

Initial appraisal of data

62. Being the most common GI asset does not automatically mean that this type of asset contributes the most to the health the GI network in the town however. It is the level of function, the degree of connectivity and the combined benefits that dictate the level of contribution. These are the aspects of the existing GI that are analysed in the Analysis.

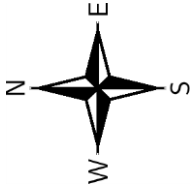
63. The impression that the audit provides at first glance is that the most numerous and therefore commonly occurring GI assets are amenity green spaces, which make up approximately one quarter of the sites audited. The second most common type of GI appears to be farmland, and then come private gardens and roads in third position. This result does not however reflect the true picture, as for practical reasons not every private garden was audited. The recognition that all private gardens contribute to the GI network was however noted at the workshop sessions.

64. The map on the next page shows that the majority of residential properties in Swanage have both front and back gardens, and research shows that the proportion of gardens is high compared with many towns and cities in the UK.

65. The number of farmland sites represented in the audit is perhaps higher than would be expected. This along with the high number of rural RoW that are represented shows the importance of the countryside setting of the town, with strong links to the countryside being important both historically (connections with the stone industry) and in present day (for recreational purposes, education and health and wellbeing). However, although the farmland surrounding the town is an important GI asset in its own right, it is likely that this category is so well represented because the housing sites that were being promoted at the time of the audit were predominantly located outside the settlement boundary on areas of farmland.

66. The parks and gardens along with the sport and recreation category are well represented, as are natural and semi-natural green spaces. However as indicated it is the quality of function and the quantity of benefits and connections between the assets not just the number of assets that are the important factors in terms of overall GI provision.

67. 'Blue-green' infrastructure in the form of water bodies and watercourses is similarly well represented, though it is interesting to note that no-one at the workshop sessions identified the sea as being blue-green infrastructure, although it was referred to indirectly under the civic spaces/public realm category in the evaluation of the pier (over and under water).



Extract from OS map
(Not to scale)

Private gardens are
shown in pale yellow

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68. The 11 RoW that are identified as GI in the audit were selected for differing reasons. Some were selected because they represent an important connection between the town and the countryside, and others because they are, or have the potential to be green corridors. There are also a number of routes that were selected for their potential as future RoW. In reality all RoW form part of the GI of a place, and a clearer picture of the level of provision can be gained by referring to the RoW and open access map which is included in the baseline information maps. Generally speaking, Swanage is well served by RoW, many of which extend some distance into the open countryside. Provision is however markedly different between the north and the south of the town, with many RoW being present in the south.

69. The three caravan parks to the south of the town were identified specifically in the audit because they are particularly visible in the approaches to Swanage from the north and the west. Participants at the workshop sessions felt that more could be done by way of provision of GI (planting) in the grounds of the caravan parks, which would then provide the additional benefit of screening to the caravans in important views. The participants also felt that the existing GI in the caravan parks was of poor quality, and that there is great potential to develop further GI here that would be more appropriate to the edge of town setting. It could also be that these caravan sites drew more attention than the two to the north of Swanage because of their visual impact and number of RoW in and around them.

70. The incidental GI that is provided by cemeteries, churchyards and allotments is often overlooked as these spaces are created with specific functions not related to GI in mind. The two cemeteries included in the audit were however identified by the workshop participants as containing potentially important GI. Analysis of the baseline information also revealed that the churchyard and graveyard at St Mary's church were also likely to provide valuable GI in what is a relatively built up area of the town. This site was therefore included in the 'ground truthing' exercise.

71. One derelict site was identified from a study of the baseline information, and this was included in the 'ground truthing' exercise as a potential site for new GI in what is again a relatively built up part of the town.

72. One important asset that has not been included in the audit is that of street trees. There are too many street trees for them to be audited individually, but they are shown on the DCC/STC street tree plan included in baseline information maps.

Analysis

73. To understand how the existing GI assets work together, how efficient they are, and how the network functions as a whole, it is necessary to analyse the coverage of the assets, the number and strength of the connections between them, areas of low function and of no function. This then provides an indication of the overall state of health of the network, and indicates whether, where, and what type of new GI is needed. The projects and proposals that are provided in the audit tables can then be assessed to see if they are needed and appropriate, or whether additional or more focussed improvements are required.

74. The first part of the process of analysis therefore looks in more detail at the overall function of each of the GI categories that have been identified. The spatial analysis that follows can then look at the frequency and dispersion of the assets across Swanage.

Functional analysis

Amenity green spaces

75. The amenity areas range from grassed road verges, to railway embankment, and areas of open space that appear to have been left over when planning development (commonly known as SLOPE, or space left over after planning). Many of these areas consist of no more than incidental grassed areas which were not designed to be attractive places in their own right, or to provide any particular contribution to the environment. The benefits that these assets provide are minimal, often being no more than that of amenity. As a result, although these assets are amongst the most numerous, they contribute little to the functionality and therefore overall health of the GI network in Swanage.

76. A study of the baseline information shows that most of the amenity green spaces are owned and maintained by either DCC or PDC. The exception is the railway embankment to either side of the track. This land is owned by DCC, but is maintained by The Swanage Railway Company.

77. The majority of the amenity green space is located to the west of south Swanage, and to the west of Northbrook Road where both housing association (ex-council) and recent private housing developments are centred. Housing association estates are notorious for the lack of GI provision and the lack of investment in that infrastructure. More recent development has been subject to planning agreements which have required the provision of amenity open space, but developers have had a tendency to provide this in the spaces that are left over after as much housing as possible is put onto the site, and the required access delivered. There are also sometimes issues

with regard to future responsibility for the maintenance of these areas, which have suffered as a result.



The embankment at Swanage railway station although not accessible is classified as amenity green space because it is in the public domain

78. These sites do however have the potential to be improved, and on the Greyseeds Estate specifically, verges and triangular spaces that are presently only laid to grass could be planted up to great effect.

It should however be noted that verges and other amenity areas can be affected by buried or overhead services, which may affect the type of planting that can be achieved.

Farmland

79. The farmland surrounding Swanage is a mixture of pasture and arable land which falls within a number of ownerships. All of the farmland is in the AONB, and provides the scenic and peaceful rural setting for Swanage. It is criss-crossed by many popular public RoW, including footpaths and bridleways.

80. In amongst the fields to the south of Swanage, there are abandoned quarry workings which have gradually been reclaimed by nature, and are now biodiversity 'hotspots' which are connected to the patchwork of fields by hedgerows. Durlston

Country Park to the south east is another 'hotspot' for biodiversity, and has recently taken over the management of some of the fields between the park and the edge of Swanage town with a view to managing them for nature conservation.

81. The main function of the farmland that remains in active production is that of food and or wool production, but the contribution to visual amenity and the setting of Swanage is also important, as is the contribution to biodiversity and health and wellbeing.

82. As identified earlier, there is the possibility that there was some skewing of the results and therefore the data that was produced for farmland in the audit, mainly because much of the housing promoted through the Purbeck Local Plan was shown to be located on farmland and the maps supplied at the workshop. The situation regarding this housing has since changed, and reference should be made to the SLP pre-submission draft for the latest update. A number of Suitable Alternative Green Spaces (SANGS)⁸ were identified during the workshop sessions, mostly again on farmland.

83. Overall the farmland surrounding Swanage is an important GI asset due to the number of ecosystem services that it provides. It has a strong influence on the character and identity of the town, and feedback from the workshop sessions and from the ground truthing exercise is that its influence and importance should be respected and enhanced where possible through the implementation of improved management, including the 'gapping up' of hedgerows. Increasing and improving access, biodiversity, and the condition of the resource are the main priorities that emerge, and will all help to improve the health and resilience of this important GI asset.

Private gardens

84. Private gardens are numerous, though in the more densely populated parts of town such as around Princes, Gordon, Richmond and Osborne Road, they are small, and confined mainly to the rear of each property. In other parts of town though, private gardens are large, and contribute greatly to the GI network.

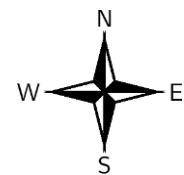
85. In north Swanage, there are a number of locations such as between Bonfields Avenue, Vivian Park, Battlemead and Cauldron Avenue, where the rear gardens of the properties back onto one another and function as a green corridor or green finger, meaning that wildlife can penetrate into, or easily travel through the urban area. The combined effect of the vegetation in these gardens also creates an oasis of benefits which include the absorption of airborne pollutants, cooling during hot dry weather, and visual and amenity benefits. The GI here functions well, though in order to continue to function effectively in the future in the face of climate change, it will be

⁸ SANGs provide alternative green space to divert people away from heathland Special Protection Areas (SPAs). They are intended to provide mitigation for the potential impact of residential development on the SPA by preventing an increase in visitor pressure.

necessary for residents to consider planting different more resilient types of plant that will be able to survive the warmer, wetter winters, and hotter, drier summers.

86. The planting of some of the plant species listed in appendix 3 (Plants to attract birds, butterflies and bees) will create an even stronger 'super highway' for wildlife, and will increase biodiversity as a result.

87. The highest functioning GI out of all of the categories is found in south Swanage in the residential area on the approaches to Durlston. The aerial photograph below shows the high proportion of tree cover here, which is made up of a combination of garden and street trees (the trees in this location collectively form part of the 'urban forest' and are covered in more detail in the section on natural and semi-natural green space below). The private gardens are on the whole well planted, and the benefits of the GI here are wide ranging, top of the list being visual and amenity benefits along with biodiversity. There is also a very high level of connectivity between GI assets both within the residential area, and between the residential area and the surrounding countryside. The abundant vegetation makes it easy for wildlife from the countryside to move into the built environment, further adding to the character and diversity of the location.



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Aerial photo of the residential area in the approaches to Durlston, showing the high percentage of tree cover. Trees in towns and cities are collectively termed the 'urban forest'. This photo also illustrates the concept of green fingers and green corridors

88. The private roads here are not predominantly surfaced with tarmac. The crushed stone surfacing that is used instead is permeable, meaning that surface water can drain through it. There are some locations where the stone is compacted or rutted where surface water will collect and cause minor problems locally, but on the whole surface water drains away quickly without the need for a piped disposal system. The benefit of this is that the surface water can then replenish the ground water, which is a much more sustainable and environmentally sensitive method than piping the water away to be for example disposed of into the sea as it is in many other locations in Swanage. If the ground water is replenished in this way, as it is in nature, the resource is respected and will be more able to support vegetation during times of drought. If there are any areas where surface water runoff is an issue, there is much potential for the problem to be dealt with through the provision of rainwater gardens, which will be entirely within keeping with the location.

89. Interestingly, although a relatively high number of gardens are provided for housing in the part of Swanage sometimes referred to as the Greyseeds Estate (between Greyseeds Farm and Days Road), there could not be a greater contrast between the level of function and benefits between this location and the housing on the approaches to Durlston. This is because there is sparse tree cover in comparison, and all of the verges are consistently mown short.

90. Many of the streets here are apparently green, the boundaries of front gardens being defined by hedges. The hedges are however a monoculture of evergreen species, which do not provide the same benefits as a hedge made up of a range of deciduous and especially native species would. Non- native ornamental evergreen species do not support the same number of species of birds and insects as native deciduous species as they are not food plants. In addition to this, evergreen plants do not transpire at the same rate as deciduous plants, so do not contribute as much towards the absorption of air pollution and cooling during hot weather. Their visual and amenity value is also lower, because they are in leaf throughout the year, and do not change in outline or colour according to the seasons.

91. As these hedges do not provide a good habitat for wildlife and are not found naturally occurring in this country, the connection to the open countryside is not respected, and the Greyseeds estate represents a virtual 'island' on the western end of south Swanage, where the landscape within the estate is sterile in both its visual attractiveness, and in terms of its attractiveness to wildlife. The result is that the Greyseeds Estate is the least biodiverse location in the town, and also the least adaptable in terms of resilience to climate change. The GI here is low grade, and the connections between what assets there are is poor.

Public RoW

92. The importance of RoW of way has partially been identified under the above heading of farmland. However the audit also identified that creating new RoW and strengthening the links in the existing network is as important as maintaining and improving the existing RoW.

93. The creation of new footpath links and walks to the north of the town is seen to be important, although some of these links were put forwards specifically to connect potential housing to the open countryside and SANGS. Difficulties recently experienced in negotiating with landowners over new footpath routes may mean that not all of the proposals coming out of the audit are now suitable or possible here.

94. To the south of the town, the audit noted that some of the RoW are in poor condition or badly signposted. The lack of provision of east to west links between the existing predominantly north to south RoW is identified as being an issue that needs to be attended to.

95. The audit also identified that there are a number of important routes that start in the town and then connect out into the countryside that could be upgraded in some way, or enhanced so that they form a 'greenway'. The creation of 'greenways' was also proposed in the 2006 Sport and Recreation Audit and Assessment, however none of these have been created so far.

96. It is clear from the number of comments that were received at the workshop sessions and during the 'ground truthing' that the RoW network in and around Swanage needs attention, whether that be because of lack of maintenance, lack of connectivity, poor signage, or the need for the creation of new RoW. Although RoW do constitute an important part of GI, this strategy is not the best vehicle to review the RoW network. It is suggested that the issues regarding the RoW network are pulled together and treated as one project to provide a Swanage RoW Strategy.

Civic spaces and public realm

97. The civic spaces and public realm that were identified during the workshop sessions include:

- The seafront (including The Pier and The Stone Quay);
- Streets in the retail area;
- Victoria Avenue car park.



The promenade and seafront along Shore Road showing a large expanse of hard surfacing

98. There is generally little or no GI in these locations, although the seafront along Shore Road is set against the backdrop of Shore Gardens and Sandpit Field recreation ground, and the seafront approaching The Pier is adjacent to Prince Albert Gardens, which have all separately been identified as requiring improvements to GI.

99. All of the identified civic spaces and the public realm are areas of hard paving that are located in the most highly trafficked parts of the town in terms of both vehicular and foot traffic. The vehicular traffic produces air pollution, which although not reaching high levels, does affect the air quality in all of the locations. The region of the retail area that is closest to the station is also affected by air pollution created by the steam and diesel trains arriving at and departing from the station.

100. Victoria Avenue car park is centrally located on the main route into Swanage from Corfe Castle and beyond. It is the location of the weekly market, and is also promoted as a coach parking area. It is a large expanse of tarmac, with occasional planters created out of concrete sewer pipe sections which have been in place for at least the last 20 years. The car park is not well drained, and floods at times of heavy rainfall. It is in a prominent position next to King George/Forres Field, and detracts from these green open spaces as well as from the approach to the seafront from the

west. It would benefit greatly from being enhanced through the provision of a new surface, with a grid of street trees planted in tree pits which are designed to also act as surface water storage cells. This would greatly improve the visual amenity of the car park, improve drainage, and introduce new green infrastructure which will utilise the stored surface water.



There is also a high percentage of hard surfacing around the fire station and the main retail area

101. The retail area and the proposed improvement area around the station would benefit greatly from the implementation of a scheme to improve GI. This could include the provision of street tree planting, green roofs and green walls. The benefits of such a scheme would include the absorption of air pollution, reduction of the 'heat island' effect, improvement of the visual amenity and character of the area, and the creation of a pleasant environment for shoppers.

102. Street trees also form an element of the public realm in parts of Swanage. There are existing street trees on Burlington Road and Victoria Road in north Swanage. There used to be a number of street trees in Park Road, that were removed once they became over-mature. Some of these trees were replaced in the 1990's. There are approximately 22 horse chestnut trees along Victoria Avenue. These trees, many of

which are in poor health and badly pruned, are all that remains of an avenue of trees that was probably planted in Victorian times.

103. The overall level of existing GI in the public realm is therefore low, and what there is in poor condition. The town would benefit greatly from the replacement of and the provision of new GI in the public realm. This would go a long way to improving the overall health of the GI network in Swanage.

Sports and recreation

104. The main outdoor sports and recreation grounds are located north of the railway line. As green infrastructure, their benefits include health and wellbeing, visual/amenity, with some benefit to wildlife. King George's recreation ground and to a greater extent Forres Field also provide a flood storage area downstream of the main Swanage Flood alleviation scheme. This function means that parts of the playing fields are 'sacrificial' in that at times of flood they will not be useable, and will take time to recover after a prolonged flood event. Kirkwood Park is also in the flood zone, Swan Brook flowing through the northern part of the site.

105. There is a tract of SNCI lying at the junction of Kirkwood Park and King Georges/Forres Field. This site is called Victoria Meadows, and considered to be locally significant because of the assemblage of plants described as marshy grassland. Generally however, the majority of the vegetation in the sports and recreation grounds is a mixture of native and ornamental tree species, and tends to be located around the boundaries of each site. Kirkwood Park is the main exception, where the ground between holes has been planted up with native vegetation, and areas of wildflower meadow created.

106. The vegetation in the sports/recreation grounds will contribute towards combatting the effects of climate change. However, because out of necessity it is located around the perimeter will not create shady areas which will become increasingly important in the future. There are opportunities to plant copses of trees on various locations, which will help to improve the overall functioning and benefits of these assets, as will the creation of areas of wildflower meadow in parts of the grassed area that are not actively used for sport.

107. Herston Recreation Ground is a very small open space located in one of the most densely populated parts of Herston. It is an important facility in that it provides green space in the location in Swanage that was identified at the workshop session as being an area of deprivation, where there is also a low level of poor GI. There is a play area here next to a small copse of trees, and there is an area of short mown grass that is marked out for ball games. Most of the vegetation around the edges of the site

belongs to neighbouring properties, but to the south there is a substantial hedge along a green corridor with a public footpath running through it.

108. The adequacy of the current level of provision of open space for sport and recreation was looked at in the PMP Sport and Recreation Audit which was produced for PDC in 2006. This is the most up to date evidence base for this category of GI assets, and identifies that Swanage has proportionally less provision than most of the other large towns in the district. The standards that the provision was tested against are however flawed, as they are based on provision per 1000 population, which is not the most useful indicator. This is because the type of provision is as, if not more important than the number of facilities provided, especially for Swanage which has a higher than average proportion of people over the age of retirement. This is illustrated by the following statistics taken from the www.dorsetforyou.co.uk website:

Population

Latest population figure (2012 Mid Year Estimates) for the town is 9,556

Age Group	Swanage (persons)	Swanage (%)	Dorset(DCC Area)(%)	England and Wales(%)
0 to4	360	3.8	4.7	6.3
5 to 9	374	3.9	4.9	5.7
10 to 14	443	4.6	5.4	5.6
15 to 19	487	5.1	5.8	6.2
20 to 24	489	5.1	4.6	6.8
25 to 29	387	4.0	4.2	6.8
30 to 34	367	3.8	4.4	6.7
35 to 39	390	4.1	4.9	6.4
40 to 44	528	5.5	6.5	7.2
45 to 49	622	6.5	7.3	7.3
50 to 54	687	7.2	7.1	6.6
55 to 59	639	6.7	6.6	5.7
60 to 64	776	8.1	7.5	5.7
65 to 69	854	8.9	7.7	5.3
70 to 74	645	6.7	5.7	3.9
75 to 79	551	5.8	4.9	3.2
80 to 84	452	4.7	3.9	2.4
85+	505	5.3	4.0	2.3
All ages	9,556	100	100	100

Selected age groups

Age	Swanage (number)	Swanage (%)	Dorset - DCC area (%)	England & Wales (%)
Young people 0 to 17	1,484	15.5	18.6	21.3
Young adults 18 to 29	1,056	11.1	11.0	16.1
Older people 65 +	3,007	31.5	26.3	17.0

Source: Office for National Statistics (ONS), 2012 Mid Year Estimates

109. The number of people over 65 is more than twice the national average in Swanage. These statistics also show that the age groups that are most likely to take part in sports that take place a pitch are less well represented in Swanage. If the current standards are applied, the data produced will therefore give a false representation of the adequacy of provision of this category of GI asset.

110. DCC is due to produce a county wide sport and recreation strategy, which will take the demographic of the population into account, but until this time, there remains no reliable method of addressing this issue. For this reason, the only recommendation that this GI audit can put forwards is that the production of a Dorset wide sport and recreation strategy with standards based on actual demographics be supported.

111. There is however a lot of scope to improve GI and therefore increase the contribution that these assets make to the overall health of the GI network in Swanage. The site that could do with most attention is Herston recreation ground, however the scope is limited due to lack of space.

Water bodies and watercourses

112. The watercourses in the town are all natural, whereas the land based water bodies have been created to serve a specific use. The watercourses generally follow a natural course where they run through a green space or the open countryside, but in the built environment they are controlled, either being confined to a lined channel, or culverted. The watercourses act as a blue-green corridor, bringing wildlife into the built environment. They also bring a cooling effect, natural movement and interest into the town. The disadvantage is that they flood, and can bring damage and disruption as a result.



The Swan Brook outside the main Post Office is contained in channel and is culverted under Station Road re-emerging adjacent to the Mowlem

113. The Swanage Flood Alleviation scheme to the west of the town has done much to relieve flooding problems associated with the Swan Brook, but there are still occasions when flooding is an issue where the brook runs through the town. The Ulwell Stream also floods, and has also caused damage and disruption in the north of the town.

114. All of the water bodies consist of ponds, the largest associated with the flood alleviation scheme. The hard edged Old Mill Pond located on Church Hill is in an attractive setting, as is the smaller soft edged pond just off Newton Grange Close. This pond was originally in the grounds of a large house that has since been demolished and the grounds developed as housing. The area around this pond has been sensitively landscaped, the whole of the area now performing the role of a 'pocket park'. All of the ponds support much wildlife, including fish, dragonflies and damselflies though The Old Mill Pond less so because of its location and the presence of hard edges and no shallow areas. The ponds in town have benefits with regard to climate change as they have a cooling effect on their surroundings and help to relieve the heat island effect.

115. All of the waterbodies and watercourses are attractive to differing degrees, and although not strictly accessible to the public, people do fish in the ponds associated with the flood alleviation scheme.

116. There are a few opportunities to enhance the function of the water bodies and watercourses, mainly through the addition of suitable planting. It is important however that any new planting does not cause problems by impeding the flow of floodwater to the ponds of the flood alleviation scheme. There are in fact some locations where the removal of vegetation would be beneficial because it impedes the flow of water and actually helps to cause localised flooding. The main purpose of enhancing the water bodies and watercourses in this way is to improve visual amenity and biodiversity, along with additional climate change adaptation being provided.

117. The sea is of course the main water body associated with Swanage, and is also the main attraction along with the beach. There are a number of local businesses that are associated with the sea, and the sea under the pier is one of the best places in the country for scuba diving because of the range of sea life that is present. The sea has a range of benefits associated with its function as a GI asset, amongst the most important being visual/amenity, health and wellbeing, food production and recreation (health and wellbeing). It also acts as a cooling body during the summer and warming body during the winter. With regard to climate change, the sea will of course be affected in its own right, with both sea temperature and level rising.

118. There is one additional blue/green asset that was not identified at the workshop sessions. This is the spring that is piped from its source under the Prince Albert

Gardens and exits on to Monkey Beach. An attempt was made to bring the water from this spring to the surface when Prince Albert Gardens were developed. The source of the spring is however too deep under the ground, and would have had to be pumped to the surface for this to work.

Natural and semi-natural green spaces

119. Green space is defined as natural when it is predominantly covered by either one, or a mix of the following⁹:

- woodlands and woodlots, trees and tree clumps with freely growing shrubbery or managed grassland underneath;
- freely growing scrub and dwarf shrubs (e.g. heathland);
- rough grassland, semi-improved grassland, wild herbs and native tall herbaceous plants;
- rocks and bare soil where natural succession is allowed to freely occur (including mudflats, dunes, etc.);
- open water and wetlands with reeds and other tall native herbaceous plants etc.

120. The vegetation can be either 'self-seeded', or planted but have the character of being natural.

121. In their Accessible Natural Green Space Standards (ANGSt) Natural England states that:

- no person should live more than 300m from their nearest area of accessible natural green space of at least 2ha in size;
- there should be a least one 20ha accessible natural green space within 2km from home;
- there should be one accessible natural green space 100ha site within 5km;
- there should be one accessible natural green space 500 hectare within 10km;
- at least 1ha of statutory Local Nature Reserve (LNR) should be provided per 1000 population





122. These standards should be used as a benchmark for the provision of access to nature, though Natural England do make it clear that it is appropriate to adapt the standards to reflect local need.

123. The following map illustrates the gaps in provision of the 2ha standard for accessible natural green space, with approximately 15% of Swanage not complying.

⁹ Providing Accessible Natural Greenspace in Towns and Cities - A Practical Guide to Assessing the Resource and Implementing Local Standards for Provision. A study undertaken for English Nature (now Natural England) by the Centre for Urban and Regional Ecology at the University of Manchester 2006



KEY

-  Location of accessible natural green space, or access to that green space, and 300m radius catchment
-  Location of proposed accessible woodland that will also be classified as accessible natural green space under NE Access to Green Space Standards
-  Public footpath
-  Bridleway




Purbeck District Council

Thriving communities in balance with the natural environment

SWANAGE GI STRATEGY

Accessible natural greenspace

300m catchment category



Not to scale

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124. All of the other categories of the standards are however satisfied. For example the 20ha standard is satisfied by the beach and cliffs, the 100ha standard by Durlston Country Park, and the 500ha standard by the open access land at Ballard Down.

125. The gap in provision is minimally closed by the accessible woodland that is proposed to the west of the Cauldron Barn Park Homes site (see below), but there are no further opportunities to create more accessible natural green space in the locations that it is needed to enable full compliance. It is considered however that there are opportunities to improve and create new GI in some of the other categories, which may compensate for the gap in provision of natural green space.

126. The Woodland Trust's Woodland Access Standard (WAS^t) recommends that no person should live more than 500m from at least one area of accessible woodland of no less than 2 hectares (ha) in size, and that there should also be at least one area of accessible woodland of no less than 20ha within 4km of people's homes¹⁰.

127. The Forestry Commission defines woodland as 'land under stands of trees with a canopy cover of at least 20% (or having the potential to achieve this) including integral open space.....' and includes areas of woodland scrub, but not areas of gorse, rhododendron etc outside woodland¹¹. Map sheet 1 (following) shows an assessment of the existing accessible woodland in and around Swanage.

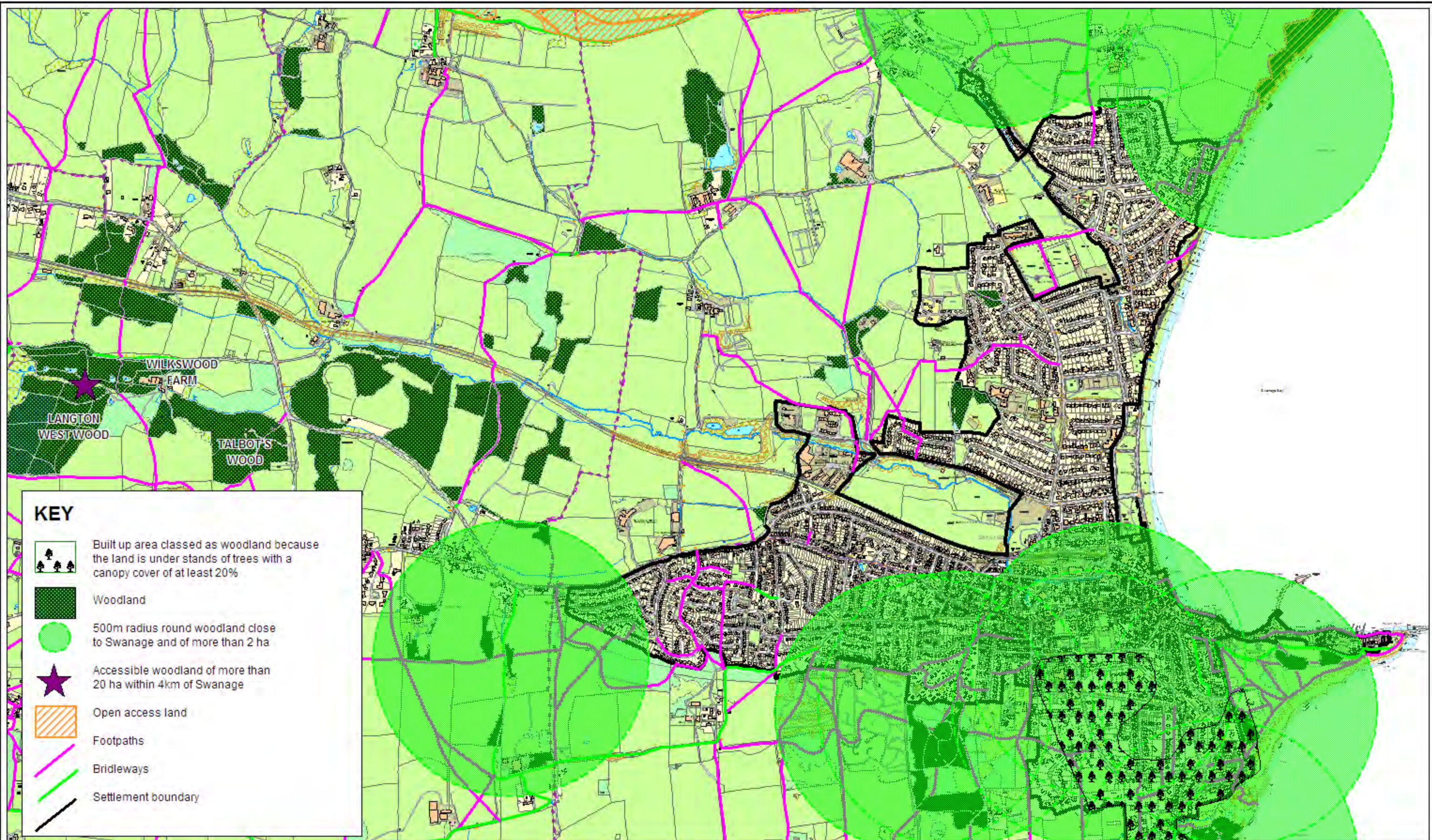
128. The woodland consisting of Langton West Woodland, and Talbot's Wood to the east is accessed by a number of public RoW. This woodland is greater than 20ha in area, and less than 4km from Swanage, meaning that the standard for larger woodland is reached satisfactorily. In contrast however the assessment shows that only 50% (approx) of the town has access to woods in the smaller wood category.

129. Map sheet 2 is an analysis of the potential to comply with the standard for small woods. This analysis shows that it would only be possible to achieve somewhere near full compliance if public open space and recreational facilities were planted with woodland as shown. However, it is clearly not acceptable to plant up valuable recreational and sports facilities with woodland. Along with this, land availability issues, levels of accessibility, townscape character and landscape character also need to be taken into consideration when identifying potential sites for accessible woodland. Other considerations relate to the GI benefits that the woodland could provide. For example woodland could be utilised to screen existing development, and to contribute to flood water management.

¹⁰ Woodland Trust 'Space for people – targeting action for woodland access' 2010

www.woodlandtrust.org.uk/publications

¹¹ <http://www.forestry.gov.uk/website/foreststats.nsf/byunique/sources.html>



Purbeck District Council
**Thriving communities in balance
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SWANAGE GI STRATEGY
 Application of WAST
 for small accessible woodland
 Sheet 1



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A

Discussions are currently ongoing about the future of this piece of land. If it becomes a village green, woodland that is planted must not interfere with the public's enjoyment of the land. As accessible woodland, it is hoped that it will actually further enhance enjoyment.

Locating woodland here means that the majority of the Herston area will have accessible woodland within 500m. It also has the potential to address local flooding issues, and to screen the Purbeck Business centre in sensitive views on the approach to Swanage.

B and C

Alternatives B and C to the south will serve a smaller part of Herston, but are less likely to be caught up with sensitive local issues. Woodland here will screen this edge of the settlement, which is visually intrusive. It will also be more accessible to the residents of Herston than alternative A, as it will not be necessary to cross the busy A351.





Z, D and E

North Swanage can only comply with the WAST if Days Park and Swanage Town and Herston Football Club ground or the Swanage Cricket Club ground are planted as woodland (X). Even then, not all properties will be served.

The club grounds and park are well established, and have had money invested into them, both the football and cricket clubs have pavillions. It would make no sense to move the football and cricket grounds, and there is not enough room to create 2ha of woodland around them.

The only alternative sites for woodland of the required size are outside the settlement boundary to the west and the north, at locations D and E meaning that it is impossible to achieve the required coverage in north Swanage.

KEY

-  Existing compliant woodland and 500m radius zone served
-  Open space that needs to be planted with 2ha woodland if the WAST standard is to be met:
-  Potentially acceptable site for 2ha of new woodland planting and 500m radius zone served
-  Unacceptable site and 500m radius zone that would be served if it was suitable

For central Swanage to comply with WAST, the whole of Forres Field will need to be planted up with woodland, as will Sandpit Field and the recreation ground.

X

Forres Field is the main site for youth football, and there is a planned project to provide new changing rooms. The field is also heavily used by local schools. It is protected by the Fields in Trust organisation, and cannot therefore be planted as woodland.

Y

Sandpit Field and the recreation ground are located next to the promenade, and provide an area for informal recreation. There is scope to plant trees in these spaces as identified in the proposals section of the Strategy, however the planting of 2ha of woodland here is not appropriate. Woodland will block the expansive views that are gained from and across these open spaces to Swanage Bay and the Isle of Wight beyond.

The Swanage Townscape Analysis refers to Sandpit Field and recreation ground:

- As the open backdrop to the seafront which forms an important element of townscape character
- Limited change is acceptable as pressures to change can undermine what forms the character and quality of the town
- Change should be carefully guided and controlled.

These open spaces are therefore highly valued and cannot be developed as woodland.

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Thriving communities in balance with the natural environment

SWANAGE GI STRATEGY

Application of WAST

Sheet 2

Potential for compliance



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130. Analysis of the issues, and options for siting new woodland produces the proposals illustrated on map sheet 3. There are 3 main contenders for the creation of new small woodlands, with a 4th possibility should village green status be achieved for Herston Fields. Planting of all 4 areas of woodland would mean that approximately 80% of the town will be within 500m, or walking distance of 2ha of accessible woodland.

131. Grants are provided for woodland planning, creation and management. Details are provided on the GOV.UK website on the Countryside Stewardship: Woodland Support page¹² and in the Countryside Stewardship Manual¹³. Priority is given to schemes that protect and enhance the natural environment, and it will be particularly useful to highlight that the proposed woodlands will protect and enhance:

- biodiversity;
- flood management;
- landscape character;
- educational access.

132. Help with the application process is available from both Natural England and the Forestry Commission.

133. It is important that the new woodlands that are created are connected to the existing network and local woodlands so that they form a more resilient resource which supports the green infrastructure of the rural and built environment in and around Swanage. The connections will on the whole be provided by the existing network of hedgerows that form boundaries to fields and property (the hedgerows contain some of the same species of trees and shrubs that are present in the woodlands, and can act as conduits which provide cover, food sources and nesting places for, and allow wildlife to travel between woods without becoming vulnerable when crossing open ground).

134. The GI audit did however identify that some of these hedgerows are in poor condition, and need to be restored or 'gapped up'. The restoration of hedgerows will also help to improve the condition of the countryside immediately adjacent to Swanage, which the landscape character assessment supporting the AONB Management Plan¹⁴ has identified as being in poor condition. The Countryside

¹² <https://www.gov.uk/government/collections/countryside-stewardship-woodland-support>

¹³ Countryside Stewardship Manual published by the Forestry Commission, the European Agricultural Fund for Rural Development and Natural England: Nov 2015

¹⁴ Conserving Character - Landscape Character Assessment and Management Guidance for the Dorset AONB: Dorset AONB Team:2008

Stewardship scheme also provides funding for the small scale restoration of boundary features such as hedgerows.

135. In order to perpetuate the provision of accessible woodland, new major housing developments will be expected to respond to WAST by ensuring that the new housing is within 500m of accessible woodland. If there is no existing or proposed (by this Strategy) accessible woodland within this distance, it will be necessary for suitable woodland to be provided as part of any Suitable Alternative Natural Greenspace (SANG) or GI that may be required under Policy DH of the Local Plan.

136. All of the natural and semi-natural green spaces are located either outside or on the edge of Swanage, and provide benefits including biodiversity, visual/amenity, recreation (health and wellbeing) and education. The vegetation will also provide a level of resilience in the face of climate change, but this will be beneficial only locally at the interface between the green space and the built environment.

137. Not all of these green spaces are managed. Of those that are, some of those are managed with a light touch with the rest being left up to nature, some are managed specifically for nature conservation purposes, and some, such as The Downs are managed mainly for amenity. It is not appropriate to make many changes to these sites because they are managed appropriately for their primary function. There are some opportunities however to improve habitat, and to create more woodland.

Formal parks and gardens

138. The formal parks and gardens benefit both the local community and visitors, and are a great asset to the town. Most of them have been in place for a long time, but Prince Albert Gardens is a relatively new park that was provided at the same time that the seafront between the pier and the Square were enhanced.

139. There is a range of mainly ornamental planting in the parks and gardens, and it is noticeable that much of this planting is over-mature. Many of the larger trees were planted during Victorian times, and are coming to the end of their useful life.

140. Traditional bedding plants are still planted in some locations, most notably in Shore Gardens/Sandpit Field. Although attractive, this is labour intensive and expensive. A number of workshop participants agreed that this practice is not sustainable, especially as the plants need watering during hot dry periods, which will become more common as climate change progresses.

141. The beach and seafront are the main attraction in Swanage, and bring thousands of tourists into the town every year. As climate change advances it is likely that people visiting the seafront and beach will need to retire to a cooler, shadier environment during the heat of a summer day. It is noticeable that there is not much shade

Location A

The land here is owned by the Scott Estate, and leased to tenant farmer. As already stated the main issue is that the future of this location is unknown at the time of writing.

It would however be beneficial to plant new accessible woodland here as it will screen the Purbeck Business Centre in important views when entering Swanage from the west; it will connect into the wider network of woodland in the Corfe valley via existing hedgerows, and connect into the small area of planted woodland maintained by Swanage Town Council. Planting woodland here will also benefit landscape character and condition.

The land is served by a public footpath, and is already well used by the public for dog walking.

Location C

Although not quite 2ha in area, location C is preferred over location B. This is because the land at B is actively farmed by Dorset County Council, who lease the land from The Scott Estate, whereas the land at C is currently maintained as amenity open space by Purbeck District Council. It is suggested that it will be easier to negotiate changing the use of this land to accessible woodland than it will be to negotiate the planting of woodland on productive farmland.

The land at C is served by 5 public footpaths and a bridlepath, so is highly accessible. The woodland will also have the benefit of screening intrusive housing in views from the extensive rights of way network to the south, and buffering the interface between the built and natural environment in this sensitive location.

The woodland will be connected to the wider network of woodlands by existing hedgerows, and has the potential to contribute to the GI network of Herston. This is highly beneficial as the quality of the GI here is poor.

Woodland here will also benefit the character and condition of the landscape, which has been assessed as being poor around Swanage.

Location E

This land is owned by the National Trust. The location is already well served by public rights of way.

One of the additional benefits of siting woodland here is that it helps to screen the cul-de-sac development at Hill Road in views from Ballard Down.

The woodland will be beneficial to landscape character and condition, which is gauged as poor around Swanage.

The main drawback of this site is that there are overhead wires, which trees can't be planted underneath.

Location D

The land here is owned by the Berkley Leisure Group.

Woodland here will connect into the network of small woodlands in the Corfe valley, and the GI network in the town along existing hedgerows.

There is the potential to connect into the existing rights of way network with relatively short lengths of new footpath. The woodland will also have the benefit of screening the caravan park in views from the rights of way to the west.

Planting woodland here will benefit landscape character and condition which is gauged to be poor around Swanage.

If it is not possible to secure this site for woodland planting, it may be possible to negotiate the planting of woodland on the adjacent owned by the National Trust.

KEY

-  Purbeck ridge landscape type
-  Corfe clay valley landscape type
-  Sports pitches
-  Parks and gardens
-  Play areas
-  Cemeteries and churchyards
-  Natural and semi-natural green space
-  Amenity open space
-  School grounds
-  Swanage Town Council land
-  Dorset County Council land
-  National Trust land
-  Woodland
-  Flood zone
-  Public footpath
-  Bridleway
-  Settlement edge where development impacts on the open countryside
-  Existing woodland and 500m zone
-  Proposed site for new woodland, and 500m zone
-  Potential site for new woodland if location is designated as village green



Purbeck District Council

Thriving communities in balance
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SWANAGE GI STRATEGY

Application of WAST
Sheet 3

Proposed new woodland



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available close by. In fact Sandpit Field, the weather station open space, spa beach huts open space and the recreation ground have few trees, and the trees in nearby Beach Gardens are becoming over mature. There was a shady treed area in Prince Albert Gardens, but this was partially removed when the new boat house was built. In addition to this, the cherry trees along the northern boundary of this park have a fungal disease which has been responsible for a number of these trees dying in recent years. This disease will ultimately kill all of these trees.



Beach gardens has formal recreation facilities including tennis courts and a bowling green

142. On balance, Swanage is well provided for with parks and gardens which provide benefits for the community and for visitors. As GI however, their function is either in decline or could be much improved so that they bring more benefits to the local environment and the town as a whole.

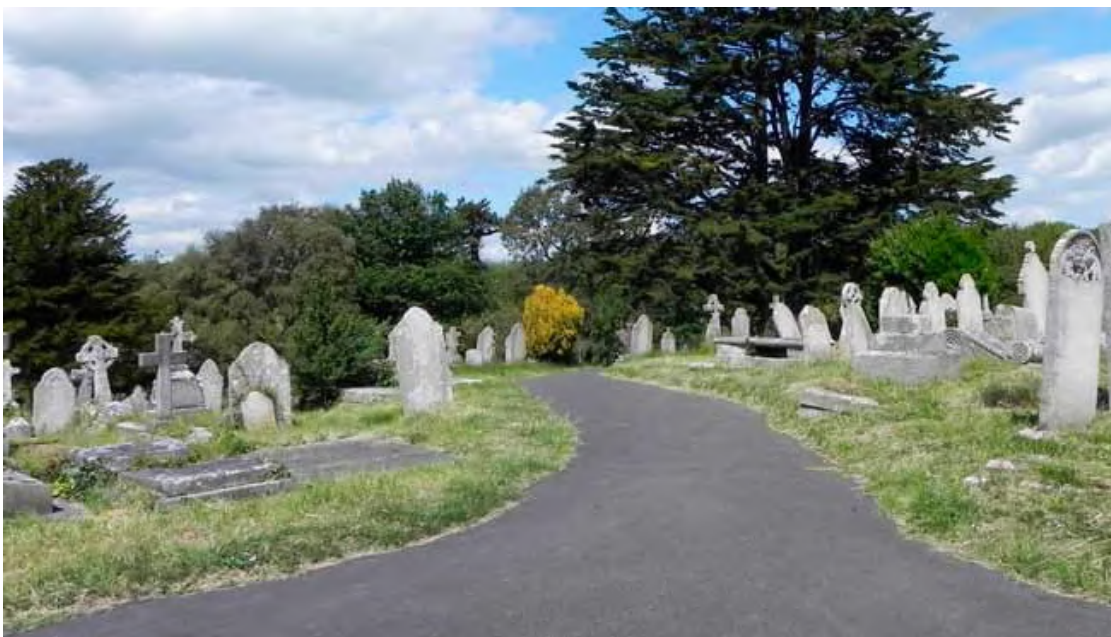
143. One GI asset that was not identified at the workshop is the green roof of the sewage treatment plant adjacent to the pier entrance. This site has been laid out as an informal park with public access.

144. There are 5 caravan sites around the perimeter of the town. There are issues relating to all of these caravan parks as they are very visible in the approaches to the town, and in views from elevated viewpoints in the surrounding countryside. These caravan parks are also in key locations at the interface between the built and the natural environment, where the open spaces around the vans, chalets or park homes could contribute to encouraging wildlife into and therefore increasing biodiversity in the town.

145. Each site is different in terms of the amount of GI present, but all of them could be improved through the planting of native trees and shrubs and the creation of areas of wildflower meadow. This would create habitat that would help to support wildlife and improve biodiversity, provide screening to the vans/chalets/park homes that would help to assimilate them into the landscape and screen them in views, improve visual amenity in the sites themselves, and also help to create a more resilient GI network which will provide benefits in response to climate change.

Cemeteries and churchyards

146. An area next to the formal cemetery at Godlingston has been set aside by STC for a meadowland burial ground as a 'green' alternative to traditional interment, and will see the development of an area rich in native meadow plants and wildlife. The meadowland will be maintained in a way that encourages and protects the trees, wildlife and natural wildflower seeds. The traditional 'neat and tidy' appearance of cemeteries will not apply to this area and the grass will be cut infrequently to encourage wildflowers to flourish. The Garden of Remembrance will also be managed as a wildflower area.



Cemetery near Main Beach car park (Northbrook)

147. The Town Council also owns the closed cemetery beside the railway line at Northbrook, which was opened in 1856. It is also managed to support wildlife, and between May and September each year in some areas the grass is allowed to grow to encourage an impressive array of butterflies and wild flowers.

148. The cemeteries and churchyards in and around Swanage are valuable GI assets, which are generally in average or good condition. The cemeteries in particular already contribute to the GI network through increasing biodiversity. There are national initiatives to enhance cemeteries and churchyards to benefit wildlife, and encouraging further enhancement especially at St Mary's churchyard would lead to a valuable contribution to the health of the GI network of the town centrally.

School grounds

149. Many of the schools in Swanage are now situated in locations on the edge of the town, where the grounds surrounding these schools represent the interface between the built and the natural environment. There is therefore an opportunity for these school grounds (except for the areas in them that are reserved for formal recreation) to represent a gradation between the natural environment and the built environment, benefitting the GI network at the same time.

150. The grounds of the schools have not been surveyed as they are sensitive private property, so they have been categorised in the GI audit as open green space or recreational space only. Where there have been recent improvements to the school and grounds, or the school is newly built, new planting will have been provided. There will however be opportunities to further improve the contribution that the grounds make to the GI network by creating areas of wildflower meadow or undertaking additional native planting. Rather than identifying specific projects to achieve this, it is suggested that the schools be approached to investigate the possibility of instigating such improvements as part of an educational programme, designed and implemented by the students with the aid of external funding.

Allotments

151. Whether or not the allotments remain on this site, they represent a GI asset, where the main benefit is food production and side benefits include health and wellbeing, biodiversity and visual/amenity. The suggestion was made at the workshop sessions that the GI could be improved by planting a community orchard. This could be investigated by STC if there is sufficient space available.

152. If the affordable housing does progress, it is important that GI be considered alongside development of the site, and that a suitable replacement site for the allotments be found.



The allotments are owned and managed by STC, which is currently considering the possibility of locating affordable housing here.

Derelict land

153. One plot of derelict land exists which may or may not be suitable for redevelopment. It is located off a private lane at the end of Locarno Road, and is currently overgrown. This site could be developed as a pocket park, though due to its location is not likely to be well used. This would mean that the cost of purchasing the land along with the cost of laying it out as a pocket park might not be justifiable. Subject to agreement this site may therefore be suited to other development.

154. Another alternative may be to contact the landowner to see if they would agree to the sowing of wildflower grass seed

155. ‘Guerrilla gardening’ was suggested at one of the workshop sessions, and has been employed in towns and cities where underused or derelict sites have been ‘greened up’ by scattering wildflower seed, or cultivating the site and planting bedding plants, shrubs, or crops.

Spatial analysis

156. To understand how the existing GI assets work together, how efficient they are, and how the network functions as a whole, it is necessary to analyse the coverage of the assets, the number and strength of the connections between them, areas of low function and of no function. This then provides an indication of the overall state of health of the network, and indicates whether, where, and what type of new GI is needed. The projects and proposals that are provided in the last column of the audit table can then be assessed to see if they are needed and appropriate, or whether additional or more focussed improvements are required.

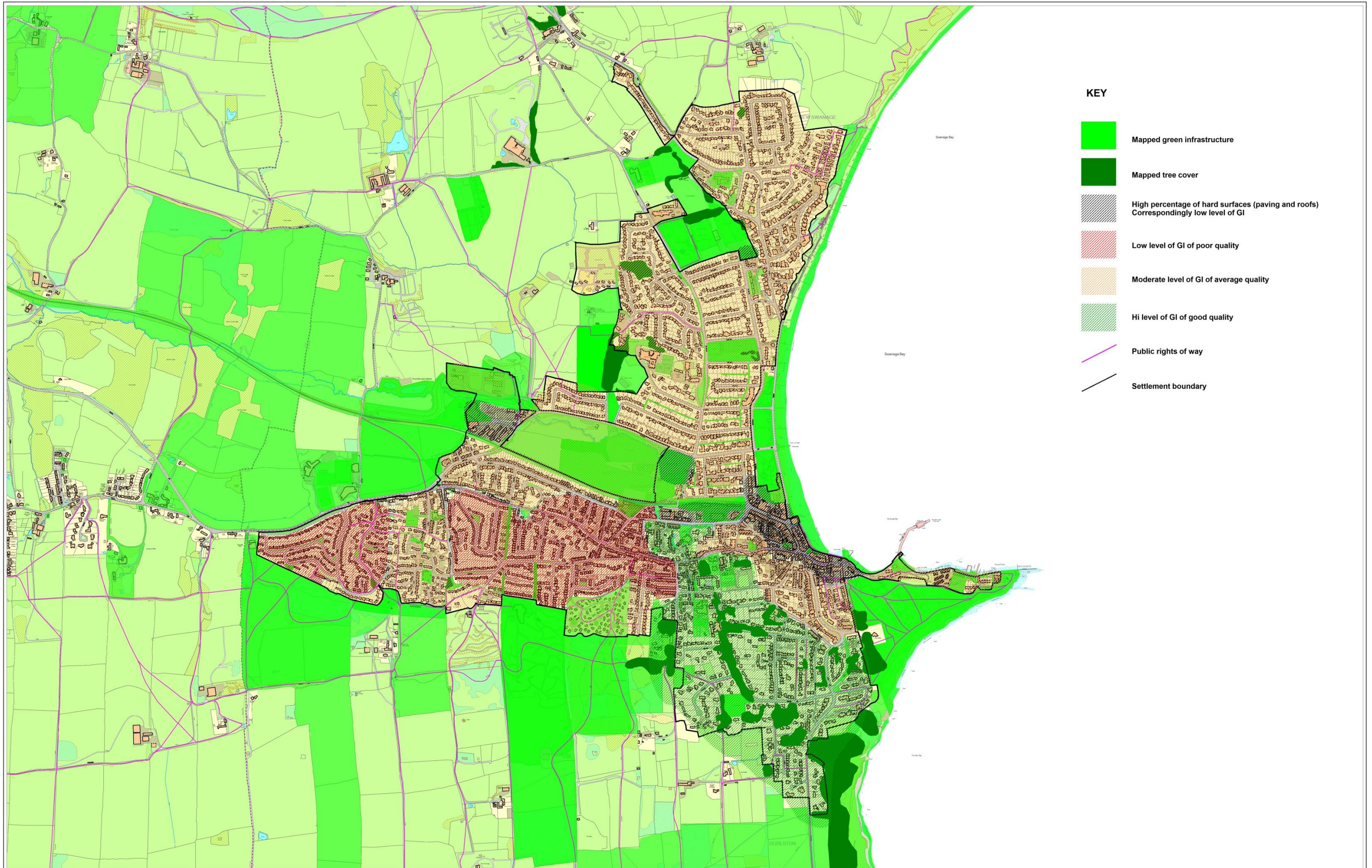
157. There are areas of high, average and low quality GI in the town. As already indicated in the chapter describing GI, quality is not just dictated by the presence of individual assets and their level of function, it is also affected by the number of connections between those assets. These connections consist of blue/green fingers, corridors, and stepping stones, and those that exist are shown on the analysis drawing.

158. Even the benefits experienced by having a high level of good quality GI can be reduced if there is low or no connectivity. For example, wildlife potential will not be fully realised if there is not a level of free passage to and from the natural environment.

159. Of more importance however is the level of connectivity between areas of high, average or poor GI. This results in each area acting in isolation as an individual 'organism'. Experience shows that 'there is power in numbers'. A group can achieve much more than any individual can achieve on their own, but this depends on each member working together. This is equally true of GI: individual assets are the 'cells', which if they are well connected can form an 'organism'. In the right conditions, and with the right level of connection, these 'organisms' can interact and support each other to create an even stronger unit – the 'ecosystem', and a healthy, well functioning ecosystem is what we are looking for in Swanage.

160. Analysis of the existing GI shows that the level of connectivity is low – there are gaps in the network. These gaps in the network need to be bridged by the creation of new links. The following map identifies where there are gaps in the GI network of Swanage.

161. The maps on the next pages illustrate the combination of baseline information with audit information. The first two maps show where each category of GI identified in the audit is located, with baseline information showing the extent of the land supporting each category. These maps highlight where there are areas of deficiency which is interpreted clearly in the next two maps entitled Level of existing provision.



KEY

- Mapped green infrastructure
- Mapped tree cover
- High percentage of hard surfaces (paving and roofs)
Correspondingly low level of GI
- Low level of GI of poor quality
- Moderate level of GI of average quality
- Hi level of GI of good quality
- Public rights of way
- Settlement boundary



Scale Not to scale
Ref: SGI/Base



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SWANAGE GI STRATEGY
Coverage and quality of existing GI

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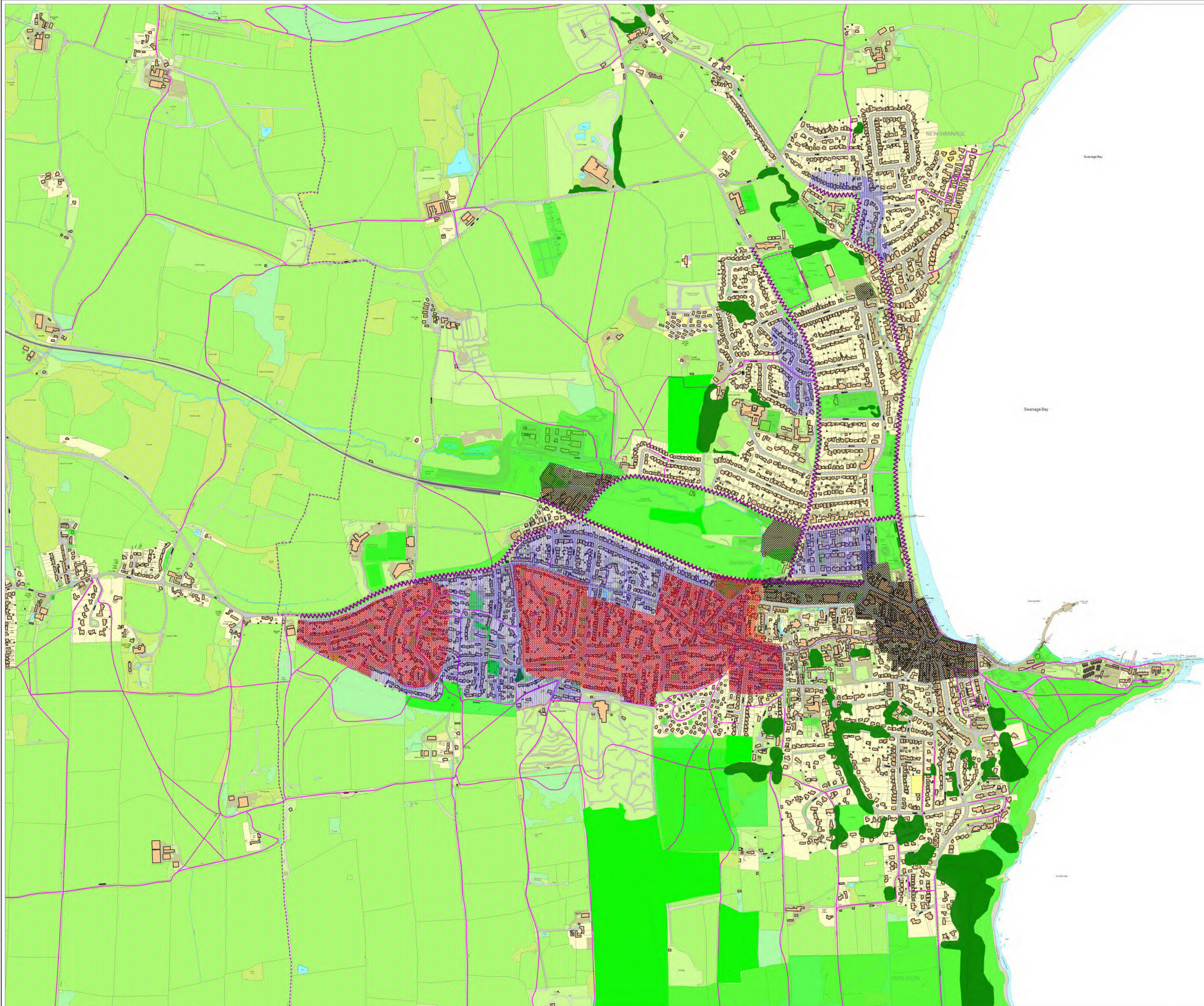
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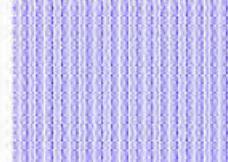





KEY

-  Green 'finger' (route where native plant and animal species can migrate into town from surrounding countryside and improve GI assets)
-  Green corridor (a linear route which encourages the movement of plants and animals within the town, and can act as a 'highway' between GI assets)
-  Intermittent green corridor (where individual GI assets provide a series of 'stepping stones' which encourage the movement of that plant and animal species within the town setting)
-  GI nodes
-  Physical barriers separating areas of GI

The railway acts as a green corridor running through the centre of Swanage. The track bed itself however is sterile, and creates a physical barrier between north and south Swanage.



- KEY**
-  Existing green infrastructure, including tree cover, country park, semi-natural open space, wildlife reserves, parks and other public open spaces, town green, school grounds, sports pitches, allotments, road verges, flood alleviation scheme, cemeteries, churchyards and other open space safeguarded by Policy OSR of the Swanage Local Plan.
 -  Areas of low connectivity between GI assets
 -  Barriers to GI connectivity
 -  High percentage of hard surfaces (paving and roofs) with few functions. Correspondingly very low level of GI, and no connectivity
 -  Low level of GI of poor quality with few functions and with poor connectivity

Scale Not to scale
Ref: SGI/Base

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SWANAGE GI STRATEGY

Gaps in current GI provision

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162. On these maps areas of high, average and low provision of GI are presented graphically, together with information on the quality of that provision indicated by the audit. These two maps also show where there is a relatively high proportion of impermeable hard surfacing and or roof-scape, where existing GI is absent. The areas of Swanage where the existing provision of quality GI is low or absent are the locations where the provision of new GI is important.

163. Where the levels of existing GI are low, there are likely to be opportunities to improve the existing GI in order to increase the quality and therefore benefits of that GI. The locations where existing GI is absent are also the locations where it will be most difficult to provide new GI due to the site constraints that are present. As is often the case however, the more complicated the site constraints, the more innovative the response is likely to be.

164. There are a number of important strategic issues that emerge from analysis of the GI network.

Herston

165. The level of existing GI in the Herston area is low, and what GI is present is of poor quality. There is little connectivity between the existing assets, and the number of functions and benefits are limited:

- there is little biodiversity;
- the character of Herston suffers due to the lack of visual amenity;
- there are few 'breathing spaces' in this relatively densely populated area;
- there are few recreational facilities/areas;
- connections to the countryside are not clearly 'signposted' or responded to;
- the area detracts from the experience of approaching Swanage from the West.

166. As a result, Herston needs to be designated a priority area for the implementation of GI projects, and where possible, strong GI connections need to be made between Herston, the rest of town, and the open countryside.

Main shopping area

167. There is also a low level of GI around the main shopping area, where the street scene is dominated by hard paving and tall buildings. The lack of GI here means that:

- air pollution from traffic can be a problem in the summer, when there is more, slower moving traffic;
- the character of this part of town suffers due to the lack of visual amenity;
- shoppers are not encouraged to linger and take time in the shopping area as it is not an attractive environment to spend time in;
- there is low resilience to the impact of climate change - the 'heat island' effect is more likely to be experienced here.

168. This location would certainly benefit from the provision of new GI, though the level than can be provided is likely to be limited due to the configuration of the streets and pavements here. The shopping area is however close to the sea, and will benefit greatly from this as the effects of climate change become more apparent.



The main shopping area where there is little or no GI.

Main beach car park

169. The third area of low GI is the Main Beach car park on Victoria Avenue. A range of problems that affect this location:

- the car park detracts from the character of the location, and from the experience of using the main approach to the seafront;
- the surface is poorly drained and floods during times of heavy rainfall;
- there is a large expanse of hard paving which becomes hot in the summer This will get worse as climate change progresses;
- it looks tired and uncared for – there have been no major improvements to this car park for over 25 years;
- the only GI that exists is poor quality planting in painted concrete ring sewer pipes and contributes little towards the appearance of this space of the problems that exist.

170. This car park contributes massively to the lack of function of the existing GI network of the town. It is a large area of hard surfacing which was designed around the vehicles. The function of other nearby GI is decreased because the deficiencies of the car park are a drain their resource. Improvements to these areas alone (King George's Recreation Ground and Forres Field) will not make up for the negative impact of the car park. Improvements to this car park must be implemented as priority project if the GI network of Swanage is to function as a healthy ecosystem.

The North Beach car park

171. The car park next to Days Park shares some of the same issues as the Main Beach car park and requires similar attention.

Strategic issues

172. The proposals included in the audit respond to the recorded deficiencies in function of individual audited GI assets. The table under the heading **Problem areas below** represents an assessment of the ability of these attend to the strategic issues highlighted in the previous section. Needs identified in the Swanage Community Strategic Plan, the Swanage Local Plan, and the UK Biodiversity Strategy must also be addressed where possible, and these are detailed under **Additional needs**.

Problem areas

Strategic problem area	Issues	Audit proposals	Gaps in resolution	Possible additional measures
Herston	Little biodiversity, character suffers due to the lack of visual amenity, few 'breathing spaces' /recreational facilities/areas, connections to the open countryside are not clearly 'signposted', character of area detracts western approach to town	Tree planting to Priests Road open space, raised verges between Greyseeds Estate and A351, Days Road and Holmes Road triangular open spaces. Plant trees and create wildflower meadow Sydenham Road verges, Steer Road triangular open space. Waymarking, tree planting and wildflower meadow site of old Sydenham Road play area	Additional connectivity and functions.	Green roofs to garages, community initiative to improve biodiversity in gardens and replace existing evergreen monoculture hedges with mixed species deciduous when become over-mature
Main shopping area	Air pollution, lack of visual amenity, not an attractive	Plant street trees	Main issues not attended to as may not be sufficient	Green roofs/walls, new GI for town centre

Strategic problem area	Issues	Audit proposals	Gaps in resolution	Possible additional measures
	environment for shoppers, 'heat island' effect		locations where street trees can be planted due to underground services or access requirements	improvement area, rainwater gardens on traffic islands
Main Beach car park	Detracts from the character of location/main approach to seafront, poorly drained, hot in the summer and will get worse as climate change progresses, looks tired and uncared for, only GI that exists is poor quality	Resurfacing, tree planting in tree pits designed to act as 'rain gardens'	Unattractive toilet block	Green roofs/walls – is the toilet block suitable for this treatment?
Ulwell Stream corridor	Flooding	Maintain/manage woodland vegetation in region of Days Park/cricket ground	Flooding still an issue	Flood alleviation facility on DCC land. SuDs/tree planting in Days Park car park
Connectivity	Poor	Create 'greenways', replant avenue of street trees Victoria Avenue and Park Road, pocket park on land between Rabling Road and Prospect Crescent, create wildflower meadow along	Areas of poor connectivity remain	Street tree planting along from Victoria Road car park along Northbrook Road to Days Park and beyond to St Mary's RC Primary School. Ensure potential housing sites

Strategic problem area	Issues	Audit proposals	Gaps in resolution	Possible additional measures
		railway embankments, 'green' bridge over railway, tree planting and wildflower meadow creation in caravan parks, 'gap up' field hedges		incorporate green corridors, continue theme of avenue planting, and include planting along the interface with open countryside. Campaign for DCC's 'living verges' initiative to be implemented in Swanage
Accessible woodland	Not enough 2ha woodland to satisfy WAST	None directly applicable	Not enough accessible woodland	Plant 3 2ha tracts of woodland – one to the south of the Greyseeds Estate, one to the west of Cauldron Barn Caravan Park and one to the North of Hill Road. A fourth possible site for new woodland at Herston Fields depending on the outcome of village green application

173. The audit proposals respond to some of the strategic issues, but it is clear that most of them will attend only to local situations. The third column in the table therefore details the remaining gaps in resolution that need to be addressed if the GI network is to become more robust and have greater potential to deliver a full range of benefits and ecosystem services.

174. The final column of table therefore contains additional opportunities identified through the analysis the existing GI baseline that could fill the gaps in the resolution of the strategic issues by the audit proposals.

Additional needs

175. It is important to identify additional needs that can be addressed at the same time as addressing the physical gaps in the network, a lack of connections between assets, and low numbers of benefits for individual assets.

176. In GI planning terms, needs relate to both the needs of people and of the natural world, and are provided through what are termed ecosystem services.

177. The needs that are outlined below are those that have been identified in the Swanage Community Strategic Plan (SCSP)¹⁵, the Swanage Local Plan (SLP)¹⁶, and the UK Biodiversity Strategy (UKBS) 2020¹⁷.

Economic

178. The SCSP vision for the economy of Swanage is that of ‘an environment for encouraging a diverse, thriving and prosperous local economy’, and in the Project Matrix under the theme of economy, an urban design project is identified, which is to include a review of shrub and tree planting schemes to enhance the natural environment.

179. GI can improve the prospects of inward investment into an area through creating a more attractive environment for people to live and work in, and for people to visit. Increased tourism can result, and the value of property and productivity can be enhanced too.

180. There are a number of locations in Swanage that could benefit in this way, amongst these being the main vehicular approach from the west (A351). This is the route that most visitors and tourists take when visiting for the first time, and therefore gives a first impression of Swanage. It is currently uninspiring being dominated by ex-council housing and school buildings. A large amount of vegetation has also been lost from the northern side of the road in recent years.

181. Another location is the main beach car park on Victoria Road. This car park has a neglected and run down appearance, but is a key initial destination for visitors. In addition to this, there are flooding issues which require attention.

¹⁵ *Swanage Community Strategic Plan – Swanage: Looking to the future 2007-2027* Swanage Market and Coastal Towns Initiative Working Group 2007

¹⁶ *Swanage Local Plan Pre-Submission Document* - prepared in partnership by PDC, Swanage Town Council and Swanage Town and Community Partnership Sept 2016

¹⁷ *Biodiversity 2020: A strategy for England's wildlife and ecosystem services* Defra 2011

182. Another key arrival point for visitors is the station, which is located at the top end of the main retail area. The environment around the station is not welcoming, being dominated by fences, cars, a traffic roundabout and highway paraphernalia. There is an identified need to improve this location which is referred to in the Summary of Key Issues and Challenges in the SLP. The Swanage Town Centre Redevelopment Site Development Brief which forms part of the SLP, identifies the requirement for new shopping space, a replacement health centre facility and new car parking, a new focal point for the town centre with good connections to the town centre and beyond. New GI will be important to the success of this scheme.

Social

183. Cultural Objective C3 of the SCSP is 'to encourage informal leisure pursuits'. The Plan indicates that this should partly be achieved through the development and promotion of 'new means of informal leisure pursuit such as walking routes and cycle paths'. In addition to this, Social Objective S2 is 'to improve the quality of and access to public amenities and open spaces within the town and its environs'.

184. This confirms that the social needs that GI can respond to are partly centred on the requirement to assess the RoW system with a view to improving connectivity to the wider countryside, and potential improvements to recreational facilities so that they better serve the demographic in Swanage.

185. There is also a requirement to provide access to natural and attractive green spaces including woodland in order to encourage wider engagement with nature in order to improve physical and mental health. Increasing access to natural and attractive green spaces does not necessarily mean the wholesale creation of new spaces. Improving and enhancing existing green spaces to provide a richer experience, and attracting people to underused spaces by making them safer and more attractive places to linger may be just as effective.

186. For example Sandpit Field is an underutilised green space which has the potential to be much more attractive, and therefore better used. This would usefully form part of the objectives identified in the SLP, which is to implement 'seafront enhancement and improvements to traffic management and walking and cycling links'.

187. The SCSP identifies that Herston is the most deprived part of Swanage. Low levels of poor quality GI in areas of social housing here mean that residents do not benefit from their immediate environment in the same way as people do elsewhere in Swanage. In fact the majority of the amenity open space in Herston is just short mown grass which should not really be classed as GI. Statistics show that people in more deprived areas are more likely to suffer more physical and mental health related issues.

188. Improvements to GI here would be extremely beneficial, especially if residents are involved in implementing the work. The environment will look more cared for, contribute more towards health and wellbeing, and residents will feel more of a sense of ownership and therefore a deeper connection with their environment.

Environmental

189. Other key issues and challenges that are identified in the SLP include climate change, flood risk, and protecting and enhancing the natural environment. In response to these, the SLP includes a spatial objective aimed at 'protecting and enhancing existing green spaces, and providing open spaces and links to the countryside that fit with the historic character and setting within the AONB', and an additional key objective of making Swanage 'a more sustainable town, with improved resilience to climate change and flooding'.

190. Much work has been done in the past to attend to flooding and drainage issues in and around Swanage, there is still more that needs to be done, especially as the winter months will become warmer and wetter in the face of climate change. Many of the surface water drainage issues can be eased through the introduction of sustainable urban drainage schemes on open land, which can also be designed to be features to support ecological systems in their own right.

191. With regard to protecting and enhancing the natural environment, along with the protection of existing green spaces and the creation of new, there is a general country-wide need to connect fragmented habitats and ecosystems so that they function together as a network. Some species of plant and animals are classed as 'at risk' because of destruction of their natural habitat, and others hang on precariously in small populations that are cut off from one another. Purbeck is a hotspot for biodiversity, and much needs to be done to maintain healthy populations of wildlife.

192. The creation of new habitat and wildlife corridors and stepping stones is one way of achieving this. Research into the benefits and potential risks to biodiversity of increasing connectivity has examined the effect of corridors. Existing corridors generally promote species movement in fragmented landscapes. This has been shown for butterflies and birds. Corridors increase plant biodiversity both in main habitat patches and also in neighbouring habitats, and also promote pollination across habitat by assisting the movement of pollinating insects. Stepping stones can provide habitats in themselves in addition to promoting the movement of species between habitat patches, though they are more likely to be species specific. This 'functional connectivity' is an important aspect of ecological networks.

193. Functional connectivity also includes the 'softening' of existing structure of GI assets such as hedgerows, parks, wetlands and field margins. This can be done by

changes in management aimed at restoring or improving ecological and landscape value, or by adding new elements with a similar structure to habitats, for example planting copses in the corner of fields adjacent to hedgerows, linking woodlands, or providing small ponds to act as stepping stones between larger ones.

194. Improving functional connectivity will also support once common species such as house sparrows and honeybees which have declined dramatically in numbers over recent years to the point where they are now 'at risk'. These species are important in their own right, but also because they help to spread seeds and to pollinate crops and other plants, which is in turn vital for farming and the economy, and for nature conservation.

195. With regard to the provision of new open space, there are few locations where this can be achieved within the current settlement boundary of the town. It is most likely therefore that this will be provided within new development. Developers must therefore be made aware of the requirement to provide adequate open space/GI, and must also ensure that it is designed well.

196. The function of existing GI assets can however be increased, and although this may not overcome the need for more open space on location grounds, it can transform land so that it provides many more benefits and on many different levels.

197. Objective EN 1 of the SCSP is 'to minimise all forms of pollution to the local environment'. One of the actions under this objective is 'to identify ways and encourage the development of reducing pollution through pilot projects'. This clearly illustrates that there is a general concern about pollution in Swanage, and that something needs to be done about it.

198. GI can help reduce the levels of pollutants both in the air, and in water. The main water pollution issue that is highlighted in the GI Audit is that of the pollution of surface water runoff with dog waste during periods of flash flooding. This in turn affects the quality of the sea water in Swanage Bay as surface water enters the sea at these times. It is possible to resolve aspects of this issue through the installation of SuDs schemes where surface water is collected by a system that allows it to percolate through the soil and into the ground. Microbes in the soil break down organic waste and render it inert. There are however some zones close to the cliffs in Swanage, where SuDs must not be implemented because increasing the amount of water in the ground may give rise to stability issues.

199. There are however a couple of locations where new SuDs would help to alleviate pollution by dog faeces in surface water. More could be done by raising awareness, and developing an even stronger ethos of dealing with the problem at source by

encouraging more people to pick up after their dog, which is an action point within the SCSP.

200. The GI Audit and Assessment shows that levels of air pollution are worse in the summer months because of all of the holiday traffic, and in the mornings around the station when the steam train is powering up whilst stationary. The previous chapter about the benefits of GI provides evidence of the way that vegetation, especially trees, can absorb pollution from the air and replenish oxygen. Planting trees along main routes to and from Swanage, and around the station and the town centre generally will therefore do much to ease air pollution caused by transport.

201. With regard to climate change, the UKBS states that ‘We do know that managing our biodiversity is important to both ‘mitigation’ (addressing the causes of climate change by removing greenhouse gases from the atmosphere) and ‘adaptation’ (helping to reduce the impacts of climate change)’. The strategy also includes initiatives that will help to achieve the changes that are needed to enable mitigation of and adaptation to climate change. Two of the initiatives that are relevant to GI are to:

- bring a greater proportion of woodlands into sustainable management and expand the area of woodland in England;
- establish more coherent and resilient ecological networks on land that safeguard ecosystem services for the benefit of wildlife and people.

Opportunities to mitigate the effects of, and adapt to climate change in Swanage must therefore be responded to where possible.

Deliverability of audit proposals

202. The majority of the proposals emanating from the audit are located on publicly owned land. This automatically makes them more deliverable as there will be no requirement for lengthy negotiations with private landowners. Some of the proposals involve planting on land belonging to DCC Highways Department, so it will be important that visibility splays are respected and that future maintenance responsibility is discussed. Other sites are owned by STC and PDC, and similarly, future maintenance will need to be resolved. On the whole though, all of the proposals involving public land are achievable in principle providing that suitable funding is identified.

203. A small number of the proposals coming from the audit are on private land. These include the green bridge over the railway, and the planting of the railway embankments with wildflowers. It will be necessary to discuss these proposals with the Swanage Railway Company to assess whether they are viable propositions. The construction of a green bridge would also be a huge investment, which is unlikely to be seen as viable unless the provision of a new pedestrian access over the railway is a priority. For this reason the deliverability of this proposal is questionable.

204. Proposals for tree planting and the creation of wildflower meadows in caravan parks may be achievable as long as a suitable source of funding is identified. It will be necessary to plan where any trees are planted very carefully however so that the trees do not create issues for the owners and users of the caravan parks, but still enhance the GI of the location.

205. The gapping up of field hedges is the responsibility of the landowner or tenant. There are however grants available specifically for hedge restoration and creation, so this proposal is achievable in negotiation with the landowner/tenant.

206. Way-marking, the creation of greenways and other RoW issues are all topics that need to be assessed in more detail and specific proposals can put together. It is suggested that a separate RoW task group with the necessary expertise is set up to take the proposals and initiatives forwards.

207. Of the possible additional measures identified to attend to gaps in resolution of the strategic issues, the most difficult to deliver are the green roofs to garages and the replacement of evergreen hedges in the location sometimes referred to as 'The Greyseeds Estate' in Herston. This is because the properties here are owned by a housing association, and the replacement of garage roofs with green roofs, and evergreen hedges with deciduous may not be something that the housing association would wish to invest scarce resources in. It is however suggested that these initiatives be discussed with the housing association to see if there is any way that they can be

taken forwards, as this part of Herston is where the lowest levels of GI are and the GI that is present has a low number of functions compared to the rest of the town.

Summary

208. There are no up to date guidelines that can be used to assess the provision of sports and recreation facilities in Swanage. The GI assets providing this function are included in the study, but recommendations regarding the adequacy of provision for sport and recreation cannot be provided. It is therefore recommended that pressure to produce an up to date sport and recreation strategy is be applied on the responsible authority.

209. Analysis of the data that was collected at the workshop sessions, from the GI audit, and from the study of baseline information indicates that the existing network of GI in Swanage consists of a wide range of assets which provide a good number of functions. The condition of the assets varies across the town, with those that are owned by the individual local authorities and housing associations being average, or in some cases poor. This affects the number of benefits that these assets contribute to the overall functioning of the GI network.

210. The most notable benefits that are poorly represented in the town itself are resilience to climate change, biodiversity, flood alleviation and surface water drainage, and in some locations visual amenity. Issues with regard to the level of provision and maintenance of the RoW network and connections to the countryside have are an issue, and need to be looked at in more detail.

211. There specific zones of poor GI, where the projects identified in the audit will do much to improve the situation, however connectivity both within and into these zones also needs to be attended to. At a strategic level, there are problem areas that analysis of the GI network has identified that proposals emanating from the audit alone will not fully address. The further solutions identified above will go towards the creation of a healthy GI network providing a wide range of ecosystem services.

212. It is also clear that new development needs to incorporate GI that is designed to connect into the existing GI network, help to assimilate the development into the wider landscape setting, and continue the themes contained in the proposals chapter of the Strategy.

213. The audit proposals and additional measures identified through the analysis process are not all deliverable. Those that are packaged into individual projects, initiatives and actions in the **Recommended improvements** chapter of the Strategy.