

SOUTH DOWNS NATIONAL PARK AUTHORITY

Position Statement on A27 route corridor:

1. The approach set out below will be consistently applied by the Authority in the case of any future transport infrastructure projects – road, rail, airport or port related – which may come forward. In relation to roads in particular, Defra guidance in ‘English National Parks and the Broads - UK Government Vision and Circular 2010’, states:
‘there is a strong presumption against any significant road widening or the building of new roads through a (National) Park unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs significantly. Any investment in trunk roads should be directed to developing routes for long distance traffic which avoids the Parks’.
2. In responding to any general proposals or specific schemes for upgrading sections of the A27, the South Downs National Park Authority will frame its views according to the statutory Purposes of National Parks as laid down by Parliament:
Purpose 1 is to conserve and enhance the natural beauty, wildlife and cultural heritage of the NP
Purpose 2 is to promote opportunities for the understanding and enjoyment of its special qualities
3. In bringing forward schemes, and in the detailed design of any chosen options, the Highways Agency has a statutory duty under Section 62 (1) of the Environment Act (1995) “to have regard to the twin purposes of the National Park”.
4. There is a corresponding Duty on the Authority “to seek to foster the social and economic wellbeing of the local communities within the National Park in pursuit of the two Purposes”. This Duty is important and also relates to all of the Special Qualities.
5. The use of the term impact in this document follows the approach set out in EU Environmental Impact Assessment (EIA) legislation, ie such impacts may be positive or negative, direct or secondary, and will be considered relative to the impacts of the current situation.
6. In considering any proposals the South Downs National Park Authority will be mindful that the current state of congestion on sections of the A27 creates secondary impacts on routes within the National Park and its communities – for example pollution from stationary queuing vehicles or diversion of traffic onto smaller roads within the boundary. Where feasible, the primary impacts of any new schemes must therefore be objectively assessed alongside the potential secondary impacts.
7. In assessing the specific impacts of any detailed options the South Downs National Park Authority will ask the Highways Agency to use the framework of the seven Special Qualities of the National Park (see Note). These are listed below, and a full description is in **Annex A** . Under each SQ are described the types of impacts which proposed schemes might have on it and which the South Downs National Park Authority would expect to see objectively assessed:
 - 1) Diverse, inspirational landscapes and breath-taking views. (impacts to be assessed should include: effects on landscape character, experience of the landscape and long, uninterrupted views)
 - 2) Tranquil and unspoilt places. (impacts to be assessed should include: noise, lighting, effects on dark night skies; reduction of disturbance from some existing roads)
 - 3) A rich variety of wildlife and habitats including rare and internationally important species (impacts to be assessed should include; effects on internationally, nationally and locally designated and protected habitats and species, fragmentation and connectivity issues)
 - 4) An environment shaped by centuries of farming and embracing new enterprise. (impacts to be assessed should include; effects on the farming economy and diversification and the ability of new enterprises to set up and develop sustainable businesses)
 - 5) Great opportunities for recreational activities and learning experiences. (impacts to be assessed should include; effects on rights of way and other access routes, the effects on sustainable transport schemes, severance of the NP from coastal communities)

- 6) Well-conserved historical features and a rich cultural heritage. (impacts to be assessed should include; positive and negative effects on historic and protected monuments, historic villages and communities)
- 7) Distinctive towns and villages, and communities with real pride in their area. (impacts to be assessed should include; positive and negative effects of any direct or indirect changes in traffic volumes and speeds, and access to local services)
8. The Authority expects that any schemes which are ultimately proposed will:
 - Demonstrate that there is no alternative which would have avoided or had a lesser impact on the seven Special Qualities for which the National Park is nationally designated
 - Set out clearly, based on robust evidence, the nature and scale of these impacts
 - Demonstrate how these impacts would be mitigated or compensated for, bearing in mind that a National Park landscape is of national importance.
9. In considering the impacts of any such schemes, and any alternatives, the DfT travel hierarchy is also therefore vital in ensuring that all reasonable options have been fully considered alongside proposals for new infrastructure schemes, i.e. measures which:
 - Reduce the need to travel
 - Enable switching to more sustainable modes of transport
 - Improve management of existing networks
10. Clearly, a balance needs to be struck - nationally - between the need for accessibility and mobility and the need to safeguard the National Park landscapes and communities. This balance must be struck by Government based on robust evidence on both.

Annex A

All NPAs are required by Defra to set out and describe the Special Qualities (SQs) for which the particular NP landscape was designated and given national protected status. In the South Downs National Park these SQs were published in and formed the basis for the State of the National Park report 2012, informed the Partnership Management Plan 2014 and are informing the development of the Local Plan.



Rosemary's Parlour
North Street
Midhurst
West Sussex
GU29 9SB

South Downs National Park

Special Qualities

South Downs National Park

Special Qualities

Introduction

Within the diversity of the English countryside, the National Parks are recognised as landscapes of exceptional beauty, fashioned by nature and the communities which live in them. The National Parks and Access to the Countryside Act 1949 enabled the creation of the National Parks, and ensures that our most beautiful and unique landscapes have been, and will continue to be, protected in the future.

The purposes of National Parks are to conserve and enhance the natural beauty, wildlife and cultural heritage of the area and promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public. Working in partnership with other Local Authorities and organisations, National Park Authorities also have a duty to seek to foster the economic and social-well being of communities within the Park in carrying out the purposes.

The South Downs National Park is Britain's newest National Park. Situated in the heavily populated south east it has strong social, historical and environmental links with the major towns and cities in its hinterland.

The South Downs National Park is a living, working and ever-changing landscape, shaped by its underlying geology and its human history. It has many special qualities which together define its sense of place and attract people to live and work in the area and visit the National Park. These special qualities need to be understood, appreciated, conserved and enhanced.

The special qualities reflect both the engagement with stakeholders of the National Park and technical evidence.

I. Diverse, inspirational landscapes and breathtaking views

The geology of the South Downs underpins so much of what makes up the special qualities of the area: its diverse landscapes, land use, buildings and culture. The rock types of the National Park are predominately chalk and the alternating series of greensands and clays that form the Western Weald. Over time a diversity of landscapes has been created in a relatively small area which is a key feature of the National Park. These vary from the wooded and heathland ridges on the greensand in the Western Weald to wide open downland on the chalk that spans the length of the National Park, both intersected by river valleys. Within these diverse landscapes are hidden villages, thriving market towns, farms both large and small and historic estates, connected by a network of paths and lanes, many of which are ancient.

There are stunning, panoramic views to the sea and across the Weald as you travel the hundred mile length of the South Downs Way from Winchester to Eastbourne, culminating in the impressive chalk cliffs at Seven Sisters. From near and far, the South Downs is an area of inspirational beauty that can lift the soul.



Harting Down, West Sussex



Seven Sisters, East Sussex



The Hangers from Stoner Hill, Hampshire

2. A rich variety of wildlife and habitats including rare and internationally important species

The unique combination of geology and micro-climates of the South Downs has created a rich mosaic of habitats that supports many rare and internationally important wildlife species. Sheep-grazed downland is the iconic habitat of the chalk landscape. Here you can find rare plants such as the round-headed rampion, orchids ranging from the burnt orchid and early spider orchid to autumn lady's tresses, and butterflies including the Adonis blue and chalkhill blue.

The greensand of the Western Weald contains important lowland heathland habitats including the internationally designated Woolmer Forest, the only site in the British Isles where all our native reptile and amphibian species are found. There are large areas of ancient woodland, for example the yew woodlands of Kingley Vale and the magnificent 'hanging' woodlands of the Hampshire Hangers.

The extensive farmland habitats of the South Downs are important for many species of wildlife, including rare arable wildflowers and nationally declining farmland birds. Corn bunting, skylark, lapwing, yellowhammer and grey partridge are notable examples.

The river valleys intersecting the South Downs support wetland habitats and a wealth of birdlife, notably at Pulborough Brooks. Many fish, amphibians and invertebrates thrive in the clear chalk streams of the Meon and Itchen in Hampshire where elusive wild mammals such as otter and water vole may also be spotted. The extensive chalk sea cliffs and shoreline in the East host a wide range of coastal wildlife including breeding colonies of seabirds such as kittiwakes and fulmars.



Adonis blue butterfly



Round-headed rampion



Heathland habitat, Iping Common, West Sussex

3. Tranquil and unspoilt places

The South Downs National Park is in South East England, one of the most crowded parts of the United Kingdom. Although its most popular locations are heavily visited, many people greatly value the sense of tranquillity and unspoilt places which give them a feeling of peace and space. In some areas the landscape seems to possess a timeless quality, largely lacking intrusive development and retaining areas of dark night skies. This is a place where people seek to escape from the hustle and bustle in this busy part of England, to relax, unwind and re-charge their batteries.



Amberley Wildbrooks, West Sussex



Walkers on the South Downs Way, Devil's Dyke



Orchids on Beacon Hill, Hampshire

4. An environment shaped by centuries of farming and embracing new enterprise

The rural economy has strongly influenced the landscape and over 80 per cent of the South Downs is farmed. Past agricultural practices have produced some nationally valuable habitats including chalk downland and lowland heath, with traditional breeds specific to the area such as Southdown and Hampshire Down sheep significant in the past and still bred today. Many farmers and landowners are helping to conserve and enhance important habitats through environmental stewardship schemes. Large estates such as Goodwood, Cowdray, Petworth and Firle, with their designed parklands, have a significant effect on the landscape and the rural economy. The ownership of large areas of the eastern Downs by local authorities or the National Trust is a legacy of the early 20th century conservation movements to protect the iconic cliffs and Downs and the water supply to coastal towns.

Farming has always responded to the economy of the day and continues to do so. Some farmers are diversifying their businesses, for example by providing tourist accommodation and meeting the growing market for locally produced food and drink. Climate change and market forces continue to influence the landscape leading to new enterprises such as vineyards, and increasing opportunities for producing alternative energy, for example wood fuel.

However, the economy of the National Park is by no means restricted to farming. There are many popular tourist attractions and well-loved local pubs which give character to our towns and villages. The National Park is also home to a wide range of other businesses, for example new technology and science, which supports local employment.



Durleighmarsh Farm & Orchard, West Sussex



Harveys Brewery, Lewes, East Sussex



Sheep in the Meon Valley, Hampshire

5. Great opportunities for recreational activities and learning experiences

The South Downs offers a wide range of recreational and learning opportunities to the large and diverse populations living both within and on the doorstep of the National Park, and to visitors from further afield.

With 3,200 kilometres (2,000 miles) of public rights of way and the entire South Downs Way National Trail within the National Park there is exceptional scope for walking, cycling and horse riding. Many other outdoor activities take place such as paragliding, orienteering and canoeing. There is a chance for everyone to walk, play, picnic and enjoy the countryside, including at Queen Elizabeth Country Park in Hampshire and Seven Sisters Country Park in East Sussex.

The variety of landscapes, wildlife and culture provides rich opportunities for learning about the South Downs as a special place, for the many school and college students and lifelong learners. Museums, churches, historic houses, outdoor education centres and wildlife reserves are places that provide both enjoyment and learning. There is a strong volunteering tradition providing chances for outdoor conservation work, acquiring rural skills, leading guided walks and carrying out survey work relating to wildlife species and rights of way.



Cycling on the South Downs Way



Paragliding near Lewes

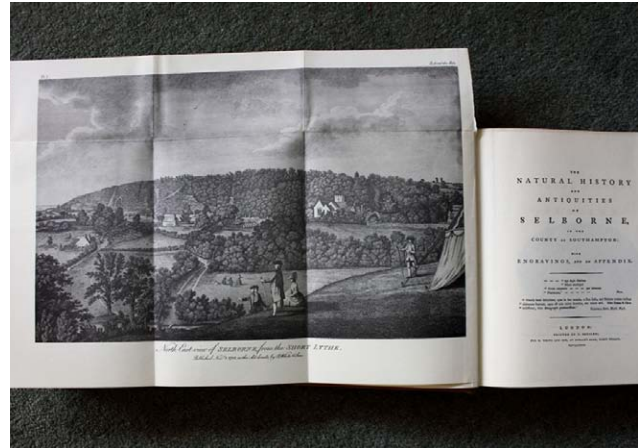


Butser Ancient Farm, Chalton, Hampshire

6. Well-conserved historical features and a rich cultural heritage

The distinct character of many areas of the South Downs has been created by well-conserved historical features, some of which are rare and of national importance. Bronze Age barrows, Iron Age hill forts, Saxon and Norman churches, dew ponds, historic houses and landmarks of the two World Wars help to give the National Park strong links to its past human settlement. These links are reinforced by the variety of architectural building styles spanning the ages. Evidence of earlier farming traditions can still be seen today in the pattern of field boundaries, and relics of the industrial past remain in the form of old iron workings, brickworks, quarries and ancient coppiced woodlands.

The South Downs has a rich cultural heritage of art, music and rural traditions. There is a strong association with well-known writers, poets, musicians and artists who have captured the essence of this most English of landscapes and drawn inspiration from the sense of place: Virginia Woolf, Jane Austen, Hilaire Belloc, Edward Thomas, Gilbert White, Edward Elgar, Joseph Turner, Eric Gill and Eric Ravilious, among many others. Today traditions continue through activities such as folk singing and events like Findon sheep fair. Culture lives on with new art and expression, celebrating the strong traditions of the past.



'The Natural History and Antiquities of Selborne' 1st Edition, by Gilbert White



Saxon Church, Singleton, West Sussex



The Chattri, above Brighton, East Sussex

7. Distinctive towns and villages, and communities with real pride in their area

The South Downs National Park is the most populated National Park in the United Kingdom, with around 110,000 people living within the boundary. Significantly more people live in the major urban areas and villages that surround the National Park including communities that are actively involved in the South Downs such as Brighton and Hove, and Eastbourne.

The South Downs is unique in having the largest market towns of any UK National Park - Lewes, Petersfield and Midhurst. The character and appearance of these and many other settlements throughout the National Park derives in large part from the distinctive local building materials. Picturesque villages like Selborne, Charlton and Alfriston blend into their landscapes.

Many of these settlements contain strong and vibrant communities with much invested in the future of where they live, and a sense of identity with their local area, its culture and history. Across the South Downs there are also communities of people who come together through common interests, for example, farming, conservation and recreation. These communities dedicate time and resources to enhancing community life, conserving what is important to them and planning for future generations.



The Lynchmere Society, West Sussex

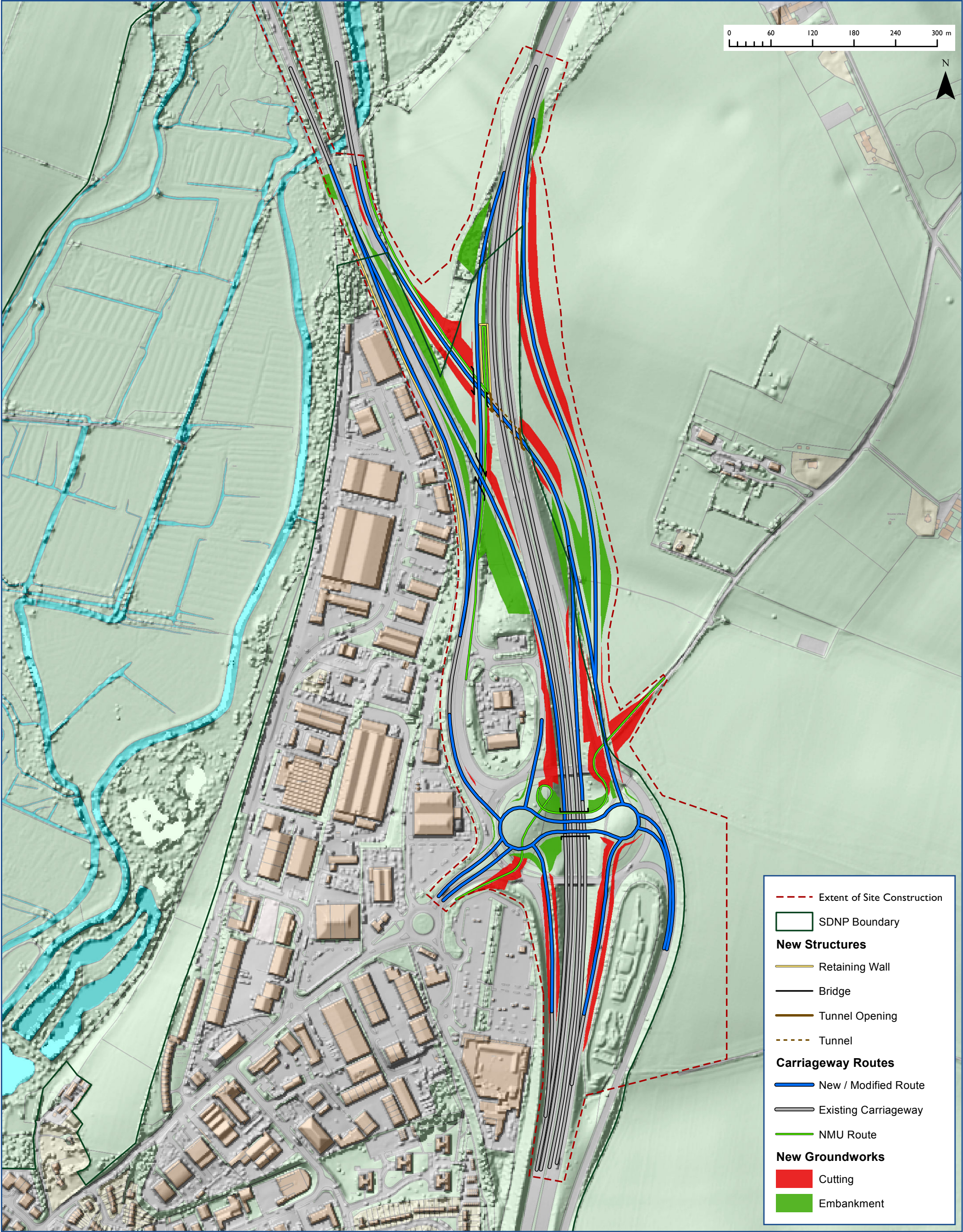


Alfriston, East Sussex



Farmers' Market, Petersfield, Hampshire

M3 Junction 9 Option 14 Proposal



SDNPA Consultation Response

M3 Junction 9 Option 14

Highways England Non Statutory Consultation dated
9th January – 19th February 2018



Draft Response

1. The South Downs National Park Authority (SDNPA) notes that Highways England (HE) is consulting on a single option only for the M3 Junction 9 scheme. The proposal (option 14) is to provide free flowing road links between the M3 and the A34 both northbound and southbound. The new road connections will pass each other and the existing M3 via a combination of flyovers and underpasses. New embankments, cuttings and retaining walls will be required to achieve this.
2. Approximately 13-14 hectares of the South Downs National Park (SDNP) fall within the redline area of the proposals (refer to **appendix 2**). This land is largely arable land, with some pasture on Easton Down and is located on the eastern and northern side of the proposals.
3. The SDNPA **OBJECTS** to the scheme 14 as proposed due to the lack of consideration for the SDNP and the paucity of information with regards to mitigation and compensation where mitigation isn't possible. Should HE come forward with a fully mitigated and compensated proposal as their Preferred Route for consultation, then the SDNPA may reconsider its objection
4. The SDNPA **OBJECTS** in principle to the temporary siting of the proposed depot within the SDNP.

Assessment Stage

5. The assessment of impacts to date by HE has been carried out in accordance with the *Highways Design Manual for Roads and Bridges* (DMRB) process and is not a full Environmental Impact Assessment (EIA). In accordance with the work stages set out in DMRB the full EIA will not be prepared until the preferred option for the scheme has been selected. The following assessment is therefore based on the information made available to the SDNPA which is included in the consultation document released by HE on 9th January 2018 and other material provided subsequently to this. Further detailed assessment of the preferred route option will be undertaken by SDNPA in order to refine this early impact assessment of likely impacts to identify indicative mitigation and compensation.

Summary SDNPA General Comments

6. The SDNPA has significant concerns about the proposals in relation to impacts on the SDNP. Winchester has a strong historic and cultural relationship with both the River Itchen and the surrounding downland. The cumulative impact of the expanding M3 conurbation and the long term and increasing severance, in terms of landscape, access and perception, together with loss of tranquillity and visual impact that this causes to the SDNP is a matter of great concern to the SDNPA. The expansion of transport infrastructure surrounding the M3 including several highway depots and the southern park and ride scheme have all added to the increasing loss of robust landscape character along the M3 corridor. HE are consulting on option 14 only, with all other options, including those which do not involve land take from the SDNP, having been rejected. This would be contrary to paragraph 116 of the National Planning Policy Framework (NPPF) on major development within National Parks and as supported by paragraphs 5.150 – 5.153 of the National Policy Statement for

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National Networks. Should there be over-riding reasons for proceeding with these proposals the SDNPA requests that further detailed information on compensation and mitigation measures are provided by Highways England. SDNPA fully expects that the development of the mitigation and compensation measures will require additional land to be included in the red line boundary of the scheme. However it is noted that this approach is not the SDNPAs recommended or preferred solution as set out in the preceding paragraphs.

7. The M3 is a significant barrier between the population of Winchester and the National Park. This leads to increased recreational pressure on vulnerable and sensitive areas of land such as St Catherines Hill (SSSI, SAM) and the River Itchen (SAC, SSSI) on the west side of the M3 where human and canine disturbance is affecting the delicate ecosystems including for instance Odonata (dragonflies/damselflies), breeding birds, and bankside vegetation, to the detriment of the designations. The overuse and recreational pressure on these sites is also leading to erosion and the increased need for engineered solutions to increased wear and tear on paths and other structures.
8. The SDNPA notes that HE undertakes to mitigate for the impacts of the proposals however has not included any details of the proposed mitigation whilst also setting out broad statements about what mitigation should be. HE also does not include any commentary about compensation for the loss of land within the SDNP associated with option 14. Both mitigation and compensation measures should be set out by HE to enable the feasibility of broad statements and undertakings to be fully established. Of particular concern is the lack of available space and land within the red line for the installation of proper suds and filtration measures to capture the increased run off from the road surfaces in order to protect the SAC from water carried pollutants, and also the need to replace at least 6.5 hectares of lost tree planting within the same minimal areas.
9. The Government's publication of 'A Green Future: Our 25 Year Plan to Improve the Environment' includes the commitment to 'support development by embedding the principle that new development should result in net environmental gain....' The challenge and expectation is for HE to work up the details of mitigation and compensation to a sufficient standard to be enhancing for a National Park, in line with current guidelines, duties and HE's own ambitions.

Summary of Impacts on Special Qualities of the SDNP

Landscape and Visual Report (Appendix 4 and figures)

10. The Itchen Valley is a major landscape feature of the western end of the SDNP. It is one of the larger Wessex chalk streams and is noted for the stable flow, clarity and temperature of its waters. The valley forms a dramatic setting to Winchester where the downland and river valley pass into the centre of the city providing many outward looking views to the surrounding landscape from within the city itself.
11. SDNPA have undertaken an assessment of the Landscape and Visual impacts of the M3 Junction 9 option 14 scheme. At this stage SDNPA officers have been working on outline design drawings which are not full scheme designs. Therefore these are to be regarded as interim conclusions based on the information available at this time in accordance with the DMRB process.

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12. Digital plots of theoretical visibility has been undertaken based on the outline route information provided by HE. Where possible this has taken into account the elevated sections of the route options at junctions and bridging points, and lowered sections where this information has been made available by HE. Please refer to **Appendix 9** Fieldwork has subsequently been undertaken to verify the results of the digital plots.
13. The ZTV plots show that the visual impact on the SDNP from the proposals are quite clearly structured along well defined view corridors. The corridors are closely related to the structured topography of the area. The south East, (Magdalen Hill Down & open access land above the southern water plant), to the immediate west and north west of the proposals (Winnall Moors Nature Reserve) and immediately to the east of the proposals from Easton Lane). The impact on views in the setting of the SDNP is wider as would be expected owing to the valley topography where there are views from the opposite valley side (eg access land adjacent to Whiteshute lane) views from PROW to the north east of the SDNP, adjacent to the new development at Bartons Farm, and the northern section of the new nature reserve at Bartons Farm are also significant, although at a distance.
14. It is noted that HE have discounted townscape assessments from the landscape assessment included in the consultation documents and this is queried by SDNPA given the information included in the authorities assessment.
15. Visual impacts on the Winnall Moors Nature reserve are likely to be significant adverse given the potential loss to construction of existing roadside trees; the elevated position of the proposals relative to the viewer, and the duration of views along the river valley and towards the proposals on the western valley side. All of which would increase the extent of views of both the M3 and the A34 existing and proposed routes. The increased visibility of traffic movement which draw the eye would also be a detrimental impact on views in the still flat landscape of the flood plain reserve.
16. The landscape character of the area is identified in the South Downs Integrated Character Assessment as being in two landscape types – the Open downland (Type A) to the east and the chalk valley of the Itchen corridor (Type E).
17. Type A Open downland - Of particular sensitivity is the remote and tranquil character of the *East Winchester Open Downland* which is threatened by its proximity to Winchester and numerous transport routes. Observable changes in the past have included the introduction and upgrading of major roads, including the M3, A272, and A31 which have severed the landscape and created some incongruous cuttings and bridges.
18. The location of this area close to Winchester, and the proximity of the M3, A31 and A272, makes it potentially accessible by a large number of users. However, these same roads provide barriers to movement on foot/ horseback. There is a relatively sparse network of public rights of way, although those that exist are important – for example the South Downs Way national trail.
19. Type E Chalk Valley Systems provide a sheltered environment that contrasts with the exposed character of the surrounding downs. The rising valley sides, small field sizes, presence of hedgerows with hedgerow trees, and woodland all contribute to the enclosed and secluded character. The chalk rivers typically exhibit gentle meanders, open floodplains,

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and flood meadows which together create the typical pastoral character of the valley landscape. However, the sense of tranquility is often eroded by the presence of traffic on the main transport routes that occupy the valley floors, plus the presence of settlement, and small scale development along the valleys.

20. The loss of existing trees from the land surrounding the existing A34/M3 junction would have significant impacts on the character of the landscape of the SDNP particularly from within Winnall Moors Nature reserve where the loss of screening of 2 major roads would contribute to increased loss of tranquillity and stillness in an area which is already vulnerable to these impacts. In addition the dominance of the road corridors would be emphasised by this loss and further exacerbated by the imposition of roads sections at height, in cutting above the existing route and associated lighting, signage and gantries which have yet to be identified. HE have undertaken to replace lost tree plantings on a like for like basis, although this is not shown in the consultation documents & the land availability for this has not been ascertained.
21. Alterations to the topography of the valley side associated with the southbound M3 slip road which is shown in a 7m deep cutting along the eastern valley side would affect the 'whale backed'¹ quality of the downland which due to the chalk geology would also be highly visible and difficult to screen. The cuttings for Twyford Down are still not fully vegetated after 20+ years for example and are recognised as significant scars in the landscape which sever its continual character.
22. The site compound is a significant risk to the SDNP in that it effectively over spills the valley setting of the existing motorway and associated infrastructure. This is a key issue in assessing the impacts on the SDNP as any overspill beyond the river valley exposes the wider SDNP to impacts from the M3 Corridor in an area of the park which has already been severely damaged by its presence. Whilst the compound and its impacts would be temporary for the duration of the works the future land use of the site would need to be protected from opportunist development proposals.
23. It is noted that HE have emphasised the need to develop the route options to avoid the HE depot located immediately to the north west of the junction which apparently 'avoids the environmental impacts arising from the potential need to relocate this facility' this seems to be a missed opportunity in minimising the environmental harm to the SDNP and also in terms of the loss of land to the landscape corridor of the M3, which is under significant pressure.
24. The proposals do not identify any compensation for the loss of land within the SDNP. There is limited land within the red line and the SDNPA considers as a result that there is insufficient space to provide adequate compensation and mitigation for both the outright loss of land and to address the detrimental impacts of the scheme through mitigation measures. As a result it is considered that further land will need to be incorporated into the current red line area in order to address these issues effectively. The following are recommendations for the selection of these additional areas;
 - Compensation and mitigation proposals should take an ecosystem services approach and be designed to create multiple benefits to the functions of the landscape. The

¹ Kipling 1902

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water environment is a key issue for this approach in terms of biodiversity, water quality, natural flood prevention and landscape quality and amenity.

- The over-riding objective for any mitigation and compensation proposals is to contribute to the restoration of robust landscape character surrounding the M3/A34 road corridor within the chalk river valley and chalk downland setting of the SDNP.
- There are areas of land surrounding the current red line area which could be included as part of a scheme of compensation and mitigation for the proposals - subject to long term management arrangements being in place.

Biodiversity (Appendix 5)

25. The SDNPA Landscape and Biodiversity Lead (water) commissioned a data search from the Hampshire Biodiversity Information Centre (HBIC) and carried out an ecological desk-based assessment for the proposed Junction changes and area of influence.
26. Due to the range of potential options a search area 2km from the current Junction has been undertaken. All routes would be likely to have a significant negative impact on biodiversity: priority habitats, protected species, protected sites, semi-natural habitat extent, quality and connectivity, and populations of native species, these impacts will need to be fully assessed based on robust baseline information and field surveys to inform the initial route selection.
27. Controlling the spread of 'invasive non-native species' is important, and the location and managed removal of these 16 species listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales will need to be implemented prior to clearance or construction work which might otherwise aid their dispersal through the area.
28. Impact of the proposal on water purification - The loss of existing mature trees and scrub will impact upon the capacity of the landscape to provide this service. In addition very careful attention needs to be made to the design, function and layout of the drainage associated with the motorway Junction proposals. There is a very significant risk that this will exacerbate the existing problems due to run off to soakaways and the potential for pollution of the SAC. Every effort should be made to mitigate the impact upon water quality that might result from surface run-off from the road network. This can be by way of careful design of the scheme to mitigate these measures, as well as a focus on retaining and enhancing the landscapes natural ability to mitigate these impact. This could be achieved by either retaining, or supplementing, tree and surface vegetation that would be lost within the red-line of the scheme.

Archaeology/Cultural Heritage (Appendix 6)

29. The South Downs National Park Authority (SDNPA) commissioned Regini Heritage to assess the Desk-Based Assessment (DBA) of cultural heritage undertaken by HE in relation to the proposals.
30. The review has concluded that;
The SDNPA welcomes the inclusion of the Desk Based Assessment in its consideration of cultural heritage aspects of this scheme. In future National Infrastructure schemes the SDNPA wishes that the commissioning body submits its Cultural Heritage Desk Based

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Assessment to SDNPA in good time for review to allow a more effective and efficient response to be obtained;

31. That Highways England confirm the sources of Historic Environment data in these two reports and which HER takes precedence in their studies;
32. That the overall impact on the historic landscape is considered by Highways England, in either this or the landscape aspect of its reports;
33. That mitigation of the impact on archaeological assets must be undertaken in accordance with:
 - a. The Solent Thames Research Framework
 - b. The advice of the Scientific Adviser of Historic England South East
 - c. The advice of the Winchester City Archaeologist and other agent of the SDNPA, as advised to Highways England in due course
 - d. Written Schemes of Investigation to be approved by the SDNPA's agent, to be advised to Highways England
 - e. Archaeological works to be programmed as early as possible to allow preservation by record where preservation by design is not feasible
34. That the evidence for the impact of this scheme on Registered Parks and Gardens and Conservation Areas in the SDNPA and within 1km of the Junction 9 scheme be captured by HE commissioning suitable Conservation Management Plan (for Worthy Park) and Conservation Area Appraisals and Management Plans for Abbots Worthy, Martyr Worthy and Easton;
35. That appropriate levels of resource are provided by Highways England through the Development Control Order, if granted, to undertake a programme of engagement, publication and exhibition and learning resources to support the SDNPA in achieving its statutory purposes.

Impacts on Non-Motorised Users (Access) (Appendix 7)

36. Current Situation. The M3 is both a visual and physical barrier to accessing the National Park to the east of the motorway. Existing routes for non-motorised users (NMUs) are limited and/or severely compromised.
37. There are few circular routes for cyclists and equestrians and no facilities for users with restricted mobility, for example access for all paths.
38. HE acknowledge severance caused by the existing highways estate and in particular the arrangements at junction 9. The report does not address the poor quality of this access and claims good connectivity with the National Park via footpaths such as the Itchen Way and St Swithun's Way despite evidence of loss of path width due to erosion on the river bank, low headroom and proximity to fast moving traffic.
39. Tourism and recreation are not considered to be impacted by the current situation or the proposed scheme. Our findings suggest otherwise: severance caused by the motorway is likely to contribute to the recreational pressures experienced on fragile sites such as Winnall Moors and St Catherine's Hill to the south as recreational users are deterred from visiting parts of the National Park east of the M3

40. The proposed scheme for junction 9 offers immediate benefits from what is available now for cyclists and arguably wider NMU access across the junction, and HE should look more widely at improving access through the immediate area (including the South Downs Way National Trail) and more routes in the vicinity of the proposals
41. Overall the scheme will result in a much extended junction with the addition of several new carriageways. This may deter NMU access into the National Park particularly for those on foot.
42. The two long distance routes (St Swithin's and Itchen Way) which connect the city with the South Downs in this area are severely impacted by the presence of the A34 and A33 carriageways. Access mitigation and enhancement should focus on these routes as the closest to the scheme and the issues of headroom, accessibility, path width, surfacing, and protection from proximity to fast moving traffic should be addressed. As both routes pass through or adjacent to sites managed by HIOWWT, the Wildlife Trust's input into to any proposed access enhancements will be essential

Woodland and existing trees (Appendix 8)

43. The existing tree and woodland cover on the work site, and surrounding it, provides vital visual screening for the roads themselves, but also plays a significant role in acting as a buffer to the significant noise generated by the vehicles on the roads 24 hours a day, and in absorbing significant quantities of pollution at the same time. We should also not ignore the carbon which they also lock up, further helping to offset some of the environmental consequences of the vehicular burning of fossil fuels.
44. The methodology being applied to assess the relative quality of the arboricultural resource at this stage is solely based on desk based methods. This means that it is not possible to make any more than the most basic of assessments, and though this is acknowledged in the documents and further ground based survey recommended as the preferred option is being explored, it is not possible to attribute any confidence in the value assessments at this stage. BS5837: 2012 (trees in relation to construction) gives a more effective value assessment, which also includes consideration of cultural and environmental values.
45. Option 14 would result in the loss of 6.35 ha of existing tree planting /woodland. Compensatory planting has been alluded to, but no detail provided as to where this will be, or what it might be comprised of.
46. It is likely that with the increased heights of the development it will not be possible to adequately screen the development with trees from key viewpoints, not even into the longer term.
47. More thorough assessment of this must be made clear at this early stage, and further consideration to mitigation to be factored in as soon as possible.

Tranquillity (Appendix 10)

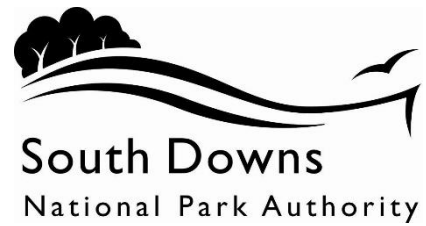
48. Tranquillity is a perceptual quality of the landscape, and is influenced by things that people can both see and hear in the landscape around them. It is considered to be a state of calm, quietude and is associated with a feeling of peace. It relates to quality of life, and there is

good scientific evidence that it helps to promote health and well-being. As a special quality of the National Park, it is a characteristic of the landscape that visitors and residents greatly value. These are not characteristics that apply uniformly across the whole National Park, some areas are considered more tranquil than others based on a wide number of influences.

49. A site based assessment was undertaken by SDNPA officers. This assessment considered the area in the context of the road corridor as it is currently configured, and how tranquillity is currently experienced. Officers then considered the direct impacts of the scheme on some of the factors that currently enhance the tranquillity of the area – such as landform or screening by existing bands of mature trees. From this it is possible to interpolate how the scheme would impact upon current levels of tranquillity, and the characteristics that are most susceptible to change from increased noise or visual impact.
50. The site assessment considered five locations that would be affected by the extent of construction, two directly on the road corridor, two more areas immediately adjoining and one that considered more distant impacts (Refer Appendix X).
51. **Winnall Moors Nature Reserve (south):** At present the more negative visual and auditory impacts of the road are screened or softened by the trees and mature scrub in the distance. It is likely that these will be lost as a result of the proposed scheme. This will have a significant negative impact on tranquillity at this location as the negative visual and auditory impacts of the road corridor will have an increased influence across this area.
52. **Winnall Moors Nature Reserve (north):** Though this area adjoins, and is crossed by, the major road corridor it is enclosed and wooded. It is still possible to experience a positive experience in terms of tranquillity due to the existing landform, the influence of the river valley, existing tree cover and the way the road network currently sits within the landscape. The regrading of the roads, proposed changes in topography, and loss of landscape trees and screening will exacerbate these negative impacts on the tranquillity of the area.
53. **Easton Down:** This area is bisected by the M3 carriageway (northbound) though once again the Itchen River corridor exerts a strong positive influence. The area has a very enclosed feel and exhibits many positive qualities that lessen and mitigate the roads wider impacts upon tranquillity.
54. **Magdalen Hill:** The road corridor has much less of an influence on tranquillity at this distance in terms of noise or visual detractors. Road noise from the B3404 is far more intermittent, and road noise from the M3 corridor is far more distant and moderated. It is possible to experience many of the visual and auditory factors that make a positive contribution to tranquillity.
55. The proposed scheme would firstly cause the loss of many of the mature trees and areas of scrub that currently provide noise regulation benefits. This would increase the current issue around road noise. In addition by raising some sections of the A34/A33 onto an embankment across the Itchen Valley this will be further exacerbated. The M3 corridor at this section will also become more prominent both visually and in terms of noise impact. There is a strong case to either retain, or replant, tree and vegetation that would be lost within the red-line of the scheme.

Impacts on Dark Night Skies

56. Although the site is not under any dark skies and is some miles from the main core, the rural areas surrounding – particularly those in the National Park – will see skies of increasing quality and will tend to reach low ‘bronze’ level skies (20 magnitudes per arcsecond²) within a few km. Consequently, it is still important that the development lighting have due regard for the special quality of dark skies in their design.
57. The important aspects to design relevant to the DNS – (that the HA have had regard for in other schemes);
- That all fixtures are fully-cut off and do not have any upward light above the horizontal. These are typical fixtures of other HA lighting designs, such as the A3/M27 junction and the A3 Ham Barn roundabout (within the National Park) which appear to use Philips Luma.
 - That the road is lit appropriately to recommend surface illuminance levels and is not significantly over lit.
58. In addition
- Recent evidence shows that the light from bright blue rich heavy LEDs (Cool light LED LUMA option or equivalent above 3000K) penetrates air significantly greater distances than lower colour temperatures. This impact increases the level of sky glow arising from the site and will reduce the quality of the skies further into the SDNP. Therefore it is recommended that the warm white options ~3000K are used to reduce this extended penetration effect.
 - To further reduce impacts, it is recommended that HA consider further mitigations such as dimming and trimming times, and – if possible – part night lighting.
 - For the roads that represent an increase in height it is recommended that the height of the columns is reduced to the lowest possible distance to reduce the visibility of luminaires from the surrounding landscape.



SDNP Landscape and Visual Impact Report

M3 Junction 9 Scheme January 2018

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1. Introduction

- 1.1. During 2016 the SDNPA was invited to meet with representatives from Highways England and Hampshire County Council to be informed and consulted about the proposals to fund and deliver improvements to the M3 Junction 9 through the Road Investment Strategy (RIS2).

Public consultation on the scheme proposals will be undertaken in January 2018.

2. Purpose of Study

- 2.1. This report considers the likely landscape and visual impacts of the scheme proposals based on the limited scheme information which is available at this stage. It has been undertaken prior to the non statutory public consultation. It is intended to provide high level evidence to assist the SDNPA in responding to the Highways England (HE) public consultation and forms part of a suite of similar studies on Access, Biodiversity, Water, Chalk and Cultural Heritage. Detailed design information will not be developed by HE until the preferred option is selected following the public consultation process. This is in accordance with the Design Manual for Roads and Bridges environmental assessment procedures (DMRB). Further assessment by SDNPA will be required as the detail design evolves.

3. Methodology

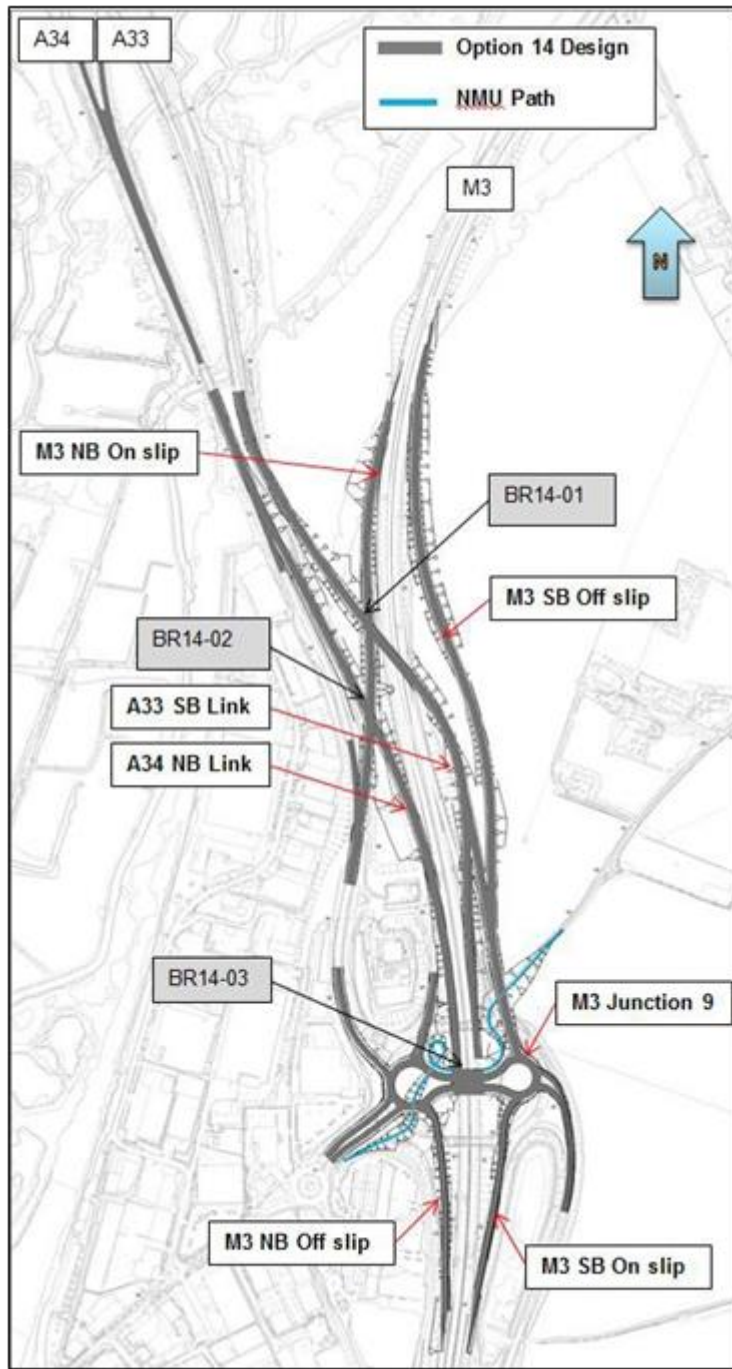
- 3.1. This is not a full Landscape and Visual Impact Assessment, although the process of analysis broadly follows the GLVIA3 Landscape and visual impact assessment guidance recommendations. Impacts have been considered from a combination of desktop study and fieldwork based on the information available at the present time. The study is considering the landscape and visual impacts on the SDNP and its setting. Further impacts on the landscape beyond the setting of the SDNP within Winchester City Council's area are not considered as part of this study and will be considered by Winchester City Council.

4. Location of the Proposals

- 4.1 Approximately one third of the proposed development area is located within the South Downs National Park (SDNP). The SDNP extends (outside of the scheme area) to the north, east, south and west. The land to the east is generally agricultural downland which rises away from the River Itchen valley to form part of a wider area of the Open Downland landscape type. The River Itchen (SAC) and associated floodplain are present within the north and western part of the study area which is also more urban in character. The River Itchen valley is an important cultural landscape which extends to the centre of Winchester, providing valuable accessible natural greenspace to residents of the city. The existing road alignment largely follows the River Itchen valley side although the routes diverge across the river to the north of the proposed junction. The valley floor is to the north and west of the junction. The River Itchen Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) also extend to the north-east and south-west.

5. Description of the proposals

A layout of proposed route option 14 is shown below.



- This shows new straight through connections in all directions between the M3 and the A34/A33. 3 bridges would be required to facilitate this. The heights of embankments and cuttings which will be needed to accommodate the straight through connections are shown on Figure xvi Landform effects

Notable points for the landscape report are;

- BR14.01 will require a 12m deep cutting to pass under the existing northbound M3;

- BR14.2 requires an 11m high embankment to take the northbound A34 over the M3 slip road;
- BR14.03 is the bridge over the M3 at the new roundabout and will be at existing grade.
- The M3 Southbound slip road would be in a 7m deep cutting in the chalk valley side above the existing road alignment.
- The northbound A34 slip road would be on a 7m high embankment with a retaining wall along the south western edge.
- Loss of existing trees along the carriageway is likely to be extensive due to the amount of earthworks/groundworks required.
- Cumulative landscape impacts of this scheme with those from the existing M3 corridor.

6. Landscape planning

National Policy Statement for National Networks

- 6.1. It is understood that the planning process for the M3 Junction 9 improvement scheme, will follow the Infrastructure planning procedure (NSIP) owing to its size. The proposals will be submitted to the Planning Inspectorate (Secretary of State) for approval of a Development Consent Order (DCO). The proposals would be considered by the Secretary of State against the policy criteria set out in the National Policy Statement for National Networks¹.
- 6.2. The NPSNN sets out several policy criteria in relation to infrastructure development within or close to National Parks;
 - Paragraph 4.26 : Reference to the need to demonstrate a clear assessment of the alternatives for developments in the National Parks(in addition to the requirement to consider alternatives set out in the EIA directive².)
 - Paragraphs 5.150 – 5.153 set out the approach to development proposed within nationally designated areas and states that the *‘Secretary of State should refuse development consent in these areas except in exceptional circumstances and where it can be shown to be in the public interest. There is a strong presumption against any significant road widening or the building of new roads in a National Park.*
 - The NPSNN also makes reference to the requirements of the English National Parks and the Broads Government Circular³ paragraphs 85 &86 copied below;
 -
85. Improvements of main routes through the Parks are governed largely by considerations outside those relating to the Park area itself. However, there is a strong presumption against any significant road widening or the building of new roads through a Park, unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs very significantly. Any investment in trunk roads should be directed to developing routes for long distance traffic which avoid the Parks.

¹<https://www.gov.uk/government/publications/national-policy-statement-for-national-networks>

² <https://www.gov.uk/guidance/environmental-impact-assessment>

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221086/pb13387-vision-circular2010.pdf Landscape Character Area E4

86. In exceptional cases where new road capacity were deemed necessary, a thorough assessment would be needed on the loss in environmental value resulting from any new infrastructure. This would need to be accompanied by measures to minimise any damage and where possible measures to enhance other aspects of the environment. This would include measures to compensate for the loss of environmental or landscape value to local communities and users of the Park, as well as measures to enhance local access to services or sustainable access to points of interest that may be detrimentally affected by the new infrastructure. The Department for Transport would expect that, in addition to the statutory environmental bodies, the Authorities are consulted by the highway authority, or in the case of trunk roads by the Highways Agency, at an early stage in the design of any road and traffic management schemes within or potentially affecting Parks.

Local Development Plan Winchester City and SDNPA Joint Core Strategy: (adopted in 2015)

- 6.3. In addition to considering the criteria within the NPSNN , the Secretary of State will also consider the implications of the proposals on the Local Development Framework. The Winchester/SDNPA The Joint Core strategy 2013 contains the following overriding policy which is relevant to the proposal.

Policy CP19 - South Downs National Park.

New development should be in keeping with the context and the setting of the landscape and settlements of the South Downs National Park. The emphasis should be on small-scale proposals that are in a sustainable location and well designed. Proposals which support the economic and social wellbeing of the National Park and its communities will be encouraged, provided that they do not conflict with the National Park's purposes.

Development within and adjoining the South Downs National Park which would have a significant detrimental impact to the rural character and setting of settlements and the landscape should not be permitted unless it can be demonstrated that the proposal is of over-riding national importance, or its impact can be mitigated.

7. Landscape Context

- 7.1. The following section describes the wider context of the study area. There are a series of maps included in the figure section which show contextual information for the study area. This includes information on the Biodiversity, Public Rights of Way Network, Historic Environment, Floodzone, Historic Landscape Character, Landscape character, Tranquillity, Topography and viewpoint mapping. These help to explain the broad landscape characteristics of the area of search around the 3 Junction 9 Scheme.
- 7.2. The central role of Winchester in the surrounding area was first established in the Middle Iron Age, with the building of St Catherines Hill fort. It later became the Roman town of Venta Belgarum, the first urban settlement at Winchester and was an important Roman settlement in Hampshire. Life on the river valley sides was well supported by the fuel, food and water provided by the fertile valley floor. Later, towards the end of the 9th century a planned street grid was laid out under the direction of King Alfred and this layout is largely preserved within the city today.
- 7.3. The River Itchen is one of the larger Wessex chalk streams and is considered to be of European significance (Special Area of Conservation – Natura 2000). The river is fed by chalk springs near Cheriton, having relatively stable flow of great clarity and constant temperature. The downs above the river valley were some of the premier sheepwalks of the late middle ages. At first they were open, but in the seventeenth century they began to be enclosed as a better method of sheep rearing. At the same time the flood plain below Winchester and at Winnall was laid out as water meadows with managed, seasonal flooding. Both the enclosed fields on the downs and the water meadows were managed for sheep until earlier this century when the downs began to be ploughed up for arable cropping. Remarkably the water meadows remain, due to the long term ownership of the land by Winchester College and the unsuitability of the land for building due to its propensity to flood.
- 7.4. The existing alignment of the M3 to the east of St Catherines Hill was opened in 1995. The route of the previous road to the west of St Catherines Hill has been restored to Chalk downland and is managed within the Hampshire and Isle of Wight wildlife trust nature reserve. The route to the east of Twyford Down was hugely controversial and the deep cutting in which it sits resulted in beyond significant harm to the chalk downland, cultural heritage and landscape of the South Downs.
- 7.5. SDNP & downland. To the immediate east of Winchester the chalk ridge rises steeply away from the River Itchen Valley to form an outlier area of the open downland which is more representative of the eastern downland beyond the River Adur to the East. Much of the downland within Hampshire being of an undulating downland mosaic, composed of a matrix of soil types, tree cover, field sizes and enclosure. The area to the east of Winchester is by comparison large scale, open and a land of big skies dominated by weather patterns which play out across the landscape. Visibility extends for many miles in all directions and this landscape is noted for its visual sensitivity and vulnerability to change.

7.6. Access, there are limited access points to the South Downs from Winchester due to the physical barriers created by both the River Itchen and the M3 corridor. Areas of recreational greenspace to the west of the M3 are heavily used and under significant visitor pressure. This is often in conflict with the conservation of biodiversity due to disturbance caused by dogs and people within heavily designated areas. Those that do exist are very important in terms of the access to amenity and natural greenspace that they offer but also due to the importance of the routes as most are long distance way marked trails – the South Downs Way being the most notable as a national trail from Winchester to Eastbourne. Many of the access routes across the landscape pass through highly sensitive designated sites –(SSSI, SAC, SAM for example) and recreational pressure on these important areas is an increasing issue. The M3 is undoubtedly a deterrent for walkers owing to the influence and noise of the road being extended over a wide area, resulting in additional pressure on those sites to the west of the M3.

7.7. Historic landscape

The Historic landscape maps included figures vii to this report (baseline Maps) show that there is significant time depth in the landscape despite the layout having a high proportion of modern fields of 20th century origin. The underlying layers of the landscape show that the framework in which the modern landscape sits is generally medieval. There are a large number of prehistoric and later earthworks that are typical of the landscape type – of particular note is the iron age hillfort at St Catherines Hill which occupies a commanding position overlooking Winchester. The settlement type is largely dispersed and scattered farmsteads although in the past the area was favoured for settlement by Anglo Saxons and used for ceremonial purposes – reflected in the many barrows and tumuli to be found along the chalk ridge. The Itchen valley is an area of formal planned relic water meadows dating from the 18th century which extend to the north and south away from the site and reflect the use of the area for sheepwalk. The predominant land use is as fieldscape although there are unenclosed areas with no former cultivation – these are generally now open access areas and are managed for chalk downland habitat – eg Magdalen Hill.

7.8. Topography & flood zone

Major river valley, quickly rising to high points on the chalk ridge – eg Cheesefoot Head, undulating landform to the north west and south, to the north there are high points at Sutton Scotney and beyond to the Wessex Downs AONB. This is a watery landscape which is physically dominated by the river and its many channels and tributaries. The wide flood plain is a large and surprising feature so close to the town centre and it exerts a strong influence over the town as it winds through the built up area and out again to the south of Winchester. Winchester has flooded several times recently and this was a driving influence for a restoration of the Winnall Moors Nature Reserve funded by the HLF Lottery fund. The project reinstated the natural flood capacity of the flood plain and allowed the river to use the flood plain as nature intended.

Tranquillity

7.9. Tranquillity is a perceptual quality of the landscape, and is influenced by things that people can both see and hear in the landscape around them. It is considered to be a state of calm, quietude and is associated with a feeling of peace. It relates to quality of life, and there is good scientific evidence that it helps to promote health and well-being. As a special quality

of the National Park, it is a characteristic of the landscape that visitors and residents greatly value. These are not characteristics that apply uniformly across the whole National Park, some areas are considered more tranquil than others based on a wide number of influences.

- 7.10. As part of the consideration of the impact of the proposals on the National Park a site based assessment was undertaken. This covered a range of visual and audible factors that either add to, or detract from, the tranquillity of the area. This assessment considered the area in the context of the road corridor as it is currently configured, and how tranquillity is currently experienced. We then considered the direct impacts of the scheme on some of the factors that currently enhance the tranquillity of the area – such as landform or screening by existing bands of mature trees. From this we can interpolate how the scheme would impact upon current levels of tranquillity, and the characteristics that are most susceptible to change from increased noise or visual impact.
- 7.11. The site assessment considered five locations that would be affected by the extent of construction, two directly on the road corridor, two more areas immediately adjoining and one that considered more distant impacts (See figure ix Tranquillity Map).
- 7.12. Noise regulation This is an ecosystem function of the landscape and its features. It is considered that the existing bands of trees along the line of the A34 to Newbury and its junction with the A33 provide some capacity to screen and regulate noise from the road. This is helped to a degree by the existing topography and current un-elevated nature of the road. The M3 is more elevated, but again is screened by bands of trees and mature scrub vegetation along the fringes of Easton Down. The need for noise regulation in this location is fairly high particularly for the urban fringe areas of Winchester at Abbots Barton and Winnal. These are highlighted as areas that need to be improved in terms of noise regulation, through screening or planting. (See maps figure x)

8. Landscape Character

- 8.1. There are several LCA documents which have considered the Landscape character of the Winchester area;
- National Character Areas – 125 South Downs,
 - South Downs Integrated Landscape Character Assessment 2011 (SDILCA)
Landscape Character Areas A5 East Winchester Open Downs & E4 Itchen Valley
 - South Downs Historic Landscape Character Analysis
 - Winchester LCA
 - Winchester and its Setting Report 2011

For the purposes of this report the Landscape Areas of the SDILCA (LUC 2011) are considered to be the appropriate characterisation study with additional reference to the Winchester and its setting Study 2011 (LDA Ass)

- 8.2. All of the relevant Landscape Character Assessments for the area refer to the extraordinary quality of the Landscape in which Winchester sits. From the wealth of archaeological and historic features which intrinsically link the settlement to its dramatic valley landscape setting, with the River Itchen carving through the city to its centre, providing accessible natural greenspace within the city boundary.

8.3. The landscape character areas defined in these three studies are shown on Figure ii

8.4. The following descriptions have been drawn from the SDILCA character descriptions

8.5. **Landscape Character Type A. The Open Downland** landscape comprises a distinctive narrow spine of open chalk upland landscape on the south facing dip slope of the South Downs, mostly located to the east of the Arun Valley (with an outlier close to Winchester), meeting the sea at The Seven Sisters. This is Kipling's classic 'blunt, bow-headed, whale-backed Downs (Sussex, 1902).

8.6. **Landscape Character Area A5 East Winchester Open Downs**

The *East Winchester Open Downs* is located to the east of Winchester - parts of the downland boundary are shared with the built edge of Winchester. To the north the boundary is defined by the crest of the Itchen Valley, to the west the boundary is clearly defined by the A31 ring road and built edge of Winchester. The eastern and southern boundaries are defined by a change in field pattern and density of woodland cover – this represents a transition to the *Downland Mosaic* landscape. Due to the open character of the *East Winchester Open Downs*, there are expansive views over Winchester and the Itchen Valley.

8.7. **Integrated Key Characteristics:**

- Open rolling upland chalk landscape of rolling Downs reaching 176m at Cheesefoot Head.
- Furrowed by extensive branching dry valley systems which produce deep, narrow, rounded coombs – for example at Chilcomb and the Devil's Punchbowl.
- Dominated by large 18th and 19th century fields of arable and pasture, bounded by sparse thorn hedgerows creating a very open landscape supporting a range of farmland birds.
- Modern fields at Longwood Warren indicate late enclosure of this area that was set apart from the surrounding fieldscape (for the farming of rabbits).
- Hedgerows and tracks surviving from the earlier manorial downland landscape are important historic landscape features.
- Occasional areas of species rich unimproved chalk grassland occur, for example at Cheesefoot Head and St Catherine's Hill.
- Occasional scrub and woodland on steeper slopes, and game coverts, linear tree features and beech clumps on hill tops (notably at Cheesefoot Head and Deacon Hill) contribute to biodiversity and provide visual texture in the landscape.
- A landscape managed for country sports (game shooting) which preserves the shape and form of the landscape and creates a distinctive landcover including small woodlands and game cover plots.
- Large open skies ensure that weather conditions are a dominant influence creating a dynamic, moody landscape, particularly on higher ground e.g. at Cheesefoot Head.
- A strong sense of remoteness and tranquility away from the major transport routes (M3, A31, A272) which cross the landscape.

8.8. Specific Characteristics Unique to the East Winchester Open Downs

- Variable geology giving rise to more variety in the soils in this area compared with the eastern downland, areas of clay with flints support woodland in general and this part of the open downland is more wooded than the eastern area as a result.
- Cheesefoot Head and St Catherines Hill SSSIs are important areas of species rich unimproved chalk downland, and there are hedgerows and tracks which survive from the earlier manorial downland landscape and are important historic landscape features.
- Transport routes carve up the area – the M3 runs along the western boundary and the A31/A272 cut across the character area in an east-west direction. The sense of tranquility and remoteness of this character area is diminished in the vicinity of these major transport routes
- The location of this area close to Winchester, and the proximity of the M3, A31 and A272, makes it potentially accessible by a large number of users. However, these same roads provide barriers to movement on foot/ horseback. There is a relatively sparse network of public rights of way, although those that exist are important – for example the South Downs Way national trail.
- There are a large number of prehistoric and later earthworks that are typical of the landscape type – of particular note is the Iron Age hillfort at St Catherine’s Hill which occupies a commanding position overlooking Winchester.
- Of particular sensitivity is the remote and tranquil character of the *East Winchester Open Downland* which is threatened by its proximity to Winchester and numerous transport routes. Observable changes in the past have included the introduction and upgrading of major roads, including the M3, A272, and A31 which have severed the landscape and created some incongruous cuttings and bridges.

8.9. The following **development considerations** are specific to this character area:

- Prevent further fragmentation of the East Winchester Downs by roads and development.
- Seek opportunities to reduce the visual impact of existing visually intrusive elements such as the infrastructure and traffic associated with the M3, A272, and A31, and prominent built elements on the edge of Winchester.
- Consider use of whisper tarmac on major routes such as the M3 to reduce traffic noise.
- Maintain the open and undeveloped scarps and skylines – avoid siting of buildings, telecommunication masts, power lines and wind turbines on the sensitive skyline. Take account of views from this area when considering change in adjacent areas beyond the study area, such as in Winchester. Pay particular attention to popular viewpoints at Cheesefoot Head and St Catherine’s Hill.

8.10. Landscape Character Area E4 Itchen Valley

This character area includes the rural part of the valley of the River Itchen in two locations north east and south of Winchester. The boundaries are strongly defined by the topography and are drawn along the apparent skyline of the valley sides as seen from the valley floor. The upper portion of the valley is drawn close to the edge of Bramdean; beyond this the valley form continues as an unsettled dry valley within the surrounding downland.

8.11. Integrated Key Characteristics:

- Broad, branching valley carved from the chalk downs and indented by dry valleys and coombes to produce smoothly rounded valley sides.
- The character area flows through and provides a landscape setting for Winchester.
- Shallow well drained, calcareous silty soils support intensive arable cultivation on shallow slopes of the valley sides. Pasture and paddocks occur on the valley floor.
- Springs, including the main source of the Itchen, south of Cheriton, are located on the chalk.
- The clear, chalk river flows in a relatively narrow floodplain in the upper reaches with a wider floodplain south of Winchester. Pasture and paddocks occur on the valley floor
- The watercourse and banks of the Itchen are designated as a SAC incorporating a diversity of habitats including the clear alkaline river, fen/marsh/swamp, neutral grassland and pockets of woodland.
- Historic features associated with the presence of the River and the Itchen Navigation are apparent today. Remnant features relating to water management and agricultural/industrial use of the river, including fragments of water meadows, weirs and mill ponds, fish farms, trout lakes, and watercress beds.
- Extensive blocks of early enclosure survive throughout the valley. Downstream of Itchen Abbas the landscape is of recent enclosure, comprising regular field systems with very little woodland.
- Crossed by the M3 and A roads which interrupt the otherwise tranquil landscape. A sequence of settlements occur along the lower valley sides.
- Frequent minor river crossing points are marked by white bridges.
- One of the most renowned fly fishing rivers in the world with populations of wild brown and rainbow trout.

8.12. Perceptual/Experiential Landscape

The Chalk Valley Systems provide a sheltered environment that contrasts with the exposed character of the surrounding downs. The rising valley sides, small field sizes, presence of hedgerows with hedgerow trees, and woodland all contribute to the enclosed and secluded character. The chalk rivers typically exhibit gentle meanders, open floodplains, and flood meadows which together create the typical pastoral character of the valley landscape. However, the sense of tranquility is often eroded by the presence of traffic on the main transport routes that occupy the valley floors, plus the presence of settlement, and small scale development along the valleys.

8.13. Development management considerations

- Ensure that any future traffic regulation and road upgrades associated with the M3, A34 and A31 are integrated into the rural valley landscape and ensure any signage is sensitively detailed.
- Maintain watercress beds as a distinctive cultural feature of the Itchen Valley.
- Conserve field and parkland boundaries.
- Restore, and improve access to, the Itchen Navigation and its banks.
- Conserve the open skylines of the valley crests which are particularly sensitive in views from the valleys. Consider views from the adjacent downs in relation to any change in the chalk river valleys.

8.14. Summary of Landscape character area descriptions

The River Itchen is a significant landscape feature which dominates the character of the western limit of the SDNP. The largely undeveloped valley floor is a distinctive and valuable feature from a historic, ecological and amenity perspective and is in stark contrast to the built environment of Winchester which it bisects. There are significant historical features throughout the valley and valley sides from the iron age hill fort at St Catherines to the 13th century St Gertrudes Chapel at Winnall Moors. The river valley has remnant water meadows within it which are important historical land management features whilst also offering exceptional biodiversity value. The downland to the east of the river valley is largely in arable production with some chalk downland present in uncultivated areas – eg St Catherines Hill, Twyford Down. There are wide reaching views due to the openness of the landscape and intervisibility across the wide river valley. The open skylines of the valley crests are vulnerable to development. The valley has some tree cover, and there are areas of woodland on the higher neighbouring downland where game coverts have been established or woodland has persisted on the heavier clay soils due to lack of cultivation. This is unusual for the open downland type and is local to the E5 character area. All the character descriptions describe the remoteness and tranquility of the landscape away from the major transport corridors & seek to reduce the impact of these features on the landscape character.

9. Visual baseline

- 9.1. Viewpoints have been researched which identify locations both within and outside the SDNP from where changes to the existing landscape would be potentially visible and where the viewpoint is representative of a range of views and experiences within the landscape. Some viewpoints have several photos and panoramas to emphasise different aspects of the view. The study is not exhaustive and there are further viewpoints which could be researched pending further information from Highways England.
- 9.2. Zone of theoretical visibility plotting has been undertaken based on the outline route information provided by Highways England. Where possible this has taken into account the elevated sections of the route options at junctions and bridging points, and lowered sections where this information has been made available. ZTVs are based on the 5km Digital

Surface Model (which includes buildings and trees) to a radius distance of 5km from the plotting points. These are shown in figures xii-xiv

- 9.3. ZTV have been produced for the existing route and for route option 14 The ZTV plots use points at 200m intervals along the length of the route options, with additional points where grade separation occurs for bridges and junctions. Elevated and lowered ground sections have been taken account of given current information. The colour gradients for the plots are equal to enable comparison judgements to be made for example 10 points visible at a location would be the same colour in each of the ZTVs.
- 9.4. The ZTV plots have been used firstly to identify areas of zero visibility. Secondly, the reading of the plots with PROW routes both within and to/from the SDNP, tourist destination locations, biodiversity and cultural heritage designations, settlement edges & important locations within them has been undertaken to establish a search area for field work. Field study has been undertaken to verify visibility and to take photographs for indicative purposes.

The site is elevated on the eastern valley side of the Itchen and is visible from a number of surrounding areas within the valley, on the valley floor and from the rising downland to the east, south and west. There are views over the site from Teg Down, an extensive tract of land to the south west of the site, on the opposite valley side. The existing M3 and A34 corridors are reasonably well concealed along the valley side in the vicinity of the site due to the presence of extensive woodland and valley floor scrub/wet woodland. Loss of trees due to the proposals would open views along the existing and proposed alignments. In addition the relatively low level of the existing road alignments ensure that their visibility is minimised. The M3 corridor is more elevated than that of the A34 and is more visible as a result from the valley floor within Winnall Moors Nature Reserve.

11. Landscape & Visual Impact

12.1. Viewpoint 1 Magdalen Down

12.1.1. Landscape

Magdalen Down is an area of open access land on a distinct ridgeline rising to 125m approximately 1.25 KM to the south east of the proposals. This is an area of largely undeveloped agricultural land with scattered farmsteads. The St Swithuns School buildings (1935) are located to the west and Magdalen Hill Cemetery (GII registered Parkscape) to the east of the viewpoint, although this isn't visible due to the intervening tree cover. The elevation of the viewpoint affords it a degree of remoteness, although there is intermittent road noise from the B3404 and more distantly from the M3 as a constant low roar which varies in intensity according to wind direction. The landcover of unimproved grassland is relatively natural in character, together with intermittent tree cover, more so than many of the large scale arable fields in the foreground to the north. The land is recorded in the HLC as being downland dating to the Early post medieval period (AD1500-1590) which suggests it remains from the early sheepwalk system. The land the city of

Winchester and its cathedral are visible to the west, there are glimpses of traffic in the distant along the M3 and of Junction 9, whilst to the south the M3 is in open view as it passes to the east of St Catherines Hill. To the north the views over the intervening rolling countryside continue to the ridgeline some 30km to the north. The landscape has high value being open access land, within the SDNP and is under conservation management by the Butterfly conservation trust. Whilst it is not directly accessible from Winchester, there is a car park on the B3404 which offers easy access along the bridleway through the cemetery. The landscape is sensitive to change although there are detracting influences within it. The proposals would contribute further to the existing levels of detrimental impact caused by the M3 through the landscape (severance, noise, movement and large scale infrastructure within an essentially agricultural landscape) . The proposed expansion of the junction with several new connecting sections of road, it's proposed encroachment onto the higher ground of the valley side (MC1B –south bound M3 slip road) and the elevated level of the new southbound A34 connection will increase the degree of detrimental impact experienced due to the spread of the road junction into the higher landscape beyond the valley floor, the loss of existing trees which currently provide a significant setting from the road, and reduce the detrimental impacts of movement, noise and intrusion on the experiential quality of the landscape. The possible location for the site compound on the south-eastern corner of the existing junction would contribute further to this impact on intrusion, the anticipated changes in levels, changes in land use and industrial activity involving large earth moving plant, site cabins and storage of materials would contribute further to the existing detrimental impacts and would add to the sense of 'overspill' of major infrastructure beyond the confines of the river valley in which it currently sits. In terms of tranquillity the road corridor has much less of an influence on tranquillity at this distance in terms of noise or visual detractors. Road noise from the B3404 is far more intermittent, and road noise from the M3 corridor is far more distant and moderated. It is possible to experience many of the visual and auditory factors that make a positive contribution to tranquillity.

This is a key issue in assessing the impacts on the SDNP as any overspill beyond the river valley exposes the wider SDNP to impacts from the M3 Corridor in an area of the park which has already been severely damaged by its presence. Whilst the compound and its impacts would be temporary for the duration of the works the future land use of the site would need to be protected from opportunist development proposals.

12.1.2. Visual

This landscape is recognised in the SDILCA as being visually sensitive due to its elevated and undulating nature and the degree of openness and lack of enclosure in the landscape. The views from Madgalen Hill are extensive over the surrounding landscape and include Winchester, sections and glimpses of the M3 to the south and

north, St Swithuns School and the Magdalen Hill Cemetery. All of these features are viewed within the undulating agricultural land of the chalk downland. The proposals to enlarge the M3 junction 9 would affect these views through the increased size and expanse of the road, the density of road alignments and loss of surrounding landscape and trees, the increased elevation of some of the sections of road would contribute to the encroachment of the junction beyond the confines of the river valley in many views.

12.2. Viewpoint 2 Cheesefoot Head

12.2.1. Landscape.

Cheesefoot head is a viewpoint location on the South Downs Way (SDW). It is identified on the OS mapping as a 360° viewpoint. It is also included in the South Downs Viewshed Study as a representative viewpoint. It is set on the highpoint of the downland which rises away from the river Itchen. The location is approximately 3km to the east of the M3 proposals. These proposals are likely to be experienced along a short stretch of the SDW to the north of the viewpoint. The intervening landscape is largely in agricultural use and is large scale, undulating and mostly unenclosed although there are significant game coverts and linear blocks of forestry planting. The field patterns are generally large scale and modern, although smaller land parcels of greater age survive on areas of land which are not suitable for agriculture. Farm diversification has contributed to a varied character to the landscape in some locations where festivals and off-roading activity is hosted. The vulnerability of the landscape to development of the M3 corridor is in the over spill effect of the road spreading out of the river valley side in which it is currently located. This would lead to intrusion, movement and disruption of landscape character albeit at some distance and for a relatively short time span for users of the SDW. Given the importance of the location and the value of the landscape the landscape on the South Downs way this would increase the degree of impact. It is considered that the landscape sensitivity is high, value is high and the magnitude of change is moderate to minor. Mitigation through landscape scale changes to long term conservation land management along the eastern side of the road corridor would be likely to reduce these impacts to an acceptable level by creating natural downland scrub/screening planting, restoration of chalk downland which would contribute to a robust landscape structure for the new junction to be located within.

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12.2.2. Visual

Views from the SDW in this location are generally towards the west and look beyond the Matterley Bowl coombe. There are a number of large buildings to the east of Winchester which feature in some of these views – for example the Intech centre, St Swithuns school and there are views over parts of Winchester which rise on the western valley side of the Itchen Valley. Views extend for up to 35km given good

weather conditions, the overriding character is one of undulating mix of agricultural fields and woodland. There are areas of woodland planting which appear to provide cover for game birds and these are often incongruous in the landscape, using non native species and densely planted monospecies. Despite this the landscape retains a remote quality due to its height and separation from human activity and its undeveloped character. The M3 proposals are 3km distance from the SDW in this location and as a result the impact of new infrastructure appearing over the Itchen valley side would be mitigated by distance to some extent. However due to the sensitivity of both the landscape and the users of the SDW who are experiencing the landscape of the South Downs National Park even a small change in the view can have significant effects. Due to the distance between the viewer and the effect it is likely that mitigation through changes to long term land conservation management along the eastern valley side would be successful in reducing these impacts to an acceptable level.

12.3. Viewpoint 3 Winnall Moors Nature Reserve/Alan King Way

12.3.1. Landscape

Winnall Moors Nature Reserve is located on the flood plain of the river Itchen and includes the river Itchen SAC, SSSI and BAP habitat areas. The Alan King Way passes along the western side of the river valley and connects to Kings worthy via an underpass to the A34. The landscape is flat along the valley floor and criss crossed with the ditches of the remnant water meadows which have remained since the 18th century as part of the sheepwalk system of agriculture. The valley is a large scale landscape feature which is now largely maintained for biodiversity & natural greenspace under management by the Hampshire and IOW Wildlife trust. It is 10 minutes' walk from Winchester city centre. Following a major habitat restoration project funded by HLF, the 158 acres of nature reserve also provides natural flood protection for Winchester. This is a pristine and intact river flood plain which is almost completely undeveloped. To the south east there has been large scale industrial development although these buildings have generally been limited in height and in the summer are screened by the areas of alder carr woodland within the valley floor. Towards the northern part of the reserve the traffic noise from the A34 becomes a more dominant impact although this part of the reserve is more wooded which limits visibility of the road. There are glimpses of the fast moving traffic along both the M3 and the A34 but mostly traffic is screened by the existing trees on the valley sides. This is a highly sensitive landscape with significant susceptibility to change. The site is of high value having long distance trails, high level of designations (SDNP, SAC, SSSI) and has high numbers of users, indeed recreational pressure is an issue for the SAC. The M3 proposals would be likely to have significant impacts on the valley floor due to the loss of tree cover (HE estimate 6.5 Hectares, although this is based on a desktop assessment and the implications of the construction processes on this figure are not clear), the elevation of the new junction and associated connecting roads – in particular the southbound A34 and the southbound slip road for the M3. The loss of tree cover, would significantly

increase the intrusion into the river valley of the existing and proposed roads and this would be likely to have a significant impact on character. Further detailed information is needed on this issue. The arboricultural desk based assessment does not take into account the significant level of amenity enhancement which the existing trees provide to the river valley and in providing a setting for the road within the valley side and in reducing tranquillity. At present the more negative visual and auditory impacts of the road are screened or softened by the trees and mature scrub in the distance. It is likely that these will be lost as a result of the proposed scheme. This will have a significant negative impact on tranquillity at this location as the negative visual and auditory impacts of the road corridor will have an increased influence across this area.

12.3.2. Visual

A view on St Swithuns Way is included in the SDNPA Viewshed Study 2015 as one of the representative views of the South Downs National Park – in particular the chalk stream valleys. The view is described as illustrating the iconic wetland habitat associated with the chalk stream and rivers of the South Downs. They reveal the tranquillity associated with the valleys, the contribution that farming has made to the character of the landscape (water meadows, late medieval enclosures around villages and later field enclosures). In the section called Management Guidance a relevant point is to ‘protect the rural character of the valleys, limiting encroachment of suburban influences into views’. The views through the valley are enclosed and filtered through existing trees and hedges. The many channels of the water meadows are visible and the scale of the landscape is considerable as it unfolds on the journey north along the path. Along the eastern valley side the A34 and M3 are visible rising above the valley floor (more so the M3) although the impact is intermittent and limited to glimpses of high sided lorries. During the winter this effect is more marked. Towards the north of the site the impact of the moving traffic along the A34 is more marked through visual disturbance and noise. The proposal would be likely to be visible in succession continually along the footpath as the path runs in parallel to the A34. The ZTV plots which have been undertaken suggest that a number of points along the proposals will be visible at any time 7 this area requires further work to evidence the likely impacts. The height of the proposals relative to the existing buildings along the eastern side of the valley is an important issue and further drawings, cross sections and CGI would be useful in aiding the understanding of these relationships.

The loss of existing trees will have a clear impact on views within the valley and although replacement is stated as an objective, it is considered unlikely that this could be possible in the right locations owing to the degree of development proposed within a relatively confined area of the red line. The ZTV and fieldwork suggests that views will be significantly affected over the valley from St Swithuns Way due to the exposure of the development through the loss of existing trees, the elevation of the proposals and the wide open nature of the views over the flood plain. Increased visibility of fast moving traffic will have an impact on these highly

valued views and it is suggested that further investigation is required to identify the mitigation opportunities in order to understand the likely impacts.

12.4. Viewpoint 4 Itchen Way

12.4.1. Landscape

The Itchen Way is located on the flood plain of the river Itchen and the adjacent nature reserve includes the river Itchen SAC, SSSI and BAP habitat areas. The route passes along the eastern side of the river valley and connects to Kings Worthy and Abbotsworthy via a low underpass to the A34. The approach to the underpass is uneven and the descent is steep on the northern side. The landscape is flat along the valley floor and criss-crossed with the ditches of the remnant water meadows which have remained since the 18th century as part of the sheepwalk system of agriculture. The valley is a large scale landscape feature which is now largely maintained for biodiversity & natural greenspace under management by the Hampshire and IOW Wildlife Trust. It is 10 minutes' walk from Winchester city centre and provides important access to natural greenspace. It is under significant pressure from recreational use. Following a major habitat restoration project funded by HLF, the 158 acres of nature reserve also provides natural flood protection for Winchester. This is a pristine and intact river flood plain which is almost completely undeveloped. To the south east alongside the Itchen Way there has been large scale industrial development although these buildings have generally been limited in height and in the summer are screened by the areas of alder carr woodland within the valley floor. Towards the northern part of the reserve the traffic noise from the A34 becomes a more dominant impact although this part of the reserve is more wooded which limits visibility of the road. There are glimpses of the fast moving traffic along both the M3 and the A34 but mostly traffic is screened by the existing trees on the eastern valley sides and by the buildings to some extent although there is movement, traffic and urbanising impacts associated with the industrial scale buildings as well. This is a highly sensitive landscape with significant susceptibility to change. The site is considered to be of high value having long distance trails, high level of designations (SDNP, SAC, SSSI) and has high numbers of users, indeed recreational pressure is an issue for the SAC. The M3 proposals would be likely to have a less than significant impact on the eastern side of the valley due to the enclosure provided by the existing industrial buildings. However it is likely that the close proximity of fast moving traffic together with large retaining structures alongside the edge of the motorway may have intermittent impacts on noise and tranquillity to users of the Itchen Way and will be detrimental to the experiential qualities of the landscape. The loss of tree cover, could significantly increase the intrusion into the river valley of the existing and proposed roads and this would be likely to have a significant impact on character. Further detailed information is needed on this issue. The arboricultural desk based assessment does not take into account the significant level of amenity enhancement which the existing trees provide to the river valley and in providing a setting for the road within the valley side and in reducing tranquillity. At present the more negative visual and auditory

impacts of the road are screened or softened by the trees and mature scrub in the distance. It is likely that these will be lost as a result of the proposed scheme. This will have a significant negative impact on tranquillity at this location as the negative visual and auditory impacts of the road corridor will have an increased influence across this area.

12.4.2. Visual

The views through the valley are enclosed and filtered through existing trees and hedges. The many channels of the water meadows are visible and the scale of the landscape is considerable as it unfolds on the journey north along the path. Views towards the industrial buildings are ancillary areas to the east are screened to some extent by embankments and hedgerow plantings but are visible and are in stark contrast to the wild and undeveloped expanse of the flood plain. Once beyond the limit of the industrial buildings the impact of the A34 becomes more dominant in the foreground as the path runs parallel to the road for some distance. Any loss of tree cover in this section would be highly detrimental to the character of the valley floor owing to the opening of views, noise and movement of the A34 traffic. The elevated sections of the road may have an increased impact on noise and visual intrusion in-between the industrial buildings although this is not clearly set out in the documents and more information is needed on levels, acoustic barriers and retaining walls in order to identify the likely impacts.

12.5. Viewpoint 5 : Open Access Land adj Whiteshute Lane

12.5.1. Landscape and Visual: In the setting of the SDNP/townscape impacts Whiteshute Lane is an ancient highway which originally linked the southern outskirts of the city and St Cross with the medieval settlement at Silkstead, five miles to the southwest between the villages of Hursley and Otterbourne. In the Setting of Winchester Report dated 1998 it is described as *'to the east of Badger Farm, Whiteshute Ridge and Bushfield provide a stunning panorama featuring the Cathedral, city and St Cross set against the framework of the Itchen Valley and the Eastern downs'*

There is a long distance walk – Clarendon Way which links Salisbury and Winchester which passes along this hillside which descends into Winchester. This is a finger of former downland which extends well into the city and is a well-used area of accessible natural greenspace. The former Bushfield Army camp is to the north of the viewpoint and this is subject to redevelopment proposals. Views from Clarendon Way are extensive over Winchester and have the cathedral in the Centre focus of these views owing to the folds in the downland leading in the precise direction of the cathedral. The M3 J9 proposals are almost exactly on the opposite valley side and appear likely to appear over the roof of the cathedral in many views. This applies to the elevated sections of the two southbound links roads from the A34 and the M3. It is suggested that further investigative work is undertaken to establish the accurate nature of these impacts as clearly the introduction of a major road junction

in views forming the backdrop to Winchester cathedral would represent a high level of impact on highly sensitive views over a nationally designated landscape and a G1 listed building.

12.6. Viewpoint 6 Weeke Down

12.6.1. Landscape & Visual

The ZTV identified this location as a potential viewpoint however in undertaking field work it was clear that whilst views towards the site were possible from the adjacent fields to the east, views were not possible from the bridleway due to it being lined with dense hedgerow on each side. Intervening lines of trees along field boundaries to the east also limited views towards the site, although should any of these features be lost views would be possible towards the site at a distance of approximately 2 KM.

12.7. Viewpoint 7 Teg Down

12.7.1. Landscape And Visual

The landscape character of Teg Down is dominated by the surrounding royal Winchester Golf course through which the bridleway passes on its descent into Winchester. There is a scheduled ancient monument to the south east of the bridleway near the club house and this has a more natural rough grass character. Views from the scheduled ancient monument are wide open over the site although are not publicly accessible so have been discounted. The existing character of the site together with surrounding existing tree cover and undulating land form means that views towards the site are not possible from the bridleway.

12.8. Viewpoint 8 Open Access Land adj Sewage Farm

12.8.1. Landscape and visual

This is an area of open downland in close proximity to the existing M3 motorway, with extensive views along the motorway to the north. This area of access land does not appear to be well used for public access, although there are well used laybys on the Morestead road which runs along the southern boundary of the access land. The viewpoint overlooks the unusual layout of sewerage filtration adjacent to junction 10 of the M3 and there are wider views over the surrounding downland to the north and east. The site is heavily impacted by road noise which can be exacerbated by wind direction. Views over the site to the north are limited to some extent by the topography and the cutting in which the M3 sits, however there are clear views in a small section to the east of the access land where the southbound M3 slip road would be in clear view as an elevated cutting above the existing valley. This is a difficult view to mitigate, despite the intervening distance due to the orientation of the view and the viewer along the length of the M3J9. Careful alignment of the road design and treatment of the cutting face may be adequate to mitigate for these impacts. Further information would be required.

12.9. Viewpoint 9 Easton Down

12.9.1. Landscape & Visual comments

This is an enclosed area of the Itchen Valley where tree cover and topography create an intimate and remote riparian landscape despite the close proximity of the major road conurbation. The north facing slope of Easton Down effectively acts as a barrier to intrusion from the M3 although the road can be heard in locations along the route. This is a key connection to the Itchen valley way which passes under the A34/A33 before entering the Winnall Moors Nature Reserve to the south. The woodland along the foot slope of Easton Down appears to be of some age as there are aged yew trees present on the bank above the footpath. Towards the river/road bridge & underpass the experience of the landscape is more dominated by the presence of the A34 through the level of noise. However due to the level of tree cover the views are relatively unaffected. The river is outstandingly beautiful immediately to the north of the underpass and the visual impact of the nearby traffic is surprisingly limited. Any loss of tree cover in this area would be significantly detrimental to landscape character and views and to the experience of walking alongside the River. The southbound slip road from the A34 may have an impact on this area in terms of changing the topography and creating a 7m deep cutting, widening the amount of land given to roadway, and also loss of highway and other trees. There is potential for this to have a significant local impact on views and users of the Itchen Way and for the impact of the road to overspill into this northern section of the river valley depending on construction and tree loss. Impacts on tranquillity and experiential qualities such as remoteness and the relatively intact rural character of the river valley could be affected in close proximity to users of the PROW network.

12.10. Viewpoint 10 – Easton Lane Sustrans route 2

Landscape and visual – This is a narrow lane which previously ran between Winchester and Easton until truncated by the M3 construction. Access across the junction is provided by a grade separated route through the junction 9 roundabout although it is not considered to be of a suitable standard for cycling through the junction. The character of the lane is rural with high hedgerow banks on each side, surrounded by large arable fields. There are glimpses of the surrounding undulating landscape through gaps and openings. Towards the western end of the lane the noise of the M3 and Junction 9 becomes stronger and increasingly dominant although traffic is not visible until users are very close to the slip road on the eastern side of the junction. The proposed changes to the junction would result in the loss of hedgerows and trees from each side of the lane for approx. 130m, and the lane would be in a cutting (depth up to 7m) to pass under the slip road. The influence and dominant character of the new slip road passing over the lane would change the rural character of the lane and increase urbanising influences along the route, introducing visible traffic and noise further along the access route. Detailed design of this area should seek to replicate the rural character and avoid standard highway details.

13. Summary of likely impacts from the range of viewpoints identified

- 13.1. The information available about the scheme proposals is currently very limited. There is no detail on mitigation proposals for example and although broad undertakings are made in the proposal documents about mitigation, there are no details included. The areas which appear to be most likely to be significantly affected by the proposals are assessed as follows:

13.1.1. Views and landscape within the Chalk valley stream landscape character area; The River Itchen /Winnall Moors Nature Reserve & the Allan King Way, where the existing impacts of the M3 and A34 are likely to be further exacerbated by the proposals, and new detrimental impacts caused by visible elevated section of the proposals and visible changes to the existing topography, causing harm to tranquillity, intruding into the relatively undeveloped expanse of the river valley and the valley sides, removal of existing highway trees and the loss of screening, noise regulation services and slowing the rate of water infiltration services which they currently offer to the river valley. Users of the river valley PROW are considered to be highly sensitive receptors, within a highly sensitive landscape of high value due its range on national and international designations, where even a small negative amount of change could have a significant adverse impact on the landscape due to its sensitivity. To the north of the A34/A33 under pass there may be further impacts from the proposed southbound A34 slip road which is shown in cutting through the southern part of Easton Down. Based on current information available it is assessed that due to tree loss, impacts on drainage, landform, elevation, scale and sensitivity that these effects are likely to be significant adverse.

13.1.2. Views and landscape impacts to the east of the proposals within the Open Downland character area; Easton Lane and Magdalen Hill for example would be likely to experience moderate adverse impacts from increased visibility of the M3 and its effect on rural character resulting from the overspilling of the road from within the river valley into the wider landscape of the open downland. There are additional anticipated adverse impacts from lighting, signage, gantries, service access, drainage requirements in terms of surface area, landform changes, access provision and land take. Other views which may have impacts but which are likely to be lessened by distance or orientation are views from east of St Catherine's Hill and from Cheesefoot head on the SDW. The possible location of the temporary site compound within the SDNP east of the existing junction off the Spitfire Way would lead to additional impacts on the SDNP in an area which is highly vulnerable to change due to its elevation and aspect and would lead to temporary moderate/major adverse impacts on the open downland area due to overspilling the river valley, landform changes, land use changes and development which is inconsistent with existing landscape character,

continued incremental highway depot development in the landscape corridor of the M3.

- 13.1.3. View from access land at Whiteshute Lane, within Winchester City, in the setting of the SDNP. There are open views over the river valley from this area of extensive and well used access land which is a large tract of accessible natural greenspace within Winchester City. The views are over the river Itchen valley and the Cathedral is a major focal point within those views. The downland above the M3 on the eastern valley side forms a backdrop in many views and it would appear that the elevated southbound M3 slip road would encroach into these views, in some locations appearing above the Cathedral roof. It is considered that this would be a moderate-major adverse impact on views & further work is need to clarify the precise nature of the visual impacts. Photomontages for example would be very helpful in this respect. The introduction of major road development within these views over the cathedral would be highly detrimental to the spiritual and cultural implications of the setting of the cathedral and of views towards the SDNP.

14. Conclusions

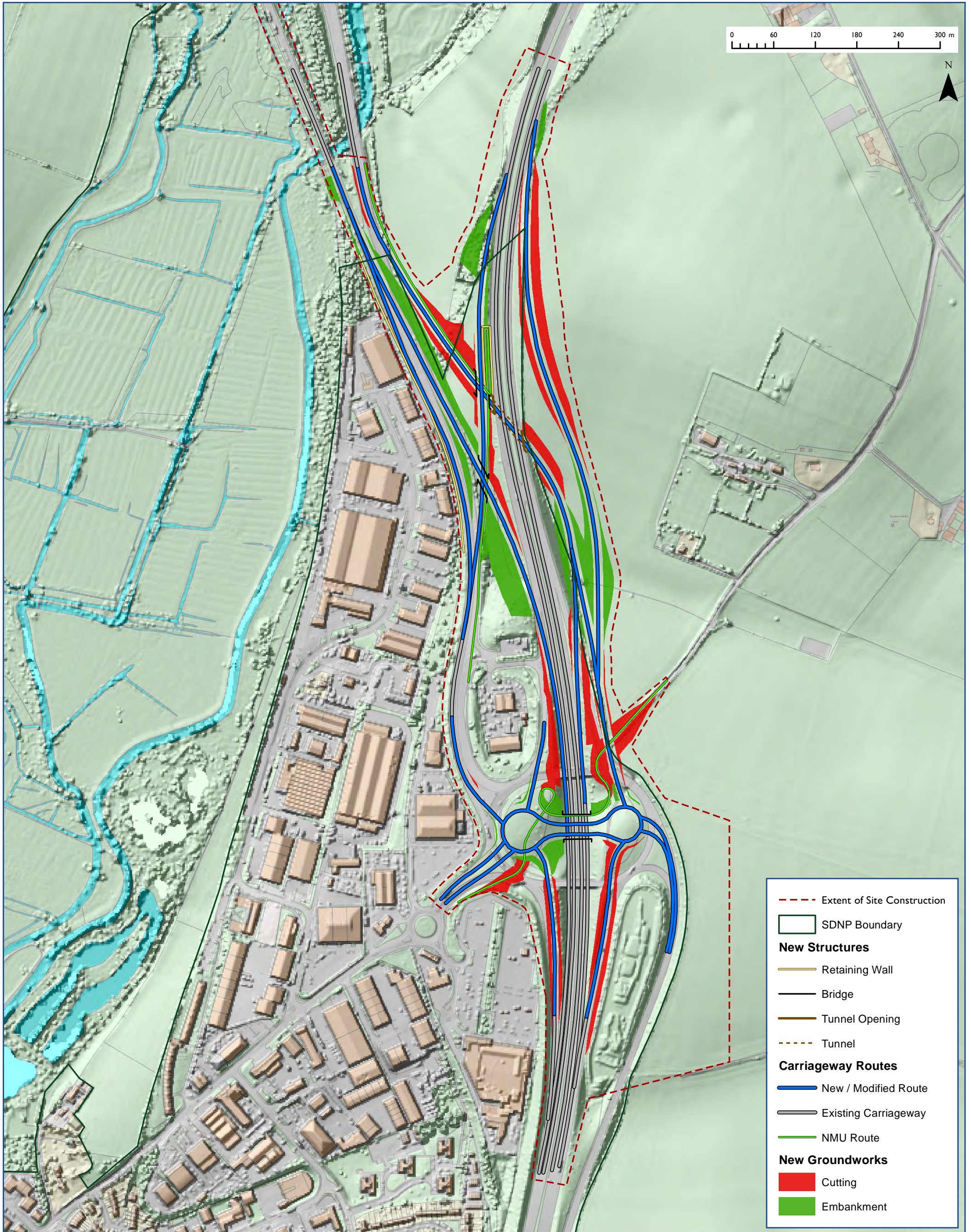
- 14.1. It is acknowledged that the landscape in which the proposals are located has been significantly affected by the construction of the M3 motorway which originally opened in 1995. This created a large swathe of motorway to the east of Winchester along the edge of the South Downs. However, despite this, there are areas of outstanding landscape which exist in close proximity to the road and provide high quality open spaces and natural greenspace for Winchester residents and visitors. The proposals to increase the size and scale of junction 9 will place some of these areas under further erosion of character and intrusion from the road.
- 14.2. Areas of natural greenspace to the west of the M3 suffer from significant recreational pressures due to the severance caused by the M3, many of which are highly sensitive locations which are under threat from over use – eg River Itchen SAC and SSSI, St Catherine’s Hill SSSI. Further expansion of the M3 is likely to exacerbate these issues and lead to either increased pressure on the existing sensitive sites located west of the Motorway or encourage car use through driving into the SDNP to get beyond the M3, both of which have adverse impacts on the SDNP.
- 14.3. The M3 corridor is largely within the River valley around junction 9 which limits it’s encroachment into the wider landscape of the open downland. This is evident further to the south where the road passes out of the valley and into the open downland where there are extensive views and noise intrusion into the SDNP.. The proposals to enlarge junction 9 includes elevated sections of road which will overspill the river valley in views and be exposed to views from the visually sensitive open downland to the east. Changes to topography/landform through the chalk within the open downland area would exacerbate these impacts further.

- 14.4. The Landscape corridor of the M3 has been steadily eroded during the past 20 years since the route was opened. There has been a proliferation of highway depots, storage areas and other developments which have since contributed to the fragmentation of the downland character of the M3 corridor. The proposal to build a temporary site compound on the edge of the open downland is likely to result in further harm to the SDNP and the continued widening of the impacts of the road and the associated developments which now surround it.
- 14.5. The site boundary is drawn very tightly around the proposed works and whilst mitigation is broadly referred to in the consultation documents there are no specific details about mitigation measures. For example it is stated that tree planting which is lost will be replaced on a like for like basis, and that the scheme will incorporate SUDS and filtration measures to protect the SAC from pollution and flooding. Given the limitations of the site area it is queried how these two elements can be simultaneously accommodated, and that tree planting can be achieved where it is required. Whether tree planting would be beneficial to screening given the height of the proposals is also queried. Detrimental Impacts on access, the PROW network, biodiversity, cultural heritage, tranquillity and landscape are not identified in any detail. This has limited the assessment process to considering the unmitigated effects of the proposal.
- 14.6. It is considered that offsite compensation measures would be required to adequately address these negative impacts, ideally through a series of compensatory land parcels which are acquired beyond the redline to be managed for a range of ecosystem services such as;
- upstream natural flood management,
 - habitat creation and enhancement, including chalk downland
 - increase cover of permanent pasture for surface water infiltration and to reduce nitrate use in the vicinity of the River Itchen,
 - woodland planting to replace lost tree cover, including the contributions to air quality, climate change, water purification and surface water infiltration that the trees make.
 - Measures to address recreational pressure on sensitive sites. – eg dog ‘wardens’ and measures to limit dog access to the river,

Veronica Craddock CMLI
Infrastructure and Environment Strategy Lead
South Downs National Park Authority
Tel: 01730 819239
South Downs Centre, North Street, Midhurst, West Sussex, GU29 9DH
www.southdowns.gov.uk | [facebook](#) | [SDNPA twitter](#) | [Ranger twitter](#) | [youtube](#)
email: veronica.craddock@southdowns.gov.uk

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- x. Photo viewpoint locations
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 - b. MC1C
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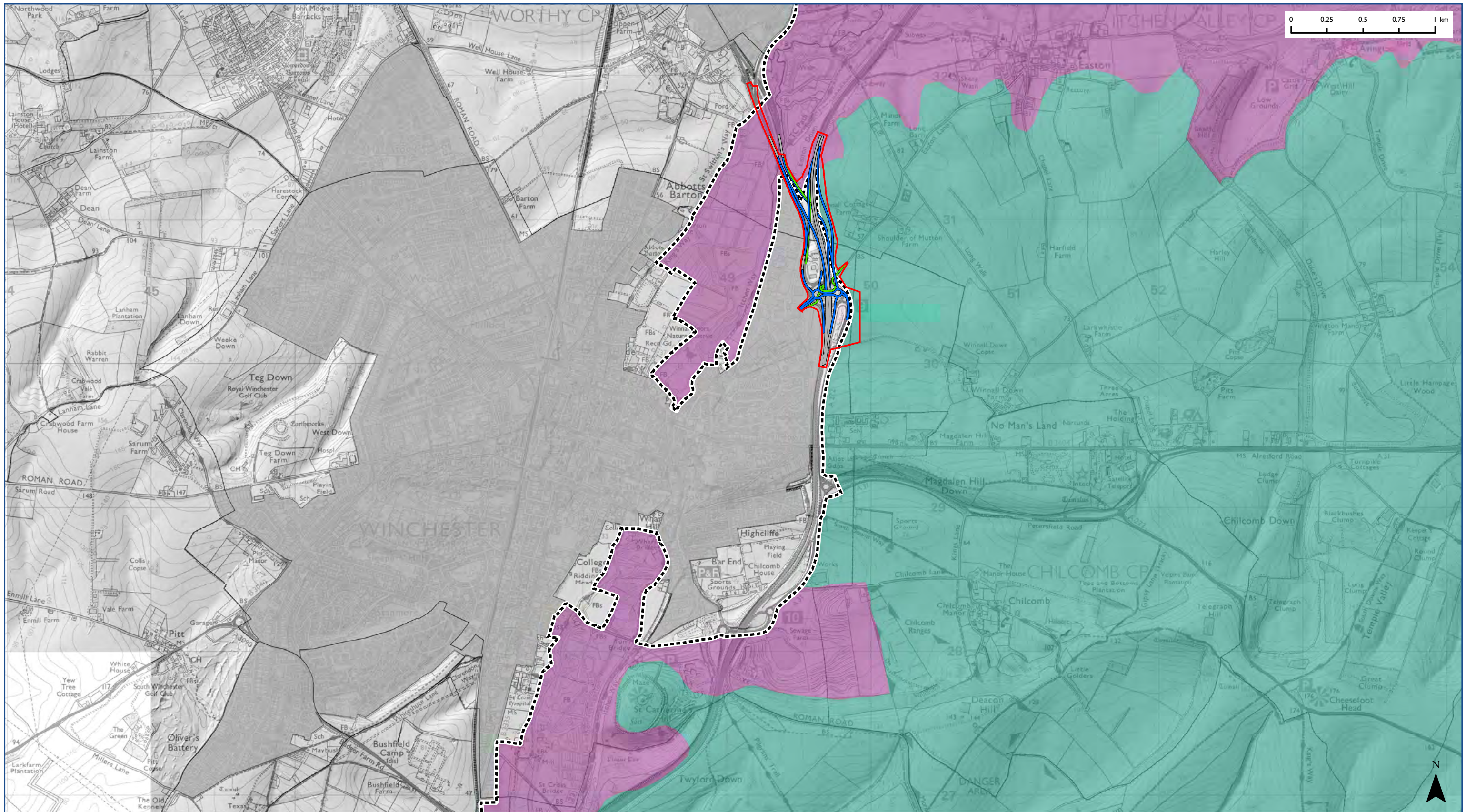


Figure ii

M3 Junction 9
Option 14 Proposal
Biodiversity

Extent of Site Construction

Option 14 Carriageway Routes

New / Modified Route

Existing Carriageway

NMU Route

SDNP boundary

Parish boundary

Settlement boundary

SSSI

Local Nature Reserves

Ancient Woodland

BAP Priority Habitats

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Special Area of Conservation

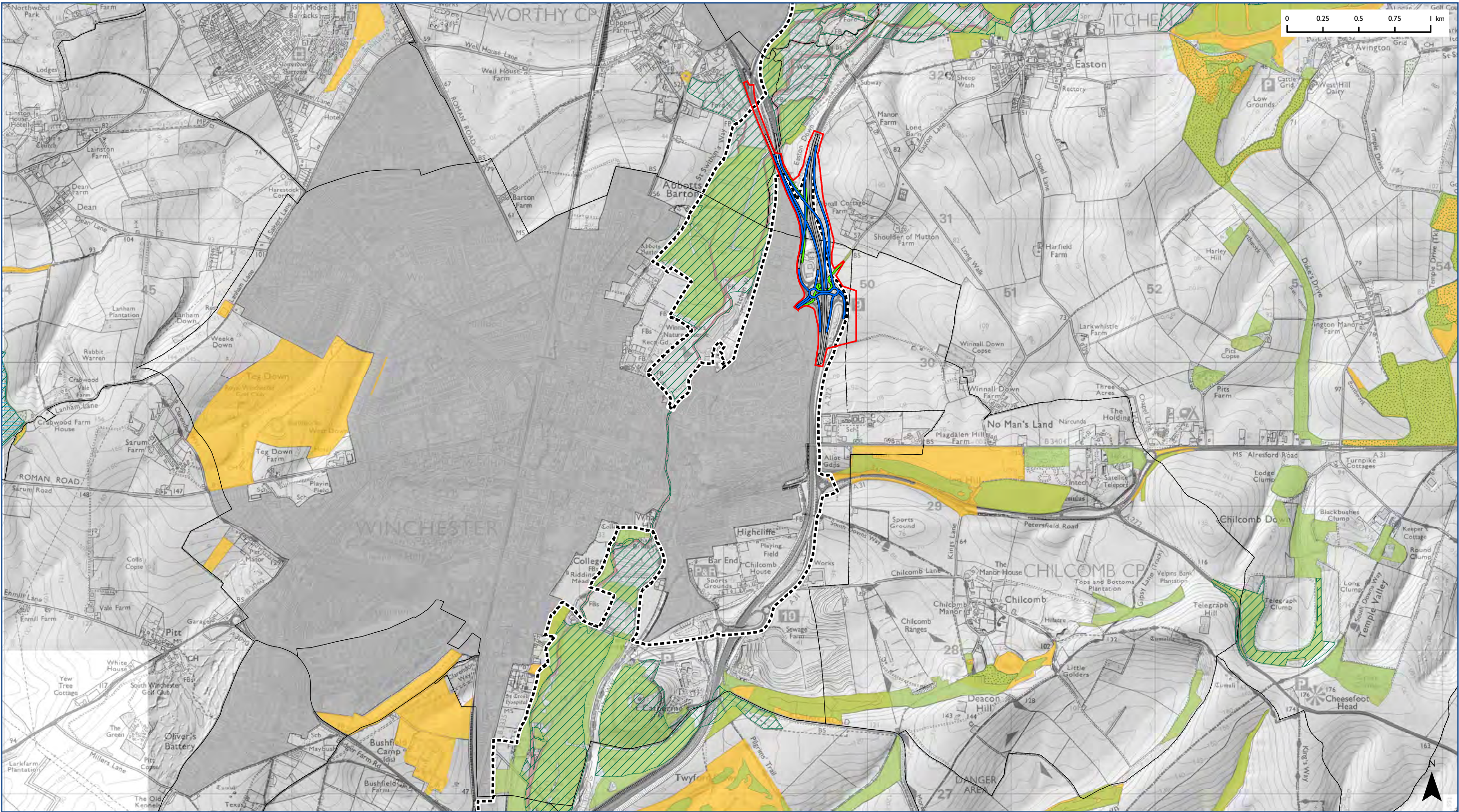


Figure iii

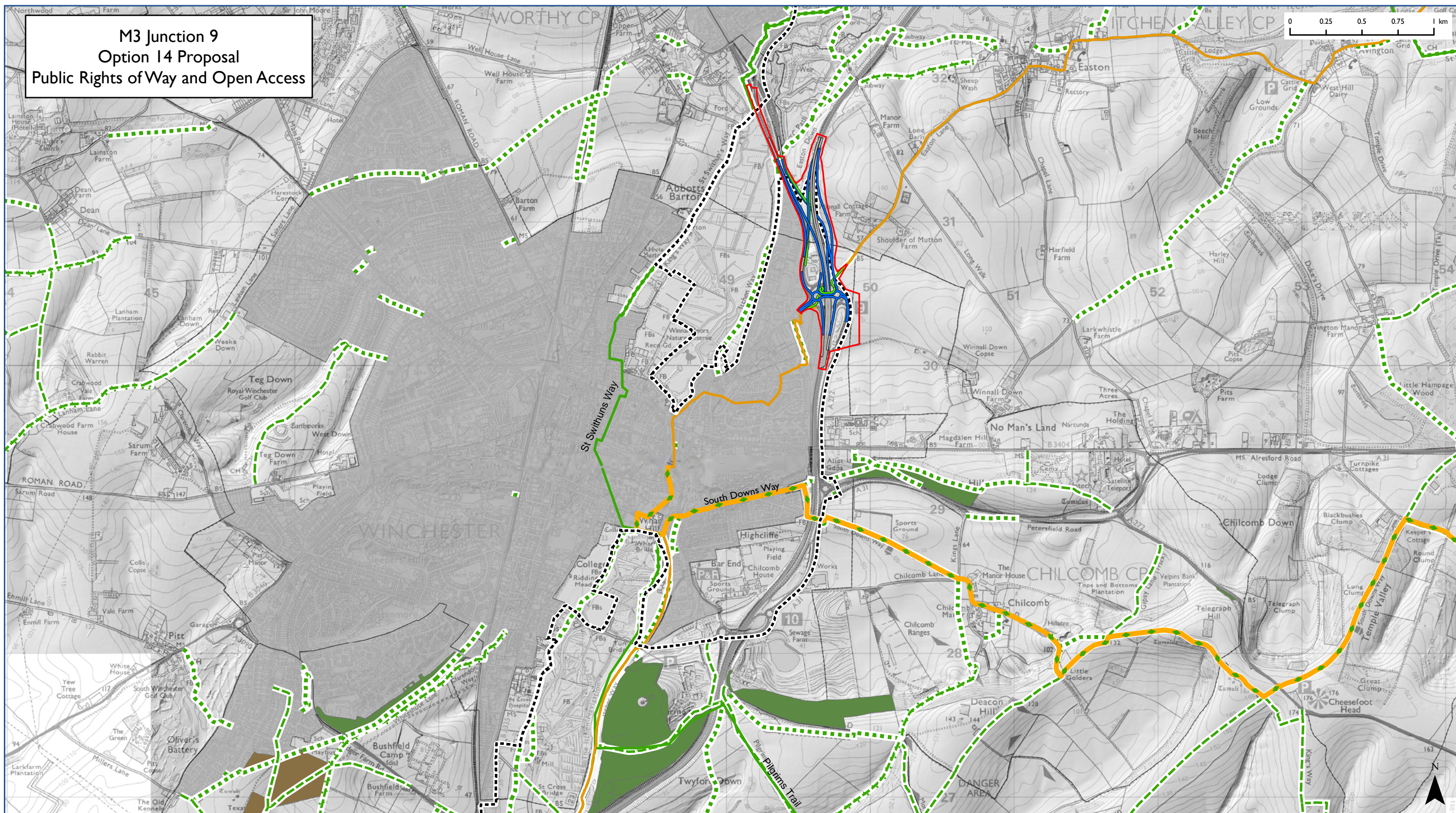


Figure iv

M3 Junction 9
Option 14 Proposal
Flooding and the River Corridors

Terrain_5
Extent of Site Construction

Option 14 Carriageway Routes
New / Modified Route
Existing Carriageway
NMU Route

Elevation (m)
25m Contour
5m Contour

SDNP boundary
Settlement boundary
Parish boundary
Floodzone 3

River/stream/canal
Primary River
Floodzone 3

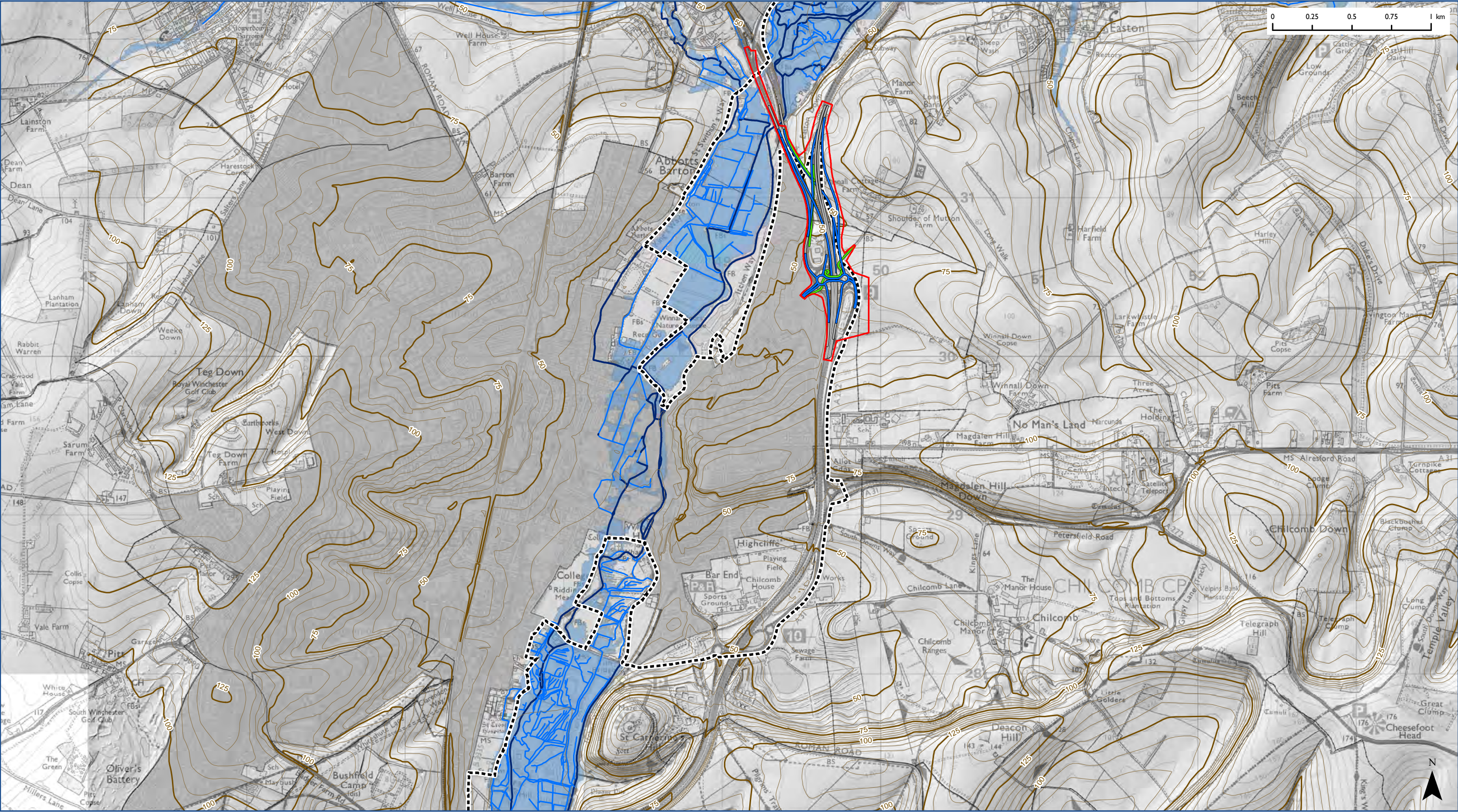


Figure v

M3 Junction 9
Option 14 Proposal
Historic Environment

Extent of Site Construction

Option 14 Carriageway Routes

- New / Modified Route
- Existing Carriageway
- NMU Route

SDNP boundary

- Parish boundary
- Settlement boundary

Aligned Building / Report NPA09/18 Appendix 4

- Conservation Area
- Scheduled Monument
- Registered Parks and Gardens

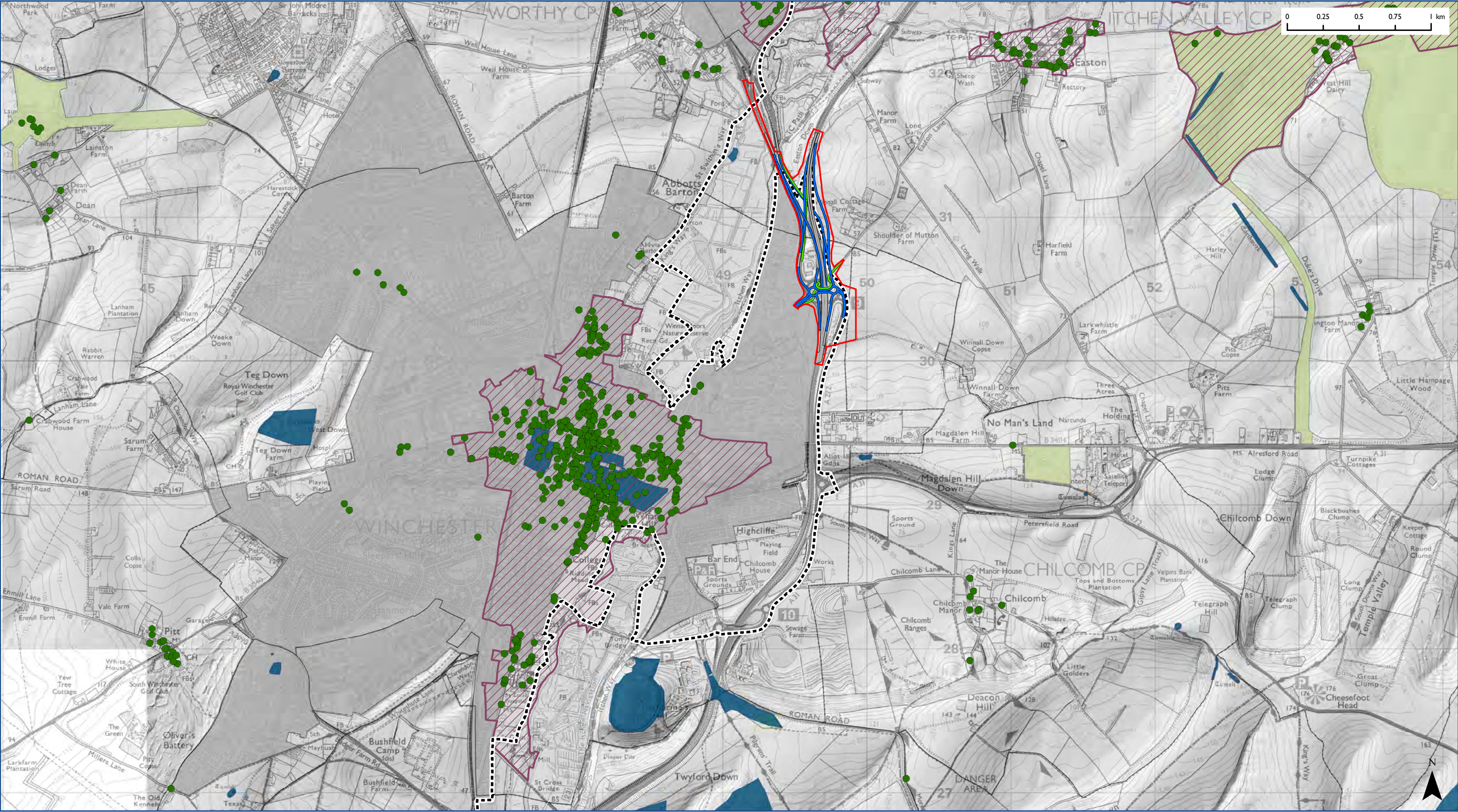


Figure vi

M3 Junction 9
Option 14 Proposal
Historic Landscape Character Type

- Extent of Site Construction
- Option 14 Carriageway Routes
- New / Modified Route
- Existing Carriageway
- NMU Route

- SDNP boundary
- Parish boundary
- Settlement boundary

- SDNP HLC Type
- Ancient semi-natural
 - Downland
 - Formal (planned/private)
 - Formal parkland

- Golf courses
- Historic core
- Historic dispersed
- Informal
- Informal parkland

- Lakes
- Marsh
- Non-historic isolated
- Other - industry
- Other - settlement

- Plantations
- Ponds
- Processing
- Regeneration
- Road



Figure vii

M3 Junction 9
Option 14 Proposal
Historic Landscape Character Period

Extent of Site Construction

Option 14 Carriageway Routes

New / Modified Route

Existing Carriageway

NMU Route

SDNP boundary

Parish boundary

Settlement boundary

SDNP HLC Period

20th Century (AD 1914 - Present)

Early modern (AD 1800 - AD 1913)

Agenda Item 17 Report NPA09/18 Appendix 4

Early post-medieval (AD 1500 - AD 1599)

Medieval (AD 1066 - AD 1499)

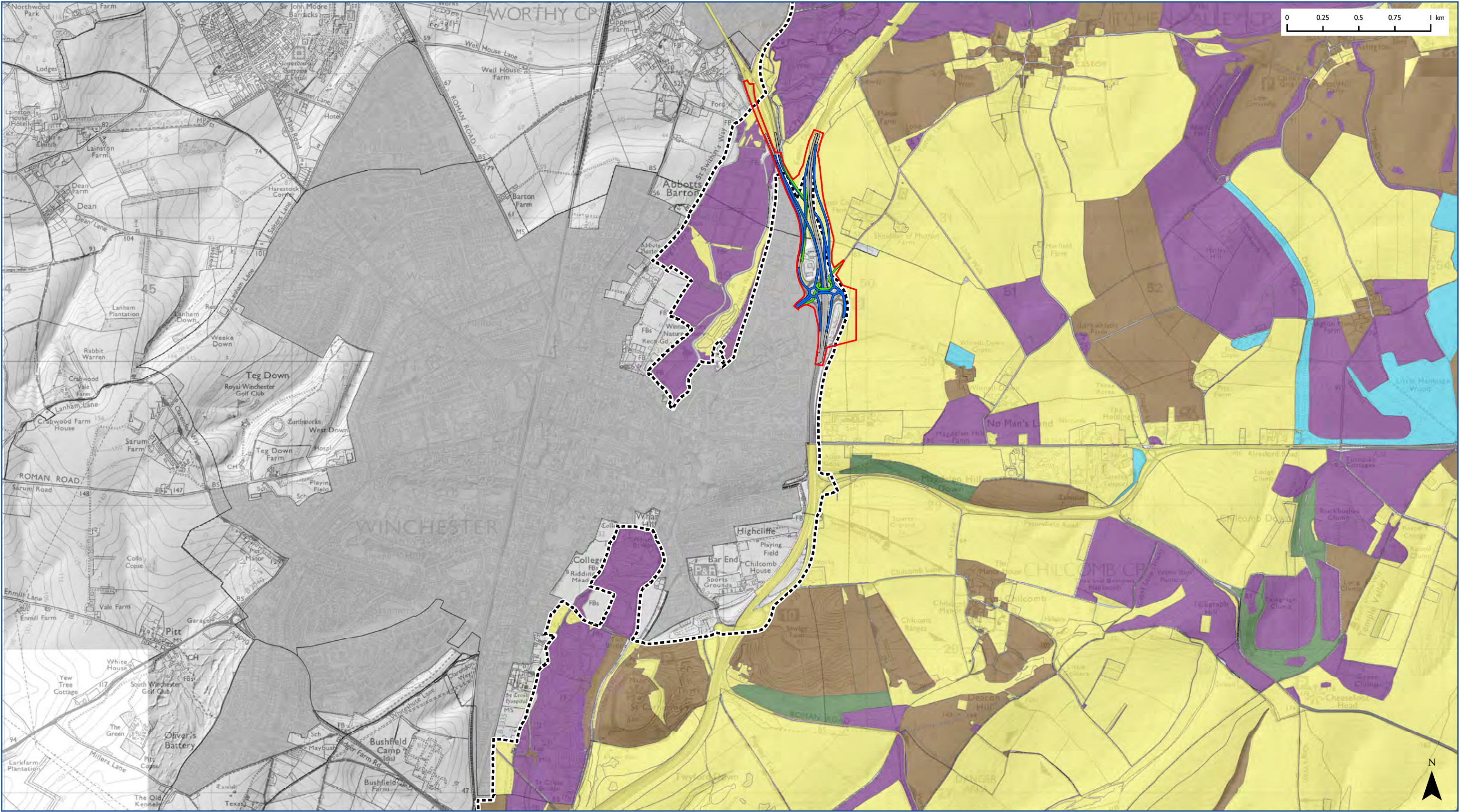


Figure vii

M3 Junction 9
Option 14 Proposal
South Downs Tranquility

- Extent of Site Construction Option 14 Carriageway Routes SDNP boundary Tranquility Score
- New / Modified Route — Parish boundary High : 113
- Existing Carriageway Low : -123
- NMU Route

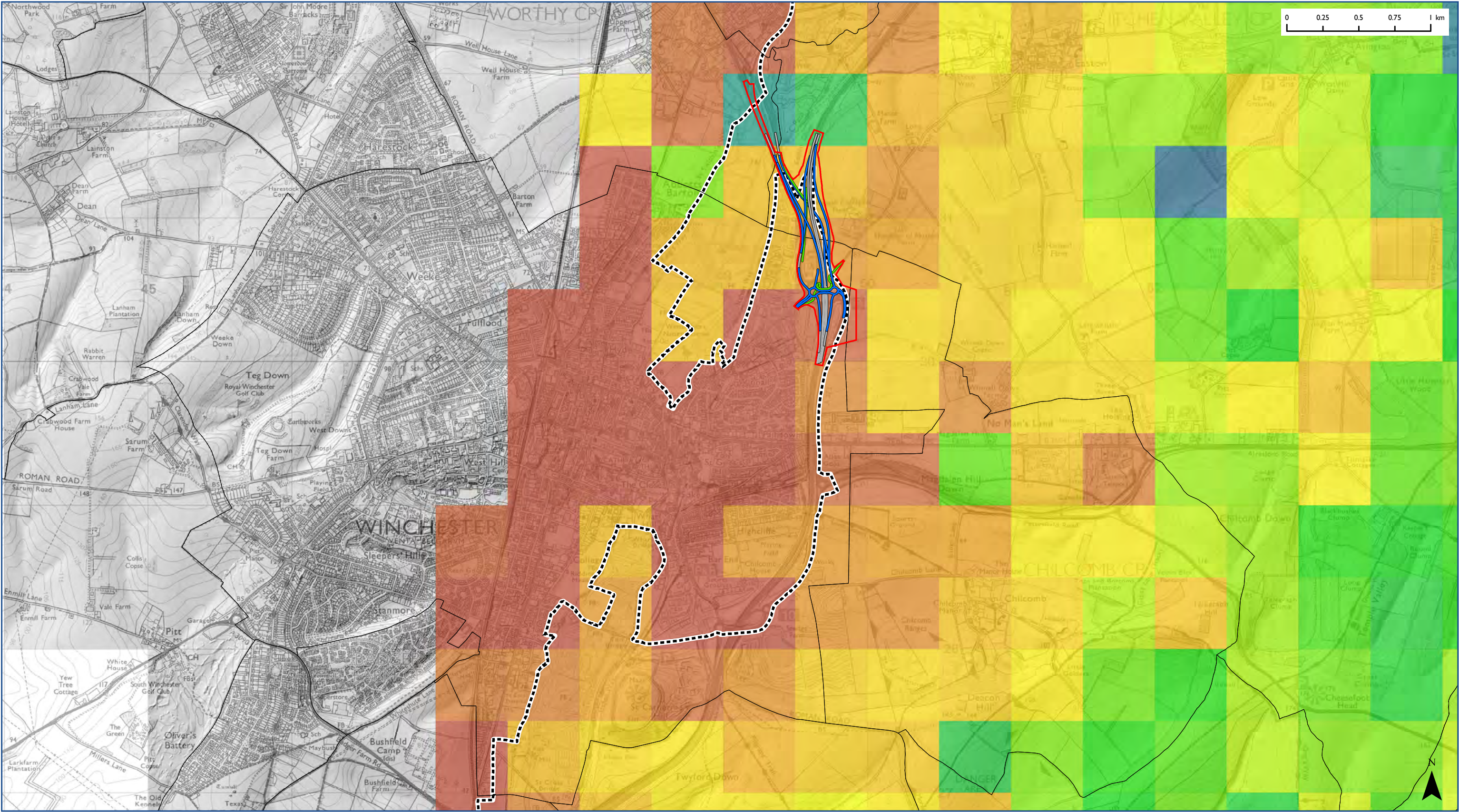
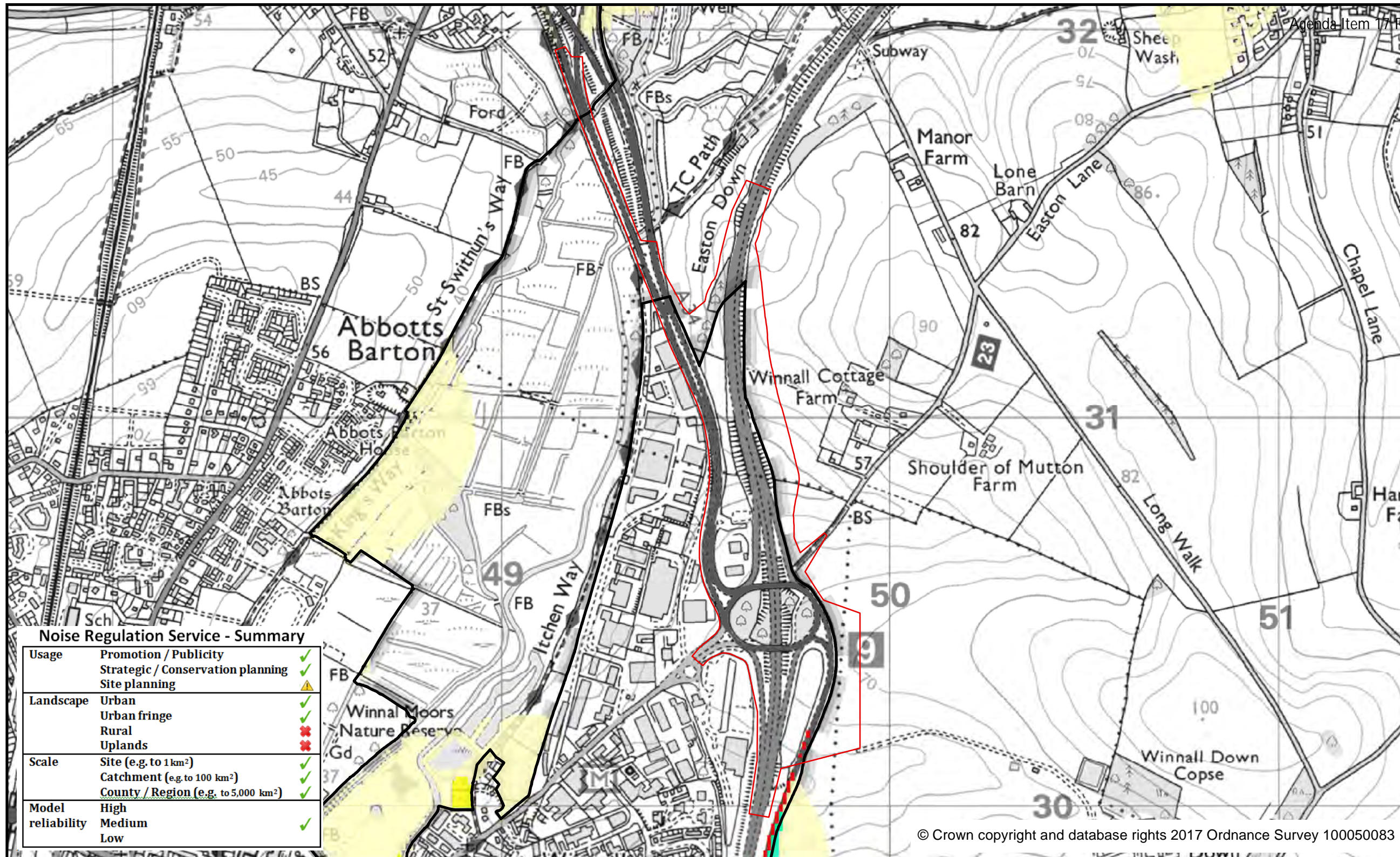


Figure viii

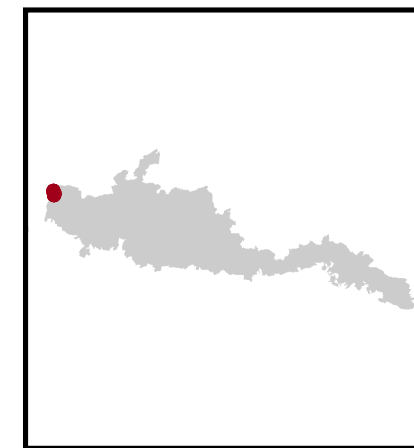
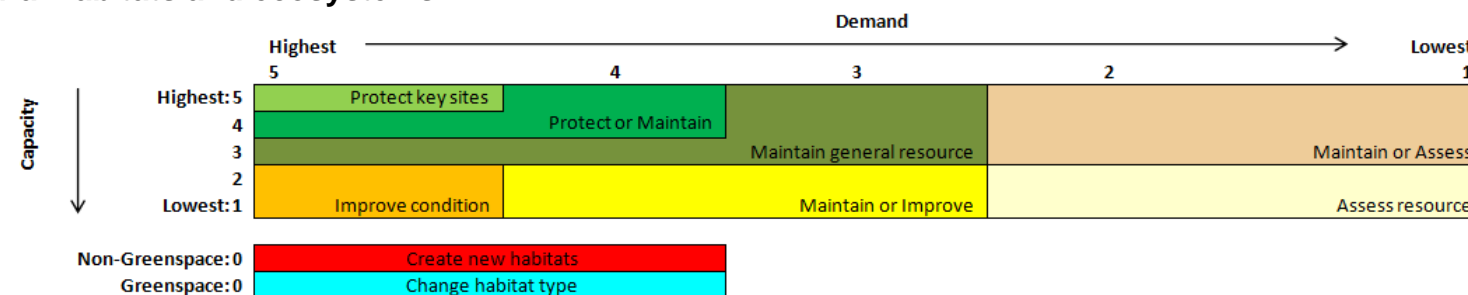
Noise Regulation Management Zones



Areas where people benefit from the noise reducing impact of semi-natural habitats and ecosystems.

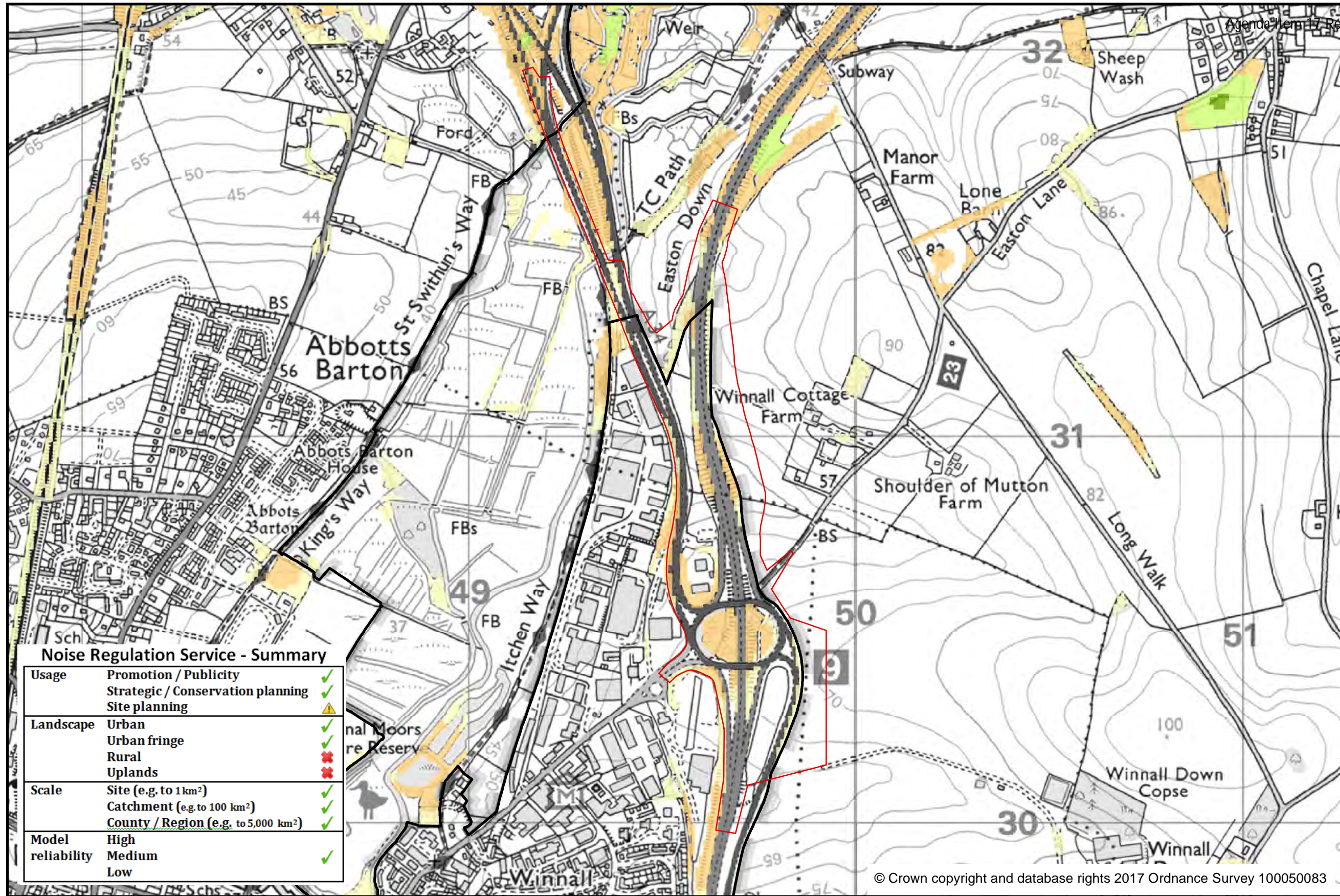
METHODS: Capacity and Demand quintiles are overlaid to estimate the management interventions that could maintain or increase the benefits delivered to people. Not all categories are always present.

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.





Noise Regulation Capacity



Noise Regulation Service - Summary		
Usage	Promotion / Publicity	✓
	Strategic / Conservation planning	✓
	Site planning	⚠
Landscape	Urban	✓
	Urban fringe	✓
	Rural	✗
	Uplands	✗
Scale	Site (e.g. to 1km ²)	✓
	Catchment (e.g. to 100 km ²)	✓
	County / Region (e.g. to 5,000 km ²)	✓
Model reliability	High	✓
	Medium	✓
	Low	✓

- Red line boundary
- SDNPA boundary
- Capacity Scores**
 - 80 - 100
 - 60 - 80
 - 40 - 60
 - 20 - 40
 - 1 - 20

Scores are on a 1 to 100 scale, relative to values present within the Study Area. White space within the Study Area shows areas with no data or with no capacity

EcoServ-GIS models executed by Sussex Biodiversity Record Centre (hosted by Sussex Wildlife Trust).



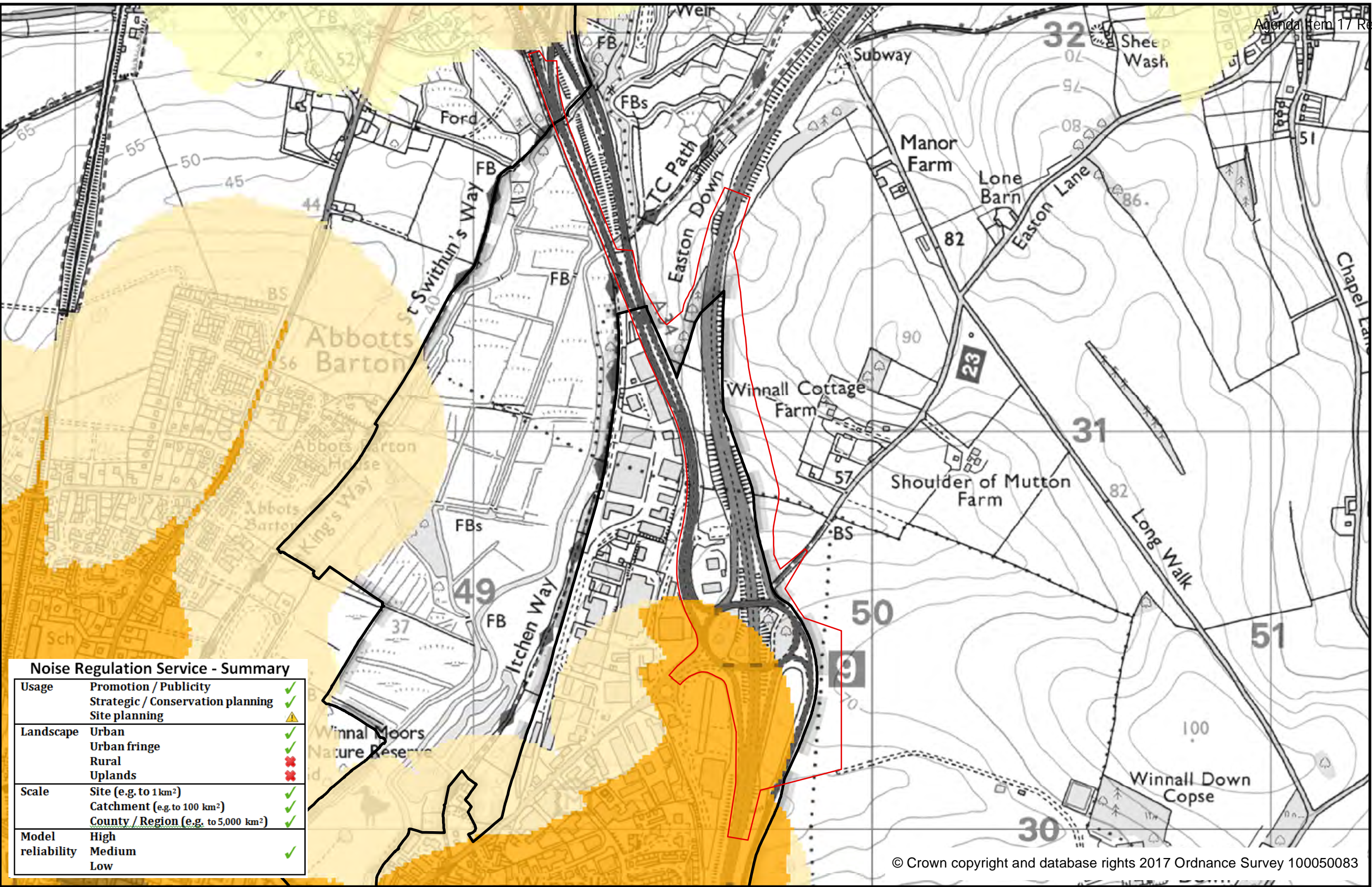
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Noise regulation capacity reflects the ability of different ecosystems and habitats to absorb noise pollution.

METHODS: Noise regulation values per ecosystem / habitat are inferred from available literature. These are estimated typical values. Habitat age and management is not considered. Analysis is conducted at short and local scales to give capacity scores based on habitat type and patch size. Default short scale distance = 30 m. Default local scale distance = 100 m

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.

Noise Regulation Demand



Noise Regulation Service - Summary		
Usage	Promotion / Publicity	✓
	Strategic / Conservation planning	✓
	Site planning	⚠
Landscape	Urban	✓
	Urban fringe	✓
	Rural	✗
	Uplands	✗
Scale	Site (e.g. to 1 km ²)	✓
	Catchment (e.g. to 100 km ²)	✓
	County / Region (e.g. to 5,000 km ²)	✓
Model reliability	High	✓
	Medium	✓
	Low	✓

- Red line boundary
- SDNPA boundary

Demand Scores

- 80 - 100
- 60 - 80
- 40 - 60
- 20 - 40
- 1 - 20

Scores are on a 1 to 100 scale, relative to values present within the Study Area. White space within the Study Area shows areas with no data or with no capacity

EcoServ-GIS models executed by Sussex Biodiversity Record Centre (hosted by Sussex Wildlife Trust).



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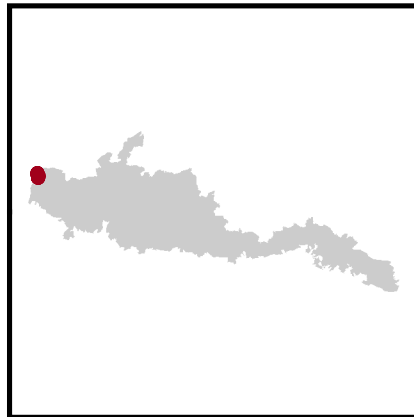
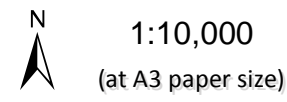
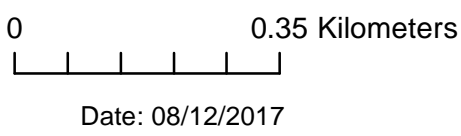
Noise regulation demand reflects the predicted need for noise regulation. This is based on modelled noise levels, population density and health data.

METHODS: Local search distance (population size) = 300 m, Minimum population size (local scale) = 50, Local search distance health scores = 300 m, Max noise distance from airports = 1500 m, Max noise distance from motorways = 800 m, Max noise distance from railways = 650 m, Max noise distance from A roads = 600 m, Max noise distance from B roads = 550 m. Thresholds are applied to limit the area of mapped Demand. Defaults are applied, but can be varied with custom settings.

LIMITATIONS: EcoServ-GIS relies on indicators to predict levels of capacity and demand. Results are relative to the study area and cannot be compared to other areas. Local knowledge must be used to interpret what the values mean in absolute terms.



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Contains NRS data © Crown copyright and database right [2015]
Ordnance Survey Licence number 0100024655



Landscape and Visual Report M3 Junction 9:
Viewpoints

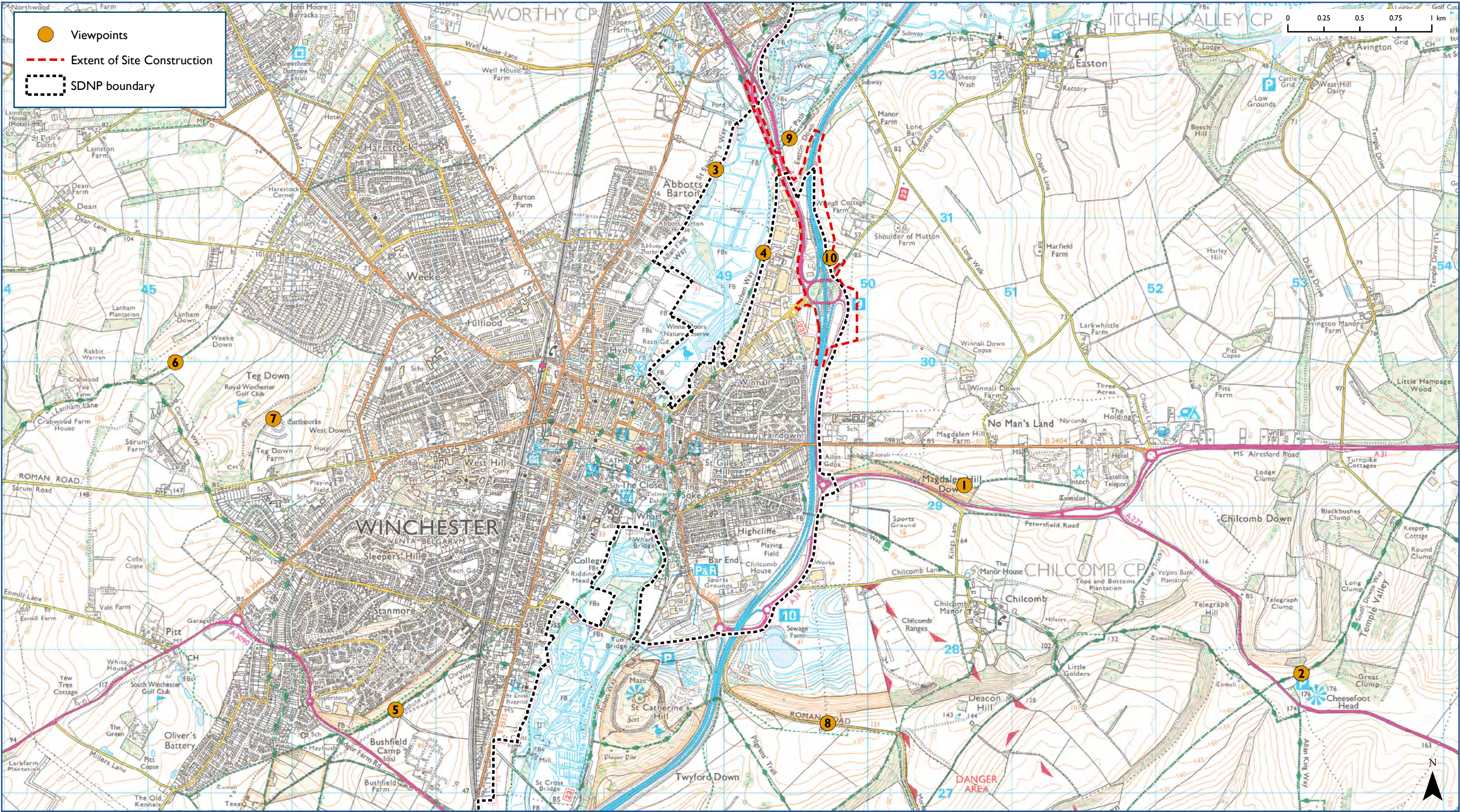


Figure x

SDNP Landscape and Visual Impact Report
M3 Junction 9 Scheme
January 2018

PHOTOS: Locations in viewpoint map



VP3 looking east from Allan King Way

VP1, 2 ,4 awaiting photos

PHOTOS



VP5 Looking north east from Clarendon Way

PHOTOS



VP5 Looking north East further up the hill

PHOTOS



VP5 (zoomed) to show downland & M3 slip road location



VP6 to east of bridleway

PHOTOS



VP7 looking north east

PHOTOS



VP8 Looking north from access land



VP9 route down to underpass A34

PHOTOS



VP9 A34 underpass



VP9 A34 bridge

PHOTOS



VP9 looking north from underpass

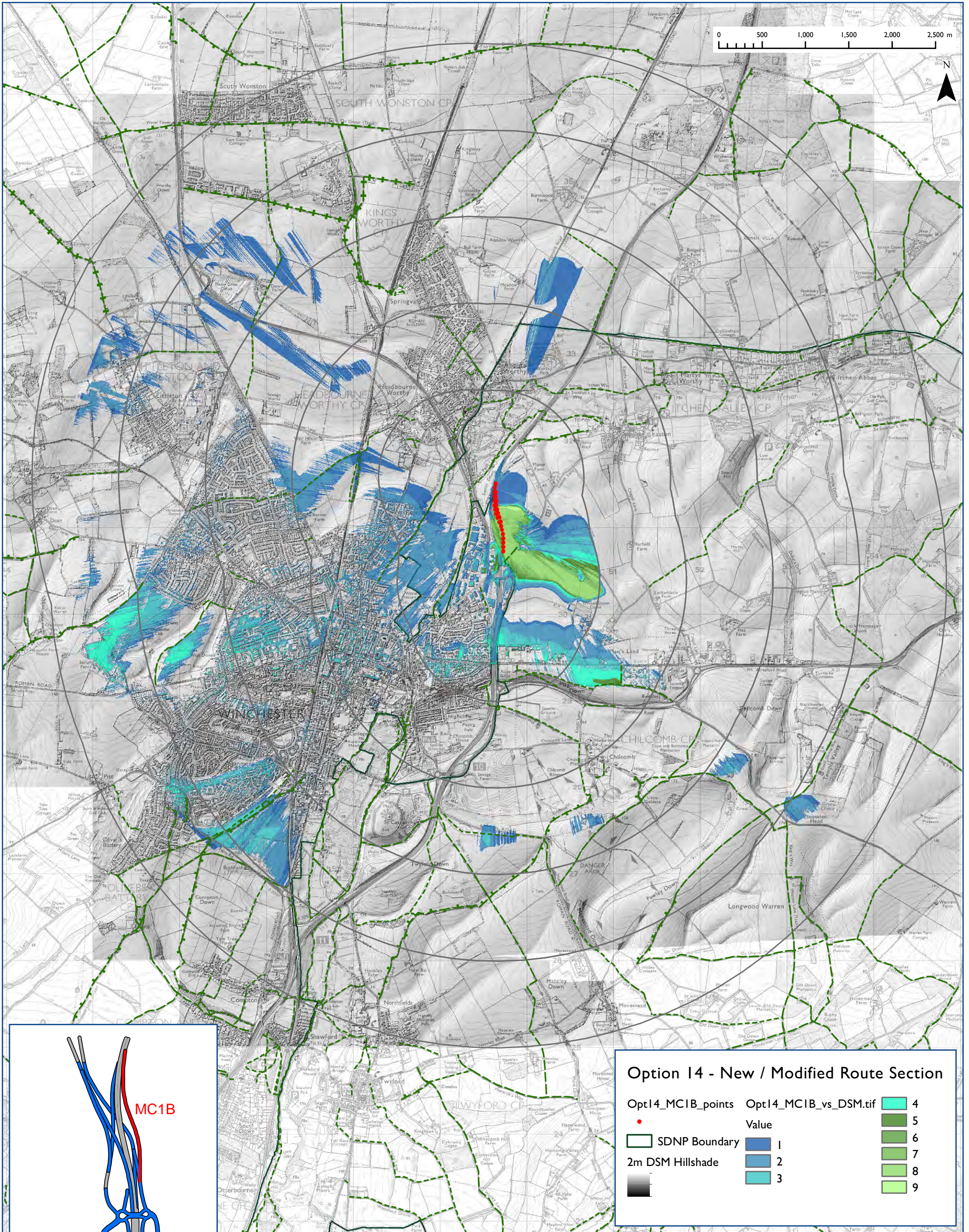


VP10 looking east along Easton Lane

M3 Junction 9
Option 14 Proposal
Section MCIB ZTV

Agenda Item 17 Report NPA09/18 Appendix 4
figure xii-a

SOUTH DOWNS
NATIONAL PARK

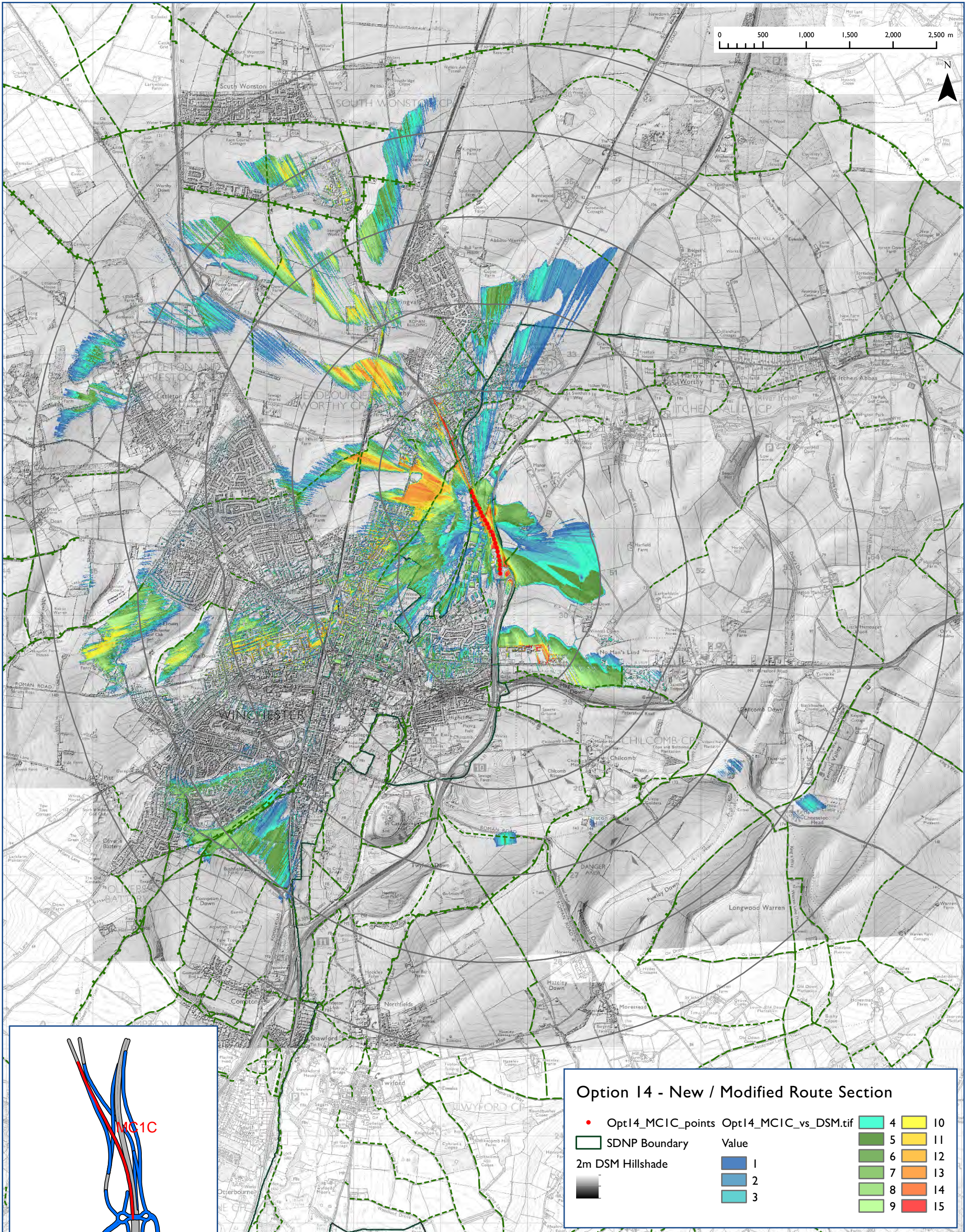


M3 Junction 9
Option 14 Proposal
Section MCIC ZTV

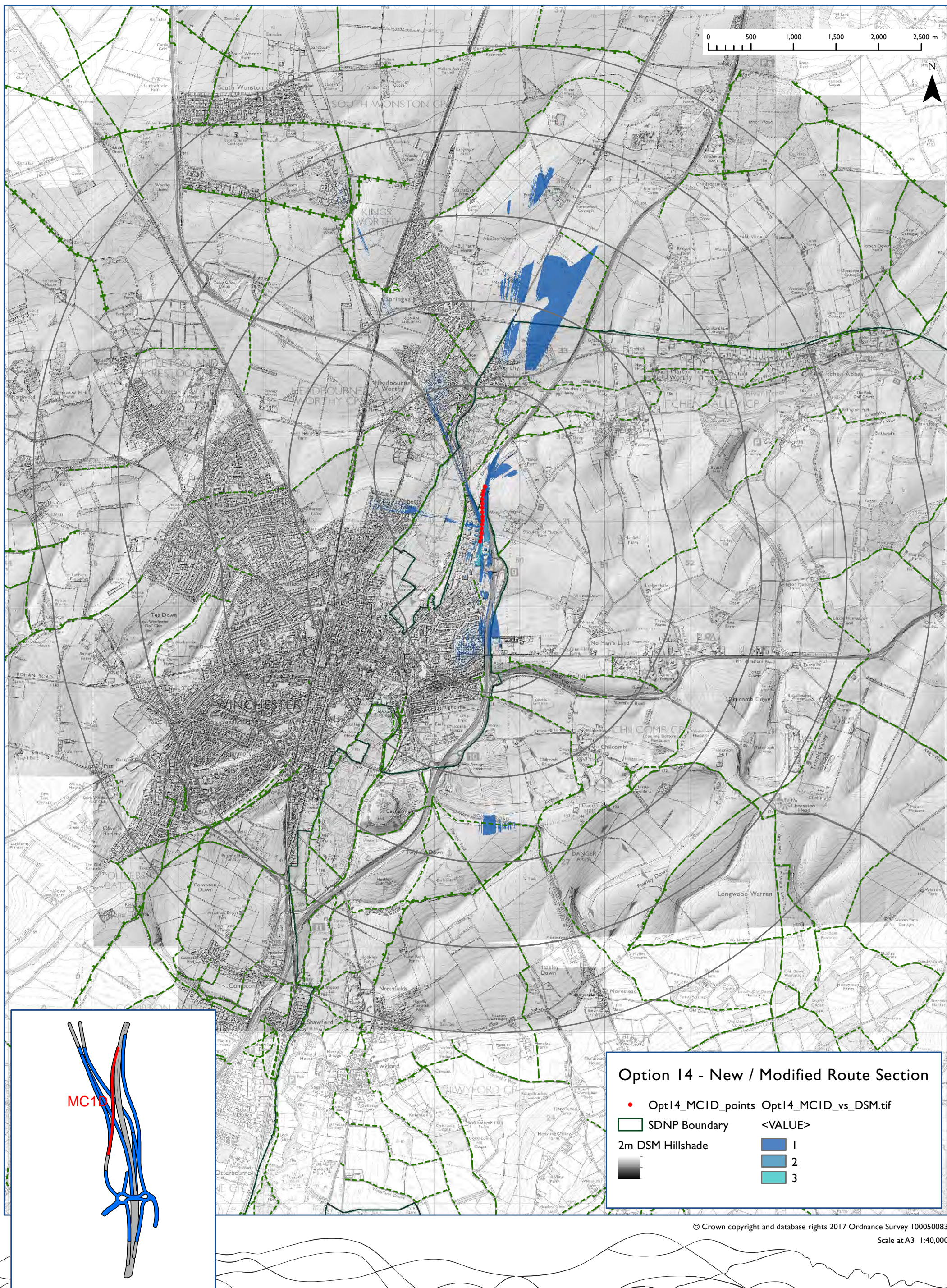
Agenda Item 17 Report NPA09/18 Appendix 4

Figure xii-b

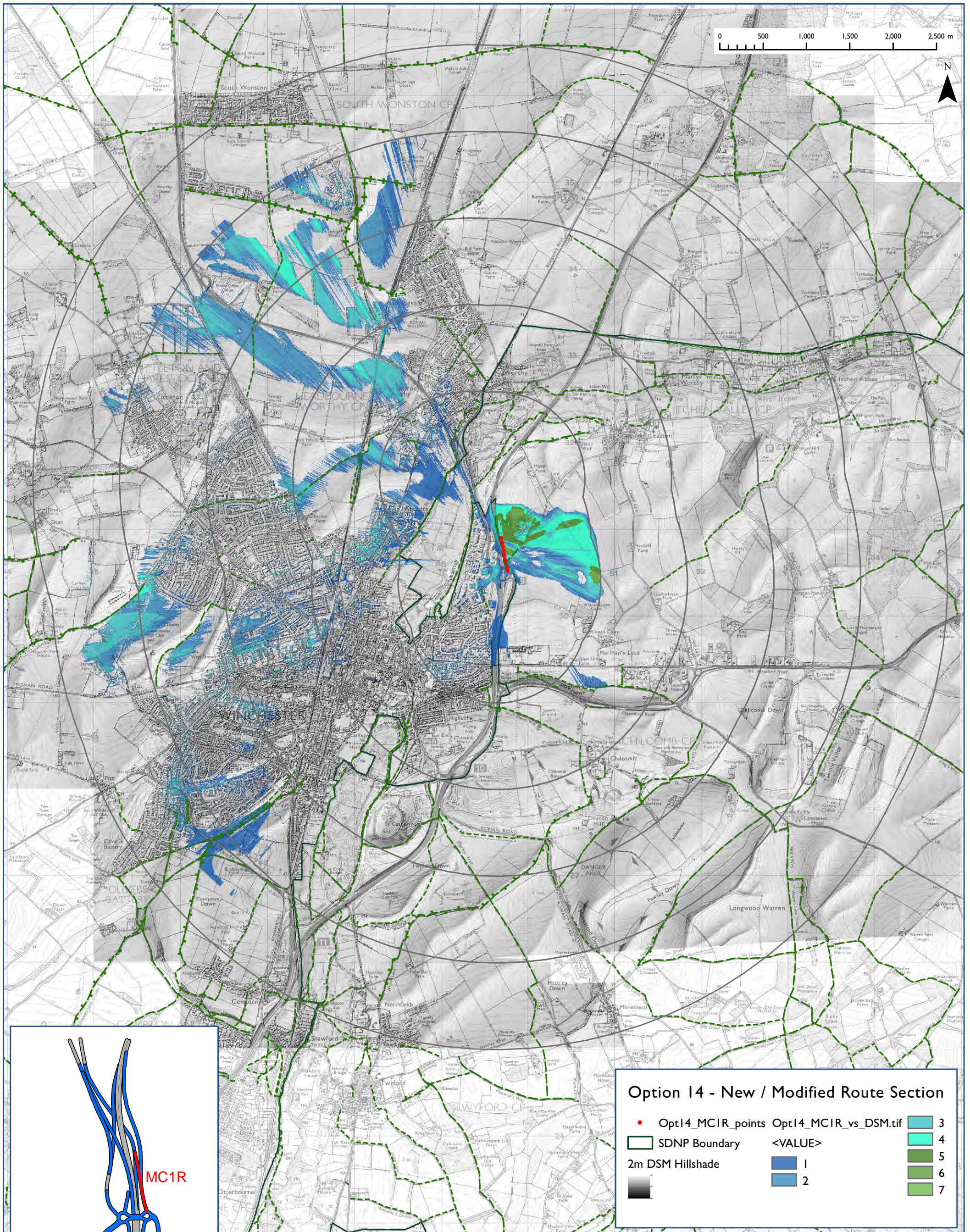
SOUTH DOWNS
NATIONAL PARK

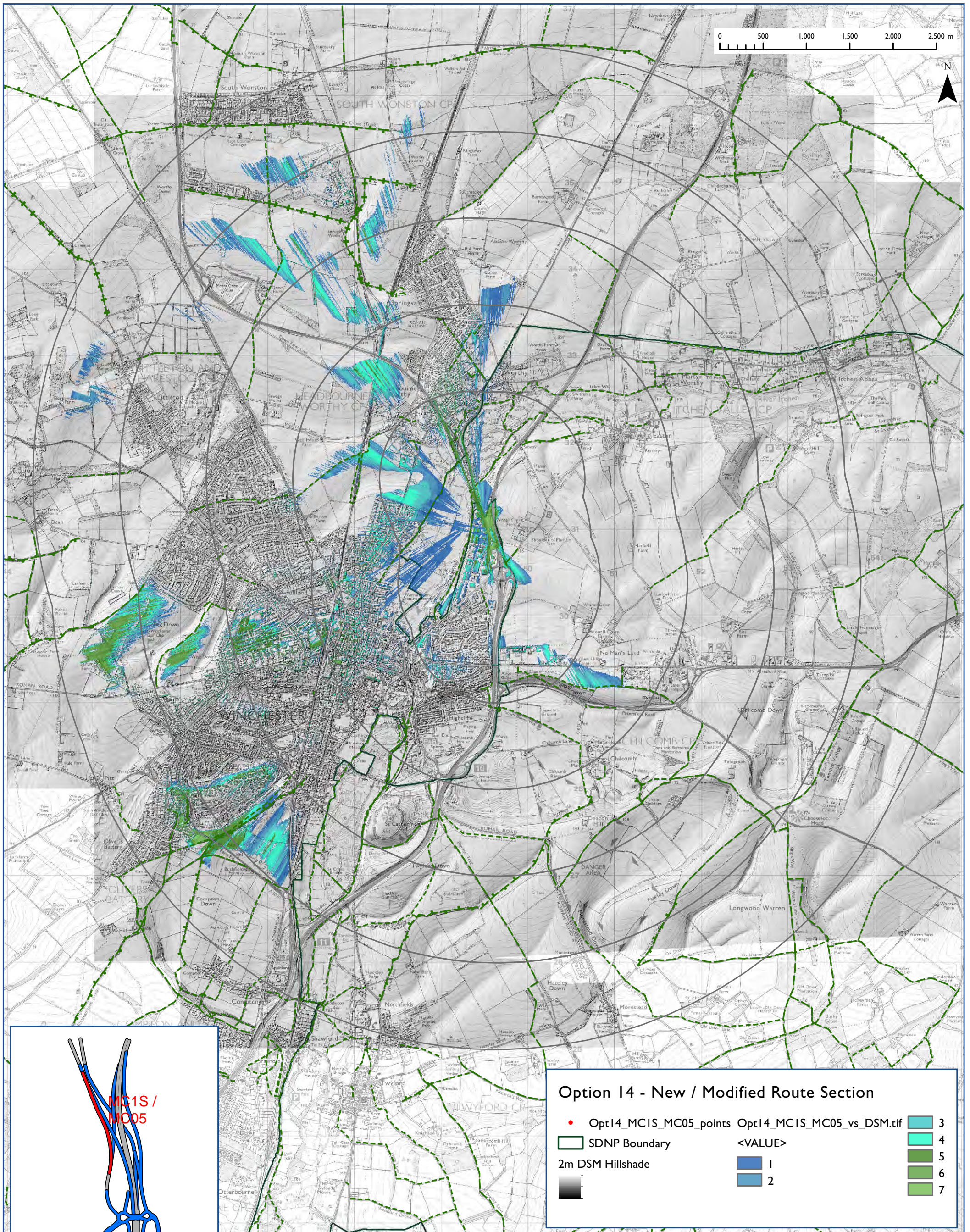


M3 Junction 9
Option 14 Proposal
Section MCID ZTV

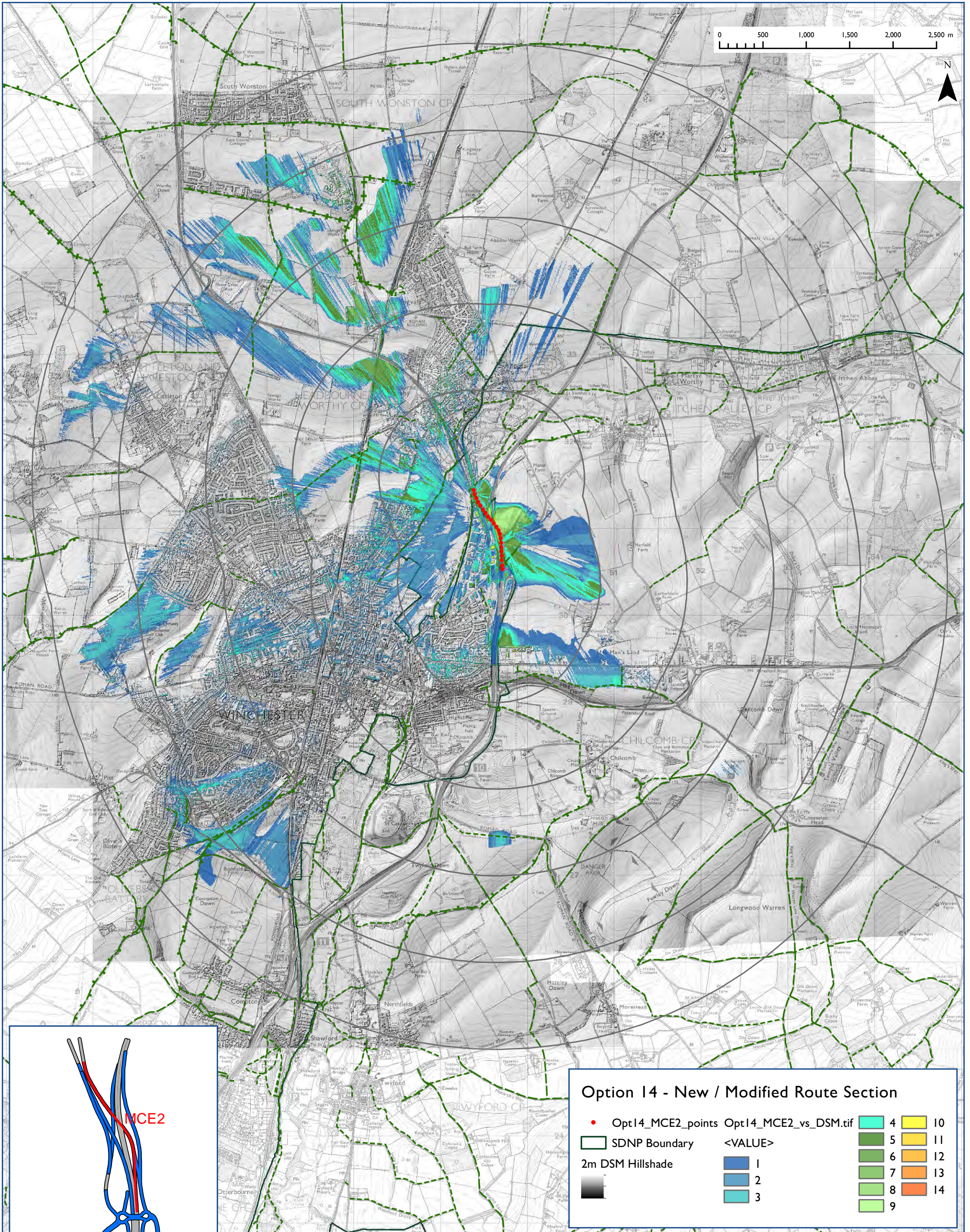


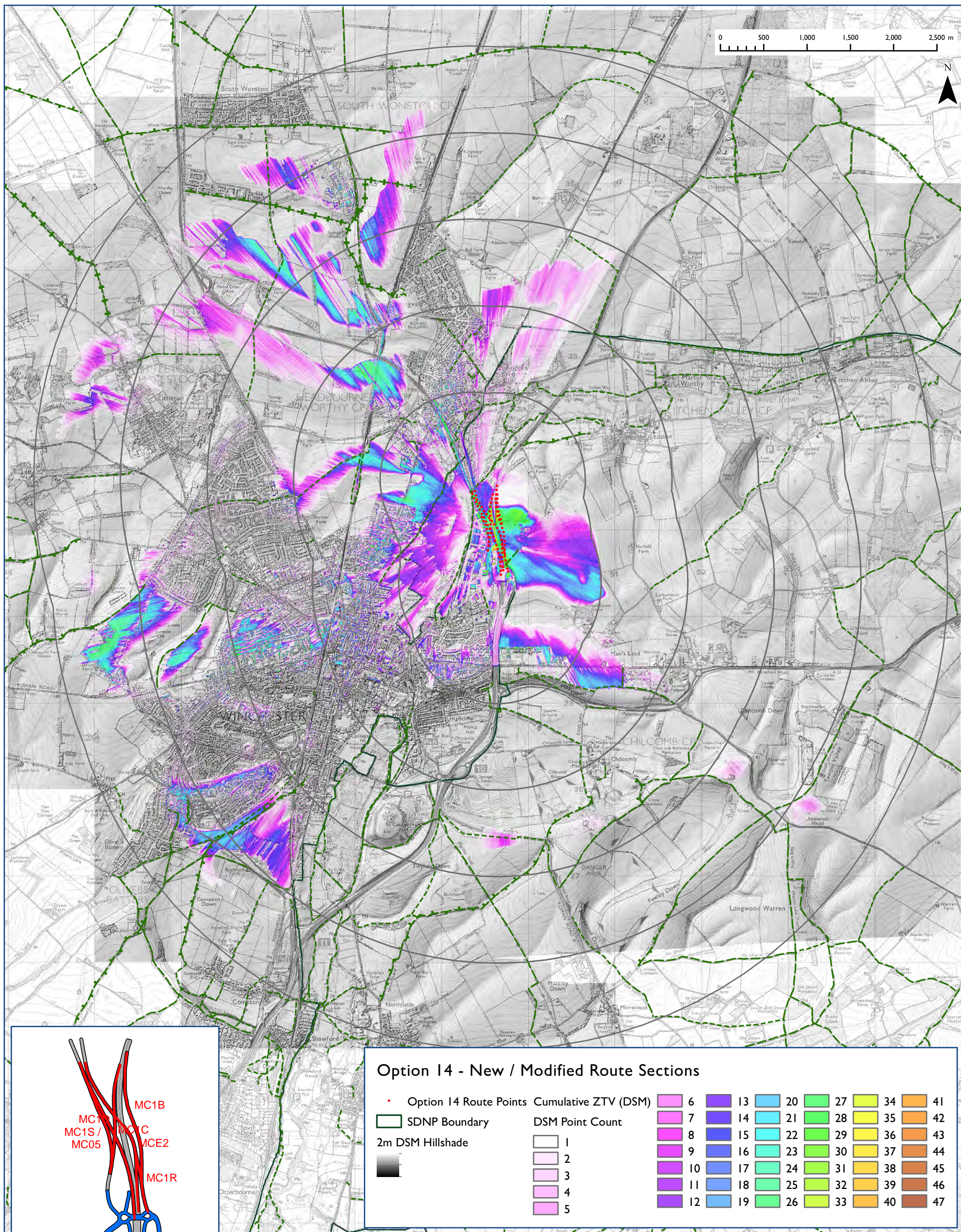
M3 Junction 9
Option 14 Proposal
Section MCIR ZTV





M3 Junction 9
Option 14 Proposal
Section MCE2 ZTV



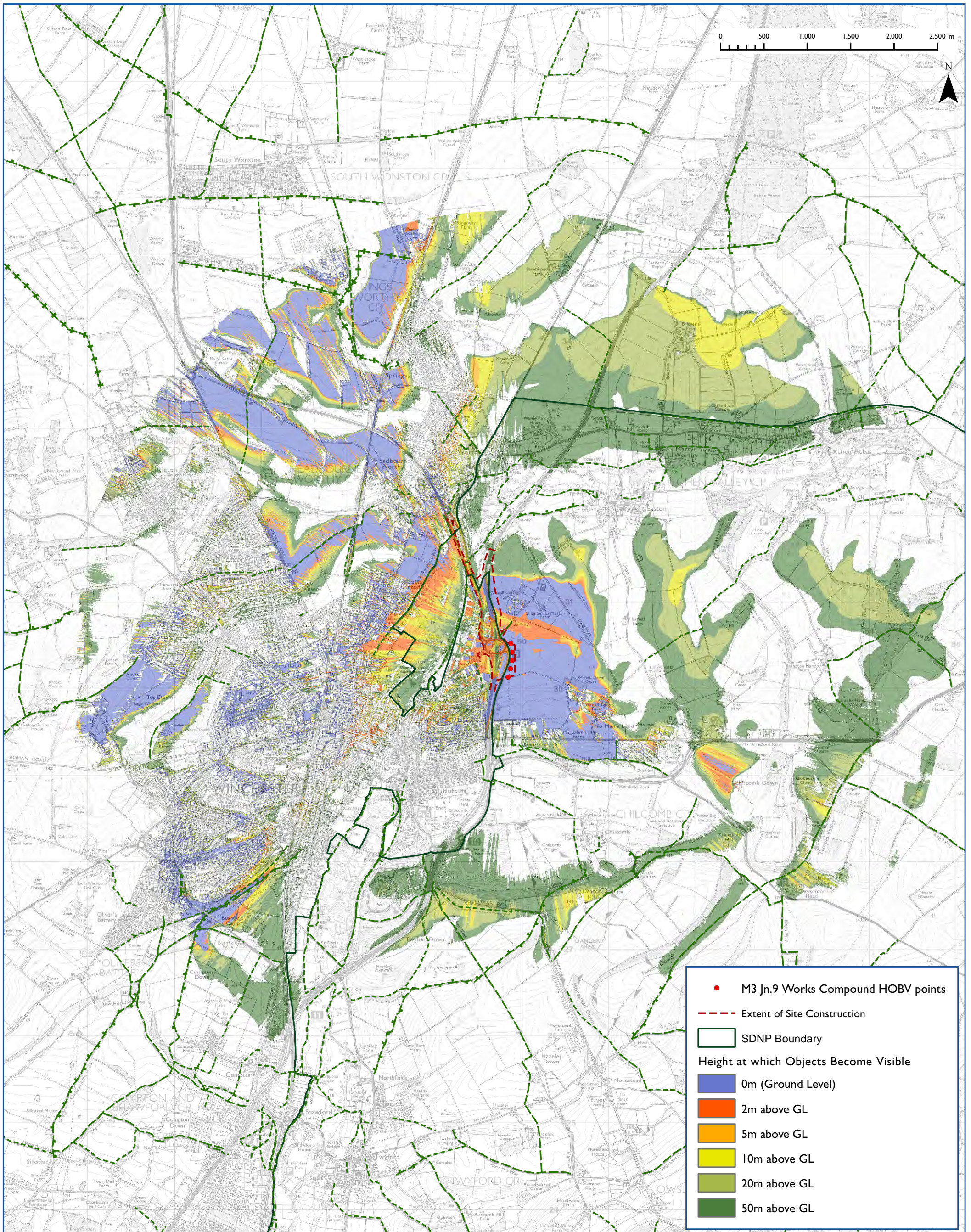


M3 Junction 9 Works Compound HOBV Analysis

Agenda Item 17 Report NPA09/18 Appendix 4

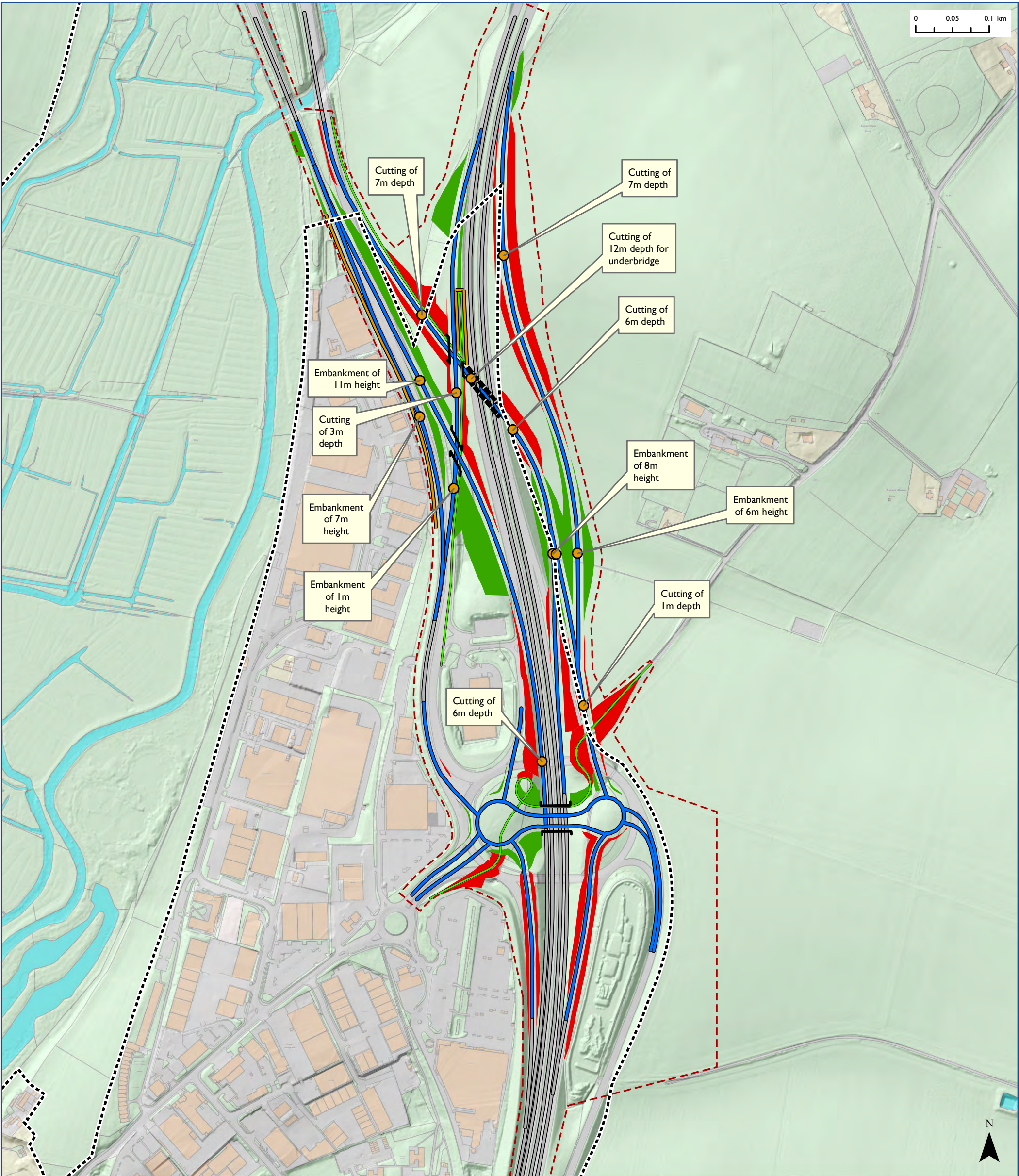
SOUTH DOWNS
NATIONAL PARK

Figure xiv



Zone of theoretical visibility M3 Junction 9
Map I: Landform Effects

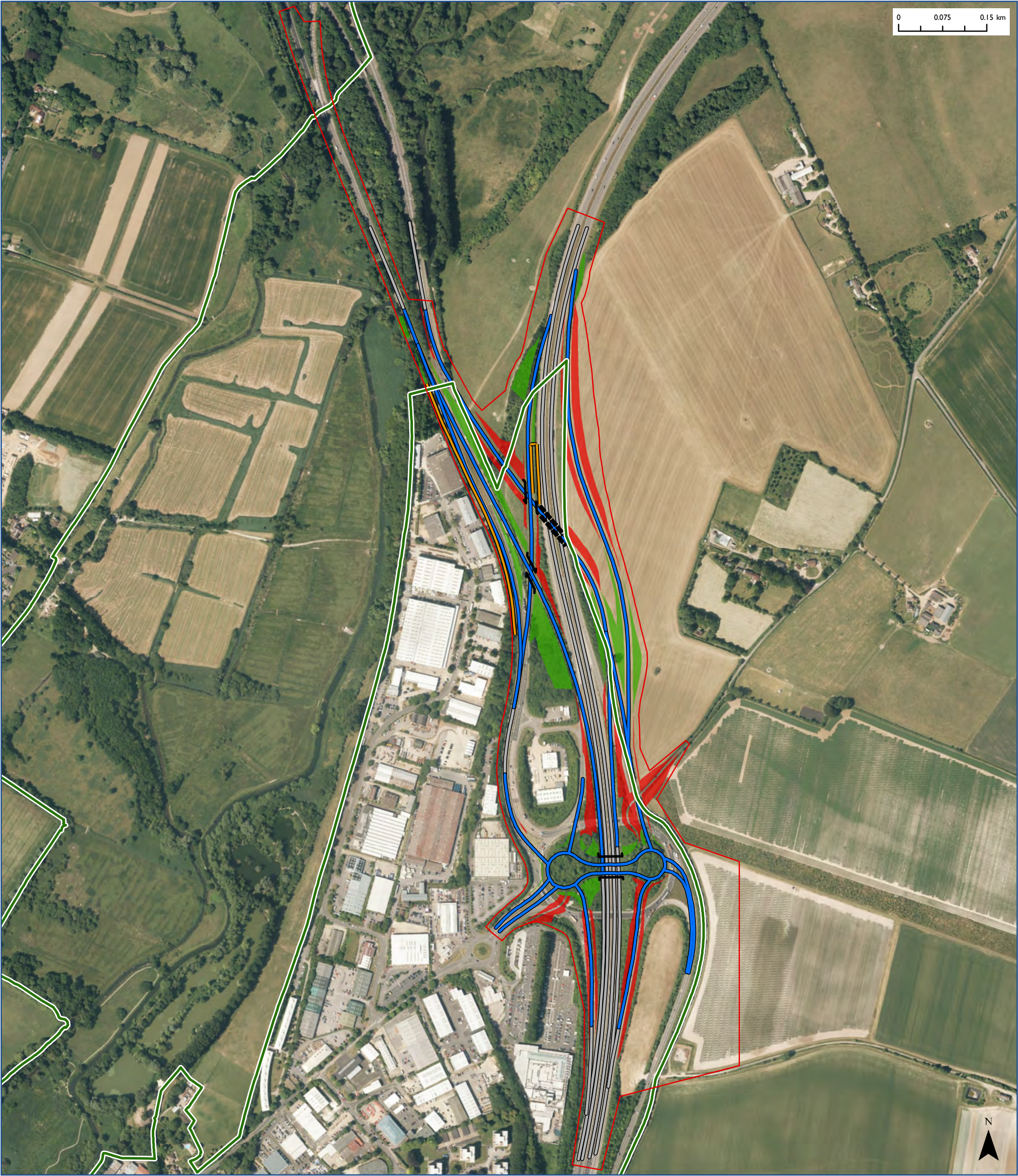
Figure xv



- | | | | |
|-----------------------------------|---|---|---|
| ● Chainage point | Option 14 Carriageway Routes | Proposed structures | Cutting |
| - - - Extent of Site Construction | New / Modified Route | Bridge | Embankment |
| ⋯ SDNP boundary | Existing Carriageway | Retaining Wall | |
| | NMU Route | Tunnel | |

Zone of theoretical visibility M3 Junction 9
Map 1a: Landform Effects & Aerial Imagery

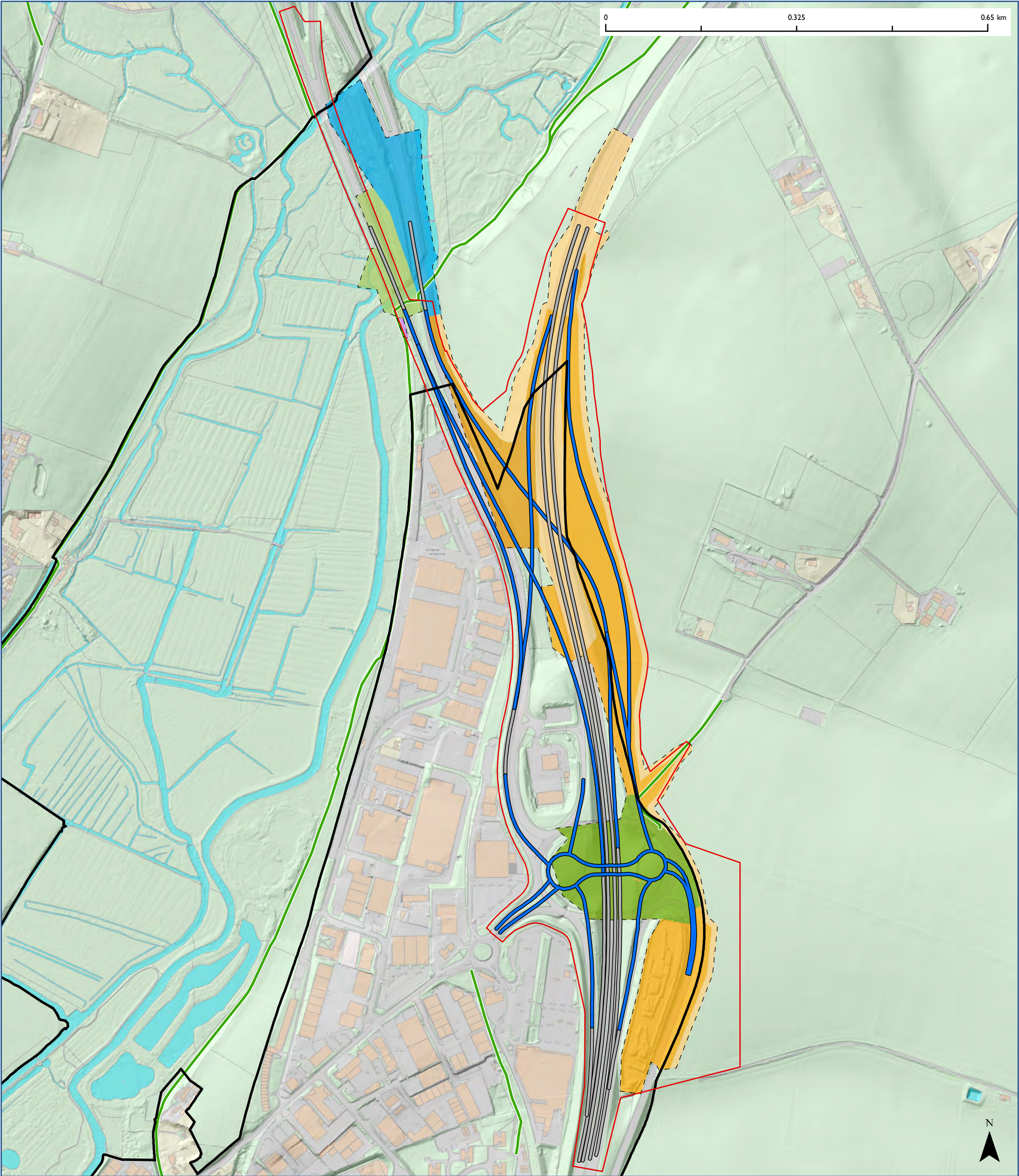
Figure xv (aerial)



- | | | | |
|-------------------|-------------------------------------|----------------------------|----------------|
| Red line boundary | Option 14 Carriageway Routes | Proposed structures | SDNPA boundary |
| Cutting | New / Modified Route | Bridge | |
| Embankment | Existing Carriageway | Retaining Wall | |
| | | Tunnel | |

Zone of theoretical visibility M3 Junction 9
Map 2: Physical Effects

Figure xvi



- Red line boundary

Option 14 Carriageway Routes

New / Modified Route

Existing Carriageway

SDNPA boundary

Public Right of Way

Potential area of impact (non-urban):

Loss, Agricultural

Vulnerable, Agricultural

Loss, Woodland

Vulnerable, Woodland

Loss, Heather

Vulnerable, Freshwater
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Scale at A3 1:6,250

I. M3 Junction 9. Headlines from Biodiversity

- I.1 The SDNPA Landscape and Biodiversity Lead (water) commissioned a data search from the Hampshire Biodiversity Information Centre (HBIC) and carried out an ecological desk-based assessment for the proposed Junction changes and are of influence.
- I.2 Proposals from Highways England for alterations to Junction 9 of the motorway and the feeder routes to the A34 trunk route. These proposals are shortly to go to a public consultation stage. Due to the range of potential options a search area 2km from the current Junction has been undertaken. All routes would be likely to have a significant negative impact on biodiversity: protected sites, semi-natural habitat extent, quality and connectivity, and populations of native species.

Designated sites:

- I.3 International.

The River Itchen SAC is to the North and the West of Junction 9, however both the M3 and the A34 cross the SAC and proposed improvements to the A34 will have a direct impact on the site. Any cumulative impacts caused by the improvements and construction process will also need to be considered. The SAC citation is for a classic chalk river with a rich flora dominated by crowfoot species (*ranunculus* sp.). The fish Fauna includes bullhead, Brook lamprey and spawning grounds for Atlantic salmon. Adjacent to the river are areas of fen, swamp and wet meadow where diverse vegetation is present supporting populations of the nationally rare Southern Damselfly (*Coenagrion mercuriale*).

- I.4 National.

The River Itchen is also a Site of Special Scientific interest (SSSI). This designation is similar to the SAC citation but with additional reference to White clawed crayfish, otter, water vole and the importance of the area for breeding wildfowl, wading birds and wetland passerines.

- I.5 Designated sites: Local

Six locally-designated nature conservation sites are situated within the 2km radius but only one of these, Easton Down is close to the proposed schemes. This site is an area of relict lowland calcareous grassland. There is also one notable roadside verge, but this is on the A272, over 1 km south of the junction.

Protected Species

- I.6 A significant number of protected and notable species records occur within the 2KM search area. These records are summarised briefly below;
 - Four species of amphibian and reptile, including Common Lizard and Slow worm, both these species can be associated with roadside grasslands.
 - Numerous species of protected birds including many unusual breeding species that will be subject to disturbance (including those listed in the citations above). Others include kingfisher, snipe and away from the wetlands a range of farmland species including grey partridge, yellowhammer, turtle dove and corn bunting.
 - Fish species are detailed in the citations above but in addition there are records of European eel, a species of conservation concern.
 - There are a wide range of plant records including those noted for Chalk Rivers and fens. Away from the wetlands there are chalk grassland species, including several species of orchid, and several notable arable weeds including Corn cockle and Night flowering Catchfly.
 - Invertebrate records include stag beetle (a European protected species), 40 species of moth listed in section 41 of the NERC act, Butterfly species including chalk grassland

specialists, woodland species such as pearl bordered fritillary and also the rare Marsh fritillary.

- Molluscs include Desmoulins's Whorl snail which is protected under the European habitats directive.
- Protected species of mammals include 8 species of bats, Water voles, European otter and hazel dormouse.

It is recommended that future ecological appraisal work should include detailed assessment of impacts on all protected species, supported where required by an appropriate level of survey.

- I.7 Badger records are confidential and are not included in the report, however the large areas of woodland, grasslands and parkland make it likely that there will be a large population of badgers in the area. A full badger survey will need to be carried out in advance of any works.
- I.8 There is a concern that the routes will sever extensive areas of habitat reducing connectivity and feeding corridors for species such bats and dormice.

These impacts will need to be fully assessed based on robust baseline information and field surveys; if this is not available for the initial route selection however, a precautionary approach to potential impacts is recommended which should first seek to avoid ecological impacts.

Priority habitats

- I.9 Scheme proposals may impact on known areas of priority habitats. These include floodplain grazing marsh, lowland meadows, purple moor grass and rush meadow and Chalk Rivers within the river valley. Away from here there is extensive mixed deciduous woodland and calcareous grassland.

Invasive non-native species

- I.10 The highway route options pass through areas where a number of non-native and invasive species have been recorded. In the majority, these relate to plant species and garden escapees, but include 16 species listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales (including plants which are an offence to plant or otherwise cause to grow in the wild and plants that are illegal to sell) such as Japanese Knotweed.

Controlling the spread of these species is important but, especially in the case of Schedule 9 plants, construction projects can contribute to the spread of invasive species. The exact location of invasive species will need to be targeted for managed removal prior to any clearance or construction work. Based on the evidence reviewed to date there is considered to be **high potential** for non-native and invasive species to be present on all route options.

Ecological Enhancement

- I.11 Natural Environment and Rural Communities Act 2006 encourages the incorporation of ecological enhancements into proposals. It is recommended that initial ecological surveys and reporting seek opportunities to contribute to biodiversity enhancement of adjacent habitats and contribute to existing initiatives.

**Highways England Scheme for Junction 9,
M3 – Option 14**

**Comments on reports and proposed mitigation on
Cultural Heritage of South Downs National Park**

**Anne Bone, BA(Hons)
Regini Heritage Consultants**

1. Introduction

This report was commissioned by South Downs National Park Authority (hereafter SDNPA) from Regini Heritage Consultants and the work was undertaken by Anne Bone. The brief was to comment on the reports commissioned by Highways England, assess the completeness of the data, to comment upon the report and the mitigations proposed and propose any further mitigations that meet the Purposes and Duty of the SDNPA.

The following reports by Highways England's consultants were supplied by SDNPA:

- Environmental Study Review 1 (hereafter ESR) completed Sept. 2016 at PCF Stage 1- specifically chapter 6 on Cultural Heritage
- Cultural Heritage Desk Based Assessment (hereafter DBA) undertaken Nov. 2017 at PCF Stage 2.

The study area is within Winchester City Council and so the definitive Historic Environment Record is held by that authority and not by the county council, under the arrangements of Urban Archaeology Databases and Strategies supported by Historic England.

This was the first such scheme where the DBA was shared with the SDNPA and this is very useful in assessing the impact on the National Park and also reduces the financial cost to the SDNPA.

2. Comments on data completeness

The nationally recognised heritage asset information is drawn from Historic England's web site and is reliable.

For locally important and non-designated heritage assets the definitive record is the relevant Historic Environment Record. There is an apparent inconsistency in the source of the data for the historic environment between these two reports – the ESR (p26) states that its information is drawn from the Hampshire County Council HER whilst the DBA (p16) refers to the Winchester City HER. In fact, the Winchester City HER is the definitive database for this part of the SDNP. However, the site/monument reference numbers appear to be the same in both reports.

The use of historic map information in the DBA is useful and in line with good practice of the Chartered Institute for Archaeology.

For total accuracy and completeness Highways England should be asked to confirm which HER has been used and which of these two reports is the most definitive statement of their assessment of the potential impact on Cultural Heritage.

Given this caveat the data sources used appear to be sound and reliable.

3. Assessment of cultural heritage in reports

The ESR rightly identified the potential impact on nationally important water meadows and removed the impact by designing a scheme outside of those areas. The DBA is more useful in assessing impact as it considers the setting of heritage assets (specifically excluded from the

PCF Stage 1 ESR) which is key for the SDNPA as a historic environment. There is no consideration of the overall impact on the historic landscape and the SDILCA so this must be included in the landscape reports.

The DBA and ESR both recognise that many of the archaeological assets found in the original construction phase of the M3 are likely to extend into the areas affected by this scheme. This correctly recognises both the linear nature of many of these features (crop-marks, field boundaries) and the intensive usage of the landscape particularly in the prehistoric period. These excavations were undertaken in the 1970's when the time and resources available for archaeology from infrastructure projects was under great pressure. The current government and local policies quoted in both reports should ensure sufficient time and budget for investigations to 21st century standards. Additionally, there have been many new developments in archaeological techniques, especially in analysis of samples and in new dating methodologies, which can now bring a new light on the sites discovered in the 1970s as well as newly recognised sites.

The DBA report (p23) also recognises that there may be sites equivalent to scheduled monuments but which are not currently scheduled. The crop-mark sites of prehistoric activity may well fall into this category and particular attention should be given to preservation by record if redesign of the scheme is not feasible.

The DBA recognises that the archaeological impact is not just within the new/modified route but also includes the impact of heavy plant on haulways etc, the construction of site compounds and the other ancillary works of a major infrastructure scheme. Mitigation may be required in all these areas, depending on the detailed works being proposed and on initial investigations of the surviving archaeological assets.

Neither the ESR or the DBA refer to or appear to be informed by the Solent Thames Research Framework for this area, published in 2014 (by Oxford Archaeology, ed. J Hind and J. Hey) and developed under the guidance of Historic England. This identifies the major questions still to be answered and should inform the development of the mitigation proposals, especially the Written Schemes of Investigation for both initial investigations and later detailed archaeological work.

The DBA's study of setting recognises that the impact of a revised Junction 9 may extend to the registered Park and Garden of Worthy Park and the Conservation Areas of Abbott Worthy, Martyr Worthy and Easton. Neither of these settlements have up to date Conservation Area Appraisals and Management Plans and there is no Conservation Management Plan for Worthy Park. If such documents were in place they would provide an evidence base for the condition of these assets before work on J9 commences and also a baseline for measuring impact after completion of the junction improvements.

4. Assessment of mitigation proposals

The ESR and DBA both contain mitigation proposals of a fairly standard and proficient nature but which do not take account of the particular requirements of a National Park. Mitigation to meet the needs of the Winchester Local Plan are proposed, starting in PCF Stage 3 with geophysics and archaeological monitoring of geotechnical investigations. More detailed archaeological investigations, including excavation, would then follow.

In a National Park the conservation and enhancement of heritage, including archaeology, is an important part of Purpose 1 under the 1949 Act. It is crucial therefore that archaeological investigations are undertaken early enough to inform the medium and final stages of design in PCF 3 onwards. This would allow any nationally important archaeology to be preserved in situ by design solutions at any early enough stage to avoid major budgetary or time implications for Highways England.

Where preservation of archaeology is to be by record and to add to the evidence from the 1970's excavations, the mitigation works should be informed by the Research Framework (see above) and by the scientific advisor of the regional office of Historic England. This will allow sufficient time and budget to be allocated for the best possible archaeological investigation and minimise the loss of evidence. Such work must be planned in advance of construction work as much as possible to facilitate a detailed investigation of the archaeology.

The detailed archaeological investigations will be specified in one or more Written Statement of Investigations. The DBA identifies that this will need to be approved by the local authority archaeologist but the SDNPA also needs to approve this, either through its own resources or through another agent.

There is no mention in the DBA of Purpose 2 of the SDNPA but the engagement of the local community and increasing access to the understanding of the area's cultural heritage are also key issues. With the inclusion of the prehistoric period in the National Curriculum the creation of learning resources for schools drawing on the results of these investigations is also a necessary output for the SDNPA. These should all be agreed with a financial contribution from Highways England (in line with the polluter pays principle), perhaps secured through the Development Control Order procedures.

5. Conclusions

- I. The SDNPA welcomes the inclusion of the Desk Based Assessment in its consideration of cultural heritage aspects of this scheme. In future National Infrastructure schemes the SDNPA wishes that the commissioning body submits its Cultural Heritage Desk Based Assessment to SDNPA in good time for review to allow a more effective and efficient response to be obtained.
- II. That Highways England confirm the sources of Historic Environment data in these two reports and which HER takes precedence in their studies.
- III. That the overall impact on the historic landscape is considered by Highways England, in either this or the landscape aspect of its reports.
- IV. That mitigation of the impact on archaeological assets must be undertaken in accordance with:
 - a. The Solent Thames Research Framework
 - b. The advice of the Scientific Adviser of Historic England South East
 - c. The advice of the Winchester City Archaeologist and other agent of the SDNPA, as advised to Highways England in due course
 - d. Written Schemes of Investigation to be approved by the SDNPA's agent, to be advised to Highways England
 - e. Archaeological works to be programmed as early as possible to allow preservation by record where preservation by design is not feasible
- V. That the evidence for the impact of this scheme on Registered Parks and Gardens and Conservation Areas in the SDNPA and within 1km of the Junction 9 scheme be

captured by Highways England commissioning suitable Conservation Management Plan (for Worthy Park) and Conservation Area Appraisals and Management Plans for Abbotts Worthy, Martyr Worthy and Easton.

- VI. That appropriate levels of resource are provided by Highways England through the Development Control Order, if granted, to undertake a programme of engagement, publication and exhibition and learning resources to support the SDNPA in achieving its statutory purposes.

M3 Junction 9 Improvement Scheme

Assessment of impacts on Public Rights of Way (PROW) and Non-motorised User (NMU) Access

Current Situation The M3 is both a visual and physical barrier to accessing the National Park to the east of the motorway. Existing routes for non-motorised users (NMUs) are limited and/or severely compromised. Of particular relevance to the proposed scheme at junction 9 are the following routes:

Bridleway 502 and National Cycle Network route 23 (NCN23) The bridleway terminates in the middle of the existing Junction 9 roundabout, with users continuing on an undedicated and therefore illegal footpath towards Winchester.

Itchen Way and St Swithun's Way These two promoted, long distance trails, 31 miles and 34 miles respectively, are each crossed by two bridges carrying the A34 dual carriageways. Both routes are largely made up of public footpaths and as such are mainly used by walkers. As promoted routes both have the potential to attract walkers out of the city and further into National Park, however, the quality of access is poor. For example, one under-bridge crossing offers extremely limited headroom with access via a steep bank: a barrier for some users.

Recreation The Winnall Moors Nature Reserve, an extensive network of channels forming part of the river Itchen, lies to the west of the M3 and is bounded to the north by the A34. St Swithun's Way runs to the west of the reserve and the Itchen Way to the east. The reserve is not only an important site for nature conservation but also a significant recreational asset for local communities and visitors to the city. The reserve, managed by Hampshire and Isle of Wight Wildlife Trust (HIOWWT), has seen a rise in visitor numbers in recent years, resulting in increasing pressure on this fragile site.

The South Downs Way National Trail is the obvious high profile recreational route into the National Park and crosses the M3 between junctions 9 and 10. The long distance trails mentioned above are also key gateways into the National Park for walkers. There are however, few circular routes for cyclists and equestrians and no facilities for users with restricted mobility, for example access for all paths.

HE Assessment of Current situation for NMU access and Tourism/Recreation

The Report acknowledges severance caused by the existing highways estate and in particular the arrangements at junction 9. Whilst acknowledging the severance the report also claims good connectivity with the National Park via footpaths such as the Itchen Way and St Swithun's Way. The report does not address the poor quality of this access despite evidence of loss of path width due to erosion on the river bank, low headroom and proximity to fast moving traffic.

No information is provided in either the Environmental or Technical Reports about current or future levels of use.

Tourism and recreation are not considered to be impacted by the current situation or the proposed scheme. Our findings suggest otherwise: severance caused by the motorway is likely to contribute to the recreational pressures experienced on fragile sites such as Winnall Moors and St Catherine's Hill to the south as recreational users are deterred from visiting parts of the National Park east of the M3. It should be noted these sites are designated for nature conservation and cultural heritage whilst also functioning as key public greenspaces for the city.

The report does not consider the role of the National Park as a destination for tourism and recreation other than a brief reference to the location of the South Downs Way crossing. As a result there is nothing in the report to suggest improvements or enhancements to the public rights of way network might be appropriate in order to improve the tourism and amenity value of the existing routes and to mitigate some of the proposed scheme impacts as well as the historic severance impacts.

The Technical report concludes that all options considered by HE will have a slight adverse effect on People and Communities.

Proposed scheme provision for NMU access and recreation.

Immediate impacts

The proposed scheme for junction 9 offers immediate benefits for cyclists and arguably wider NMU access across the junction. A new NMU route is proposed which will address the missing link in route NCN23 allowing access to both sides of Easton Lane and a route for cyclists in and out of the city. The existing bridleway 502 is incorporated into part of the proposed NCN23 but it is unclear whether the bridleway designation will also eventually extend across the junction or indeed whether there is any merit in doing this.

Scheme drawings in the public consultation documents suggest an additional link will be provided for pedestrians, and possibly cyclists, extending from junction 9 to the east of the A34 and north along the A33. It is unclear from the drawings whether this route will connect with the public footpath running under the Itchen Bridge. The route as shown runs parallel to the proposed new carriageways and as such will bring users extremely close to fast moving traffic. There are minimum requirements for horizontal separation of non-motorised users from traffic and it is not clear from the drawings provided at this stage whether these standards can be met. An alternative route taking users away from traffic would be preferable.

Overall the scheme will result in a much extended junction with the addition of several new carriageways. This may deter NMU access into the National Park particularly for those on foot.

Opportunities for access enhancements

The two long distance routes which connect the city with the South Downs are severely impacted by the presence of the A34 and A33 carriageways. Access mitigation and enhancement should focus on these routes as the closest to the scheme and the issues of headroom, accessibility, path width, surfacing, and protection from proximity to fast moving traffic should be addressed. As both routes pass through or adjacent to sites managed by HIOWWT, the Wildlife Trust's input into to any proposed access enhancements will be essential.

The proposed NCN23 link across junction 9 is welcomed and should be built to the requirements for cycle tracks set out in Highways England's Interim Advice Note 195/16 Cycle Traffic and the Strategic Road Network

Wider considerations for access

As outlined above the M3 is the major barrier to accessing the National Park from the west and as a result the green infrastructure sites immediately west of the motorway are increasingly pressured. As well as Winnal Moors, St Catherine's Hill and the Itchen Navigation to the south should be a focus for wider access enhancements. A two pronged approach is proposed:

- Protect sites from further damage by funding path and river bank stabilisation and restoration.
- Enhance connectivity to the east through the creation of a green bridge over the M3 in the St Catherine's Hill/Twyford Down area. In the longer term there is an ambition to re-route the South Downs Way National Trail to this location.

14 March 2018

Andrew Player, Landscape and Biodiversity Lead (Woods and Heaths)

Scheme: M3 Jn 9 improvements- PCF stage 1 consultation: comment on Environmental Study Report and Technical Appraisal

Consultee: Highways England

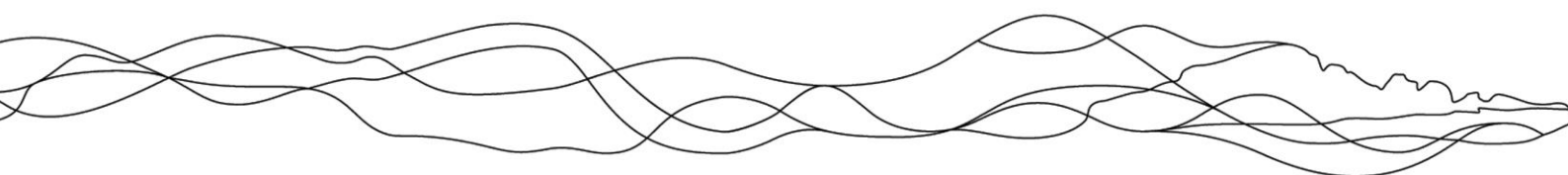
Introduction

Following from recent meetings with Highways England (HE) and SDNPA members (at which HE have presented to the SDNPA on this subject), I have the following comments to make on the consultation to date, specifically with reference to the arboricultural and woodland ecological details provided thus far, and any potential impact that the scheme might have on these factors

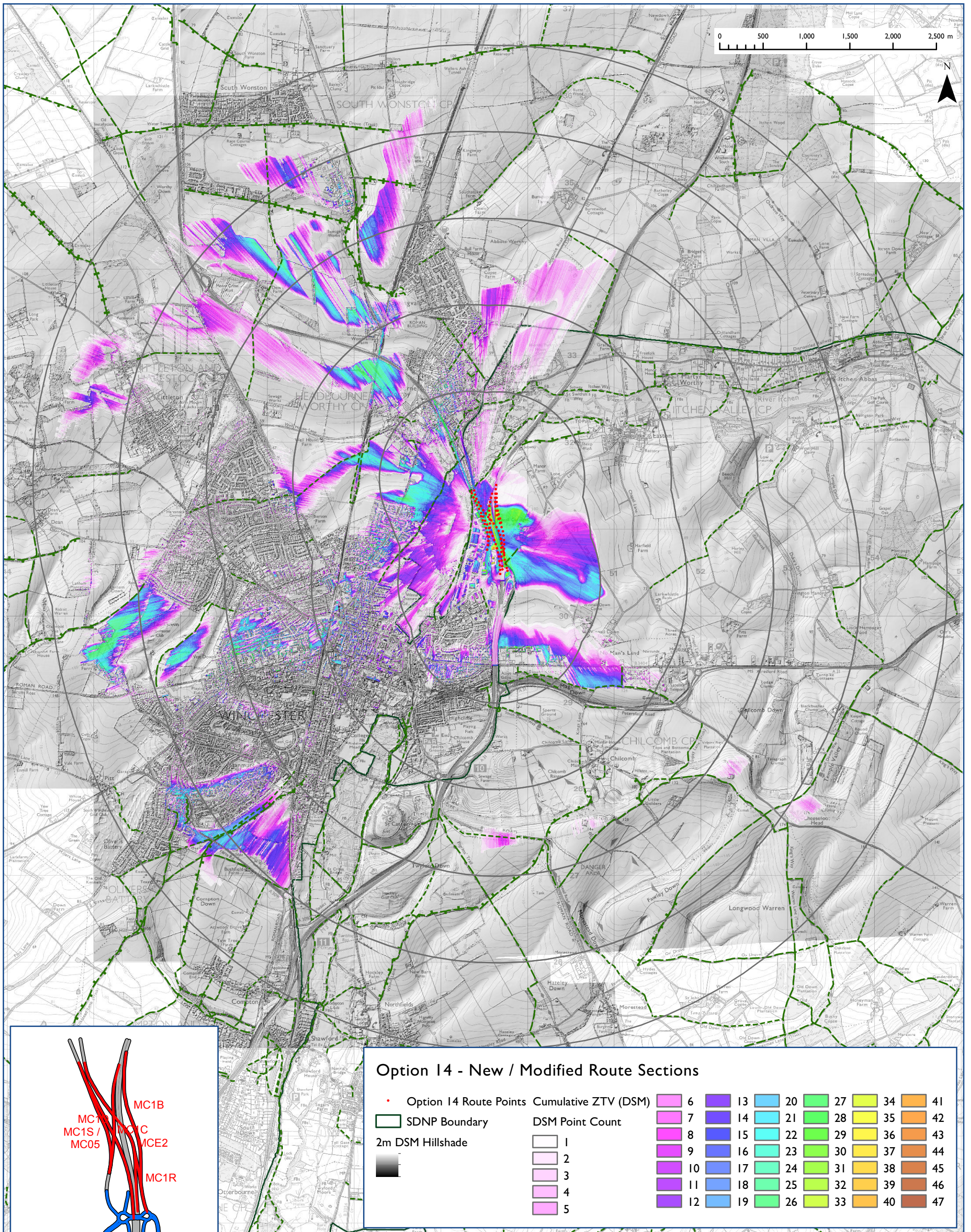
General	Suggested action
<p>The arboricultural resource within, and surrounding, the work site extent that we are being consulted on, contains a variety of individual trees, clumps of trees, hedgerows and woods. Though the work site is dominated by the M3 and A-roads, there are significant features of environmental value, such as the River Itchen SAC and SSSI, priority species and habitats, and the SDNP itself.</p> <p>The wetlands in this area are not only internationally renowned for the quality of the chalk stream and associated habitats, but also for the role they play in remediating flood risk to Winchester City itself- an importance demonstrated in 2014, when the wetland habitat played a crucial role in protecting the city from a potentially significant flood event.</p> <p>The existing tree and woodland cover on the work site, and surrounding it, provides vital visual screening for the roads themselves, but also plays a significant role in acting as a buffer to the significant noise generated by the vehicles on the roads 24 hours a day, and in absorbing significant quantities of pollution at the same time. We should also not ignore the carbon which they also lock up, further helping to offset some of the environmental consequences of the vehicular burning of fossil fuels.</p> <p>Trees are critical- not only for visual amenity value, but also providing habitat, and playing a significant role in flood prevention, and as such the potential impact on trees from this scheme, both during construction and following completion, must be prevented as a first step. If impacts are unavoidable then suitable mitigation and compensation will be required- and as this impacts on a National Park we should not expect like for like, but expect environmental improvement to be the starting point for discussions.</p>	
Arboricultural Assessment	
<p>The methodology being applied to assess the relative quality of the arboricultural resource at this stage is solely based on desk based methods. This means that it is not possible to make any more than the most basic of assessments, and though this is acknowledged in the documents and further ground based survey recommended as the preferred option is being explored, it is not possible to attribute any</p>	<p>A detailed ground based assessment should be carried out of the arboricultural resource at the next stage, not wait until stage 3. This should include a detailed arboricultural impact assessment (including full assessment of the value of the trees and woods- see action below) and arb method statement- which provides detail of exactly how retained trees will be protected. This should all be done in accordance</p>

confidence in the value assessments at this stage. BS5837: 2012 (trees in relation to construction) gives a more effective value assessment, which also includes consideration of cultural and environmental values.	with BS5837: 2012 (trees in relation to construction).
The assessment criteria for 'value' are also only based on the species and approximate condition. It cannot have been possible to accurately assess these factors solely by desk based method and so we should treat any statements on the relative value of the trees and woodlands assessed with extreme caution. This is also not compliant with BS5837 as if undertaken correctly I believe that the majority of trees will likely fall into the 'moderate' category due to the other benefits they provide- and which have not yet been considered. Indeed one of the criteria in the BS for value is the useful life expectancy of the trees- in this case as much of the woodland is younger and more vital in nature it could be argued that the majority of it has a heightened useful life expectancy. Ash dieback is mentioned as a potential factor, but without quantifying the potential magnitude through ground based assessment it is not possible to speculate to what degree this might impact on the useful life expectancy of the woods here.	The value of trees and woodlands on site should be re-assessed at the earliest opportunity, and also be considered in terms of the ecosystems services that they provide, particularly in terms of their value as vital screening of the existing and proposed roads, but also habitat provision and also critically for their role in preventing flooding and for absorbing noise and pollution. Provision for building resilience to pests, diseases and climate change should be an essential feature of any landscaping scheme
From my own site visits it is clear that the arb assessment has missed a number of higher value trees in the immediate work area and close to it, including some that are either veteran or overmature (but which do not appear on the datasets that HE have used so far). It is essential that a more detailed assessment is undertaken to identify these as soon as possible.	More detailed assessment to include suitable provision to identify and protect overmature, veteran and notable trees that might be impacted by the developments, and recommend protection measures in accordance with BS5837. If specimens are unavoidably lost as a result of the development then suitable compensation will need to be agreed with SDNPA, but emphasis should be on avoidance rather than compensation
Woodland loss has been calculated, and due to the reasons outlined above I will avoid using the values given, and focus on the totals. It is essential that due consideration is given to the role that these woods currently play in terms of their ecosystems services, and with a potential increase in road surface area, that they would play once the development is completed. Option 11- 10.5ha lost Option 14- 6.35ha lost 16A- 4.32ha lost 16B- 1.44ha lost 18- 1.8ha lost	HE should undertake a more thorough assessment of the relative impacts of each area of woodland loss, particularly in terms of visual and noise screening and flood prevention. This should be cumulative when considered alongside the impacts of other potential developments in the local, such as housing development at Barton Farm, and the combined impacts must be accurately considered and mitigated against- not just treating this scheme in isolation
Compensatory planting has been alluded to, but not detail provided as to where this will be, or what it might be comprised of. If loss of trees and woodland is unavoidable, replacement trees and woods should be provided at a ratio that provides a significant	HE should provide further detail as to where compensatory planting would be located as soon as possible. This should ensure that there is a net gain in planting area. Composition of any compensatory planting should be carefully considered to provide

<p>additional benefit- i.e. a net gain in area as standard. It is clear that it will not be possible to accommodate this compensatory planting within the scheme boundary, and so early discussions must be held with surrounding landowners for where this planting might be.</p>	<p>the maximum range of ecosystems services- including consideration to habitat creation, visual amenity, noise reduction, absorbing pollution, carbon sequestration, and flood prevention. Planting of specimen/notable trees for the future should also be included in a planting scheme. I would also volunteer that dutch elm disease resistant cultivars of elm should be a feature of a planting scheme- SDNPA would be happy to work with HE on species suggestions if that would be helpful. Due to the limited space within the scheme area for adequate compensatory planting, it will be essential for early dialogue with surrounding landowners, and that this planting is complimentary to other environmental considerations such as chalk grassland, wetlands and reedbeds</p>
<p>It is likely that with the increased heights of the development it will not be possible to adequately screen the development with trees from key viewpoints, not even into the longer term</p>	<p>More thorough assessment of this must be made clear at this early stage, and further consideration to mitigation to be factored in as soon as possible</p>
<p>No detail has been provided as to how retained trees will be protected on site during construction phase</p>	<p>As recommended above HE should provide a detailed arb impact assessment and method statement, in full accordance with BS5837. Once satisfactory detail is provided it should be conditioned. HE should be required to provide an independent monitoring of compliance by a suitably qualified arb consultant</p>
<p>Use of wood in construction- there is clearly limited scope for this, but HE should consider use of wood wherever possible (e.g. sound baffles). Engineering solutions for noise problems should ideally incorporate a hybrid of hard and soft engineering- i.e. trees, bunds, as well as things like sound baffles</p>	<p>HE to consider use of wood where possible, and for this to be sourced from woodlands from the local area- not just wood from local suppliers.</p>
<p>In addition to lack of info on where compensatory planting will be, there also lack of info on how any trees will be established and maintained</p>	<p>Landscaping plans will need to include detail on how trees will be established and maintained for at least the first 10 years.</p>



M3 Junction 9 Option 14 Proposal Cumulative ZTV vs DSM



M3 Junction 9 proposals – Impacts upon Tranquillity

Tranquillity is a perceptual quality of the landscape, and is influenced by things that people can both see and hear in the landscape around them. It is considered to be a state of calm, quietude and is associated with a feeling of peace. It relates to quality of life, and there is good scientific evidence that it helps to promote health and well-being. As a special quality of the National Park, it is a characteristic of the landscape that visitors and residents greatly value. These are not characteristics that apply uniformly across the whole National Park, some areas are considered more tranquil than others based on a wide number of influences.

As part of our consideration of the impact of the proposals on the National Park we included a site based assessment. This covered a range of visual and audible factors that either add to, or detract from, the tranquillity of the area. This assessment considered the area in the context of the road corridor as it is currently configured, and how tranquillity is currently experienced. We then considered the direct impacts of the scheme on some of the factors that currently enhance the tranquillity of the area – such as landform or screening by existing bands of mature trees. From this we can interpolate how the scheme would impact upon current levels of tranquillity, and the characteristics that are most susceptible to change from increased noise or visual impact.

The site assessment considered five locations that would be affected by the extent of construction, two directly on the road corridor, two more areas immediately adjoining and one that considered more distant impacts (See map X – Plot of survey squares).

EWS2520 – This area includes Abbots Barton, the St Swithuns Way and the influence of the Winnal Moors Nature Reserve.

This area is on the immediate urban edge of Winchester, and looks across to confluence of the A33, A34 and the M3 corridor. In spite of this there is a considerable positive influence from the Nature reserve, with views across the flood-plain grazing marsh within the river valley and visible tree and woodland cover. This area has many good qualities, and has most of the features and factors that score well in terms of a site based Tranquillity assessment. It is a surprisingly natural looking landscape in spite of the proximity of the road network to the North East. The main influence of the road corridor at this location is from road noise, which is fairly constant and intrusive. It is possible to experience more natural sounds here, but the road noise is the most prevalent detractor. At present the more negative visual and auditory impacts of the road are screened or softened by the trees and mature scrub in the distance. It is likely that these will be lost as a result of the proposed scheme. This will have a significant negative impact on tranquillity at this location as the negative visual and auditory impacts of the road corridor will have an increased influence across this area.

EWS2535 – This area includes the section of the Itchen Valley that is bisected by the A34 to Newbury and its junction with the A33 to Basingstoke (northbound) and southbound links to Winchester.

Though this area adjoins, and is crossed by, the major road corridor it is enclosed and wooded. It is still possible to experience a positive experience in terms of tranquillity due to the existing landform, the influence of the river valley, existing tree cover and the way the road network currently sits within the landscape. This softens and mitigates many of the negative visual and auditory impacts of the road. Once again, road noise is the largest detractor in terms of noise which is constant. Existing road lighting will also contribute to overhead pollution at night time and positive experiential factors such as dark night skies. The regrading of the roads, proposed changes in topography, and loss of landscape trees and screening will exacerbate these negative impacts on the tranquillity of the area.

EWS2536 – This area includes the section of the Itchen Valley around Easton Downs (Note: Ref^o to mill cottage??) and to the East of Manor Farm.

This area is bisected by the M3 carriageway (northbound) though once again the Itchen River corridor exerts a strong positive influence. Though the road corridor is evident, it is less prominent in terms of noise, and is well screened by both topography and tree cover. As a result the area has a very enclosed feel and exhibits many positive qualities that lessen and mitigate the roads wider impacts upon tranquillity.

EWS2508 - This includes the area immediately adjacent to the M3 Junction 9 and the current layout including access to the northbound A34 and Spitfire Link.

This location is most heavily influenced by the M3 Junction in terms of both visually and auditory factors. It adjoins the industrial estate and the adjoining farmland has modern and heavily modified field patterns with little woodland or tree cover. There are some extensive hedgerows. There is little in the way of positive influence of the river corridor to the north-west and few of the factors that might improve the experience of tranquillity in this location. This scored low in terms of relative tranquillity and was more influenced by the urban fringe area of Winchester. That said the proposals for regrading and the new dumb-bell arrangement for the junction at this point is unlikely to have a positive impact upon the overall tranquillity of this area.

EWS2467 – This includes the open access land on Magdalen Hill Down north of the A31 and overlooking the B3404 Alresford Road.

This area has predominantly open vistas and long-distance views across to M3 Junction 9 to the north-west. The road corridor has much less of an influence on tranquillity at this distance in terms of noise or visual detractors. Road noise from the B3404 is far more intermittent, and road noise from the M3 corridor is far more distant and moderated. It is possible to experience many of the visual and auditory factors that make a positive contribution to tranquillity.

Impacts on Dark Night Skies

Although the site is not under any dark skies and is some miles from the main core, the rural areas surrounding the junction– particularly those in the National Park – will see skies of increasing quality and will tend to reach low 'bronze' level skies (20 magnitudes per arcsecond²) within a few km. Consequently, it is still important that the development lighting have due regard for the special quality of dark skies in their design.

The important aspects to design relevant to the DNS are contained within the tranquillity section of Appendix 10 – (that the HA have had regard for in other schemes) are;

- That all fixtures are fully-cut off and do not have any upward light above the horizontal. These are typical fixtures of other HA lighting designs, such as the A3/M27 junction and the A3 Ham Barn roundabout (within the National Park) which appear to use Philips Luma.
- That the road is lit appropriately to recommended surface illuminance levels and is not significantly over lit.

In addition

- Recent evidence shows that the light from bright blue rich heavy LEDs (Cool light LED LUMA option or equivalent above 3000K) penetrates air significantly greater distances than lower colour temperatures. This impact increases the level of sky glow arising from the site and will reduce the quality of the skies further into the SDNP. Therefore it is recommended that the warm white options ~3000K are used to reduce this extended penetration effect.

- To further reduce impacts, it is recommended that HA consider further mitigations such as dimming and trimming times, and – if possible – part night lighting.
- For the roads that represent an increase in height it is recommended that the height of the columns is reduced to the lowest possible distance to reduce the visibility of luminaires from the surrounding landscape.

M3 Junction 9 proposals – Ecosystem Service Impacts

In terms of the potential impacts upon Ecosystem Services by the scheme, we considered a range of landscape functions and associated public benefits. Using the EcoServ GIS tool, we generated maps of capacity, demand and service flows for the following functions:

Air purification
Carbon Storage
Local Climate Regulation
Noise Regulation
Pollination
Water Purification
Accessible Nature
Environmental Education

From these initial output maps, and based on our analysis of the evidence, we consider the following services to be the most significantly impacted by the scheme. In these cases we would expect some form of mitigation to either directly address or try to off-set the impacts resulting from the scheme.

Noise Regulation

Capacity – the existing bands of trees along the line of the A34 to Newbury and its junction with the A33 provide some capacity to screen and regulate noise from the road. This is helped to a degree by the existing topography and current un-elevated nature of the road. The M3 is more elevated, but again is screened by bands of trees and mature scrub vegetation along the fringes of Easton Down.

Demand – The need for noise regulation in this location is fairly high particularly for the urban fringe areas of Winchester at Abbots Barton and Winnal. These are highlighted as areas that need to be improved in terms of noise regulation, through screening or planting.

Impact of the proposals on the current situation – The proposed scheme would firstly cause the loss of many of the mature trees and areas of scrub that currently provide this service benefit. This would increase the current issue around road noise. In addition by raising some sections of the A34/A33 onto an embankment across the Itchen Valley this will be further exacerbated. The M3 corridor at this section will also become more prominent both visually and in terms of noise impact. There is a strong case to either retain, or replant, tree and vegetation that would be lost within the red-line of the scheme.

Air Purification

Capacity - There is significant capacity within the existing tree and woodland cover to help intercept and absorb the airborne pollutants produced by road traffic. The highest scoring areas (medium to high quartile) being the areas of mature trees and scrub that adjoin the existing junction and the confluence of the A33/A34.

Demand - Most of the demand for this service is within the urban fringe areas of Winchester immediately adjoining the existing M3 Junction 9 layout – particularly Winnal and the Industrial Estate to the west.

Impact of the proposal – The loss of existing mature trees and scrub will impact upon the capacity of the landscape to provide this service. To deal with issue of poor air quality as a result of pollution caused by road traffic at a local level effort should be made to either retain or replace tree cover and vegetation that can help to mitigate this impact.

Local Climate Regulation

Capacity – Local climate regulation is the ability that different habitats exhibit to absorb or intercept direct sunlight and reflected heat. It helps to control local temperatures, particularly within the built environment and helps to reduce the urban heat island effect. In terms of adaptation to the future impacts of climate change impacts it is an important consideration.

Demand – In relation to this scheme the highest demand scores are for the heavily populated urban areas to the west of the proposed schemes. The highest scores being for Winnal, Hyde and the core of the urban development of Abbots Barton.

Impact of the proposal - The loss of existing mature trees and scrub will impact upon the capacity of the landscape to provide this service. The potential impacts upon human health and well-being of higher temperatures, especially when combined with low level ozone and localised air pollution is significant. To ensure the capacity for local climate regulation is maintained or enhanced efforts should be made to either retain or replace tree cover and vegetation that can help to provide this service.

Water Purification

Capacity – This area is a significant watershed, with the Itchen River valley and the grazing marshes and riparian habitats within the Winnal Moors Nature Reserve. The habitats and vegetation adjoining the road corridor already provide this capacity (within the 'high' to 'very high' percentage quartile). This helps to regulate water quality and to reduce pollution impacts before they reach watercourses. Given the proximity of the road corridor, and existing drainage, this is a vital landscape function and one that should be considered as part of the scheme.

Demand – Aside from the wider public demand for regulating water quality and the associated costs of dealing with water pollution or contamination from roads and surface run-off, there are also the direct impacts upon important riparian habitats and species. It is likely that the Winnal Moors Nature Reserve is already impacted by these issue (**Note: Need to check if there is evidence/history of pollution impacts**)

Impact of the proposal - The loss of existing mature trees and scrub will impact upon the capacity of the landscape to provide this service. In addition very careful attention need to be made to the design, function and layout of the drainage associated with the Junction proposals. There is a very significant risk that this will exacerbate the existing problems. Every effort should be made to mitigate the impact upon water quality that might result from surface run-off from the road network. This can be by way of careful design of the scheme to mitigate these measures, as well as a focus on retaining and enhancing the landscapes natural ability to mitigate these impact. This could be achieved by either retaining, or supplementing, tree and surface vegetation that would be lost within the red-line of the scheme.