



Appendix A

Milton Common Local Nature Reserve

Restoration and Management Framework







Milton Common Local Nature Reserve Restoration and Management Framework

Adopted 21st July 2015

Contents

1 introduction	
2 current research	7
3 Milton Common	13
4 future management	35
5 implementation	52
6 next steps and review	58

Acknowledgements

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Figures

Figure 1: The draft allocations in relation to Milton Common and the two SPAs	3
Figure 2: The potential development sites in relation to Milton Common and the two SPAs	4
Figure 3: 1194 (left) and 1750 (right) maps of Portsea Island	14
Figure 4: 1870 map of the south-east of Portsea Island	15
Figure 5: 1910 map of the south-east of Portsea Island.	16
Figure 6: 1938 map of the south-east of Portsea Island.	17
Figure 7: 1967 aerial photograph of the south-east of Portsea Island	18
Figure 8: 1968 site photographs	19
Figure 9: Aerial photographs of Milton Common.	22
Figure 10: the tusocky, coastal grassland habitat which dominates Milton Common	23
Figure 11: The pier timbers and amenity grassland	24
Figure 12: Swan Lake and its reedbeds (left), a adult swan with her cygnets (right)	25
Figure 13: Scrub in the north-east of Milton Common (2012)	25
Figure 14: The character areas of Milton Common in 2015	27
Figure 15: The different habitats of Milton Common	29
Figure 16: Amenity grassland in the southern section and an example of species rich grassland	l. 39
Figure 17: An example of the benches currently in place at the Common	42
Figure 18: An example of a combined refuse and dog waste bin in Winchester	43
Figure 19: Examples of the varying nature of the path network at Milton Common	44
Figure 20: Proposed circular walks	45
Figure 20: The existing interpretation board on the Eastern Road	46
Figure 21: The character areas of Milton Common following implementation of the framework	49

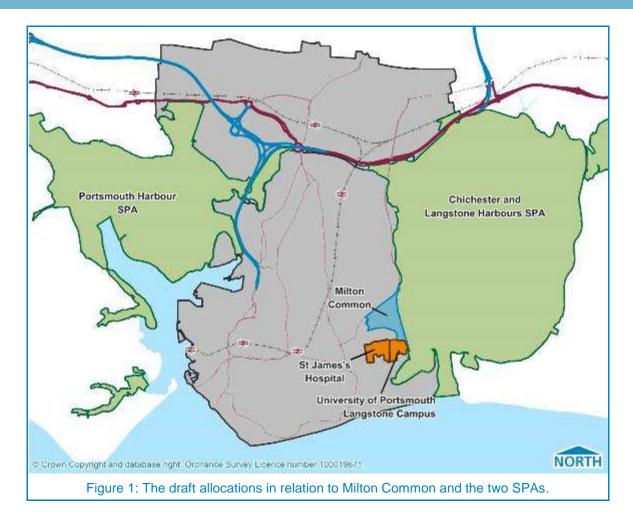




- 1.1 Milton Common is one of the most valued open spaces in Portsmouth and is one of very few semi-natural areas on Portsea Island. Reclaimed from the sea in the 1960s, it has changed significantly over the past 60 years and is now one of the few places in Portsmouth where it is truly possible to escape the built up nature of city life. The Common also contains a vast array of wildlife, which not only makes the site intrinsically valuable in its own right but is yet another reason why it is highly regarded by local residents.
- 1.2 However due to its complex history, the Common is a more difficult site to manage than most semi-natural spaces. The bramble and scrub cover which characterises large parts of the site has spread steadily westwards over the past decade and this trend will continue unless the site is more actively managed. Furthermore, a lot of the infrastructure which was put in place when the site was originally restored in the 1960s is now nearing the end of its life.
- 1.3 New development which is being proposed in the Milton area needs to address the impact which it will have on nearby Special Protection Areas (SPAs). One way in which to do this is to enhance nearby green infrastructure in order to divert recreational pressure away from the coast and towards inland sites. Milton Common represents an ideal site to put this into practice and will ensure that a more intensive management regime is possible. The site can be restored and enhanced so that it can reach its full potential and no harm takes place to the SPAs.
- 1.4 This management framework will set out how the city council intends to restore Milton Common and then continue managing the site in the future. Setting out the full scale of improvements and the ongoing management that will be needed will also enable the plan to function as a mitigation framework for the proposed development in the Milton area.

Portsmouth Harbour and Chichester & Langstone Harbours Special Protection Areas

- 1.5 For the purposes of this management framework, the 'two SPAs' refers to:
 - Portsmouth Harbour SPA
 - Chichester and Langstone Harbours SPA
- 1.6 A map showing the boundaries of the two SPAs and their relationship with the potential development sites is in figure 1. These SPAs have been designated mostly for the protection of significant numbers of waders and waterfowl which spend the winter in the Solent.
- 1.7 At their winter peaks, the population of Brent geese in Chichester and Langstone Harbours SPA represents 13% of the national population and 6.5% of the global population of this species. The Solent also supports in excess of 90,000 waders. The intertidal habitat which the Solent provides, particularly the mudflats, shingle and saltmarsh provide ideal feeding and roosting grounds for these species which are specially adapted to feeding in such habitat.
- 1.8 However the SPA species also use a number of terrestrial sites, either to feed or roost. There is a network in the Milton area (figure 2) consisting of Eastney Lake, the University of Portsmouth's Playing fields, which form part of the potential development site there, parts of Milton Common and the Brent goose refuges further north at Portsmouth College and to the east of Baffins Pond.



What development is likely to take place in Milton?

- 1.9 In the summer of 2014, the city council proposed two housing allocations in Milton:
 - Site 70046 St James's Hospital Main Building and Grounds
 - Site 70028 University of Portsmouth Langstone Campus
- 1.10 These two draft allocations are set out in figure 1. Together, these sites could result in approximately 390 new homes in an area stretching from being immediately next to the SPA boundary to 1km away.

The city council's responsibilities

1.11 The European Habitats¹ and Birds Directives² protect rare species and habitats. Member States are required to classify particular habitats as Special Protection Areas (SPAs) and manage them to a favourable condition. Other 'European Sites' (Special Areas of Conservation (SACs) and Ramsar sites) have also been designated for other habitats and species. There are separate Ramsar designations covering the same area as the two SPAs and the Solent Maritime SAC covers a large area of the Solent, including Langstone Harbour. Any potential impact of the developments in Milton on the SAC or Ramsar designations is not covered by this framework. Nor are any other impacts other than recreation on the SPA designation, such as impact on flight lines or site specific habitat loss, covered. Further information on this can be found in section 5.

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¹ European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.

² European Council Directive 2009/147/EC on the conservation of wild birds.



Figure 2: The potential development sites in relation to Milton Common and the two SPAs.

- 1.12 The Directives have been transposed into UK law through the Habitats Regulations³. Under these regulations, the city council must assess whether or not a proposed development is likely to have a significant effect on an SPA. This assessment is called a Habitats Regulations Assessment (HRA). This assessment needs to identify the interest features of the European sites and whether the plan or project would cause harm to them. If necessary, avoidance or mitigation measures could be included to remove the harm which otherwise would have occurred. It is also necessary to look at the proposal in combination with other developments in the local area. A second stage, called the Appropriate Assessment (AA), comprises a detailed assessment to determine whether there will be an adverse effect on the site. Only once the HRA has determined that there will not be an adverse effect can the proposal be authorised.
- 1.13 The Directives have been transposed into UK law through the Habitats Regulations. Under these regulations, the city council must assess whether or not a proposed development is likely to have a significant effect on an SPA before it can be authorised. This is called a Habitats Regulations Assessment (HRA).

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³ The Conservation of Habitats and Species Regulations 2010 (and subsequent amendments).

1.14 This assessment needs to identify the interest features of the European sites and whether the plan or project would cause harm to them. If necessary, avoidance and mitigation measures could be included to remove the harm which otherwise would have occurred. It is also necessary to look at the proposal in combination with other developments in the local area. Due to the precautionary approach⁴ in the regulations, it is necessary to demonstrate, with a reasonable degree of certainty, that the project will not be likely to cause harm to a European site before it can lawfully be authorised.

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⁴ The precautionary principal: if an action of policy has a suspected risk of causing harm to the public or to the environment in the absence of scientific consensus that the action or policy is harmful, the burden of proving it is <u>not</u> harmful falls on those seeking to take the action or adopt the policy.



- 2.1 Human disturbance to birds can arise from any activity which results in a change in the bird's behaviour. An acknowledged issue is the impact which disturbance, much of which is caused by recreation, can have on the protected species which use the two SPAs and thus on the conservation objectives of the SPAs themselves.
- 2.2 Disturbance can have a variety of impacts but these generally involve a reduction in the amount of energy which birds have available:
 - Habitat that would otherwise be perfectly suitable and has a high density of food could be unused or underused
 - Birds could be forced to fly away from the source of the disturbance, using more energy as a result
 - Birds could be more alert when feeding, reducing their feeding efficiency over a given time period
- 2.3 Ultimately, this can cause a reduction in the amount of energy which the individual bird has available at the end of the winter period to migrate back to their breeding grounds. If such a reduction occurs, birds will be unable to make the journey and this can result in mortality in the bird population and the SPA.
- 2.4 The city council has been working with neighbouring local authorities along the Solent, Natural England and other stakeholders to investigate this issue. A great deal of research has now been done, through the Solent Disturbance and Mitigation Project (SDMP)⁵. This found that some species were able to compensate for increased disturbance by altering their feeding habits. However a number of species suffered mortality as a result of disturbance and the rate of mortality increases as a result of a new development.
- 2.5 Following the culmination of the SDMP research, Natural England have advised the city council that "the (Solent Disturbance and Mitigation Project) work represents the best available evidence, and therefore avoidance measures are required in order to ensure a significant effect, in combination, arising from new housing development around the Solent, is avoided".
- 2.6 Following this, the city council has put in place a mitigation framework through the Solent Special Protection Areas Supplementary Planning Document (SPD)⁶. The SPD sets out that due to the significant effect which is likely as a result of the collective increase in recreation from development along the Solent, mitigation measures will need to be provided from residential development schemes before works can go ahead in compliance with the Habitats Regulations.
- 2.7 Nonetheless, the SPD also acknowledges in section 3.11 that "there may be some developments, which due to the scale or location, could cause a significant effect alone, regardless of other development which might take place nearby. In these situations, developers will need to present a bespoke mitigation package for the development."
- 2.8 The development which would come forward in the proposed development sites would be significant in scale and built out on sites ranging from immediately next to the SPA to 1km away. As such, it is considered that **these developments would lead to a significant effect**

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⁵ This research is available at tinyurl.com/pc9cr6v

⁶ The SPD is available at tinyurl.com/p3clzsb

on the SPA designations, regardless of any other development that will happen along the Solent. As such, under the Habitats Regulations a bespoke mitigation package is required in order to allow the developments to lawfully go ahead.

- 2.9 The two primary research reports which are particularly useful in informing the management framework are the visitor⁷ and household⁸ surveys. The visitor survey specifically questioned people using the coast about why and how they use that site and one of the survey points which was used for the study is at the north-east of Milton Common on the main coastal path. A total of 32 groups of people were interviewed on 31st January 2010 and 16th February 2010 and the results show that:
 - There were 28 dogs within the interviewed groups, a far higher proportion than the average in the visitor survey. Of these, 26 were not on a lead.
 - Thirty of the groups were at the site for less than two hours, including 17 who were there for less than an hour. All of the respondents questioned said they visit at least once a week with 11 visiting every day and four most days. 26 of the respondents also noted that they visit the site equally all year around although 6 stated that they visit more in the summer.
 - 20 respondents noted that they were walking a dog and nine were going for a walk, which shows a high level of dog walking taking place.
 - The fact that it was close to home was highlighted by 17 groups as being the reason why they were visiting Milton Common, the attractive scenery by 15, the presence of wildlife by 10 and the fact that the person's dog liked it or that it was possible for the dog to be let off of the lead by 10 as well.
 - When asked about how their visiting patterns might be alter if changes are made to the Common, 20 said that they would use it the same amount if it was busier, though 13 said they would use it less. Better paths would lead to 30 of the respondents using the site the same or more, whilst 3 would use it less. Most of the respondents felt that dogs being required to be on leads would not be a positive change with 25 saying that they would use the site less.
 - In terms of people's general comments about the site when asked, many highlighted the fact that they enjoyed the site with comments such as "It's a lovely natural site with nice wildlife. Would hate to see it change". The presence of litter and anti-social behaviour and conflict were mentioned by a number of respondents.
 - In terms of improvements to the site a number of general points about improving the quality and quantity of benches and bins, both those for litter and dog waste were highlighted.
- 2.10 This all paints a picture of Milton Common as being an valued area which is visited by those who live close by on a frequent basis for short day-to-day recreation.
- 2.11 The household survey was a postal questionnaire sent to 5,000 homes along the Solent coast. As part of the household survey, people from across the Solent were asked what they like to do at the coast. Those activities which more than 10% of respondents said they do are:

⁷ The visitor survey report is available at http://tinyurl.com/obavfs7

⁸ The household survey report is available at http://tinyurl.com/ometdug

- Walking (74%)
- To enjoy the scenery (73%)
- Being on the beach (52%)
- Meet up with friends (37%)
- Wildlife watching (30%)
- Attending an event (28%)

- Dog walking (25%)
- Cycling (18%)
- Photography (18%)
- Swimming (15%)
- Sailing (10%)
- 2.12 It could reasonably be considered that all of the activities except attending an event, swimming and sailing could be done at Milton Common. It is also interesting that only 25% of respondents said they go to the coast to walk a dog whereas 63% of those interviewed at the Common as part of the visitor survey were walking a dog.
- 2.13 Households were also asked what features of the coast attracted them to a particular space. The most popular feature was sea views and attractive scenery with 88% of households either attracted or very attracted to a site by this. The fact that a site is close to home and the ability to do a range of routes were both highlighted by 74% as being attractive whilst feeling safe and the presence of wildlife were highlighted by 73%.
- 2.14 However there were differences between dog owning households and non-dog owning households in what would attract, and detract, them from a space. The fact that dogs could be off of a lead was seen as attractive by 77% of those who own a dog whilst there were higher scores also for feeling safe (81%), the ability to do a range of routes (87%) and the presence of wildlife (84%). Dog owning households were strongly deterred though by dog restrictions such as where being on a short lead is required (48%) or where there are 'no go' dog areas (67%). However Non-dog owning households were sometimes deterred by sites where dogs can be off of a lead (35%) whilst 42% found dog restrictions and 'no go areas' would actually attract them to a site.
- 2.15 The bird disturbance fieldwork which formed part of the SDMP is also pertinent. This showed that 17% of activity that took place at the coast caused disturbance of some kind of the SPA species. Activity on the shore itself created relatively little disturbance, although activity on the water and particularly on the intertidal area created proportionately more. In particular, dogs off of a lead on the intertidal area represented 27% of all of the significantly disturbing activity recorded. If significant disturbance by dogs off of a lead on the shore are also included, then this rises to 47%.
- 2.16 Clearly then the needs and desires of dog walkers and non-dog walkers can be different.
 This is an issue which has become more prominent recently, leading to a number of research projects including an investigation by Dr Sarah Kn
- 2.17 ight at the University of Portsmouth into understanding the psychology of dog walkers⁹. Following this, Hampshire Country Council published guidance on 'planning for responsible dog ownership in new developments'¹⁰. Ultimately, a fifth of all households in the UK own a dog whilst a third of visits to the countryside are accompanied by a dog. Dog walking is incredibly valuable though and has key physical, psychological and social benefits. However the presence of dogs, and dog mess, at sites can sometimes lead to a degree of conflict.

¹⁰ Planning for Dog Ownership in New Developments is available at www.a.hants.gov.uk/dogs.

⁹ Understanding the Psychology of Walkers with Dogs is available at tinyurl.com/ncwp5ch.

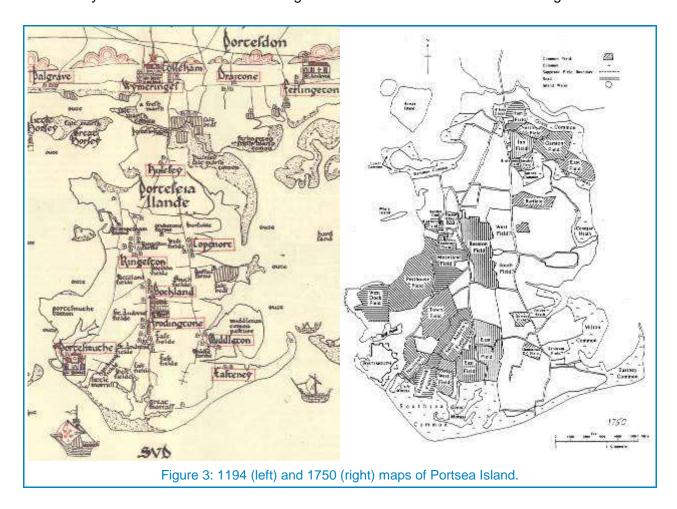
- 2.18 Two particularly relevant areas which the research investigated were the characteristics of spaces which attracted or detracted dog walkers and on managing potential conflict with other users. Most dog walkers also felt strongly that dogs should be let off of the lead whenever possible as dogs need and want more exercise than owners could give them if kept on a lead. It was also important that a space is convenient as, when time is limited, participants preferred to walk their dog close to home. Participants also preferred spaces as opposed to rights of way network so that a circular walk could be used and to meet other dogs and dog owners. In particular, spaces which were not likely to be over-crowded, particularly with non-dog walkers, were preferred.
- 2.19 The research participants generally felt that picking up dogs mess was an essential part of owning a dog. Dog waste bins were appreciated in a site and ultimately make it easy for dog owners to do the right thing. However the number and location of bins required thought as well as how often they are emptied.
- 2.20 In particular, potential conflict with cyclists and joggers was noted. Although participants stressed that most cyclists and joggers do not behave in an antagonistic way towards dog walkers and that there is a need to share spaces, conflict can occur. This is particularly true when cyclists and joggers approach relatively quickly, before it is possible to bring a dog to heel or put it on a lead.
- 2.21 It is important to stress the value and importance of owning a dog and of frequently exercising dogs. It is the responsibility of the dog walker to ensure that dogs behave considerately to other users of a space. However dog walkers can often feel singled-out as a group who have a particularly negative impact on a space, whereas in reality they contribute more emotionally to the site in terms of loyalty and attachment as they visit all the time, throughout the year often in any weather.
- 2.22 The resulting guidance sets out that off-lead access, being close to home and away from traffic are the three most important features for a site and are ones which Milton Common certainly enjoys. In terms of the design of spaces, a circular walk should be available in a largely open and perceptually safe environment with clear sight lines along pathways. At least some of the paths should be surfaced in such a way that the dog and dog walker will not become muddy in the winter and in wet weather. Variety in landscape and in grass length is also important. Short mown grass is excellent for playing games with dogs and allows fouling to be readily seen and removed. However some dogs prefer to defecate in longer grass and too much short mown grass will detract from the naturalistic feel of a site.
- 2.23 One of the most important areas is information and signage. It is vital to make sure that on-site information is clear otherwise conflict can easily be created or exacerbated. Signage should also be welcoming and whatever kind of message needs to be put forward, it will be most persuasive when it is polite, detailed and focusses on the positive consequences of desired behaviours. Dog waste bins should be provided. These should be in appropriate locations: close to short mown areas of grass, at site entrances and at major path intersections.



- 3.1 Milton Common is a 46ha area of grassland, scrub and lakes located on the eastern edge of Portsea Island, adjacent to Langstone Harbour and is roughly triangular in shape. Originally part of the harbour itself, the edge of the site held a searchlight battery in World War II.
- 3.2 For the purposes of this management framework, the site boundary of the Milton Common Local Wildlife Site has been used.

A history of land reclamation

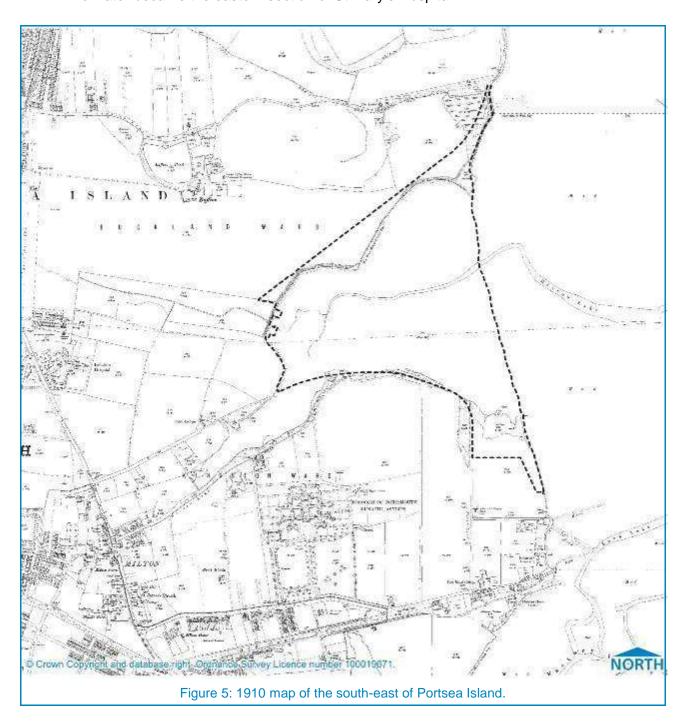
3.3 The first reference to Milton Common is from 1194 where 'Middleton Common Pasture' is set out in approximately the area where Moorings Way is now whilst it was further defined in the 1750 map (figure 3). However at this point, Milton Lake, where Milton Common is now, can clearly be seen as a tidal inlet of Langstone Harbour with two 'arms' stretching inland.



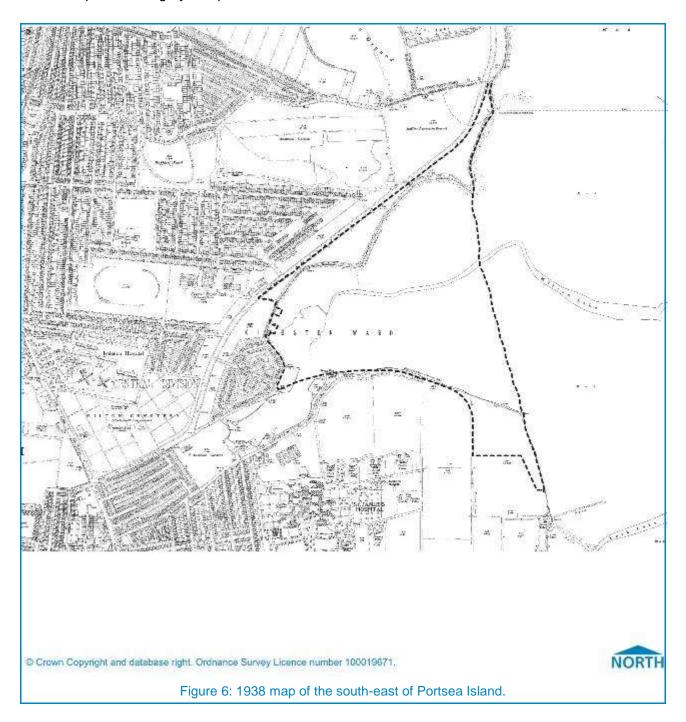
3.4 The northern 'arm' was reclaimed prior to 1835 and can be seen on the 1870 map (figure 4) as a marshy area. However at this point, the Milton area was still almost solely agricultural and St James's Hospital had not yet been built.



3.5 By 1910 (figure 5), St James's Hospital dominates the area which is now Milton, although around this, the land is still largely used for farming. The northern arm of Milton Lake has now been completely drained and the area can be seen to the east of the Isolation Hospital, which later became the eastern section of St Mary's Hospital.



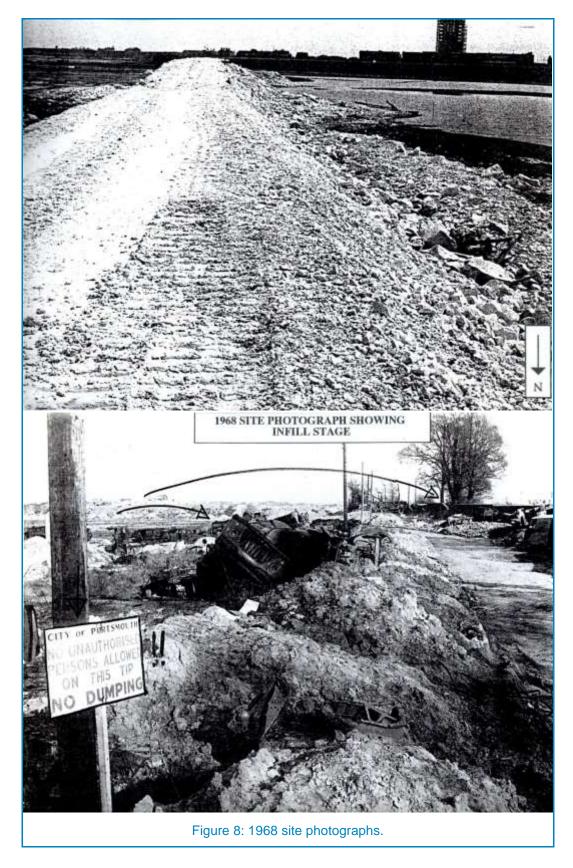
3.6 By 1938 (figure 6), a substantial amount of terraced housing had been built to the north, west and south of what is now Milton Common, including around Shore Avenue. Part of the southern 'arm' of Milton Lake has also been reclaimed and is being used as allotments. Although housing is now starting to dominate the area, to the north and east of St James's Hospital the land is still used for farming. Two quays were also built along the Eastern Road boundary for flood defences. Further buildings were built around the main St James's Hospital building by this point.



3.7 The major change to the site took place between 1962 and 1970 when a chalk and clay bund was built across the mouth of the lake and the confined area was progressively drained and in-filled with domestic refuse and other waste. This process can be seen in figure 7 which shows an aerial photo taken in 1967, during the infilling process which shows the reclamation process moving towards the centre of the site. Figure 8 shows the bund (top) and the infill in progress (bottom) in 1968.



Figure 7: 1967 aerial photograph of the south-east of Portsea Island.



3.8 The long term implications for how this infill and reclamation took place are still being felt today and must be borne in mind when considering future management of the site. This was later capped and grassed over. The process of the organic matter in the refuse degrading has resulted in a great deal of settlement and the surface is now very uneven.

- 3.9 Today the Common is used as a semi-natural open space with residents drawn to it for quiet recreation. There is a mix of more natural areas and some amenity grassland (see below for a more detailed breakdown of the different areas of the Common). A network of paths criss-crosses the site, including a wider path stretching down the coastline, connecting Milton and Eastney with the shared footpath/cycleway stretching up the Eastern Road and out of the city.
- 3.10 The city council has a statutory duty under Part IIa ("Part 2a") of the Environmental Protection Act 1990¹⁰ ('the Act') to identify any 'contaminated land', that is to say any land that could cause harm to people or the environment. Milton Common is a gassing landfill site with minimal cover originally added. As a precaution it has already had some further remedial work in 1996 with regard to the ground gas that the decomposing waste creates and also to add cover soil over areas where waste was found to be on the surface.
- 3.11 The duties of the city council under the Act exist regardless of how the pollution got there or the past or current ownership of the land, they relate purely to whether there is likely to be a significant impact. The 2012 Statutory Guidance¹¹ provides further information on interpretation of the Act. In this instance the city council is both the regulatory authority, and if further remedial works is necessary also responsible for the remediation. If controlled waters are being impacted then the Environment Agency, could become the regulator but city council may still be responsible for whatever remedial works are considered necessary.
- 3.12 Outside of this regime, any works connected with development of land directly is the responsibility of the developer, and they investigate the land they are developing in order to comply with the requirements of The National Planning Policy framework (NPPF). Paragraph 109 of NPPF states that the planning system should enhance the local environment by "preventing new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil...pollution". The NPPF goes further and places the onus on the developer as the developer must "prevent unacceptable risks from pollution" and demonstrate the site will be "suitable for its new use" (Para 120 and 121). Whilst this relates directly to the site being developed, the intention is precautionary in nature and intended to protect the end-users and it is considered that it would apply to the amenity space intended by the developer to be used by future residents.
- 3.13 It is considered that in identifying the land and thereby suggesting that future intensified usage will be acceptable, the city council is acting fairly, based on the previous report, but the land condition should be assessed early on in the implantation of the management framework.
- 3.14 In terms of management, this presents challenges as the way in which the site was filled has meant that the resulting settlement of the site has been particularly uneven. It has also resulted in physical obstacles, such as lumps of concrete and metal, protruding from the ground. These issues make it difficult or impossible to for the countryside team to use machinery to manage the site. As such, they are reliant on hand tools which are a far less efficient way to manage a site the size of Milton Common.
- 3.15 Groundwater is locally held in the estuarine sandsand gravels. The University of Portsmouth have recorded water strikes within the artificial landfill depositions at the Common at depths

¹¹ http://tinyurl.com/mdfsaz2

of between 2m-3m, approximately mean sea level. The three lakes on the coastal boundary contain fresh water, with little intrusion of sea water apart from occasional sea spray.

Breakdown of the different character areas and functions of Milton Common

- 3.16 To inform the framework, detailed mapping, using site visits, historic maps and aerial photographs as well as those taken in 2004, 2008 and 2013 (see figure 9), has been used to establish the character and function of the different parts of Milton Common.
- 3.17 In particular, a comparative analysis of the 2004 and 2013 aerial photographs has enabled a calculation of the encroachment of scrub and bramble across the site. During this time, the amount of scrub and bramble has gone from 7.89ha (17.14% cover of the site) to 11.58ha (25.22% cover of the site). Left alone, this encroachment of bramble and scrub would continue and further reduce the amount of the site which is accessible and create a more monotone habitat.
- 3.18 Figure 9 shows compilation of the 2004, 2008 and 2013 aerial photographs of Milton Common, showing the gradual encroachment of scrub and bramble which is discussed in detail later.



Figure 9: Aerial photographs of Milton Common.

- 3.19 The tusocky, coastal grassland stretches across most of the site. This habitat creates an open, natural and almost wild sense of place within the centre of the Common and essentially defines its character. However even within these areas, the character is not consistent, as is highlighted in the HBIC report. Figure 10 shows a photo montage of the different examples of the tusocky grassland which can be found across Milton Common
- 3.20 It is within these stretches that most of the botanical diversity of the site arises and most of the notable species are present. There is also a strong coastal element to the species mix.



Figure 10: the tusocky, coastal grassland habitat which dominates Milton Common.

From the top left: the view across the north-east of the Common, Rosy garlic and hoary cress, the view across a temporary pool, wild carrot, ox-eye daisy facing scrub invasion, grass vetchling.

- 3.21 The amenity grassland areas of the Common are focussed on two stretches. One forms a linear strip along the Eastern Road boundary whilst the other is in the south-west corner of the site by Shore Avenue.
- 3.22 These two areas in themselves are quite different and serve different functions. The northern linear strip serves as a buffer between the Common and the busy Eastern Road and also contains the shared-use cycleway and footpath that runs along the Eastern Road. That is not to say that the strip does not contain any notable species as with very little trampling action, a number of species have flourished in recent years, including the Bee Orchids on the front cover.

3.23 The amenity grassland area at the south-west of the site (figure 11) forms a focal point in the Common where people congregate and more intensive activity takes place. There is a series of picnic benches and a set of goals which are well used. There is also a set of pier timbers which were placed here, as well as several other areas of the Common forming a line towards the sea.



Figure 11: The pier timbers and amenity grassland.

- 3.24 There are three clusters of trees on the site, set at the north-eastern, north-western and southern sections. These provide a rare taller element of the vegetation on the Common which, following settlement, is relatively flat.
- 3.25 There are three lakes located on the eastern side of the site between the coastal path and the main section of the Common. These are, from the north, Frog Lake, Duck Lake and Swan Lake. Whilst not suitable for swimming, they do offer excellent habitat for a number of ducks and swans which use the lakes and provide swamp habitat (figure 12). They also provide a very interesting aspect of the Common's character, making it a unique place and prevent most access from the Common itself to the coast along their length.



Figure 12: Swan Lake and its reedbeds (left), a adult swan with her cygnets (right).

3.26 The final main habitat at Milton Common is bramble and scrub (figure 13). A certain amount of this has always been present, largely around the three lakes. However over the past decade in particular it has spread further west into the main area of the Common. This leads to the break up of the open character which the swathes of more tusocky grassland provide. The bramble can grow up to around 3m high at some points, resulting in a dominant feature across the largely flat area of the Common.



Figure 13: Scrub in the north-east of Milton Common (2012)

3.27 The extent of the different character areas has been quantified and mapped and is set out in figure 14, below. The character of the different parts of Milton Common can be broken down to:

Character areas of Milton Common before implementation of the framework				
Character area	Area in m ²	Area in hectares	Percentage of total site area	
Tusocky grass	222,552.57	22.26	48.46%	
Amenity grass	78,829.20	7.68	16.73%	
Meadow grass	0	0	0.00%	
TOTAL accessible area:	229,381.77	29.94	65.19%	
Trees	22,873.54	2.29	4.98%	
Bramble & scrub	115,803.71	11.58	25.22%	
Lakes	20,866.59	2.09	4.54%	
Other	300.24	0.03	0.07%	
TOTAL inaccessible area:	159,844.08	15.98	34.81%	
Note: all figures rounded to two decimal places.				

3.28 As such, to work out the accessible area of the Common, it is necessary to discount the areas of scrub and bramble, the lakes and other areas from the total site area. This leads to a total accessible area of the Common as 29.94ha.



Baseline condition as an open space

- 3.29 The city council conducted an audit of all of the open spaces in the city in 2007¹². This used an independent specialist to assess both the quality and value of all of the open spaces in the city. Milton Common achieved an overall quality score of 83%, with particularly high (~90%) values for being well-maintained, clean, conservation and community involvement. However lower scores (~65%) for being a welcoming place and feeling healthy, safe and secure. However in terms of value, the site scored a full score for amenity, recreation, play, biodiversity and education and so scored an overall value mark of 100%.
- 3.30 A full analysis of how much the site is used has never been done and so was commissioned to inform this management framework. This used a methodology pioneered by Footprint Ecology to assess the visitor patterns at the Thames Basin Heaths. The survey used selective monitoring of key accesses into the site to estimate how many people use the site over the course of a weekday and weekend.
- 3.31 Each access point onto the Common was surveyed for a total of eight two hour periods, split into four periods during the weekend and four periods during a weekday. Within both the weekend and weekday visit, each access point was surveyed during each of the following time slots:
 - **0700 0900**
 - **1**000 1200
 - **1300 1500**
 - **1700 1900**
- 3.32 The counts took place across May and June 2015. During each two hour period, a tally was taken of all people (ie not groups but total people including children) entering the site. As the weather could produce anomalous results, only days and times when the weather was considered good¹³ were surveys done. As the surveys were done during the early summer, this means that the results are considered a maximum and an overestimation of the visitor pattern during the over-wintering bird season given the fact that a proportion in the SDMP survey stated that they use the site more during the summer. The results are set out below with the total counts observed as part of the surveys, summed for the whole site, on the left and the resultant visits per hour set out on the right.

Milton Common visitor survey				
	Total coun	nt observed	Visits	per hour
	Weekday	Weekend	Weekday	Weekend
0700 - 0900	56	62	28	31
1000 - 1200	55	55	27.5	27.5
1300 - 1500	42	115	21	57.5
1700 - 1900	63	93	31.5	46.5

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¹² The PPG17 study is available at http://tinyurl.com/oqn4qnw

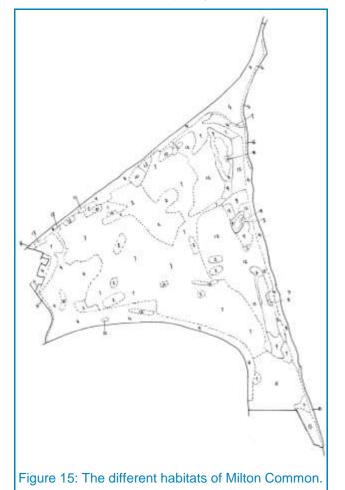
¹³ No rain that day up to the survey time, no excessive wind or cloud cover

- 3.33 It is also interesting to note what the Common is used for. There is a high level of dog walking with 62% of visitors to the Common going there to walk a dog. Of the remaining activities, 25% were going for a walk, 11% cycling and 2% jogging. There were also a high number of dogs noted with 0.94 dogs per dog walker.
- 3.34 The results of the survey let us look at the visitor density at the Common and compare it to the benchmark density which was developed at Thames Basin Heaths of one person per hectare per hour. However given that substantial parts of Milton Common are not accessible, we have used the level of accessible space as opposed to the total site area. This benchmark density was developed by Footprint Ecology as a density which was considered to represent a site being reasonably busy¹⁴.
- 3.35 This results in an average density of 1.13 per/ha/hr, which shows that the Common is well used. It is however important to consider that the standard was put together primarily for rural heathland sites and is being applied in this context to a semi-natural site in an urban setting. Whilst visitor density is high in the weekend afternoon time slots, the SDMP visitor survey shows that the site is highly valued and that most people would continue to use the space if it got busier even (see paragraph 2.9). However this benchmark is considered to be a guide only and it may well be the case that a particular site can support a higher level of use or a much lower level of use due to the particular context of that site.
- 3.36 Nonetheless, for the purposes of this framework as providing a mitigation solution for the potential development sites, Milton Common is considered to be at capacity and unable to

accommodate further visitors without improvements and an increase in the amount of the Common which is accessible to visitors.

Baseline ecological condition

- 3.37 The site already also has a high ecological value. It is identified in the Solent Waders and Brent goose strategy as an important high tide Brent Goose feeding site. The character of the site, as set out in more detail above together with anecdotal evidence from site managers, confirms that geese predominantly use the amenity grassland areas to the north and northwest of the site. The remainder of the site is undulating and consists of unmanaged grass, water and bramble, which are unsuitable habitats for foraging geese.
- 3.38 Botanically, the site has a varying character, which only increases its value. Given the extensive areas of coastal grassland, wetlands and several notable species, it was been designated as a local



¹⁴ See the Visitor Survey report of Whealen District SANGS (http://tinyurl.com/npq2ya7)

| 29 |

wildlife site in 2003.

- 3.39 Milton Common's botany is regularly surveyed. Botanical surveys are done by the Hampshire Biodiversity Information Centre on a rolling programme. The last survey of the site took place in 2007 and the next will take place in the summer of 2015. The survey found that the species diversity was excellent with over 200 separate species recorded. This identified the following notable species:
 - Slender Hare's Ear Bupleurum tenuissimum a UK BAP species
 - Yellow Vetcling Lathyrus aphaca A nationally rare, Hampshire BAP species
 - Pale Flax Linum bienne a county scarce species
 - Toothed medick Medicago polymorpha a nationally scarce species
 - Alexanders Smyrnium a county scarce species
- 3.40 The survey also highlighted the significant variations in habitat across the site. The surveyor broke the site down into different areas and the diversity of each one is highlighted below and in figure 15:
 - **Area 1 -** The sward is rough with a good diversity of species, including a suite of coastal species. The most frequent species are false oat-grass, cock's-foot, red fescue, bents, wild carrot, bristly oxtongue, creeping cinquefoil and common couch. There is much tall fescue, hogweed, prickly lettuce, timothy, tansy, ribwort plantain, ragwort, mugwort, yarrow, aster, horseradish, thistles, fennel, yorkshire fog, rye grass and common mallow. Bramble scrub is locally frequent, with some elder and domestic apple shrubs Other species present include false fox sedge, parsnip, amphibious bistort, hard rush, crow garlic, black knapweed, sea couch, perennial wall-rocket, sneezewort, grass vetchling, stone parsley, toothed medick, yellow vetching, alexanders and pale flax.
 - **Area 2 -**The grassland is rough and dominated by tall fescue and other grasses. There is frequent cooch, false oat-grass, cock's-foot, red fescue, bents and wild carrot. There is also some aster, bristly oxtongue, tufted vetch, hard rush, rye grass, clovers, mouse-ear, spotted medick, ribwort plantain, fennel, tansy and grass vetchling.
 - **Area 3 -**The grassland is very short from heavy wildfowl grazing and public use. The main species are creeping bent, toad rush, buck's-horn plantain, rye grass, annual meadow-grass, greater plantain, knotgrass, spotted medick, creeping cinquefoil and ribwort plantain.
 - **Area 4** -The sward is mown continually short and used as amenity lawn. The grassland is composed of rye grass, clovers, daisy, dandelion, spotted medick, yarrow, cock's-foot and annual meadow grass. There is also much wall barley, tall fescue, buck's-horn plantain, red fescue, creeping cinquefoil, hedgerow crane's-bill, smooth hawkbeard and wild carrot. The coastal sward have some sea beet, sea couch, perennial wall-rocket, common mallow and common orache.
 - **Area 5 -** This vegetation is found in the more recently disturbed areas, especially along the banks bordering the south-west of the site. The main species present are stinging-nettle, common mallow, hedge mustard, common orache, false oat-grass, cock's-foot, yarrow, wall barley and cooch. There is also some chickweed, annual meadow-grass, amphibious bistort, hedge bindweed, bramble, fennel, teasel, creeping bents, ragwort and prickly lettuce.

- **Area 6 -** Along the eastern edge of the site there is a thin strip of this salt-marsh community. It consists of a rough sward with some scrub. The main species are sea couch, false oatgrass, sea beet, aster, common mallow, common orache and wall barley. Rye grass and red fescue are locally abundant. Other species noted include perennial wall-rocket, buck's-horn plantain, fennel, grass-leaved orache, spear-leaved orache and slender hare's-ear.
- **Area 7 -** The ponds support areas swamp dominated by common reed. There is also some lesser bulrush, great willowherb, sea club-rush and stinging-nettle.
- **Area 8 -** There are several small areas of swamp within the ponds dominated by sea clubrush.
- **Area 9 -** Adjacent to the ponds there a few stands of this fen community. Common reed, great willowherb and stinging-nettle are prominent. There is also some hedge bindweed, creeping bents, yorkshire fog, cooch, creeping buttercup and bramble present.
- **Area 10 -** Small thickets of denser blackthorn and english elm scrub are present throughout the site. There is also some elder, hawthorn, domestic apple, ash and roses. There is some rough grassland within the scrub.
- **Area 11 -** To the east there are some dense areas of bramble scrub. These contain locally abundant stinging-nettle and some elder, domestic apple, japanese knotweed, hedge bindweed and grasses.
- **Area 12 -** This area is a mix of scrub and rough grassland. Bramble is abundant and there is much elder and Japanese knotweed. The grass is composed of false oat-grass, cock's-foot, red fescue, bents, wild carrot, bristly oxtongue, field bindweed, horseradish, hedge bindweed and fennel.
- **Area 13 -** Broad-leaved plantation. The plantations are formed of poplar or ash and have a species-poor, grassy or bramble dominated ground flora.

Baseline management regime

- 3.41 The site is currently managed by the city council, largely by the city's countryside rangers, both for nature conservation and quiet recreation with an aim to promote the appreciation of wildlife conservation both for the Common and more widely.
- 3.42 The city's countryside rangers also provide talks and other promotional materials to interested groups such as the local schools and community groups. A number of interpretation and notice boards are in place to give information about the site's wildlife and other issues.
- 3.43 Regular meetings are carried out to bring together the community and special interest groups. This helps to ensure that, as far as possible, developments and new management procedures are carried out in accordance with the wishes of those who value the Common.
- 3.44 A countryside ranger is responsible for the conservation management measures on Milton Common as well as other sites. However it is the informal 'Volunteer Ranger Service' who act to make sure that any incidents are reported quickly. Given its urban location, the site is susceptible to anti-social behaviour and crime, particularly fires, fly-tipping and illegal

motorbike access. The site is also regularly patrolled by the city council's community wardens.

- 3.45 The site was recently awarded a Higher Level Stewardship (HLS) grant from Natural England¹⁵ and so management does need to follow the conditions of the grant. This grant covers the period from 1 March 2012 to 28 February 2022.
- 3.46 This funding covers a number of elements capital projects including removing an eyesore and replacing information boards. It also includes annual funding for the site covering the maintenance of the reed beds, restoration of grassland and scrub management. However the scale of the grant is only sufficient to fund a limited amount of grassland restoration and scrub management at the site.
- 3.47 It is considered that the available funding from the HLS grant is sufficient to fund a basic, baseline management scheme, which is set out below. This is sufficient to ensure that the two aims of preserving the Common's nature conservation value and providing a place for quiet recreation for those who live close by are met. The city council commits to continuing to fund the baseline management scheme in the future.

Keep the site free from litter

Litter not only make a site unsightly and deters visitors, but can actually attract more litter and vandalism and is also a risk to health and safety of visitors and wildlife alike. Therefore, it is important to encourage responsible disposal of litter and carrying out frequent litter picking. There is also an educational role of the rangers to inform visitors of the hazards of litter and dog fouling. Contractor's carryout a weekly litter scavenge and also empty dog and litter bins

and provision as family areas

Maintain amenity grassland Areas are provided for family recreation Regular mown areas cut 2 weekly between mid-march and October

Maintain the site furniture and infrastructure so that it is in good condition, fit for purpose and safe

Site furniture and infrastructure includes seats, paths, bins and goals. These are inspected periodically and checked for any damage or wear. In addition to inspecting furniture, preventative maintenance, such as oiling of hinges and painting of benches is included in the annual work plan to ensure the maximum lifespan before renewal.

Ensure that the site is a welcoming and safe place for all

Signage and interpretation boards are provided at the main entrance points to welcome and advise visitors of what to expect on the site. These boards also inform visitors of the presence and contact details of the rangers and community wardens. Risk assessments for the site and operations are carried out and these are reviewed annually.

Inspections are carried out; frequency is dependent upon any ongoing issues. These inspections identify any health and safety issues and remedial work are organized accordingly. Portsmouth City Council regulations stipulate that the rangers must undergo enhanced Criminal Records Bureau (CRB) checks and also be First Aid certificated.

Develop volunteers, interest groups and

The development of volunteering opportunities whether through the Volunteer Warden scheme and practical conservation groups gives the

¹⁵ HLS grant reference AG00382454

community involvement. Promote the awareness

local community a sense of ownership and is pivotal in the management of the site. Meetings and correspondence with users and analysis of biodiversity ensures that, as far as possible, developments within the Common are carried out in accordance with the wishes of the local community and others interested in the site. Coordinated management of the site through liaison with statutory organisations and other interested parties, will ensure that the site is not seen in isolation but as part of a large overall picture. As the site develops an integral part of the plan is to promote the site and its wildlife to a wider audience through utilising internal & external publications, attending local events with displays, the provision of Ranger led guided walks and talks and also by supplying information to schools and other education bodies to encourage the sites use as an educational resource.

Monitor species groups and habitat development

The habitat management is aimed at maximising species diversity. Therefore it is crucial to monitor species to ensure management regimes are having the desired effect; there are a variety of ways to do this, such as photography to assess changes over time and species counts. It is not possible to survey every plant and animal group each year and so a rolling programme of surveys is included in the five year development plan. Results of the surveys are passed onto Hampshire Biodiversity Information Centre (HBIC) who maintains the regional data base. This ensures that the habitats and species of Milton Common are not seen in isolation but part of a regional strategy.

Monitor and control invasive species.

There are a number of patches of Japanese Knotweed on the site which have been treated in the past. These will be monitored and sensitively controlled to eliminate from the site as required.



- 4.1 Milton Common is a highly valued semi-natural open space which is extensively used by those who live close by for day-to-day quiet recreation. However the evidence base shows that is not yet fulfilling its full potential and the site's legacy means that more effective management techniques are not possible.
- 4.2 Although the baseline management scheme will ensure the site continues to be accessible and provides basic infrastructure, making improvements and then maintaining the site at that higher quality will enable it to fulfil its full potential whilst also enabling it to absorb the increase in recreational pressure that the proposed developments at Milton will bring.
- 4.3 However it is of course important at the same time to make sure that what makes the Common valued in the first place is not lost.
- 4.4 The city council has set a vision for Milton Common which sets out what kind of place it should be in the future.

Milton Common will be restored and maintained so that it is the first choice for people who want a semi-natural space to escape city life, enjoy quiet recreation and appreciate the intrinsic value of the natural environment.

4.5 In order to fulfil this vision, the city council has set a series of objectives which are set out below and have informed the detailed restoration framework.

Objective A Improve the
quality of the coastal
grassland habitat

The species rich, tusocky coastal grassland is the main natural feature and draw of the site. However the scrub and bramble cover of the site has increased by 17% to 25% over the past decade and left unmanaged would spread across the site. It is important to better manage the site's botany both for its own intrinsic value and because it is a draw for visitors.

Objective B improve the visitor experience at Milton Common

Those who were questioned as part of the SDMP visitor survey highlighted the need to improve the site's infrastructure and that this could make them use the site more.

Objective C divert recreational pressure away from the coastal path to Milton Common itself

This will ensure that there is no increase in disturbance for the species which use the two SPAs and ensure that they can feed efficiently on the mudflats to the east of Milton Common whilst people continue to enjoy the Common itself. It is currently all too easy to simply walk down the coastal section without appreciating the quiet atmosphere and scenic views which the rest of the Common has to offer.

Objective D ensure that the needs of dog walkers are sympathetically accommodated

The visitor surveys that have taken place show that the site is heavily used for dog walking. Given the high level of disturbance which dogs can cause to SPA species, it is important to make sure that dog walkers are given ideal routes which would not disturb SPA species and that these routes have the appropriate infrastructure, such as waste bins. Nevertheless it is also important to ensure that any potential conflicts between the needs of the dog walking community and those who do not walk dogs are foreseen and addressed.

4.6 The restoration framework below sets out what capital measures are going to be installed, how this will work, how they will be maintained and which objectives those measures will help to achieve.

- 4.7 It should be noted however that whilst the coastal path and coastal frontage clearly form part of Milton Common, this management framework does not propose any changes to that part of the site. The coastal defences across the north of Portsea Island, from Milton Common to the Mountbatten Centre, are going to be comprehensively improved over the coming years. Construction started in early 2015 on the Anchorage Park frontage although Milton Common's defences are phased for delivery in the longer term. The preferred option at this point is to replace the existing defences with new earth embankments and a rock revetment. This will likely involve substantial changes to the coastal path which runs down the eastern side of Milton Common.
- 4.8 The capital projects proposed below will improve the quality of the Common. However this will quickly subside if these capital projects are not maintained correctly. The frequency of maintenance is noted under each of the projects below and section 5 addresses how maintenance will be funded.
- 4.9 The framework below sets out the detailed works which are planned and which objectives they help to fulfil. The framework also sets out the phasing for each of the measures. The framework has been phased in line with the likely level of development which will likely come forward with each application at Milton.

Land and water contamination survey							
Objective A	✓	Objective B	✓	Objective C	✓	Objective D	✓
Prior to the remaind surface water samp		•	ge be	eing implemented, it i	s ne	cessary to do soil and	d
Whilst previously assessed in the 1980s and 1990s, the assessment should now be updated because analytical techniques have moved-on and the screening criteria have changed. The city council is now suggesting allowing private developers to introduce more people to the pollution that is present by virtue of suggesting it as making up the required amenity space to allow dwellings to be built. Whilst the pollution known to remain was considered acceptable at that time, it is also known that capping soils were minimal and with waste coming to the surface and the opening up of further areas for amenity use, the land survey should be updated to current standards. The survey will also test areas within the scrub clearance zones (see below) to assess the nutrient level of the soil and so confirm the best areas to target scrub clearance and grassland restoration (see below).							
Maintenance freque	ncy	One-off measure					
Phasing		Short term					

Grassland management Objective A ✓ Objective B ✓ Objective C ✓ Objective D ✓

Since the initial capping of the site only the amenity grassland areas and the path edges have undergone any significant grassland management. Low level intervention has been carried out on the majority of the rest of the site. Management of the grassland is essential to maintain its structure, balance and diversity. Without management grassland becomes coarse and rank, loses both

diversity and interest, and will eventually turn into scrub as it has over a large part of the Common. This in turn has a detrimental impact on the quality of the Common as an open space and the level of accessible grassland that is available.

The overriding factor in the grassland management of the Common is the topology of the site. Since the initial capping there has been a great deal of resettling of the surface and subsurface as the organic material has decomposed. This has left the surface very uneven and difficult to work especially with machinery. It has also resulted in the exposure of a certain amount of the old dumped material such as concrete blocks and metal reinforcing bars.

An initial assessment of the site will therefore be carried out to identify areas of the Common which after initial clearance should be managed as:

- meadow grassland
- tusocky grassland
- scrub management

Areas which are reasonably even, which after initial clearance, could be managed mechanically could be designated as meadow grassland. Areas that could be managed with small machinery and hand tools could be managed as tussocky grassland.

In the absence of effective management, short and often species-rich swards can become dominated by a combination of course grasses, tall herbs and scrub. These species are able to outcompete the less vigorous herbs and fine-leaved grasses for water, light and nutrients. The southern section of Milton Common has already become dominated by such course grasses. However by implementing a management regime, the remaining desirable species will be stimulated to flourish. This has already been successful in areas of the Common which have had occasional cuts and are now very species rich. In 2014, one such area produced hundreds of Bee Orchid spikes (see cover image).

From the second year after the initial cut, a management regime will be introduced to maintain maximum diversity and flowering interest within the grassland. This will be achieved by cutting in sections at different times from July to the end of August. This spread of cutting times not only maximises variation and diversity on site but also spreads the workload over the summer making larger areas manageable. Grassland should not be cut in May or June, so as too not disturb nesting birds. Parts of the grassland will be left into September so that late flowering species can seed. The character and composition of the meadow will continue to change with time and we will get an understanding of the best techniques and timings for the site. Eventually a relatively stable community will develop, the balance of which will reflect management, soil fertility and the natural environment of the site.

Established grassland that is not mown regularly will become rough and "tussocky" in character. This grassland type is not as diverse or attractive as meadowland, but once established requires minimal maintenance. This can form useful refuge habitat on margins and areas difficult to manage mechanically. To control scrub and bramble development tussocky areas will require cutting every few years between October and February. For wildlife this cutting is best done on a rotational basis so leaving part as an undisturbed refuge.



Figure 16: Amenity grassland in the southern section and an example of species rich grassland.

Left: the current grassland in the southern section of Milton Common, right: an example of flowering grassland at Fort Widley, rich with oxeye daisy, bulbous buttercup, beaked hawksbeard.

Left image: Portsmouth City Council

Where possible exposed material such as concrete blocks will be brought together and made into hibernacula for reptiles, amphibians and small mammals. These rock piles are locations that can be great refuges and over-wintering sites (hibernacula) for reptiles and amphibians - providing habitat, cover, locations to bask, and food. Construction would involve bringing together inorganic and organic matter in piles which would then be partly turfed which will weather proof part of the structure as well as making it more aesthetic.

The existing HLS grant which the city council has is sufficient to fund a degree of grassland management. However the modest scale of the grant is not nearly enough to fund the scale of change being envisaged here and only until 2022.

It is considered that the grassland management regime set out will represent a subtle, but substantial, shift and will improve and emphasise the semi-natural environment at Milton Common which in turn will help to draw people to use the Common more.

Maintenance frequen	Annual measure each summer. The cost of the mowing regime has been annualised.
Phasing	Short-medium term

Bramble and scrub clearance Objective A ✓ Objective B ✓ Objective C ✓ Objective D

Milton Common has historically been made up of a reasonable level of scrub and bramble cover and this benefits the site by providing habitat to songbirds and invertebrates. However over the past decade, it has spread steadily westwards, converting 3.69ha of tusocky grassland to scrub and bramble over the last decade. Management of this has been problematic due to the difficulties of getting machinery onto the site and available resources. Left unchecked, the scrub and bramble would continue to spread westwards across the site, further decreasing the area of accessible grassland.

The key project for the future of Milton Common is to manage the scrub and bramble cover, restoring it to an appropriate level and then maintaining this in the future. It is proposed to clear the

bramble and scrub that has developed over the past decade, restoring the levels of this kind of vegetation to around that seen in 2004. It is important to retain a variety of ages of scrub cover, from the longer, more woody older areas to shorter, younger ones as different species which need the scrub cover require different kinds of scrub to thrive. This will ensure that the Common continues to support a wide diversity of species.

The areas that have converted to scrub in the last 10 years should still have sufficient seed bank in the soil that the grassland should be able to re-grow, although this will be confirmed through the contamination survey (see above). However bramble and scrub older than this would have decimated the available seed bank and so coastal grassland is unlikely to grow back. As such, the level of scrub seen in 2004 is considered appropriate and achievable in terms of grassland restoration although this will need to be implemented flexibly given the nature of Milton Common and the need to maintain an appropriate mix of types of scrub cover. Some species prefer open scrub whilst other such as the nightingale require dense thickets so the management option will aim to provide a variety of age, height and density of the habitat.

Decreasing the level of scrub will also help the site to feel safer, reducing visual obstacles, particularly at the site's entrances. Nonetheless, keeping a certain amount of scrub is important in maintaining the character of the Common and also in making sure that access to the lakes is restricted. Nonetheless, this project will open up over 7ha of the site, improving the attractiveness and openness of the Common. The levelling of the site will ensure that once the scrub is restored to 2004 levels, it can be managed mechanically to make sure that it is maintained at this level.

The existing HLS grant which the city council has is sufficient to fund a degree of scrub management. However the modest scale of the grant is not nearly enough to fund the scale of change being envisaged here and only until 2022.

The project would involve a contractor being employed to physically remove scrub under close supervision from the city council's countryside service. The city council's countryside service will then work with community groups and volunteers to re-establish the appropriate grassland type in the cleared areas. This will open up the site whilst also fostering a sense of ownership of the site and help to inform the nearby community of what is happening at Milton Common.

Once restored to around 2004 levels, a rotating management regime will be put in place to provide the mosaic of young and mature scrub ensuring that the structural diversity that will appeal to a wide variety of species is in place. Low intensity management at regular intervals is generally better than major work every few years.

Maintenance frequency	The cost of maintaining the reduced scrub and bramble area has been annualised based on mechanical maintenance.
Phasing	Continuous

Site levelling Objective A ✓ Objective B ✓ Objective C Objective D

The site's history has left a series of sharp undulations and ruts which makes mechanical maintenance extremely difficult and means that management with hand tools only is usually required. This in turn makes the management of the site more labour intensive and difficult than would be the case if the use of some machinery was possible.

Following the scrub and bramble clearance, it will be possible to make a more accurate visual assessment of the ground levels across the Common and assess where a degree of levelling would be beneficial in specific locations. Ballast would then be imported onto the site to fill in ruts and other small ground irregularities so that subsequent vegetation that develops can be kept mowed. This will diversify the vegetation within the site. Suitable coastal grassland, translocated from similar sites such as Fort Cumberland, would then be used to help establish the coastal heath habitat.

Once the site is level, it will be necessary to hire machinery, through the city council's Parks Maintenance Contract or another suitable mechanism, to manage the site and begin the bramble and scrub clearance (see below).

	Site specific projects which would not require ongoing maintenance
Phasing	Continuous

Brent goose foraging area							
Objective A	✓	Objective B		Objective C		Objective D	

Milton Common is identified in the Solent Waders and Brent Goose Strategy as being an important terrestrial area for Brent geese to feed at high tide. The northern amenity grassland strip is often used by the species, often as a 'stepping stone' between feeding on the intertidal areas of Langstone Harbour and the nearby fenced off Brent goose refuges at Portsmouth College and to the east of Baffins Pond. Whilst the variety in grassland types adds interest to the Common and also acts as a buffer to the busy Eastern Road, it is rarely used for recreation as it is largely made up of the land between the Eastern Road shared foot and cycle path and the Eastern Road itself.

In the future, this area will be protected and further enhanced for Brent geese by altering the mowing regime to a short mow in late summer. The edges of the area will also be managed to minimise disturbance to Brent geese by introducing elements of longer grass to visibly shield dogs, who can be perceived as predators. Mowing will also be used to encourage access onto the Common as opposed to onto the foraging area. Finally. the interpretation boards (see below) will also highlight the importance of the area for geese and the importance of not disturbing the birds while they use the area.

Maintenance frequency	The cost of the altered mowing regime has been annualised.
Phasing	Continuous

Benches

Objective A Objective B

✓ Objective C

Objective D

✓

The benches at Milton Common are now relatively old and in a poor state of repair whilst their design is not particularly appropriate, as can be seen in figure 17. The quality and quantity of the benches was something which was highlighted by respondents in the SDMP visitor survey as something which needs improving.

Replacing the benches will make the Common a more pleasant place to relax and spend time. However it is important that the design of the replacement benches is in keeping with the seminatural character of the Common. Figure 14 sets



Figure 17: An example of the benches currently in place at the Common.

Portsmouth City Council

out the location of the benches and picnic benches at the moment. It is proposed that the benches be replaced in their current positions.

Prior to the benches being replaced along with new bins and upgrades to the path network (see below), a detailed phase II, on-site botanical survey of the path network will be done to identify where there are currently notable plant species close to these features which would be damaged by the construction of the upgraded path or replacing the benches or bins. These would be protected or translocated to another location on the Common.

Maintenance frequency	Refurbishment of each bench every five years
Phasing	Short term

Designation as a Local Nature Reserve							
Objective A Objective B ✓ Objective C ✓ Objective D							
It is considered that the site meets all of the qualifying criteria as a local nature reserve. Designating the site will not necessitate any particular changes to the management of the site. However the designation will give the site more credence and highlight its role both in nature conservation and recreation.							
Maintenance frequency One-off measure							
Phasing		Short term					

Bins Bins Bins Bins Bins Bins Bins Bins									
Objective A	Objective B	✓	Objective C	✓	Objective D	✓			

As with the benches, the bins which are in place at the Common are rather dated and at the end of their useful life and again was highlighted as something which needed replacing in the SDMP visitor survey. Following current best practice, combined bins for refuse and dog waste are proposed



Figure 18: An example of a combined refuse and dog waste bin in Winchester.

Courtesy of Winchester City Council

(figure 18). The current location of the bins is set out in figure 18.

It is generally considered that the current locations of the dog waste bins follows the principals in the evidence base of locating bins close to entrances, key path intersections and shorter mown areas to encourage their use.

As with the project to replace the benches (see above) and upgrade the path network (see below), a phase II botanical survey will be undertaken prior to implementation of the project so that any notable species which would be effected can be protected or translocated.

It should be noted that the capital cost of the bin

itself as well as maintenance of it would be paid for through the mitigation framework (see section 5), emptying the binds would continue to be funded and carried out by the city council.

Maintenance frequency	Assumes replacement of one bin a year
Phasing	Short term

Path network								
Objective A	Objective B	√ (Objective C	✓	Objective D	✓		

The path network across the Common varies a great deal in terms of width and quality. The western north-south path is level and ~2m wide in the central section but is only ~0.5m wide at the northern and southern ends. Similarly, the rest of the path network is generally narrower and far less even. This is shown in the photo-montage in figure 19. When asked as part of the SDMP visitor survey, a large proportion would use the site more if the path network was improved.

It is proposed that the relevant paths in figure 20 are upgraded to 2m width, surfaced with compacted gravel. In total, this involves the upgrading of 3.2km of footpath. This meets the recommended minimum standards set out by the Highways Agency for footpath widths and accessibility. Those paths, particularly around path junctions, which would not be upgraded could still be used as informal paths which would add an element of variety to the path network.

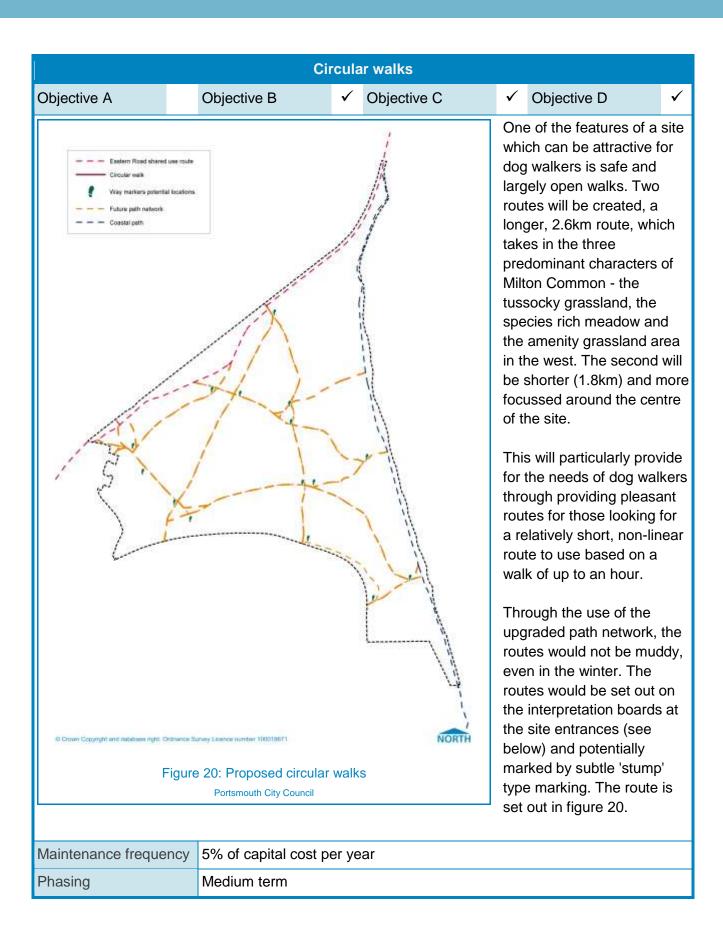
Upgraded paths will use a permeable compacted gravel, ideally a local substrate, which is suited to the natural feel of the Common. This again will ensure that the path surfacing continues to blend in with the natural feel of the Common and also ensure that it is possible to go for a walk without getting muddy. The path edges will not be specifically defined, allowing plants to colonise the path at the edges, held in check by only by the wear on the paths. As with the project to replace the benches and bins (see above), a phase II botanical survey will be undertaken prior to implementation of the project so that any notable species which would be effected can be protected or translocated.



Figure 19: Examples of the varying nature of the path network at Milton Common.

Portsmouth City Council

Maintenance frequency	Repair of 5% of footpath network per year
Phasing	Medium term



Welcome and interpretation boards

Objective A Objective B ✓ Objective C ✓ Objective D ✓

The existing signage and interpretation boards at the entrance to Milton Common do not provide a sufficient welcome (figure 20) to the site and are not considered fit for purpose (figure 20). These will be replaced with new signage that reflects the measures in this management

framework including the circular walks and the north-south shared use route (see above).

The new signs will welcome visitors to Milton Common Local Nature Reserve, provide information on the site's wildlife, a map of the path network setting out which are intended as footpaths and which are shared use as well as information for dog walkers.

The design of the signs will be of a high quality, using materials which are suited to the Common's semi-natural character whilst the messages that they set out will be positive and clear. In particular, they will make it perfectly clear that dogs are welcome on Milton Common off of a lead and that dog mess should be picked up, bagged and disposed of in one of the available bins.



Figure 21: The existing interpretation board on the Eastern Road.

Portsmouth City Council

The city council's HLS grant covers the replacement of four interpretation boards. This project will replace the remaining two and ensure that they are maintained to a high standard in the future.

Maintenance frequency	Assumes that each sign would need to be replaced every 25 years.
Phasing	Ongoing

Leaflet for new residents						
Objective A	Objective B	Objective C	✓	Objective D		
It is important to instil positive behaviours in new residents from the outset. An information leaflet for						

new residents highlighting the facilities which are available at Milton Common as well as the nature conservation value of Langsone Harbour will be produced. This will make sure that new residents, who may not be familiar with the city, can see the quality of the spaces and routes that they live near.

Phasing Ongoing

Community engagement							
Objective A	Objective B	✓	Objective C	✓	Objective D	✓	
It is key that the local community continue to feel a sense of ownership of Milton Common. As such, a number of the conservation projects will engage with local residents and volunteers to help shape and carry out the project.							
Further leaflets and other communication could be produced to help existing users of the Common further appreciate the natural value which it has.							
Phasing	Ongoing						

Monitoring framework						
Objective A Objective B Objective C ✓ Objective D						
It is necessary to monitor the delivery of the mitigation measures. On this basis, a monitoring report would be compiled either every five years or after the completion of a significant tranche of the capital measures, based on the situation at the time.						
Phasing Ongoing						

- 4.10 Overall, it is considered that the projects above will fulfil the aims and objectives of the management framework. With particular reference to objective D, the package of projects was also discussed with Dr Sarah Knight, a visiting research fellow at the University of Portsmouth's Department of Psychology. Dr Knight's authored *Understanding the Psychology of Walkers with Dogs* and is an expert on behavioural management. Dr Knight considered that the package of measures as a whole should be effective and attractive to dog walkers. There were some specific projects which were considered as potentially leading to conflict between dog walkers and other users of the Common. As such, these were removed from the final package of projects.
- 4.11 The proposed projects have been mapped and the character area analysis which was done on Milton Common as it is today has been updated to show how the Common would appear after the projects above have been implemented. This is shown in figure 21

BRENT GOOSE AREA

This section will be short mown in the late summer to make it highly effective for Brent geese, enabling them to use it as a stepping stone between Langstone Harbour and the nearby refuges at Portsmouth College and Baffins Pond.

SITE ENTRANCES

Entrances to the site will be clear and welcoming. Scrub will have been cleared, new interpretation boards will give information about the wildlife that can be seen on the Common and the circular routes which are available.





SCRUB & BRAMBLE

The westward spread of the scrub will have been arrested and reversed, opening up a sizeable amount of the Common and restoring it to grassland. A strip of scrub around the lakes has been maintained to make sure that there is a diversity of habitat type and to make sure that access to the lakes is restricted.

PATH NETWORK

The path network will have been upgraded to a consistent, high standard and will include a circular walk, taking in all of the different habitat types at the Common.

TUSOCKY GRASSLAND

The centre section of the site will be dominated by the wilder, tusocky grassland. Following the scrub clearance project, this area will be significantly opened up and new areas of grassland created.



AMENITY GRASSLAND

This forms the entryway to the site from a number of areas and is often very busy. It will largely the same in the future although some of the scrub around the edges will have been cleared.



SITE INFRASTRUCTURE

The bins, benches and interpretation boards will have been replaced with ones that fit in with the character of Milton Common. A circular walk, using the new path will take in the various different habitat types that are in the Common.

SPECIES RICH MEADOW

The grassland management of the southern section of the Common, adjacent to Moorings Way will be altered to create a species rich grassland meadow. This follows a successful trial which has taken place on the northern section of the Common which has significantly diversified the species mix of the grassland and produced Bee Orchid Spikes.



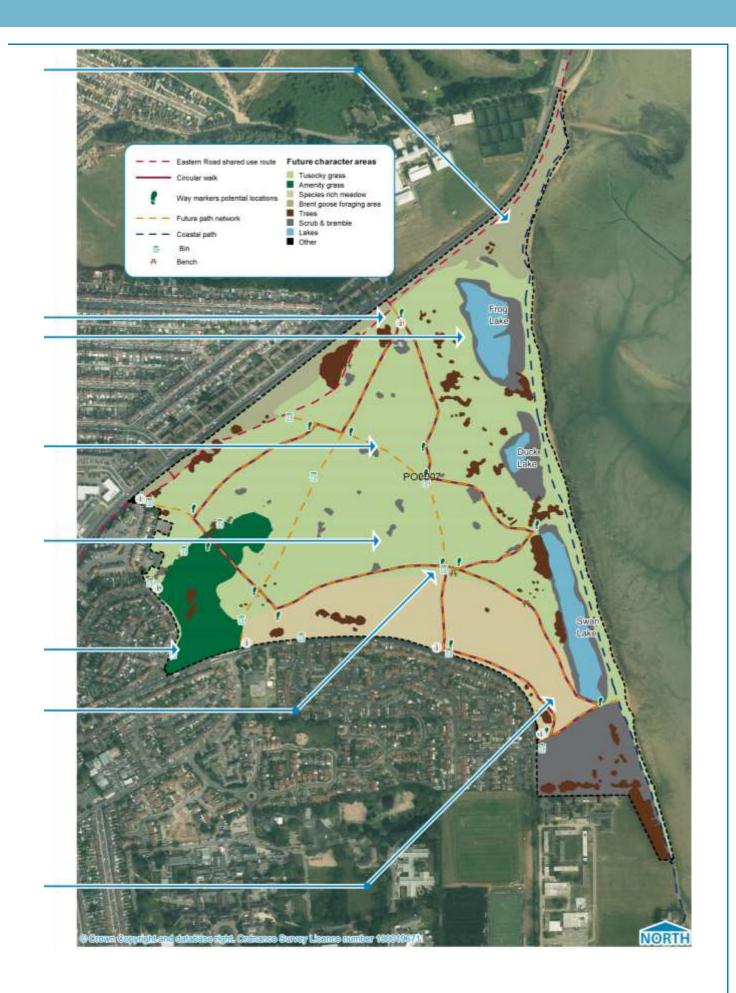


Figure 22: The character areas of Milton Common following implementation of the framework.

4.12 Overall, the character of the different parts of Milton Common as it would be after the projects above have been implemented has been mapped and is set out in figure 21. This shows that the proposed breakdown of the character areas of the site is:

Character areas of Milton Common after implementation of the framework					
Character area	Area in m ²	Area in hectares	Percentage of total site area		
Tusocky grass	247,171.22	24.72	53.79%		
Amenity grass	27,080.07	2.71	5.89%		
Meadow grass	65,569.14	6.56	14.27%		
Brent goose foraging area	32,275.28	3.23	8.67%		
TOTAL accessible area:	372,095.71	37.21	82.62%		
Trees	22,873.54	2.29	4.98%		
Bramble & scrub	43,393.22	4.34	9.44%		
Lakes	20,866.59	2.09	4.54%		
Other	300.24	0.03	0.07%		
TOTAL inaccessible area:	87,433.68	6.46	19.03%		
Note: all figures rounded to two decima	ıl places.				

4.13 Through the implementation of the projects in this framework, there will be a substantial increase in the amount of accessible space at the Common. There will also be an increase in the diversity of the habitat which is available.

Change in the character	areas as a result of th	ne implementation of	the framework
Character area	Area in m ²	Area in hectares	Percentage of total site area
Tusocky grass	24,618.65	2.46	5.33%
Amenity grass	-49,749.13	-4.97	-10.84%
Meadow grass	65,569.14	6.56	14.27%
Brent goose foraging area	32,275.28	3.23	8.67%
TOTAL accessible area:	72,713.94	7.27	17.43%
Trees	0.00	0.00	0.00%
Bramble & scrub	-72,410.48	-7.24	-15.77%
Lakes	0.00	0.00	0.00%
Other	0.00	0.00	0.00%
TOTAL inaccessible area:	-72,410.49	-7.24	-15.78
Note: all figures rounded to two decima	ıl places.		

- 4.14 The implementation of the framework will make a substantial improvement to the visitor experience at Milton Common including through substantial improvements to its biodiversity value, which is one of its key draws. This specifically includes clearing a large amount of scrub which will open up new space.
- 4.15 The scrub clearance project will create a total of 7.24 of new accessible space at the Common. In other areas of the country, new space which is intended to act as a draw away from European sites for the occupants of new development is planned for on the basis of 8ha of new space per 1000 new residents.
- 4.16 Based on the make-up of the sites and the type of development which is likely at the potential development sites, it has been calculated that there would be an extra 854 residents after completion of the developments¹⁶. As such, this would require an additional 6.832ha of space to be available¹⁷.
- 4.17 As such, the 7.24ha of new space which would be created together with the improvements to the site as a whole will mean that it is sufficient to act as a effective and attractive draw to the scale of new residents in the potential development sites.

¹⁶ This is based on capacity analysis of the potential development sites and the types of development which would make up the total of 390 net additional dwellings.

¹⁷ Amount of new space required = 854 × 0.008

5 | implementation

Heading west into the autumn sunset (2012)



- 5.1 As well as setting out the management measures that the city council are proposing at Milton Common, this plan also serves as a mitigation framework to enable the schemes which make up the proposed development sites to provide a mitigation framework addressing the increase in recreational pressure which the developments would cause and the significant effect that this would cause on the SPA.
- 5.2 It is proposed to use improvements to Milton Common in order to provide a mitigation framework to address the increased recreational pressure which the proposed developments at Milton will bring. This will enable a series of capital measures to be put in place which will improve the quality of Milton Common, enabling it to draw in more recreational pressure and ensure that there is no significant effect on the two SPAs. The city council will continue to fund the baseline management of the site which is set out in section 2 of this framework.
- 5.3 The city council will continue to manage the site as per the baseline management regime set out in section 3. This essentially covers the basic management of the site as it currently is however does not include any of the improvement projects set out in section 4. Whilst the measures set out in section 4 would significantly enhance Milton Common and provide numerous benefits, there are no identified funds which could be used to implement them. As such, if the anticipated development in the Milton area does not go ahead, there would be no way to fund the proposed management measures and the baseline management regime will continue.

What does the mitigation framework in this plan address?

- 5.4 It is considered that drawing the increase in recreational pressure which will arise from the development away from the coast and towards Milton Common represents a robust way of ensuring that there is no increase in mortality in the SPA population. The measures set out in section 4 will improve the visitor experience at The Common and the natural environment in such a way as to draw more people into the Common rather than using the coast and managing that increase in use to make sure that there is no conflict between different users.
- 5.5 It should be noted however that this management framework provides a solution for addressing the significant effect that would be caused by the direct increase in recreational pressure from the specific developments identified in 1.9 on the SPA coast directly in proximity to the schemes. It does not address the general increase in recreational pressure that these developments will cause across the Solent in combination with other development schemes. As such, a mitigation package to address this should also be provided. A way of providing such a mitigation package is set out in the Solent Special Protection Areas SPD.
- 5.6 This management framework does not address any other issue, such as disruption to bird flightlines or light pollution, which could arise from these developments and cause a significant effect on the SPA designation. Nor does it address any effect which the development could cause on other designations, most notably Langstone Harbour Site of Special Scientific Interest and the Solent Maritime Special Area of Conservation.
- 5.7 The wildfowl and waders which use the two SPAs also use a variety of terrestrial sites to feed and roost on at high tide. There are several of these in the Milton area which collectively form a network of sites which are used by SPA species at high tide. However most notable are the two playing fields at the University of Portsmouth's Langstone campus. These are part of the potential development site and the western field directly abuts the St James's

- Hospital sites. This management framework does not address any impact which development could have on these high tide feeding and roosting sites.
- 5.8 Finally, this management framework does not address any impact which the development could have on biodiversity generally, such as destruction of on-site habitat, or any impact which the development might have on a European Protected Species¹⁹.

Management and maintenance

- 5.9 Under the Habitats Regulations, it is essential that the mitigation package is installed and then maintained *in perpetuity*. Recent case law sets the definition of *in-perpetuity* as being between 80-125 years. Given that the framework is providing infrastructure which is essential for the development and needs to be in place for the lifetime of development, it is sensible to use a figure of 100 years given that this is also used for other types of infrastructure, in particular coastal defences.
- 5.10 Of course the nature of the development funding which is available for the works means that this will generally be a lump sum paid when the scheme commences construction or based on the phasing of construction. However the city council would be willing to discuss alternative ways of structuring the funding of mitigation packages. However these would need to provide certainty that the funding would be at least equivalent to that which would be available if funded through a lump sum.
- 5.11 The cost matrix below sets out the cost of each item in the restoration framework, both in terms of the total capital cost and the cost of maintenance over a 100 year time horizon. Costs have been rounded to the nearest hundred.

Project name	Capital cost	Maintenance cost	Total cost
Continuous			
Grassland management	£8,000	£335,700	£343,700
Bramble and scrub clearance	£9,000	£923,100	£932,100
Community engagement		£335,700	£335,700
Site levelling	£4,000		£4,000
Information pack	£1,500		£1,500
Monitoring framework		£50,000	£50,000
Internal staff monitoring costs		£8,300	£8,300
Short term			
Land and water contamination survey	£18,000		£18,000
Benches	£7,500	£51,300	£58,800
Bins	£3,400	£75,500	£78,900
Designation as a local nature reserve	£1,000		£1,000

¹⁹ These are also protected through Regulation 41 of the Habitats Regulations and include bats and Great Crested Newts amongst other species.

Medium to long term				
Path network	£221,300	£928,600	£1,149,900	
Circular walks	£2,000	£16,800	£18,800	
Welcome and interpretation boards	£3,300	£42,000	£45,300	

- 5.12 The mitigation framework set out in section 4 and costed in section 5 has been scaled to match the level of development which could take place in Milton. As such, it is necessary to calculate the scale of mitigation which will be required for each scheme.
- 5.13 It is considered that calculating this on a 'per new home' basis is the most pragmatic way forward. On this basis, the costs are set out in table 2, below. Figures are not rounded except the cost per new home, which is rounded to the nearest pound.

Summary				
Sub-total capital cost	£287,300			
Sub-total revenue cost	£2,758,700			
Total cost	£3,046,000			
Contingency (12% of total cost)	£365,520			
Total (including contingency)	£3,411,520			
Number of houses in the potential development sites:	390			
Cost per new home (rounded to the nearest pound)	£8,747			

Applying the mitigation framework to specific development schemes

- 5.14 The city council will conduct a project level HRA on all development proposals at the full or outline planning stage, as required under the Habitats Regulations. If an appropriate means of securing a suitably scaled mitigation package, as set out in this framework, is provided prior to the granting of planning permission, then it should be possible for the HRA to conclude that there would be no likelihood of a significant effect on the two SPAs as a result of the direct increase in recreation which the scheme would result in.
- 5.15 The costs set out in tables 1 and 2 are based on 2015 prices. When putting together legal agreements accompanying any development scheme, the increase in costs which would have taken place between 2015 and the date of the planning permission will be calculated and the costs increased or decreased accordingly.
- 5.16 Funding received from development schemes in line with this framework is to address the specific requirements of the Habitats Regulations rather than a planning requirement. As such, it will be ringfenced specifically for the delivery of the management framework.
- 5.17 It should be noted that the proposals in this management framework are one way in which developments could provide a package of mitigation measures which would remove the likelihood of a significant effect as a result of disturbance from recreation on the two SPAs.

Applicants are free to propose an alternative approach to the protection of the two SPAs from disturbance caused by recreation and this will be considered by the city council.

5.18 Natural England have been engaged in the preparation of this management framework through. They have advised the city council that the measures set out in section 4 should be sufficient to avoid any likelihood of a significant effect on the two SPAs from increased recreational pressure caused by the proposed developments at Milton in the proposed development sites, subject to the provisions of paragraphs 5.5 - 5.8 above. As such, providing that development schemes adhere to this framework, it should be possible to conclude in the project level HRAs that there would not be a significant effect as a result of disturbance from recreation on the two SPAs.



- 6.1 This framework is intended to provide a basis for the future management of Milton Common, its designation as a Local Nature Reserve. It also provides a mitigation framework for development which is expected in the Milton area to enable it to proceed in compliance with the Habitats Regulations.
- 6.2 This framework provides a long term vision for the future of Milton Common and sets out the capital projects and the management measures and ongoing maintenance which will be needed to ensure that is delivered and remains in place for the future.
- 6.3 Detailed management plans will be put together on a regular basis which link back to this framework and set out how the specific projects which have been identified will be implemented, when this will happen and how.
- 6.4 The city council will keep the management framework under close review to ensure that it continues to meet these goals. This will include at least five yearly reports into the implementation of the management framework which will be published as part of the city council's Annual Monitoring Report.



City Development and Cultural Services Portsmouth City Council Guildhall Square, Portsmouth

