8 SUMMARY AND CONCLUSIONS

8.1 INTRODUCTION

8.1.1 An Environmental Statement (ES) was submitted by Martin Grant Homes (MGH) and Harcourt Developments (the "Applicant") to Northampton Borough Council (NBC) and South Northamptonshire Council (SNC) in October 2017 accompanying an application for outline planning permission for residential development (the "Proposed Development") on land at Hampton Green, Northampton (the "Application Site"). The planning application seeks outline planning permission on all matters other than access for which detailed permission is sought (NBC application reference N/2017/1369 and SNC application reference S/2017/2577/EIA).

8.1.2 The applications have not yet been determined by either Council, but have been subject to ongoing consultations and further environmental surveys and technical studies. In response to the consultations and further information, minor changes have been made to the proposed layout of the development. A small parcel of land immediately to the north of the Application Site which is within the control of the Applicant, is now proposed to be managed as part of the Proposed Development. Further information regarding transport and ecology has also become available and is presented in this document, the Addendum to the Environmental Statement (ES Addendum 2018). The application description remains as that assessed and reported in the ES 2017 and comprises:

> **""Erection of up to 525 dwellings with associated infrastructure, open space and new vehicular access to Newport Pagnell Road."**

8.1.3 The Environmental, Statement reported the findings of an Environmental Impact Assessment based upon Parameter Plans and project description that defined the extent and disposition of elements within the Proposed Development. The Proposed Development remains broadly in line with the original Parameter Plans, but this is now updated to reflect the changes made in response to consultee comments and inclusion of land to the north.

8.1.4 The detailed layout and disposition of the residential dwellings and vehicular access have been amended but continue to be broadly in line with the original Parameter Plans.

8.1.5 The proposed inclusion of Brackmills Small Wood existing woodland, to the north, increased play provision and subsequent minor layout amendments to the Hampton Green South parcel (within South Northamptonshire), and additional transport and ecology information have the potential to affect the Landscape and Visual, Transport and Access, and Ecology assessments as reported in ES 2017.

8.1.6 The ES Addendum 2018 is to be read in conjunction with the Land at Hampton Green, Northampton, Environmental Statement 2017.

8.2 APPLICATION SITE AND CONTEXT

8.2.1 The site covers an area of approximately 26.4 hectares of land to the south east of Northampton. The site sits within the District Boundaries of two Local Planning Authorities. The northern section of the site is 8.3 hectares in size and is within Northampton Borough Council (NBC) and the southern section is 18.1 hectares in size and is within South Northamptonshire Council (SNC). The site is made up of an area of arable land (northern section) and a parcel of land, formerly landfill, which comprises of semi improved grassland and a broadleaved plantation (southern section).

8.2.2 The site is located approximately 50m south of Brackmills Industrial Estate and the outskirts of Northampton are separated from the southern boundary of the site by Newport Pagnell Road. The hamlet of Preston Deanery is 1km to the south and the village of Great Houghton is 1.6km north east.

8.2.3 Current vehicular access through the site is via two access points off Newport Pagnell Road in to the southern parcel of land and then a single access point of a small road called 'The Green' which forms the southern boundary of the northern parcel. This road called 'The Green' is what separates the two sections of this Application Site.

8.2.4 As the Application Site is located within the SUE area, which is allocated for new housing. This SUE Area extends to the northwest and comprises of the HCA planning application (N/2013/338) which was granted planning consent for 1,000 new dwellings, a school, retail space and the necessary infrastructure. Land to the immediate south of the site, separated by Newport Pagnell Road (B526) has also been granted planning consent, this time for a further 300 dwellings and a number of these homes are currently being constructed.

8.2.5 The northern parcel of land, within NBC, is bounded by existing woodland to the north and northwest. The woodland, to the north is subject to a Tree Protection Order (TPO). To the west the parcel is bounded by the agricultural land, which falls within the approved HCA planning application area.

8.2.6 The southern parcel of land, within SNC, currently comprises of an open field with an intermittent belt of hedgerow running through the centre of the site (east to west). To the northwest the site is bounded by 'The Green', beyond which lies the HCA development site referenced above. To the south the site is bounded by Newport Pagnell Road, beyond which lies the Morris Homes development which is currently under construction. Land along the southern boundary has previously been used as landfill.

8.2.7 There are no Statutory Designated Sites for ecology within the site boundary, however, there is a Statutory Designated Site within 2km. To the north (c.2km) is the Upper Nene Valley Gravel Pits. This site is designated a Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and a RAMSAR site. This site is made up from disused sand and gravel pits which extend for over 35km along the River Nene floodplain. This habitat is used by over-wintering and migratory bird populations.

8.2.8 The site is not subject to any local or national landscape designations. There are no Registered Parks and Gardens (RG&G) or statutory designations within the vicinity of the Site. Hardingstone Conservation Area is separated from the Proposed Development by the already approved new residential development of 1,000 new dwellings in the HCA scheme. This already approved scheme is anticipated to be in the foreground of any views from the Conservation Area towards the Proposed Development. There are a further four Conservation Areas within 3km radius of the Application Site. Wootton Conservation is 1.25km away and is separated by, and surrounded by the existing urban and residential development of Northampton. The remaining two Conservation Areas are located to the north east of the Application Site. These are Great Houghton and Little Houghton Conservation Areas. The closer of the two is Great Houghton which is approximately 1.6km away from the Application Site and between it and the Proposed Development is the existing South of Brackmills Industrial Estate.

8.3 THE PROPOSED DEVELOPMENT

8.3.1 The EIA has been carried out with regards to a range of development parameters. These parameters ensure that the Proposed Development as assessed represents the maximum (i.e. worst-case) scenario, whilst providing some limited flexibility for changes

that may arise as the scheme evolves with the benefit of subsequent approvals and/or reserved matters.

8.3.2 The proposed built development and alternatives described in the ES remain valid for the ES Addendum. However, amendments have been made with regard to Green Infrastructure in response to consultations and the inclusion of Brackmills Small Wood to the north of the Application Site. The residential dwellings and vehicular access have been amended but continue to be broadly in line with the original Parameter Plans.

8.4 SUMMARY OF ENVIRONMENTAL BASELINE AND ASSESSMENT OF EFFECTS

Landscape and Visual

8.4.1 This Environmental Statement Addendum chapter assesses the likely significant effects of the changes to the Proposed Development in terms of landscape and visual matters, and should be read in conjunction with Chapter 5 of the ES 2017.

Baseline Conditions

8.4.2 The application boundary has been extended to include a small area of mature woodland known as Brackmills Small Wood to the north of the scheme within the wider Brackmills Country Park.

Likely Significant Effects

8.4.3 Brackmills Small Wood will not be substantially altered by the proposals, with only ecological enhancement measures proposed, including sensitive under-planting and woodland management.

8.4.4 This change to the application boundary, and the proposed works within the woodland, does not materially alter the assessment previously made of landscape or visual effects of the scheme as set out within the Landscape and Visual Chapter of the ES.

Mitigation and Enhancement

8.4.5 This assessment has taken account of the presence of existing vegetation around the perimeter of the site (most of which would be retained as part of the proposed development) and the proposed planting around and within the site, which would over time significantly extend and strengthen the existing vegetation.

Conclusions

8.4.6 It is therefore concluded that the assessment previously made in respect and reported in Chapter 5 of the ES of Landscape and visual effects remains appropriate, and that no further assessment is required.

Transport and Access

8.4.1 This Chapter has considered the potentially significant effects relating to transport and access associated with the Proposed Development during the construction and operational phases of development. Consideration has been given to the three development options comprising the northern land parcel of the Site located to the north of The Green (115 dwellings); the southern land parcel of the Site located to the south of The Green (410 dwellings) and all of the development (525 dwellings).

Baseline Conditions

8.4.2 Baseline conditions show that the Site is accessible by sustainable modes of travel with a network of foot and cycleways in the vicinity of the Site providing connectivity to nearby residential areas and amenities. Bus services operating within the vicinity of the Site also provide connectivity to several destinations including Northampton town centre.

8.4.3 Personal Injury Accident (PIA) data was obtained from Northamptonshire County Council for the most recent five-year period (01/03/2011 – 31/03/2017) for the highway network within the vicinity of the Site. A review of the data found that a total of 105 PIAs had been recorded in the search area of which 89 PIAs were of slight severity, 15 were of severe severity and one which resulted in a fatality. It should be noted that there were no PIAs recorded along Newport Pagnell Road within vicinity of the proposed Site access. Overall, the review of the PIAs showed that there were no accident patterns identified which are likely to be affected by increased traffic flows.

8.4.4 Traffic surveys undertaken in 2016 informed the baseline traffic flows for the links comprising the study area. TEMPro growth factors were applied to the baseline traffic flows to obtain traffic flows for a 2017 base year and 2031 future base year with committed development trips also added to the 2031 future base year.

Likely Significant Effects

Construction

8.4.5 The impact on sensitive receptors during the construction phase for both parcels of development land from construction traffic was found to be negligible adverse. A worst case peak daily construction traffic flow scenario was assessed based on all construction activities occurring at the same time. Due to the nature of construction works, deliveries to site and the working hours of most operatives would not coincide with the network peak, thereby limiting the number of light and heavy goods vehicle movements on the highway network during periods of peak demand.

8.4.6 Construction traffic was found to have the greatest impact on Newport Pagnell Road between the proposed site access and the A45, with an increase in base traffic flows for all vehicles by up to 2% and more than a doubling of heavy goods vehicle traffic on two of the Newport Pagnell Road links. This is not considered to have a significant impact on sensitive receptors as routeing of all construction traffic would be along Newport Pagnell Road which provides the most direct access to the strategic road network.

8.4.7 A residential scheme such as this one will be built out in phases as the local demand for housing requires. As such construction traffic for all 525 new dwellings will not be heading to site at the same time. However, to make the assessment robust and consider the 'worst case scenario' the transport assessment does consider this. If this was to happen some points on Newport Pagnell Road would see the number of HGV travelling along them increase by up to 136% (Link 5). As explained above the reality is that such an increase from construction traffic would not happen and so the increases in HGV traffic would be much smaller. It is therefore determined that the effects of construction traffic on the local road network would be negligible but adverse.

Operational

8.4.8 The assessments of operational effects were undertaken for three development scenarios entailing the northern land parcel, southern land parcel and all of the development. This was to reflect the location of the Proposed Development across two

Local Planning Authority boundaries and possibility that only part of the Proposed Development would be granted planning permission.

8.4.9 The assessment of operational effects assessed the magnitude or level of change of an environmental effect on sensitive receptors with the Proposed Development and compared the outputs to a without development scenario. This assessment was a cumulative assessment as it considered background growth in traffic flows, committed development trips impact and trip generation from the Proposed Development. Overall, the significance of effect was found to be negligible with the proposed 'built-in' mitigation measures resulting in some beneficial impacts.

Mitigation and Enhancement

Construction

8.4.10 Construction traffic will be managed through the implementation of a Construction Traffic Management Plan (CTMP), which forms part of the Construction Environmental Management Plan (CEMP). The CTMP aims to minimise potential construction traffic impacts on sensitive receptors and will include details of hours of operation, routes to be used for construction traffic and measures to manage construction traffic on-site. All abnormal loads, such as prefabricated components, will be managed and delivered in discussion with the police and Northamptonshire County Council to minimise any potential traffic disruptions. Therefore, no significant impact from hazardous loads is anticipated.

8.4.11 The implementation of a CTMP will also ensure that construction traffic is well managed and routed away from receptors with high sensitivity levels. If only the northern parcel of land was to gain planning consent specific traffic management measures will be put into place along The Green to ensure congestion/delay is minimised.

Operation

8.4.12 A number of 'built-in' mitigation measures have been proposed as part of the development options which would provide direct positive effects from the Proposed Development. These built-in mitigation measures include enhanced and new pedestrian and cycle infrastructure and facilities such as a network of foot/ cycleways on-site, a new foot/ cycleway along Newport Pagnell Road and the pedestrianisation of The Green. Off-site highway improvements will also improve the operation of the local highway network by increasing capacity and reducing driver delay.

8.4.13 A Framework Travel Plan has also been prepared which sets out a package of hard and soft measures to reduce single car/van occupancy journeys from the proposed Development by 20% and promote and encourage travel to and from the Site by sustainable travel modes where travel is required.

8.4.14 Further, opportunities to provide bus provision on-site are also being explored.

Conclusions

8.4.15 In conclusion, as the Proposed Development will be delivered with a range of new and enhanced infrastructure, most notably the pedestrianisation of The Green and will result in some beneficial impacts in the operational/ cumulative scenarios.

8.4.16 No severe impact is anticipated from development traffic during the construction and operational phases of development and therefore no specific mitigation measures are required in addition to the 'built-in' mitigation and proposed off-site highway

improvements to address any transport and access impacts highlighted through the assessment process. Measures to encourage sustainable travel where travel is required are promoted in the Framework Travel Plan which will provide an overall benefit to future residents at the Site. These measures aim to reduce single occupancy car trips through the provision of good quality pedestrian, cycle and public transport links within the vicinity of the Site, to existing infrastructure, to residential areas in proximity to the Site and to off-site amenities.

Ecology

8.4.17 This assessment provides information on the existing ecological features at the site, and in the surrounding area (away from immediate area of construction and operation). This includes information of any statutory and non-statutory nature conservation sites, habitats of ecological importance and protected or notable species. The potential significant effects on important ecological features arising from the construction and operation of the project have been assessed based on site visits, desk studies, the collection of field data and consultation with statutory consultees (during the scoping process).

Baseline Conditions

8.4.18 The Site itself comprises two parcels of land: Hampton Green North and Hampton Green South. Hampton Green North (c. 8.3ha) is located immediately to the north of The Green (highway) and is dominated by a single arable field and mature woodland known as Brackmills Small Wood. Hampton Green South (c. 18.1ha) was an area formerly landscaped as a golf course immediately to the south of The Green and is dominated by semi-improved grassland and broadleaved plantation woodland. The fields are bound by hedgerows with occasional trees.

8.4.19 The Site is situated on the south-eastern outskirts of Northampton. Agricultural land dominates to the east and south. Brackmills Small Wood Potential Wildlife Site (PWS) is situated within the northern portion of the Site with Brackmills County Park (c. 120ha) and Brackmills Industrial Estate beyond. Brackmills Small Wood PWS comprises a small, mature broadleaved woodland. Brackmills Country Park comprises a large area of woodland and grassland wrapping around the Brackmills industrial estate.

8.4.20 There are no statutory nature conservation designations present on or immediately adjacent to the Site. A single non-statutory nature conservation designation, Brackmills Small Wood PWS, is present within the north of the Site. Several statutory and non-statutory nature conservation designations occur within 2km of the Application Site.

8.4.21 The largest land parcel, Hampton Green South, was previously landscaped for golf course use, with extensive seeding of grassland seed mixes. Hampton Green South is now dominated by poor semi-improved grassland. Hampton Green North is dominated by intensively managed cultivated arable land. A wheat crop was in cultivation at the time of survey (2016).

8.4.22 Young broadleaved plantation woodland is present within Hampton Green South. This habitat is primarily located at the periphery of the land parcel and is understood to have been planted, c. 12 years ago, as part of the golf course landscaping. There are 10 hedgerows present on site. A Hedgerow Survey was undertaken and determined that six out of the ten hedgerows were ‘important’ when assessed against the criteria in the Hedgerow Regulations (1997). The majority of the hedgerows on site are dense and continuous, bar one which has large gaps.

8.4.23 There are numerous trees present at the Site. These are largely present within the broadleaved woodland, broadleaved plantations and within the hedgerows. None of the trees present at the Site are considered to be veteran or truly ancient.

8.4.24 Occasional stands of Japanese knotweed are present towards the eastern and southern boundaries of Hampton Green South, adjacent to the broadleaved plantation. Japanese knotweed is an invasive, non-native species listed under Schedule 9 Part II of the Wildlife and Countryside Act, 1981 (as amended). It is an offence to cause to grow in the wild any plant listed under this schedule.

8.4.25 Survey work and gathering of historical data has determined that at least six species of bat use the Application Site for foraging. The most common bat species on the Site was the Common Pipistrelle followed by the Soprano Pipistrelle. The greatest level of activity was recorded within the woodland adjacent to the northern Site boundary and along the eastern boundary of Hampton Green North. The trees on the application site have all been surveyed to see if they are used by bats for roosting. Although some of them have the potential to be used as roosts, the survey work has shown that none are being used as roosts.

8.4.26 There is a large badger sett with 35 entrances located c. 700m west of the Site. This was recorded in 2012 and at that time active. There are no badger setts on the Application Site but there is evidence that badgers use the Site for foraging.

8.4.27 The hedgerows and woodland on the Application Site were surveyed in 2013 and 2016 for Dormouse. None were found on the Site.

8.4.28 There are no ponds or streams/rivers within the Application Site so it is not considered to be suitable for otter or water vole.

8.4.29 No evidence of brown hare, was recorded at the Site during the various Site visits. However, the majority of the Site, being dominated by grassland and arable land, provides potential opportunities for brown hare. Therefore, in principle, brown hare could potentially make use of the habitats at the Site.

8.4.30 The vast majority of the Site, including the grassland, woodland, hedgerows and scrub, provides opportunities for foraging/sheltering hedgehog. Further opportunities for this species are afforded by adjacent off-site habitats including residential gardens to the south-west and agricultural land to the east. However, no confirmed evidence or sighting of hedgehog was recorded and therefore effects cannot be definitively assessed.

8.4.31 The habitats within Hampton Green North are subject to agricultural management including flailing of hedgerows and intensive management of arable crops. As such, given the management of the habitats present, Hampton Green North is considered sub-optimal for harvest mouse. The majority Hampton Green South, being comprised of tall sward grassland provides potential opportunities for this species which species favours areas of tall grasses as well as reeds, cereals, road side verges, hedgerows, reed beds, dykes and salt marshes where nests can be built. As such, there is potential, in principle, for harvest mouse to be present within Hampton Green South. However, no confirmed evidence or sighting of harvest mouse was recorded and therefore effects cannot be definitively assessed.

8.4.32 The habitats present at the Site offer foraging and sheltering opportunities for common garden, woodland and farmland birds. Breeding Bird Surveys that were undertaken on the Site in 2013 identified six species of birds listed as ‘conservation concern’ which were breeding at the Site. These were; bullfinch, song thrush, skylark, yellowhammer and common whitethroat.

8.4.33 Given the proximity of the Site to the Upper Nene Valley Gravel Pits SPA, which is designated for its overwintering populations of bittern and golden plover and migratory populations of gadwall there is potential for birds from the SPA to utilise surrounding arable habitat, including that located within the Site, for foraging.

8.4.34 As such, loss of 'supporting habitat' such as feeding areas outside of the SPA is considered a threat to the integrity of the SPA.

8.4.35 The wintering bird survey specifically looked to determine if golden plover used the Application Site. No golden plover or lapwing were recorded at the Site. However, golden plover flocks were recorded within arable fields to the east of the Site during two (possibly three) of the six survey visits in late 2016/early 2017. The peak count recorded was c. 380 golden plover on 20 December in a mixed flock with c. 330 lapwings. A single lapwing was also recorded in the arable field to the west of the Site on the same survey visit. In addition, lapwing were recorded on two further occasions in arable fields to the east of the Site, including a flock of 12 individuals on 30 November 2016 and 101 individuals (divided between two separate flocks) on 31 January 2017. The whilst the Site is therefore not considered to provide 'supporting habitat' for the SPA, adjacent land to the east does provide the requisite feeding habitat for golden plover and lapwing.

8.4.36 Hampton Green North, being dominated by intensively managed arable land provides very limited opportunities for reptiles. However, woodland edge habitats in the very north of the Site provide potential opportunities for this species group. Hampton Green South, comprising extensive tall sward grassland provides potential foraging opportunities for this species group. In addition the hedgerow bases, plantation woodland and various brash piles within Hampton Green South provide numerous sheltering opportunities. As such a presence/likely absence survey was undertaken at the Site in July-September 2016 during which no reptiles were recorded.

8.4.37 Extensive optimal terrestrial habitat, in the form of tall sward grassland, scrub, plantation woodland and hedgerow bases, is available for amphibians within the Hampton Green South. These habitat types provide potential foraging and sheltering opportunities for this group. Hampton Green North, being dominated by intensively managed arable land provides far more limited opportunities for this species group. In terms of potential breeding opportunities, a single pond is present within the Site and a further two ponds are present within 500m of the Site boundary. In 2016 a Great Crested Newt Survey was undertaken to determine if they were present on the Site. This survey determined that none of the ponds contained great Crested Newts.

8.4.38 Given the extent and type of common habitat types present, the Site is expected to support a range of common invertebrate species, primarily associated with the combination of grassland, hedgerow and woodland habitats. However, there is no indication that the Site would support a particularly notable or diverse invertebrate assemblage given the absence of abundant nectar sources, particularly rich/diverse flora or other important invertebrate features (e.g. aquatic habitats, bare ground).

Likely Significant Effects

8.4.39 Hampton Green North lies within the 3km zone of influence for the Upper Nene Valley Gravel Pits SPA and within the 'SSSI Impact Risk Zone'. Natural England considers the designation to be at 'risk' from increased recreational pressure which causes increased levels of disturbance to wintering birds and the habitats that they depend on. Loss of 'supporting habitat' such as feeding areas for golden plover and lapwing outside of the SPA is also cited as a threat to the integrity of the SPA. However, the Hampton Green North is not considered to provide 'supporting habitat' for the SPA and as such loss of supporting habitat is not considered a potential impact arising from the

development. Potential impacts arising from increased recreational pressure are described below.

8.4.40 A Visitor Access Study for the designation clearly shows that visit rates to the SPA tend to increase with proximity to residential development. Most visits are made by people who live within 3km of the SPA, who visit very frequently for relatively short periods of time, with dog walking being the most common main activity.

8.4.41 As a result of the 525 new homes proposed at Hampton Green the SPA could face a mean increased visitation rate of 1.34 people per day. Total daily visitor rates to the SPA are currently estimated at 2448 person visits per day. The proposed development is therefore estimated to result in an increase of up to 0.05%. Given the proximity of land identified as supporting habitat (golden plover and lapwing feeding grounds to the east) there is some potential for recreational disturbance (including dog walking) during winter months to disturb wintering birds associated with the SPA, effectively reducing foraging opportunities around the SPA.

8.4.42 Given the distance of the Brackmills Small Wood PWS from the extent of the proposed development (c.100m), and given the lack of public access to the wood, no significant effects arising from the development are anticipated during construction or in operation. Habitats adjacent to the PWS will be extended through the provision of on-site woodland planting. In addition, in combination with the proposed thicket planting and grassland seeding, the mosaic of habitats created will provide a diverse and structurally varied habitat. Furthermore, the woodland will be subject to restoration measures including removal of invasive plants, planting of native understorey shrubs and sowing of native woodland ground flora. Overall, a beneficial effect significant at the Local level is predicted

8.4.43 Brackmills Woods South is located 200m north-west of the Site and forms part of the Brackmills Country Park, which is immediately adjacent to the Site. Proposed footpath links as part of the development will provide direct access from the Site to the Country Park. These links will provide a footpath connection from the Site to Brackmills Woods South which will entail a c.300m walk. The proposed development is therefore expected to result in an increase in visitors (walkers and dog walkers) to Brackmills Woods South and consequent effects include soil compaction and disturbance associated with more human movement. However, although these effects are likely to occur frequently. The woodland is already exposed to such disturbances as it is well used by the local community. Based on the above no negative impact due to the development on these woods is anticipated.

8.4.44 The development will result in a loss of approximately 11.5ha of semi-improved grassland.

8.4.45 The vast majority of the 10 hedgerows on the site will be retained. However, several sections will be lost including:

- C.100m of the hedgerow on the southern boundary to accommodate the new access road and roundabout off Newport Pagnell Road;
- C.50m of each of the hedges that border The Green to accommodate the new access points into both the north and southern parcels of the Site;
- C50m of the central hedge within Hampton Green South to accommodate the built development; and
- Three c1.5m sections of the hedges to accommodate new pedestrian access points into the adjoining Brackmills Country Park.

8.4.46 This equates to a total loss of c.225m of species rich hedgerow. Given that there is an estimated c.2910m of species rich hedgerow currently present at the Site, this equates to a total loss of 8.8% of species rich hedgerow.

8.4.47 The vast majority of the trees on the Site will be retained. However, a low number of semi-mature trees will be lost to the development including two semi mature ash trees (T9 and T10) which are located in the hedgerow that will be removed from the central section of Hampton Green South. There will also be the removal of a group of semi-mature ash and oak trees (T29) along the Newport Pagnell Road to accommodate the new access road and roundabout.

8.4.48 Japanese knotweed is an invasive, non-native species listed under Schedule 9 Part II of the Wildlife and Countryside Act, 1981 (as amended). It is an offence to cause to grow in the wild any plant listed under this schedule. There is potential for this species to be spread during ground works and as such there is potential for an offence to be committed.

8.4.49 The construction of the Site will result in the loss of c 24.9ha of foraging habitat for bats through the loss of semi-improved grassland, broadleaved plantation, scrub and intensively managed arable land. This habitat is of little importance for bats as concluded by the activity surveys which showed that bat activity in this area was very low and restricted to very occasional passes by a low number of common and widespread species (common pipistrelle, soprano pipistrelle and noctule).

8.4.50 The boundary features, which will be largely retained, were used much more frequently and are of far greater importance to bats on this Site.

8.4.51 Potential adverse effects arising from night working (i.e. noise and light pollution) include disturbance and avoidance of this area by foraging/commuting bats. This could potentially temporarily hinder movement between foraging and roosting areas for bats in the local area i.e. between Brackmills South Woods PWS and surrounding habitats.

8.4.52 Artificial lighting, increased levels of human activity and associated noise arising from the residential areas and road infrastructure are anticipated to have an adverse effect on foraging/commuting bats in the local area. This could permanently hinder movement between foraging and roosting areas for bats in the local area i.e. between Brackmills South Woods PWS and surrounding habitats. These impacts are considered to primarily effect common species, although very low numbers of barbastelle could also be affected.

8.4.53 It is anticipated that four to six pairs of breeding skylark will be permanently displaced as a result of clearance of the semi-improved grassland (c. 11.5ha) and arable field (c 6.8ha) which equates to a loss of c. 18.3ha of skylark breeding habitat.

8.4.54 Given the higher levels of human disturbance associated with residential development and the introduction of predators such as the domestic cat, the abundance of breeding birds present within the Site could be affected. However, most nesting habitat will be retained except for habitat for ground nesting birds which will be permanently lost. In addition, more elusive species including a single pair of breeding bullfinch and 2-3 pairs of breeding yellowhammer would likely be permanently lost because of the development.

Mitigation and Enhancement

8.4.55 In order to protect the SPA by attempting to minimise the number of visitors that come on a daily basis, the proposed development will include provision of on-site

recreation including circular walking/dog walking routes (c. 1.6km), an area of open space/woodland planting in the north of the Site and play areas. Furthermore, as suggested by Natural England, further off-site measures in the form of improvements to Brackmills Country Park will be provided. This will include provision of pedestrian access links from the development directly to the Country Park as well as improvements to the park itself. Suggested improvements include better interpretation and route marking, path improvements, contribution to management, etc., to be agreed with NBC. Improvements to Brackmills Country Park could be secured through a section 106 agreement. The provision of the above on-site open space and off-site improvement measures will deflect visitors away from the SPA, thereby reducing visitor numbers and consequently minimising recreational disturbance to wintering birds at the SPA.

8.4.56 To safeguard supporting SPA habitats to the east, the landscape buffer along the eastern boundary will be retained and strengthened through new tree and shrub planting, to screen wintering birds from recreational activities during winter months. This would be secured through detailed design of the landscape scheme at the reserved matters stage, and/or through a suitably worded condition.

8.4.57 To mitigate the loss of semi-improved grassland the north of the site will be planted with a mosaic of semi natural vegetation comprising of native woodland planting, native thicket, and extensive seeding of new species rich wildflower grassland. In addition, a buffer of native planting will be provided along the full length of the eastern boundary, save for a small gap where the existing road (The Green) is located. This buffer will comprise a dense band of native tree and thicket planting flanked by seeded species-rich wildflower grassland. The proposed new habitat mosaic described above will comprise a more diverse and more structurally varied habitat than currently exists at the Site. Furthermore, the newly created mosaic will be managed specifically for the benefit of biodiversity. It is proposed that the planting schedule and management for this newly created habitat be set out within a Habitat Management Plan.

8.4.58 Retained hedgerows will be protected in line with standard arboricultural practice (BS5837:2012).

8.4.59 The western boundary hedge for Hampton Green North is not a continuous hedge and already has very large gaps. New hedgerow plantings at the site will planting up of this hedgerow to infill any gaps that currently exist. This will create c. 150m of new hedgerow and will provide continuous connectivity to Brackmills Small Wood PWS. In addition, c.50m of new planting to infill the large gap at the western end of the hedge that runs through the centre of Hampton Green South will be undertaken. Nonetheless, this hedgerow will remain fragmented given the sections lost to the built development towards the centre and eastern sections of this hedgerow. Furthermore, c.100m of new hedgerow planting will occur along the southern boundary to replace the sections the hedgerow lost to the re-profiling of this boundary for the new roundabout and access road of Newport Pagnell Road. A minimum of six native species of local provenance will be used in the new hedgerow planting.

8.4.60 Replacement tree planting will include planting a series of standard trees at the Site entrance, leading to an avenue of trees lining the main ‘spine road’ through the development. Further, individual tree planting will occur within areas of open space. Tree planting will be restricted to native species of local provenance where practicable.

8.4.61 All retained trees at the Site will be incorporated into retained green space. Potential damage through recreational activities is considered unlikely given that the vast majority are protected within hedgerows.

8.4.62 A specialist contractor will be appointed to undertake the removal of Japanese knotweed from the site thereby minimising the risk of causing this species to spread.

8.4.63 Night time working immediately adjacent to the PWS and the eastern boundary of Hampton Green North will be avoided between March and October inclusive, where practicable. This will prevent noise disturbance and night time illumination of the woodland edge and the hedge on the eastern boundary of Hampton green North which could adversely affect foraging/commuting bats.

8.4.64 The lighting scheme for the Site will be sensitively designed to avoid light spill along the eastern boundary and PWS woodland edge. Excessive illumination of other boundary features will also be avoided, thereby maintaining the hedgerows and woodland edge as foraging/commuting corridors for bats.

8.4.65 In addition, a belt of native tree and thicket planting and seeded species-rich grassland along the eastern boundary of the whole of the Hampton Green Site will provide a buffer between the built development and the existing hedgerow. Similarly, Brackmills Small Wood will be buffered from the built-up areas of the development by semi-natural vegetation including native woodland planting and extensive seeding of new species-rich wildflower grassland. This buffer planting along the eastern boundary and in the north of the Site will enhance the foraging potential of these important bat corridors. Furthermore, infill planting along the western end the central hedgerow will counterbalance the small losses at the eastern end of this hedgerow.

8.4.66 Based on their legal protection, any clearance of potential nesting habitat should be undertaken outside of the bird nesting season or immediately following confirmation by a suitably qualified ecologist that no active nests are present.

8.4.67 Extensive planting of native trees and thicket will be undertaken to provide foraging and nesting habitat for birds. This will include abundant seed-, fruit- and nut-bearing species to provide a high quality foraging resource for local birds. The proposed buffer planting at the eastern boundary will screen the retained hedgerows, thereby providing adequate cover suitable for the more elusive bullfinch and yellowhammer.

8.4.68 Precautionary measures will be implemented to protect badgers and other mammals on the site during construction, which could be secured via a Planning Condition. Monitoring of site for any new sett excavation during prolonged remediation, construction or landscaping works.

8.4.69 New woodland planting (c.1ha) is proposed to the northern boundary adjacent to Brackmills Country Park and south of Brackmills Small Wood. The planting would include a range of native, broadleaved trees. Associated habitats will be created around the woodland, including attenuation basin to include long grassland/wildflower habitats and woodland ride features. These habitats will be maintained for their ecological interest and to provide an effective extension to the Brackmills Country Park.

8.4.70 A new drainage feature will be constructed to the gateway of the Site. Whilst its primary function is hydrological, the drainage feature will be landscaped to provide benefits for biodiversity. This will comprise a permanently wet wildlife pond, surrounding wet grassland and marginal habitats, along with reedbed and wetland scrub areas.

8.4.71 The above habitat creation will provide a range of benefits to local wildlife including bats, birds, amphibians, invertebrates and small mammals (including harvest mouse).

8.4.72 A number of bird and bat box features will be installed at the Site to provide additional nesting and roosting opportunities, respectively. These features would ideally be integrated into new dwellings located adjacent to open space or structural landscaping and/or erected on healthy, semi-mature trees across the Site. The total numbers will be subject to detailed design.

8.4.73 In addition to the above, erection of 10 No. bat boxes within Brackmills Small Wood is proposed to enable longer term monitoring of bat populations at the Site.

8.4.74 To enable small mammals, including hedgehog, to continue to use habitats the Site (i.e. private gardens) >13cmholes at the base of new timber garden fences will be incorporated into the detailed design of the plot landscaping.

Conclusions

8.4.75 When considered separately from Hampton Green South, no significant residual adverse effects arising from Hampton Green North, either alone or in combination with other projects, are predicted. Further, significant benefits are predicted at the local level to a number of important ecological features including Brackmills Small Wood PWS, tree cover, breeding birds and wintering birds.

8.4.76 When considered separately from Hampton Green North, significant residual adverse effects at the local level arising from Hampton Green South include loss of semi-improved grassland, loss of breeding bird habitat and loss of wintering bird habitat. These adverse effects remain significant at the local level when considered in combination with other projects.

8.4.77 When considered together, no significant adverse effects arising from Hampton Green as a whole, either alone or in combination with other projects, are predicted. The proposed new habitat mosaic in the north of the site and the new eastern buffer will comprise native woodland planting, native thicket planting and extensive seeding of species-rich wildflower grassland. This will provide an extension of the woodland habitat associated with Brackmills Small Wood PWS within the northern part of the Site and, in addition, will provide a significant net increase in overall tree cover at the Site. Furthermore, it is anticipated that the species-diverse and structurally-diverse habitat that will be created would be readily exploited by a variety of species including wintering/breeding birds and foraging/commuting bats.

8.5 CONCLUSIONS

8.5.1 With the proposed mitigation strategies outlined within the Environmental Statement as amended by this Environmental Statement Addendum it has been determined that the residual significance of this development is not significant.