

Habitats Regulations Assessment (HRA)

Application reference:	22/00588/REM
Application address:	Centenary Quay John Thornycroft Road Southampton
Application description:	Reserved Matters application sought for Phase 6 of the development known as 'Centenary Quay' (pursuant to outline permission 08/00389/OUT - Environmental Impact Assessment Development) comprising the redevelopment of the site to provide 164 residential units in blocks I2, H2, F, F1, D1, E1 and E3 with associated car parking, storage and associated works incorporating amendments to Condition 03 (approved plans), Condition 11 (Building Heights), Condition 15 (River Edge) and Condition 56 (Parking) of planning permission 08/00389/OUT (Amended Description)
HRA completion date:	3 October 2022

HRA completed by:

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Summary

The project being assessed is as described above.

The site is located close to the Solent and Dorset Coast Special Protection Area (SPA), the Solent and Southampton Water SPA/Ramsar site and the New Forest Special Area of Conservation (SAC)/SPA/Ramsar site.

The site is located close to protected sites and as such there is potential for construction stage impacts. It is also recognised that the proposed development, in-combination with other developments across south Hampshire, could result in recreational disturbance to the features of interest of the New Forest SPA/Ramsar site and the Solent and Southampton Water SPA/Ramsar site.

In addition, wastewater generated by the development could result in the release of nitrogen and phosphate into the Solent leading to adverse impacts on features of the Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site.

The findings of the initial assessment concluded that significant effects were possible. A detailed appropriate assessment was therefore conducted on the proposed development.

Following consideration of a number of avoidance and mitigation measures designed to remove any risk of a significant effect on the identified European sites, it has been concluded that **the significant effects, which are likely in association with the proposed development, can be adequately mitigated and that there will be no adverse effect on the integrity of protected sites.**

Section 1 - details of the plan or project

**European sites potentially impacted by plan or project:
European Site descriptions are available in Appendix I of the City Centre Action Plan's Habitats Regulations Assessment Baseline Evidence Review Report, which is on the city council's website**

- Solent and Dorset Coast Special Protection Area (SPA)
- Solent and Southampton Water SPA
- Solent and Southampton Water Ramsar Site
- Solent Maritime Special Area of Conservation (SAC)
- River Itchen SAC
- New Forest SAC
- New Forest SPA
- New Forest Ramsar site

Is the project or plan directly connected with or necessary to the management of the site (provide details)?

No – the development is not connected to, nor necessary for, the management of any European site.

Are there any other projects or plans that together with the project or plan being assessed could affect the site (provide details)?

- Southampton Core Strategy (amended 2015) (<http://www.southampton.gov.uk/policies/Amended-Core-Strategy-inc-CSPR-%20Final-13-03-2015.pdf>)
- City Centre Action Plan (<http://www.southampton.gov.uk/planning/planning-policy/adopted-plans/city-centre-action-plan.aspx>)
- South Hampshire Strategy (http://www.push.gov.uk/work/housing-and-planning/south_hampshire_strategy.htm)

The PUSH Spatial Position Statement plans for 104,350 net additional homes, 509,000 sq. m of office floorspace and 462,000 sq. m of mixed B class floorspace across South Hampshire and the Isle of Wight between 2011 and 2034.

Southampton aims to provide a total of 15,610 net additional dwellings across the city between 2016 and 2035 as set out in the Amended Core Strategy.

Whilst the dates of the two plans do not align, it is clear that the proposed development of this site is part of a far wider reaching development strategy for the South Hampshire sub-region which will result in a sizeable increase in population and economic activity.

Regulations 62 and 70 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) are clear that the assessment

provisions, i.e. Regulations 63 and 64 of the same regulations, apply in relation to granting planning permission on an application under Part 3 of the TCPA 1990. The assessment below constitutes the city council's assessment of the implications of the development described above on the identified European sites, as required under Regulation 63 of the Habitats Regulations.

Section 2 - Assessment of implications for European sites

Test 1: the likelihood of a significant effect

- **This test is to determine whether or not any possible effect could constitute a significant effect on a European site as set out in Regulation 63(1) (a) of the Habitats Regulations.**

The proposed development is located close to the Solent and Dorset Coast SPA, Solent and Southampton Water SPA and Ramsar site and the Solent Maritime SAC. As well as the River Itchen SAC, New Forest SAC, SPA and Ramsar site.

A full list of the qualifying features for each site is provided at the end of this report. The development could have implications for these sites which could be both temporary, arising from demolition and construction activity, or permanent arising from the on-going impact of the development when built.

The following effects are possible:

- Contamination and deterioration in surface water quality from mobilisation of contaminants;
- Disturbance (noise and vibration);
- Increased leisure activities and recreational pressure; and,
- Deterioration in water quality caused by nitrates from wastewater

Conclusions regarding the likelihood of a significant effect

This is to summarise whether or not there is a likelihood of a significant effect on a European site as set out in Regulation 63(1)(a) of the Habitats Regulations.

The project being assessed is as described above. The site is located close to the Solent and Dorset Coast Special Protection Area (SPA), the Solent and Southampton Water SPA/Ramsar site and the New Forest Special Area of Conservation (SAC)/SPA/Ramsar site.

The site is located close to European sites and as such there is potential for construction stage impacts. Concern has also been raised that the proposed development, in-combination with other residential developments across south Hampshire, could result in recreational disturbance to the features of interest of the New Forest SPA/Ramsar site and the Solent and Southampton Water SPA/Ramsar site. In addition, wastewater generated by the development could result in the release of nitrogen into the Solent leading to adverse impacts on features of the Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site.

Overall, there is the potential for permanent impacts which could be at a sufficient level to be considered significant. As such, a full appropriate assessment of the implications for the identified European sites is required before the scheme can be authorised.

Test 2: an appropriate assessment of the implications of the development for the identified European sites in view of those sites' conservation objectives
The analysis below constitutes the city council's assessment under Regulation 63(1) of the Habitats Regulations

The identified potential effects are examined below to determine the implications for the identified European sites in line with their conservation objectives and to assess whether the proposed avoidance and mitigation measures are sufficient to remove any potential impact.

In order to make a full and complete assessment it is necessary to consider the relevant conservation objectives. These are available on Natural England's web pages at <http://publications.naturalengland.org.uk/category/6528471664689152>.

The conservation objective for Special Areas of Conservation is to, *"Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features."*

The conservation objective for Special Protection Areas is to, *"Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive."*

Ramsar sites do not have a specific conservation objective however, under the National Planning Policy Framework (NPPF), they are considered to have the same status as European sites.

TEMPORARY, CONSTRUCTION PHASE EFFECTS

Mobilisation of contaminants

Sites considered: Solent and Southampton Water SPA/Ramsar site, Solent and Dorset Coast SPA, Solent Maritime SAC, River Itchen SAC (mobile features of interest including Atlantic salmon and otter).

The development site lies within Southampton, which is subject to a long history of port and associated operations. As such, there is the potential for contamination in the site to be mobilised during construction. In 2016 the ecological status of the Southampton Waters was classified as 'moderate' while its chemical status classified as 'fail'. In addition, demolition and construction works would result in the emission of coarse and fine dust and exhaust emissions – these could impact surface water quality in the Solent and Southampton SPA/Ramsar Site and Solent and Dorset Coast SPA with consequent impacts on features of the River Itchen SAC. There could also be deposition of dust particles on habitats within the Solent Maritime SAC.

A range of construction measures can be employed to minimise the risk of mobilising contaminants, for example spraying water on surfaces to reduce dust, and appropriate standard operating procedures can be outlined within a Construction Environmental Management Plan (CEMP) where appropriate to do so.

In the absence of such mitigation there is a risk of contamination or changes to surface water quality during construction and therefore a significant effect is likely from schemes proposing redevelopment.

Disturbance

During demolition and construction noise and vibration have the potential to cause adverse impacts to bird species present within the SPA/Ramsar Site. Activities most likely to generate these impacts include piling and where applicable further details will be secured ahead of the determination of this planning application.

Sites considered: Solent and Southampton Water SPA

The distance between the development and the designated site is substantial and it is considered that sound levels at the designated site will be negligible. In addition, background noise will mask general construction noise. The only likely source of noise impact is piling and only if this is needed. The sudden, sharp noise of percussive piling will stand out from the background noise and has the potential to cause birds on the inter-tidal area to cease feeding or even fly away. This in turn leads to a reduction in the birds' energy intake and/or expenditure of energy which can affect their survival.

Collision risk

Sites considered: Solent and Southampton Water SPA, Solent and Dorset Coast SPA

Mapping undertaken for the Southampton Bird Flight Path Study 2009 demonstrated that the majority of flights by waterfowl occurred over the water and as a result collision risk with construction cranes, if required, or other infrastructure is not predicted to pose a significant threat to the species from the designated sites.

PERMANENT, OPERATIONAL EFFECTS

Recreational disturbance

Human disturbance of birds, which is any human activity which affects a bird's behaviour or survival, has been a key area of conservation concern for a number of years. Examples of such disturbance, identified by research studies, include birds taking flight, changing their feeding behaviour or avoiding otherwise suitable habitat. The effects of such disturbance range from a minor reduction in foraging time to mortality of individuals and lower levels of breeding success.

New Forest SPA/Ramsar site/New Forest SAC

Although relevant research, detailed in Sharp et al 2008, into the effects of human disturbance on interest features of the New Forest SPA/Ramsar site, namely nightjar, *Caprimulgus europaeus*, woodlark, *Lullula arborea*, and Dartford warbler *Sylvia undata*, was not specifically undertaken in the New Forest, the findings of work on the Dorset and Thames Basin Heaths established clear effects of disturbance on these species.

Nightjar

Higher levels of recreational activity, particularly dog walking, has been shown to lower nightjar breeding success rates. On the Dorset Heaths nests close to footpaths were found to be more likely to fail as a consequence of predation, probably due to adults being flushed from the nest by dogs allowing predators access to the eggs.

Woodlark

Density of woodlarks has been shown to be limited by disturbance with higher levels of disturbance leading to lower densities of woodlarks. Although breeding success rates were higher for the nest that were established, probably due to lower levels of competition for food, the overall effect was approximately a third fewer chicks than would have been the case in the absence of disturbance.

Dartford warbler

Adverse impacts on Dartford warbler were only found to be significant in heather dominated territories where high levels of disturbance increased the likelihood of nests near the edge of the territory failing completely. High disturbance levels were also shown to stop pairs raising multiple broods.

In addition to direct impacts on species for which the New Forest SPA/Ramsar site is designated, high levels of recreation activity can also affect habitats for which the New Forest SAC is designated. Such impacts include trampling of vegetation and compaction of soils which can lead to changes in plant and soil invertebrate communities, changes in soil hydrology and chemistry and erosion of soils.

Visitor levels in the New Forest

The New Forest National Park attracts a high number of visitors, calculated to be 15.2 million annually in 2017 and estimated to rise to 17.6 million visitor days by 2037 (RJS Associates Ltd., 2018). It is notable in terms of its catchment, attracting a far higher proportion of tourists and non-local visitors than similar areas such as the Thames Basin and Dorset Heaths.

Research undertaken by Footprint Ecology, Liley et al (2019), indicated that 83% of visitors to the New Forest were making short visits directly from home whilst 14% were staying tourists and a further 2% were staying with friends or family. These proportions varied seasonally with more holiday makers (22%) and fewer day visitors (76%), in the summer than compared to the spring (12% and 85% respectively) and the winter (11% and 86%). The vast majority of visitors travelled by car or other motor vehicle and the main activities undertaken were dog walking (55%) and walking (26%).

Post code data collected as part of the New Forest Visitor Survey 2018/19 (Liley et al, 2019) revealed that 50% of visitors making short visits/day trips from home lived within 6.1km of the survey point, whilst 75% lived within 13.8km; 6% of these visitors were found to have originated from Southampton.

The application site is located within the 13.8km zone for short visits/day trips and residents of the new development could therefore be expected to make short visits to the New Forest.

Whilst car ownership is a key limitation when it comes to be able to access the New Forest, there are still alternative travel means including the train, bus, ferry and bicycle. As a consequence, there is a risk that recreational disturbance could occur as a result of the development. Mitigation measures will therefore be required.

Mitigation

A number of potential mitigation measures are available to help reduce recreational impacts on the New Forest designated sites, these include:

- Access management within the designated sites;
- Alternative recreational greenspace sites and routes outside the designated sites;
- Education, awareness and promotion

Officers consider a combination of measures will be required to both manage visitors once they arrive in the New Forest, including influencing choice of destination and behaviour, and by deflecting visitors to destinations outside the New Forest.

The New Forest Visitor Study (2019) asked visitors questions about their use of other recreation sites and also their preferences for alternative options such as a new country park or improved footpaths and bridleways. In total 531 alternative sites were mentioned including Southampton Common which was in the top ten of alternative sites. When asked whether they would use a new country park or improved footpaths/ bridleways 40% and 42% of day visitors respectively said they would whilst 21% and 16% respectively said they were unsure. This would suggest that alternative recreation sites can act as suitable mitigation measures, particularly as the research indicates that the number of visits made to the New Forest drops the further away people live.

The top features that attracted people to such sites (mentioned by more than 10% of interviewees) included: Refreshments (18%); Extensive/good walking routes (17%); Natural, 'wild', with wildlife (16%); Play facilities (15%); Good views/scenery (14%); Woodland (14%); Toilets (12%); Off-lead area for dogs (12%); and Open water (12%). Many of these features are currently available in Southampton's Greenways and semi-natural greenspaces and, with additional investment in infrastructure, these sites would be able to accommodate more visitors.

The is within easy reach of a number of semi-natural sites including Southampton Common and the four largest greenways: Lordswood, Lordsdale, Shoreburs and Weston. Officers consider that improvements to the nearest Park will positively encourage greater use of the park by residents of the development in favour of the New Forest. In addition, these greenway sites, which can be accessed via cycle routes and public transport, provide extended opportunities for walking and connections into the wider countryside. In addition, a number of other semi-natural sites including Peartree Green Local Nature Reserve (LNR), Frogs Copse and Riverside Park are also available.

The City Council has committed to ring fencing 4% of CIL receipts to cover the cost of upgrading the footpath network within the city's greenways. This division of the

ring-fenced CIL allocation is considered to be appropriate based on the relatively low proportion of visitors, around 6%, recorded originating from Southampton. At present, schemes to upgrade the footpaths on Peartree Green Local Nature Reserve (LNR) and the northern section of the Shoreburs Greenway are due to be implemented within the next twelve months, ahead of occupation of this development. Officers consider that these improvement works will serve to deflect residents from visiting the New Forest.

Discussions have also been undertaken with the New Forest National Park Authority (NFNPA) since the earlier draft of this Assessment to address impacts arising from visitors to the New Forest. The NFNPA have identified a number of areas where visitors from Southampton will typically visit including locations in the eastern half of the New Forest, focused on the Ashurst, Deerleap and Longdown areas of the eastern New Forest, and around Brook and Fritham in the northeast and all with good road links from Southampton. They also noted that visitors from South Hampshire (including Southampton) make up a reasonable proportion of visitors to central areas such as Lyndhurst, Rhinefield, Hatchet Pond and Balmer Lawn (Brockenhurst). The intention, therefore, is to make available the remaining 1% of the ring-fenced CIL monies to the NFNPA to be used to fund appropriate actions from the NFNPA's Revised Habitat Mitigation Scheme SPD (July 2020) in these areas. An initial payment of £73k from extant development will be paid under the agreed MoU towards targeted infrastructure improvements in line with their extant Scheme and the findings of the recent visitor reports. This will be supplemented by a further CIL payment from the development with these monies payable after the approval of the application but ahead of the occupation of the development to enable impacts to be properly mitigated.

The NFNPA have also provided assurance that measures within the Mitigation Scheme are scalable, indicating that additional financial resources can be used to effectively mitigate the impacts of an increase in recreational visits originating from Southampton in addition to extra visits originating from developments within the New Forest itself both now and for the lifetime of the development

Funding mechanism

A commitment to allocate CIL funding has been made by Southampton City Council. The initial proposal was to ring fence 5% of CIL receipts for measures to mitigate recreational impacts within Southampton and then, subsequently, it was proposed to use 4% for Southampton based measures and 1% to be forwarded to the NFNPA to deliver actions within the Revised Habitat Mitigation Scheme SPD (July 2020). To this end, a Memorandum of Understanding between SCC and the NFNPA, which commits both parties to,

“work towards an agreed SLA whereby monies collected through CIL in the administrative boundary of SCC will be released to NFNPA to finance infrastructure works associated with its Revised Habitat Mitigation Scheme SPD (July 2020), thereby mitigating the direct impacts from development in Southampton upon the New Forest’s international nature conservation designations in perpetuity.”

has been agreed.

The Revised Mitigation Scheme set out in the NFNPA SPD is based on the framework for mitigation originally established in the NFNPA Mitigation Scheme (2012). The key elements of the Revised Scheme to which CIL monies will be released are:

- Access management within the designated sites;
- Alternative recreational greenspace sites and routes outside the designated sites;
- Education, awareness and promotion;
- Monitoring and research; and
- In perpetuity mitigation and funding.

At present there is an accrued total, dating back to 2019 of £73,239.81 to be made available as soon as the SLA is agreed. This will be ahead of the occupation of the development. Further funding arising from the development will be provided.

Provided the approach set out above is implemented, an adverse impact on the integrity of the protected sites will not occur.

Solent and Southampton Water SPA/Ramsar site

The Council has adopted the Solent Recreation Mitigation Partnership's Mitigation Strategy (December 2017), in collaboration with other Councils around the Solent, in order to mitigate the effects of new residential development on the Solent and Southampton Water SPA and Ramsar site. This strategy enables financial contributions to be made by developers to fund appropriate mitigation measures. The level of mitigation payment required is linked to the number of bedrooms within the properties.

The residential element of the development could result in a net increase in the city's population and there is therefore the risk that the development, in-combination with other residential developments across south Hampshire, could lead to recreational impacts upon the Solent and Southampton Water SPA.

Water quality

Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site

Natural England highlighted concerns regarding, *"high levels of nitrogen and phosphorus input to the water environment in the Solent with evidence that these nutrients are causing eutrophication at internationally designated sites."*

Eutrophication is the process by which excess nutrients are added to a water body leading to rapid plant growth. In the case of the Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site the problem is predominately excess nitrogen arising from farming activity, wastewater treatment works discharges and urban run-off.

Features of Solent Maritime SAC and Solent and Southampton Water SPA/Ramsar site that are vulnerable to increases in nitrogen levels are coastal grazing marsh, inter-tidal mud and seagrass.

Evidence of eutrophication impacting the Solent Maritime SAC and Solent and Southampton Water SPA/Ramsar site has come from the Environment Agency data covering estimates of river flow, river quality and also data on WwTW effluent flow and quality.

An Integrated Water Management Study for South Hampshire, commissioned by the Partnership for Urban South Hampshire (PUSH) Authorities, examined the delivery of development growth in relation to legislative and government policy requirements for designated sites and wider biodiversity. This work has identified that there is uncertainty in some locations as to whether there will be enough capacity to accommodate new housing growth. There is uncertainty about the efficacy of catchment measures to deliver the required reductions in nitrogen levels, and/or whether the upgrades to wastewater treatment works will be enough to accommodate the quantity of new housing proposed. Considering this, Natural England have advised that a nitrogen budget is calculated for larger developments.

A methodology provided by Natural England has been used to calculate a nutrient budget and the calculations conclude that there is a predicted Total Nitrogen surplus arising from the development as set out in the applicant's submitted Calculator, included within the submitted Sustainability Checklist, that uses the most up to date calculators (provided by Natural England) and the Council's own bespoke occupancy predictions and can be found using Public Access:

<https://www.southampton.gov.uk/planning/planning-applications/>

This submitted calculation has been checked by the LPA and is a good indication of the scale of nitrogen that will be generated by the development. Further nitrogen budgets will be required as part of any future HRAs. These nitrogen budgets cover the specific mix and number of proposed overnight accommodation and will then inform the exact quantum of mitigation required.

SCC is satisfied that, at this point in the application process, the quantum of nitrogen likely to be generated can be satisfactorily mitigated. This judgement is based on the following measures:

- SCC has adopted a Position Statement, 'Southampton Nitrogen Mitigation Position Statement' which is designed to ensure that new residential and hotel accommodation achieves 'nitrogen neutrality' with mitigation offered within the catchment where the development will be located;
- The approach set out within the Position Statement is based on calculating a nitrogen budget for the development and then mitigating the effects of this to achieve nitrogen neutrality. It is based on the latest advice and calculator issued by Natural England (March 2022);

Conclusions regarding the implications of the development for the identified European sites in view of those sites' conservation objectives

An "Appropriate Assessment" (AA), as required by the Habitat Regulations, has been carried out by officers and approved by the Council as part of its consideration of the

outline permission with approved revisions ahead of Phase Phase 6 Biodiversity By Design Appraisal Rev 5.0. This document deals specifically with the issue of recreation disturbance and a contribution towards the local Greenway, and an on-site signage strategy, were secured through the S.106 attached to the original permission.

In this case the issue of SPA impact and mitigation was correctly considered in 2008 – the New Forest SPA has been assessed by the applicants and Biodiversity By Design suggests a de Minimis impact will occur from Phase 6. The Council's Ecologist agrees and has previously prepared an updated AA on this basis. No further action is deemed necessary.

Previously the HRA update concluded that:

'Construction stage impacts are therefore possible for the Solent and Southampton Water SPA/Ramsar site and the River Itchen SAC but not the New Forest SPA/Ramsar site. Mitigation measures for construction stage impacts were identified in an appropriate assessment of the outline planning application in 2008. These measures were secured through planning conditions and have been successfully implemented on earlier stages of the development.

Concern has been raised, that the proposed development, in-combination with other residential developments across south Hampshire, could result in recreational disturbance to the features of interest of the New Forest SPA/Ramsar site and the Solent and Southampton Water SPA/Ramsar site during its operational phase.

The findings of the initial assessment concluded that a significant effect was possible. A detailed appropriate assessment was therefore conducted on the proposed development. Following consideration of a number of avoidance and mitigation measures designed to remove any risk of a significant effect on the identified European sites, it has been concluded that the significant effects which are likely in association with the proposed development can be overcome'.

As such the application is considered to have met its requirements, as needed by the Habitats Regulations, and all likely impacts from the additional housing can be successfully mitigated through existing measures secured at the outline planning stage.

Off-site Mitigation and the Requirement for a S.106 Legal Agreement

As part of the agreed S.106 for the development the developer has already made a series of contributions towards a raft of off-site measures. These payments were made ahead of the triggers set out in the S.106 associated with permission 08/00389/OUT, and include a contribution towards the existing District Centre to ensure that additional public realm improvements are realised within the existing centre. As an RM application no s.106 Deed of Variation is required. On this basis Phase 6 can be supported.

References

Fearnley, H., Clarke, R. T. & Liley, D. (2011). The Solent Disturbance & Mitigation Project. Phase II – results of the Solent household survey. ©Solent Forum/Footprint Ecology.

Liley, D., Stillman, R. & Fearnley, H. (2010). The Solent Disturbance and Mitigation Project Phase 2: Results of Bird Disturbance Fieldwork 2009/10. Footprint Ecology/Solent Forum.

Liley, D., Panter, C., Caals, Z., & Saunders, P. (2019) Recreation use of the New Forest SAC/SPA/Ramsar: New Forest Visitor Survey 2018/19. Unpublished report by Footprint Ecology.

Liley, D. & Panter, C. (2020). Recreation use of the New Forest SAC/SPA/Ramsar: Results of a telephone survey with people living within 25km. Unpublished report by Footprint Ecology.

Protected Site Qualifying Features

The New Forest SAC

The New Forest SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex I habitats:

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) (primary reason for selection)
- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (primary reason for selection)
- Northern Atlantic wet heaths with *Erica tetralix* (primary reason for selection)
- European dry heaths (primary reason for selection)
- *Molinia* meadows on calcareous, peaty or clayey-silt laden soils (*Molinion caeruleae*) (primary reason for selection)
- Depressions on peat substrates of the *Rhynchosporion* (primary reason for selection)
- Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrub layer
- (*Quercion robori-petraeae* or *Ilici-Fagenion*) (primary reason for selection)
- *Asperulo-Fagetum* beech forests (primary reason for selection)
- Old acidophilous oak woods with *Quercus robur* on sandy plains (primary reason for selection)
- Bog woodland (primary reason for selection)
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*,
- *Salicion albae*) (primary reason for selection)
- Transition mires and quaking bogs
- Alkaline fens

The New Forest SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex II species:

- Southern Damselfly *Coenagrion mercurial* (primary reason for selection)
- Stag Beetle *Lucanus cervus* (primary reason for selection)
- Great Crested Newt *Triturus cristatus*

The New Forest SPA

The New Forest SPA qualifies under Article 4.1 of the Birds Directive by supporting breeding populations of European importance of the following Annex I species:

- Dartford Warbler *Sylvia undata*
- Honey Buzzard *Pernis apivorus*
- Nightjar *Caprimulgus europaeus*
- Woodlark *Lullula arborea*

The SPA qualifies under Article 4.2 of the Birds Directive by supporting overwintering populations of European importance of the following migratory species:

- Hen Harrier *Circus cyaneus*

New Forest Ramsar Site

The New Forest Ramsar site qualifies under the following Ramsar criteria:

- Ramsar criterion 1: Valley mires and wet heaths are found throughout the site and are of outstanding scientific interest. The mires and heaths are within catchments whose uncultivated and undeveloped state buffer the mires against

adverse ecological change. This is the largest concentration of intact valley mires of their type in Britain.

- Ramsar criterion 2: The site supports a diverse assemblage of wetland plants and animals including several nationally rare species. Seven species of nationally rare plant are found on the site, as are at least 65 British Red Data Book species of invertebrate.
- Ramsar criterion 3: The mire habitats are of high ecological quality and diversity and have undisturbed transition zones. The invertebrate fauna of the site is important due to the concentration of rare and scarce wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity of southern England.

Solent Maritime SAC

The Solent Maritime SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex I habitats:

- Estuaries (primary reason for selection)
- *Spartina* swards (*Spartinion maritimae*) (primary reason for selection)
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (primary reason for selection)
- Sandbanks which are slightly covered by sea water all the time
- Mudflats and sandflats not covered by seawater at low tide
- Coastal lagoons
- Annual vegetation of drift lines
- Perennial vegetation of stony banks
- *Salicornia* and other annuals colonising mud and sand
- Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")

Solent Maritime SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex II species:

- Desmoulin's whorl snail *Vertigo moulinsiana*

Solent and Southampton Water SPA

Solent and Southampton Water SPA qualifies under Article 4.1 of the Birds Directive by supporting breeding populations of European importance of the following Annex I species:

- Common Tern *Sterna hirundo*
- Little Tern *Sterna albifrons*
- Mediterranean Gull *Larus melanocephalus*
- Roseate Tern *Sterna dougallii*
- Sandwich Tern *Sterna sandvicensis*

The SPA qualifies under Article 4.2 of the Birds Directive by supporting overwintering populations of European importance of the following migratory species:

- Black-tailed Godwit *Limosa limosa islandica*
- Dark-bellied Brent Goose *Branta bernicla bernicla*
- Ringed Plover *Charadrius hiaticula*
- Teal *Anas crecca*

The SPA also qualifies under Article 4.2 of the Birds Directive by regularly supporting at least 20,000 waterfowl, including the following species:

- Gadwall *Anas strepera*
- Teal *Anas crecca*
- Ringed Plover *Charadrius hiaticula*
- Black-tailed Godwit *Limosa limosa islandica*

- Little Grebe *Tachybaptus ruficollis*
- Great Crested Grebe *Podiceps cristatus*
- Cormorant *Phalacrocorax carbo*
- Dark-bellied Brent Goose *Branta bernicla bernicla*
- Wigeon *Anas Penelope*
- Redshank *Tringa tetanus*
- Pintail *Anas acuta*
- Shoveler *Anas clypeata*
- Red-breasted Merganser *Mergus serrator*
- Grey Plover *Pluvialis squatarola*
- Lapwing *Vanellus vanellus*
- Dunlin *Calidris alpina alpina*
- Curlew *Numenius arquata*
- Shelduck *Tadorna tadorna*

Solent and Southampton Water Ramsar Site

The Solent and Southampton Water Ramsar site qualifies under the following Ramsar criteria:

- Ramsar criterion 1: The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.
- Ramsar criterion 2: The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.
- Ramsar criterion 5: A mean peak count of waterfowl for the 5 year period of 1998/99 – 2002/2003 of 51,343
- Ramsar criterion 6: The site regularly supports more than 1% of the individuals in a population for the following species: Ringed Plover *Charadrius hiaticula*, Dark-bellied Brent Goose *Branta bernicla bernicla*, Eurasian Teal *Anas crecca* and Black-tailed Godwit *Limosa limosa islandica*.