

LANDSCAPE AND ECOLOGY REPORT

DINAH'S HOLLOW

MELBURY ABBAS

For

Dorset Council Highways

Version 2

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Introduction

The purpose of this report is to provide a holistic approach to both landscape and ecology. It highlights the main landscape and ecological surveys, results and assessments for impacts and mitigations. It includes a review of the 2015 landscape and visual impact assessment and a summary of the main findings of the interim ecological impact assessment.

Please read in conjunction with Plan No: 70092067-WSP-3000-DRW-002 and 70092067-WSP-3000-DRW-003, Landscape & Ecological Mitigation Plans showing trees to be retained and those to be felled, trees to be coppiced, the approximate extent of existing vegetation unaffected by the works, new planting details and the drainage layout along east side of Holloway.

The report covers the following to ensure that all landscape and ecological considerations are assessed:

- The landscape and main ecological impacts of the scheme.
- The landscape and ecological mitigation measures.
- Habitat enhancement measures
- Hard landscape detailing

Given the uncertain timeline for the construction start of the scheme, landscape and ecological assessments are likely to require updating. Timings of further surveys e.g., for ecological receptors are indicated in the relevant sections below.

1. Landscape Impact

1.1. Review of July 2015 Landscape & Visual Impact Assessment (LVIA) by Nicholas Pearson Associates.

This has been carried out to assess and consider the latest engineering proposals.

It is worth reiterating the highly sensitive nature of the study area due to its Area of Outstanding Natural Beauty status (since November 2023 known as The Cranborne Chase National Landscape) with a high landscape value and high landscape sensitivity to change. See Cranborne Chase AONB Landscape Character Assessment dated June 2003 and the Landscape Sensitivity Report dated May 2007¹.

It is also worth stating that despite this wider context, the immediate road corridor is steeply sloping, densely vegetated and surrounded by an undulating landform covered by a network of linear wooded groups of trees. This means the immediate area is highly enclosed.

1.2. Changes

The primary changes from the original scheme (July 2015 Tree works Plan No. BS4958/610/D) is:

- the addition of an earth bund and lagoon drainage scheme along the edge of the eastern side of the wooded slopes (see Plan no 70092067-DR-0503 Dated Feb 2023),
- the change from the masonry wall adjacent to the highway to one using an exposed aggregate concrete fascia.
- The felling of 47 more trees, greater than 8cm diameter, 8 on the west side and 39 on the east.

These numbers include trees to be removed for engineering works and trees to be removed for good management (see Table below). It is understood this is the worst-case scenario as some trees may well be saved on site as work progresses.

	WEST	EAST	TOTAL
RETAIN	61	39	100
RE-COPPICE	11	27	38
REMOVE	25	55	80
			218

The potential impacts on landscape character and visual amenity have been recognised by Dorset Council from the outset and measures to help in the mitigation of these impacts have been included within the scheme design. In outline, mitigation will include the following:

- Retention of trees to maintain a wooded habitat.
- Retention of as many trees along the west and eastern slope crest lines.
- Key trees of landscape, ecological and amenity value retained on the upper slopes.
- Retention of existing topsoil and avoidance of introducing soils.
- Coppicing of appropriate trees and shrubs.

¹ https://cranbornechase.org.uk/wp-content/uploads/2020/04/LandscapeCharacterAssessment_HIGHRES.pdf.
<https://cranbornechase.org.uk/wp-content/uploads/2020/04/LandscapeSensitivityMay2007.pdf>

- Replanting through a range of whole sizes in the mesh reinforcing.
- Implementation of other planting associated with the eastern drainage works and in other agreed locations such as along the crest of the western slope where opportunities allow.

Assessment review notes:

The same assessment methodology and terminology has been used in this review as that used in the original 2015 assessment for clarity of comparison. This review has followed the principles of the guidance provided in the 'Review of LVIA's' Landscape Institute Technical Guidance Note 1/20 dated Jan 2020²

In summary this included the following:

- Checking the methodology, criteria and process. In particular the identification of landscape and visual receptors.
- Checking the baseline, content and findings. In particular determining sensitivity and magnitude of change and agreeing viewpoints to be assessed.
- Checking the presentation of the findings.

Tony Harris was involved in agreeing to the above steps with Nicholas Pearson Associates back in 2015 and this review found that the original LVIA was sound and fit for purpose.

The assessment of effects are immediately following the engineering works, tree felling and coppicing and the long- or longer-term effects mentioned in this assessment, will start to have a positive impact from 5-10 years post construction.

The winter views of the proposals are part of the worst-case scenario and may well create different levels of impact. Certainly, close-range impacts (viewpoints 2 and 3 in particular) will be more significantly adverse when there is no greenery on surrounding deciduous vegetation.

The impacts of the latest scheme on the following receptors are assessed below.

Landscape Receptors:

Area 1A: Melbury to Blandford Chalk Escarpment. (As stated in the CCWWD AONB Landscape Character Assessment LCA). The overall level of effect from the scheme will remain as Slight Adverse - Negligible reducing to Negligible over 10 years as the woodland regenerates.

Area 7: North Blackmore Vale Rolling Vales. (NDDC LCA)

The overall level of effect from the scheme will remain as Slight Adverse - Negligible reducing to Negligible over 10 years as the woodland regenerates.

Area 8: North Dorset Escarpment (NDDC LCA)

The overall level of effect from the scheme will remain as Negligible as the panoramic views effected by the scheme will only be experienced at a local level only and within a relatively small part of the overall receptor.

² <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2020/01/20-1-Reviewing-LVIAs-and-LVAs-Final.pdf>

The Site: (within the Holloway)

The latest proposals will now change the 2015 assessment: from Moderate-Substantial Adverse to Substantial Adverse effect immediately following the engineering works, tree felling and coppicing. This will reduce to Slight Adverse in the longer term primarily as the vegetation regenerates and to a lesser extent as the hard engineering features weather and 'blend in' over time.

1.3. Summary of Landscape Character impacts

Most landscape character impacts will remain and be restricted, as stated in the LVIA, to the Holloway itself. This is the case with the most recent scheme proposal. Overtime, from 5-10 years post construction, as the ground flora, coppiced and re pollarded trees regenerate and the new planting areas mature, the impacts on the wider landscape will reduce which will help integrate the scheme into the surrounding landscape.

The landscape treatment of the proposed 2m wide eastern bund and lagoon (part of the proposed drainage scheme) and associated maintenance strip and the Oak and Pine tree planting (outlined on page 13 below); will all also help to soften, naturalise and therefore integrate the whole of this eastern side of the wooded slopes into the surrounding landscape.

1.4. Visual Receptors

Due to their location in the AONB all receptors are classified as highly sensitive

Cann Common: Representative viewpoint 4. (footpath N59/24)

The mature trees seen in this view are at northern end of Dinah's Hollow and not within the stabilisation works. For this reason, there will be a Low magnitude of change in the view resulting in a Negligible to Slight adverse level of effect.

Melbury Abbas: Representative viewpoint 13

See C13 to the south of Dinah's Hollow below.

C13 to north of Dinah's Hollow: Representative viewpoint 1 and sequential views in association with 2 and 3.

This is a sequential view as road users only will see this view but they will perceive a change in the character of the Holloway. The existing 'green tunnel' effect will go as the intact canopy vegetation in particular beyond the road sign, will be removed.

This will therefore change from a Low magnitude of change in the view resulting in a Slight Adverse level of effect, to a Moderate magnitude of change in the view resulting in a Moderate Adverse level of effect. The level of effect will reduce to Slight Adverse- Negligible in the longer term as vegetation regenerates.

C13 within the northern part of Dinah's Hollow: Representative viewpoints 2 and sequential views in association with Viewpoints 1 and 3.

This is a sequential view as road users only will see this view but they will perceive a significant change in the character of the Holloway. The engineering infrastructure of the concrete retaining

wall, the mesh netting, soil nails and spike plates will all be very prominent as users pass through the Holloway. The existing 'green tunnel' effect seen in this view will go, as the intact canopy vegetation in particular on either of the road is cleared.

This will therefore change from a Low magnitude of change in the view resulting in a Slight Adverse level of effect, to a High magnitude of change in the view resulting in a Substantial Adverse level of effect. The level of effect will reduce to Slight Adverse in the longer term as vegetation regenerates.

C13 within the central part of Dinah's Hollow: Representative viewpoints 3 and sequential views in association with Viewpoints 1 and 2.

This is a sequential view as road users only will see this view but they will perceive a significant change in the character of the Holloway. The engineering infrastructure of the concrete retaining wall, the mesh netting, soil nails and spike plates will all be very prominent as users pass through the Holloway. The existing 'green tunnel' effect seen in this view will go as the intact canopy vegetation in particular on either of the road is cleared.

This will therefore now change from the Medium-High magnitude of change in the view resulting in a Moderate- Substantial Adverse level of effect to a High magnitude of change resulting in a Substantial Adverse level of effect. This will reduce to Slight Adverse in the longer term as all vegetation regenerates and grows.

C13 to the south of Dinah's Hollow: Representative viewpoint 13.

This is a sequential view as road users only will see this view but they will perceive a change in character at the southern edge of the proposals at the 'entrance' of the Holloway. The engineering infrastructure of the concrete retaining wall, the mesh netting, soil nails and spike plates will begin to be noticed users approach the Holloway. The existing 'green tunnel' effect seen in this view will go as the intact canopy vegetation in particular on either of the road is cleared.

This will therefore now change therefore from a Low magnitude of change in the view resulting in a Slight Adverse level of effect, to a Medium-High magnitude of change in the view resulting in a Moderate- Substantial Adverse level of effect. This will reduce to Slight Adverse in the longer term as all vegetation regenerates and grows.

C13 at Spread Eagle Hill: Representative viewpoint 14.

This is a sequential view as mainly road users will see this view. The northern and central parts of the woodland within the site boundary are visible in the middle distance. The density and mass of the woodland will be reduced and thinned out as a result of the proposals. It is felt though that there are enough retained mature trees to maintain the overall appearance of a wooded canopy particularly since the view is looking up (north east) the slope of the Holloway. The existing trees and wooded areas within this view, along the foreground for example, will help to minimise any adverse effects and the impact on the overall panoramic 'view in the round' will be minor.

This will therefore now change from a Low magnitude of change in the view resulting in a Slight Adverse level of effect, to a Medium magnitude of change in the view resulting in a Slight-Moderate Adverse level of effect.

In time, when the proposed planting and management works take effect and mature, this level of effect will be minimised.

What will also help minimise the effect on this view is the proposed landscape and ecological enhancements proposed for the earth bund and lagoon drainage scheme along the edge of the eastern side of the wooded slopes, see 1.2 above. This will help create a varied woodland edge with

a scrub layer on the earth bund grading out from the canopy of mature trees into a rough grassland edge along the maintenance track. This will also create sheltered edge habitat for birds and invertebrates.

1.5. Public Rights of Way

Footpath to the north of Dinah's Hollow: See Cann Common text 1.4 above.

Bridleway to NE of Cann Common: Representative viewpoint 5.

This will remain as stated in the LVIA: a Negligible magnitude of change in the view resulting in a Negligible level of effect as the trees within the Holloway are concealed from this view.

Bridleway to Zig Zag Hill: Representative viewpoint 6.

This will remain as stated in the LVIA: a Negligible magnitude of change in the view resulting in a Negligible level of effect as the trees within the site are barely perceptible.

Open Access land at Breeze: Representative viewpoint 7.

It is mainly the trees along a significant length of the site, along its eastern edge, that are visible in the middle distance. This 'side on' view will show a noticeable reduction in the overall extent of tree canopy. However, this is a 'sought after' view with the changes only noticeable when specifically looking at the site itself and not the wider context. This wider view will be experienced against the background and foreground of nearby linear belts of trees and woodland so the overall panoramic 'view in the round' will not be significantly impacted upon.

It is felt therefore that there will be Low-Moderate magnitude of change in the view resulting in a Slight-Moderate Adverse level of effect. In time, when the proposed planting and management works take effect and mature, this level of effect will be minimised. See viewpoint 14 comments.

Footpath between C13 and Compton Abbas Airfield: Representative viewpoint 8.

The tree canopies within the site are visible in the middle distance. This oblique view will show a reduction in the overall extent of tree canopy. However, despite being on a designated right of way this is a 'sought after' view with the changes only noticeable when specifically looking at the site itself and not the wider context. This wider view will be experienced against the context of the wider landscape so the overall panoramic 'view in the round' will not be significantly impacted upon. This will remain therefore as stated in the LVIA: a Low magnitude of change in the view resulting in a Slight Adverse level of effect.

Footpath between C13 and Compton Down and Melbury Hill: Representative viewpoint 10.

The tree canopies within the site are visible in the middle of this view and users heading north on this right of way will get a direct view towards the site. The density and mass of the woodland canopy will be reduced and thinned out as a result of the proposals. It is felt that there are enough retained mature trees to maintain the overall appearance of a mainly wooded area particularly since the view is looking up (north) the slope of the Holloway. The changes will also only be noticeable when specifically looking at the site itself.

The existing trees and wooded areas within this view, along the foreground of the middle distance for example, will help to minimise any adverse effects and the impact on the overall panoramic 'view

in the round' will be minor. This will now change from a Low magnitude of change in the view resulting in a Slight Adverse level of effect to a Moderate magnitude of change in the view resulting in a Moderate Adverse level of effect.

Footpath on Melbury Hill: Representative viewpoint 11.

Trees along a significant length of the site, mainly along its western edge, are visible in the middle distance. This oblique view will show a noticeable and apparent reduction in the overall extent of the wooded tree canopy. However, despite being on a designated right of way this is a 'sought after' view and the changes will only be noticeable when specifically looking at the site itself and not the wider context. This view will be experienced against wider elevated, expansive and extensive vistas so the overall panoramic 'view in the round' will not be significantly impacted upon.

For this reason, this will remain as stated in the LVIA: a Low magnitude of change in the view resulting in a Slight Adverse level of effect. In time, when the proposed planting and management works take effect and mature, this level of effect will be minimised.

Café at Compton Abbas Airfield: Representative viewpoint 9.

This will remain as stated in the LVIA: a Negligible magnitude of change in the view resulting in a Negligible level of effect as the trees within the site are concealed from this view.

Melbury Abbas & Cann Common Village Hall: Representative viewpoint 12.

A small section of the western side of the woodland canopy within the site will be removed but it is a 'sought after' view from one corner of the car park. It will therefore remain as stated in the LVIA: a Negligible magnitude of change in the view resulting in a Slight Adverse level of effect.

1.6. Summary of Visual impacts. (on people experiencing the landscape)

As stated, nearby views towards the site are limited by the local undulating landform and the linear pattern of mature tree belts. Where the C13 passes through the Holloway is when the most significant adverse impacts inevitably will arise. Longer range views of the scheme will have a limited, minor, impact on the overall panorama and the 'view in the round' and will not be significantly adversely affected.

The retention of as many trees on the upper and middle slopes will help to retain the overall feel and intactness of a largely wooded Holloway. In the longer term, 5-10 years, as the ground flora and coppiced trees regenerate and the newly planted trees and shrubs mature, will all help to integrate the scheme into its surrounding landscape.

The landscape treatment of the proposed 2m wide eastern bund and associated maintenance strip and the Oak and Pine tree planting (outlined on page 13) will also help to soften, naturalise and therefore integrate both of the eastern and western sides of the wooded slopes, even if only viewed and seen from distant viewpoints.

Viewpoint review summary of level of effect:

- Substantial adverse= 2no
 - Moderate-Substantial adverse= 2no
 - Moderate adverse= 2no
-

- Slight-Moderate adverse= 2no
- Slight adverse= 3no
- Negligible-Slight adverse= 2no
- Negligible= 3no

6no viewpoints are assessed as Moderate Adverse or above and 10no are below this Moderate level. Many environmental statements and landscape and visual assessments contain the statement that an effect considered to be 'moderate or above' is significant in the context of assessment regulations. If this assertion is used in this project, it is a guide that supports the mitigation measures outlined in section 3 below.

2. Ecological Impact Assessment

2.1. Introduction

This section summarises the rationale and key results of the ecological survey and assessment carried out at Dinah's Hollow during 2023. The objectives of which were to establish a baseline of information on ecological interests (receptors), to identify those features of ecological value and those species afforded legal protection, and then undertake assessment of impacts from the proposed scheme. It is not exhaustive; several of the ecological receptors **will require further consideration** once the final timescale and design of the scheme is confirmed. This will include further surveys and assessments as recommended in the interim ecological report because certain species may change their distribution during the time elapsed, and due to changes to the final scheme which may reduce or increase the potential impacts.

An ecological assessment has been carried out to ensure the requirements of protected and priority species are considered during the entire process of the proposal. This follows best practice guidance for [ecological impact assessment](#) (CIEEM 2022). There will be specific measures for each which will be included within the mitigation section of this Landscape and Ecological Report which as indicated may change following any further surveys that may be required.

The ecology survey work in 2015 identified six species of bats, whereas during 2023 twelve species were identified. These include western barbastelle *Barbastella barbastellus*, internationally near threatened as recognised by the International Union for the Conservation of Nature (IUCN), (Piraccini 2016). All bats are protected in the UK within the 2017 Conservation of Habitats and Species Regulations as implemented in the UK, and the Wildlife and Countryside Act 1981 (as amended). Importantly, Hazel dormouse has been identified which was not found during surveys in 2015, and is protected as a European Protected Species under the 2017 Conservation of Habitats and Species Regulations, as implemented in the UK. Hazel dormice are also protected under the Wildlife and Countryside Act 1981 (as amended). As such there is a need to apply to Natural England for a mitigation licence (see interim ecology report) The general planting and habitat management recommendations for this species are included within this report. However, pertinent habitat management work will be detailed within the licensing conditions from Natural England. This is to

ensure compliance with the licensing conditions and to maintain continuity of habitat conditions, e.g. species selection for planting and ongoing maintenance of their habitat.

The main considerations of ecological impact assessment are shown in Box 1.

¹ WCA (Wildlife & Countryside Act 1981 (as amended))

² EPS (European Protected Species) EPS are protected under the Conservation of Habitats and Species Regulations 2017

³ Protection of Badgers Act 1992

⁴ WCA schedule 1 disturbance of certain species of nesting birds

⁵ NERC (Natural Environment & Rural Communities Act 2006) s41 species & habitats of principal Importance

⁶ Priority Habitat (see JNCC 2011) Definition Statement Priority Habitat Definition Statement: Lowland Mixed Deciduous Woodland v1.2. [Unpublished guidance for the National Biodiversity Network Southwest England Pilot Project.]

NB: Several species afforded statutory protection referred to and several which are not, are listed under NERC (2006) as species of principal importance which is relevant to public bodies including local authorities to help them meet their '[biodiversity duty](#)', to be aware of biodiversity conservation in their policy or decision making (NE & DEFRA 2022¹). Where planning permission is required, biodiversity is a material consideration (NE & DEFRA 2022). The Biodiversity Duty applies regardless of any planning requirements and is strengthened under the Environment Act 2021.

⁷ POTENTIAL HABITAT NETWORK

Position within the Dorset Local Nature Partnership Habitat Network relating to the above Biodiversity duty and local nature recovery. [More information](#).

NATIONAL PLANNING POLICY

National Planning Policy Framework 15. Conserving and enhancing the natural environment. Department for Levelling Up, Housing and Communities 2021

BRITISH STANDARDS

BS 42020: 2013 Biodiversity. Code of practice for planning and development

BS 8596: 2015 Surveying for bats in trees and Woodlands – Guide

BS 8683: 2021 Process for designing and implementing Biodiversity Net Gain.

Box 1. Legislation and policy relating to ecological interests at Dinah's Hollow

2.2. Assessment summary of ecological impacts and mitigations

2.2.1 Habitat assessment

The wooded slopes were recorded as being similar to lowland broad-leaved and mixed woodland with several plant species which are indicative of ancient woodlands. Woodland continuity which ensures woodland cover within an existing ecological network is deemed important here. There are limited amounts of standing and fallen deadwood due to safety works to trees and there being no veteran trees. Replacement trees should include species such as Field Maple, Whitebeam and Hazel. Replacement planting of ferns and vascular plants will be required and undertaken in areas subject to losses and/or within suitable receptor sites within the hollow. The change in woodland structure is likely as a result of tree removal with an increase in understorey leading to structural diversity. A mix of woodland structures which include young growth/coppice and canopy trees is known to benefit a wide range of woodland associated species. Retention of tree canopy across the highway to act as a linking arboreal habitat for Dormouse and flightlines for bats will be important objectives.

2.2.2 Dormouse

The presence of this species was confirmed during survey. Mitigation prior to and during construction is required and will follow licensing requirements from Natural England. This includes methods of vegetation removal, timing of works and measures to have in place beforehand e.g., habitat enhancement. There is a general principle to retain a diversity of woody cover for this species including dense understorey shrubs e.g., Hazel, Hawthorn, Blackthorn, Honeysuckle, and ensure this is continuous to avoid fragmentation effects which could negatively impact upon the favourable conservation status of this species here.

2.2.3 Bats

Twelve species of bats were identified using the hollow. All species of bats use woodlands for foraging, commuting, and roosting. As such mitigation must retain woodland cover along the hollow, especially mature trees. Bats will benefit from some creation of open canopy where understorey can be allowed to develop. As with Dormouse, retaining woodland extent is vital to reduce the negative impacts of fragmentation known to limit bat species movements. Surveys of trees using endoscope did not identify any roosts. However, it will be necessary to assess all trees identified for felling or safety pruning work for bat roosts as several trees are known to have potential bat roost features e.g., woodpecker holes. These surveys must be done well in advance of the proposed works to allow time for a licence application to be prepared and submitted to Natural England. Where active roosts are identified then trees should be retained and where this is not possible a mitigation licence from Natural England will be necessary. Generally, replacement planting and coppicing will be essential for long term mitigation to ensure the woodland habitat remains suitable for the different bat species identified here. Replacement roost boxes will be required for loss of potential roost features where these have been identified and included as additional to contribute to enhancement opportunities for bats

2.2.4 Badgers

There was evidence of badger activity across the slopes. There are four setts none of which were active during the survey. However, these will be checked again well in advance of any construction works as the time elapsed could mean they become active again. Licensing may be required to close down a sett where the construction area cannot be altered to avoid it. The licensing window for

badgers is 1st July to 30th November when sett closure must take place to allow construction to begin. Where a Natural England sett interference licence is required there will be pertinent conditions which will be followed within the licence.

2.2.5 Birds

A total of 45 bird species were recorded within the area of Dinah's Hollow with twenty either confirmed or probably breeding. The impact to nesting birds is primarily associated with direct risks from vegetation removal which must avoid being carried out during the bird nesting period typically within 1st March to 31st August. The area of loss is also a consideration e.g., where significant nesting trees are removed. However, increasing areas of dense understorey, e.g., coppice, will likely benefit several species if these coppice shrubs can be retained and/or restored. Additional mitigation planting is recommended which improves the woodland habitat network within which Dinah's Hollow sits. Nesting opportunities will be enhanced through the provision of suitable nestboxes and nest platforms.

2.2.6 Great Crested Newts

Surveys did not reveal any breeding populations of this species. However, Dinah's Hollow sits within the [Amber risk zone](#) for this species which contain main population centres for GCN and comprise important connecting habitat that aids natural dispersal. This means that there is still a risk of encountering the species using the wooded slopes and as such mitigation is required which includes oversight by a suitably qualified/experienced ecologist and a method statement which must be followed during the construction work. Habitat measures will be necessary e.g., creation of log and brush wood piles to act as suitable alternative refuges for this species during vegetation clearance.

2.2.7 Amphibians and Reptiles

Other common species in this group are likely to use the slopes although for reptiles this is limited due to lack of open sunlit areas. Consideration of common protected species has been given and will be built into method statements for the work programme. Mitigation includes ecological supervision and creation of suitable habitat refuges; e.g., log piles.

3. Landscape and Ecological Mitigation.

This is subdivided between Planting and regeneration, Habitat enhancement, Hard landscape and Long-Term Management measures.

Given the importance of woodland the principles of management towards greater ecological resilience in the face of changing climate is vital. In addition to the species-specific measures which have been covered in the Interim Ecological Report (24 May 2024) this guidance follows the UK Forestry Standard (<https://www.gov.uk/government/publications/the-uk-forestry-standard>) where biodiversity conservation is concerned alongside the principles of nature recovery as set out in the Environment Act 2021 for a bigger, better, and more joined up habitat network. As a special wooded Holloway continuity of tree cover is recognised and measures which accord with both legal requirements e.g. licensing conditions for protected species, and best practice for woodlands will be followed alongside the landscape character which is distinctive of the location.

NB: Measures informed by the Ecological surveys (see overall Interim Ecological Report).

- Within the stabilisation works area Trees (>8cm girth) to be felled: West side 25no; East side 55no. = 80no total*.
Within the stabilisation works area trees to be coppiced: West side 11no; East side 27no.
= 38no total.
- Within the stabilisation works area Trees (>8cm girth) to be retained: West side 29no; East side 20no. = 49no total.

Tree holes in the reinforcing mesh can be installed every 100m² approximately. These are to accommodate specific existing trees e.g., of high ecological and/or amenity value within the extent of soil nailing and for any additional planting in this area.

NB: Of the trees to be removed* there are 42no that have to be removed due to their current condition (Category U) as surveyed in the tree survey. (see Arboricultural Impact Assessment and Method Statement dated 28th June 2024). These are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

3.1. Planting and Revegetation Strategy.

As mentioned above, the mitigation for the scheme will include a range of planting and regeneration options which in combination will form a comprehensive re vegetation strategy. Added to this is the planned retention of key trees and areas of existing ground flora.

This work will constitute much needed positive woodland management which ensures diversification of the age structure and management of the vegetation which has not happened for many years.

This all contributes to an integrated 'landscape ecology' led approach to the conservation and enhancement of the setting of the scheme. It also ensures that this wooded landscape continues to exist as a key landscape feature in the area rather than deteriorate over time.

The attached sketch cross sections provide an indicative illustration of how the proposed mitigation measures will help to revegetate the slopes in time. Please note these sections are just one way to help illustrate how the proposals may be perceived and are not exact or precise recreation of the slopes, the planting and the regeneration.

See Appendix A.

Please read in conjunction with the Landscape & Ecological Mitigation Plans No70092067-WSP-3000-DRW-002 and 70092067-WSP-3000-DRW-003

This strategy will include the following measures:

Coppicing:

A total of 38no trees (greater than 8cm girth at 1.3m high) will be coppiced as stated above this includes the following species: Sycamore, Hazel, Ash and Hornbeam.

The predicted regrowth rate will be approximately 400mm p.a. and these trees will be monitored by Dorset Council and a 5–10-year coppice rotation established.

Replanting and seeding: (through holes in the reinforcing mesh):

See Mesh Details on the Landscape & Ecology Mitigation Plans No70092067-WSP-3000-DRW-002 and 70092067-WSP-3000-DRW-003.

The slopes are stabilised after tree clearance and coppicing, by the insertion of soil nails which are then tightened to secure the woven matting and wire mesh onto the slopes.

The erosion control matt will be a flexible 3-dimensional structure which is laid beneath the wire mesh as an underlay. It can be cut to allow planting through the wire mesh holes and will also allow natural regeneration through the woven mesh structure. The large trees to be removed will be replaced by smaller species such as Field Maple and Common Whitebeam, both of the which are native to the area. These may be cut on a longer coppice rotation of 15 to 20 years. Longer rotations provide shaded, closed canopy over an extended period of time, to retain the conditions for which most woodland species are adapted e.g., woodland flora, and mitigate the effects of woodland loss to temporary periods when cutting takes place. This helps preserve the character of open woodland in the Hollow using a suitable silvicultural technique which has been practised in English woodlands for many centuries. This coppice regime also recognises the fact that in time tree girth increase will start to push against the wire rope around each hole.

The estimated number of potential tree holes/medium planting holes within the reinforcing mesh are as follows: Medium planting holes: 70-85no at approximately every 25m² and will include the species below, indicating the percentage of each species used:

Tree holes over and above any required to retain existing trees: 12-18no approximately.

List of Trees to be planted in mitigation	Notes
<i>Acer campestre</i> Field maple* 25%	These are to be planted within planting holes within mesh, and within areas outside of mesh to enhance and diversify remaining woodland. Additional species reflect local provenance and ecological characteristics and consider resilience to climate change for continuity of woodland cover. Those with an asterisks are understorey species which are beneficial for Dormice and should be included in a continual planting along the tops of both slopes/mitigation areas and intermittently on suitable areas within or surrounding mesh along slopes. Planting size: 40+cm: 1+ year old, 40-60cm, or 60-80cm.
<i>Sorbus aria</i> Whitebeam 10%	
<i>Crataegus monogyna</i> Hawthorn* 10%	
<i>Corylus avellana</i> Hazel* 25%	
<i>Euonymus europaeus</i> Spindle* 5%	
<i>Ribes rubrum</i> Red Current * 5%	
<i>Ilex aquifolium</i> Holly* 5%	
<i>Prunus spinosa</i> Blackthorn* 5%	
<i>Rosa arvensis</i> Field Rose* 5%	
<i>Viburnum opulus</i> Guelder Rose 5%	
<i>Quercus robur</i> Pedunculate Oak No. 20+	Oak and Scot's Pine is to be planted within and around mesh wherever possible but also in suitable areas along tops of both slopes. Planting size 100+cm: 1–2-year-old, 100-150cm.
<i>Pinus sylvestris</i> Scot's Pine No. 5+	
* = Dorset Notable species	

Estimated number of potential planting holes for ferns and other rescued and saved clumps of plants: 130no in small planting holes used very 10m2 or so with the exact location to be agreed with Dorset Council Natural Environment Team.

List of Ferns to be lifted and moved	Notes
<i>Asplenium scolopendrium</i> Hart's-tongue Fern	Plants will be lifted as whole clumps. A sufficient number will be lifted and translocated to suitable receptor areas within the slopes as close by as possible. Regeneration is anticipated from the established and remaining plants.
<i>Dryopteris affinis</i> Scaly Male-fern	
<i>Polystichum setiferum</i> Soft Shield-fern	
<i>Dryopteris dilatata</i> Broad Buckler-fern	
<i>Dryopteris filix-mas</i> Male Fern	

List of woodland vascular plants for mitigation	Notes
<i>Adoxa moschatellina</i> Moschatel *	Where significant effects or losses are likely these species will be translocated to ensure continuity to suitable receptors nearby. * = Dorset Notable species
<i>Allium ursinum</i> Ramsons	
<i>Carex remota</i> Remote Sedge	
<i>Carex sylvatica</i> Wood Sedge	
<i>Hyacinthoides non-scripta</i> Bluebell*	
<i>Primula vulgaris</i> Primrose	
<i>Stellaria neglecta</i> Greater Chickweed*	
<i>Veronica montana</i> Wood Speedwell *	

Where ground flora establishment of the above species from the retained soils is poor, consideration will be given to seeding these areas with an appropriate seed mix.

NB The provenance of all planting and seeding will be from Dorset or neighbouring areas with seed ideally sourced from nearby nature reserves.

New planting areas:

The location of landscape treatment of the proposed earth bund and lagoon drainage scheme along the edge of the eastern side of the wooded slopes is identified on the Landscape & Ecology Mitigation Plan. The earth bund will be planted with native shrub species (see below) and allowed to grow up as a shrub layer. This will enhance the ecological value of this east facing wooded edge by creating a tapering 'ecotone', ranging from mature trees, native scrub and 'down to' rough grassland.

- *Viburnum opulus* Guelder Rose 15%
- *Corylus avellana* Hazel 35%
- *Ilex aquifolium* Holly 5%
- *Crataegus monogyna* Thorn 20%
- *Rosa arvensis* Wild Rose 10%
- *Acer campestre* Field maple 15%

All plants will be 60-90cm 1+2 whips, protected in deer shelters and mulched with mulch mats.

Approximately 20no Oak (*Quercus robur*) in deer shelters as 1-15m tall, 'feathered whips', will also be planted along the top edges of the eastern slope in appropriate locations to ensure the long-term presence and value of canopy species woodland.

Where opportunities exist and for the same reason as above, 10no trees will be planted along the tops of the western side slopes. These will be Pine (*Pinus sylvestris*) and or Oak (*Quercus robur*). These will be in deer shelters and 1-15m tall, 'feathered whips'.

Regeneration:

At present the density of trees and shrubs means the ground flora is patchy and there are areas of bare un-vegetated ground that are vulnerable to slippage. Removing some of the non-native Sycamore saplings from the understorey and thinning some of the Holly will let more light into the ground allowing plants to colonise and help to stabilise the ground.

The reuse of retained existing soils on the slopes will help to ensure native ground flora can regenerate from this seed bank. It will also help avoid the need to bring in topsoil from external sources.

3.2. Habitat Enhancement measures

The following measures will be implemented to enhance the existing ecological value of the site and contribute towards an uplift in woodland species. These measures reflect woodland species identified during ecological assessment and contribute towards biodiversity net gain.

Log and brushwood piles.

To provide additional deadwood as coarse woody debris which provides shelter and refuge for a range of species including small mammals such as Dormouse. Deadwood brushwood can provide some protection to plantings from Deer. Ten sections of c. up to 5 metres length and 1.5 m wide x 1 m high, of dead hedges will be created around mitigation planting areas and on level ground. These will link to understorey and act as a habitat corridor/refuges for different species of mammals, birds amphibians and reptiles. Cut material from coppicing will be used to create these to reduce amount to be chipped and thereafter during long term maintenance coppicing.

Bird and bat boxes.

There will be the addition of 3 Tawny owl nest boxes which enhance the opportunities for this species. Boxes will be fitted onto trees using best practice fixings and must be at least 3 metres above ground level on the top of the slopes. <https://www.wildlifeboxes.co.uk/product-page/tawny-owl-box> Three Hobby nesting baskets will be installed into suitable tree tops by arborist climbers. Boxes/baskets will require checking/adjusting and cleaning every 3-5 years.

Locations to be agreed with landowners. <https://www.nhbs.com/long-eared-owl-and-hobby-nesting-basket>.

Bat boxes will be installed prior to engineering work, which reflect two main roost types; for cavity and crevice dwelling bats. Bat species in woodland are often transient in their use of roosts; these will be installed within retained tree cover with a total of 20 roost boxes installed of 10 of each type to be

agreed with the Natural Environment Team. Locations to be agreed with the landowners. These will be in addition to any other boxes/mitigation measures for roosting bats as may be required should licensing be necessary.

Dormice boxes.

Dormouse nesting boxes will be included within the licence mitigation required (see Dormouse licence conditions to follow for details). These will be located in areas where suitable existing habitat (e.g. retained Hazel coppice and Bramble) is present on both slopes. This will help with the objective to provide additional nesting opportunities to maintain the favourable conservation status of this species. Monitoring will follow the conditions of the licence and thereafter be subject to monitoring by a suitably licenced ecologist.

Standing and fallen dead timber

Standing and fallen dead timber provides an important component in woodland where it can be used by species with deadwood requirements e.g., wood boring Beetles and woodpeckers. There were several fungi species associated with deadwood present. Standing deadwood is limited because of the proximity to the highway and required safety maintenance. Nevertheless, where there are opportunities to retain and create standing deadwood this will be explored, and otherwise retaining and creating fallen deadwood will be undertaken. Guidance from the UK Forestry Standard for lowland broadleaved woodland will be adopted (<https://www.gov.uk/government/publications/the-uk-forestry-standard>). Short sections (up to 3 metres length) of standing deadwood will be strapped to retained trees where their integrity will not be diminished. Sections of log wood can be left on level ground to replicate fallen dead wood. A minimum of 5 deadwood log piles can be created on each slope and 4-5 short sections 2- 3m long may be strapped to existing trees. Diameters at least 20cm to be used and exact locations to be agreed by arborists and ecologists and landowners. These measures will be monitored during initial inspections and further maintained during the life of the management plan subject to review by arborists and ecologists along with the landowners.

3.3. Hard landscape details

Highway containment options: Assumes exposed aggregate concrete fascia is acceptable

The original engineering scheme included a stone-faced reinforced concrete wall along the highway edges. However new design development has preceded and indicated that this solution would involve significantly more construction implications. For example, more of the slope would have to be excavated away compared to a more minimalist approach, as a greater thickness of wall construction is needed. This would risk potential collapse or degradation of the slope prior to casting the concrete backing for the masonry wall.

This approach would therefore take up more of the lower slopes, due to the required height of the walling, reducing the area for the 'softer' landscape and ecological mitigation measures.

The solution proposed using an exposed aggregate concrete paving fascia, significantly reduces the construction and excavation requirements enabling a larger area for the landscape and ecological mitigation measures. These landscape measures will contribute to the 'softening' of the harder engineering aspects of the whole design.

The exposed aggregate used in the slabs selected will be chosen so that it matches as far as possible, the texture and colour of the Upper Greensand stone used in the local area. Additional native Ivy

(Hedera helix) plug plants will be inserted through the grid mesh into the retained soils so in time a proportion will establish and slowly grow down and over the top edges of the paving slab panelling. The rough texture of the slab surface will help with the establishment of lichens and bryophytes which will enhance the ecological interest and in the weathering of the surface which in turn will help in reducing any adverse visual impact.

Comparison with the existing concrete traffic barriers.

The length of the proposed exposed aggregate concrete fascia will be significantly greater than the existing concrete barriers that are in place now. The existing concrete barriers are approximately 143m on both sides and the proposed fascia will be approximately 189m on the east side and approximately 236m on the west. In this way there will inevitably be a significant adverse visual impact caused by this hard edge to the carriageway compared to without this edge treatment and this is recognised in sections 1.3 and 1.4 above. This hard edging is however a key part of the engineering scheme to stabilise the slopes.

As mentioned above, vegetation both planted and any natural regeneration, will be able to grow over this structure and help soften it in time. This cannot happen over the current barriers as they are set back from the slope. From this point of view the proposed scheme will be a more integrated design than the current free-standing barriers despite being along a greater length of the highway edges.

The 2015 LVIA did not assess the impact of the existing current concrete barriers as they were not in place at the time of this assessment.

3.4. Long term management

Landscape and ecological maintenance measures will be incorporated into the Dorset Council engineering and highways management plan for Dinah's Hollow. These measures shall include monitoring the areas planted, establishment maintenance operations to ensure all new planting thrives such as weeding, refirming plants, adjusting tree stakes/shelters, removing tree stakes once plants established, strimming grass bund, access track and lagoon areas every other year or as agreed, remedial pruning, replacement planting for dead, diseased or dying plants and the establishment of a 5-10-year or 15-20 year coppicing regime for the different species to be managed.

4. References

CIEEM 2022 (Revised). Guidelines for Ecological Impact Assessment (EcIA) <https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf>

Accessed on 18th July 2024.

Piraccini, R. 2016. *Barbastella barbastellus*. The IUCN Red List of Threatened Species 2016: e.T2553A22029285. <https://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T2553A22029285.en>.

Accessed on 18 July 2024.

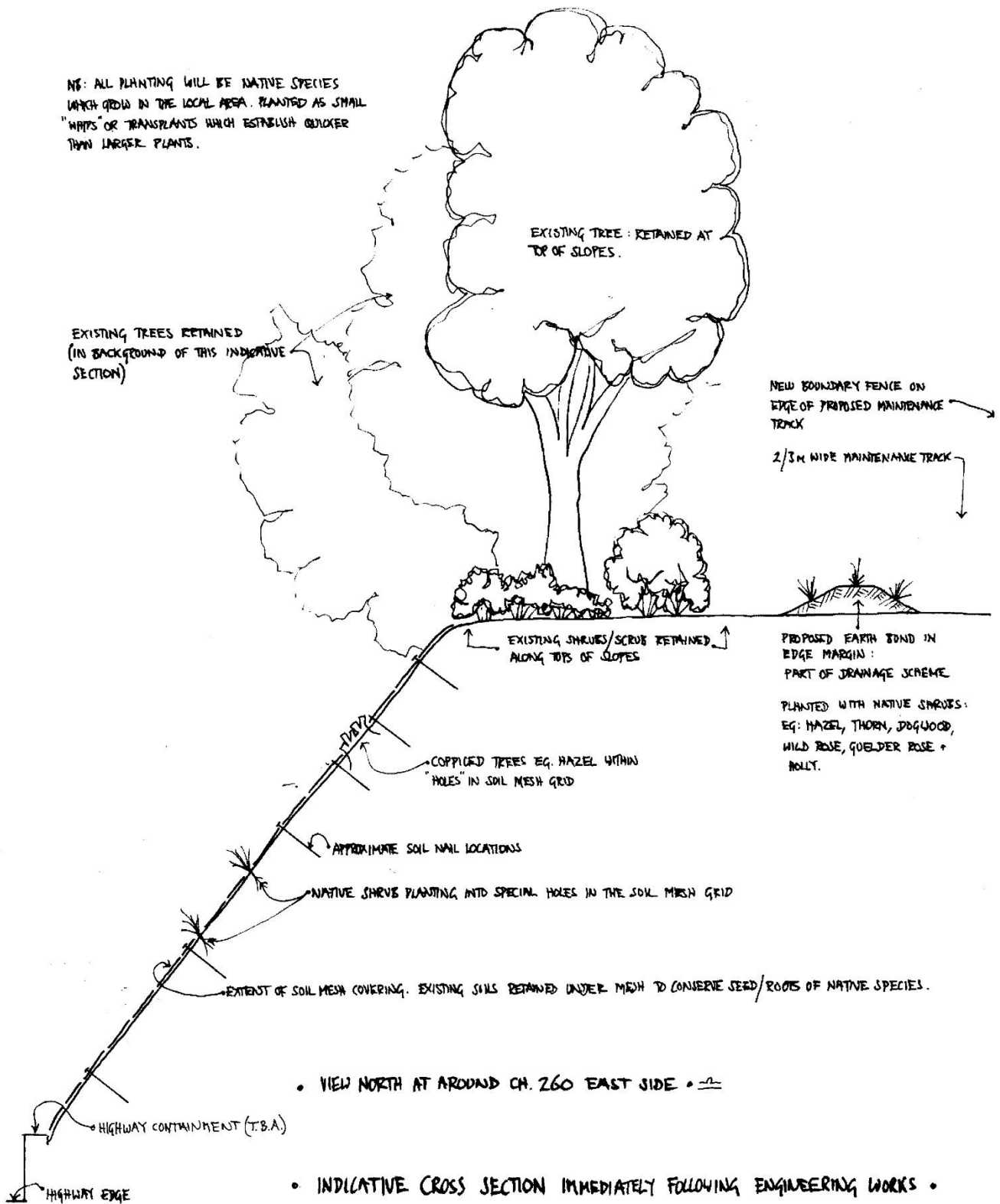
Alder, D (2024) Interim Ecological Assessment for Dinah's Hollow, Melbury Abbas. On behalf of Dorset Council. Version 3, 24th May 2024.

APPENDIX A

• NB: FOR ILLUSTRATIVE PURPOSES ONLY •

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MAY 2024



TH/L+E/1

• NB: FOR ILLUSTRATIVE PURPOSES ONLY •

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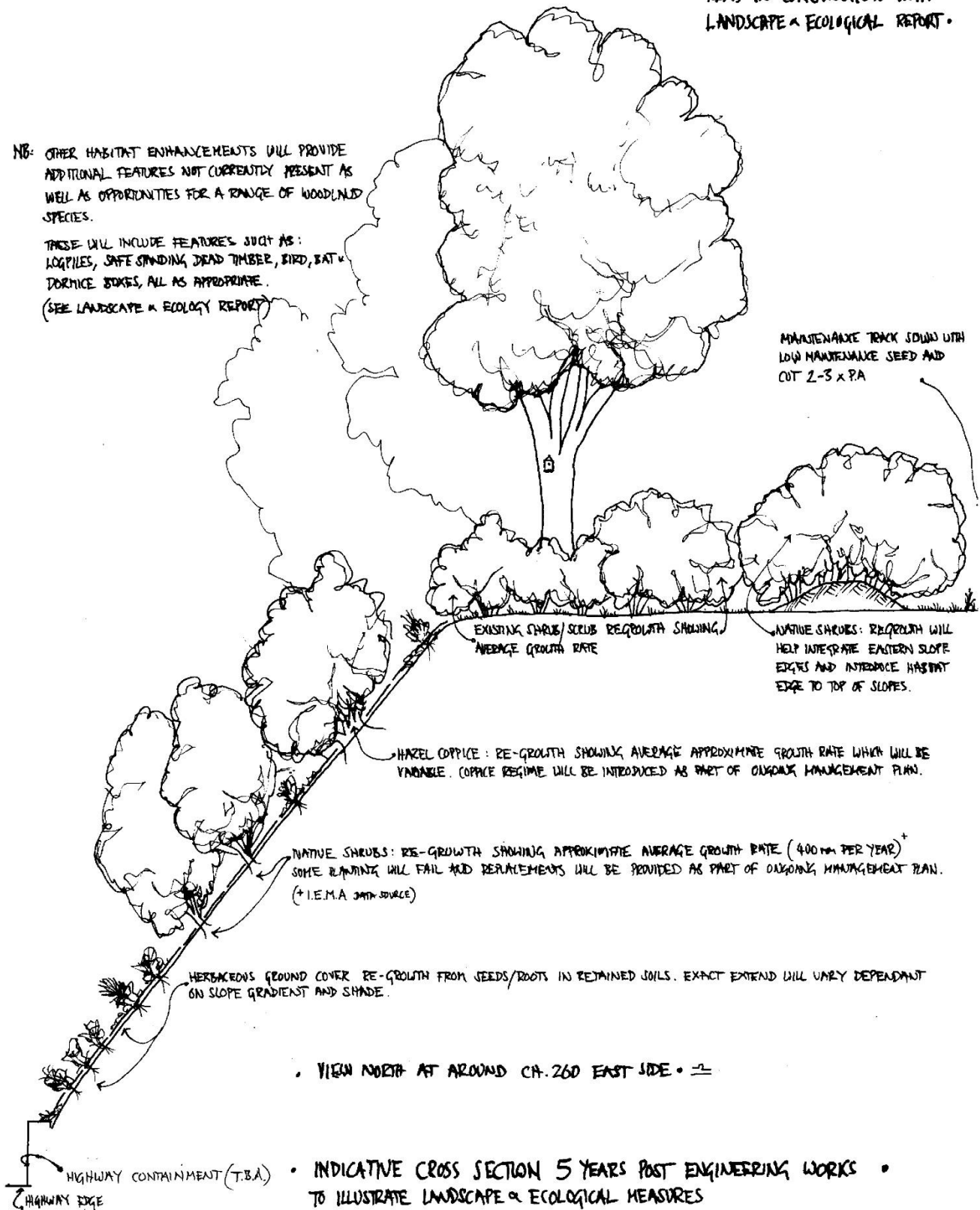
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• READ IN CONJUNCTION WITH
LANDSCAPE & ECOLOGICAL REPORT •

NB: OTHER HABITAT ENHANCEMENTS WILL PROVIDE
ADDITIONAL FEATURES NOT CURRENTLY PRESENT AS
WELL AS OPPORTUNITIES FOR A RANGE OF WOODLAND
SPECIES.

THESE WILL INCLUDE FEATURES SUCH AS:
LOGPILES, SAFE STANDING DEAD TIMBER, BIRD, BAT &
DORMICE BOXES, ALL AS APPROPRIATE.

(SEE LANDSCAPE & ECOLOGY REPORT)



TH/L&E/2