheme 9) located near Browson Bank (grid reference NZ 12159 10363) (Table 8 Site Reference 26, Habitat Reference 1-3, NVC Figure 13, A66 NVC Survey, 2022). This area was a woodland plantation until it was felled in 2018/19. The Phase 1 Habitat Survey undertaken in 2020 identified the area as a mosaic of swamp and neutral grassland habitat (Figure 6.3 Phase 1 Habitat & Terrestrial Invertebrate Survey, Scheme: 09: Stephen Bank to Carkin Moor Sheet 13 of 15, Document Reference 3.3, APP-071). Discussions with the landowner indicated that this area would be replanted with woodland under an agreement with the Forestry Commission. The proposed mitigation for this area at the time of DCO submission was woodland planting, as shown on the outline Environmental Mitigation Maps (Figure 2.8.7 Environmental Mitigation Scheme: 09 Stephen Bank to Carkin Moor Sheet 1 of 4, Document Reference 2.8, APP-041). NVC surveys undertaken in 2022 identified the area as emerging fen habitat (Priority habitat) with a small pocket of neutral grassland (NVC Figure 13 NVC Survey, 2022). It was concluded that this area of habitat was in transition to a fen habitat since the area was felled in 2018/19.



Natural England were consulted in relation to the newly identified developing fen habitat in December 2022 (via teams on 15/12/22, see minutes provided in Appendix A). Instead of the woodland planting currently proposed within the Environmental Mitigation Maps (Document Reference 2.8, APP-041), it was agreed to enhance the areas of retained habitat for fen as an alternative. As a result, approximately 1.23ha of developing fen habitat would be lost to development and 1.9ha of retained fen habitat would be enhanced, to provide higher quality fen habitat as mitigation. It was agreed with Natural England to update and secure the agreed changes to the proposed mitigation area at this location within the revised Environmental Management Plan (Document Reference 2.7, APP-019), Project Design Principles (Document Reference 5.11, APP-302) and captured within the updated outline Environmental Mitigation Maps (Document Reference 2.8, APP-041). These amendments were made within the updated documents submitted at Deadline 3. Consequently, Natural England agreed that the additional area of fen identified within the Order Limit is not considered a material change to the ES and does not change the conclusions relating to the identified significant effects outlined in ES Chapter 6 Biodiversity (Document Reference 3.2 APP-049). This was owing to the small size of additional fen habitat identified and the bespoke compensatory mitigation subsequently agreed with Natural England (Appendix A).

2. Habitat that conforms to H91E0 Alluvial forests

Habitat that conforms to H91E0 Alluvial Forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*), was recorded at five locations within the survey area during the NVC surveys undertaken (A66 NVC Survey, 2022). H91E0 Alluvial Forests habitat is listed as a qualifying feature of the River Eden Special Area of Conservation (SAC). However, no habitat that conforms to H91E0 Alluvial Forests was identified within the River Eden SAC boundary during the NVC survey undertaken, or the targeted surveys undertaken to inform the Habitat Regulations Assessment (HRA) and ES Chapter 6 (Biodiversity) (See Appendix 6.20 Aquatic Macrophyte and River Corridor Survey Technical Appendix, Document Reference 3.4, APP-173, Habitat Regulations Assessment (HRA) Stage 1 Likely Significant Effects Report, Document Reference 3.5, APP-234, Habitat Regulations Assessment (HRA) Stage 2 Statement to Information appropriate Assessment, Document Reference 3.6, APP-235 and ES Chapter 6 Biodiversity (Document Reference 3.2, APP-049). This habitat type is also absent from the SSSI units affected by the Project according to Designated Sites View (Natural England, 2022)¹. This habitat type was therefore not considered further in the HRA in relation to the Project and Likely Significant Effects

¹ Natural England (2022) Designated Site Viewer

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(LSE) were ruled out at screening in agreement with Natural England (See Document Reference 3.5, APP-234 and Document Reference 3.6, APP-235 for further details).

Relating to the assessment undertaken to inform ES Chapter 6 Biodiversity, these identified habitats that conform to H91EO Alluvial Forest, whilst not considered to be of International Importance as they do not form part of the River Eden SAC, were assessed as being of National Importance (A1.1.1 - Broadleaved woodland - semi-natural). Appropriate mitigation, using at least a ratio of 1:9.45, has been included at appropriate locations as part of the ecological mitigation to compensate for any minor loss of this habitat, as stipulated within the Environmental Management Plan (See Table 3.2 Register of Environmental Actions and Commitments, reference D-BD-05 (Document Reference 2.7, APP-019) and outlined within the Environmental Mitigation Maps (Document Reference 2.8, APP-041).

It is therefore concluded that while the NVC survey results provide additional detail to substantiate the assessment and mitigation design submitted as part of the DCO application, the survey results do not alter the significant effects identified or conclusions presented.

Conclusion

It is concluded that the results of the NVC undertaken provide additional detail to further substantiate the findings of the ES Chapter 6 Biodiversity (Document Reference 3.2, APP-049) and HRA (Document Reference 3.5 and 3.6, APP-234 and APP-235) presented as part of the DCO application. As a consequence, the survey results are not considered to materially change the assessment and the identification of significant effects and ecological mitigation designs remain unchanged (excluding the minor changes required to the Environmental Management Plans (Document Reference 2.7, APP-019) and Environmental Mitigation Maps (Document Reference 2.8, APP-041) as a result of the developing area of fen as outlined above).

Minutes of Meeting

A66 NTP

Natural England – Developing Fen, Stephen Bank to Carkin Moor

Purpose of Meeting	To discuss an area of developing fen identified on the Stephen Bank to Carkin Moor scheme
Location:	MS Teams
Time/Date:	15.12.2022 at 14:30 – 15:00
Attendees:	Niamh Keddy – Project Lead, Sustainable Development Lead Advisor at Natural England Karen Slater – Senior Freshwater Adviser and Specialist Input at Natural England Kate Prior – Biodiversity Lead A66 IPT Cathy Edy – Environmental Stakeholder Relationship manager A66 IPT Glen Parker – Ecologist A66 IPT Tom Clemence – Ecologist A66 IPT Tom Eggleston – Engineering Lead for Stephen Bank to Carkin Moor A66 IPT
Apologies:	None
Circulation:	All

Item	Minutes	Actions
1.0	Introduction	
1.1	KP outlined the purpose of the meeting was to discuss an area of developing fen on the Stephen Bank to Carkin Moor scheme near Browson Bank which has been identified following NVC surveys	
1.2	<p>KP shared a presentation which summarised:</p> <ul style="list-style-type: none"> • The area of developing fen was an area of woodland until 2018/19 when it was felled. • It was identified as other neutral grassland during the Phase 1 Habitat Survey undertaken in 2020. • Discussions with the landowner have indicated that they intend to replant the area with woodland under an agreement with the Forestry Commission. • The assessment and associated mitigation for the ES was prepared on the basis that the dominant habitat present and being lost was neutral grassland. Proposed mitigation surrounding the SUDS pond is shown on the Environmental Mitigation Maps as woodland planting. • NVC surveys were undertaken in 2022. • The habitats were identified to be transitioning from neutral grassland to fen. As a precaution in the absence of further hydrological studies to understand the water table and levels of inundation the following areas of habitats were identified: <ul style="list-style-type: none"> ○ An area of neutral grassland (NVC community OV26d translated as ‘other neutral grassland’ for UK Habs purposes due to lack of high water table) in the south 	

Item	Minutes	Actions
	<ul style="list-style-type: none"> ○ An area of NVC community S26a – translated as upland fen for UK Habs purposes in the east ○ NVC community M27 – translated as upland fen for UK Habs purposes in the west. ● Proposed mitigation – instead of woodland planting currently proposed – it is proposed to enhance the areas of retained habitat for fen. Result in 1.23ha developing fen habitat lost and 1.9ha of enhanced better quality fen habitat being created. 	
1.3	KP queried whether Natural England would consider there was a material change to the assessment within the Environmental Statement taking the proposed mitigation into account, noting there was an opportunity to create better fen habitat in this location.	
1.4	TE flagged there was to be a discussion with the landowner to understand if they had yet planted the trees or will be by the end of this planting season.	TE to arrange discussion with landowner
1.5	KS queried if the areas identified for the drainage ponds were in the least species rich part of the site. GP noted that the ponds currently are located on fen rather than the area of neutral grassland. TE noted there is some potential for the pond positions to be moved in the north of the site. Discussions are ongoing about whether the ponds could be merged into a single pond but this has not been resolved. Not able to put the ponds fully on the area identified as neutral grassland as is bisected by an existing drain but could look to push as far east within the area of NVC community S26a as possible.	
1.6	KS outlined Natural England hierarchy of approach would be: <ul style="list-style-type: none"> ○ Avoid best areas ○ Mitigate against loss – improve other areas, look to solve hydrology issues by blocking drains where appropriate, plug planting to enhance <p>If really nice area of fen the trees are not considered appropriate. Could create wet carr/woodland around the periphery. Would also look for the pond edges to be designed to be as natural as possible. TE noted that more naturally shaped ponds are being promoted through detailed design.</p>	
1.7	NK queried whether the BNG metric would need to be updated. GP noted the fen was already included within the metric.	
1.8	NK noted that if the ES already assesses the worst case and the fen is captured in the BNG metric then Natural England would not push to class this as a material change.	
1.9	CE queried what is any strengthening of the EMP/PDP Natural England would like to see. KS stated that incorporate wording along the lines of what was previously discussed to address the area of fen on Scheme 6.	

Item	Minutes	Actions
1.10	KS queried whether it would be possible to make the area of neutral grassland any wetter. GP noted that it was already quite wet and appears to be beginning to transition to fen.	
1.11	TE queried if we wanted to use the water from the ponds to wet the fen would a higher level of treatment be required. KS outlined no nutrients in water discharged to the fen. A higher level of treatment would be required if used to wet the fen, if not undertaking higher level of treatment then it should be discharged to the beck..	
1.12	TE noted the higher level of treatment would likely require a greater land take to achieve. KS expressed a preference for it to be discharged straight to the beck if this was the case and other methods such as block drains used to increase the wetness of the fen.	
1.13	CE noted this would be brought into the SoCG so a record was maintained.	