



# CHAPTER 5: SHAPING THE RESULTS INTO A PLAN

## INTRODUCTION

This chapter brings together the results from each part of the research process. The seven strategic topics (which were identified from the issues raised in Workshop 1) are taken in turn and their response and forward plan for each of them is developed. The evidence from both the desktop research phase and the stakeholder processes have been woven together and considered in terms of the seven topics from Workshop 1.

As a recap, these topics were produced from analysis of the four themed sessions in Workshop 1.

The seven strategic issues were identified in Workshop 1 as (See Figure 16);

- Infrastructure and Development;
- Information and Communication;
- Access and Recreation;
- Land Management;

- Landscape Ecology and Heritage assets;
- Social issues; and
- Climate Change and Pollution.

Each section identifies actions that are then taken into the Forward Plan (Chapter 6). All of the actions result from the engagement process and also reflect the parallel process of desktop and field based research, which have been undertaken in the study and endeavour to:

- Identify and respond to the project's primary objectives to restore landscape character and natural beauty;
- Include as many aspirations and views of the landscape conversation that are practical and possible;

For more details, see the results of Workshop 1 in Appendix F:





## STRATEGIC ISSUE 1: INFRASTRUCTURE AND DEVELOPMENT



This issue was commented on the most by stakeholders, above all other issues. Stakeholders felt that new developments, together with impacts from the M3 and other roads seriously affect the quality of the landscape and their enjoyment of it.

The study area is within the eastern edge of Winchester city and as set out in the landscape transition zones (Figure 19), there is a profound change from the urban-rural landscape from Winchester and the SDNP. The M3 passes through the western edge of the SDNP on the eastern side of Winchester. Due to the excellent transport links, large depots and storage facilities have been developed alongside the road corridor. These developments add to the large-scale impacts of the road and expand its extent within the landscape at the interface between the city and the SDNP. To the west of the road corridor is the Winchester cityscape with domestic houses, businesses, shops, and parks. To the east of the road corridor lies the National Park. Stakeholders felt that the M3 is a physical and perceptual barrier and a noisy intrusion into the tranquillity of the countryside.

Recent landscape change such as; housing growth in relation to Winchester and surrounding villages,

transportation/highways developments and other peri-urban/peripheral development along and in close proximity to major transport routes and junctions has eroded landscape character in an incremental manner, so called – ‘death by a thousand cuts’. New developments are also in construction or on the horizon: new park and ride proposals, planned improvements to the M3 Junction 9, the Bar End Leisure Centre development, which without careful consideration of the relationship between the city and the downs could all add to this effect.

Issues which related to infrastructure and development were identified in 21% of the responses (See Figure 16); including noise impacts and loss of tranquillity due to traffic (especially on the M3), poor public transport links (particularly east to west) and increasing traffic levels throughout the study area.

These findings are supported by an analysis of noise regulation in EcoServ (Appendix I Baseline Maps) which revealed the greatest need for noise regulation to be within and around the M3 corridor and Winchester and that those ecosystems and habitats most likely to contribute to noise reduction

were woodland, scrub and grassland. The Winnall Planning Framework (2015<sup>44</sup>) also draws attention to the need for street tree planting and urban greening which would also assist with noise regulation if considered in a strategic and planned manner.

The consideration and resolution of this strategic issue relies heavily on a coordinated and partnership approach between; the planning authorities, statutory authorities and planning applicants. In addition, a strategic approach to mitigation and enhancements for new development would provide a framework for contributions and targeted interventions and actions.

## OPPORTUNITIES AND RECOMMENDATIONS

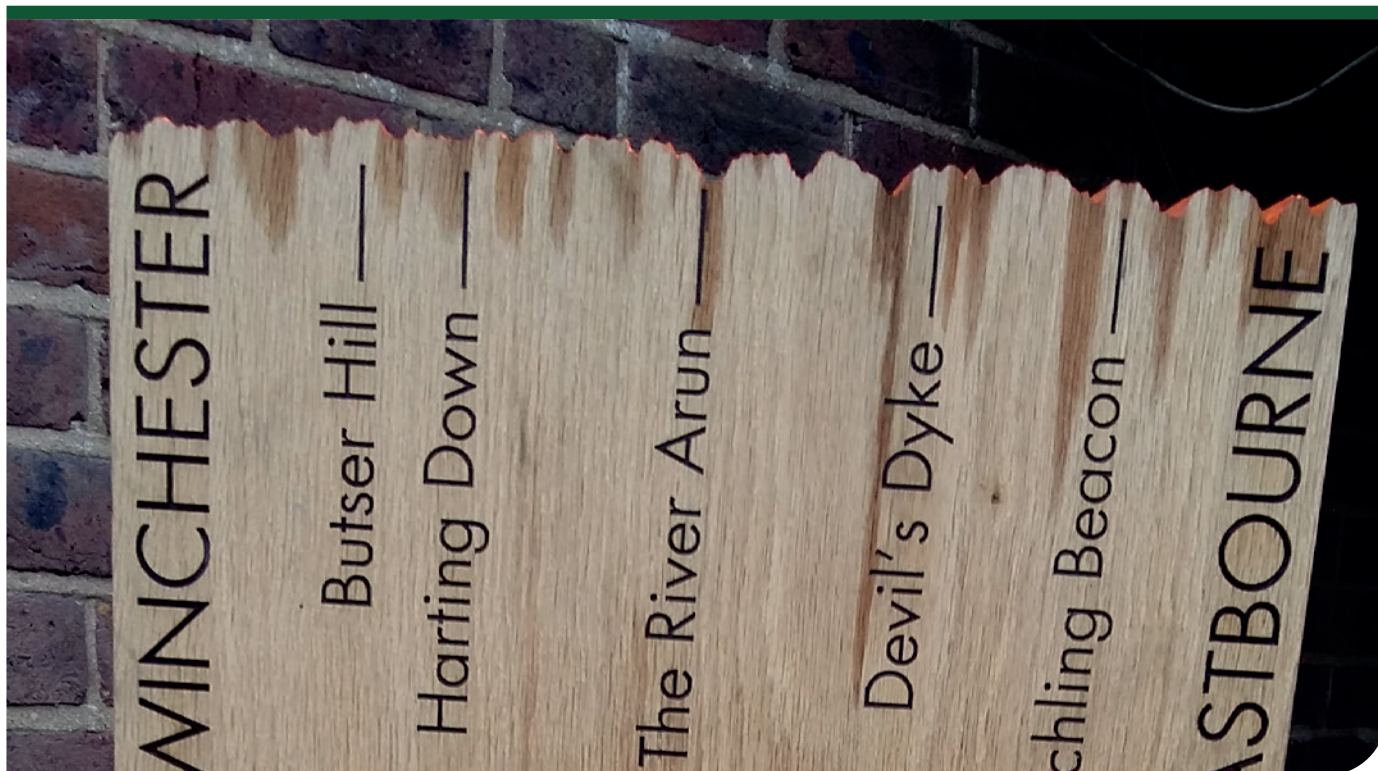
<b>1</b>	<b>Build a land or green bridge</b> To reconnect the landscape habitats and historic routes between the east and west side of the M3. This will address the severance caused by the road and encourage sustainable access to the SDNP. Reconnect the City of Winchester to the wider landscape, restoring it as the gateway to the South Downs. This is included as a strategic project owing to the size scale and impact of the proposal. Ensure that the land bridge includes safe access for all non motorised transport. Reconnect and restore habitats on either side of the road to give nature the opportunity to move and adapt to the impacts of the climate crisis.
<b>2</b>	<b>Undertake a review</b> of existing sustainable transport opportunities and plan for enhanced access to the South Downs National Park by non-motorised methods and electric vehicles.
<b>3</b>	<b>Ensure that M3 Junction 9</b> project maximises the opportunities to contain noise and landscape harm and improves safe access across the M3.
<b>4</b>	<b>Prepare a detailed map of Natural capital</b> for environmental management solutions to assist in mitigating climate change (nature based solutions).
<b>5</b>	<b>Prepare design codes</b> for new development in and around the South Downs National Park which incorporate a strategic approach to nature based solutions, and include provision for nature on the doorstep.

<sup>44</sup> [winchester.gov.uk/planning-policy/winchester-district-local-plan-2011-2036-adopted/evidence-base/planning-frameworks/winnall-planning-framework](https://winchester.gov.uk/planning-policy/winchester-district-local-plan-2011-2036-adopted/evidence-base/planning-frameworks/winnall-planning-framework)





## STRATEGIC ISSUE 2: INFORMATION AND COMMUNICATION



Information and communication about the landscape was the second most important issue from the stakeholders with 20% of the responses. Stakeholders identified the need for more information to be made available for the public through the study area including information about access, directional signage, route signage, the countryside code, and interpretive information. They believed that it could be beneficial to have more information available and presented about the distinctive landscape ecology and heritage of the study area. Figure 20 shows the location of existing information panels and facilities

The stakeholders also stated an overall desire to have greater stakeholder integration, involvement and communication around key decision making than already exist in the study area. It was felt that local communities, environmental bodies and landowners could liaise more frequently on a range of issues that affect the study area. An example given was the potential to connect land managers engaged in the Winchester Downs Farm Cluster with the Watercress and Winterbourne Landscape Partnership Scheme. Such a connection may assist

with addressing issues relating to water quality and monitoring.

The need for a strategic approach to signage was also raised. It was felt that there is a range of sign quality and an inconsistency in the approach to signage. This manifests in a range of approaches. For example, some signs are all about welcoming the visitor and guiding them to trails or beauty spots whilst others are more direct and less welcoming since they are deterrents to fly tippers, inconsiderate parking and other antisocial behavior. It was felt that the mixed messaging was confusing for visitors and gave an impression of not being welcoming or that it was a landscape under siege.

The lack of visitor facilities was discussed during the workshop sessions. The need for a range of visitor facilities in the landscape was strongly supported. The facilities identified ranged from the provision for new parking areas and enhancements at existing car parks, toilets/refreshments facilities, information hubs and the creation of a brand-new strategic gateway visitor centre somewhere on the edge of the National Park boundary. There was a consensus

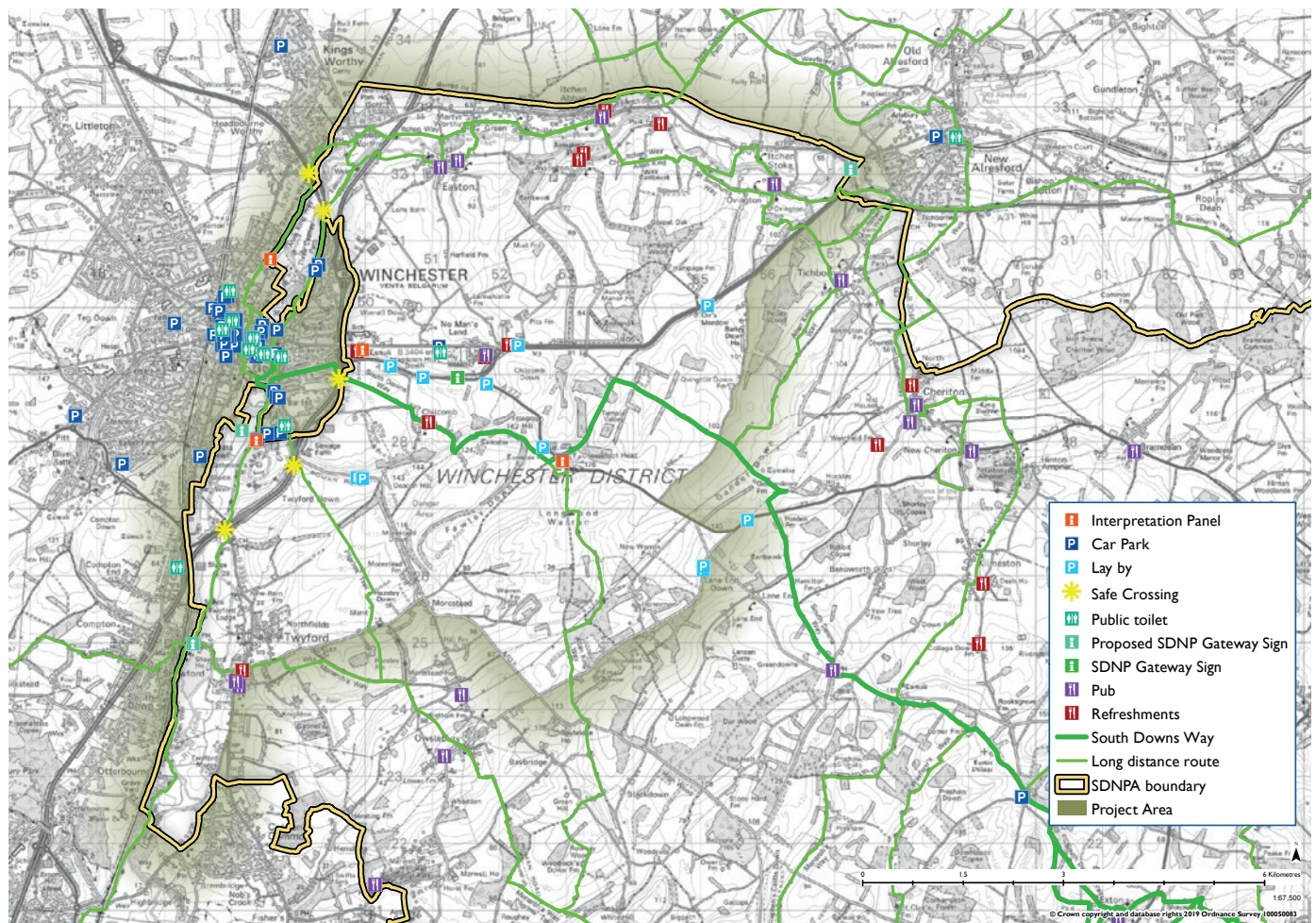


on the opportunities for enhanced information and communication associated with any scale of new facilities which fed back to the broader information and communication issues. Figure 20 (below) illustrates existing locations of facilities in the study area and further planning could take place around the demand, availability and possible locations of existing and new facilities and their function.

Alongside the considerations around physical signage, stakeholders appreciated that there were also technological opportunities for expanding communication and messaging by developing, for example, a phone app, web pages and QR coding.

Specific examples of opportunities to improve information were cited in relation to increased interpretation for the Itchen Mill and along the river to raise awareness about such features and their local/national importance and for the internationally important River Itchen and its protection. A common thread is the need to integrate the historic environment in these approaches linking with civic and heritage groups and also galleries and museums in receipt of public funding who also hold expertise and resources in the area.

**FIGURE 20: LOCATION OF EXISTING VISITOR FACILITIES AND INFORMATION**



## OPPORTUNITIES AND RECOMMENDATIONS

1	<b>Create new gateway points on the urban edge marking the gateways to the National Park</b> and provide information and low key facilities – eg, Twyford, Shawford and Dykes Farm, Winchester.
2	<b>Create a new central visitor hub building on the existing visitor destinations in the area</b> – eg Science Centre (by agreement) or a new build on a key location at the edge of Winchester. Such a hub would provide facilities and information about landscape, biodiversity and heritage as well as a sustainable transport interchange with access information.
3	<b>Prepare a communications strategy for the study area</b> that will introduce a quality standard for signage, encourage consistent messages and include clear wording relating to the status of the landscape, heritage and land management. This will need to be sensitive to brand recognition across multiple stakeholders in the area.
4	<b>Make use of appropriate technology so the right digital solution can be pursued for the area.</b> This will provide information on the landscape, its heritage and its management along key routes – eg Itchen valley.
5	<b>Review the demand and supply of existing facilities</b> and where issues are occurring in the landscape due to their shortage.
6	<b>Invest in other facilities</b> for access to the Downs for Special Education Needs and Disability (SEND) families and adults (trampers and tramper accessible routes).





## STRATEGIC ISSUE 3: ACCESS AND RECREATION



Ranked as the third most important issue by stakeholders, access and recreation issues included:

- Reduced quality of recreational experience along routes which pass through the urban fringe.
- Limited options to access the National Park on foot from Winchester.
- Gaps in the cycle network with scope for joining existing routes and creating circular routes around Winchester which may extend into the study area and link to transport hubs.
- Lack of car parks leading to irresponsible parking on verges (this overlaps with the Infrastructure and Development Pressure strategic issue in that increased development will increase the demand for access to the SDNP and increased need for associated infrastructure like car parking).
- Wild camping in the National Park.
- Dogs which are not kept under close control having adverse impacts upon the wildlife and river quality.

Stakeholders were asked to identify on maps which places/areas were easiest to access and most popular to visit within the study area. Figure 21 (below) illustrates the distribution of these areas

along with identified key views. The following observations emerged:

- The most popular areas that stakeholders visited were along the river Itchen valley and some of these areas are also easily accessible by car. The popularity of the Itchen valley can lead to over-use which in turn can affect the sensitive wildlife habitats.
- Local, notable and loved viewpoints are from areas of elevated open chalk downland with a cluster within the Longwood Warren Local Character Area.
- Large swathes of the study area which form extensive areas of arable farmland were not identified by the stakeholder group as key destinations or areas to visit.

The Itchen Valley was identified as one of the most popular and highly valued landscapes to visit in the study area. Closer to Winchester a number of accessibility issues were noted including:

- The M3 and A31/A272 are significant barriers which limit walking/cycling access and entry points into the National Park both through the physical barrier, but also the detours needed to reach crossing points over the M3 which pass

through industrial areas and the Winchester ring road.

- The underpasses at Junction 9a of the M3, and those where the A34/A33 cross the Itchen Valley are dark, long, damp and enclosed. The surfacing is poor and uneven, and one of the underpasses has limited headroom. The experience of using them could deter many potential walkers and cyclists even though they provide off road access between Winchester and the National Park
- The lack of public information about where to go, what to do, how to get there and how to respect the landscape and its wildlife. Stakeholders identified a need for enhanced local information that encourages guardianship of the landscape and wildlife.

Perhaps most significantly, the pop up consultations in Winchester revealed that many people from the city travelled to Farley Mount (a Forestry Commission site to the west of Winchester) or to the New Forest National Park for countryside recreation rather than the South Downs National Park on their doorstep. The reasons given included that there was more to see and do at these locations, whereas the South Downs felt like unknown territory.

The access resource of the study area includes important areas of accessible natural greenspace such as Magdalen Hill Down and St Catherine's Hill close to the city. However, studies into accessible natural greenspace beyond the urban edge of the study area have shown that there is an under provision of access to natural greenspace sites that meet any of the criteria listed by Natural England<sup>45</sup>. The lack of key natural greenspace destinations in this part of the South Downs National Park exacerbates the access and recreation issues experienced by stakeholders, visitors, together with the pressures on the landscape.

The PRoW network across the study area is very variable both in the connectivity of routes and also level of provision. The nationally important South Downs Way starts/ends in Winchester and this is a hugely important resource for access and recreation. Other long distance paths include; St

Swithun's Way, the Itchen Way, Pilgrims Trail and Allan King Way. Whilst these are great assets for the PRoW network they often have poor circular connectivity. Other footpaths and bridleways form a network to the south of the area, whilst north of the A31, the area called 'No Mans Land' is almost devoid of access opportunities other than by narrow lanes and the occasional footpath with poor circular connectivity.

The stakeholders recognised these underlying factors concerning access and recreation and highlighted the following broad opportunities for improving the access and recreation 'offer' in the area. Examples were given to encourage more participation within the South Downs National Park for example; themed walks, stories in the landscape, sustainable transport provision and hubs' growing new tourism and farmshop businesses' developing new destinations' creating new gateways' creating circular walks from centres of population, landscape restoration of specific areas and improved signage and information. Poor connectivity could be addressed through a range of possible measures – new routes, improving existing, work to underpasses, new signage and way marking, timed routes etc.

45 At least one two hectare site, no more than 300 metres (five minutes' walk) from home.

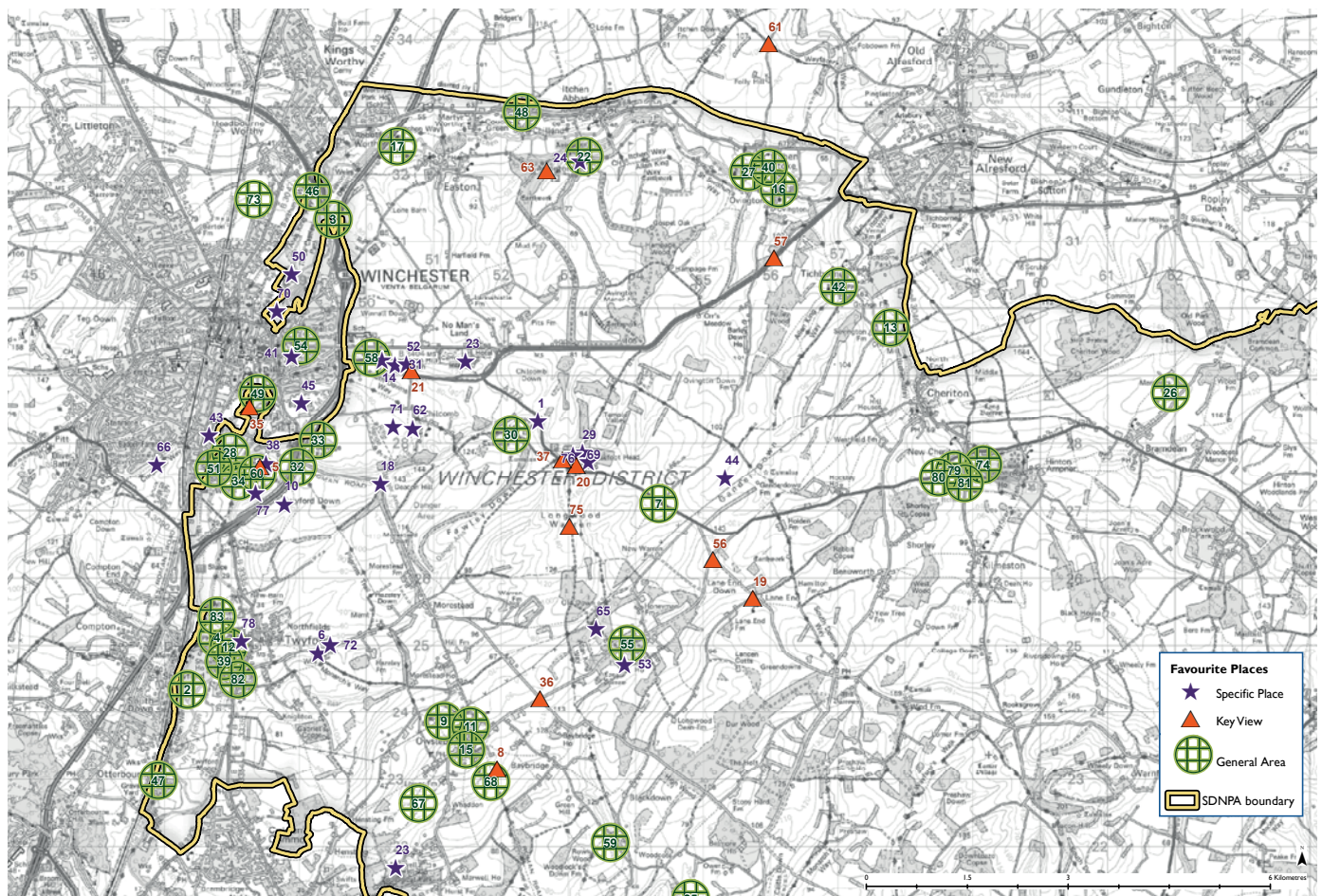
At least one accessible 20 hectare site within two kilometres of home.

One accessible 100 hectare site within five kilometres of home.

One accessible 500 hectare site within ten kilometres of home.

A minimum of one hectare of statutory Local Nature Reserves per thousand population.



**FIGURE 21: FAVOURITE STAKEHOLDER DESTINATIONS AND VIEWPOINTS**

## OPPORTUNITIES AND RECOMMENDATIONS

1

### Targeted Access improvements;

- Seek opportunities to create circular routes – (this links to planning)
- Identify where improvements to the network would unlock it for a range of users including upgrading road under passes
- Look for new routes and connections into existing long distance routes
- Themed and guided walks.
- Consider recreational pressure on highly sensitive sites in any approach to access and recreation.
- Link new routes with restored downland to provide for recreation and wildlife.

2

**Embrace new technologies** including virtual tours, phone app, QR codes, create virtual tours for less mobile visitors. Build heritage into any profile to show the time depth in the landscape (and refer to strategic issue 2)

3

**Connect farms and local pubs restaurants and cafes** to establish a local network of producers and consumers, encouraging outlets to source and sell local produce and also helping local producers to orientate towards local value added sales.

4

**Create new viewpoints**, and destinations along existing routes – eg St Catherines Hill (northside restoration) and Cheesefoot Head and the Bowl on the South Downs Way. Consider how new routes could affect or offer opportunities for heritage assets .

5

**Investigate and consider** opportunities for a new visitor destination and additional visitor facilities. (overlap with Strategic Issue 1 & 2)





## STRATEGIC ISSUE 4: LAND MANAGEMENT



Land management issues discussed by the stakeholders included:

- Farming practices.
- Farm diversification and the possible secondary effects from this.
- Conservation land management.
- Incentives for farmers and landowners to provide environmental enhancements.
- Discouraging antisocial behaviour and crime.
- Raising the profile and local voice of farming and farmers.

All of the landscape character areas in the study area are farmed landscapes of one type or another (see Figure 7). For example, areas of chalk grassland have been created and are sustained by grazing animals. Their droppings feed a range of invertebrates and as the manure breaks down it helps the growth of microbes in the soil and the start of the food chain. Grazing within a mosaic of woods, hedges and water can produce real benefits to landscape ecology and hence character. Therefore, supporting the retention of grazing animals in the landscape is absolutely key to long term regeneration of soils, nature and natural beauty.

Additionally, in the west and north of the study area along the River Itchen and its catchment, flood risk management is another important consideration for land management, this is also an aspect of the Watercress and Winterbourns HLF Project run by the Hampshire and Isle of Wight Wildlife Trust (linking with many other partners including the Environment Agency and Natural England).

The study area is covered by part of the Winchester Downs Farm Cluster. The South Downs National Park actively promotes the development of farm clusters as there is a wide range of landscape-scale benefits which can be achieved through farmers working together in this way across large tracts of land (see Figure 3). Covering approximately 44% of the study area, a significant number of landowners within its boundary are engaged with the Winchester Downs Farm Cluster, meaning that considerable knowledge and experience of land management through farming can be shared. The Winchester Downs Farm Cluster is already undertaking a range of different projects including: Soil Health and Farm Carbon, Looking at Regenerative Agriculture including cover cropping and working with Water Companies, habitat restoration and mapping, and farmland bird monitoring.



Other landowners can also achieve benefits to nature and landscape through conservation management practices. Hockley Golf Course<sup>46</sup> is a good example of voluntary conservation management within a formal golf course layout where careful management of the course roughs and fairways has increased their value as species rich chalk downland. Much of the site is a local wildlife site (LWS) and has two scheduled ancient monuments (SAM). The Golf Club markets the historic landscape in which the course sits and its location and land management features strongly in all promotional material.

Other Issues raised included:

- Lack of car parks causing accesses to farm property to be restricted with irresponsible parking.
- Connection to local farm produce from farm to fork.
- Investigation of Community Supported Agriculture<sup>47</sup>.
- Farmers and landowners helping to ameliorate the effects of climate change through planting trees, providing natural flood management, soil retention and carbon capture.
- Understanding farming is a great way of making connections between landscape, food, and environment.
- Change of land use and farm diversification.

In 2024, a new Environmental Land Management scheme (ELM) replacing previous agri-environment schemes, will pay farmers for environmental services and benefits based on the principle of 'public money for public goods'. Aims of ELM include:

- Provide a complementary or alternative income stream within a farm business.
- Show how less fertile or 'un-productive' land, can add value to the economy, community and to nature if given the appropriate conservation land management (i. e. increase its natural capital value). This could also apply to local authority amenity greenspace outside the ELM process.

- Encourage protection and enhancement of key economic assets (including soils & water) and services (including pollination & air purification).
- Make the business of farming more sustainable, resilient, and profitable.

This is an approach echoed in the Glover Review<sup>48</sup> which states that:

*"it is essential that farmers and land managers are meaningfully involved in the process of shaping ELM and this should be done through engagement in the [protected landscape] Management Plan".*

In preparing for the significant changes coming to farming in the study area, a number of opportunities were identified by the stakeholders. These included:

- Promoting the Winchester Downs Farm Cluster to the people of Winchester.
- Facilitating wildlife safaris around farms.
- Increased diversification of farms where it is appropriate to do so.
- Optimising opportunities for farmers to help with climate change challenges – particularly water conservation and purification through creating new habitats in the right places.
- Making farmed landscapes 'wilder' and maximising biodiversity.
- Increasing the amount of land which is farmed Regeneratively or Organically.
- Exploring opportunities for community farming.
- Having stronger physical connections with local businesses and tourist attractions.

46 [hockleygolfclub. com/hockley\\_heritage](https://hockleygolfclub.com/hockley_heritage)

47 <https://communitysupportedagriculture. org. uk/>

48 Julian Glover (2019) Landscapes Review. Available at: [https://assets. publishing. service. gov. uk/government/uploads/system/uploads/attachment\\_data/file/833726/landscapes-review-final-report. pdf](https://assets. publishing. service. gov. uk/government/uploads/system/uploads/attachment_data/file/833726/landscapes-review-final-report. pdf) [Date Accessed: 09/01/20]

## OPPORTUNITIES AND RECOMMENDATIONS

1	<b>Facilitate support for mixed farming.</b> Look at grazing partnerships, mobile abbatoirs and collective butchery services. Develop support for a lowland high nature value farming system to restore chalk downland.
2	<b>Seek opportunities to naturalise the wider Itchen catchment</b> for flood management and biodiversity and also the river Itchen corridor within Winchester. Work with the catchment partnership to promote catchment sensitive farming.
3	<b>Liaise with the farm cluster and all landowners</b> over access management and maintenance funding for access routes.
4	<b>Connect up the hedgerows and headlands</b> on field boundaries between owners, reinstate historic boundaries with hedgerows where possible and create smaller field patterns, incorporate chalk downland reinstatement within strategic approaches for water purification, pollination and connectivity between habitats. Consider the area as part of a Tier 3 ELMS funding which aims 'to deliver land use change projects at a landscape scale to deliver environmental outcomes'.
5	<b>Recognise the farm cluster and it's value in any local decision making processes.</b>





## STRATEGIC ISSUE 5: LANDSCAPE, ECOLOGY AND HERITAGE ASSETS



Stakeholders strongly believed that biodiversity and heritage qualities of the study area were special and make the landscape distinctive. Many comments related to the need to celebrate these factors. Similarly, the biodiversity and heritage resource need to be maintained, protected, and enhanced.

Consultation highlighted concerns regarding conflicts between access and biodiversity such as the impact of disturbance and erosion of the river banks by dogs in the River Itchen valley. Similarly, in relation to biodiversity, stakeholders identified concerns regarding the physical fragmentation of sites and habitats, damage caused by recreational pressure and a lack of a joined up approach to address these issues including a lack of advice to farmers.

Some of the many issues raised included the following:

- Lack of understanding around historic landscape (e. g. barrows and historic routes) and its importance and vulnerability.
- Loss of grazing animals from the landscape is likely to change the landscape & biodiversity – historically, this has always been a part of local farming.
- How to retain traditional skills and practices, including farming practices, language, and dialect.
- How to connect new developments into the historic landscape and bring it alive for new residents.
- Risks to the landscape from changes in farm practices (e. g. loss of grazing animals) and farm diversification. The landscape is shaped by farming.
- Loss of tranquillity across the area (e. g. more cars, more people, new development, 'rat running' and the possible indirect effects from a range of new ventures which may leave a legacy in the landscape.
- Recreational pressure damaging places such as St Catherine's Hill.
- The fundamental importance of soil health, to underpin all nature's functions
- Individuals and groups undertaking work around cultural heritage which is not joined up.
- Habitat restoration which joins up sites, big and small (e. g. road verges, gardens, amenity greenspace, parish conservation areas). Habitat fragmentation was recognised as having a negative effect on the biodiversity of the study area, leading to isolated populations and loss of habitat resilience to the effects of climate change and intensive agriculture. Chalk downland distribution is a good example of how habitats are increasingly isolated as islands. There are a number of Chilcomb Vale Pollinators.

Connections which are being promoted to, and through, landowners with land on the east side of the valley including Magdalen Hill Down and Deacon Hill, across the MoD range and WCC sports ground. This approach could be a springboard for a wider extended pollinator network – possibly working with Beelines. <sup>49</sup>

- How to integrate the planning system with a strategic approach to the landscape on issues

including biodiversity, green infrastructure, traffic, key views between Winchester and the National Park

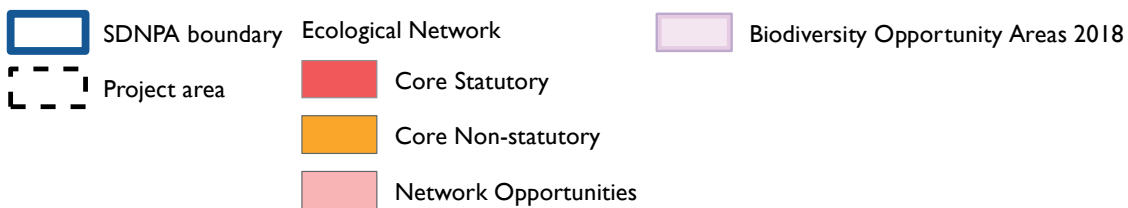
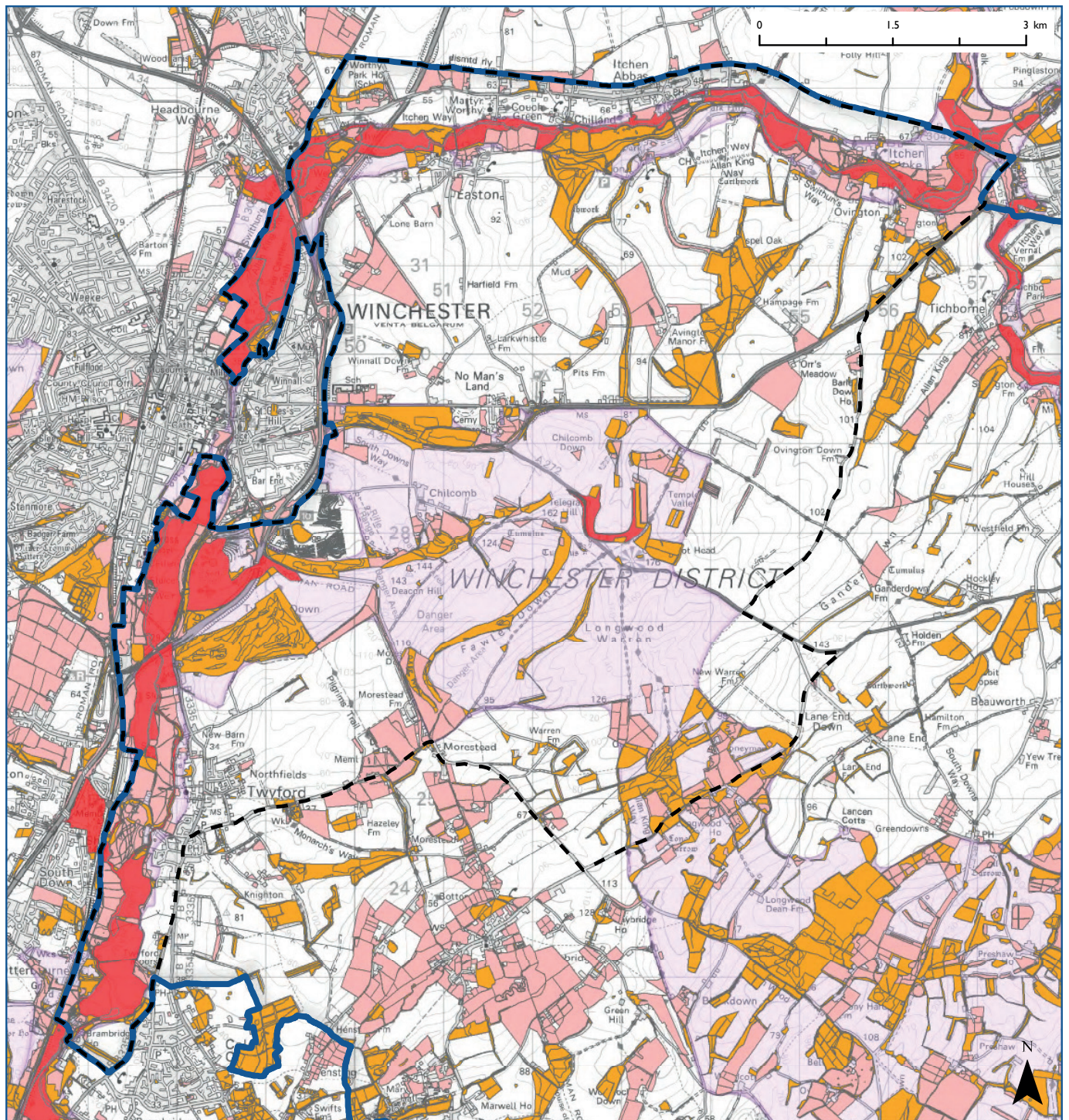
As a point of reference, opportunities to improve biodiversity within the area and potential for habitat creation have been identified through ecological network mapping prepared by Natural England and Hampshire County Council, see Figure 22 below.

## OPPORTUNITIES AND RECOMMENDATIONS

1	<b>Target chalk grassland restoration.</b> Look for areas of chalk downland habitat where there is known poor connectivity and low habitat value. Work with landowners and other stakeholders to create new areas of this internationally important habitats and links between them.
2	<b>Use robust opportunity mapping to support new woodland plantings.</b> In particular avoid chalk downland opportunity areas. Better manage the existing woodlands in the area. Look at where planting might recreate areas of lost historic planting so there is a recognition of the connection between heritage and biodiversity improvements.
3	<b>Research new ways for monitoring biodiversity</b> – eg citizen science, farmers using new technologies. Identify key indicators and track records to monitor trends.
4	<b>Set up community heritage projects.</b> Working with recognised community heritage organisations to help them achieve ambitions across improved interpretation, connectivity, economic, tourism and wellbeing offers.
5	<b>Protect tranquillity to preserve the inherent qualities of the landscape,</b> undertake studies on traffic and public transport to understand and anticipate future needs and trends. Develop an approach to deter rat running and promote rural lanes for recreation with the Highway Authority.
6	<b>Develop a ‘biodiversity is everywhere’ approach</b> with local authorities, caretakers, house holders so that all land can contribute to a wider approach to habitat connectivity – gardens, road verges, amenity greenspace, with adjustments to management and maintenance.
7	<b>Work with local planning teams</b> to implement a strategic and cross boundary approach to the landscape which recognises and assists with addressing the recognised threats and risks to the landscape.

<sup>49</sup> southdowns.gov.uk/custodians/trust/bee-lines/



**FIGURE 22: HAMPSHIRE COUNTY COUNCIL ECOLOGICAL NETWORK**

Source: HCC





## STRATEGIC ISSUE 6: SOCIAL ISSUES



Social issues formed 8% of the responses from stakeholders. Headline issues related to crime, dogs not kept under control, litter & fly-tipping and safety on rural roads (see Figure 16 and Appendix F.

The following key issues were raised:

- Addressing the issues in hotspots for antisocial activity by encouraging positive behaviour change.
- Minimising rural crime including rural car park targeting and heritage crime. and considering the concern that improving access to the landscape may unintentionally increase crime levels.
- New 'wild' camping in the landscape (i. e. camping not in recognised campsites). This is often accompanied with making fire pits and litter being left behind – sometimes all of the camping equipment is abandoned. A lack of toilet facilities which can lead to hedgerows and woodland being used for this purpose instead. The lack of toilet (and other) facilities in the study area means that local residents are providing a general information service to visitors.
- Litter and fly-tipping.
- A transport system which is geared around motor vehicles and not towards cycle or pedestrian access, which limits their use and reduces sustainable travel options.
- A lack of safe places to cross main roads especially the A272 and A31.
- A lack of public transport which limits accessibility for a range of potential visitors.
- Boomtown festival is a notable large event in the study area and there was discussion of antisocial issues that can arise during the festival.

## OPPORTUNITIES AND RECOMMENDATIONS

1	<b>Develop a targeted and coordinated approach</b> to positive behaviour change in the landscape around Winchester
2	<b>Provide information about the location of key facilities</b> in well used and known locations
3	<b>Work with the highway authority and planning departments</b> to identify key optimal main road crossing locations & seek funding through Community Infrastructure Levy (CIL)/Department for Transport (DfT)
4	<b>Explore digital ways of positively promoting the countryside code</b> and encouraging responsible access to the countryside
5	<b>Prepare a health impact assessment of the study area</b> to understand the risks to health and safety and propose solutions
6	<b>Fund targeted outdoor transport</b> to increase accessibility and use of the landscape for recreation. Including accessibility for all, cycling friendly buses, walking back drop offs, drop off and pickups and service integration.
7	<b>Explore ways to make use of rural lanes safer for non-motorised users</b> – use of the verges for green pavements, through increased hedgerow and verge maintenance in key locations, ‘behind the hedge’ routes, speed limits and traffic management measures.





## STRATEGIC ISSUE 7: CLIMATE CHANGE AND POLLUTION



Pollution in the study area, noise and air in particular, were identified as an issue by 18% of the stakeholder responses. (see Figure 16).

The study area forms an important part of the chalk aquifer catchment for the River Itchen where the water quality and water flow have been subject to a research project undertaken by Portsmouth University on behalf of Salmon and Trout Conservation<sup>50</sup>. This three year project has shown how phosphate levels adversely affect the ecology of Itchen's chalk streams, watercress beds and fish, and how sedimentation as a result of runoff disrupts freshwater invertebrates which are vital in maintaining its freshwater ecosystems.

Other specific issues raised included:

- Untreated runoff from transport routes within catchments which adversely affects water courses.
- Nitrogen enrichment of habitats from air pollution caused by traffic, agricultural fertilizers and new development.
- Nitrate neutrality measures introduced during 2020 need a strategic landscape scale approach to address multiple issues and contribute to multiple benefits in the landscape.
- The importance of reducing pesticide use to achieve healthy natural soils which can also then provide significant levels of carbon sequestration as climate change mitigation.
- There are notable changes to water courses in the study area due to extreme weather events resulting from climate changespace (e. g. wide variations in flow rates due to drought or sudden inundations due to rainfall which causes flooding and increase sediment runoff).
- Winterbourne watercourses which are characteristic of the chalk aquifer environment are often dry all year affecting the health and status of the water course.
- The condition of the soil and its nutrient levels within this largely arable agricultural landscape.
- Air quality along the major transport corridors such as the M3.

50 Using high-frequency phosphorus monitoring for water quality management: a case study of the upper River Itchen, UK. (2020) Gary R. Fones & Adil Bakir & Janina Gray & Lauren Mattingley & Nick Measham & Paul Knight & Michael J. Bowes & Richard Greenwood & Graham A. Mills, In Environmental Monitoring and Assessment.

## NATURE BASED SOLUTIONS TO ENVIRONMENTAL ISSUES

The study area has the potential to address some of these issues through changes to land management and land use, such as the creation of new areas of chalk grassland and woodland which can assist with carbon sequestration, soil and water quality and address air pollution.

Using natural solutions for environmental issues can also contribute towards climate change mitigation through carbon sequestration as a secondary function (e. g. natural flood management, upper catchment tree planting, cover crop use, no plough farming and arable reversion).

## OPPORTUNITIES AND RECOMMENDATIONS

1	<b>Work with Winchester City Council (WCC) Carbon Neutrality Action Plan<sup>51</sup>, Winchester Action on Climate Change (WinACC)<sup>52</sup></b> , the Science Centre and others to develop climate change initiatives, taking into account the SDNP Climate change adaptation plan and specifically to quantify and evaluate relating to this study area. Examples would be tree planting for natural flood management, arable reversion for nitrate neutrality,
2	<b>Establish a monitoring system for capturing and quantifying activities</b> which mitigate the effects of climate change and pollution, including tree planting, natural flood management, soil regeneration and carbon capture, including the Farm Carbon Toolkit <sup>53</sup> .
3	<b>Develop a strategic approach to spatial planning for climate change</b> which includes things like nitrate neutrality, carbon offsetting, water purification, air purification, soil regeneration so that land can provide multiple benefits from optimum locations
4	<b>Work with Highways England and the highway authorities</b> to find ways to filter and improve surface water run off from roads through natural three stage filtering – eg reed and willow beds
5	<b>Make the River Itchen water quality a spatial targeting project</b> – undertake research using GIS mapping to identify the most beneficial areas for changes to be made working with key partners like Southern Water and Natural England and the Catchment Sensitive Farming Officer (CSFO).

<sup>51</sup> [winchester.gov.uk/no-listing/carbon-neutrality-action-plan](https://winchester.gov.uk/no-listing/carbon-neutrality-action-plan))

<sup>52</sup> [winacc.org.uk](https://winacc.org.uk)

<sup>53</sup> **Farm Carbon Toolkit**